OFFICIAL DOCUMENT NO. 77

XVII PAN AMERICAN SANITARY CONFERENCE

XVIII MEETING

Regional Committee of the WHO for the Americas

WASHINGTON, D.C.

26 SEPTEMBER-7 OCTOBER 1966

MINUTES OF PLENARY SESSIONS
AND COMMITTEES
ANNEXES

PAN AMERICAN HEALTH ORGANIZATION
PAN AMERICAN SANITARY BUREAU, REGIONAL OFFICE OF THE
WORLD HEALTH ORGANIZATION
1967

Official Documents
of the Pan American Health Organization

(Published in English and Spanish)

The following publications appear annually in the series *Official Documents of the Pan American Health Organization:*

Annual Report of the Director to the Directing Council of the Pan American Health Organization, in which the activities and accomplishments of the Organization are recorded. These publications are illustrated with maps and photographs and contain a general index. Every four years, when the Pan American Sanitary Conference meets, the Director presents, in addition, a Quadrennial Report to the Conference.

Proposed Program and Budget, which the Director prepares and submits to the Executive Committee and to the Directing Council (or to the Pan American Sanitary Conference). This volume contains an explanation of the proposed programs together with the corresponding budget estimates covering both the regular funds of the Pan American Health Organization and those of the World Health Organization, the Expanded Program of Technical Assistance, and other funds from different sources. The same document also presents the provisional draft budget of the following year for the Pan American Health Organization and for the World Health Organization, Region of the Americas.

Financial Report of the Director and Report of the External Auditor, for each fiscal year.

Meetings of the Governing Bodies—The Proceedings of the meetings of the Directing Council, Regional Committee of WHO for the Americas, include the Final Report of each meeting (published in a separate volume), the précis minutes of the plenary sessions, and selected working documents. The précis minutes and Final Reports of the meetings of the Executive Committee are published in separate volumes. The Proceedings of the Pan American Sanitary Conference are published every four years.

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No. 78: Annual Report of the Director of the Pan American Sanitary Bureau for 1966.

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Official Document No. 77 **August 1967**

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION
525 Twenty-third Street, N. W.
Washington, D. C. 20037

The XVII Pan American Sanitary Conference, held in Washington, D.C., from 26 September to 7 October 1966, was convened by the Director of the Pan American Sanitary Bureau in accordance with Resolution XI of the 54th Meeting of the Executive Committee (18-22 April 1966).

Official Document 74 (March 1966) contains the Final Report of the Conference, including all resolutions adopted. The present volume contains the verbatim minutes of the plenary sessions, the précis minutes of the Committee sessions, the agenda, the list of participants, officers and Committee members, and selected working documents, together with the Annual Report of the Chairman of the Executive Committee.

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1. ORGANIZATION OF THE CONFERENCE

CONVOCATION OF THE CONFERENCE

Washington, D. C.
26 March 1966

Sir:

Pursuant to Rule 1 of the Rules of Procedure of the Pan American Sanitary Conference and after consultation with the members of the Executive Committee, I have the honor to convene the XVII Pan American Sanitary Conference which, in accordance with Article 7, paragraph A, of the Constitution, will be held at the Headquarters of the Organization in Washington, D. C. The inaugural session will be held on 26 September 1966 and, in view of the number and importance of items to be submitted for consideration, the Conference is expected to last two to three weeks.

The provisional draft agenda of the Conference will be sent to you as soon as it has been approved by the Executive Committee at its April meeting, and the other Conference documents will be forwarded to you in due course.

Resolution XV of the III Meeting of the Directing Council recommended that the Member States "present a written report, preferably statistical, to each Pan American Sanitary Conference on the work accomplished between Conferences." That recommendation gave rise to what now has become the traditional practice of including on the Conference agenda the report of the Member States of the Organization on their health conditions and progress achieved in the four years since the preceding Conference. To permit the Conference to exercise one of its principal functions according to the Constitution, namely, to serve as a forum for the interchange of information, the presentation of these reports to the Conference is of the utmost importance. It is because of that that I mention the point in this letter of convocation, and emphasize how important it is that they be prepared in such a way as to facilitate the evaluation of progress achieved in relation to existing health plans.

The Constitution defines the Conference as the supreme governing authority of the Organization; it determines the general policies that will govern the programs for a period of four years, so that decisions are of decisive importance. As health activities continue to expand and their intimate relationship to economic development becomes clearer, the importance of the decisions of the Conference becomes even greater.

In view of these considerations, I should be most grateful if you would personally attend the meeting as head of your country's delegation and thereby contribute your valuable experience to the deliberations.

I am, Sir,
Very sincerely yours,
(signed)

Dr. Abraham Horwitz
Director, Pan American
Sanitary Bureau

DELEGATIONS AND OTHER PARTICIPANTS

Governments

ARGENTINA

Delegates:

Dr. ALBERTO F. MONDET, Adviser, Ministry of Social Welfare and Public Health, Buenos Aires (*Chief of Delegation*)

Dr. VICTORIO VICENTE OLGUÍN, Director of International Health and Social Affairs, Ministry of Social Welfare and Public Health, Buenos Aires

Dr. VIRGILIO ALONSO, Director, Office of Organization and Development, Ministry of Social Welfare and Public Health, Buenos Aires

Advisers:

Dr. EDUARDO J. CAVALCANTI, Adviser, Ministry of Social Welfare and Public Health, Buenos Aires

Mr. RICARDO CÓRDOBA, Secretary, Delegation of Argentina to the Organization of American States, Washington, D. C.

BOLIVIA

Delegates:

Dr. RAÚL DIEZ DE MEDINA, Ambassador of Bolivia to the Organization of American States, Washington, D.C. (*Chief of Delegation*)

Dr. HÉCTOR ORMACHEA, Minister Counsellor, Embassy of Bolivia, Washington, D. C.

BRAZIL

Delegates:

Dr. RAYMUNDO DE BRITTO, Minister of Health, Brasília, D.F. (*Chief of Delegation*)

Dr. ACHILLES SCORZELLI, Jr., Director General, National Health Department, Ministry of Health, Rio de Janeiro

Dr. MANOEL JOSÉ FERREIRA, Director General, National Department of Rural Endemic Diseases, Ministry of Health, Rio de Janeiro

Alternate:

Dr. MURILLO BASTOS BELCHIOR, Executive Director, Commission of International Affairs, Ministry of Health, Rio de Janeiro

Advisers:

Dr. PAULO DE GÓES, Scientific Attaché, Embassy of Brazil, Washington, D. C.

Dr. GASTÃO CESAR ANDRADE, Assistant to the Superintendent, Special Public Health Service Foundation, Ministry of Health, Rio de Janeiro

CHILE

Delegates:

Dr. RAMÓN VALDIVIESO, Minister of Public Health, Santiago (*Chief of Delegation*)

Mr. ALEJANDRO MAGNET, Ambassador of Chile to the Organization of American States, Washington, D. C.

Dr. CONRADO C. RISTORI, Chief, Health Protection, National Health Service, Santiago

Advisers:

Dr. JULIO SANTA MARÍA, Technical Adviser, International Programs, Ministry of Public Health, Santiago

Mr. FERNANDO MONTANER, Third Secretary, Delegation of Chile to the Organization of American States, Washington, D.C.

COLOMBIA

Delegates:

Dr. ANTONIO ORDÓÑEZ PLAJA, Minister of Public Health, Bogotá (*Chief of Delegation*)

Dr. ROBERTO ACOSTA-BORRERO, Director General, Ministry of Public Health, Bogotá

Dr. ALFONSO MEJÍA VANEGAS, Chief, Office of Personnel Training, Ministry of Public Health, Bogotá

Adviser:

Dr. GABRIEL VELÁZQUEZ PALAU, President, Colombian Association of Medical Schools, Cali

COSTA RICA

Delegates:

Dr. ALVARO AGUILAR PERALTA, Minister of Public Health, San José (*Chief of Delegation*)

Dr. FERNANDO ESCALANTE PRADILLA, Manager, Costa Rican Social Security Fund, San José

Mr. GUIDO FERNÁNDEZ SABORÍO, Economic Minister Counselor, Embassy of Costa Rica, Washington, D. C.

Alternate:

Mr. JORGE POVEDA QUIRÓS, Secretary, National Medical Union, San José

CUBA

Delegates:

Dr. HELIODORO MARTÍNEZ JUNCO, Vice-Minister of Public Health, Ministry of Public Health, Havana (*Chief of Delegation*)

Dr. FRANCISCO ROJAS OCHOA, Chief, Department of Statistics, Ministry of Public Health, Havana

Alternate:

Mr. OSCAR GUTIÉRREZ FERNÁNDEZ, Secretary, Permanent Mission of Cuba to the United Nations, New York, N. Y.

Adviser:

Dr. ROBERTO PEREDA CHÁVEZ, Director of International Affairs, Ministry of Public Health, Havana

DOMINICAN REPUBLIC

Delegates:

Dr. MARCO ANTONIO DE PEÑA, Minister Counselor, Embassy of the Dominican Republic, Washington, D. C. (*Chief of Delegation*)

Dr. MIGUEL ANTONIO ORTEGA PEGUERO, Planning—Health Sector, National Planning Office, Santo Domingo

ECUADOR

Delegates:

Dr. LEONCIO ANDRADE CORRAL, Undersecretary of Public Health, Ministry of Social Welfare, Labor, and Health, Quito (*Chief of Delegation*)

Dr. JUAN A. MONTALVÁN CORNEJO, Director General of Health, Ministry of Social Welfare, Labor, and Health, Guayaquil

EL SALVADOR

Delegates:

Dr. BENJAMÍN INTERIANO MENÉNDEZ, Minister of Public Health and Social Welfare, San Salvador (*Chief of Delegation*)

Dr. TOMÁS PINEDA MARTÍNEZ, Director General of Health, Ministry of Public Health and Social Welfare, San Salvador

FRANCE

Delegates:

Dr. RAYMOND G. HYRONIMUS, Inspector General for Public Health, Ministry of Social Affairs, Paris (*Chief of Delegation*)

Dr. ANDRÉ CHIARINI, Regional Health Inspector, Antilles-Guiana Health Region, Fort-de-France, Martinique

GUATEMALA

Delegates:

Dr. EMILIO POITEVIN, Minister of Public Health and Social Welfare, Guatemala (*Chief of Delegation*)

Dr. CARLOS A. WALDHEIM, Director General of Public Health, Guatemala

HAITI

Delegate:

Dr. ACHILLE L. SALVANT, Undersecretary of State for Public Health and Population, Port-au-Prince

HONDURAS

Delegates:

Dr. JOSÉ ANTONIO PERAZA, Minister of Public Health and Social Welfare, Tegucigalpa (*Chief of Delegation*)

Dr. CARLOS A. PINEDA MUÑOZ, Director, Health Planning Unit, Ministry of Public Health and Social Welfare, Tegucigalpa

Alternate:

Dr. HUMBERTO PINEDA SANTOS, Chief, Sanitary District No. 3, in charge of the Health Center, Ministry of Public Health and Social Welfare, San Pedro Sula

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JAMAICA

Delegates:

Dr. HERBERT W. ELDEMIRE, Minister of Health, Kingston (*Chief of Delegation*)

Dr. CHARLES COURTNEY WEDDERBURN, Chief Medical Officer, Ministry of Health, Kingston

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KINGDOM OF THE NETHERLANDS

Delegates:

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MEXICO

Delegates:

Dr. RAFAEL MORENO VALLE, Secretary of Health and Welfare, Mexico, D. F. (*Chief of Delegation*)

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Alternate:

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Mr. LUIS GARCÍA CÁRDENAS, International Affairs, Permanent Inter-American Committee on Social Security, Mexico, D. F.

NICARAGUA

Delegates:

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Dr. JACINTO PÉREZ PONCE, Director, General Technical Services and Training, Ministry of Public Health, Managua

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PANAMA

Delegates:

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Dr. ALBERTO E. CALVO, Director General of Public Health, Ministry of Labor, Social Welfare, and Public Health, Panama

Dr. LUIS D. ALFARO, Medical Director General, Social Security Fund, Panama

Alternate:

Mr. ROGELIO E. ANGUIZOLA H., Assistant Director General, Social Security Fund, Panama

PARAGUAY

Delegates:

Dr. DIONISIO GONZÁLEZ TORRES, Minister of Public Health and Social Welfare, Asunción (*Chief of Delegation*)

Dr. JULIO ANTONIO MARTÍNEZ QUEVEDO, Director of Standards and Planning Unit, Ministry of Public Health and Social Welfare, Asunción

PERU

Delegates:

Dr. DANIEL BECERRA DE LA FLOR, Chairman, Council of Ministers, and Minister of Public Health and Social Welfare, Lima (*Chief of Delegation*)

Dr. CARLOS QUIRÓS SALINAS, Director General of Health and Permanent Representative to International Health Organizations, Ministry of Public Health and Social Welfare, Lima

Dr. OCTAVIO MONGRUT MUÑOZ, Director General, National Health and Social Security Fund, Lima

Alternates:

Dr. ARTURO VASI PÁEZ, Director, Workers' Social Security Fund, Lima

Dr. FRANCISCO PEDRAZA FULLER, Chief, Programming, Employees' Social Security Fund, Lima

Dr. MANUEL FERNÁNDEZ STOLL, General Manager, Employees' Social Security Fund, Lima

Dr. JOSÉ LARCO LEÓN, Manager, Employees' Social Security Fund, Lima

Dr. LUIS ULLOA, Employees' Social Security Fund, Lima

TRINIDAD AND TOBAGO

Delegates:

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Dr. LENNOX DE LACY JORDAN, Planning Officer, Ministry of Health and Housing, Port of Spain, Trinidad

Mr. SOLOMON S. LUTCHMAN, Counsellor, Embassy of Trinidad and Tobago, Washington, D. C.

UNITED KINGDOM

Delegate:

Dr. S. M. FRAZER, Director of Health Services, Medical and Health Department, Bermuda

UNITED STATES OF AMERICA

Delegates:

Dr. WILLIAM H. STEWART, Surgeon General, Public Health Service, Department of Health, Education, and Welfare, Washington, D. C. (*Chief of Delegation*)

Dr. JAMES WATT, Director, Office of International Health, Public Health Service, Department of Health, Education, and Welfare, Washington, D. C.

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Mr. PAUL J. BYRNES, Office of International Administration, Department of State, Washington, D. C.

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Advisers:

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Mr. SIMON N. WILSON, Bureau of Inter-American Affairs, Department of State, Washington, D. C.

URUGUAY

Delegates:

Dr. MARIO C. PAREJA PIÑEYRO, Technical Coordinator, Ministry of Public Health, Montevideo (*Chief of Delegation*)

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Dr. ANTONIO JOSÉ TERRA ILARRAZ, Adviser, Central Council of Family Benefits, Montevideo

Alternate:

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Delegates:

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Alternate:

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CANADA

Official Observer:

Dr. BASIL D. B. LAYTON, Principal Medical Officer, International Health, Department of National Health and Welfare, Ottawa, Ontario

GUYANA

Delegates:

Mr. DEOROOP MAHRAJ, Minister of Health, Georgetown (*Chief of Delegation*)

Dr. CHARLES CYRIL NICHOLSON, Chief Medical Officer, Ministry of Health, Georgetown

World Health Organization

Dr. M. G. CANDAU, Director-General

Mr. Milton P. Siegel, Assistant Director-General

Pan American Sanitary Bureau

Dr. ABRAHAM HORWITZ, Director, Secretary ex-officio of the Conference

Dr. JOHN C. CUTLER, Deputy Director

Dr. VÍCTOR A. SUTTER, Assistant Director

Dr. STUART PORTNER, Chief of Administration

Dr. PEDRO N. ACHA, Regional Adviser in Veterinary Medicine

Dr. RAYMOND B. ALLEN, Chief, Office of Health and Population Dynamics

Dr. ALFREDO ARREAZA GUZMÁN, Chief, Zone IV

Dr. ALFREDO N. BICA, Chief, Communicable Diseases Branch

Dr. ALFREDO LEONARDO BRAVO, Chief, Medical Care Administration

Dr. EMILIO BUDNIK, International Liaison Officer

Dr. MARCOS CHARNES, Chief, Fellowships Branch

Dr. HÉCTOR A. COLL, Chief, Zone II

Dr. CARLOS DÍAZ-COLLER, Chief, Professional Education Branch

Dr. ABRAHAM DROBNY, Chief, Health Promotion Branch

Dr. JOSÉ L. GARCÍA GUTIÉRREZ, Chief, Zone I

Dr. RENÉ GONZÁLEZ, Regional Adviser in Mental Health

Dr. RUPERTO HUERTA, Regional Adviser in Communicable Diseases

Dr. HENRIQUE MAIA PENIDO, Chief, Zone VI

Dr. M. MARTINS DA SILVA, Chief, Office of Research Coordination

Dr. JAMES S. MCKENZIE-POLLOCK, Chief, Office of National Health Planning

Mr. CLARENCE H. MOORE, Chief, Budget and Finance Branch

Dr. VICENTE P. MUSA, Regional Adviser in *Aedes aegypti* Eradication

Dr. RUTH R. PUFFER, Chief, Health Statistics Branch

Dr. JOSÉ QUERO MOLARES, Liaison Officer

Dr. SANTIAGO RENJIFO SALCEDO, Chief, Zone V

Dr. A. PETER RUDERMAN, Economic Adviser

Dr. OSWALDO DA SILVA, Chief, Malaria Eradication Branch

Dr. RAMÓN VILLARREAL, Chief, Medical Education Branch

Mr. JOSÉ RODRÍGUEZ OLAZÁBAL, Chief, Secretariat Services of the Conference

Mr. MORRIS SINCLAIR, Chief, Audiovisual Section, Public Information Division, World Health Organization, Geneva

Observers

ORGANIZATION OF AMERICAN STATES

Dr. JOSÉ A. MORA, Secretary General

Dr. FRANCISCO S. CÉSPEDES, Director, Department of Educational Affairs

Dr. MARCELO ALONSO, Deputy Director, Department of Scientific Affairs

Mrs. ALZORA H. ELDRIDGE, Liaison Officer

Mr. BERYL FRANK, Chief, Social Security Program, Department of Social Affairs

Inter-American Commission of Women

Mrs. MARGARITA DE MACAYA, President, Washington, D. C.

UNITED NATIONS AND INTERGOVERNMENTAL ORGANIZATIONS

Food and Agriculture Organization of the United Nations (FAO)

Miss MARY A. ROSS, Nutrition Consultant, Regional Office for North America, Washington, D. C.

International Labour Organisation

Mr. RALPH WRIGHT, Director, Washington Branch Office, Washington, D. C.

Dr. LUIS ALVARADO, Director, Liaison Office—Latin American Activities, Washington, D. C.

United Nations

Miss BARBARA NORWOOD, Assistant Chief, Economic Commission for Latin America, Washington Office, Washington, D. C.

United Nations Children's Fund

Dr. OSCAR VARGAS-MÉNDEZ, Regional Director for the Americas, UNICEF, United Nations, New York, N. Y.

Mr. L. J. TEPLEY, Senior Nutritionist, UNICEF, United Nations, New York, N. Y.

NONGOVERNMENTAL ORGANIZATIONS

International Association for the Prevention of Blindness

Dr. J. W. FERREE, Executive Director, National Society for the Prevention of Blindness, New York, N. Y.

International Committee of Catholic Nurses

Miss DOROTHY KELLY, Washington, D. C.

International Committee of Military Medicine and Pharmacy

Colonel HENRY A. BRODKIN, M. D., Newark, N. J.

International Council of Nurses

Miss ESTHER E. LIPTON, Nurse-Midwife Consultant, Department of Health, Education, and Welfare, Washington, D. C.

International Dental Federation

Dr. GEORGE C. PAFFENBARGER, Research Associate, National Bureau of Standards, Washington, D. C.

International Federation of Gynecology and Obstetrics

Dr. JOHN PARKS, Department of Obstetrics and Gynecology, The George Washington University School of Medicine, University Hospital, Washington, D. C.

International Hospital Federation

Dr. VANE MORGAN HOGE, Director, Pan American Office, Washington, D. C.

Dr. JOSÉ GONZÁLEZ, Executive Secretary, Pan American Office, Washington, D. C.

International Planned Parenthood Federation

Dr. AQUILES SOBRERO, New York, N. Y.

International Society for Criminology

Mr. RALPH M. SUSMAN, Research Analyst, Department of Health, Education, and Welfare, Washington, D. C.

International Union against the Venereal Diseases and the Treponematoses

Mrs. JOSEPHINE V. TULLER, Director, Regional Office for the Americas, New York, N. Y.

League of Red Cross Societies

Dr. SAM T. GIBSON, Senior Medical Officer, American National Red Cross, National Headquarters, Washington, D. C.

Pan American Medical Confederation

Dr. JAIME SZNAJDER, Physician, Maciel Hospital, Ministry of Public Health, Montevideo

World Confederation for Physical Therapy

Miss LUCY BLAIR, Executive Director, American Physical Therapy Association, New York, N. Y.

World Federation of Occupational Therapists

Mrs. I. R. ACHTER, Washington, D. C.

Miss MARJORIE FISH, Consultant in Occupational Therapy, Division of Training, Vocational Rehabilitation Administration, Department of Health, Education, and Welfare, Washington, D. C.

World Veterinary Association

Dr. M. R. CLARKSON, Director, Bureau of Veterinary Medicine, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D. C.

Dr. FRANK A. TODD, Representative of the American Veterinary Medical Association, Washington, D. C.

OFFICERS OF THE CONFERENCE AND MEMBERSHIP OF ITS COMMITTEES

Officers

The election of the President and two Vice-Presidents of the Conference took place pursuant to Article 18 of the Rules of Procedure. The officers were:

President:
Dr. ANTONIO ORDÓÑEZ PLAJA, Colombia

Vice-Presidents:
Dr. WILLIAM H. STEWART, United States of America
Dr. BENJAMÍN INTERIANO, El Salvador

Secretary ex officio:
Dr. ABRAHAM HORWITZ, Director, Pan American Sanitary Bureau

Committee on Credentials

The Committee on Credentials, composed of the following members, was established pursuant to Article 25 of the Rules of Procedure:

Chairman:
Dr. VICTORIO VICENTE OLGUÍN, Argentina

Rapporteur:
Dr. CHARLES COURTNEY WEDDERBURN, Jamaica

Member:
Dr. CARLOS A. WALDHEIM, Guatemala

General Committee

Upon election of the Delegates of Chile and Peru, in accordance with Article 26 of the Rules of Procedure, the General Committee was composed of the following members:

Chairman:
Dr. ANTONIO ORDÓÑEZ PLAJA, Colombia

Vice-Chairmen:
Dr. WILLIAM H. STEWART, United States of America
Dr. BENJAMÍN INTERIANO, El Salvador

Members:
Dr. MANOEL JOSÉ FERREIRA, Brazil
Dr. RAMÓN VALDIVIESO, Chile
Dr. DANIEL BECERRA DE LA FLOR, Peru
Dr. DANIEL ORELLANA, Venezuela

Member and Secretary ex officio:
Dr. ABRAHAM HORWITZ, Director, Pan American Sanitary Bureau

Committee I

The election of officers of Committee I took place pursuant to Articles 28 and 30 of the Rules of Procedure. The officers were:

Chairman:
Dr. DANIEL ORELLANA, Venezuela

Vice-Chairman:
Dr. LENNOX DE LACY JORDAN, Trinidad and Tobago

Rapporteur:
Dr. LEONCIO ANDRADE CORRAL, Ecuador

Committee II

Pursuant to the same articles of the Rules of Procedure, the officers elected for Committee II were as follows:

Chairman:
Dr. MANOEL JOSÉ FERREIRA, Brazil

Vice-Chairman:
Dr. RAYMOND G. HYRONIMUS, France

Rapporteur:
Dr. ROBERTO ACOSTA-BORRERO, Colombia

Working Parties

Six working parties were established. The first, appointed during the second plenary session to prepare a draft resolution on amendments to the Rules of Procedure of the Conference, was presided by Dr. Alvaro Aguilar Peralta (Costa Rica) and was composed of the following: Dr. Fernando Escalante Pradilla (Costa Rica); Drs. Juan A. Montalván Cornejo and Leoncio Andrade Corral (Ecuador); and Mr. Howard B. Calderwood (United States of America). The draft resolution prepared by the working party was presented and approved by the Conference at the eleventh plenary session.

The second working party was appointed at the second plenary session to prepare a draft resolution on the application of Article 6 of the Constitution of the Pan American Health Organization. This working party was presided by Dr. Rafael Moreno Valle (Mexico), and composed of the following: Dr. Emilio Poitevin (Guatemala); Mr. Solomon S. Lutchman (Trinidad and Tobago); Mr. Paul J. Byrnes (United States of America); Mr. Félix Miguel Sánchez (Venezuela); Mr. Clarence H. Moore acted as secretary. The working party presented its report at the seventh plenary session of the Conference, which approved it.

The third working party, appointed at the second session of Committee II to prepare a draft resolution on quality control of pharmaceutical preparations, was presided by Dr. Victorio Vicente Olguín (Argentina), and composed of the following: Dr. Manoel José Ferreira (Brazil); Dr. Julio Santa María (Chile); Dr. Benjamin D. Blood (United States of America); and Dr. Mario Pareja Piñeyro (Uruguay). Drs. Emilio Budnik and Pedro N. Acha acted as secretaries. The draft resolution on the item was approved at the thirteenth plenary session.

The fourth working party was appointed at the second session of Committee I to prepare a draft resolution on the supply of textbooks for medical students. This working party was presided by Dr. Antonio Ordóñez Plaja (Colombia), and composed of the following: Dr. Paulo de Góes (Brazil); Dr. Conrado C. Ristori (Chile); Mr. Howard B. Calderwood (United States of America); and Dr. Pedro Guédez Lima (Venezuela). Dr. Ramón Villarreal together with Dr. Emilio Budnik acted as secretaries. The working party prepared a draft resolution that was approved at the thirteenth plenary session.

The fifth working party was appointed at the second session of Committee II to study the relationship of the Pan American Health Organization with other organs of the Inter-American System. This working party was presided by Dr. Dionisio González Torres (Paraguay), and composed of the following: Dr. Victorio Vicente Olguín (Argentina); Dr. Paulo de Góes (Brazil); Dr. Julio Santa María (Chile); Dr. Benjamin D. Blood (United States of America). Dr. Emilio Budnik acted as secretary. The working party presented its report at the thirteenth plenary session.

The sixth working party was established during the eleventh plenary session to prepare a draft resolution on the selection of topics for the Technical Discussions for 1967. The working party was presided by Dr. Daniel Orellana (Venezuela), and composed of the following: Dr. Manoel José Ferreira (Brazil); Dr. Roberto Acosta-Borrero (Colombia); Dr. Juan A. Montalván Cornejo (Ecuador); Dr. Tomás Pineda Martínez (El Salvador); and Dr. Charles Courtney Wedderburn (Jamaica). The working party presented the draft resolution at the same plenary session.

Technical Discussions

During the Technical Discussions of the Conference, which took place on 7 October, the topic "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activities Related to Health," was discussed. The officers were as follows:

Moderator:

Dr. Alberto F. Mondet, Adviser, Ministry of Social Welfare and Public Health, Argentina

Rapporteur:

Dr. Luis D. Alfaro, Medical Director General, Social Security Fund, Panama

Technical Secretary:

Dr. Alfredo Leonardo Bravo, Chief, Medical Care Administration, PASB

Panel Members:

Dr. Pedro Daniel Martínez, Undersecretary of Health, Office of Foreign Affairs, Ministry of Health and Welfare, Mexico, D. F.

Dr. ALBERTO E. CALVO, Director General of Public Health, Ministry of Labor, Social Welfare, and Public Health of Panama

Dr. ARTURO VASI PÁEZ, Director, Workers' Social Security Fund of Peru

Dr. ALFREDO LEONARDO BRAVO, Chief, Medical Care Administration, PASB

Dr. A. PETER RUDERMAN, Economic Adviser, PASB

The report on the Technical Discussions [1] was presented at the twelfth plenary session and the Conference approved a resolution on the topic at the thirteenth plenary session.

[1] Published in Spanish in the *Boletín de la Oficina Sanitaria Panamericana,* Vol. LXII, No. 1, pp. 1–6, January 1967.

AGENDA

1. Inauguration of the XVII Pan American Sanitary Conference
2. Establishment of the Committee on Credentials
3. Election of President and Two Vice-Presidents
4. Amendments to the Rules of Procedure of the Pan American Sanitary Conference
5. Establishment of the General Committee
6. Establishment of the Main Committees
7. Adoption of the Agenda
8. Annual Report of the Chairman of the Executive Committee
9. Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962-1965
10. Annual Report of the Director of the Pan American Sanitary Bureau for 1965
11. Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences
12. Election of the Director of the Pan American Sanitary Bureau and Nomination of the Regional Director of the World Health Organization for the Americas

13-A. Proposed Program and Budget of the Pan American Health Organization for 1967

13-B. Proposed Program and Budget of the World Health Organization for the Region of the Americas for 1968

13-C. Provisional Draft of the Proposed Program and Budget of the Pan American Health Organization for 1968

14. Election of Two Member Governments to the Executive Committee on the Termination of the Periods of Office of Brazil and Mexico
15. Financial Report of the Director and Report of the External Auditor for 1965
16. Report on the Collection of Quota Contributions
17. Emergency Revolving Fund
18. Amendments to the Staff Rules of the Pan American Sanitary Bureau
19. Report on Buildings and Installations
20. Planning of Hospitals and Health Facilities
21. International Transportation of Human Remains
22. Relationship of the Pan American Health Organization with other Organs of the Inter-American System
23. Supply of Textbooks for Medical Students
24. Status of Smallpox Eradication in the Americas
25. Estimated Requirements for the Eradication of Smallpox in the Americas
26. Training of Auxiliary Personnel
27. Status of National Health Planning
28. Technical Discussions: "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activities Related to Health"
29. Selection of Topics for the Technical Discussions during the XVII Meeting of the Directing Council of the Pan American Health Organization, XIX Meeting of the Regional Committee of WHO for the Americas
30. Resolutions of the WHO Executive Board and the World Health Assembly of Interest to the Regional Committee
31. Research Policy and Program of the Pan American Health Organization
32. Report on the Status of Malaria Eradication in the Americas—XIV Report
33. Estimated Requirements for Malaria Eradication in the Americas
34. Status of *Aedes aegypti* Eradication in the Americas
35. Status of the Problem of Venereal Diseases and of Venereal Disease Control Programs in the Americas
36. Quality Control of Pharmaceutical Preparations
37. Mental Health Program
38. Aspects of Health Related to Population Dynamics
39. Other Matters

2. VERBATIM MINUTES OF PLENARY SESSIONS

VERBATIM MINUTES OF PLENARY SESSIONS *

INAUGURAL SESSION

Monday, 26 September 1966, at 10:40 a.m.

Honorary Officers

Dr. Raymundo de Britto, Acting President of the XVII Pan American Sanitary Conference, and Minister of Health of Brazil
Dr. José A. Mora, Secretary General of the Organization of American States
Dr. M. G. Candau, Director-General of the World Health Organization
Dr. William H. Stewart, Surgeon General of the U. S. Public Health Service
Dr. Abraham Horwitz, Director, Pan American Sanitary Bureau

Address by Dr. Raymundo de Britto, Acting President of the XVII Pan American Sanitary Conference, and Minister of Health of Brazil

Dr. DE BRITTO:* Before I relinquish the high post entrusted to me, as I shall do shortly in turning the gavel over to my successor, I feel called upon to say a few words that express not only my personal view, and that of my Delegation and my Government, but also, I am sure, that of all men concerned with the vital problem of health in the American Hemisphere, and particularly those who hold positions of responsibility.

As a counterbalance to the negative forces that throughout history have hampered the progress of our nations, I am pleased to note a series of positive developments that give us a feeling of pride and confidence in the future. Among those many "facts on progress," to quote a familiar phrase, there is perhaps none more readily apparent than the growth of the Pan American Health Organization.

The New World, it would seem, was destined to be the stage for momentous events. Everything in it is vigorous and explosive: the people, the achievements of great men, the wrongdoings of small men, the talent for building, and the genius for destruction—it is these contrasts that set the tone of the Hemisphere, where misery and grandeur may be found side by side.

In 1902 the modest International Sanitary Bureau, later known as the Pan American Sanitary Bureau, decided that the First International Sanitary Convention should be held here, in Washington; it therefore called together all of the American Republics and invited them to establish a "permanent sanitary bureau." On that occasion, the responsibilities of the countries, considered both individually and collectively, as well as those of the Sanitary Bureau, were set forth. An annual budget of $5,000 was provided for the Bureau. Yet, those unpretentious beginnings did not prevent our undertaking a mission that might be called no less than one salvation.

To give an idea of the magnitude of the prob-

* The asterisk denotes that the person spoke in a language other than English.

lems to be overcome in those times, let me recall that, for lack of funds, it was impossible to translate and publish 5,000 copies of the *United States Pharmacopeia,* a work highly in demand. In 1966, just 64 years later, we have a budget of more than $13 million—more than $20 million, in fact, if we add the contributions from the World Health Organization, the United Nations Special Fund, Technical Assistance, and other sources.

That dramatic increase in financial resources has been accompanied by a comparable upward trend in accomplishments, a fact recognized and appreciated by the Governments and their representatives at meetings of the Organization.

Yet I am constantly reminded of the contrast between the penury of our early days and the dazzling prospects the future holds for us. For example, when the delegates to the Congress of Panama met in response to the call of Simon Bolívar, to give reality to his Pan American dream, nearly all of them fell ill and three of them died, victims of yellow fever. However, as if to make up for that tragic episode, America was to become the site of the first international health organization in the world.

For many years, both in the Hemisphere as a whole and in the individual countries, public health meant virtually no more than protection against communicable diseases, especially those labeled "pestilential." On emerging from that "dark age of health," we quickly moved into new fields, which turned out to be more complex and at the same time more constructive.

Encouraging the national and local health services; supporting scientific research, particularly as it relates to the prevention and treatment of disease; helping to modernize the structures where medical care is given; developing a broad multilateral policy of basic health; and carrying out a continuous and expanding program for the control and eradication of the communicable diseases—these are some of the routes the Pan American Health Organization has taken in pressing forward over the years.

In positions of leadership, and providing guidance to the Governing Bodies established in the statutes —the Pan American Sanitary Conference, the Directing Council, the Executive Committee—men of the stature of Walter Wyman, Rupert Blue, Hugh S. Cumming, and Fred L. Soper have erected milestones along the Organization's upward and onward path.

As a Brazilian, I must make special reference to Dr. Soper, to whom my Government has awarded the most fully deserved and fitting of honors for the services he performed during his long residence in Brazil as representative of the highly esteemed Rockefeller Foundation, and for his illustrious role as Director of the Pan American Sanitary Bureau.

A credit to that dynasty of outstanding public health leaders, the eminent Dr. Abraham Horwitz now occupies the post of Director of the Bureau. To him we extend our admiration and respect.

In view of the solid foundations on which the Organization is built, how can we be less than optimistic?

Our role in the adoption of major economic, financial, and political decisions is assured by tradition, by the esteem in which we are held, and by necessity. Today it would be unthinkable for the health organizations—with the Pan American Health Organization in the vanguard—not to participate in the planning for social and economic development and in the investment of funds made available under bilateral and multilateral programs.

The Government of my country, established during a revolution of national redemption, rejoins the community of democratic nations and resubscribes to the noblest ideals of Pan American solidarity, determined to strengthen the long-standing traditions symbolized in our history by the figures of Rio Branco and Ruy Barbosa.

I am fully convinced that our deliberations here will be fruitful and of the utmost significance to the health of our peoples, who, with ever greater unity and resolve, are moving ahead along the road to economic, social, and political development. This display of Hemispheric solidarity serves as an example for the entire world, for it shows that joint action taken by peoples to promote health lead to true understanding among nations.

In conclusion, may I welcome all of the delegations that by their presence bring honor and distinction to this meeting. It is fitting that the site of our deliberations is this splendid building, which we were honored to inaugurate last year and which today can rightly be called the Headquarters of Health in the Americas.

Address by Dr. José A. Mora, Secretary General of the Organization of American States

Dr. Mora:* I too should like to welcome the distinguished delegations that are attending this meet-

ing and by their presence demonstrating the growing interest in the health programs of the Americas.

Just a year ago I had the pleasure of participating in the inauguration of this splendid building, dedicated to the health and well-being of the Americas. On that occasion I observed that the beauty of the building's structural design seemed wholly in keeping with the human aspirations entrusted to its safekeeping. Indeed, that structure reflects the spirit of an institution whose mission is to protect the human potential of this Hemisphere—the same human potential envisaged by the Charter of Punta del Este, whose highest objectives include the improvement of the individual and collective health of the peoples of the Americas.

The Pan American Health Organization, with the prestige stemming from its long history and its record of positive achievement, holds a pre-eminent position within the Inter-American System. That is why, as the institution approaches its 65th anniversary, we are following its progress with close attention and deep satisfaction. Present and future generations of America owe a real debt of gratitude to this Organizaion, in which we have always placed our highest hopes.

The *Quadrennial Report of the Director of the Pan American Sanitary Bureau (1962-1965)*[1] gives a clear picture of the steps taken in furthering the Alliance for Progress objectives in the health field. In that report Dr. Horwitz notes: "In a very short period of time consciences have been touched with concern about the common good, a prerequisite for any systematic action in so vast and complex an undertaking affecting millions of human beings."

Today we see the health services taking on new dimensions, which call for additional financial support. The American Governments are mindful of this need, and some of them have increased by more than 5 per cent the portions their national budgets allocated to health. This is not the time for self-congratulations; instead, we would do well to think of all the good that might be accomplished if some of the funds now being expended in Latin America on excessive or unnecessary arms were spent on health and social welfare programs.

As progress is made on the country studies being carried out by the Inter-American Committee on the Alliance for Progress, the detailed documentation provided by the Pan American Health Organization in its fields of competence is ever more useful in the over-all assessment of the measures being taken by the Member States of the OAS, in compliance with the provisions of the Charter of Punta del Este.

The training program for officials involved in health planning, for example, fills an obvious need in the activities under way in our countries. Indeed, I should like to take this opportunity to express my satisfaction at the Organization's having given special priority to those training programs. In my opinion, the idea of creating a Pan American Center for Health Planning is quite plausible. Interest in this project has been evidenced by the financial support already announced by some of the Governments; we must now hope that the United Nations Development Program will be able to make a substantial contribution.

One item on the agenda of this meeting that is of special significance to the OAS is "Relationship of the Pan American Health Organization with Other Organs of the Inter-American System." The regular attendance of PAHO at the Annual Meetings of the Inter-American Economic and Social Council at the Expert and Ministerial Levels has led to a continuous assessment of the coordinated efforts undertaken by the General Secretariat of the OAS and PAHO. For example, the joint report presented by the Pan American Union and the Bureau last March at the IA-ECOSOC meeting in Buenos Aires facilitated the study of many of the problems that stem from the relationships between the medical programs of social security institutions and those of the health ministries. That is why we stress the need for a technical expert from the health ministry of each country to be included in the governmental delegations attending IA-ECOSOC meetings. The connection between human resources, health, and education clearly emerges from the joint or coordinated studies. The same is true of the problem of health and development planning. The OAS is vitally interested in the technical assistance programs in which PAHO is participating. I refer specifically to the Pan American Foot-and-Mouth Disease Center, which we are hoping to place on a sound financial basis.

The amendments to the OAS Charter deal with health policy and problems in a very special way, so that in the future PAHO's field of action will have ever greater scope and support within the Inter-American System.

[1] *Official Document PAHO* **72.**

As Secretary General of the OAS, I wish to express our continuing desire to broaden our collaboration with PAHO, through studies and projects carried on jointly by the two organizations. The conclusions that emerge from the Technical Discussions of this XVII Pan American Sanitary Conference, in the field of coordination of health services, will provide valuable guidelines for our future undertakings. The OAS is equally gratified by the results being obtained by the PAHO Advisory Committee on Medical Research. Its work takes the form of evaluations of the various factors involved in development and specific projects on which this meeting will be fully informed.

PAHO's cooperation in the development of activities directly related to retarded children, a program started by the Inter-American Children's Institute, deserves special mention. It is gratifying to note that even in the early phases of the new program the Pan American Health Organization is making an effective contribution. PAHO's interest can be seen in the various studies it has already completed; thanks to that research, it is possible to move toward the solution of many mental health problems, including those to which social and biological psychiatry may be applied.

All aspects of the health work that is engaging PAHO's attention are closely related to the steps the OAS is taking to promote economic and social development. The dynamic approach to today's problems being shown by the Pan American Health Organization leads me to assert that this institution is one of the most effective and powerful arms of the Alliance for Progress. Hence the conclusion that we should foster and encourage everything that helps to strengthen the capabilities of the health ministries and the technical services, both national and international, that are a part of this collective undertaking.

One of the Organization's outstanding qualities—and I am happy to take note of it—is its willingness to reappraise its work and to accept changes in its programs when circumstances so require. This readiness to adapt itself to the growing demands of the peoples of the Americas may stem from the fact that PAHO is perhaps the organ of the Inter-American System that is closest to the life of the individual. In all its activities this Organization performs a vital, dynamic role. This explains why the Organization, always under outstanding leadership, with men of the stature of Dr. Abraham Horwitz and his distinguished staff, has attained a position in the forefront of the drive to safeguard and strengthen the human potential of the Hemisphere—the primary concern of all of us.

I am confident that the Pan American Health Organization will keep its finger on the pulse of the American community. It could not perform its task without an earnest desire to listen to the heartbeat of our peoples and to provide the answer for which the aspirations of well-being and social justice cry out—for this is one of the factors that define and shape our task at this point in our history.

Address by Dr. M. G. Candau, Director-General of the World Health Organization

Dr. CANDAU: The duty of attending this XVII Pan American Sanitary Conference is for me the source of both pleasure and honor, for it affords me the opportunity to say a few words about the activities of the Pan American Sanitary Bureau, Regional Office of the World Health Organization for the Americas. The experience gained in the Americas during these past four years, the fruitful results obtained, and the methods employed are of great value to the other five Regions of the WHO. The 18 years that have elapsed since the establishment of the World Health Organization have taught us that, while general conditions may vary from one Region to another, the peoples' basic needs in the field of health are the same the world over. Thus, the pool of shared ideas and experience in our six Regions is one of the most effective tools the Organization can use to achieve its basic objectives.

As time goes on, the activities of the Organization increasingly reflect the fact that health is inseparable from the development of the social and economic structure of human societies, and therefore the plans of action must be integrated in the over-all plans for national development.

More and more Governments in this Region are coming to accept the principle that expenditures for health services not only stem from a humanitarian duty to help the underprivileged, but may be viewed as sound investments that pay dividends in improved human resources, whose enormous importance to the economic progress of any nation is well known to us all.

As this thesis becomes more widely accepted, the demand for specialists in health planning increases.

The World Health Organization continues to lend assistance to many teaching projects designed to meet that need. Planning in the Americas during the period 1962-1966 has acquired the status of a scientific discipline in its own right, and in seven countries 300 professionals have taken specialized courses at the national level. Several Governments have established planning units in their health ministries or health departments, and if the present rate of progress continues, all of the countries in the Americas are expected to have such services by 1970. This situation is sure to be a vital factor in the more effective utilization of the funds provided by international institutions, on both a bilateral and multilateral basis.

Even within the administrative sphere, health planning has significant corollaries that may, so to speak, be considered outgrowths of the discipline itself. The first of these is the effort at "self-appraisal" that is demanded by planning and is intended to shed light on potential weaknesses in the administrative services, on which the success of any program depends. Furthermore, planning reveals the need for carrying out both basic and operational research, which is essential to the evaluation of health programs. Finally, planning demonstrates the importance of statistical data at every step in the process.

In 1960 the countries of this Region set for themselves the ambitious goal of installing water supply and sewage disposal systems for 70 per cent of their urban population and 50 per cent of their rural population. Thanks to that far-reaching decision, 134 million persons should have potable water by 1971. Significant results have already been achieved, the number of persons who are to benefit from the program initiated between 1961 and 1965 having been estimated at 44 million. I seriously doubt that the annals of public health in the Americas, since the beginning of this century, record a precedent for a success of such magnitude, achieved in five short years.

The required capital investment for water supply programs far exceed the financial resources of virtually all the Governments of the Region. For this reason, the Pan American Sanitary Bureau is to be commended for the skillful way in which, in collaboration with the Governments, it has been able to advance and support arguments acceptable to the international and bilateral lending institutions. The funds available for the water supply systems under construction will make it possible, as I mentioned earlier, to provide potable water to 44 million persons.

Another of the major objectives established by the countries of this Region at the beginning of the present decade is the training of health personnel. The special significance of this goal is obvious to those who recognize that, in the long run, the preparation of personnel is the single most important investment in safeguarding and promoting individual and collective health. Even allowing for the natural growth of the population and for the need to replace those doctors who die or retire, it would seem that the 6,800 physicians who are graduated each year from the 112 medical schools in Latin America are sufficient to maintain the present physician-population ratio of 5.7 per 10,000 during the next 15 years. However, that ratio is too low, and raising it will require the expansion of present training centers, without lessening the quality of instruction. Another urgent task that must be carried out at the same time is that of adding to the pool of other professionals and auxiliary personnel who make up the health teams.

It is a source of great satisfaction for me to know that all of the matters related to the theoretical and practical training of health workers of all kinds are receiving close and careful attention by the countries represented here. As an example, this interesting statistic appears in the *Quadrennial Report of the Director (1962-1965)*. Between 1960 and 1965, nearly 22,500 nursing auxiliaries were trained in courses lasting from 6 to 18 months.

To gain a true understanding of the importance of all those achievements, we must recall what has been accomplished in the strategic health areas. Without sound national planning in the health field, without a sufficient increase in available personnel, and without an adequate improvement in environmental health, it would indeed be wishful thinking to expect the developing countries to do a good job of organizing the basic health services for each and every one of their inhabitants.

In emphasizing the above-mentioned programs, we must not overlook the fact that comparable progress has been made in other basic activities, including the programs for malaria, smallpox, and *Aedes aegypti* eradication. We believe that health planning, which implies improvement in the organi-

zation and administration of the services through the use of properly trained technical personnel, is essential to the complete success of the eradication programs.

The advances I have just mentioned, along with those made by the American countries in other health sectors, are enhanced by the total integration of the activities carried on by the World Health Organization and the Pan American Health Organization. That integration is due in large measure to the untiring efforts of Dr. Horwitz. It will, I am sure, contribute to an even more effective utilization of the available resources for promoting the health and prosperity of all the peoples of the Americas.

The completion of this splendid building in which we are meeting today is another of the impressive gains made since the XVI Conference. This building, which for many years will serve as Headquarters of the Pan American Sanitary Bureau and the Regional Office of the World Health Organization for the Americas, is to me also an eloquent symbol of the determination of the American States to marshal all available resources for the betterment of the health and well-being of the peoples of this Hemisphere.

Address by the Surgeon General of the U. S. Public Health Service, Dr. William H. Stewart

Dr. STEWART: I am very pleased to be with you today. There has been a cordial and productive history of cooperation for better health among the nations of the Hemisphere since early in this century, and I am pleased to be a participant in this Conference, because such cooperation has never been more important than it is now.

The state of the world's health, as we all know, is not what it should be, not even what it could be, and certainly not as we would like it to be. All of us realize the necessity for better health in a better world. We also realize that many issues and problems impinge on our search for better health: problems of economic development, the checking of record population growth, and the provision of adequate food for all who need it.

All these factors are related to, and intermingled with, our attempts to strengthen and maintain the health of the peoples of the Hemisphere. But I am pleased to be here today, because I sense that this XVII Pan American Sanitary Conference is not being held in an atmosphere of weariness or despair. I sense that the spirit among the delegates here is one of optimism and willingness to meet our mutual problems through hard work and dedication.

I believe that all of us are engaged in human conservation. I take this task to be the first concern of all Governments. And since those of us in the health and medical professions are at the forefront of this effort, our role is of the highest importance.

Last February, our President, Lyndon B. Johnson, sent a special message to the Congress of the United States of America calling for a major effort by this country to aid other nations in establishing better health among their peoples. In that message, the President said: "The well-being of any nation rests fundamentally upon the health of its people. If they are cursed by disease, their hopes grow dim. If they are plagued by hunger, even the blessings of liberty give little comfort." These words imply that better health has a direct relationship to the liberty of individuals, the stability of nations, and the peace of the world.

I believe that most of us here work as hard as we do because we agree with those implications. Perhaps we are not always consciously aware of our motivations while engrossed in our daily frustrations, yet we acknowledge finally that better health can lead to more harmonious relationships between men and nations. And, on a less pretentious scale, such meetings as this are part of that process of communication and interchange between peoples of different nations, which can lead to international amity.

We are here to learn and to share our knowledge and experience, and to plan our concerted attack on the health problems that face us. But we are here also to learn to appreciate each other—if that is the right word—to respect each other's individual outlooks and approaches to our mutual problems.

I am pleased, too, that this distinguished group of delegates can gather in this beautiful new building in my home town. Your presence here today, and the continued presence of the Headquarters of the Pan American Health Organization in our country, honors us greatly. I am certain that we will have a successful and rewarding Conference this year.

Address by Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau

Dr. HORWITZ:* At the ceremony inaugurating this headquarters building in September of last year, I had the occasion to observe: "On the firm basis of its record of creative achievements and of its established tradition, with that quality of flexibility with which it was endowed by its visionary founders, our Organization has demonstrated its ability to adapt itself to the new era, and will continue to do so." [2]

This record of achievement is one that goes back without interruption over the last 64 years, and, for 18 of those years, the Organization has functioned as an integral part of the World Health Organization. This leads us to view the future with optimism, provided this future is to transpire on a Continent, the Americas, that refuses to accept the *status quo,* that does not propose to be shackled by its past achievements, however successful they may have been. What we see emerging is a rational dynamism that seeks by an examination of reality to single out what is most pressing because it affects the greatest number of human beings, and to take those actions that will contribute to their well-being, through undertakings in the commonweal. There is no place in this age for the axiom of Dostoyevsky to the effect that nothing is more terrifying to mankind than the new; the new step, the sound of the new word, cause him the gravest concern.

It is precisely this daring step of accelerating progress through an alliance of purposes and concerted action that is being proposed in the Americas. New ideas, the most modern and complex techniques, the breaking of old patterns, the revitalizing of old customs, anything is considered feasible—at least to the extent of subjecting it to a critical examination of its possibilities. There is one thing, however, on which there is general consensus and awareness—the necessity of preserving the way of life and the essential spirit of its societies, a spirit that not only does not impede progress but rather fosters and re-enforces it. We have no better evidence of this than the burning questions of today: economic integration, political interdependence, great enterprises that are designed to facilitate communication among men, not only from North to South, but from East to West of the Americas, and the intellectual common market that is the necessary foundation for all of this promising future. In the final analysis, what we are attempting is to endow Latin America with a structure, a backbone, as was once the dream of Bolívar, in order that it may achieve the place in the world concert of nations that is its own by virtue of its culture heritage and its natural resources. Accordingly, we are seeking a legitimate, authentic development, in harmony with our own manner of being and feeling, in seeking an association, based on mutual respect, with the peoples of other Continents.

This vision that presided at its conception, coupled with the advances that have been achieved in the individual and collective health of the Americas in the past century, will enable our Organization to assume its legitimate role in the prevailing climate and movements. If a political and economic community is to be constituted, with its respective institutional framework, the health function must be included. It will proceed to determine with regard to the human element in the different countries just what is of a regional nature and what complements that which is essentially national. Although there will be no difference in the specific methods to be applied to each problem, the legal, regulatory, and political norms will, by their very nature, have to be different or in any case determined for each activity. I have the conviction that this new dimension in health can, and must, be the responsibility of the Organization under the regional systems that are created.

A reading of the agenda for this Conference, the supreme Governing Body of the Organization, reveals the maturity the Organization has attained. In this agenda, all of the traditional tasks related to communicable diseases have been harmonized with others that reflect the urgent problems created by progress. And this is for the reason that the achievement of specific goals, advances in living standards, always require sacrifices. As has been pointed out, the nature of certain health problems in the Hemisphere and the decision of the several Governments to satisfy the greatest possible number of social demands have given rise to a need for foreign capital —legitimate productive investment—to supplement domestic resources and shorten the time required to attain the defined goals. A notable example is the unique work of the Inter-American Development Bank, which has become, in the brief period of its

[2] *Official Document PAHO* **69**, 23.

existence, the financial mainspring of economic development and social progress in Latin America. Along similar lines are the activities of the United States Agency for International Development, which has broadened its policy to include loans for basic activities, such as malaria eradication and potable water supply.

Among the topics that reflect the current concern of the Governments, it is appropriate to mention methods for utilizing the available human and institutional resources in the service of a large proportion of the population, seeking improved coordination between the social security agencies and others that provide medical care and the ministries of health. Similarly, quality control of drugs and foodstuffs; development of national health plans; programming of hospital and other medical services; biomedical research; the relationship between health, population, and development; the rural problem—all are currently matters of concern. So, too, in education and training the project to provide textbooks for medical students in Latin America and the training of auxiliary personnel must be cited.

The basic responsibility of the Conference is to formulate the appropriate policy for each activity and provide guidance for the Secretariat, which is the Pan American Sanitary Bureau, on how it should be implemented in cooperation with each Government. For this task, the Bureau can draw on a solid background of experience and the esteem it enjoys as a result of a dedicated spirit of service, above all self-interest and bureaucratic attitudes, on the part of its professional staff. It is this that explains the growth of the Organization, encouraged by the improvement of health conditions among the populations of this Hemisphere; but, without stopping for self-congratulations, let us turn to what yet remains to be done. In carrying out its responsibilities, the Organization has succeeded in establishing excellent relations with the United Nations, with the inter-American and bilateral specialized bodies, as well as with the philanthropic foundations, sharing with all of them a common dedication to the welfare of mankind.

As in the past, the Conference proposes to continue the Organization, reaffirming its goals and implementing its purposes. But it proposes to do so—and this may be inferred from the agenda—by implementing those ideas that are justified by actual experience, and encouraging those others that, daring as they may be, must still await their opportune moment. This must be attuned to—or more fully integrated into—the efforts toward constructive change, the main currents of public opinion, and the movements for progress that are emerging in the American societies. In this way the Organization constantly renews itself, at the same time preserving its tradition and continuity, and can look forward to a glowing future.

The session rose at 11:30 a.m.

FIRST PLENARY SESSION

Monday, 26 September 1966, at 9:30 a.m.

Acting President: Dr. Raymundo de Britto (Brazil)

President: Dr. Antonio Ordóñez Plaja (Colombia)

Acting President:* I have the honor to call the first plenary session of the XVII Pan American Sanitary Conference to order. It is especially gratifying to welcome all of the delegations present. There is no doubt in my mind that our deliberations will be fruitful and of the utmost importance to the health of the American peoples and of the Continent as a whole, and that, united and resolute, the nations of this Hemisphere will move forward along the broad and promising path of economic, social, and political development.

Item 2: Establishment of the Committee on Credentials

ACTING PRESIDENT:* Will Dr. Sutter please read Rule 25 of the Rules of Procedure of the Conference?

Dr. Sutter (Assistant Director, PASB) read Rule 25 of the Rules of Procedure of the Pan American Sanitary Conference.

ACTING PRESIDENT:* In accordance with that rule, I propose that the Committee on Credentials be composed of the following delegates: Dr. Carlos A. Waldheim Cordón (Guatemala), Dr. Charles Courtney Wedderburn (Jamaica), and Dr. Victorio Vicente Olguín (Argentina).

There being no other proposals, the Committee on Credentials is established as indicated.

The session will now be suspended until the Committee is ready to present its report.

The session was suspended at 10:30 a.m. and resumed at 12:05 p.m.

First Report of the Committee on Credentials

ACTING PRESIDENT:* The session is resumed. I call upon Dr. Wedderburn, Rapporteur of the Committee on Credentials, to read the report of that Committee.

Dr. WEDDERBURN (Jamaica, Rapporteur of the Committee): The report reads as follows:

The Committee on Credentials, established at the first plenary session and composed of Dr. Victorio Vicente Olguín (Argentina), Chairman; Dr. Charles Courtney Wedderburn (Jamaica), Rapporteur; and Dr. Carlos A. Waldheim Cordón (Guatemala), held its first meeting on 26 September 1966, at 10:35 a.m.

The Committee examined the credentials of the delegations of the following countries and found them to be in good order: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Honduras, Jamaica, Kingdom of the Netherlands, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, United Kingdom, United States of America, Uruguay, and Venezuela, and the credentials of the observer from Canada as well.

The Committee also accepted the credentials submitted by the observers from the following intergovernmental and nongovernmental organizations: the Organization of American States (OAS), the Food and Agriculture Organization of the United Nations (FAO), the International Labour Organisation (ILO), the United Nations (UN), the United Nations Children's Fund (UNICEF), the International Association for the Prevention of Blindness, the International Committee of Catholic Nurses, the International Committee of Military Medicine and Pharmacy, the International Council of Nurses, the Internanational Dental Federation, the International Federation of Gynecology and Obstetrics, the International Planned Parenthood Federation, the International Hospital Federation, the International Union against the Venereal Diseases and the Treponematoses, the League of Red Cross Societies, the Pan American Medical Confederation, the World Confederation for Physical Therapy, and the World Federation of Occupational Therapists.

The Committee will meet again to examine the credentials of the delegates of those Governments that have not yet presented them.

ACTING PRESIDENT:* Are there any comments on the report of the Committee on Credentials? If not, it will be considered approved.

The first report of the Committee on Credentials was approved.

Item 3: Election of President and Two Vice-Presidents

ACTING PRESIDENT:* We shall now proceed with the election of the President and two Vice-Presidents. Rule 18 of the Rules of Procedure of the Pan American Sanitary Conference states: "The Conference shall elect a President and two Vice-Presidents who shall hold office until their successors are elected." Accordingly, I invite the delegations to present nominations for the office of President.

Dr. MORENO VALLE (Mexico):* I formally propose the candidacy of Dr. Antonio Ordóñez Plaja, Minister of Public Health of Colombia and Dean of the School of Sciences at the University of Los Andes, as President of the Conference. I should also like to nominate Dr. William H. Stewart, Surgeon General of the United States Public Health Service, as one of the Vice-Presidents, and Dr. Benjamín Interiano, Minister of Public Health and Welfare of El Salvador, as the other. These highly qualified men are well known to all of the delegations.

ACTING PRESIDENT:* If there are no other nominations, Dr. Antonio Ordóñez Plaja, of Colombia, is elected President, and Dr. William H. Stewart, of the United States of America, and Dr. Benjamín Interiano, of El Salvador, are elected Vice-Presidents.

I should like to extend my best wishes to the new President. It gives me great pleasure to turn over to him the responsibility for guiding the destiny of this great institution. May he do so in accordance with the Organization's noble traditions and his vast knowledge and ability.

Dr. Ordóñez Plaja (Colombia) took the Chair.

PRESIDENT:* I should like to express my thanks to the Chief of the Delegation of Mexico for having proposed my name, and to the heads of the other delegations for having supported that proposal. Although I personally do not deserve the honor of serving as President, I regard my election as a great distinction for my country. I therefore pledge that I shall do my best to ensure the greatest possible dynamism and effectiveness in our deliberations.

Item 6: Establishment of the Main Committees

PRESIDENT:* I now call upon the Secretariat to read Rule 28 of the Rules of Procedure of the Conference.

Dr. Sutter (Assistant Director, PASB) read Rule 28 of the Rules of Procedure of the Conference.

PRESIDENT:* Nominations for the chairmanship of Committee I (Technical Matters) and of Committee II (Administrative, Financial, and Legal Matters) are in order. The head of the Delegation of Uruguay, who is not present at this time, has proposed the name of Dr. Daniel Orellana, of Venezuela, as Chairman of Committee I, and that of Dr. Manoel José Ferreira, of Brazil, as Chairman of Committee II. In the absence of the Delegate of Uruguay, I hereby submit his proposal to the Conference for consideration.

Would those delegates in favor of that proposal so signify by raising their hands?

Dr. Daniel Orellana, Delegate of Venezuela, and Dr. Manoel José Ferreira, Delegate of Brazil, were unanimously elected Chairmen of Committees I and II, respectively.

Item 5: Establishment of the General Committee

PRESIDENT:* Will Dr. Sutter please read Rule 26 of the Rules of Procedure of the Conference?

Dr. Sutter (Assistant Director, PASB) read Rule 26 of the Rules of Procedure of the Conference.

Dr. ORELLANA (Venezuela):* I should like to propose the Delegates of Chile and Peru for membership on the General Committee.

PRESIDENT:* There being no objection to the foregoing proposal, Dr. Ramón Valdivieso and Dr. Daniel Becerra de la Flor, Delegates of Chile and Peru, respectively, are unanimously elected to the General Committee, whose other members are the President and the two Vice-Presidents of the Conference and the Chairmen of the two main committees.

Item 7: Adoption of the Agenda

PRESIDENT:* The next item of business is the adoption of the agenda. The Chair recognizes Dr. Sutter.

Dr. Sutter (Assistant Director, PASB) read Article 7-f of the PAHO Constitution and Rule 9 of the Rules of Procedure of the Conference relating to the adoption of the agenda.

PRESIDENT:* It might be well for the Secretary to read the provisional agenda at this time.

Dr. SUTTER (Assistant Director, PASB):* Besides the items included in the provisional agenda, Document CSP17/1 and Addendum I, consideration should be given to the possible inclusion of others that have been proposed. If the Conference decides to include those items, the pertinent documentation will be distributed during the meeting. The Government of Costa Rica has proposed the following item: "Health Law with a Separate Juridical Identity and Special Norms, as an Independent Branch of the General Law."

The Government of Chile has proposed the following items: 1. "Planned Consolidation of Technical Assistance Agreements." 2. "Fellowship Regulations." 3. "Technical Assistance in Drug Policies." 4. "Coordination of International Technical Meetings." 5. "Assessment of the Magnitude of the Problem of Undernutrition in Children." 6. "Feeding Programs."

Finally, the Government of Peru has proposed the item "Public Health Law as an Independent Branch of Law."

PRESIDENT:* The provisional agenda items, with the additions proposed by the Delegations of Chile, Costa Rica, and Peru, are now before the meeting for discussion.

Dr. VALDIVIESO (Chile):* In view of the large number of items to be dealt with I should not like to give cause for difficulties by suggesting that the six above-mentioned items be discussed separately. Items 5 and 6 of those proposed by the Delegation of Chile might therefore be referred directly to the Office of Research Coordination of the Bureau

rather than be included on the Conference agenda. As for the other four items, the first might be studied together with Item 27, "Status of National Health Planning," which is already on the provisional agenda; the second might be referred to the Executive Committee; and the third might be taken up with Item 36: "Quality Control of Pharmaceutical Preparations." The fourth, and final, proposal, which could conceivably lead to a change in policy regarding the meetings, might be covered under Item 22: "Relationship of the Pan American Health Organization with Other Organs of the Inter-American System."

Dr. ORELLANA (Venezuela):* I commend the Delegate of Chile for having related his proposals to items that already appear on the provisional agenda. Since the Governments of Costa Rica and Peru have proposed two similar items, I suggest that the delegates of those countries express their views on consolidating those topics and that the single item then be considered for adoption by the Conference.

Dr. AGUILAR PERALTA (Costa Rica):* The Government of Costa Rica accepts the suggestion of the Delegate of Venezuela.

Dr. BECERRA DE LA FLOR (Peru):* I consider it highly desirable that because of their similarity, the proposals of Costa Rica and Peru be combined in a single item, as suggested.

PRESIDENT:* If no other delegates wish to be heard, the agenda will be adopted, with the changes indicated.[1]

The agenda contained in Document CSP17/1 and in Addendum I was approved, with the understanding that the item proposed by the Delegation of Chile: "Planned Consolidation of Technical Assistance Agreements," be considered under agenda Item 27; that the item "Technical Assistance in Drug Policies," also proposed by the Delegation of Chile, be considered under Item 36; and that the items relating to Health Law, proposed by the Delegations of Costa Rica and Peru, be consolidated into a single item and considered by the Conference.[2]

The session rose at 12:40 p.m.

[1] The agenda appears on p. 14.
[2] See p. 195.

SECOND PLENARY SESSION

Monday, 26 September 1966, at 3:20 p.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

First Report of the General Committee

PRESIDENT:* The second plenary session is called to order. The Secretary will now read a summary of the decisions taken by the General Committee this morning.

Dr. SUTTER (Assistant Director, PASB):* The report of the first session of the General Committee reads as follows:

The General Committee held its first session at 12:30 p.m., on 26 September 1966, under the chairmanship of Dr. Ordóñez Plaja. All of the members were present.

Pursuant to Rule 27 of the Rules of Procedure of the Conference, the General Committee took the following decisions:

1. To submit to the second plenary session, as the first item of business, Item 4 of the agenda approved this morning: "Amendments to the Rules of Procedure of the Pan American Sanitary Conference."

2. To schedule as the next item of business the "Annual Report of the Chairman of the Executive Committee."

3. To submit to the Conference, in plenary session, Items 9 and 10 of the agenda, "Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962-1965" and "Annual Report of the Director of the Pan American Sanitary Bureau, 1965," for simultaneous consideration as the next item of business.

4. Following the presentation of the above-mentioned two reports, the Member States of the Organization will, probably during the third plenary session, begin to report on health conditions in their countries and progress achieved in the period between the XVI and XVII Pan

American Sanitary Conferences. The reports will be presented in the order in which the delegations have signed the list kept by the Secretariat for this purpose.

5. To schedule the election of the Director of the Pan American Sanitary Bureau and nomination of the Regional Director of the World Health Organization for the Americas (Item 12 of the agenda) for Thursday, 29 September, at 10:30 a.m.

6. To appoint a five-member committee to consider the status of quota payments by the countries. That committee will be composed of one member from each of the following delegations: Guatemala (Dr. Emilio Poitevin), Mexico (Dr. Rafael Moreno Valle), Trinidad and Tobago (Mr. Solomon S. Lutchman), United States of America (Mr. Paul J. Byrnes), and Venezuela (Mr. Félix Miguel Sánchez).

7. Finally, the ceremony for unveiling the bust presented by the Government of Peru to the Pan American Health Organization, for its new headquarters building, was scheduled for Wednesday, 28 September, at 5:30 p.m.

PRESIDENT:* If there are no comments on the summary of the General Committee meeting, as read, let us turn to Item 4, which deals with the proposed amendments to the Rules of Procedure of the Pan American Sanitary Conference. Since not all of those present are familiar with the document containing the proposed amendments, I call upon the Secretary to report on the matter.

Item 4: Amendments to the Rules of Procedure of the Pan American Sanitary Conference

Dr. SUTTER (Assistant Director, PASB):* The document under consideration is CSP17/21 and Addendum I.[1] It contains six proposed amendments received from the Government of the United States of America, and other proposed amendments consequential to the new Article 7 of the Constitution that have a bearing on the Rules of Procedure.

Mr. CALDERWOOD (United States of America): The members of the Conference will recall that these proposed changes in the Rules of Procedure were submitted for the purpose of clarifying certain of the provisions of the existing rules, and removing certain discrepancies.

In most instances there is nothing new in the way of a proposal of substance. The amendments were considered at the 52nd Meeting of the Executive Committee, when a working party recommended[2] certain changes in the Rules to take account of proposals with respect to the organization and place of meeting of the Conference, as well as of the Directing Council. At the same time, the working party recommended the adoption of these particular changes in the Rules of Procedure.

The changes in the organization and certain changes in the Rules were adopted[3] by the XVI Meeting of the Directing Council, taking into account the recommendations of the Executive Committee. This year the changes in the Rules that affect the Conference are before us for consideration. These, as has been pointed out, relate to present Rules 1, 2, 3, and 22, which are set forth on pages 8 and 9 of Document CSP17/21.

In addition, the addendum contains the text of changes in other Rules, which would give effect to proposals made some time ago in a letter dated 1 February 1963 and included in CSP17/21, relating to Rules 8, 13, 15, 20, 22, 43, 54, and 46. Since the explanation for these changes is given in this letter, I shall not impose on the time of the Conference to repeat the clarification.

I should like to draw attention to the fact that, with respect to two of the Rules mentioned in the letter, Nos. 15 and 22, we have decided not to suggest a change in Rule 15, and feel that the Secretariat has already proposed a change in Rule 22 that would accomplish the same purpose we had in mind.

Since submitting these proposed changes another question has arisen, and I should like to raise with the President and members of the Conference the method of dealing with this. One change of substance which my Government has proposed relates to the question of the use of the secret ballot in votes on the budget. The question has also been raised of the number of votes which might be required for the adoption of any resolution. Under the present Rules, a motion is adopted by a majority of those present and voting. If there are only a few persons present and voting, or if some of those present abstain, it is possible that a very small number might adopt a resolution. This would be significant in the case of a budget.

However, to change that practice, which has been established for a long time and which is followed in other organizations of the Inter-American System as well as in the WHO, is something which, I believe, should be done only after careful consideration. Therefore, I wonder whether, instead of taking up the proposed amendment to the Rules dealing with the secret ballot, we might refer this to a special working party, or to the Executive Committee,

[1] Mimeographed documents.

[2] *Official Document PAHO* **62,** 41–43.

[3] Resolution XXII. *Official Document PAHO* **66,** 75–76.

asking that the Committee at that time give some attention to the question of the significance of "present-and-voting," with respect especially to the vote on the budget.

Members will recall that in the World Health Organization—and I think the same is true of the Organization of American States—a two-thirds vote is required for the approval of a budget. Whether we wish to adopt that practice is a matter which we might consider. But I do not think it should be a hasty consideration.

It is therefore my suggestion that either we establish a working party on the question now or refer it to the Executive Committee for report back to the Directing Council next year.

PRESIDENT:* Are there any other comments? If not, I should accept the proposal of Mr. Calderwood, in principle, and favor the establishment of a special committee to study the proposed amendments.

Dr. ANDRADE (Ecuador):* I move that the proposals made by the Delegate of the United States of America be referred to Committee II.

Dr. HORWITZ (Director, PASB):* The motion made by the Chief of the Delegation of Ecuador is very much to the point. However, depending on how the work progresses, it is likely that the committees will not begin their meetings until next week, whereas the matter of the Rules of Procedure of the Conference is one that must be resolved without delay. I therefore suggest that the Chair consider, as an alternative procedure, the appointment of a special working party, which, beginning today, would meet when the Conference was not in session, to study in detail the proposals of the Government of the United States of America and to report thereon at a future plenary session.

PRESIDENT:* Are there any other comments? Does the Conference agree to the appointment of an *ad hoc* committee to begin an immediate study of the question under discussion? If so, I shall request the Delegates of the United States of America, Ecuador, and Costa Rica to constitute a working party and to report[4] on this matter as soon as possible.

Approved.

[4] See p. 147.

Item 8: Annual Report of the Chairman of the Executive Committee

We shall now consider the next item on the order of business, the Annual Report of the Chairman of the Executive Committee. The Chair recognizes Dr. Ferreira, Delegate of Brazil and Chairman of the Executive Committee.

Dr. FERREIRA (Brazil):* The Report of the Chairman of the Executive Committee, which appears in Document CSP17/23,[5] covers the period from October 1965 to April 1966, during which time the 53rd and 54th Meetings were held. I am pleased to present the report.

Dr. Ferreira read Document CSP17/23.

PRESIDENT:* The Chair wishes to thank Dr. Ferreira, of Brazil, for the Report presented, and hereby submits that report to the Conference for consideration. If there are no substantive comments, I shall ask the Secretariat to draft a resolution, to be submitted to you for consideration.

Dr. MORENO VALLE (Mexico):* It is with much interest that I listened to the Report presented by Dr. Ferreira on behalf of the Executive Committee. I propose that the report be approved and that the Executive Committee be congratulated on the outstanding work it has done, as evidenced by the document just presented. May I request in this case, and hereafter, that the delegates be asked to register their vote by a show of hands.

PRESIDENT:* I hereby put the Annual Report of the Chairman of the Executive Committee to a vote. Will those in favor of its approval please signify by raising their hands?

Approved.

The session was suspended at 4:15 p.m. and resumed at 4:30 p.m.

Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962-1965

Item 10: Annual Report of the Director of the Pan American Sanitary Bureau, 1965

PRESIDENT:* Dr. Horwitz, Director of the Pan American Sanitary Bureau, will now present the Quadrennial Report and the Annual Report.

[5] The Report is given in full on pages 329–334.

Dr. HORWITZ (Director, PASB): In accordance with the order of business, I shall take up jointly Items 9 and 10, the Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962–1965, and the Annual Report of the Director, 1965. The pertinent documents [6] were distributed to the Governments some time ago and are now in the hands of the delegates.

In making my statement, I shall also draw on the publication entitled *Health Conditions in the Americas, 1961–1964*,[7] which was given the same distribution as the above-mentioned two documents, and, finally, on a publication to which the Secretary General of the Organization of American States referred earlier: *Facts on Progress—Health Goals in the Charter of Punta del Este*.[8] This was a report presented by PAHO to the Fourth Annual Meetings of the Inter-American Economic and Social Council, held in March-April 1966 in Buenos Aires, Argentina, and in which we analyzed each of the health goals of the Alliance for Progress—as Title I of the Charter of Punta del Este is called—on the fifth anniversary of the signing of the Charter.

My approach will, understandably, be a continental one; the reports to be presented by the ministers of health during the next few days are sure to provide supplementary data, so that we shall have an increasingly reliable and complete picture of the morbidity, mortality, and health in the Americas. The documents cited contain information based on reports received from the Governments, together with material relating to the activities carried on by the Organization in response to the decision of the Governments.

Taken as a whole, the four documents before us show that progress has been made in terms of efforts to reduce the incidence of certain diseases, to provide the necessary services, and to educate and train professional and technical health personnel. The concept of progress is, of course, conventional and relative, since progress is usually appraised by comparison with a specific situation which is measured by the same method. It does not refer only to those factors that add to the well-being of man, because then his improvement through knowledge and experience would not be included. Thus, the facts presented in the four documents under consideration only partially show what has happened in the Hemisphere during the past four years, for there are activities carried out that are not yet reflected in vital or health statistics. We need only consider by way of example the education and training programs, whose effects are felt over the years, according to the capacity of the individual concerned.

In substance, the Reports deal with the work of the Governments. Except for the list of projects, which appears in Chapter VIII of the Annual Report, an attempt has been made to show in each case exactly what the Organization has done, because we have always conceived our role to be a supplement to, rather than a substitute for, the programs of the Governments. Only occasionally will reference be made to the results of direct action by the Organization, and even then those efforts will be considered as functions of the Governments, inasmuch as the work of PAHO consultants merely supplemented that of their colleagues in the various countries. I shall therefore address myself principally to problems and programs.

The Charter of Punta del Este established as a broad goal for health programs during the decade beginning in 1961 the extension of life expectancy for every person at birth by an average six months for each year in the decade, or, in other words, by five years on an average. Despite deficiencies in the statistics, it has been possible to prepare life tables for some of the countries and, for others, to form a general idea regarding the increase in life expectancy. This has led to the conclusion that, in the period between 1961 and 1964, life expectancy has increased, on an average, from four months per year per person to as much as one year in some countries.

This conclusion is based on statistics in which there are serious gaps in mortality data, and no common factor or background data have been found on which to formulate a correction factor. Nevertheless, if we examine the trend in general mortality, and especially the specific death rates for children under five years of age in the same period, we can assert that, thanks to this Hemisphere-wide movement called for in the Charter of Punta del Este, life expectancy is being extended, since general mortality and infant mortality have been showing significant declines. General mortality in several Latin American countries is catching up with or approaching that of the technologically advanced countries. Of course, the over-all rate is not so important as the detailed picture of mortality, for some of the factors that affect

[6] *Official Documents PAHO* **72** and **70**, respectively.
[7] *Scientific Publication PAHO* **138**.
[8] *Miscellaneous Publication PAHO* **81**.

the death rate may be traced to conditions that are different in the developing areas of the world from those in the technologically advanced countries. Nevertheless, it can be said that in 1956 and 1963 the death rates from infectious diseases in children under five years of age decreased by 41 per cent; those from diseases of the digestive system, especially gastroenteritis, decreased by 35 per cent; and those from ill-defined causes, reflecting inadequate medical certification, also decreased by 35 per cent. Yet, 40 per cent of all deaths continue to occur among children under five years of age, and it is therefore obvious that the efforts of the health ministries must be concentrated on that group if we hope to achieve the increased life expectancy proclaimed as one of the health goals of the Alliance for Progress. The decrease in death rates from the various diseases has been more marked in Middle America than in South America, although the rates are proportionally somewhat higher in the former area. It is well known that mortality in infants and children under five is a reliable indication of the state of development in a given country, since it generally reflects a combination of economic and social factors that aggravate the weaknesses of the medical services; but, on the other hand, in one group of countries, chronic and degenerative diseases already appear among the five principal causes of death. Their incidence is higher in those countries where industrialization is more advanced and the technology more up to date. Hence, we believe that from this standpoint Latin America is a Hemisphere in transition, because insofar as morbidity and mortality are concerned it is already beginning to take on, in certain areas, the characteristics of the relatively more advanced countries. The problem is especially critical in the rural areas, where in some countries the health services lag behind those of the populated areas by as much as 50 per cent; moreover, the quality of the medical care is lower in rural areas.

In the period under consideration, the Governments have gradually been encouraged to direct their health protection, promotion, and restoration work toward the achievement of specific goals, that is, objectives that can be measured over a given period. Some of those goals are spelled out in the Ten-Year Public Health Program included in the Charter of Punta del Este. In general, they deal with activities stemming from the planned utilization of human and material resources in order to prevent or limit the spread of existing problems.

The Hemisphere still lacks adequate operational research on which to base an assessment of the social effects of health work. It is to be hoped that at least the major activities of the health services might be geared to specific objectives, which would be periodically evaluated and readjusted, so that the entire program might be brought into realignment. Two basic disciplines—statistics and planning—help in that task. As for the former, a mere reading of the documents *Health Conditions in the Americas* and *Facts on Progress* shows that the quality of the statistical data is improving. Moreover, the analysis of the problems made in the other two documents cited is based, as has been pointed out, on the vital, health, and population statistics supplied to the Bureau by the Governments, pursuant to the Pan American Sanitary Code.

It should be noted that the data are incomplete because the registration of cases and of deaths is not universal, and also because their certification by physicians is very deficient, especially in rural areas. What is more, in the case of infectious diseases, an etiological diagnosis based on laboratory tests is not customary. Yet, despite these deficiencies, the statistics are improving, and this, I believe, is due largely to the training of technicians at the professional, intermediate, and auxiliary levels. The Quadrennial Report contains some figures on developments in this training program. For example, 242 professionals attended courses on the international classification of diseases between 1955 and 1960, and 713 between 1961 and 1965, through the efforts of the Latin American Center for the International Classification of Diseases, with headquarters in Caracas. The number of courses for statisticians at the intermediate level increased over the same two periods from 8 to 18, and the number of students from 283 to 448. In 1965, the policy of the Organization having been oriented toward the training of auxiliary personnel, an estimated 600 officials were trained at that level. Furthermore, between 1961 and 1965, 99 technicians working on medical registers were trained, as were professional statisticians. On returning to, or assuming, their posts, this group of technicians has been receiving assistance from PAHO statistical consultants stationed in the Zones and in the various countries, to the extent determined by the Governments. This arrangement has resulted in better and more complete data, and is reflected also in the analysis

of the statistics being conducted to serve the general and specific needs of the health ministries.

I should like to mention the Inter-American Investigation of Mortality, which was carried out during the past three years and which has made an important contribution to the knowledge of the dynamics of disease. This study comprised an exhaustive analysis of some 40,000 death certificates, in 10 cities of the Hemisphere and in Bristol, England. Preliminary results indicate differences in the frequency of diseases among the residents and, therefore, in the urban environment, so that we now have a better picture of morbidity and mortality in the Americas, and can pinpoint areas of research that may shed light on the differences between the various cities. This basic study should be carried on, to cover children under 15 years of age, and it should also be extended to the rural environment. The Organization is seeking to obtain the necessary funds for this purpose.

The Technical Discussions of the XVI Meeting of the PAHO Directing Council, XVII Meeting of the WHO Regional Committee for the Americas, in September 1965, were devoted to "Methods of Improving Vital and Health Statistics."[9] and they established an actual timetable for the organization and refinement of statistical services in the various countries. Statistics has rightly been envisaged as a scientific technique.

With regard to planning, it is pertinent to recall the following concepts expressed by the late Jorge Ahumada, the distinguished economist who worked closely with the Organization in drawing up the method now being followed in the Americas in the field of health planning:

> It is a method for selecting means and ends in accordance with a standard. Insofar as it is a method, that is, a procedure for acting, planning is neutral; it is neither good nor bad in the ethical sense. On the other hand, it may be effective or ineffective; it may or may not lead to the attainment of the desired objectives. To be effective, at least three requirements must be satisfied: (a) it must be able to show that the ends are realistic, that is, attainable; (b) it must ensure that the means are the best available for achieving the ends proposed, or at least are efficient; and (c) it must make it possible to ascertain whether the ends and means are compatible.

The progress made in planning is the result of repeated decisions taken by the Governing Bodies of the Organization. The method has been tried out in various countries, in large areas representative of the entire country. In El Salvador, the Government selected four regions; in Nicaragua, three; in Trinidad and Tobago, two; in Peru, 19 program areas; in Bolivia, 10 health units; and in Chile, 25 provinces. As application of the method is perfected, it is hoped to work gradually with smaller units. In other countries, planning is at various stages of development.

In conjunction with the Latin American Institute for Economic and Social Planning, in Chile, annual courses have been held, in which 125 officials from 20 countries were trained. Besides, assistance was given to seven countries, in which 300 health workers were trained in methodology; short-term consultants at Headquarters and in the countries have advised the Governments on the preparation of plans and on training. It is gratifying to recall that the Secretary General of the Organization of American States, in his address before this Conference, supported the idea of placing this activity on a permanent basis through the establishment of a Pan American Center for Health Planning; a request for financial support will soon be submitted to the United Nations Development Program for consideration.

At the XI Meeting of Ministers of Public Health of Central America and Panama, held in Guatemala, we were pleased to examine the third report on the National Health Plan of El Salvador, prepared by the Minister and the Director-General of Health of that country. The plan recommends the application of available resources to the achievement of goals relating to current problems. However, while plans are being drawn up, it is necessary to work toward a solution of those problems, as required by the general and specific mortality and morbidity rates, and by the biological, cultural, economic, and social factors that underlie health problems.

At the Meeting of the Task Force on Health at the Ministerial Level, held in Washington, D. C., in April 1963,[10] the Ministers pointed out that the most important health problems of the Hemisphere were acute and chronic diseases, malnutrition, inadequate sanitation, substandard housing and working conditions, ignorance and a low per-capita income; that together these factors produce high morbidity and mortality rates, especially in children

[9] The Final Report has been issued as *Scientific Publication PAHO* **128.**

[10] *Official Document PAHO* **51.**

under five years of age, and a precarious course of pregnancy, delivery, and post-partum; that they affect the ability of school children to learn, limit the return on the investment in the labor force, and are responsible for a hostile attitude and a pessimistic outlook on life, which, though unexpressed, is equally present in the rural environment.

I should like to examine some of those problems. Among the communicable diseases, let us consider those against which the Governing Bodies of the World Health Organization and the Pan American Health Organization have resolved to carry out eradication programs.

First, I should like to discuss malaria. Toward the end of 1965, approximately 60 million inhabitants in the Americas who were exposed to the risk of malaria lived in areas that were in the maintenance phase; some 40 million persons lived in areas that were in the consolidation phase, and therefore faced a vastly reduced risk of infection; the remaining 50 million persons who live in malarious areas were expecting similar benefits from the program, which was then either in the attack or the preparatory phase.

With regard to mortality, a study conducted in 13 countries between 1950 and 1952 reveals that the average annual deaths from malaria numbered 43,368; moreover, it is well known that the figure for recorded deaths from malaria is customarily much lower than the actual mortality. Ten years later, that is, by 1962–1963, the average was reduced to 10,833, and by 1964 only 2,285 deaths from malaria were recorded. These two factors—the number of inhabitants who are free from the risk or at least face a considerably reduced risk, and the continuing decrease in the number of deaths—indicate the progress made in the program and, at the same time, our obligation to carry the work to a successful completion.

Considering the Hemisphere as a whole, in 1965 the average decrease in the number of cases was found to be only 5 per cent, but the reduction was much higher in the Caribbean area than in Central and South America. In general, the problems continue to be the well-known difficulties inherent in the topography of the malarious area. A notable example of a social problem is that encountered in the Amazon Basin. The populations in the interior of Surinam present problems of a biological and technical nature: resistance of the vectors and the plasmodia, excito-repellency of the vectors, outdoor transmission; and, finally, there are the administrative and financial problems. With regard to financing, expenditures for malaria eradication in the Hemisphere in the period 1956–1965 totalled $338 million, of which 73.3 per cent came from the Governments and the rest from UNICEF, WHO, PAHO, and the bilateral programs, especially the Agency for International Development of the United States of America. The per-capita cost was 29.5 cents, in my opinion a small amount as compared with the benefits obtained.

The Governing Bodies of the Organization agreed that efforts should be made to improve coordination between the general health services and those of malaria eradication. To that end, two seminars were held during the past four years: at Poços de Caldas, Brazil (26 June–4 July 1964), and at Cuernavaca, Mexico (4–13 March 1965).[11] The Organization has appointed two consultants who will spend fulltime on that task, in view of the conviction that a better utilization of resources, especially in the rural areas, will accelerate progress in the general program.

With regard to smallpox, reported cases in the Americas have fallen in the last 40 years from about 125,000 in 1921, when data were available from six countries (evidence of poor reporting), to 3,218 reported by eight countries in 1964. Provisional data for 1965 show that there were 1,547 cases in five countries. Although this subject will be discussed in detail under another agenda item, I might point out now that, given the epidemiological characteristics of the disease, the quality and quantity of the vaccine produced in the Hemisphere, the adequate knowledge and experience available for the organization and administration of the program, smallpox can and must be eradicated from the Hemisphere in a relatively short period, if national and international funding is provided in time.

As for the eradication of *Aedes aegypti*, the urban vector of yellow fever, Mexico and Argentina were officially declared free of the vector during the four-year period; thus, they joined the 13 other countries and two territories that had achieved eradication since 1947. The problem was complicated by a serious epidemic of dengue in the Caribbean area and in Venezuela.

The vector reappeared in San Salvador, and it has become resistant to chlorinated insecticides in several Caribbean countries and territories. The

[11] See *Scientific Publication PAHO* **118.**

United States of America initiated an eradication program, in view of the appearance of *A. aegypti* in the southeastern part of the country, in an area that covers part of all of the territory of nine states, in addition to Puerto Rico and the Virgin Islands. During the period under review, 370 cases of jungle yellow fever were reported by five South American countries; no case of urban yellow fever has been recorded since 1954. The Oswaldo Cruz Institute laboratories in Rio de Janeiro, Brazil, and the National Institute of Health of Colombia produced an abundant supply of 17D vaccine, which was soon distributed. The fact that some of the phosphorus insecticides are proving effective against resistant strains of *A. aegypti* has suggested the desirability of holding a conference on *A. aegypti* eradication next year, to review the status of the program and to take steps to hasten its successful conclusion.

The Organization has assisted the Governments in a series of programs relating to this group of diseases, especially malaria; the projects include direct advisory services and research.

Among the quarantinable diseases, the increase in the incidence of plague in the past four years is regrettable. In 1965, 848 cases were reported in the western part of the United States of America and in Bolivia, Brazil, Ecuador, Peru, and Venezuela. The Governments were advised on measures to limit the spread of the urban outbreak; however, there is a serious ecological problem related to sylvatic plague in that man seems to have adapted his living conditions in such a way as to facilitate the circulation of the rodents that are the carriers of *Pasteurella*. Under these circumstances, it will be extremely difficult to establish effective plague control in rural areas.

Substantial progress has been made in the programs for the control of tuberculosis and leprosy. Mortality from tuberculosis is from 7 to 10 times higher in Latin America than in the United States and Canada, despite the fact that the rates have been greatly reduced during the last 20 years, thanks to 11 programs carried on in "verification" areas, in which the Organization is cooperating and modern concepts and techniques are being applied. As for leprosy, there has been a sizable increase in the number of identified cases of leprosy, but only 60 per cent of these patients are being treated. It is estimated that there are at least 400,000 cases of leprosy in the Hemisphere, most of them unreported. Inasmuch as at least 45 per cent of leprosy patients suffer from some type of physical incapacity, the Organization assisted the Governments in rehabilitation work, a subject that was covered in a special course held in Venezuela last year.

The Pan American Zoonoses Center received $1.5 million from the United Nations Development Program for the purpose of expanding its work in brucellosis, rabies, bovine tuberculosis, and hydatidosis. The program has been approved, and the detailed operating plan is expected in the next months. Special mention should be made of the generosity of the Government of Argentina, which donated the building, the laboratories, and an experimental farm, and is contributing $80,000 annually toward the maintenance of the Center.

The Pan American Sanitary Bureau continued to administer the Pan American Foot-and-Mouth Disease Center, with funds provided by the Program of Technical Cooperation of the Organization of American States. The foot-and-mouth disease problem is widely known because of the enormous economic losses it causes each year; in South America, those losses have been estimated at $400 million. The Center has succeeded in developing a live virus vaccine, which has a much longer period of immunity than does the killed virus vaccine. The problem is also extremely important to Central America because of the tremendous increase (10-fold by volume in recent years) in meat exports from the area, owing partly to the very fact that this zone is free from foot-and-mouth disease.

As the Secretary General of the OAS has noted, the financial situation of the Center should be stabilized, since its activities will take on a great deal of importance, as the result of decisions of the Inter-American Economic and Social Council, the Inter-American Committee on the Alliance for Progress, and the Pan American Health Organization. The Inter-American Development Bank and the World Bank have approved loans for systematic immunization programs to control foot-and-mouth disease. Naturally, the Center will become the focal point for the identification of virus types and subtypes, the improvement of vaccines, the training of technicians, and advisory services for epidemiological programs. It is expected that PAHO, in conjunction with the Organization of American States, will soon submit to the Governments for consideration a proposal on the financing of the Center.

The Director-General of the World Health

Organization, in his address at the inaugural session, expressed the opinion that never before in this century, and perhaps in the entire history of public health in the Americas, had there been a program in which such far-reaching results had been obtained in the short period of four or five years than the program to provide potable water to the peoples of the Hemisphere. He pointed out that the funds made available between 1961 and 1965 will benefit 44 million persons, most of whom are living in urban areas. That leaves some 90 million persons to be supplied from 1966 on.

The total investment in this program through 1965 amounted to $829 million; the contribution of the Governments and individuals amounted to approximately 57 per cent of that sum, with the remaining 43 per cent coming from international lending agencies. The lion's share of these latter funds have been provided by the Inter-American Development Bank. In rural areas, 7 million persons have benefited during the four-year period; the rural population provided with potable water numbers 23.5 million. To supply the rest of the rural inhabitants, up to the minimum of 50 per cent of the population as stipulated by the Alliance for Progress, would require an annual investment of $75 million. What to me seems to be the most significant development of the period is that the myth concerning the helplessness of Latin America's rural population has been laid to rest; quite the contrary, we have come to realize that those people, when properly motivated, respond to any program that is in their best interest.

There are any number of good examples in many countries of the Hemisphere to support that statement. The rural inhabitants have responded admirably with their labor, with local materials, and with funds. In a series of programs in various countries, the contribution of those people has been estimated to range from 20 to 30 per cent of the total amount. We can appreciate the extent of their efforts if we realize that during the period under review approximately $130 million were invested in water supply for rural areas, $30 million of which came from lending agencies and $100 million jointly from the Governments and the people, and that of these $100 million, 30 per cent represents the people's contribution.

Accordingly, the Quadrennial Report again contains the proposal that the rural question be dealt with on a global basis, with that boldness of approach that the Latin American rural inhabitants themselves inspire. Those people are awaiting this kind of motivation, a "catalytic" capital injection, to which they will make an adequate response. This subject warrants sustained attention as satisfactory means of financing are sought. That is why, in 1963, we proposed a mechanism that, for want of a better name, we called the "Special Rural Welfare Fund." There is no doubt that water supply can be the source of continuing progress in rural life, but it would also be well for the Conference to give further consideration to the idea of approaching the rural problem as an integrated whole.

Only 53 per cent of the urban population in Latin America lives in dwellings served by community sewage disposal systems. Only one country has achieved the goal set in the Charter of Punta del Este by providing such services for 70 per cent of the population, and five countries have exceeded the average of 53 per cent; over all, the range is from 0 to 70 per cent. During the four-year period under review, the Organization cooperated with the Governments and with the Inter-American Development Bank; loans amounting to $70 million were granted to 12 countries for the construction of sewerage systems and the treatment of sewage, with an approximately equal amount of local funds being provided.

The work accomplished with regard to air pollution is noted in the Reports. Thanks to the efforts of the Government of Chile and the Institute of Occupational Health and Air Pollution Research, air pollution in Santiago, Chile, has been reduced significantly, to about one fifth of the original level. Similar work is being conducted in São Paulo, Brazil.

With regard to the problem of nutrition, the Charter of Punta del Este calls for substantial improvements in the feeding and nutrition of the most vulnerable sectors of the community. The most tragic effect of undernutrition is mortality. During the past five years we have gained a somewhat clearer understanding of this inherently complex problem, i.e., the fact that the Governments have not established national nutrition and food policies. There is no policy that takes into account the biological needs of the population insofar as food is concerned, that brings into balance needed imports and essential exports so that the country can strengthen its currency and thus benefit its economy, that determines the quantity and quality of

agricultural production required by the country, and furnishes the state and private enterprise with guidelines.

None of the Governments has clearly enunciated such a policy. I should like to be proved wrong on this point, because we believe that the lack of policy often leads to the absence of governmental concern over family feeding at the community level. Neither the ministries of agriculture nor the ministries of health consider this an immediate obligation, burdened as they are by pressing matters. Clearly, the health workers must take the lead by encouraging the appropriate governmental agencies to formulate such a policy, and by setting down the various functions those agencies should assume at the local, regional, and national levels.

Having learned in discussions with health experts that the problem of family feeding is not considered a normal part of their activities, PAHO is led to offer the Governments its assistance in this area. Possibly the failure of medical and public health schools to identify the problem clearly and to give special attention to the teaching of nutrition also has some bearing on the question. Thanks to the cooperation of the Agency for International Development of the United States of America, this was the subject of discussion at a recent meeting attended by high-ranking officials of several ministries of health. Meanwhile, concrete progress has been made in one direction: the shortage of animal proteins in Latin America has stimulated production of mixtures of vegetable proteins. Perhaps the most successful of these formulas is INCAPARINA, developed by the Institute of Nutrition of Central America and Panama, which placed a million pounds of the product on the market in the last quarter of 1965, principally in Guatemala and Colombia. Other Central American countries have expressed an interest in setting up organizations for the same purpose. What is even more interesting, production of other vegetable-protein products, with a nutritional value equal to that of milk, has been encouraged, as evidenced by the trials conducted in Peru, Argentina, and Brazil.

We believe that this is the normal procedure that should be followed while the above-mentioned agricultural policy leads to the production of sufficient animal proteins that are essential. Although the total food consumption in Latin America has increased in recent years (despite the fact that the per-capita production has not risen), animal proteins, according to information from 13 countries, make up no more than 30 per cent of the total amount of protein consumed.

The Milbank Memorial Fund has developed a simple process for the iodization of salt, and this has been successful in preventing endemic goiter in a number of countries, especially Guatemala and Colombia; moreover, it has established a veritable school of 270 professionals from all the American countries, and from 14 countries in other Regions as well, in which important research is being conducted on the production, consumption, and utilization of foodstuffs. The Organization continues to cooperate in the applied nutrition programs. A survey recently conducted in eight countries and one territory shows that the 141 sectors, which cover a population of approximately 500,000 and in which the programs were initiated, have now been increased to 333 sectors, serving a total of 1.5 million persons. This is the first attempt at this kind of evaluation, and it is hoped that coverage will be extended to all the countries and that it will provide the impetus for similar programs encompassing even larger numbers of persons.

With regard to the procedures employed, they are based on the decisions of the meeting of the Task Force on Health in 1963, dealing with various aspects of education and training, as well as research, aimed at the gradual solution of health problems on a planned basis. All of this is reported in full in the Reports under consideration. As for the administrative organization of the services, the basic concepts governing these services continue in effect: integration of the preventive and the curative activities; integration of the services themselves, whatever the institution sponsoring them; regionalization; and continuing education.

I should like to emphasize the problem of medical care. During the four-year period a policy of continental scope has been formulated. The Expert Committee and the Study Group that advised the Bureau on this matter, and the Technical Discussions held during the XVI Pan American Sanitary Conference have contributed to this development.

It is true that the magnitude of the problem is now more fully known, but Latin America, as compared with North America, continues to suffer from a deficit of hospital beds. According to data supplied by the Governments, there were 3.2 beds per 1,000 persons in Latin America in 1964, compared with 9 beds per 1,000 persons in North America.

The figures for general hospitals, that is, those for acutely ill patients, are 2.3 beds per 1,000 inhabitants in Latin America, compared with 4.5 per 1,000 in North America.

There is no question that new construction is needed; however a prerequisite is getting greater returns from existing facilities by improving the quality of outpatient and home care. At the same time, better coordination with the national public and private institutions that offer medical care must be achieved. The interest of the Governments is indicated by the fact that they have selected precisely this topic for the Technical Discussions to be held during this Conference. Meanwhile, the Organization has succeeded in establishing standards for joint action with the Inter-American Development Bank, which has decided to initiate, albeit somewhat cautiously, a policy of loans for the construction of rural health establishments and urban hospitals.

With regard to education and training, the available data on the situation justify the effort that has been expended. As the Director-General of WHO noted in his address, there are today in Latin America from 5 to 6 doctors per 10,000 inhabitants. Yet, for the same number of persons there are only from 2.6 to 2.9 graduate nurses. If auxiliaries are included, the nursing staff rises to 9.8, or between 9.5 and 10.5 per doctor. In other words, there is one graduate nurse for every two doctors, or one doctor for every two members of the nursing staff, both professional and auxiliary. Moreover, only some 30 per cent of the auxiliary nursing staff has had any systematic training.

To the foregoing should be added the lack of minimum medical care in almost 50 per cent of the territory of each country, especially in rural areas. Despite their deficiencies, all the figures given justify a substantial expansion in the programs of education and training. The importance accorded rural areas explains the stress placed on the training of auxiliary personnel. Dr. Candau referred to such training when he mentioned that approximately 22,500 auxiliary workers were trained in recent years in courses of from 6 to 18 months' duration. This represents 22 per cent of the total staff without such training, and justifies continuing the program with even greater intensity.

During the four-year period, special emphasis was given to medical education. With reference both to the organization of instruction and to the learning process, the Organization started a new program in medical pedagogy. Workshops, with the participation of professors from a large group of medical schools, have been organized. This experience has been reported in an extremely interesting book written by the PASB consultant, Professor Edward M. Bridge, entitled *Pedagogía médica*,[12] which has been well received.

Thanks to the cooperation of the Colombian Government, the contribution of the Milbank Memorial Fund, and the concerted efforts of Colombian experts and professors of the Association of Medical Schools, and with the participation of PAHO, a health manpower study was conducted in Colombia. It resulted in a method for assessing manpower needs in the fields of health by identifying current problems and projecting future trends. That method, which will have an impact on the structure of health and medical education in Colombia, will be published and made available to all the Governments that wish to carry out a similar project, which we believe to be essential to health planning.

At the same time, PAHO consultants provided advisory services to 36 medical schools in 19 countries; in all, 103 departments of basic sciences, preventive and social medicine, and clinical sciences were involved. Advanced training centers for graduate students in social pediatrics, microbiology, and population dynamics were organized. Recognition was extended to the Pan American Federation of Associations of Medical Schools with which close ties are being maintained. Finally, with regard to a proposal to be considered by this Conference, study was given to a plan for a textbook program, under which books would be made available to all medical students in Latin America, through a procedure that the Organization believes to be entirely feasible. The project would be of incalculable value in improving the quality of medical education in the Hemisphere.

The Report describes similar progress in dentistry, veterinary medicine, public health, and nursing. As an example of continuing education, I should like to mention the short courses and seminars in sanitary engineering. Begun in 1963, the courses numbered 40 by 1965, with the participation of 24 universities. The course subjects, selected by sanitary engineers in consultation with profes-

[12] *Scientific Publication PAHO* **122.**

sors in the engineering schools, deal with current and pressing problems, and involve the application of modern techniques and materials. These courses have resulted in effective communication between experts in the same discipline, by means of a simple process that represents a relatively modest investment on the part of the Organization. The Quadrennial Report lists the participating universities and the subjects, each of which has led to the issuance of a document that is available to other universities.

Four universities in Venezuela received financial assistance from the United Nations Development Program to improve the teaching of sanitary engineering and research, as did the Institute of Sanitary Engineering in the Superintendency of Urbanization and Sanitation (SURSAN), in Brazil. The contribution of the United Nations Development Program, made through the World Health Organization, supplements the governmental funds and is a substantial one.

During the four-year period, 2,569 fellowships were granted, 830 of them during 1965—an increase of approximately 22 per cent over the preceding four years. To this total should be added the 601 grants made to fellows from other Regions for study in the American Hemisphere during the same period. Their distribution by country and type of fellowship is shown in detail in the Report. It is obvious that the improvement in the quality of teaching resources in the countries of the Hemisphere explains the changes in the distribution of the fellowships. Those for the study of communicable diseases have, in fact, decreased as the experience of the teaching personnel and of the experts in each country has grown; on the other hand, fellowships in sanitation, medical education and related sciences, engineering, and other subjects have increased substantially. On the whole, it may be said that fellowships are among the most valuable tools for all health work, for the cultural enrichment of the fellows, and for communication among the professionals in the Hemisphere.

With regard to research, the Conference will be furnished a list of 90 research project-programs conducted during the quadrennium, whether completed or still in progress. These projects reflect a balance between basic and applied research, and they deal with problems that are prevalent in the Hemisphere. In this connection, we should like to express our appreciation to the National Institutes of Health of the United States Public Health Service; thanks to them, PAHO received two successive grants that made it possible to establish the Office of Research Coordination, also to finance a large number of research projects. We are also grateful to the Agency for International Development (USA) for its support of certain projects, and to the W. K. Kellogg Foundation, the Milbank Memorial Fund, the Williams-Waterman Fund, and other foundations, which helped make it possible to carry out important projects.

The *Boletín de la Oficina Sanitaria Panamericana* completed its 45th year, and its monthly pressrun reached 11,000 copies. In the four-year period, the Special Publications of PAHO totalled 182, of which more than half a million copies were printed.

At the same time, the administration of the Organization was improved through a systematic process of administrative rationalization. As a result of mechanization and modernization of procedures, 85 positions were suppressed, with an annual savings of $583,000, which have been invested in health programs. Electronic data-processing systems were introduced in some areas of administration, and a thorough study is being made of the possibilities of further utilization of this modern technique. The budget is prepared and presented as a truly program budget.

During the period under review, approximately 25 per cent of the staff was stationed at Headquarters and 75 per cent in the field. If the short-term consultants are taken into account, the field staff exceeds 80 per cent of the total. Those short-term consultants deserve our sincere gratitude, inasmuch as they are generally individuals of the highest intellectual stature and experience, who are willing to assist the Organization. In 1965, 446 such consultants were appointed.

I should like to conclude my remarks by reading the final sentences of the Introduction to the Quadrennial Report:

> Indeed, the quadrennium has seen the consolidation of a body of principles enunciated eight years ago, according to which health is a basic component of development. That it is not merely a matter of words but of deeds is revealed by the contributions of eternal capital for programs that are clearly of importance for the national economies. Those principles have also been strengthened as a result of the definition and implementation of planning, which makes it possible to incorporate the techniques of the prevention and cure of disease into development. They have been embodied in certain endeavors of continental and national importance in the planning and

realization of which the health sector is included. Above all, they have been strengthened in the decision of the Governments to accept as a standard a balanced development in which the increase in the national income is distributed between capital formation and social welfare, which includes health.

We owe our achievements in that area essentially to two factors: the understanding and generosity of the ministers of health and of their Governments in accepting the advisory services provided disinterestedly by PAHO experts; and the dedication of these officials in furthering the ideals of the Organization of which they are a part.

PRESIDENT: * Thank you, Dr. Horwitz, for your Report, which I place before the Conference for consideration.

Dr. MORENO VALLE (Mexico): * We have listened with much interest to the summary of the Report—set forth in four documents—which reveals the substantial progress that has been made in the public health programs.

I believe that all of us who heard Dr. Horwitz' remarks are convinced that the Bureau has worked extremely hard in coordinating the countries' programs and furnishing such advisory services as were required.

As the Director noted, it is the countries themselves that have carried out their own programs, with the Bureau offering its cooperation through consultation, administration, and promotion, in connection with both the programs and the necessary financing. I therefore wish to convey my warmest and most sincere congratulations, on behalf of the Delegation of Mexico, to Dr. Horwitz and to the entire staff of the Pan American Sanitary Bureau for the work performed during the quadrennium.

Dr. POITEVIN (Guatemala): * My deep-felt congratulations on the brilliant Report presented by Dr. Horwitz.

Guatemala supports the views expressed by the Delegation of Mexico, warmly commending Dr. Horwitz on his excellent presentation and on the record of accomplishments, which will without question redound to the benefit of the health of all the peoples of the Hemisphere.

Dr. ANDRADE (Ecuador): * It would seem that the applause following Dr. Horwitz' presentation was sufficiently expressive to convey the reaction of the delegations concerning the Report; I should therefore simply like to state that my Delegation joins in that acclaim.

Dr. DE BRITTO (Brazil): * It was a pleasure and an honor to hear the excellent Report presented by Dr. Horwitz. The Delegation of Brazil is deeply honored to congratulate him and the staff of the Pan American Sanitary Bureau on the Report, which reflects the Director's intelligence, ability, dynamism, and objectivity. The Report will satisfy even the most pessimistic, since it shows in essence what the future of this Hemisphere will be. Its depth and thoroughness merit the commendations expressed.

Dr. VALDIVIESO (Chile): * On behalf of the Government of Chile, I followed closely the Director's brilliant statement on the work accomplished during the past four years. Undoubtedly, credit for that effort must be shared: in the total picture, which records such remarkable progress, part of the success may be attributed to the Governments, but another very important part goes to the Organization and to those who have directed the programs during the quadrennium. Accordingly, I join in congratulating the Director.

As for those aspects of the program that did not show the rate of development expected of them, we must intensify our efforts in those areas during the next four years, whether the lack of progress in the past was due to a backward trend or simply to a failure to move forward.

In conclusion, I should like to add my congratulations to those already conveyed to the Director.

Dr. PERAZA (Honduras): * The Delegation of Honduras joins in the congratulations extended to Dr. Horwitz on the splendid accomplishments of the past four years. One of the points made in the Report which I believe to be extremely important is the assistance that the Inter-American Development Bank can provide for hospital construction.

Like most Latin American countries, Honduras lacks both modern hospitals and a budget large enough to undertake the construction of such institutions. Dr. Horwitz' announcement that the IDB is willing to grant loans for this purpose is therefore most gratifying; it now seems possible that Honduras will have modern hospitals in the future.

Dr. GONZÁLEZ TORRES (Paraguay): * It is with real pleasure that I join in congratulating the Director of PASB on his brilliant report.

Few skills are harder to come by than the ability to present so summarized a report, in which, despite the concise treatment, the various topics are dealt with in depth, yet without extraneous detail. Dr.

Horwitz has indeed presented an excellent Report, which points out that the American Governments are doing everything possible, each according to its resources, to fulfill their commitments to promote the health of their peoples; it also shows that at the level of the Pan American Sanitary Bureau individuals and organizations are prepared to coordinate the efforts of all the nations of the Hemisphere. Thus, the Report highlights the work of each of the countries, as well as the coordination carried out at the Bureau level.

In due course, each of us will no doubt refer specifically to the topics mentioned by Dr. Horwitz. For the moment I shall do no more than join enthusiastically in the congratulations extended to the Director on the splendid Report just presented.

Dr. MONDET (Argentina): * The Delegation of Argentina warmly adds its congratulations to those expressed by the other delegations. During these last, difficult 10 years in the history of public health in Argentina, the Pan American Sanitary Bureau has been a stabilizing agent, which, by its direct action and its wise counsel, has helped bring about a real "take-off," to use a phrase of the public health economists of my country. That, we believe, is the right approach, and one that international organizations would do well to follow.

This hopeful situation exists not only in Argentina but throughout Latin America. It is gratifying to see how an entire Hemisphere is moving toward truly ambitious health goals.

My renewed congratulations to Dr. Horwitz on his guiding role in the work of the Pan American Sanitary Bureau.

Dr. ORELLANA (Venezuela): * As our Delegation adds its congratulations to the well-earned praise extended to the Director of the Bureau for his Report on the work of the past four years, I should like to mention a few points bearing on the subject.

The first is that, as Dr. Horwitz has noted, this is a joint effort in which the Governments and the Organization have each done their very best. Neither the Governments alone nor the Organization alone could have accomplished the programs that have been reported today. We are thus obliged to carry on, with the same ideals and objectives, and to hope that this great movement, given such vigorous impetus during the past years, may continue for many more.

The second point is that, thanks to this important movement, the voice of health on behalf of the peoples of the Hemisphere is now heard at those high levels where it was not previously listened to, that is, at the top levels of Government and of the planning of economic and social development from which health experts used to be excluded. The fact that they are now admitted is due in large part to the role of champion assumed by the Pan American Health Organization in this field.

The remarks made by Dr. Horwitz show how the Organization has been represented whenever the various organs of the Inter-American System and similar agencies have discussed problems of economic development in Latin America. Today, health is always a part of such discussions, and this is perhaps the greatest achievement of the last two five-year periods. I conclude by congratulating the Pan American Health Organization and its Director on such accomplishments.

Dr. ORTEGA PEGUERO (Dominican Republic): * I should like to join in the praise accorded Dr. Horwitz' Report, which will give the Dominican people renewed optimism in their struggle for health.

Dr. CALVO (Panama): * I wish to add my voice to the expressions of praise extended by the other Governments to the Director of the Bureau. The Report we have just heard fills all of the countries with pride in being a part of the Pan American Health Organization, which in recent years has given a new dimension to the public health aspect of our national development. There can be no doubt that in these past years the Bureau has put forth an enormous effort, and has succeeded in becoming an essential catalytic agent in the development of the health programs of the American countries.

In view of the dramatic progress made by the Bureau in the last years, the Director-General of the World Health Organization should be proud that there is such a progressive Region, which can, in fact, become the model Region of WHO. Finally, to borrow a term used by the Delegate of Argentina, we believe that our intensive development work in the public health field during recent years will contribute in a tangible way to the development "take-off" in the Latin American countries.

Dr. PAREJA PIÑEYRO (Uruguay): * I should like to extend my warmest congratulations to Dr. Horwitz for two main reasons: for having given such a

brilliant summary and for having so clearly brought out the accomplishments of the Bureau in this four-year period. Dr. Horwitz and the entire staff of the Bureau deserve credit for having served as an unfailing source of encouragement to the Governments, thereby creating the climate within which the keenly sought goal of health promotion for all the peoples of the Americas can be achieved.

Dr. INTERIANO (El Salvador): * Our country, the smallest on the American Hemisphere, has made progress in the field of health, and there is no doubt that this progress is closely related to the assistance we have received from the Pan American Sanitary Bureau. I am therefore pleased to join in the tribute paid to Dr. Horwitz.

Dr. BONICHE VÁSQUEZ (Nicaragua): * I join in the vote of applause initiated by the Delegate of Mexico and reiterated by the delegations that have taken the floor before me, in the sense of congratulating the Pan American Sanitary Bureau and its Director on the work accomplished in behalf of public health in the Hemisphere. Dr. Horwitz' excellent summary of his Report is a clear indication of his well-known ability. Even though the Governments deserve a good share of the credit, it is equally true that PAHO has been in very competent hands, with regard both to the Director and to the officials under his authority. It should be noted that Dr. Horwitz has shown considerable skill in gradually developing a special interest on the part of the international agencies in providing ever increasing support for health programs in the American States.

Dr. STEWART (United States of America): The Delegation of the United States of America joins with the other delegations in congratulating the Director on his Report, as clear as it is concise. The progress that the countries have made is heartwarming; the future looks bright and I am certain that the countries will be able to continue to show progress with the assistance of this Organization.

Dr. AGUILAR PERALTA (Costa Rica): * The Delegation of Costa Rica also wishes to commend the Pan American Sanitary Bureau and its Director and to express its appreciation for the sound and meaningful summary of the health situation in the Americas during the four-year period just concluded. The Report shows how these countries, working together—not only through the dedicated efforts of Governments and experts, but also through the determined action of the peoples themselves, encouraged by realistic programs—can advance both in public health and in other fields in which major breakthroughs could place us in the forefront of the zones that are attempting to raise the level of health as part of their general development.

I promise that my country will pay special attention to those aspects of the program in which the desired level of progress has not yet been obtained.

Dr. BECERRA DE LA FLOR (Peru): * So that the expressions of congratulations and praise extended to the Director of the Pan American Sanitary Bureau will be unanimous, I wish, on behalf of Peru, to convey the warmest congratulations and, at the same time, that Government's appreciation for the help it has received from the Bureau and for Dr. Horwitz' mention of the progress made in public health in my country. Latin America is passing through a truly significant period of its history. As part of the process of economic and social development, the people are awakening with an enormous burst of energy and with keenly felt expectations—and in this process health has been receiving almost preferential attention, since it is considered a basic and vital factor in economic and social development.

I therefore again extend my congratulations to the Director of PASB on the excellent summary he has presented, and reiterate our appreciation for the work that the Bureau has been performing in the field of public health in Latin America.

Dr. HYRONIMUS (France): * I wish to add my congratulations to those already offered to the Director and his colleagues for the excellent Report.

We would do well to bear in mind Dr. Horwitz' comments on the nutrition program and on water supply and air pollution—all of these problems that are becoming more acute in the less developed countries.

Dr. VAN DER KUYP (Kingdom of the Netherlands): The Delegation of the Kingdom of the Netherlands wishes to congratulate the Director and the staff of the Pan American Sanitary Bureau on the excellent Reports, and to thank the Bureau for the assistance provided to Surinam and the Netherlands Antilles.

Dr. JORDAN (Trinidad and Tobago): The Government of Trinidad and Tobago would like to be closely associated to the well deserved chorus of praise accorded the accomplishments of the Pan

American Sanitary Bureau, its Director, and the Governments concerned, and to offer the continuing cooperation of his country in attaining the desired goals in the health field for all of the countries of the Hemisphere.

Dr. ACOSTA-BORRERO (Colombia): * The Delegation of Colombia joins in the congratulations that have been unanimously expressed to the Director of the Pan American Sanitary Bureau and his staff.

The Ministry of Public Health of Colombia is deeply grateful for the full attention PASB has given all of its requests and technical assistance needs, and I should like the record so to state.

Dr. FRAZER (United Kingdom): The Report we have heard was indeed an excellent statement of the progress made. I should like to take this opportunity to point out that, according to the figures given in the Report, the small British territories have made very good use of the fellowships awarded by the Organization.

PRESIDENT: * If there are no other comments, I declare the session adjourned.

The session rose at 6:15 p.m.

THIRD PLENARY SESSION

Tuesday, 27 September 1966, at 9:20 a.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences

PRESIDENT: * The session is called to order. Will the Secretary please determine whether there is a quorum.

Dr. SUTTER (Assistant Director, PASB): * There is a quorum.

PRESIDENT: * Does the Secretariat have anything to report?

Dr. SUTTER (Assistant Director, PASB): * Not at this time, Mr. President.

PRESIDENT: * With regard to the Report presented by Dr. Horwitz, I should like to announce that today the General Committee will study a proposal that will subsequently be submitted to you for consideration. According to the order of business, we shall now hear the reports of the Member States of the Organization. Inasmuch as there are written reports as well, the Chair requests that the delegations endeavor to make their summary presentations as complete, but at the same time as concise as possible so that we may adhere to the scheduled program of work. Mr. Secretary, pursuant to the order of registration, who is to present the first report?

Dr. SUTTER (Assistant Director, PASB): * The Delegation of the United States of America.

PRESIDENT: * The Chair recognizes the Delegation of the United States of America.

Report of the Delegation of the United States of America

Dr. STEWART (United States of America): I am honored and pleased to meet with my colleagues from all parts of the Hemisphere and to discuss briefly with them some of our changing challenges in public health in the United States of America.

The pace of progress in health and medicine, in my country as elsewhere around the world, is accelerating so rapidly that every year produces an abundance of important events, each one worthy of discussion. To catalog the happenings of the four years since the Pan American Sanitary Conference last assembled would exhaust my voice and your patience.

Therefore I should like to talk today, not about specific events, but rather about social trends in the United States and their impact on health profes-

sionals and health agencies. This is a subject of special interest at present because the Public Health Service, as the principal health agency of the Federal Government, is currently undergoing a major reorganization. Our purpose is to design an agency that will discharge effectively the many new responsibilities thrust upon us by social change.

In common with most of the nations you represent, the United States of America is changing profoundly before our eyes. Our population is growing rapidly. As it grows, it is changing in age-composition, with a greater proportion among the groups needing the most health care per capita—the very young and the elderly. We are in a period of rapid growth of urbanization; our country, which was once predominantly a nation of farmers, is now more than two-thirds urban and will reach three-fourths very soon. Our people are on the whole better educated; therefore, among other things, they are more aware of the benefits of modern medicine. They are, in general, better able to meet the costs of medical care, through higher personal incomes, through private insurance, and most recently for our older people through the social insurance program authorized by the Medicare legislation.

All these factors work together to produce a greater demand for health services than we have ever had before. These factors and one more—the most important of all. For the people of the United States have now come to expect that the best in health care will be available to all. This public expectation has acquired the status of a right. Meeting this popular demand for the best in medical care is posing a tremendous challenge to all the nation's health resources.

As most of you know, the Federal Government throughout most of our history has played a relatively minor part in the nation's health affairs. Until World War II the Public Health Service provided medical services to a limited number of beneficiaries and offered technical and some financial support to the states for programs falling within the narrow definition of public health that prevailed at that time.

In the two decades since the war, however, our Federal role has changed dramatically largely as a result of the rising public expectation for health care to which I have already referred. We have become the principal source of support for medical research. We have become a major partner in the planning and construction of hospitals and other health facilities, through the Hill-Burton program of grants-in-aid. Much more recently—since the enactment of the Health Professions Educational Assistance Act of 1963—we have been able to provide substantial help in strengthening the nation's supply of professional health manpower. Thus, within a very short span of time, the Public Health Service has been asked to undertake major responsibilities, for research and for the development of manpower and facilities to deliver the benefits of research knowledge to the people.

It is important to understand, however, that in all of these areas the Federal Government functions in partnership with the other elements of our national health resource. Let me illustrate some of the patterns of cooperation that have evolved in the fields of facilities and health manpower.

The Hill-Burton Act of 1946 authorizes the granting of Federal funds to help meet the cost of building new hospitals or expanding existing facilities. Any public or private non-profit agency may apply for such a grant. The application goes first to the state health department, where the project is assigned a priority in terms of a state plan. Our action at the Federal level to approve or disapprove the grant is taken in the light of the state's recommendation.

Note the sequence of events here. The initiative rests with the local community. The assignment of priority rests with the state. The Federal Government provides the stimulus of financial aid, plus technical consultation on the many complex problems that enter into hospital planning and construction.

This basic system has been highly successful. Over the years it has led to the construction or expansion of thousands of hospitals, nursing homes, health centers, and other needed facilities. But the total impact of the program has been much greater than the mere provision of bricks and steel.

As it has evolved over the years, the Hill-Burton program has provided a strong stimulus to research in the more efficient design and operation of hospitals. It has encouraged the widespread adoption of innovations produced by this research. Still more important, it has served to advance the essential concept of planning, to assure that money spent for hospitals provides the maximum benefit to the greatest number of people.

For many years health facilities and services in the United States have been unevenly distributed.

In some places costly equipment and highly skilled manpower stand idle because their services are duplicated nearby, while in other areas people die for the lack of such resources. It has become increasingly clear that we, as a nation, cannot afford these patterns if we are to fulfill our health mission.

Therefore, in many places across the nation, hospital planning councils have been created to study the resources of a city or region and plan the most efficient use of those resources for the benefit of the public. In some places—as, for example, in Rochester, New York—this kind of cooperation has brought about a redistribution of functions among the hospitals of the city. Some formerly general hospitals have given up their obstetrical departments to concentrate on chronic disease care, while others now specialize in obstetrics and serve the entire city in this capacity.

In the health manpower field, our national problems are somewhat different in nature. Here we are confronted by unmistakable shortages, if we measure the supply against our mission to serve all our people with the best in health care. We do not have enough physicians. We do not have enough nurses. We are very deficient in the allied professions and supporting disciplines whose services are necessary for high-quality care.

Clearly, we need to greatly increase our output of health workers. This we are trying very hard to do. Federal support for the construction of medical and other health professional schools, plus loan and scholarship funds for students who need financial help in completing their education, are among the methods being used. Over a period of years these forms of educational support will make an important contribution.

But we cannot afford to wait for the increased numbers of physicians, nurses, and others who will eventually join the health force. People need care now, and they expect to get it. Therefore, we are developing ways of using the manpower we have as efficiently as possible.

The physician, of course, is the foundation of health manpower. He is also the most costly to train, in both money and time. Making the fullest use of his skills is a major target for health planning.

One method to conserve the time of the physician is to train supporting workers to perform a number of tasks that they can do fully as well. This careful delegation of duties frees the physician to give his full time and energy to the responsibilities which he alone is qualified to undertake. Professional nurses are doing many things today that were once exclusively reserved for the physician. Paramedical personnel are growing rapidly in number, competence, and diversity of function in the United States today. I look for this trend to continue because it is bringing definite benefits to patients and physicians alike. Another promising trend, still in its early stages, is the use of automation in hospitals and clinics. This eases the burden of routine tasks for all health workers, and in many cases leads directly to better services for the patient.

These trends in the use of health facilities and manpower represent medicine in transition. They are necessary adjustments to the two great revolutions affecting our profession at the same time: the great explosion of scientific knowledge, and the rise of public expectation.

The experimental approaches are numerous and varied. They come from many sources—from a group of private physicians, a group of hospital administrators, a medical school, a governmental agency. But all of them have one basic factor in common. They all depend upon effective teamwork, upon partnership. Let me close by describing briefly for you two nationwide experiments in partnership that are now getting underway. Both were authorized by the Congress last year.

The first of these was generated by the President's Commission on Heart Disease, Cancer, and Stroke, appointed by President Johnson in 1964 to find ways of reducing the impact of these three diseases, which are the leading causes of death in the United States. The program is designed to bring together the best in medical research with the best in medical care.

Federal grants are available to help establish regional medical programs in various parts of the country. Each of these regional programs will be based upon a "center of excellence," one or more medical schools and teaching hospitals. Community hospitals, local public health agencies, and private physicians will be able to call upon the medical center for expert assistance in diagnosis and treatment. Patients can be referred to the center for advanced and costly treatment, such as open heart surgery, for example. The programs will also furnish an excellent setting for continuing professional education, and will thus help each physician to keep pace with his rapidly changing profession.

The ultimate purpose is to establish a system whereby each patient, through his physician, can

receive the very best that medical science has to offer. We have high hopes for this program, now in its advanced planning stage. We believe that it can significantly reduce mortality and lead to a general upgrading of the quality of medical care.

The second great innovation in our medical system is the much-discussed Medicare program authorized by the Social Security Amendments of 1965. As you know, this program makes use of our well-established social security system to pay many of the costs of medical care for our citizens aged 65 and above. The Medicare program has been in effect since 1 July of this year for hospital benefits, and will expand to include extended care in nursing homes on 1 January 1967.

Medicare requires the closest kind of collaboration between two Federal agencies, the Public Health Service and the Social Security Administration. This collaboration, in turn, must extend to the state agencies concerned, and to the community level, where private physicians and health administrators must do their part. Thus far, I am very pleased to report, the program is working very well indeed.

Thus, to sum up, health and medicine in the United States of America are in a period of swift transition. Two basic forces are motivating this change: the growth of scientific medicine, and the public insistence on excellent health care. All the successful responses to this challenge are based on new patterns of cooperation.

Within the health world, we are finding that private physicians can perform more efficiently when they use their skills in concert with those of a growing corps of fellow professionals and technicians. We are finding that private practice and public health can work well together when the artificial barriers separating them are removed. We are finding that Federal assistance and support stimulates, rather than stifles, local initiative.

Moreover, we are finding that health agencies can strengthen themselves and do a better job if they work well with other agencies whose interests are different but closely related. We can, and we must, develop teamwork with welfare and social security agencies, with groups concerned with housing, with employment, with city and regional planning, and many more. In our modern world, health is interwoven with every other interest of society. It cannot be dealt with as an isolated, insulated entity.

Perhaps most important of all, we are finding that partnership does not involve loss of stature or status. There is more than enough work for all. If we meet the health challenge of our time, there will be more than enough glory for all.

This accent on cooperation is nothing new to you who are participants in a hemispheric partnership for health. The long and proud history of the Pan American Health Organization has been built upon mutual confidence and shared effort. I look forward with you to a productive and exciting future.

PRESIDENT: * The Chair recognizes Dr. Aguilar Peralta, of Costa Rica.

Report of the Delegation of Costa Rica

Dr. AGUILAR PERALTA (Costa Rica): * A review of the health situation in Costa Rica during the last four years reveals that the rate of infection for malaria ranged from 0.86 to 1.96. There was a false alarm concerning smallpox in 1964, when it was reported that a sailor might have had the disease; as a result, a massive vaccination campaign was carried out, thereby increasing the immunity level of the population.

Morbidity and mortality rates for tuberculosis have fallen to 38.0 and 11.4 per 100,000 population, respectively. The incidence of leprosy per 100,000 population, while remaining generally steady, has shown some fluctuation, with figures ranging from 1.9 to 2.6. Venereal diseases have followed the general trend of rising incidence. The number of deaths due to typhoid fever during the four-year period is less than one per 100,000 population. The death rate for measles dropped from 228.5 per 100,000 population in 1962 to 135.8 in 1965.

With regard to environmental sanitation, the program for the control of intestinal parasites was launched in May 1965. In one year's work in that area, 70 per cent of the school-age population was treated, and 11,957 latrines, or 25 per cent of the total number needed in the country, were constructed.

Sixty-eight per cent of the homes are served through piped water systems, and 21 per cent through other means; 11 per cent of the dwellings are still without water. Since 1963, the National Water Supply and Sewerage Service extended the coverage by providing water to 87,228 persons, of whom 36,228 live in rural areas. As for sewage disposal, 30 per cent of the homes now have satis-

factory service; 45 per cent have inadequate services and 25 per cent are without such service.

There was a significant increase in the number of nutrition centers during the four-year period; 98 were placed in operation in 1965 alone. In the area of health restoration, it should be noted that the population increased at an annual rate of 4 per cent during the quadrennium. This is the result of a decline in general mortality, which fell to 8.5 per 1,000 population, coupled with a high birth rate, which reached 44.5 in the same period. The infant death rate increased from 65.8 in 1962 to 71.0 in 1965.

According to mortality data in Costa Rica for the period under review, 63.2 per cent of all deaths were attended by a physician; there was medical certification but no previous medical attention in 8.5 per cent of the cases; and there was neither medical attention nor certification in 28.3 per cent. The 10 principal causes of death, in order of their importance during the period, are: gastroenteritis, diseases of the circulatory system and neoplasms, bronchopneumonia, immaturity and diseases of early infancy, diseases of the nervous system, accidents, malnutrition, bronchitis, and congenital defects.

Mobile units operated by the Rural Health Program, which carried out 58,247 consultations in 1963, the initial year of operation, provided coverage to 300,000 persons, with 95,882 consultations, in 1965. On the other hand, the stationary health units, which served 424,231 persons in 1962, attended to only 413,336 in 1965.

Medical care in Costa Rica warrants consideration. The number of hospital beds increased from 6,038 in 1962 to 6,226 in 1965. All hospital establishments showed a decrease in the average length of stay, with an increase in the total number of patients discharged. In the last year of the period, total hospital discharges increased by 8.5 per cent. In 1965 there were 39,427 hospital deliveries, which accounted for 62.6 per cent of total births in that same year. There were 6,326 hospital beds in service, a ratio of 2.92 beds for acutely ill patients and 1.41 beds for chronically ill patients, both per 1,000 population, or an over-all ratio of 4.3 beds per 1,000 population.

Under the heading of organization and administration, it should be noted that planning offices were established in the Costa Rican Social Security Fund, in the National Water Supply and Sewerage Institute, and in the Ministry of Public Health. Steps have already been taken toward the general objective of coordinating the health services, and, as result, in the metropolitan area an agreement is in effect between the Social Security Fund and the Ministry of Public Health, under which it will be possible to provide health promotion and prevention services to some 70,000 insured children.

In the past four years, the *per capita* investment of funds for the entire public sector of the health field amounted to 59.0, 65.2, 69.6, and 82.0 colons (at the exchange rate of 6.65 colons to the United States dollar). For the year 1964, promotion and prevention activities absorbed 10.7 per cent of all the funds allocated to health under the national budget; medical care accounted for the remaining 89.3 per cent.

With regard to education and training, the number of doctors increased during the four-year period to a ratio of 1 for each 2,000 population. In 1965 there were 1.4 dentists for each 10,000 population. Graduate nurses totalled 734 for the entire country that year, or, in other words, a ratio of 5.6 graduate nurses for each 10,000 population, while the ratio for nursing auxiliaries increased to 14 per 10,000 population during the quadrennium. Basic public health training was given to 55 doctors in a short course offered at the local level, and 1,479 other persons received similar training in other health fields.

In 1962 the Sectoral Office for Health Planning was established directly under the Office of the Minister of Health. In that same year, with the cooperation of AID and with technical advice from PAHO/WHO, a program of mobile medical care for rural populations was instituted. In 1964 a diagnosis of the health sector was made by the Sectoral Planning Office. Moreover, legislation regulating governmental activities in the health field was revised that year. Late in 1964 preliminary studies were begun on the regionalization of integrated health services, for which purpose a pilot area was selected in the north of the country.

The Ministry continued to strengthen its organization and methods systems in 1965. Coordinating its efforts with those of the Costa Rican Social Security Fund, in a systematic manner and on the basis of agreements, and achieving coordination with the municipalities in the field of health, likewise mark the progress achieved that year.

During 1965 the organization of the School of Nutrition was completed, and the institution began

operations early in 1966, in close cooperation with the Institute of Nutrition of Central America and Panama (INCAP). Another significant event of that year is the establishment of the Department of Training and Fellowships. Finally, preparatory work and technical studies were carried out in connection with drawing up the Three-Year Malaria Eradication Plan, thereby laying the groundwork for the agreement recently concluded between AID and the Government of Costa Rica, through the Ministry of Health.

An over-all view of the events of the past four years leads to an assessment of the situation; and from the trends that emerge we can discern a policy with regard to future plans and programs in the health field. There is an awareness of the need to improve and expand health services; to carry out plans coordinated with the economic and social development programs; to make improvements that will facilitate a more efficient management of the resources; to expand medical care so as to cover a larger segment of the population; to make maximum efforts to coordinate the health promotion, protection, and restoration activities at the local level; to decentralize technical and administrative services at the regional level; and to train personnel in the health field.

During 1965 the Costa Rican Social Security Fund expanded its coverage to reach 27.2 per cent of the total population. In order to further broaden its coverage, the Fund, through plans coordinated with those of the Ministry of Health, expects to make 1,258 additional hospital beds available in the regional services and to place 16 dispensaries and 3 peripheral clinics in operation in 1968. At the same time, the Ministry of Health, which is continuing to develop its plans to penetrate the rural areas, proposes to construct 16 rural health stations, 5 of which will be allocated to Region I.

Provision of training opportunities for candidates selected with a view to the needs and priorities of the health program will be given major emphasis. The search for a solution to the nutrition problems of pre-school and school-age children and of pregnant women will continue to receive special attention. To the extent that our resources permit, we intend to promote salt iodization and water fluoridation programs, in response to two basic needs of the sector.

With regard to other health plans contemplated for the next four years, there is great interest in malaria eradication; in this connection, the recent loan agreement concluded between the Costa Rican Government and AID is certain to make a significant contribution. There is a move to incorporate the malaria eradication programs into the local health services. Similarly, in cooperation with AID, special attention will be given to activities in two other areas: research on population dynamics, and the production of antivenin sera to give protection against poisonous snakes, which constitute a problem in Central America. During the next four years, the tuberculosis program will be reorganized, with a view to extending its benefits to the entire population; to that end, the activities of the program will be integrated with those of the general health services.

The program for the control of intestinal parasites will be given impetus through legislation that will allocate municipal funds for such activities. The immunization programs will be carefully assessed, in order to ensure the most effective use of this public health tool, which is low in cost and high in its impact on mortality and morbidity rates. At the present time, plans are under way to create a new legal instrument in the health field so as to modernize legislation of that kind. Consideration is also being given to incorporating the School of Nursing into the University, as a means of ensuring more direct participation of that educational institution in the health programs. A new policy will govern university fellowships in microbiology, requiring the recipients to return to work in their home towns. The Chair of Preventive Medicine, closely linked with the Ministry of Health through its teaching staff, is carrying on a broad educational program closely linked to national problems in the health field.

This course of action stems from the need to establish a health policy in harmony with the resources and priorities enumerated in the diagnosis of the health sector.

In conclusion, we should like to state that, even more important than the other problems affecting the nation's health, the formulation of a National Health Plan is becoming increasingly urgent. We shall devote our maximum effort to this task.

PRESIDENT: * The Chair recognizes Dr. Poitevin, of Guatemala.

Report of the Delegation of Guatemala

Dr. POITEVIN (Guatemala): * The summary report on the principal health problems and the progress achieved since the last Pan American Sanitary Conference provides us with an opportunity to give the distinguished delegates assembled here a picture of the current health situation in Guatemala, the efforts being made to solve the existing problems, and some of the results being obtained in the field of public health.

The significant data revealed by our health statistics are those relating to the principal causes of death. The first in order of importance is gastroenteritis, colitis, and duodenitis; next are the diseases of early infancy; influenza; pneumonia and bronchopneumonia; whooping cough; measles; dysenteries; and tuberculosis. As can be seen, most of these diseases are infectious in origin, and they will undoubtedly decline in importance as the environmental sanitation and communicable disease control programs are expanded.

Let us review some of the specific problems of greatest significance. The first of these is malaria.

Malaria is one of the most serious problems with which Guatemala is confronted. At the same time, malaria eradication is one of the Health Ministry's most important programs, because of the social and economic impact of the disease, the high cost of implementing the program, and the international commitments involved. We shall give a full report on the malaria problem when the pertinent agenda item is taken up.

With regard to tuberculosis, the number of registered cases increased from 3,495 in 1962 to 3,647 in 1963, 3,714 in 1964, and 6,191 in 1965. In the same period the number of deaths due to that disease was between 1,261 and 1,300 per year.

The antituberculosis campaign in Guatemala is based on the following:

(a) Greater protection of the population through broader and increased vaccination with BCG.

(b) Detection of pulmonary tuberculosis cases by means of the activities carried on under the Tuberculosis Control Program in Guatemala, as well as through the dispensaries and case-finding centers.

(c) Dual-drug treatment of all tuberculosis cases detected, in order to effect a cure and to eliminate foci of infection.

(d) Preventive treatment of the contacts of patients under treatment, by means of chemotherapy, i.e., the administration of isoniazid.

(e) Radiological and bacteriological control of patients under treatment.

(f) Supervision of treatment given bed and ambulatory patients in hospitals, sanatoria, and dispensaries.

At present there are 20 tuberculosis control centers for the detection, diagnosis, and institutional and outpatient treatment of pulmonary tuberculosis. The total number of beds available in sanatoria is 1,870, and the average number of patients discharged per year is 3,500.

Through antituberculosis work and the tuberculosis control program, 7,525 new cases of tuberculosis were detected in the first half of 1966 and in the four previous years, and 403,963 patients were vaccinated with BCG, 66,715 of them newborn infants. With present resources, detection of new cases in the country varies between 1,800 to 2,500 per year.

We now turn to the problem of intestinal parasites. This category of disease, which has remained unchanged in the past 20 years, constitutes the major cause of morbidity and the fifth cause of mortality in the country. The incidence is between 40 and 60 per cent in the capital and between 80 and 100 per cent in the rest of the national territory.

The 10-year plan for the National Parasitic Diseases Campaign was approved in June 1965. This campaign is being carried out through the administration of piperazine salts in massive doses and is aimed at the maximum eradication of ascariasis, the predominant form of parasitic infestation in the national territory. Conducted through the health centers and stations, it also includes programs of education in public health and sanitation, as resources permit.

Robles' disease, or onchocerciasis, is another cause for concern. This disease is prevalent in well-defined areas of the Department of Chimaltenango, Suchitepéquez, and Huehuetenango, and it is estimated that as many as 25,000 persons are affected. In some places 100 per cent of the adult population is infected. The ocular complications resulting from this disease range from mere reduction in visual perception to total blindness; in all cases, the working capacity of the persons affected is diminished. Owing to the lack of drugs that are effective and yet do not have harmful side effects, and also to the enormous difficulty in controlling the

vector, the only means of controlling the disease is by extirpation of the onchocercal nodules.

With regard to Chagas' disease, it must be borne in mind that *Schizotrypanum cruzi* and *Trypanosoma rangeli* have been found in the country at altitudes ranging from sea level to 5,500 feet. From 1962 to date, 3,784 dwellings have been inspected, resulting in the capture and examination of 26,455 vectors; in addition, 20,517 examinations for diagnosis of the disease in humans have been made. During this period, the examination area for trypanosomiasis in the country has been extended. However, without effective medication for treatment of the disease, an effective insecticide for the systematic elimination of the vector, and a broad program for improved rural housing, it is not yet possible to take effective action to reduce the prevalence of the disease.

Leishmaniasis is limited to certain areas in the Departments of Petén and Izabal in Guatemala. The cutaneous form, produced by *Leishmania braziliensis,* is the most frequent, but there have been at least five cases of visceral leishmaniasis (Kala-azar) produced by *Leishmania donovani,* in humans. From 1962 to date, 41 patients found to have cutaneous leishmaniasis have been successfully treated.

With regard to leprosy, the Public Health Division of Epidemiology, working in cooperation with the "Ramiro Gálvez" Hospital and the outpatient clinics of the Peripheral Services, has been making a study of the cases of leprosy throughout the country, with special attention to the contacts, to those localities where any degree of endemicity is suspected, and to certain population groups, such as those in schools and military barracks. By the end of 1965, there were 180 controlled cases. Of this number, 160 were receiving outpatient treatment with diaminodiphenylsulphone as the selected drug, and the other 20 cases were hospitalized in the "Ramiro Gálvez" Hospital.

During the period from 1962 to 1965, there were 11 cases of rabies in humans and 819 cases of animal rabies. The antirabies campaign is carried on continuously throughout the national territory, so as to keep the problem from attaining greater proportions. In the same period, 81,928 dogs were vaccinated against rabies, with a vaccine prepared locally by the Biological Institute. In addition, 156,046 stray dogs were destroyed; yet 18,229 cases of persons bitten by dogs and 363 cases of persons bitten by other animals, principally cats and rats, were reported. Laboratory examination of the brains of dogs revealed 777 rabies positive cases. These data show the magnitude of the problem and the efforts that are being made to keep it under control. Plans call for intensifying the campaign in the coming years.

In addition to those mentioned, the following communicable diseases constitute major public health problems: gastroenteritis, colitis, and diarrheal diseases, for which the number of reported cases rose to more than 35,000 in 1964, compared with 23,396 in 1962; the dysenteries, whose incidence remains at between 8,000 and 9,000 reported cases per year; whooping cough, with an average of 2,300 reported cases per year; poliomyelitis, with 567 cases reported during the four-year period; and, to a lesser extent, typhoid fever, tetanus, and diphtheria.

Cholera, plague, smallpox, exanthematic typhus, and yellow fever have been eradicated in the country for many years. Nevertheless, in view of the possibility that one of those diseases might be reintroduced, epidemiological surveillance is maintained, to the extent that our resources permit, with appropriate measures being taken in each case.

Massive immunization campaigns have been conducted with antismallpox vaccine, antipoliomyelitis vaccine of the Sabin type, and DPT. Investigation of *Aedes aegypti* foci has also been undertaken wherever the possibility of reinfestation was suspected.

Let us now turn to some of the problems related to environmental sanitation. The dispersion of our population in small communities tends to check the results obtained from efforts to improve environmental conditions. This affects the health of the population in various ways: from the difficulty of access to existing health facilities, or of taking medical care to those in need of it, to the problem of providing each community with potable water, sewage disposal systems, and other services. Nevertheless, between January 1962 and June 1966, the Ministry of Public Health and Social Welfare built 51 rural water supply systems, which will benefit 58,500 inhabitants, at a cost of 401,165 quetzals.

In the urban area, during that same period 82 water supply systems designed to serve 220,542 inhabitants were constructed at a total cost of 3,559,214 quetzals. For the rural population, 20,279 latrines were built.

The above-mentioned works were funded locally and through credit extended by the Inter-American Development Bank.

In addition, 33 sewerage systems were constructed, to serve 112,850 urban inhabitants, at a cost of 1,415,347 quetzals.

The nutritional problem is quite a serious one for the Guatemalan people. The most recent data on food consumption, obtained through a nutritional survey carried out jointly by INCAP and the Government, clearly show that the diet is deficient, especially in the consumption of animal protein, riboflavin, and vitamin A. These dietary deficiencies are a major contributing factor to the high mortality recorded for the early years of life; deaths in the population under five years of age account for half of the total deaths in the country. Moreover, the dietary deficiencies lead to a sharp decline in growth and development, increased morbidity due to malnutrition, a limited life expectancy at birth, and lowered productivity from labor.

Another nutritional problem that was quite serious up to a few years ago is endemic goiter, whose incidence in 1960 was as high as 38.5 per cent. Thanks to the effectiveness of the salt iodization program, the disease has been almost entirely eradicated, the most recent statistics showing a prevalence of only 5.2 per cent.

At present a program is under way for the production of flour enriched with vitamins and minerals. Thus, 75 per cent of the flour consumed in the country is certain to be of the enriched variety.

With regard to medical care, it should be noted that 31 hospitals, 23 of them general and 8 specialized, are now in service in the country. These hospital centers have been expanded, improved, and equipped with a view to more effective operations and greater returns. The total number of patients treated, including those hospitalized and those receiving outpatient care, rose from 251,402 in 1963 to 306,904 in 1964 and to 451,982 in 1965; these figures point to a substantial increase in the utilization of the services. The following additional establishments are now under construction and scheduled for early completion: a new Psychiatric Hospital of the farm type; two general hospitals at the departmental level, one in Cuilapa and the other in Jalapa; a Children's Hospital in Amatitlán; and new wards in the Guatemala City General Hospital. The increase in hospital beds is keeping pace with the population growth, although it has not yet reached the necessary level to satisfy the enormous demand for medical care.

At the same time, 15 new health centers and 26 new health stations have been established and placed in service, and 10 new buildings have been constructed for health centers that had been operating in inadequate quarters.

There had been little improvement in the public health laboratories prior to 1960, when steps were first taken to place them in a position to provide a more adequate service within the framework of the reorganized and expanded central and local health services. The Biological Institute, whose transformation dates back to the same time, has undergone steady improvement, through the acquisition of modern equipment, the improvement of its techniques and controls, and the training of professional and auxiliary technical personnel abroad. The laboratory building, which proved to be inadequate, had to be enlarged to accommodate the new equipment and to provide better working facilities. The output of biological products improved substantially in both quality and quantity. A comparison of the production figures for the period 1962–1965 shows an increase in the total number of rabies shots from 7,700 to 9,500, in round numbers; smallpox vaccine doses, from 256,000 to 379,000; and typhoid-paratyphoid doses, from 317,000 to 788,000. However, production of canine and bovine rabies vaccine declined. Preliminary trials are being conducted in connection with the production of whooping cough vaccine and diphtheria and tetanus antitoxins.

The Bromatological Laboratory has taken the first steps in expanding its program; an additional professional was trained in the Specialized Analysis Laboratories of the University of Panama; and equipment was acquired for early installation in the building that is to become the laboratory annex. Minor improvements have been made in the other central laboratories, and plans are now under way to reorganize these facilities in order to obtain maximum utilization.

Laboratory staff, equipment, and materials have been made available to 18 health centers. It is hoped that efforts in this direction will be continued in the coming years, until every health center has its own laboratory service.

As for health legislation, it should be kept in mind that the present Sanitary Code was promulgated in 1936, almost nine years before the Ministry of Public Health and Social Welfare was estab-

lished, and that most of the regulations supplementing the Code were issued in the same period. Both the Code and the regulations contain provisions that will be valid for many years because of their realistic approach in regulating the ways in which governmental officials and the public seek to deal with the country's health problems; however, in some aspects they are totally obsolete and must be brought up to date. Accordingly, the Ministry of Public Health and Social Welfare concluded that a revision of the Code was necessary to bring it into harmony with the progress of public health in the country and in the Hemisphere. The Pan American Sanitary Bureau was requested to provide the services of a consultant, who advised a national committee which was appointed for that purpose and which began its work in 1963. At present, the draft of the revised Sanitary Code is now before the Congress of the Republic, where the Public Health Committee is concluding its study prior to bringing it to the floor.

In conclusion, we should like to express before this distinguished Conference our sincere appreciation to the World Health Organization, the Pan American Health Organization, UNICEF, AID, and other national and international agencies, and to the sister nations of this Hemisphere that have come to our assistance, for their invaluable cooperation in the implementation of our public health programs, which seek to achieve the happiness and well-being of the Guatemalan people.

Report of the Delegation of El Salvador

Dr. INTERIANO (El Salvador):* The Ministry of Public Health of El Salvador has prepared the following detailed report on developments in the field of public health in our country during the past four years.

Health planning. The Ministry of Public Health and Social Welfare decided to rationalize its health policy in 1963, and for that purpose planning was required. The methodology employed was the one studied, drawn up, and recommended in February 1962 by the expert committee set up under the auspices of the Pan American Sanitary Bureau, the World Health Organization, and the Center for Development Studies (CENDES) of the Central University of Venezuela.

Although there was no record of previous experience in that field in America, the new method was considered acceptable and, more important, feasible as a means of contributing to the economic and social development of a country (a conclusion also reached by the Study Group on Health Planning convened by the Pan American Sanitary Bureau and the Government of Venezuela, in Puerto Azul, Venezuela, in February 1965). The Ministry of Public Health and Social Welfare gave its full support to the preparation of a National Health Plan, and the necessary measures to accomplish this task were initiated in April 1963. I should like to record here that PAHO/WHO responded to all requests for cooperation from the Ministry, supplying experts and consultants at both the central and the regional levels.

The first step was to provide personnel at all levels and from a number of institutions with training in public health statistics, classification of causes of death and morbidity, and planning methodology. Later 100 duly instructed health workers collected, reviewed, and verified the data requested, and then proceeded to analyze them in order to describe the health situation in terms of the hazards, conditioning factors, and policy as developed.

Those responsible for carrying out the plan participated in the preliminary studies and preparation; representing many disciplines, they included physicians, health administrators, engineers, nurses and inspectors, nutritionists, dentists, statisticians, and other professionals. The groundwork was completed and the National Plan submitted in approximately three months.

In July 1963 the phase preparatory to implementation of the Plan began. The Plan was publicized in the medical and paramedical professions; the necessary briefings were held; the matter was brought before members of the Central American medical profession, meeting in San Salvador on the occasion of the Tenth Central American Medical Congress, in December 1963; a draft program budget for the public health sector was prepared; the clinical forms to be used were designed; the necessary standards and regulations were drawn up; personnel was trained and the health statistics service was strengthened; and steps were taken to study and reorganize the Ministry of Public Health and Social Welfare so that it would be in a position to launch and carry out the Plan.

The diagnosis, and particularly the prognosis, of health conditions in the country gave further support to the Ministry's decision to take the offensive

by establishing priorities for combatting diseases before they appeared. For years the resources had been applied more to the restoration of health than to the prevention of disease. Limiting its goals to what it could logically expect to accomplish, seeking to utilize the available resources to the best possible advantage, increasing community output and seeking to reduce or eliminate the preventable hazards that threaten the community, establishing priorities according to the susceptibility and the vulnerability of the diseases from the technological standpoint and their impact on society—this is the start of the new health policy of El Salvador.

The situation in 1962 can be described as follows: The population of the country is very young; almost 50 per cent is less than 15 years of age and therefore susceptible to the impact of the environment. Infants are especially vulnerable. The major hazards are those stemming from a hostile environment, which acts upon a highly sensitive population. Most of that population lacks adequate water supply and sewerage systems; a low rate of school attendance, insufficient and inadequate housing, low family income, and high illiteracy are part of the picture; medical care centers are not accessible to a large percentage of the people; nutrition is deficient. As a consequence of all those conditions, 50 per cent of the deaths occur in persons under five years of age. The general mortality is 11.6 per 1,000 population, and only 22 per cent of the deaths are medically certified. In three regions of the country the principal cause of death is "certain diseases of early infancy," and in the fourth region the principal cause is "accidents and violence." In the Western Region, the second and third causes are acute respiratory diseases and gastroenteritis; in the Central Region, the same causes but in reverse order; in the Paracentral Region, accidents and violence and acute respiratory diseases; in the Eastern Region, "certain diseases of early infancy" and gastroenteritis. Complications of childbirth are in fifth place in all the regions.

Hospitalization by reason of illness varies in the four regions, but in all of them the group made up of the economically productive population (15 to 69 years of age) accounts for 60 per cent of the hospital admissions. Tuberculosis is the disease that requires the longest period of hospitalization. The average length of stay in the general hospitals is high: 20 days. Distribution of beds by region is uneven, and the available facilities are not utilized to the full.

The demand for medical consultation throughout the country is satisfied to varying degrees, but acute respiratory diseases constitute the principal cause for such attention (54 per cent), followed by gastroenteritis. Those under five years of age accounted for 45 per cent of the consultations; however, that figure should be examined further, since the clinical records for that period were extremely deficient. The consultation-hour produced a smaller return than it should have; the rate varies from one region to another.

Administrative services were not efficient; standards were lacking; and all of the hospital establishments operated according to the discretion of their directors, who almost without exception had received no training in hospital administration. There was no communication between the hospital administrations and their staffs. Each staff member was familiar only with his own work, never with the over-all operations of the institution. The buildings and equipment of the medical establishments were deficient and in the process of deterioration, especially in the Paracentral and Eastern Regions. The available resources were not properly used, and the yield was low.

On the basis of the study made, it was concluded that health policy up to 1962 had consisted essentially in waiting for the damage to appear and then taking steps to repair it. Indeed, 90 per cent of the national resources at the disposal of the health sector were used in that manner; furthermore, the distribution of those resources was very uneven, two thirds having been concentrated in the Central Region, where only one third of the total population lived. The foregoing combination of factors produced a different structure for each activity, with a resultant variation in cost. Despite the fact that resources were limited in certain regions, it was in those very regions that the highest return was obtained. This paradox was probably attributable to the fact that the pressure of the community's demand for medical care forced a speed-up in the services, at the expense of quality.

Owing to the total lack of certain statistical data, the uneven distribution of resources, and the disproportionate yield from the various mechanisms employed in each region, it was impossible to make a proper assessment of health activities, although efforts to do so were made in the case of certain

hazards, and thus costs, by regions, were obtained for the major activities. These procedures will have to be refined as the Plan is revised, and it is hoped to go more deeply into them.

The results of the prognosis are given in detail for each disease studied. However, it is important to observe that there is a wide difference among the regions. An increase in the number of deaths from acute respiratory diseases was predicted for the Paracentral and Eastern Regions beginning in 1964. It was asserted that by 1966 the deterioration in the health situation in the Central Region would be reflected in an increase in the number of deaths from tuberculosis, typhoid fever, dysentery, and other infectious and parasitic diseases. This prognosis was based on the assumption that available resources per inhabitant would not be reduced and that there would be no change in their utilization. However, this prognosis is not inflexible, and it would change if the over-all health policy were to be modified.

We must make it clear that health conditions in the country were not compared with those of any other country, as has been the practice. Instead, projections were made regarding probable developments in the next decade if the same policy remained in effect; that is, a policy of waiting for the damage to appear, employing the same preventive-curative techniques, obtaining the same return from the available resources, and maintaining the same level of production from manpower. Taking into consideration the population increase, now at an annual rate of 3 per cent, the future health picture for the Salvadorean people was indeed bleak, if not catastrophic. It was evident that a basic change in policy would have to be made.

Once the situation was clearly understood and the decision to reorient the health policy had been taken, the following goals were established:

1. A redistribution of available economic and human resources, so as to provide great benefits to the more vulnerable regions.

2. Attention to the need for preventive and curative care and for hospitalization, both for the population having access to the permanent centers and for those not now readily reached by such services.

3. Training of personnel, public information and education, technical promotion of the health programs among other governmental agencies and private entities.

4. Development of research in the technical and administrative fields.

5. Construction of hospitals and health stations and units, and improvement of existing installations and equipment.

The Planning Department prepared, for reference purposes, a "Five-Year Plan, 1965-1969," which appears in Chapter XXIV of the publication "National Plan for Economic and Social Development, 1965-1969" and which covers: (a) diagnosis of the situation; (b) action taken during the period 1950-1964; (c) prognosis; (d) health policy; (e) health plan, 1965-1969; (f) minimum personnel needs; (g) estimated staffing requirements for 1965-1969; (h) investment plan for the five-year period.

This Plan is subject to annual revision, as circumstances require, in order to adjust it more closely to the desired goals.

We shall now give some data on the evaluation of the Plan made in 1965, and a comparison with developments in 1963.

All of the health service clinics took the demand for care more fully into account, thus implementing one phase of the National Health Plan. In 1963, throughout the country, 418 persons per 1,000 population received attention; in 1965 the figure rose to 444. The extent of nursing care provided in the clinics was determined in 1964 and 1965, with a total of 230,444 consultations recorded. If the services requiring the attention of physicians are added to those provided by nurses, the above-mentioned figure is increased to 521 persons per 1,000 population.

In the 1963 diagnosis of the health situation, it was found that the Paracentral and Eastern Regions of the country were receiving the poorest service, with medical consultations barely totalling 211 per 1,000 population. By 1965 the situation had changed, with 240 and 292 consultations per 1,000 population being recorded. This improvement came about through an increase in the consultations per hour in those regions—67 per cent in the Paracentral Region and 105 per cent in the Eastern Region, as compared with the figures for 1963. These regions are nevertheless still at a disadvantage as compared with the Western Region, which has 440 consultations per 1,000 inhabitants, and with the Central Region, which has 770. The physical installations planned for these regions, where 17 health stations and 5 health units are under construction, are sure to change the situation completely; further-

more, the consultations per hour in the health establishments of these regions are on the rise.

Nursing care provided in clinics is being assessed, and the results will shed light on (a) the yield per doctor-hour; (b) the need for more doctor-hours; and (c) the type and volume of nursing services that should be offered in clinics.

With regard to hospital care, there has been no significant increase in the number of beds since the inauguration of the Plan. Instead, there has been emphasis on a better utilization of existing beds by decreasing the average length of stay, inasmuch as one day less per patient per year is the equivalent of constructing a new 300-bed hospital, at a cost of $2.4 million. The average length of stay in 1963 was 21 days, and 14.5 days in 1965. Consequently, it has been possible to provide hospital care for a much larger number of patients without additional capital investment. The ratio of cases hospitalized, 48 per 1,000 population, has not changed, but each bed was used 25 times in 1965, compared with 23 times in 1963. It should also be noted that the number of hospital admissions drops as the number of medical consultations increases.

As for the vaccination program, the National Health Plan recognizes the fact that this activity, known to be effective and extremely inexpensive, must be used to better advantage in controlling and possibly eradicating such diseases as whooping cough, tetanus, diphtheria, and smallpox, and in increasing the resistance of the population to tuberculosis.

This activity has had the full support of the Ministry since 1963, with all available personnel in the hospital clinics being utilized for the purpose. It is standard practice to vaccinate pregnant women against tetanus, whether or not they are registered in the prenatal care clinics, and to make at least a beginning in vaccinating all hospitalized rural patients; moreover, all newborn are vaccinated with BCG.

Since 1965, BCG without prior tuberculin tests has been administered throughout the country, except in the Department of Usulután, where a pilot plan for the control of tuberculosis is being carried on; this program has resulted in a reduction of costs and has made it possible to raise the target figures.

In general, the return from this activity has been 19 times greater than in 1963, and hence the number of persons protected and the number of doses of vaccine administered contrast sharply with the situation in 1963. The regions that are most benefited proportionally are those that were originally most vulnerable, namely, the Paracentral and Eastern Regions. In the former the doses per 1,000 population increased from 94 in 1963 to 367 in 1965; in the latter, from 197 doses per 1,000 population in 1963 to 401 in 1965. However, we believe that an even greater return is needed, and that this program should be strengthened.

According to all assessments made, nurses' visits to the home, to provide maternal and child care and to offer direct assistance for the prevention of nutritional deficiencies, have fallen short of the goals set. This has been due primarily to the fact that community demands for preventive and curative care have exerted strong pressure on the services and the nurses have thus had to spend more time in the clinics.

In 1965 an evaluation was made of the activities customarily carried on by nurses in the home, and it was found that a large part of their time was being wasted; in fact, the nurses were unable to perform their educational task because working mothers were generally not at home when they called. Consequently, the positive benefits from this activity did not justify the time and effort expended. In view of this situation, the problem was thoroughly discussed with the regulatory divisions of the Department of Health, and a new program was devised to reorient the visiting nurse activity entirely. In close cooperation with the health inspector, the nurse would devote herself to group family activities or group visits that had been previously planned and studied; the reason for this approach is to effect a change in the environment in which the families live, to prevent those diseases susceptible to prevention through vaccination, and to invite the groups to make use of the nearest health services. In this way, it is hoped that the services of the visiting nurse will be utilized to greater advantage. Programs of this type will be expanded in 1966, and future assessments will show whether this new orientation for the visiting nurse service is effective.

The situation is very different with regard to the inspections made by the health inspectors: they have been standardized. In keeping with the increased industrialization of the country, the number of inspector-hours has risen, so that this activity has been far more productive than in 1963. In formulating the Plan and making the preliminary evalua-

tions, it was found that the inspectors had numerous assignments that they could not perform effectively. A schedule of priorities, by region and locality, was accordingly established, and in this way the returns from the service rose significantly.

In conclusion, the situation with regard to health policy in El Salvador may be summarized as follows:

1. An adequate understanding of the current situation was provided by the health diagnosis, which gave a very clear picture of the hazards to which the population is exposed and of the environment, and also offered a detailed inventory of available resources and their utilization.

2. The National Health Plan has charted the course of health activities in such a way that priorities are to be established through a technical process, not merely at the discretion of the executive officers; this new approach is aimed basically at satisfying the demand for services and reducing mortality.

3. Technical standards have been established for nationwide application, so that health protection can be uniform and the resources better utilized, without diminishing technical efficiency. In the initial phase these standards cover basic aspects of the service, but they will be gradually supplemented and improved on the basis of experience. The standards are unusual in that they are truly Salvadorean, reflecting actual conditions in the country.

4. The Plan sets targets for the various activities in terms of a scale of objectives or goals, which are reached through compliance with the above-mentioned standards. Those objectives are realistic, inasmuch as they take into account existing resources, which are expected to produce a given return.

5. Various changes have been instituted in the administrative structure, basically with a view to integrating the services, centralizing the standard-setting process, and decentralizing operations. Already the hospitals are administering vaccines, and there is evidence of new trend toward close relations between the hospitals and the health centers and units.

6. A systematic plan for personnel training has been developed, and is being administered with national objectives in view.

7. All health establishments now have statistical services, which are using standard forms and following standard instructions. This makes it possible to collect all comparable data, for evaluation purposes, in the proper manner and with only one month's delay.

8. The Plan revealed the need for redistributing manpower resources in order to improve conditions in the more vulnerable regions. This task is being carried out as the number of recently graduated professional workers permits.

PRESIDENT:* Thank you very much, Dr. Interiano. The Chair recognizes the Secretary, who has an announcement of general interest.

Dr. SUTTER (Assistant Director, PASB): * The delegates are advised that registration forms are available for those who wish to participate in the Technical Discussions. The forms will be distributed during this morning's recess, and the delegates are urged to return them, at their earliest convenience, to the office adjoining Conference Room C.

PRESIDENT: * In declaring the usual recess, I should like to announce that the next report will be presented by the Delegation of Chile, and to urge the delegates to return as soon as possible, so that we can proceed with the business before us.

The session was suspended at 10:37 a.m. and resumed at 11:10 a.m.

PRESIDENT: * The Chair recognizes Dr. Valdivieso, of Chile.

Report of the Delegation of Chile

Dr. VALDIVIESO (Chile): * Considering the President's suggestion that the presentations be brief, I shall limit myself to a general survey, which will serve as a preface to the report of the Government of Chile to the XVII Pan American Sanitary Conference, to be distributed in due time.

If Chile's health problems are to be understood, they must be considered within the general framework of the economic and social changes that are taking place in the country. President Frei's Government took office with a solemn commitment to accelerate social development in the country, and, as we all know, social development is not feasible unless it is linked to an equally accelerated economic growth. Without the latter, the best of intentions, the most attractive projects designed to bring about social progress, can only be illusory.

In this respect, I believe that the position of those of us who are responsible for the social sectors and that of the economists are not far apart, but we

also know—and this may be an appropriate occasion to repeat it—that those charged with directing the economic activities of a nation must recognize that social development is an essential part of economic progress.

Clearly, social progress is a multiplying factor in economic development, and as such its importance seems undeniable. Raising the living standard of the people in the areas of education, housing, and health is a prerequisite to achieving sound and dynamic economic progress. To that multiplying action must be added that of bringing about a better distribution of wealth, since whenever the increase in goods derived from the economic take-off is not distributed with a social consciousness, those goods accumulate in a few hands and the forward thrust of development is thus impeded.

It is difficult to maintain those two factors—the economic and the social—in perfect balance; nor is it essential to do so. Perfect equilibrium tends to become immobility, and it is not always wise to persist in seeking it. To those of us who are physicians, progress is an endless succession of imbalances that are corrected in such a way as to prevent a sudden collapse; that is the way we move forward. Perfect equilibrium, on the other hand, means standing still. In economic and social development policies we must accept in advance the fact that imbalances will occur, and recognize that they can have a salutary effect if they occur within certain reasonable limits. This frequently happens in developing countries that are striving to raise their standards of living and feel compelled to do so even when the economic take-off is not sufficient to finance full-scale social development plans.

In the war against poverty, the Governments of the developing countries must mobilize all sectors of social development at the same time. The war must be carried on simultaneously along all fronts: against ignorance, against hunger, against disease. Little or nothing would be gained by allocating all available resources to a single sector, such as health, in the hope of achieving more rapid and spectacular results, if at the same time there were no progress in education, housing, and community organization. Regardless of how many hospitals might be built, all of the beds thus made available would be too few if the other factors were neglected.

Based on this principle, which I consider realistic, the underlying objective of the plan developed by President Frei's administration is to eliminate four social scourges: (1) stagnation in production and economic inflation; (2) social injustice; (3) illiteracy and a low cultural level; and (4) lack of community organization, which hampers active community participation in the national life.

The Government has resolved to introduce changes to attain the indicated goals with the greatest possible speed. Hence, one speaks of a genuine revolution, but not without this prerequisite: that it be carried out in a climate of freedom, in other words, that the decision-making be part of a democratic process.

The average rate of growth of the gross national product was 2.9 per cent in the period 1956–1961. This percentage dropped to 2.2 per cent and 2.4 per cent in 1963 and 1964, the beginning of the four-year period under review. If these figures are compared with the normal population growth for the same period (a growth rate of 2.4 per cent in 1964), it will be seen that the *per-capita* income remained stationary and even threatened a downturn.

The inflationary trend that has plagued the country for some time reached a rate of acceleration that was extremely dangerous in 1955; in that year the price index rose by 83 per cent. At that time and in subsequent years (the decade of 1955–1964), a number of measures were taken to halt the inflation, with some temporary success.

By the end of 1964, the year in which President Frei took office, inflation accounted for a 38.4-per-cent rise in the consumer price index; by the end of 1965 that increase had fallen to 25.9 per cent. Consequently there was, and continued to be, a significant slowdown in the inflationary trend. At the same time, the gross national product rose by 6 per cent in 1965, accompanied by a population growth rate of 2.38 per cent; thus there was a real increase in the rate of economic development.

Before analyzing the achievements in the health sector, I shall touch briefly on some of the achievements in the other social sectors.

In the field of education, total school enrollment rose to more than 2 million in 1966; in other words, one out of every four Chileans is engaged in some educational activity. In the period 1965–1966, considerable impetus was given the construction of dwelling units, especially the low-cost type. Special emphasis is being placed on community development. A study revealed that 50 per cent of the population still does not have access to the goods

and services enjoyed by the rest of the country, and a concerted effort is being made to change this situation through the National Advisory Board on community development.

In the health sector, the shortage of available doctors—6 per 10,000 population—is aggravated by their uneven distribution between the urban and rural areas and, within the latter, between the centers of the large cities and the half urban-half rural outlying districts. Among other measures taken to correct this situation, it should be noted that 76 general zone physicians were sent to the provinces in 1965, and 114 assignments of this nature were made in 1966. The general zone physician is a recent graduate of a medical school and, as such, nonspecialized. He is given four months' additional training in emergency care, obstetrics, and surgery, and in certain aspects of public health, before being sent to a province. He is given a contract at a salary 50 per cent higher than he would receive elsewhere, and after three years he is entitled to a fellowship in one of the large medical centers, where he is free to elect his field of specialization. This system is having excellent results; rural medical care is increasingly more effective and, at the same time, a high professional level is being maintained among the young physicians.

Increased training of paramedical personnel, with the cooperation of the University of Chile through its regional centers, is equally significant. In 1965 enrollment in the School of Nursing tripled, and, at another level, 778 nursing auxiliaries completed their training; by the end of 1966 the number will reach 1,250.

The construction of hospitals and clinics is being accelerated in order to care for ambulatory patients and to meet the needs of health prevention and promotion, especially as they relate to maternal and child health. The trend to locate such clinics in suburban areas has relieved the congestion in the downtown hospitals, where specialized clinical services are mainly concentrated. Renovation of older hospitals of high quality has also made it possible to increase the number of available hospital beds, at lower cost.

In addition, coordination with clinics not under the Ministry has been promoted, and the communities have been encouraged to establish such clinics themselves. In all of the clinics, the establishment of health committees has been encouraged, for the purpose of enlisting the necessary cooperation of the beneficiaries.

As for the policy on drugs and medicines, I have sponsored a *National Formulary*, whose development is well advanced. This will be a continuing and periodically revised compilation of the medicines essential to effective therapy in hospitals and in general medical practice. A committee appointed under a Presidential Decree has been engaged in this work for six months and is now completing the first phase of the task, namely, the list of medicines to be included. In due course it will decide on the pharmaceutical formulas that should be prescribed, and, finally, a brief statement will be included for each medicine, giving the use, limitations, and hazards involved. The project also envisages changes in the system for the quality control of pharmaceutical preparations. With the technical advice of Dr. C. A. Morrell, made available through PAHO, a new quality control office, with a structure and functions similar to those of the Food and Drug Administration of the United States of America, is being established. The new system will mean a considerable savings with regard to pharmaceuticals and, at the same time, a more efficient use of this health tool.

Special priority is being given to maternal and child care. The number of maternity beds increased by 42 per cent during the four-year period. Medical care at childbirth also improved, and milk distribution to children rose from 31.5 per cent in 1964 to 68.0 per cent in the current year. An integrated policy with relation to population has been defined, in terms appropriate to the maternal and child care programs.

It is gratifying to report that the annual number of immunizations averaged 4.2 million during the four-year period, a truly impressive figure. Included are the antimeasles vaccination, which were administered to 269,639 children in 1965 and which so far this year total 160,000 more.

In conclusion, as may be noted in the final part of the report that is to be distributed, and in keeping with a general policy of continental integration, since 1965 there has been renewed interest in promoting national participation in international agencies, which are considered one of the best means of pooling experience in order to foster the health of our people. But, at the same time, the Government of Chile plans to cooperate in seeking means to ensure dynamic contact among the sister nations

that face similar problems. Thus, efforts will be made to obtain a greater return from our limited resources through joint action and under a future, but necessary, health plan that, like disease, recognizes no frontiers.

I believe that Chile is justified in asserting that it is doing its part to fulfill the commitment proclaimed in the Alliance for Progress, in response to the call put forth more than three years ago in this city of Washington.

Report of the Delegation of Mexico

Dr. MORENO VALLE (Mexico): * On behalf of the President and the Government of Mexico, I am pleased to extend a cordial greeting to all the Governments and peoples of America, who make up this venerable and exemplary Pan American Health Organization.

In attending this XVII Conference, I wish to underscore my belief that the health and medical care policy that guides the programs of Mexico departs somewhat from the traditional public health framework of other countries. Without making any claim that our policy ought to be taken as a model for the health and medical care activities of the other countries, we should like to state that we consider it suited to current conditions in Mexico—conditions that are, in fact, comparable to those in many of our sister nations in Central and South America, with which we share not only historic ties of friendship, language, tradition, culture, independence, and a spirit of justice and progress through liberty, but also the common problems that create common needs, even though they bear the individual stamp of each country.

Promoting health, preventing disease, curing the sick, rehabilitating the disabled, and aiding the needy—these shape the basic structure of all our public health programs.

In addition to promoting health, preventing disease, and curing the sick, we believe that governmental programs would do well to include rehabilitation of the disabled (the blind, deaf-mutes, the mentally ill, and the physically handicapped), as well as care for children, the aged who are in need, and the social groups that are the victims of poverty or catastrophe.

We are aware that all of the countries are dealing with these problems through various agencies at the lower administrative levels, but in Mexico we have brought the agencies all together under the Ministry of Health and Welfare. This arrangement meets our needs and enables us to expand our health and welfare programs constantly, in a manner that we believe to be in keeping with the modern concept of public health.

Mexico has undergone profound changes in the course of the last four years; happily, most of them have benefited the health of its people. The political organization of the country has continued to develop within the democratic framework peculiar to its cultural background, thus making it possible for the nation to enjoy social tranquility for almost five decades.

Improvement in the nation's health has been marked by a down trend in the general mortality, which dropped from 10.8 in 1962 to 9.9 in 1965. Infant mortality declined from 69.9 to 60.7. Mortality in the pre-school age group continues to be one of the major public health problems of the nation; nevertheless, the rate decreased during the last four years from 13.6 to 10.9. Maternal mortality decreased from 1.8 to 1.4. Life expectancy at birth increased from 59 years in 1962 to 66 years in 1965.

With the continuing decline in the death rate, and a stationary birth rate (45.8 in 1962 and 46.1 in 1965), the population of the country has been growing at an extraordinary annual rate. In the last four years the population increased by 13.81 per cent, which represents a total increase of some 4 million persons. In 1965 the population of Mexico had already reached approximately 41 million. This enormous increase has given rise, among other things, to a heavy population concentration in the principal cities, especially in the northern zone, bordering the United States of America. Note should also be made of the absolute and relative increase in the middle class, which in prior decades was unusually small for a country the size of Mexico.

A decisive element in the improvement in the health of the Mexican people, as well as in the quantitative population increase, has been the fact that the increase in food production exceeded the population growth. Likewise, there has been a notable increase in over-all production, with an average annual increase of 6 per cent in the national income, compared with a population growth of 3.4 per cent.

The principal causes of death in the Mexican Republic have also shifted in a very significant way during these last four years. For the first time since

1962, gastroenteritis and colitis, which used to be the major cause of death, gradually dropped to third place, probably as the result of improved nutrition, environmental sanitation, and medical care. On the other hand, influenza and pneumonia now occupy first place as causes of death.

At the same time, diseases of infancy have increased, moving up to second place, while accidents now occupy fourth place. Communicable disease control is constantly improving. Yet, tuberculosis appears among the 10 principal causes of death. Infectious diseases, taken as a whole, were fourth (5.6 per cent) among the causes of hospitalization; this means that they continue to be an important negative factor in the economy. In addition to deaths attributable to tuberculosis, those caused by measles, whooping cough, and tetanus, though showing an annual decline, still constitute the major problem among the communicable diseases.

As for eradication work, it should be noted that the highest priority in the field of public health has been assigned to the activities designed to protect the country from the diseases that have already been eradicated, such as smallpox and yellow fever, the latter transmitted through the vector *Aedes aegypti.*

In the last four years 24 million persons were vaccinated against smallpox; hence, the high percentage of immune population will make it difficult for the disease to be reintroduced into the country.

In the course of the periodic surveillance in search of *Aedes aegypti,* 116,223 dwellings in 35 localities of 11 Federal political divisions are inspected three times annually. The country continues free from this vector, but is constantly threatened by reintroduction as long as it is not eradicated in the United States of America and in the Antilles. There was an instance of reinfestation this year, in Nuevo Laredo, Tamaulipas, but it was promptly brought under control.

Next in order of importance are the diseases for which eradication programs have been in operation, including malaria, pinta, and typhus. In the case of malaria, activities have continued in accordance with the established plan, although it was recently necessary to postpone the new phase directed to final eradication. At present, 9 million pesos are being spent on this program. No deaths from the disease have been reported, and even the number of cases detected has been decreasing. Of the 1.5 million blood samples taken from febrile patients in 1962, 13,781 proved positive; the same number of samples revealed only 10,113 cases in 1965. The percentage of positive reactions in these samples dropped from 0.70 to 0.63. Unfortunately, the area of consolidation was reduced by approximately 25 per cent.

It is hoped that pinta will be eradicated by 1970. During the four years covered by this report, 130,090 new cases and 150,000 contacts were treated.

The national campaign against the rickettsial diseases has brought epidemic typhus under control, only a score or so of cases now occurring each year. Control of the typhus areas has been intensified, and it is hoped that new cases of the disease will soon cease to be reported.

Urban epidemic outbreaks of poliomyelitis have disappeared, and the reported cases for the entire country ranged from 483 in 1962 to 477 in 1965. In the four-year period, 5,210,000 vaccinations were administered; in addition, 5,376,000 children received two doses and 3,500,000 others received one. The aim of the antipoliomyelitis campaign is to limit the disease to sporadic cases of low incidence, and, over a somewhat longer period, to eradicate it completely.

Inasmuch as there are effective technical means available, programs for the control of other diseases are also being given priority.

The program of immunization against whooping cough, diphtheria, and tetanus covered an average of 600,000 children per year. These efforts, combined with the work being done by the Social Security Institutes and by private physicians, have furnished protection against these diseases to 50 per cent of the children under four years of age. We are expanding this activity, especially in rural areas.

The increase in maternity clinics and the programs in health education are directed, among other objectives, to the control of tetanus in the newborn. Likewise, during the last three years, 240,000 adults living in areas of high endemicity were immunized against the disease.

The campaign against endemic goiter was declared to be in the national interest by a Presidential Decree of May 1963, and the iodization of salt intended for human consumption was made compulsory. Eighty-nine per cent of the salt consumed in the country is distributed by large producers, who are cooperating with the Government in enforcing that law.

The death rate attributable to prenatal syphilis

was 1.3 per 100,000 population in 1962 and 0.8 in 1965. Cases of early syphilis have been decreasing, although a slight upturn was reported in 1963. Virtually, 100 per cent of the cases detected have received adequate treatment.

There are 107,000 reported cases of onchocerciasis in the Republic, in an area with a population of 375,000. The campaign has been successful in preventing new cases of blindness resulting from this disease, and in some regions the disease has disappeared.

Efforts to complete the identification of leprosy cases have resulted in the detection and control of 5,337 new cases in the period 1962–1965; during those same four years there were 1,832 deaths and 589 patients were considered cured. The number of teams now covering the zones of high prevalence has been increased, and we trust that the disease will be brought under control.

We have already mentioned that accidents occupy fourth place among the principal causes of death. There were 20,593 deaths from this cause in 1965. The national accident-prevention campaign has been stepped up during the current year, with increased radio, television, and press support and with the cooperation of public relations agencies and the Pan American Sanitary Bureau.

With regard to the organization of health services, it is pertinent to explain that the Ministry of Health and Welfare, the state governments, the social security agencies, and the private medical profession are responsible for safeguarding the health of the Mexican people.

The most significant development in the four years covered by this report is the progress made in coordination. At the present time, the activities of the state governments and of the Federal Government are formally coordinated. The health activities of the social security agencies are, in turn, coordinated with the Federal Government, through the Joint Coordinating Committee on Public Health, Welfare, and Social Security, established by Presidential Decree in August 1965, under the chairmanship of the Secretary of Health and Welfare. This Ministry, similarly, has achieved close cooperation and coordination with the other Departments of the Federal Government and with the autonomous agencies. It has also concluded agreements with the medical and nursing schools of the universities, for the purpose of providing professionals in the field of medicine with appropriate training so that they can deal with the needs and problems of public health.

During the last two years, administrative decentralization and technical centralization have been carried forward. Responsibility for all of the programs that were carried out at the national level was placed in the hands of the state and territorial health authorities. At the same time, technical policy-making was strengthened and integrated, through the offices of the Undersecretaries of Health and Welfare, which are responsible for all of the technical bureaus.

The Mexican Social Security Institute covers approximately 7,500,000 persons, including the insured and members of their families. Most of those insured belong to the middle class and the working class, but rural groups are gradually being brought into the program. The Civil Service Social Security Institute is the social security agency for Federal employees, and it covers some 1,250,000 persons. In addition, medical services are provided by the Military Welfare Institute and the autonomous agencies of the Federal Government, such as "Petróleos Mexicanos," the Railroad Workers, and others. A total of approximately 10 million persons (25 per cent of the Mexican population) are receiving medical care under the social security systems.

In the four-year period under review, both the Mexican Social Security Institute and the Civil Service Social Security Institute established Departments of Preventive Medicine.

The Ministry of Health and Welfare constructed 841 rural health centers, with 2,463 beds, for hospital care. During the same four-year period, these were built: 95 rural hospitals, with 1,114 beds; 12 regional hospitals, with 1,288 beds; 13 specialized hospitals, together with renovated general hospitals, providing a total of 6,870 new beds and 642 additional beds in the renovated hospitals. The 200-bed Childrens' Psychiatric Hospital, the first in a series of institutions devoted to the treatment of mental illness, was also completed. A total of 5,160 beds will be made available under this important and already well-advanced program which is revolutionizing psychiatric care in Mexico.

The 4,610 projects carried out under the Programs of Rural Community Development were mainly schools or classrooms, homes for teachers, home-to-market roads, small dams, sanitation works, community parks and recreational centers, family

garden plots, and other works for the collective benefit of the community.

In the four years under study, the Ministry of Health and Welfare built 2,310 water supply systems for rural communities with populations of less than 2,500; those systems have benefited 2,800,000 persons. At the same time, the Ministry of Hydraulic Resources assumed responsibility for urban water supply and sewerage systems. In the past year, this Federal Agency continued work on 200 potable water supply systems, serving 1,800,000 inhabitants; completed another 206 systems, serving 1,652,000 inhabitants; and began work on an additional 205 projects, which will serve 2,066,000 inhabitants. In the same year, 27 sewerage projects, serving a population of 1,147,000 were under way, and 25 new projects which will benefit 1,000,000 persons, were initiated. Projects in 12 cities, with a total population of 947,000, were completed. Moreover, the Government of the Federal District is now engaged in a water supply project for the capital. The volume of potable water will increase from 23.2 to 28.2 cubic meters per second. It will be carried by conduits and tunnels for a distance of 95 km, and storage reservoirs with a capacity of 200,000 cubic meters have been constructed at various levels. To facilitate its distribution, the network of water mains within the urban area is being expanded by 80 km. The Ministry also built 54 km of water mains and sewer lines and began to lay 102 km of pipe to drain 366 hectares in 23 districts in the capital.

The Ministry of Health and Welfare began the production of the Sabin-type poliomyelitis vaccine in the period covered by this report, producing some 40 million doses during the four years. In the current year it began to produce the Schwarz-type attenuated virus vaccine for the prevention of measles, and will begin to distribute it next spring.

The Ministry of Health and Welfare is continuing to expand its program for the rehabilitation of the disabled, including those suffering from diseases of the locomotor system, deaf-mutes, the blind, and the mentally ill. As part of this activity, a building was recently remodeled to serve as the National School for Deaf-mutes. The National School for the Blind is being renovated, and the shops for vocational retraining of the handicapped will soon be completed.

Services for the rehabilitation of those suffering from diseases of the locomotor system are being expanded in all of the General Hospitals, thus supplementing the work being done in existing centers in the capital and elsewhere in the nation.

As has already been mentioned, three rural hospitals designed for the rehabilitation of mental patients are nearing completion. These hospitals—an asylum for incurable cases, a hospital for 600 seriously disturbed patients, and a children's hospital—will complete the network of institutions for the treatment of this type of patients.

The Mexican Government is also carrying on social welfare work through the Ministry of Health and Welfare. This Ministry has a broad field of action, which ranges from child care in foster homes, the National Orphanage, day-care schools, and organized adoption systems, to the protection of the elderly indigent, in homes or by providing family allotments. At the same time, it is extending its activities to reach the low-income groups by giving regular assistance through family dining rooms, where food is provided without cost or at a nominal price. There are also such dining rooms for needy students, whether in universities, normal schools, or trade schools; day nurseries for children of working mothers; urban and rural welfare centers, where women are trained in various fields, including secretarial skills, dressmaking, beauty-shop work, first aid, commercial art, and toy-making.

Finally, food, clothing, preventive and curative medical care, and potable water are provided in time of emergency, through teams that are organized and trained for that purpose and have means of air and surface transportation at their disposal.

We have had the honor of presenting this brief summary of public health activities in Mexico during the past four years; it shows the progress made in each of our health and welfare programs. We know that much remains to be done; but at the same time we are optimistic, because our country has been privileged to preserve a climate of peace in an era of social turbulence in other parts of the world. This has made it possible for Mexico to devote a portion of its budget to those weapons that are not intended to destroy lives or to bring about the death of its citizens or its fellow men. It has been possible to allocate a part of our economic resources to the acquisition of arms for the battle in behalf of public health, inasmuch as the successive administrations in Mexico have been constantly improving upon the concept that the progress of mankind is inconceivable without health, and

therefore the progress of a nation is inconceivable without the health of its people.

These ideas are in keeping with the views of my country's President, who declared: "Mexico's foreign policy is closely linked to its domestic policy, of which it is the result and the purest expression. A domestic policy that seeks the well-being of all Mexicans, that jealously defends their dignity, that safeguards enjoyment of their broadest possible liberty, that demands observance of the law, and, above all, that postulates an undeviating respect for human life is inevitably expressed in a foreign policy that advocates the honoring of national commitments, equality of treatment, disarmament, the protection of human rights, juridical equality of all nations, nonintervention and the unhampered self-determination of peoples, and the continuing struggle for peace."

I should like to quote another statement made by President Gustavo Díaz Ordaz, since it seems fitting on this occasion: "In this hour of close and inescapable interdependence that day by day is erasing the concept of frontiers, it is incumbent upon us to foster the solidarity of the world community and to join in the basic struggles of all mankind, but on the condition that we reassert our essential nature and take strength from that which is truly ours."

President Díaz Ordaz continued: "During my trip through Central America, I declared on a number of occasions that 'it is in the juridical equality of the States and in mutual respect that we shall always find the basis for enduring friendship among our countries,' and that 'the road to eliminating or mitigating economic inequities lies in understanding and justice, as well as in the principle that the more advanced countries must not necessarily expect to obtain reciprocity from the less developed, those relatively less economically advanced, in exchange for any concessions they might make'."

In conclusion, may I express my country's hope that in Pan American solidarity, and especially in the public health programs, our countries will find the path that will lead to peace, progress, and universal brotherhood.

Dr. SUTTER (Assistant Director, PASB): * The members of the Committee on Credentials are requested to meet upon the conclusion of this plenary session, in Conference Room B, for the purpose of examining the additional credentials that have been presented.

PRESIDENT: * May I remind the members of the General Committee that there will be a meeting at this time in Conference Room C. All of those present are reminded that the fourth plenary session will begin at 2:30 p.m.

The session rose at 12:05 p.m.

FOURTH PLENARY SESSION

Tuesday, 27 September 1966, at 2:50 p.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

PRESIDENT: * The fourth plenary session of the XVII Pan American Sanitary Conference is called to order.

While we are waiting for the report of the second session of the General Committee, which was held this morning, would the Rapporteur of the Committee on Credentials, in the interest of time, please read the second report of that Committee.

Second Report of the Committee on Credentials

Dr. WEDDERBURN (Jamaica, Rapporteur of the Committee): The report reads as follows:

The Committee on Credentials, composed of Dr. Victorio Vicente Olguín (Argentina), Chairman; Dr. Charles Courtney Wedderburn (Jamaica), Rapporteur; and Dr. Carlos A. Waldheim Cordón (Guatemala), held its second session on 27 September 1966, at 12:30 p.m.

The Committee examined and approved the credentials presented by the Delegates of Bolivia, Cuba, and Haiti to the XVII Pan American Sanitary Conference.

The Committee also examined and approved the credentials presented by the observers from the Inter-American Commission of Women, the International Society for Criminology, and the World Veterinary Association.

PRESIDENT: * If there are no comments on the report, it will be considered approved.

Approved.

Second Report of the General Committee

PRESIDENT: * Will the Secretary please read the second report of the General Committee.

Dr. SUTTER (Assistant Director, PASB): * At its second session, held at 12:00 noon today, the General Committee took the following decisions:

1. To schedule the presentation of the second report of the Committee on Credentials as the first order of business of the fourth plenary session.
2. To schedule the Technical Discussions for Friday, 30 September, and Saturday, 1 October.
3. To assign consideration of the agenda items as follows:

Plenary Sessions: Items 12, 13, 14, 15, 28, and 29.
Committee I: Items 20, 23, 24, 25, 31, 32, 33, 27, 34, 35, and 38.
Committee II: Items 16, 17, 18, 19, 21, 22, 26, 30, 36, 37, and 39.

The topics proposed by the Delegation of Chile on "Assessment of the Magnitude of the Problem of Under-Nutrition in Children" and "Feeding Programs" will be considered under Item 31 of the agenda: "Research Policy and Program of the Pan American Health Organization." The topic "Technical Assistance in Drug Policies," proposed by the Delegation of Chile, will be considered under Item 36: "Quality Control of Pharmaceutical Preparations."

4. It was agreed to schedule the address of Dr. Mongrut Muñoz, of the Delegation of Peru, on "Public Health in Economic and Social Development Programs (National Development Plan and the Integration of Indian Population)," for Thursday, 29 September, following the afternoon session.

PRESIDENT: * Are there any comments on these documents? If not, let us proceed with the order of business.

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences (*continuation*)

PRESIDENT: * The Chair recognizes the Representative of Ecuador.

Report of the Delegation of Ecuador

Dr. MONTALVÁN (Ecuador): * It is incumbent upon me to present to this Conference a brief report on the work accomplished by the Public Health Service of Ecuador in the period between the XVI and the XVII Pan American Sanitary Conferences.

The duties assigned to this Service are among the most important functions of the Government of my country. These activities are closely tied to the vicissitudes of the nation's political life, or at least are influenced to a considerable extent by them.

Thus, regardless of its length, a report or statement on the health activities conducted in a country over a given period of time cannot fail to mention the major political events of the period, especially those that are closely related to health policy.

Shortly after the XVI Pan American Sanitary Conference, there was a political change in Ecuador that not only profoundly affected the constitutional sphere but also altered the pace of all activities in the public sector, not the least of which are those related to health.

As result of the obligations growing out of the Charter of Punta del Este, Ecuador had undertaken to formulate and implement a 10-year economic and social development plan in which, at least as far as the health sector was concerned, the objectives and targets had been specifically defined. The Government that ended its mandate in 1963 had already prepared such a plan, which, of course, included the 10-year health plan to have been initiated that same year. The health plan made provision for certain basic reforms, one of which was the creation of a National Health Service. The new agency, organized with the existing National Health Service as a base, was to bring about the rapid integration of all the public health activities carried on by the various institutions in the country by pooling their resources, and also achieve the gradual organization of the regional and local services, which by the end of the decade would have been able to cover broad segments of the population.

Like all development plans, the health plan was the object of criticism and debate, and the Military Government decided not to adopt a definitive policy with regard to it. For this reason, early in 1965 it appointed a committee composed of national and international public health specialists, charged with suggesting ways of putting the 10-year health plan in operation, at least to some extent. With the

advice of technical experts and specialists in other branches of public administration, the committee prepared its recommendations in the form of draft decrees that would lay the groundwork for a National Health Service, which would have sufficient technical and administrative authority and in which the social security services of the State and those of the municipal sanitary services (environmental sanitation) would be integrated from the outset. Effective local units could then be organized under a system of regionalized services.

The proposed new organization was based on the following guidelines:

(1) The policy-making and technical-administrative functions, and, within the latter, the regulatory and operational functions, would be defined.

(2) All health services would be initially coordinated and gradually integrated.

(3) A planning unit would be established at the level of the General Department of Health.

(4) Regulatory functions would be centralized and operational functions decentralized.

(5) The services would be organized on a regional basis and health zones established as units of local action.

It cannot be said that health problems were neglected under the Military Government. On the contrary, some programs—including the pilot project known as the Integrated Public Health Plan for the Province of Manabí, the smallpox eradication campaign, the leprosy and plague control campaigns—were actively promoted during that period. Furthermore, the Government established the Ecuadorean Institute of Sanitary Works, an agency that contributes in no small measure to the health of the nation, although it is not actually integrated in the National Health Service. Even more important, there was a steady increase in the funds budgeted for those programs and for other services, as may be seen from the following figures:

Year	Budget allotment (in thousands of sucres)	Increase over preceding year (percentage)
1962	62,243	...
1963	75,888	21.922
1964	84,727	14.282
1965	153,061	76.485

The figure for 1965 includes the funds formerly allocated to the Inter-American Cooperative Public Health Service (SCISP), as the Government's contribution, and the budget for the newly created Ecuadorean Institute of Sanitary Works.

After these general observations, let us turn to some of the more important aspects of the survey of public health services in the last four years.

I. Health Protection

Communicable Disease Campaigns

Under this heading, mention must be made first of those diseases that have been the object of vertical programs—either for eradication, as in the case of malaria and smallpox, or for control, as in the case of leprosy and plague—all of which have, moreover, been developed with the cooperation of international public health agencies (PAHO/WHO, UNICEF) or agencies of foreign Governments (SCISP, AID).

Malaria. The National Malaria Eradication Service (NMES) continued its activities during the quadrennium under the general technical standards adopted for this type of program in the Americas, but it has undergone certain organizational and administrative changes that necessarily disrupted the continuity of its operations. At the beginning of the four-year period, the Service was operated as an agency subordinated to SCISP, under an agreement with the Government of Ecuador; this arrangement had been considered necessary in order to solve the serious financial problems confronting the Service in 1960, with the appearance of dieldrin-resistant anopheles and the need for changing to semiannual sprayings with DDT. However, in 1964, when SCISP ended its operations, NMES was again placed under the authority of the National Government; moreover, by virtue of an agreement concluded with PAHO/WHO, UNICEF, and AID, with the last-named agency making a substantial financial contribution, NMES became an administrative body directly under the Ministry of Social Welfare, Labor, and Public Health. It was also agreed that it would be headed by two codirectors, one Ecuadorean and one named by the Government of the United States of America. This contract has also expired, and AID is no longer making a financial contribution. The program must now be funded exclusively by the Government of Ecuador, to which the United States of America, through AID, has offered a long-term loan in the amount of $2 million, which would cover approximately 50 per cent of the expenses for a three-year period.

Pending final agreement on its provisions, the loan is still in the process of negotiation; hence, the activities of the Service have been cut back.

In any event, the malaria program has been operating in the period 1962–1965 on the basis of semiannual sprayings, and appreciable progress is being made toward the goal of eradication, as the following figures show:

Year	Blood films examined	*P. falciparum*-positive	*P. vivax*-positive	Possible positives (percentage)
1962	269,269	658	4,883	2.3
1963	286,423	237	3,601	1.3
1964	314,700	264	4,363	1.5
1965	340,127	203	3,976	1.3

According to the latest figures, of the 2,691,547 persons living in the malarious area, 1,287,906 are in areas where transmission has been interrupted and where attack measures have been discontinued. In general, it is believed that conditions have improved throughout the malarious areas of the country, except for two sections, with a total population of some 300,000, where transmission persists, although to a relatively reduced degree.

Further details on this Service will be given when the pertinent agenda items are taken up by the Conference.

Smallpox. We believe that smallpox eradication has been perhaps the most important accomplishment of the National Health Service in Ecuador during the period under review. As a matter of fact, at the time of the XVI Pan American Sanitary Conference, Ecuador (with morbidity running into four figures) was one of the few countries of the Hemisphere where a significant focus of this disease remained, despite the fact that its small area should have made an effective vaccination campaign possible. Various administrative and financial factors had contributed to this lag (the technical problems of vaccine production had already been overcome), but the vigorous effort made after 1962—with the energy, intelligence, and enthusiasm of the consultant assigned to the program by PAHO/WHO playing a major role—succeeded in overcoming all difficulties and in carrying out an effective operation. This effort culminated in May 1964, by which date 3,545,489 persons had been vaccinated, that is, 85 per cent of the total population of the country, thus exceeding the proposed target (80 per cent). Cases of smallpox have ceased to appear in the country. There have been cases diagnosed as smallpox and deaths attributed to the disease, even with medical certification, but all laboratory and epidemiological tests have indicated that those diagnoses were in error.

A systematic revaccination program has been energetically pursued since 1964, with 449,446 vaccinations administered in that year, 919,472 in 1965 (the highest figure for one year), and 599,103 thus far in 1966.

As a means of broadening the scope of this program, the service has taken on the additional task of administering vaccinations against other diseases (diphtheria, whooping cough, tetanus, and poliomyelitis) in rural areas.

Leprosy. In response to the critical need to adopt measures for the control of this disease, the National Leprosy Control Service was created in May 1962, under a tripartite agreement concluded between the Government of Ecuador, PAHO/WHO, and UNICEF; it was operating effectively by July 1963.

During the short time in which the Service has been at work in the detection and examination of cases, it has examined 394,147 persons in a sample representing the entire national territory, except the Colón Archipelago (the Galápagos Islands) and the Amazon region. In the course of this work, 917 new cases were detected, representing 2.33 per cent of the population examined.

The key to the effective organization of this Service is the careful training provided its staff, through fellowships awarded by PAHO/WHO for study abroad and through local courses organized for auxiliary personnel.

Plague. There have been a number of serious setbacks in connection with this disease. In the early part of 1960, as the result of a misguided policy decision and with no advance preparation, the plague control service was decentralized and placed under the local health services, which were at that time suffering from the effects of an unstable governmental policy. This led to a weakening of the control measures; a flourishing of the rural endemic foci, hitherto kept under control; and—this was even more serious—the spread of the disease to a major coastal province (Manabí), which has several important seaports. Subsequently although this was perhaps the result of extraneous factors, a focus of infection reappeared in the southern zone (in the provinces along the peruvian border), where there was an outbreak of considerable intensity. The

following figures show the extent of the problem in the two provinces principally affected:

Year	Province			
	Manabí		Loja	
	Cases	Deaths	Cases	Deaths
1962	241	5	56	9
1963	144	3	29	0
1964	108	5	20	1
1965	114	6	230	10

In view of those emergencies, the Government decided to correct the ineffectual measures. The National Plague Prevention Service (now called the National Plague Control Campaign) was reorganized, with the technical cooperation of PAHO/WHO and UNICEF, and a vigorous campaign was launched, using the most modern technical methods and strategy, including raticides (1080, Cyanogas) and pulicicides (DDT, BHC, chlordane), in addition to rat extermination, domiciliary sanitary measures, etc. The following figures show the intensity with which the task was carried out: 1,712,839 homes visited during the period; 3,554,921 rats exterminated; 423,381 pounds of insecticides and 581,021 grams of 1080 used.

As result of this massive effort, we can report that only 17 cases of plague have occurred this year in Manabí, the last in the month of September.

Aedes aegypti control. This vector was eradicated in Ecuador in 1953, and the eradication was formally certified in 1958. Since then, surveillance has been maintained in the zones considered the most dangerous, especially those on the southern border, because of reinfestation in the neighboring country. In the period under review, 118 localities, with 35,619 dwellings, were inspected, with negative results.

Yaws. Up to 1965 there was a special service operating in Ecuador for the control of yaws. However, in view of the epidemiological evidence that the disease has been virtually eliminated for some time, a request was made for a PAHO/WHO commission to certify eradication. The Government accordingly decided to abolish the special service early in 1966, and to incorporate the yaws control work into the general public health activities.

Chagas' disease. There are still sporadic cases of this disease in Ecuador, with a focus of high prevalence in the city of Guayaquil. The National Institute of Health is therefore conducting epidemiological studies and trials of preventive measures to ascertain the most effective procedure for the eradication or control of the disease. It is feared that there may be a reappearance of the *Triatoma,* and hence a possible recrudescence of endemicity—a situation that already seems to be arising in some places—now that there is no longer the noticeably beneficial effect on *Triatoma* control that resulted from the application of residual-action insecticides under the malaria eradication campaign. The success of the latter program has already led to the suspension of spraying in some areas of the country, including the city of Guayaquil. In this connection, it should be stated that, contrary to the situation in other countries with other species of *Triatoma,* it appears that the *Triatoma dimidiata,* virtually the sole vector of Chagas' disease in Ecuador, is highly susceptible to DDT.

Venereal diseases. Ecuador's problem with regard to venereal diseases continues to be that of faulty evaluation—as is the case in some other countries—in view of the difficulty in assessing the extent of the problem on the basis of available data. Similarly, as is also true in other areas, the substantial impact on the incidence of syphilis and gonorrhea achieved by the use of antibiotics has lessened concern over the problem, which is now reappearing and demanding priority attention on the part of the health services. Our statistics present an unfavorable picture: whereas, in 1962, 32 per cent of the cases detected were cases of early syphilis, by 1965 the percentage had risen to 48.9. These circumstances have led us to consider a proposal for requesting PAHO/WHO assistance in launching an intensive venereal disease control program.

Rabies. There has been no change in the rabies problem in Ecuador, either from the epidemiological viewpoint or with regard to control methods, aside from a project, now about to be implemented, to produce vaccine by the new Fuenzalida and Palacios method. For this purpose, a professional trained in this special subject in Brazilian laboratories has just returned to the National Institute of Health.

However, the following table will give an idea of the public's growing awareness of the need to submit to the rabies treatment and to complete the series:

Year	No. of persons bitten	No. beginning treatment	No. completing treatment
1962	1,270	689	136
1963	1,214	593	95
1964	1,584	700	135
1965	2,666	1,956	653

Tuberculosis. The antituberculosis campaign in Ecuador is carried on in part by the Ecuadorean Tuberculosis Prevention League, which is responsible for the medical care and social welfare work (for which the major share of the funds are made available), and in part by the National Health Service, which is responsible for the preventive work.

Although in the past there have been occasional differences and misunderstandings between those two agencies, a spirit of full cooperation and coordination has been gradually developing. As a result, programs that are almost completely integrated, or, at least, that reflect good coordination, have been carried out.

For its general strategy, the campaign has turned to the new approaches based on the current body of knowledge in pharmacology and epidemiology. A valuable contributory factor has been the objective assessment of the national situation, growing out of the epidemiological studies made and the expert advice provided by PASB consultants.

The preventive work continues to be based mainly on case-finding, using photofluorograms and tuberculin testing, and administration of BCG, produced by the National Institute of Health. In the quadrennium 1962–1965, 291,487 vaccinations were administered by the National Health Service, aside from those administered by League personnel and by private physicians.

Up to the present time, the liquid-type vaccine for intradermal administration (in accordance with the official procedures of WHO) has been used, but a project is now under way for the production of freeze-dried BCG, in order to mount a campaign of massive immunization in rural areas, to which the disease is now shifting.

Other diseases. With regard to other diseases, such as diphtheria, poliomyelitis, whooping cough, and tetanus, a table of statistical data showing their incidence and the immunization programs carried out for their control has been distributed to the delegates.

Environmental Sanitation

From 1943 to 1965, the National Department of Sanitary Engineering functioned as an agency of the Inter-American Cooperative Public Health Service. During that period it completed important projects dealing with both potable water and sewerage systems for various cities and the provision of basic related services (wells and latrines) for certain sectors of the rural population. Up to 1965, we had completed water works serving 1,149,943 urban and 337,209 rural inhabitants, and sewerage systems benefiting 886,088 urban and 7,452 rural inhabitants.

On the basis of the 1962 census, showing a total population of 4,581,476, with 1,616,584 living in urban and 2,964,892 in rural areas, it would appear that 71 per cent of the urban population and 11 per cent of the rural population enjoyed potable water supply, and 55 per cent of the urban and 2.5 per cent of the rural population had sewerage service, which would mean that the goals for the urban population set forth in the Charter of Punta del Este had been met.

However, in actual fact even those established "services" were to require extensive change and even basic modification or expansion, which belied the apparent evidence of the figures. And since, in any case, large segments of the population were still without adequate services, in 1964 the Military Government created the Ecuadorean Institute of Sanitary Works, as an autonomous agency, and provided it with adequate funds (in addition to a $5.5-million loan from the Inter-American Development Bank), to undertake construction of the necessary water supply and sewerage systems, in cooperation with the municipal authorities, who have direct responsibility for the health of their populations. This work has already begun, with promising results.

Moreover, the cities of Quito and Guayaquil, through their special water supply boards (funded by international loans of $12 and $10 million, respectively), have started to modify and expand their water and sewerage services so as to ensure the maintenance of health in those two major urban centers of the nation.

There is every expectation that, as the activities of the Ecuadorean Institute of Sanitary Works develop, the goals for water supply and sewerage services will be met.

II. Health Promotion

A Division of Health Promotion, with regulatory functions, has been established in the Department of Health, replacing the former Department of Maternal and Child Health. The comparable entities at the zone and local levels are being given the same name, which implies the concept of regulatory and operational coordination of activities which are related in their objectives and procedures, but which in the past seemed somewhat unconnected.

Under this same heading, special mention should be made of the demonstration area known as the

Integrated Public Health Plan, now in operation in the Province of Manabí, the nation's second largest in terms of population. This program, conceived in 1963 by the health administration headed by Dr. Roberto Nevárez Vásquez, then Director General of Public Health, was implemented in 1964 under a tripartite agreement concluded by the Government of Ecuador, PAHO/WHO, and UNICEF. The selection and training of personnel to carry on the program were begun in that same year, on the basis of two fundamental criteria: all personnel should be selected under the merit system, and all personnel should be specifically trained for the duties they would be called upon to perform. With the latter goal in view, PASB awarded fellowships, and courses were given through the cooperation of the staff of the National Health Service and international consultants.

Although budgetary limitations have impeded full implementation of the program, it is gratifying to report that it has been in operation since 1964. The former Maternal and Child Care Center in Portoviejo was taken as a base of operations, and, apart from the personnel training activities already mentioned, the work has included the construction or renovation of buildings, in cooperation with other health agencies in the province. Among those institutions, mention should be made of Social Security and the Ecuadorean Tuberculosis Prevention League, with which every effort has been made to establish the closest possible liaison in coordinating and integrating the services. According to the original plan and the basic tripartite agreement, a fundamental objective of the Manabí Plan is to develop integrated public health services in such a way that, once their effectiveness is demonstrated, they will serve as a point of departure in gradually extending the same policy to other regions, even to the entire country in the near future. New legislation on the organization and structure of the health services will seek to establish the legal basis for future integration.

No report on the development of the National Health Service program in Ecuador would be complete without special mention of the "Leopoldo Izquieta Pérez" National Institute of Health, because of its physical, operational, and economic importance and the steady growth it has shown since its establishment. Indeed, the Institute has achieved well-deserved prestige for the efficient manner in which it has rendered invaluable services to the nation. It has invariably won the recognition and esteem of successive administrations, and has thus been able to expand its research activities and its program of service. The latter—conducted primarily through the departments responsible for the diagnosis of communicable diseases; the sanitary control of water, foodstuffs, drugs, and biological products; the production of vaccines (smallpox, typhoid, diphtheria, whooping cough, BCG, rabies, and autovaccines); antigens for diagnostic purposes; the establishment of branch laboratories in the provincial capitals and in some of the cantons; the contribution to research in forensic medicine, etc.—has won the entire nation's recognition of the major role that the Institute plays in public health. Its training programs for its own personnel and that of other health agencies; its research work, as revealed in the *Revista Ecuatoriana de Higiene y Medicina Tropical;* and its cooperation in university education further justify the prestige accorded this institution in the field of science.

During the four-year period covered by this report, a new wing was added for the reinstallation of the sterilization and culture facilities, and, more recently, a modern building, with the most advanced technical equipment, was constructed to house all the work of preparing biological products, thus expanding the badly needed production of tetanus antitoxin.

III. International Cooperation

A review of the activities carried on during the past four years cannot omit mention of, and praise for, the valuable contribution of international assistance to whatever success we have had in attaining some of our desired goals, and in setting new ones.

We have referred several times in the course of this presentation to the invaluable aid provided by UNICEF in a number of the programs, including smallpox, leprosy, and plague control work, and the integrated health plan for Manabí; by SCISP with regard to malaria, sanitary engineering, and health education; and by AID in malaria eradication. To this we should like to add a special word of thanks for the assistance given by PAHO/WHO. Apart from their substantial and tangible contribution—fellowships and other facilities for advanced personnel training, and material and technical teams for certain programs—their assistance has taken the form of the intelligent and dedicated efforts of their outstanding consultants, who have

taken part in a number of programs carried on by the Organization and my country. Rather than limit themselves to the passive provision of technical advice, they have elected to identify themselves with our problems, to study them in depth, so that they have been able on many occasions to serve as catalysts and sources of inspiration, thus helping to keep alive our desire for improvement and progress. The various projects in which they have participated, whether on a continuing or a short-term basis, have invariably benefited a great deal from their contribution. In this connection, very special recognition must be accorded the consultant on integrated public health, the PAHO/WHO Representative in my country, who, in giving the broadest possible interpretation to the objectives of the institution and the policy of its Director and the Zone Representative, has become a constant champion and staunch defender of the basic principles of the Pan American Sanitary Bureau, rendering an authoritative opinion on matters of the utmost importance at the request of the Ministry or the Department of Health, and giving his unfailing support and encouragement to any proposals that might contribute to the orderly development of public health in the country.

Nor can I fail to express our appreciation to Dr. Luis Alberto Jiménez, who served as consultant in the Smallpox Eradication Program. A large share of the success of this program, which had been operating for a number of years, can be attributed to his enthusiastic and dedicated efforts, which often went beyond mere consultation.

PRESIDENT:* Thank you very much, Dr. Montalván. The Chair now recognizes the Delegate of Jamaica.

Report of the Delegation of Jamaica

Dr. ELDEMIRE (Jamaica): I should like first of all to say how happy the Jamaican Delegation is to participate in the XVII Pan American Sanitary Conference, and we look forward to a very successful meeting.

I wish also, Mr. Director, to congratulate you on the splendid achievements of the Pan American Sanitary Bureau as portrayed in your Quadrennial Report for the years 1962 to 1965 and your Annual Report for 1965.

In studying the Report, I was immediately impressed by the continual dynamic development of the Organization, as well as the great successes that it has been able to achieve in the Region of the Americas. I cannot stress too much my Government's gratitude to PAHO and WHO, which have done much fruitful work for the health of my country in the fields of malaria eradication, mosquito control, and the training of health personnel, to mention just a few.

I should like to place special emphasis on the contribution being made by PAHO to programs for the training of health personnel. I am certain that we all agree that professional training, at all levels and for all categories, is the base on which sound integrated health programs must be built.

While on the subject of trained health personnel, if I might be permitted a wry observation, it is that the more highly trained the nurses and doctors become, the more attractive they become to our richer neighbors to the north of Jamaica. In fact, they do not always wait until the nurses go to them —it is not unusual for recruiting teams to sweep down on us. Fortunately, we in Jamaica have had many a page of our history written in crimson terms on the piratical exploits of buccaneers, the crescendo, of course, being reached when one Sir Henry Morgan was installed as Governor of Jamaica. And so we are not entirely innocent of the ways and means of coping with the modern piracy of the soft glove.

I will now just deal briefly with some of our successes and problems which appear in the report on Jamaica. While the order in which I deal with topics does not necessarily indicate their seriousness or importance, I think it is appropriate to mention first the acute problem of retaining professional and technical officers. Doctors and nurses are perhaps the categories in respect of which the drain is most quickly noticed, and most loudly proclaimed. This does not, however, mean that other sections are not equally affected.

The attraction of better working conditions, in larger and more wealthy communities, in which their services are also in great demand, may be expected to continue for some time. And we expect this continuance to make heavy inroads into our technical and professional staff in the future.

In a manner of speaking, it is akin to the law of diminishing returns, in that in nearly every field our institutions of higher or further education do produce enough professionals to take care of our needs. The answers are not as obvious as might

appear at first glance. It is not only a question of whether we have the resources to compete insofar as salaries are concerned, but there are other factors such as the wider horizons of the larger developed countries.

It is probably logical to turn next to the rapid increase of population. The total number of births for 1965 was 69,768, which is an increase of 6,251 over the 1958 figure of 63,517, and this represents an annual rate of 39.29 per 1,000 as compared with a death rate of 7.63 per 1,000.

Our public health clinics, both antenatal and infant welfare, are extending their services steadily each year. Our doctors and nurses are seeing more mothers and babies each succeeding year, but they are still able to provide these preventive services for only 50 per cent of our people who should benefit from these important services.

Special campaigns are still therefore necessary, in order to provide adequate coverage—75 per cent to 80 per cent of the under five-year-olds for instance—for immunization against polio.

In Jamaica we feel justified, in the interests of health and our social and economic development, in having made very positive moves in establishing a Family Planning Unit within the Ministry of Health, which is now engaged in developing a national program of family limitation, for all who would like to make use of this.

The major engineering problems involved in water supplies and sewage disposal are receiving very careful attention. Water supplies to the larger towns and cities are adequate in respect to quality and quantity. The rural areas, however, in which 60 per cent of the population still receive untreated water, present a very difficult problem. Many of the people live in widely scattered communities in the more mountainous parts of the island, and an extensive Rural Water Supply Program, involving the expenditure of the equivalent of approximately $10 million, is now being carried out.

Administratively, we have two separate agencies, one a National Water Authority for the larger schemes, and the other a division of the Ministry of Local Government, which works in close liaison with both my Ministry and the National Water Authority, which is responsible for minor rural schemes. The Minor Rural Water Supply Scheme is a joint effort between our Government and UNICEF, which is rendering invaluable assistance in supplies and expertise.

With numerous housing schemes being carried out, mainly in the areas contiguous to the major cities and towns, these varying in size from 100 to 200 houses, as well as from 1,500 to 2,000 houses, sewage disposal has had to be given very careful consideration. These large housing estates are mainly for the middle- and lower-income groups and, as a consequence, are reasonably priced. It therefore places a major financial onus on the Government in dealing with the effluent from the sewage-treatment plants when the estates are not situated near to the coast or on the border of a river.

I would like now to turn to mosquito control. After four years of the "attack phase" in our Malaria Eradication Program, malaria transmission was interrupted in the entire island. The last case of *P. falciparum* was recorded in June 1961, and since then there has been no evidence of malaria transmission in Jamaica. Residual house-spraying with insecticides was totally discontinued in 1961. Epidemiological evaluation during the period from October 1961 to December 1964 has been considered by the WHO Expert Committee to have been adequate in quality and in quantity during the four-year period of observation. The criteria established by the WHO Expert Committee on Malaria having been met, Jamaica is now considered to have achieved malaria eradication.

The transfer of all our trained workers from the temporary Malaria Eradication Program to the permanent staff of the Health Department has now been completed, and a special Mosquito Control Section has been established. The section is at present assisting Dr. Tinker, WHO Consultant (Entomology) in the field trials of new insecticides, from which we are expecting good results, when we enter the next phase of *Aedes aegypti* eradication. In the meantime, important work is being carried out in collaboration with the Department of Microbiology at the University of the West Indies on St. Louis and eastern equine encephalitis.

The rapid decline of the tuberculosis death rate during the 1950's was followed by a very much slower but steady decline from 1960. The figure now stands at 5.2 per 100,000, and the reduced demand for hospital beds for the treatment of this disease has enabled the Government to close one of the two main tuberculosis hospitals and reduce considerably the number of wards used exclusively

for tuberculosis patients in the general hospitals throughout the island.

The abandoned tuberculosis hospital was completely reconditioned and converted into a very busy Comprehensive Health Center, situated in a thickly populated section of our capital city, and offers outpatient care in general practitioner and casualty services, dentistry, venereal disease, antenatal care, child health care, immunization, food handlers' clinics, and family planning. The average daily attendance at this health center in 1964 was 385.

The nutrition picture is not as bright as we would like to see. Cases showing obvious signs of malnutrition, however, are not frequently seen at the clinics, but gastroenteritis and respiratory disease occurring in young infants who are already suffering from subclinical malnutrition are fairly prevalent. An important change in the Milk Distribution Program has recently been made. Free supplies of powdered skimmed milk, formerly issued to children aged 12 to 24 months, and also to lactating and expectant mothers, have now been made available to children from 6 to 24 months, in an attempt to help them over the difficult ages of 8-10 months, when many of the infants need this additional assistance.

The problem of mental health looms very large over those conditions, which require hospital accommodation and the provision of ambulatory services for their solution. Although the end-of-the-year population of our mental hospital shows a gratifying reduction year after year, it still represents over 40 per cent of the total number of beds occupied in our institutions on any given day. The plans of the new regional hospitals include psychiatric wards as an integral part of the service. Doctors are being urged to admit, wherever possible, psychiatric cases into our existing general hospitals, and ambulatory treatment by trained staff is made available in an increasing number of centers.

Accidents occurring in the home, on the roads, or at places of work occupy about 20 per cent of all the beds provided for males, and 6 per cent of those provided for females, in our general hospitals. Facilities for dealing with these cases have been increased significantly during the period under review, through the provision of more orthopedic beds, the appointment of more orthopedic surgeons and plastic surgeons, and improved facilities for physiotherapy and rehabilitation.

Complications of pregnancy, labor, and puerperium are the causes of hospitalization in about 16 per cent of the women found in our general hospitals, and improved facilities for obstetrics and gynecology have been provided in several hospitals. It is hoped that the provision of family planning facilities will not only alleviate some of the social problems brought about by our high birth rate and falling infant mortality rate, but will also act as a measure of prevention of these complications so common amongst our grand multiparas.

Diabetes is estimated to strike 4 persons per 1,000 in Jamaica, and about 5 per cent of the beds in our general hospitals are occupied by patients suffering from this disease. Thousands of diabetes sufferers attend health centers and dispensaries for regular urine testing and for insulin injections. Health education in nutrition assumes ever-increasing importance in the struggle against the disease, and a joint committee of Government medical specialists and the teaching staff of the Medical Faculty of the University of the West Indies is actively considering practicable means of solving this problem.

Diseases of the heart, vascular lesions of the central nervous system, and malignant neoplasms are our three greatest killers. These, together with the large number of patients suffering from genitourinary disorders, compel us to provide hospitalization for an ever-increasing number of elderly people in our community.

These are the problems which have demanded our serious attention and have led us to the decision that, in spite of a chronic shortage of staff, we should increase the bed capacity of our hospitals by building three new hospitals in Jamaica at this time.

The clamor for more health centers and more dispensaries is very loud and persistent, but as long as those we have are not being fully utilized because of shortage of staff, we have reluctantly had to abandon our building program as far as health centers and dispensaries are concerned, temporarily.

But the fact that we are building hospitals and not health centers does not indicate any reduction of our efforts in preventive work. On the contrary, in the new regional hospital in the Montego Bay area, provision is made to accommodate the staff

mainly engaged in preventive work, with a view to the total integration of the services there.

Now let me assure the Organization of my country's continuing interest in, and support of, the Organization in all its tasks.

PRESIDENT:* Thank you, Dr. Eldemire. The Chair now recognizes the Delegate of the Kingdom of the Netherlands.

Report of the Delegation of the Kingdom of the Netherlands

Dr. VAN DER KUYP (Kingdom of the Netherlands): Mr. President, in accordance with your request, I shall not repeat what has been mentioned in the excellent Quadrennial and Annual Reports of the Director of the Pan American Sanitary Bureau, or what is going to be discussed in the further sessions.

Report on Surinam

General information. Surinam, a developing country, with a wet, tropical climate, 162,000 square kilometers in area, is situated on the northeastern coast of the South American Continent, near the equator.

The principal sources of income are agriculture, bauxite mining, aluminum production, forestry, manufacturing industries, cattle breeding, chicken farming, fishing, and commerce.

Demography. The 1964 census revealed that the population was 324,211 and consisted of 35.5 per cent Creoles (Negroes and mulattoes), 34.7 per cent Hindustani, 14.9 per cent Indonesians, 8.5 per cent Bush Negroes, 2.2 per cent Amerindians, 1.6 per cent Chinese, 1.3 per cent Europeans, and 1.1 per cent other racial groups.

Thirty-four per cent resided in Paramaribo, the capital city; 59 per cent alongside the lower course of the rivers and in between; and 7 per cent in the interior. The average number of inhabitants per square kilometer was 2.0. Forty-six per cent of the population was less than 15 years old.

In the registration areas the birth rates for 1962-1964 per 1,000 inhabitants were 45-48, and the death rates 7.8-8.8. Accordingly, the birth excesses were 37-39 per 1,000 inhabitants. The infant mortality rates were 36-40 per 1,000 live births. The life expectancy at birth in 1963 was, for males, 62.4 years and, for females, 67.5 years.

Changes in health organization. On 1 June 1963, the Ministry of Social Affairs and Public Health was divided into two Ministries, re-establishing the original situation.

Although the salaries of the Government physicians have improved, there is a great shortage of Government general practitioners.

On 7 May 1966, the University Act was passed by the Legislative Council. The foundation of a University is in the preparatory stage. The existing Medical School will be incorporated into the University.

More and more attention is being paid to physical and mental revalidation and to the mental development of the child.

For the dental care of school children the number of Government dentists has been increased to nine; a Dental Center in the capital has been established, while for rural areas there are mobile units available.

The Surinam Red Cross has built a center, in which its activities have been expanded.

The Public Health Program for Surinam of the Agency for International Development of the United States of America had terminated by the end of 1962, except for the rural water supply development aspects, which continue and expand within the Ministry of Public Works.

Nutrition. From 1954 to 1966 more than 6.5 million pounds of dried skimmed milk, valued at almost $1.3 million, were donated by the Government of the United States of America through the United Nations Children's Fund.

The milk is being provided to 24,000 school children, 4,000 pregnant and lactating mothers, and 12,000 pre-school children and children in institutions, through regular distribution in 176 outlets. This represents approximately 11 per cent of the total population of Surinam.

In 1964 and 1965, data on the weight and height of about 75,000 persons were collected by standardized techniques.

The World Food Program assisted the Surinam Government in providing food to the transmigrants moving from the impounding lake area.

The Young Women's Christian Association built a small hospital for 15 undernourished children.

With the aid of the Netherlands Foundation for the Advancement of Tropical Research and the Netherlands Central Institute for Nutrition and Food Research, a small permanent research unit has been set up to study nutrition problems.

Hospitals. A new, well-equipped Government Central Hospital with accommodations for 370 patients was put into operation in 1965. A similar Hospital of the Deaconesses, with 111 beds, was opened in 1962. The armed forces also put into use a new hospital, with 68 beds, in 1965. The Roman Catholic Hospital and the Rural Hospital of the Suriname Aluminum Company have been modernized. Aside from the temporary structures, there are 18 general hospitals with 1,460 beds. Besides these, the country has a mental hospital with 365 beds, a Government leprosarium for 150 patients, and a tuberculosis hospital with 52 beds.

Leprosy control. As the number of patients in the Protestant and Roman Catholic Leprosaria dropped to a few, owing to the treatment with DDS, and to the modern criteria about isolation, these leprosaria were closed after the patients had been evacuated to the Government Leprosarium, which is being managed by the Salvation Army.

Poliomyelitis control. Poliomyelitis in Surinam has reached the transitional phase from endemic to epidemic. In 1953 an outbreak of 17 cases was reported; in 1960 there were at least 40 cases of "infantile paralysis." Forty cases occurred in 1963, of which 88 per cent were among children under five years of age. Virological examination was carried out in 28 cases. Poliovirus Type 1 was isolated from the feces of 20 patients. Three surveys on antibodies in blood serum samples show that all three types of poliovirus are widespread among the population, a large percentage of whom are apparently infected when less than five years old.

A nation-wide immunization campaign with three doses of trivalent oral Sabin-type polio virus vaccine for children aged from six months to 14 years was carried out in 1963, covering more than 77,000 children. Moreover, approximately 20,000 were immunized with Salk vaccine. Two years later oral vaccination was applied to children not immunized before.

Schistosomiasis control. So far, almost 66,000 persons from rural areas have been examined for schistosomiasis. In 6 per cent of them *Schistosoma mansoni* ova were found in a single feces specimen.

The trematode has never been reported from the savannah and interior zone. This may be due to the following factors: (1) the water is acid; (2) the water is very poor in calcium; and (3) the water has a high tannin content.

On the other hand, the disease is endemic in the inhabited parts of the swampy north-central coastal region of Surinam, especially where shell-ridges are present. The shell-ridges are preferred by *Australorbis glabratus,* probably because of the following reasons: (a) the waters of these areas have a high calcium content. Calcium is needed for the snail shells; (b) the pH of the waters is 6.9 on an average. The shells neutralize the otherwise acid waters; and (c) the waters of the shell-ridges seem to provide the right food for the snail-host.

The trematode has been found in animal, as well as human, reservoirs. Swellengrebel and Zijlstra discovered *Schistosoma mansoni* ova in a great anteater and also in a squirrel monkey, while Heinemann discovered ova in wild rats.

Although every house is required by law to have toilet facilities, many Asiatics, especially when suffering from diarrhea, defecate in the rice fields, rendering these infested. So far the Bureau of Public Health has provided 2,500 prefabricated pipe latrines for the rice fields, free of charge.

Report on the Netherlands Antilles

While Surinam, with its heterogenous population, is a fascinating "laboratory" for tropical medicine and hygiene, the Netherlands Antilles, the other partner of the Kingdom of the Netherlands in the Western Hemisphere, although situated in the tropics, shows more or less the pathology of the temperate zones. The death rates here range from 4.7 to 5 per 1,000 inhabitants; the birth rates, from 29 to 33; and the infant mortality from 15 to 18 per 1,000 live births.

PRESIDENT:* Thank you, Dr. van der Kuyp. I believe it is now time for a recess. Does the Secretary have any announcements?

Dr. SUTTER (Assistant Director, PASB):* Yes, Mr. President. May I request that the working party on the application of Article 6 of the PAHO Constitution, composed of Guatemala, Mexico, Trinidad and Tobago, the United States of America, and Venezuela, meet immediately after the recess in Conference Room C.

The delegates are also reminded that a secretary, with forms and documents for those who wish to participate in the Technical Discussions, is stationed in the small room next to Conference Room C. This registration procedure is necessary in order to organize the discussion groups. Members of the

delegations and observers from international and nongovernmental agencies may register.

At the request of the Delegation of Peru, I should like to announce that invitations to the reception to be given by the Minister of Health and the Ambassador of that country have been sent to the various embassies, and to present their apologies if the invitations do not arrive in time. All members of the delegations are invited to the reception, which will be held at the Ambassador's residence.

The session was suspended at 4:00 p.m. and resumed at 4:30 p.m.

PRESIDENT:* The session is resumed. We shall proceed with the presentation of reports by the delegates. The Chair recognizes the Delegate of Paraguay.

Report of the Delegation of Paraguay

Dr. GONZÁLEZ TORRES (Paraguay):* I shall attempt to give a brief summary of the public health activities carried on in my country during the past four years, rather than read the full report, now in the hands of the delegates.

It is evident that the most important factors facilitating progress in many sectors of our national life, including public health, have been the social and political tranquility enjoyed by the Republic for the past 12 years, coupled with monetary stability, the increase in infra-structure, the merchant marine fleet, hydroelectric plants, new roads, settlement of rural areas thus incorporated into the national economy, incentives to increased production, and related developments. Nevertheless, Paraguay is facing a serious problem, which, despite all the efforts being made, continues to elude governmental measures for its control. This problem—which hampers our economic and social progress and therefore has a significant impact on public health—is that of low prices prevailing in the world market for our primary commodities, mainly agricultural products. The problem is not peculiar to Paraguay, but affects all of the countries that produce raw materials.

It is shocking to realize that we lose millions of dollars each year because of the low prices paid for our basic products, under conditions that recur inexorably: when our crops are ready, the world market prices invariably fall. To obtain today the same dollar value as we did 10 years ago, we must double our production, yet, the prices for manufactured products, including agricultural and industrial machinery, continue to rise.

Turning to the field of public health, special importance must be attached to the creation, in March 1962, of the Technical Planning Secretariat, directly responsible to the President and charged with the task of planning the economic and social development of the country; a Planning Unit, comprising a Bureau of Regulatory Services and an Office of Organization and Administrative Planning, was also established in the Ministry of Public Health. The first task was to be the formulation of a 10-year health plan, employing the methodology developed by CENDES (Center for Development Studies of the Central University of Venezuela); however, with the advice of the Tripartite Committee of the OAS, IDB, and ECLA, the Technical Planning Secretariat decided that the planning policy should take into consideration the fact that, although the formulation of the long-term plan was of basic importance, it was no less urgent to provide the Government with proposed guidelines for immediate action by drafting a general short-term plan.

With such a plan in view, the Health Planning Unit surveyed the health situation in the country, that diagnosis having served as the basis for a two-year health plan, for 1965 and 1966, which sets forth the general and specific long- and short-term goals and outlines the strategy to be employed in attaining them.

The short-term plan has had substantial aid from UNICEF, which furnished equipment for 17 maternity and 20 dental clinics, and also for sanitation projects, at a cost of $80,000, as well as providing fellowships for personnel training, at a cost of $67,000, transportation for health centers, etc. With regard to personnel trained in planning, the country now has four physicians who have completed the courses at the Latin American Institute for Economic and Social Planning in Santiago, Chile, and two others are attending the course this year. Mention must also be made of the local courses for the training of doctors, engineers, dentists, and nurses at the national level.

Efforts to develop planning procedure in Paraguay up to the present have had a significant impact on the institutional and administrative structure, and the outlook for the future is favorable, there being signs of gradual improvement.

The basic rural sanitation plan, approved in 1958,

is now in its second phase. A program has been envisaged to include 34 health centers, and four shops have been placed in working order for the production of flagstone and the repair of community septic tanks. At the present time the program, which has 62 inspectors and auxiliary health workers, covers 41 localities and serves a population of 1,140,000, or roughly 55 per cent of the total population.

Seminars were held for health inspectors and auxiliary workers, two in Health Region III and one in Regions I and II; there was also a seminar at the national level. Short training courses were offered for self-taught well-drillers and plumbers in the various communities, so that they might help maintain and repair pumps and construct water supply installations. In all, four courses of this type were given, three in Health Region I and one in Region II, with a total attendance of 45 plumbers and 61 well-drillers.

Three agencies have generously provided aid for the environmental sanitation program: UNICEF, PAHO/WHO, and AID. UNICEF has collaborated by providing equipment, materials, vehicles, well-drilling machines, centrifugal and other types of pumps, trucks, jeeps, concrete-mixers, etc. It also furnished complete sets of tools for sanitary supply shops, hand pumps, machines for the manufacture of cement blocks, drinking fountains, and spare parts of various types. Such aid amounted to $393,000 in the four-year period. The Agency for International Development offered assistance mainly in Health Region III. For its part, the World Health Organization, through the Pan American Sanitary Bureau, has been supplying technical advisory services to the program since 1954.

It may be said that, during the four years under review, the established goals have been achieved to the following extent: water supply, 52.5 per cent; sewage disposal, 76.1 per cent; and refuse disposal, 78.0 per cent. A program of potable water supply for low-income districts was initiated in 1962. Moreover, in two of the health regions, demonstration projects for the control of communicable diseases have been operating since 1965, as regular integrated programs of the health centers. This project of the Government, developed in cooperation with PASB and UNICEF, has the following objectives: to incorporate communicable disease control into the regular activities of the services that are under the Ministry of Public Health, drawing up, for that purpose, a local plan of action in keeping with the scope and nature of the diseases; to train the required professional and auxiliary staff; to develop a program for the control of communicable diseases in one urban and one rural demonstration area; to draw upon the organization and operation of this program in the practical training of personnel; and to study and apply the procedures and techniques that will produce the greatest return at the least cost and as quickly as possible, within the framework of local conditions. Priority in this program is being given to these diseases: tuberculosis, leprosy, venereal diseases, smallpox, tetanus, whooping cough, and diphtheria; and goals are established annually.

To increase the effectiveness of this project, a coordination committee has been created, with representation by the Ministry of Public Health, the Social Security Institute, the Army and Police health services, and the National University. Subcommittees have been appointed to study the problems related to tuberculosis, leprosy, acute infectious diseases, and administrative matters. UNICEF has cooperated in this project, supplying a mobile X-ray unit, drugs, vaccines, and vehicles, and furnishing the necessary material for the preparation of statistics. The project, now in full operation, has already shown promising results.

In 1965 there was an outbreak of smallpox in a small town in the north of the country. It would probably have gone unnoticed if one of the persons affected had not traveled to the capital and carried the disease to others. As result, a massive vaccination campaign was launched, with 866,720 persons (infants, preschool and school-age children, and adults) being immunized in a short period of time. The vaccine was donated by the Government of Uruguay, and a PASB consultant surveyed the situation in the country.

An epidemic of jungle yellow fever occurred in 1966 in areas bordering on Argentina and Brazil. The Ministry of Public Health took appropriate measures; it conducted epidemiological and entomological studies in those areas, with the result that the presence of the vector was not verified and no clinical cases were found. However, as a preventive measure, a massive vaccination campaign to protect the exposed population of some 30,000 persons was carried out, using vaccine donated by Brazil. Further, experts from the three countries and ad-

visers from PAHO/WHO held a meeting, at which agreement was reached on measures to be taken in that and in any future emergency.

Though not a great problem in terms of the number of cases, poliomyelitis has a far-reaching social impact in Paraguay. Accordingly, the Ministry of Public Health initiated a campaign to administer the Sabin-type oral vaccine to children under seven years of age; approximately 266,000 children were vaccinated, and more than 26 per cent of the goals were attained. The oral vaccine was donated by the Burroughs Wellcome & Company Laboratories of the United Kingdom and by the Ministry of Social Welfare and Public Health of Argentina.

With regard to nutrition, it can be stated that this matter has received due attention by the Government. Effective cooperation having been obtained from the Office of International Research (Nutrition Section) of the National Institutes of Health of the United States of America, a nationwide survey was conducted. The major findings may be summarized as follows: presence of anemia (more common in children), iodine deficiency and low levels of riboflavin excretion; on the other hand, the chemical results did not reveal vitamin A or protein deficiency.

Iodization of salt for human consumption in the past five years has caused a drop in the over-all general index of goiter from 34.0 to 21.5 per cent.

The Feeding and Nutrition Education Program is being carried on through the cooperative efforts of the Ministries of Public Health, Education, and Agriculture. The action area of the program covers 140 communities, including 1,200 schools and some 200,000 pupils. The Government, in cooperation with FAO, WHO, and UNICEF, has established the following goals for this program: (1) to carry out a program of nutrition education for students and their parents through the schools, and for the community in general through the health centers; (2) to foster training in home economics and agricultural extension work through the Agriculture and Livestock Service; (3) to provide training in nutrition for teachers, supervisors of primary education, home economists, and agronomists, and for directors of the local health services and other public officials having responsibility for the program; (4) to organize and encourage school garden programs; and (5) to provide the schools and communities with potable water.

One of the major activities envisaged in the Plan of Operations is the training of those persons who have direct or indirect responsibility for developing the program. Hence some 1,181 directors, community leaders, school teachers, home improvement instructors, and others, were trained between 1962 and 1965.

With regard to maternal and child health—which has virtually been the core of all our health activities in this period—we found that infant mortality, within the framework of generally high death rates, has shown a slight downward trend, though with variations from year to year, owing to irregularities in the registration of live births. A similar fluctuation is revealed in all of the rates in which the number of live births is used as the denominator. The decrease is more striking in the age group of 1–11 months, but not in that for infants under 28 days, for whom the rate has remained constant during the four-year period.

Mortality for the group between one and four years of age showed a marked decrease, from 10 per 1,000 in 1961 to 6.6 in 1965.

It is also clear that there is a rising trend toward professional attendance at child birth, the percentage having risen from 46.4 in 1961 to 54.0 in 1965. There is also a steady increase in institutional deliveries, from 38.5 per cent in 1961 to 47.1 per cent in 1965. The number of pregnant women registered in the prenatal care services has likewise increased; in the last two years 53 per cent of the expectant mothers in communities where the Ministry of Public Health has such services took advantage of the facilities.

To mention other statistical data: the general death rate in Paraguay dropped from 10.1 per 1,000 inhabitants in 1961 to 9.48 in 1965.

There was also a gradual increase in the number of mothers' clubs for health education.

With regard to personnel training at all levels, which has received continuing attention throughout the period under review, a number of courses at the local level have been given and good use has been made of the many fellowships offered by the international agencies.

The tables in the report now before the delegates indicate that during the years 1961–1965 the following activities were carried out: regular courses for midwives, nurses, welfare workers, nursing aids; training courses for midwives and public health nurses; short courses in public health for directors

of rural health centers; refresher courses for nurses, midwives, and welfare workers; training in biostatistics for personnel of various categories; refresher courses in the control of communicable diseases for doctors, nurses, and auxiliary workers; training courses for administrative personnel in the Ministry of Public Health; and various types of seminars at a number of professional levels. In all, 1,322 professional workers in different categories received training.

In November 1963 the "Dr. Andrés Barbero" Institute, previously under the Ministry of Public Health, was incorporated into the National University. This Institute is responsible for training nurses, midwives, and welfare workers. Beginning with the academic year 1962, it replaced the three-year course for the training of midwives with a 12-month specialized course for graduate nurses.

Since 1965 the University has been offering special annual courses for nurses who had been graduated under the former three-year program, to bring their training up to the level of that of nurses graduated under the four-year program.

In June 1963 an agreement was concluded between the University, the Ministry of Public Health, and AID, requiring newly graduated physicians, nurses, and midwives to spend a certain period in rural areas working for the Ministry's health services. This "rural internship" lasts 6 months for doctors and 12 months for nurses and midwives. Its purpose is to familiarize the recent graduates with the pathology of the rural environment and to give them an understanding of all the factors conditioning diseases in the rural area.

With regard to the malaria eradication program, the disease has continued to be a major public health problem in Paraguay. Accordingly, the Government, determined to cooperate in the international effort now being made to eradicate malaria in the Americas and in the world, drew up a new malaria eradication plan, with the technical advice of PAHO/WHO; the plan will be implemented as soon as the adequate means contemplated therein are made available.

During the past four years, the work of geographic reconnaissance and evaluation in a large part of the national territory was completed. Epidemiological and entomological studies were made. A census of houses, the installation of notification stations, control of febrile patients, blood sampling, and active case-detection and treatment of patients were carried out.

There were a number of serious epidemic foci in various parts of the country in 1964–1965, mainly related to such factors as internal migration and the opening of new areas in endemic zones to agricultural settlement. It was necessary to resort to emergency spraying to control this situation, at the same time that case-finding and presumptive treatment of febrile patients were intensified.

Moreover, localities in several river basins in the interior, where the prevalence of malaria is greater, are sprayed continually, so as to keep the indices within more or less tolerable limits and thus permit economic development of those regions, which are potentially the richest in the country.

The problem of financing the malaria eradication program must also be solved. Recognizing the fact that failure of the campaign in Paraguay would be a serious setback to the hemisphere-wide eradication program, the Government, at a meeting of the National Economic Coordination Council on 2 September 1966, approved the technical aspect of the program to eradicate malaria within eight years. For this purpose, consideration is being given to local financing on the basis of a 50-per-cent increase in the national allocations over a period of seven years, and it is expected that a loan of approximately $2 million will be requested of AID, under the usual conditions for this type of campaign. These sources of funds would supplement those already available to carry out the eradication program.

In conclusion, Mr. President, I should like to mention a few other facts. In the dental health program, fluoridation of drinking water in Asunción has already shown initial results. The first survey made last year for purposes of evaluation showed improved indices for school children, ranging from 31.8 per cent for children 7 years of age to 11.17 for children 11 years of age. It is apparent that the younger children benefited most, because they had begun drinking fluoridated water at an earlier age than the others.

Personnel training at the administrative level was increased during this period, through local courses and through fellowships for attendance at seminars or advanced courses organized by PAHO/WHO in other countries. A budget division has been established to work in cooperation with the Planning Unit in carrying out the established goals. Finally,

the organization of the administrative services is being rapidly adapted to the needs of planning and of the program-budget.

Mr. President, distinguished delegates: The Government and the people of Paraguay, in a joint effort and with the invaluable assistance of the international agencies, are determined to continue the struggle for economic and social progress and improved health, in concert with the Governments of the Americas.

PRESIDENT:* Thank you very much, Dr. González Torres. The Chair now recognizes the Delegate of Panama.

Report of the Delegation of Panama

Dr. CALVO (Panama):* First, let me express the regret of His Excellency, Abraham Pretto, Minister of Labor and Public Health of my country, at having been obliged, for reasons beyond his control, to return to Panama, when he had planned to participate in the deliberations of this XVII Pan American Sanitary Conference and to report to this distinguished body on the progress made in our country during the past four years.

In presenting this report on the advances in the public health sector during the quadrennium, we believe it important to mention certain basic factors that have combined to produce changes in the health policy, in program structure, and, in short, in our technical ability to obtain optimal utilization of existing resources and to ensure the availability of investment capital for this sector.

A major undertaking in the Republic of Panama was the project initiated in 1961 to make a thorough study of the health situation in the typically rural central area of the country. This study was intended to provide a basis for the formulation of the first health plan, which would, in turn, permit fundamental changes in the traditional health policy or more effective implementation of the programs through better utilization of techniques and resources. This effort to achieve greater rationalization of the health administration served to stimulate the flow of technical and financial assistance from international and other agencies, such as PAHO/WHO, UNICEF, AID, the Kellogg Foundation, CARE, and others, which have consistently fostered health programs and services in Panama.

In working toward one of the basic goals of the Charter of Punta del Este, we proceeded immediately to the task of expanding the regional health plan within the national framework, as an integral part of the National Economic and Social Development Program then being formulated. Consequently, the first national health planning document was produced in 1962. Even though this plan did not follow the new methodology being advanced by CENDES, then in the development stage, it did in any case project a new health policy, based on a dynamic approach, in keeping with our national development policy. It must be admitted that while the diagnosis included in the plan covers all components of the health sector, the plan itself deals only with the public sector. Reorganization of the plan so as to include all the subsectors carrying on activities in the health field is one of the tasks to be accomplished in the near future.

Implementation of the new health policy, combined with our planning efforts, has led to a series of major changes in the reorganization of the technical and administrative structure of the governmental health programs and services, as a consequence of the new criteria for medical and health services that are rapidly gaining acceptance. These criteria, which are most important to our country in that they shape the structure of the health services at present, include the following:

1. Gradual development of medical care and health programs based on the concept of integrated medicine designed to provide total and continuing health activities directed both to the individual, as an element of the community, and to the community as a whole, as a global conditioning factor in the health situation.

2. Decentralization of activities to the local level, seeking a more efficient type of organization within the regional structure, based on the idea of a program area or a medical-health area, with its own defined jurisdiction and its own defined needs, with the allocation of available resources in accordance with annual programming.

3. Effective program action at the level of the services provided, in order to change the traditional attitude of the hospital establishment in favor of a more dynamic attitude, centered in health activities for the benefit of the community and with its participation, and with a shift from priority attention on the hospital bed as a tool to that of consultation or care of the outpatient, as a means of achieving increased coverage, with greater efficiency and lower costs.

4. Continuing consultation with the highest echelons of development planning, at the presidential level, so that the process of health planning and program implementation will be continually adjusted to the evolution of over-all planning, and health as an element in social development will be considered at the highest level in the allocation of available funds.

5. Effective and properly motivated community participation in the solution of local and national health problems, as evidence of the positive maturity that is being acquired as the result of educational and cultural programs.

6. Coordination, now under way, with the subsectors that supplement governmental action in the health field, with the ultimate objective of gradually bringing about a more equitable distribution of the health services provided to each citizen, or, in other words, to the entire population that contributes directly or indirectly to the national income.

The first step in the practical application of the last-named criterion was the organization of a National Health Planning Committee, following the preparation of the National Public Health Plan. In this first stage it was not possible to constitute the working party as envisaged, and its activities and efforts were confined to the framework of the public sector represented by the National Department of Public Health. Recently, through appropriate legislation, the National Committee was reconstituted at the ministerial level, with the participation of all of the subsectors in the health field and with a technical secretariat or a working party on planning. It is proposed at the ministerial level to give this Committee all necessary support to begin immediate preparation of a National Health Plan, which will cover all health activities in the country and make it possible to establish the national health policy clearly and effectively.

Comparative Assessment of the Health Situation from 1961 to 1965

It may be stated in general terms that important changes have taken place in the health situation, as shown by a comparison of the statistics available for 1961, the first year of planning, with the figures for 1965. Although the changes cannot be attributed entirely to the activities of the health service, the latter have had a significant impact on the phenomena of change. This assertion is based on the fact that, despite progress in other activities in the various development sectors, those activities have not been of sufficient magnitude nor implemented with sufficient speed to produce the changes of themselves.

To present an objective view of these changes, most of them positive, we offer some pertinent statistics related to population and some indicators, such as life expectancy, natality, mortality, and morbidity.

Population

The population of the Republic of Panama exceeded one million in 1960. It is estimated to have been 1,245,900 in 1965, and it is expected to reach 1,463,500 in 1970. The rate of growth is among the highest in Latin America; this is likely to be one of the major obstacles to implementation of the social programs essential to development, unless the rate of economic growth equals or exceeds the accelerated population growth in the near future. In addition to the features generally known—a young population that is predominantly rural—the fact that this population is greatly dispersed makes it difficult to provide adequate and regular attention to its social needs. The over-all development programs for the country are designed to encourage the concentration of population in small settlements by beginning integrated rural development programs in which the health sector has been accorded high priority. This program of rural development, known as the "Robles Plan," is concentrated in six priority areas, for each of which a basic health program structure is envisaged, in accordance with the future course of the National Health Plan.

It should be noted that the tendency of rural inhabitants to migrate to urban centers that hold out the prospect of better living is more or less rapidly reducing the population differential between the rural and urban areas. Whereas in 1961 the rural population accounted for 64 per cent of the total, estimates for 1965 and projections for 1970 indicate that the percentage will drop to 55.5 and 52.3, respectively.

Life Expectancy

Life expectancy at birth had reached a high level in 1960–1961, when it was 63.4 years for males and 66.3 years for females. The index is expected to show even greater improvement in 1965, and the outlook for the coming decade is most promising. This index is conclusive evidence of a rise in the health level and is a major factor in the population growth.

General Natality-Mortality and Normal Growth Rates (Urban and Rural)

Over the past decade the birth rate has varied slightly around an average of 40.5 per 1,000 population. The recorded rates were 40.6 and 39.2 per 1,000 registered inhabitants for 1960 and 1965, respectively. The rates in the rural areas showed no significant fluctuation: 42.4 in 1961 and 41.8 in 1965; however, in the urban areas they showed a downward trend, dropping from 38.2 in 1961 to 35.7 in 1965. General mortality for the entire country dropped from 8.0 per 1,000 population in 1961 to 7.2 in 1965. As was to be expected, this decline was more apparent in the urban area: from 6.7 to 5.8 per 1,000 population; nevertheless, the decrease in the rural area, from 9.0 in 1961 to 8.3 in 1965, is highly significant. The normal rate of population growth dropped from 32.6 in 1961 to 32.0 in 1965, as the result of the decrease in the urban areas.

Mortality in Infants and in the 1–4 Age Group (Urban and Rural)

Infant mortality is currently the most significant index of the child care programs. In Panama the specific rate dropped sharply from 54.4 in 1961 to 44.7 in 1965; the decrease is even more significant in rural areas, where the figures were 60.3 per 1,000 live births in 1961 and 49.1 in 1965. Gastroenteritis appears as the principal cause of death for this age group throughout the country, but, as might be expected, the incidence is somewhat lower in the urban areas. The large number of reported deaths from tetanus in this age group in the rural area is noteworthy.

Mortality in the group between 1 and 4 years of age dropped from 8.3 in 1961 to 7.8 in 1965. The decrease was significant in the urban area—from 4.3 to 2.9—whereas there was a slight increase—from 10.7 to 11.0—in the rural areas. Improved registration of data in the rural areas may have been a factor in that small increase.

Mortality in Terms of the 10 Principal Causes of Death (Urban and Rural)

The following table shows the changes that occurred between 1962 and 1965 in the relative order of the 10 principal causes of death. However, since these include deaths not medically certified, the positions established from an analysis of the medically certified deaths show major differences. In any event, there is a marked trend toward a decrease in those causes attributable to reducible risks.

The shifts in mortality owing to medically certified causes are shown below:

1962	Position	1965
Gastroenteritis	1	Malignant neoplasms
Diseases of early childhood	2	Heart diseases
Heart diseases	3	Accidents, suicides, and homicides
Malignant neoplasms	4	Vascular lesions
Vascular lesions	5	Gastroenteritis
Accidents, suicides, and homicides	6	Pneumonia
Pneumonia	7	Diseases of early childhood
Tuberculosis	8	Tuberculosis

Among the causes of death in infants under one year of age, gastroenteritis, related to malnutrition or tetanus in the newborn, and acute infections of the respiratory system continue to predominate; there is a slight downward trend in injuries due to childbirth and to postnatal asphyxia and atelectasis.

Morbidity

The quarantinable diseases have been eradicated in Panama. The infectious diseases susceptible of a drastic reduction tending to eradication have but a slight effect on morbidity. Thus, for example, poliomyelitis has been reduced to such an extent that a positive diagnosis over the past two years has been the exception. Typhoid and paratyphoid appear only sporadically, in the more isolated areas. Yaws has been practically eliminated. Leprosy shows a very low rate in the morbidity tables, and more than 90 per cent of the known cases are under control (approximately 115 cases for the entire country). Diphtheria also appears only sporadically, with a very low annual morbidity. Syphilis and other venereal diseases show a slightly upward trend, which is now under study. The known morbidity attributable to Chagas' disease is increasing.

In the field of the communicable diseases, the well-known problems of malaria and tuberculosis, which will be taken up later, still persist. Both show a marked downward trend, especially malaria. As result of more efficient diagnosis, tuberculosis is being detected in its incipient and minimal form, when it is highly susceptible to treatment. Tubercular meningitis has dropped to an insignificant incidence.

Changes in the epidemiological picture of the communicable diseases have been so extensive that attention can now be shifted to those diseases that have heretofore been the least susceptible to treatment, but that now may be more effectively controlled as the result of improved techniques leading to early diagnosis. They include the conditions related to malnutrition, particularly in children under five years of age; cancer; mental illness, etc.

Inventory of Resources

Financial resources. It is extremely difficult to make an accurate assessment of the funds that are spent each year on health, since the budgetary allocation for the public sector accounts for only some 40 per cent of the total funds available for the operation of programs and services. In view of the annual population increase, the minimum necessary to maintain the current operational levels, from year to year, would call for proportionally greater amounts of public funds. Increases above those marginal levels are dependent on more efficient tax collection methods, coupled with an increase in the national income and greater support for the integrated health policy within the framework of the national development policy. In Panama there is a trend toward a gradual increase in the financial resources allocated to health activities; this is especially apparent in the medical care services of the Social Security Fund, whose available *per-capita* funds for health services are 15 times greater than those of the public sector. The absolute values of these resources are being brought into line, as a whole accounting for approximately 4.5 per cent of the gross national product which means an increase of 0.5 per cent over the 1961 estimate. The increase in the total funds available for medical services between 1961 and 1965 was greater than the country's total population increase in that same period.

The Ministry's budget for health programs in 1961 was approximately 16 per cent of the total National Income and Expenditures Budget. However, in view of the sizable reduction in that health budget following the establishment of the National Water Supply and Sewerage Institute (IDAAN) as an autonomous agency, and in the light of the rapid growth of the national budget, it would appear that there has been a significant increase in the total health budgets of the public sector in the four-year period.

Other very important sources of funds are the contributions of the municipalities and the voluntary contributions collected by the health committees for services provided. In 1961 very few municipalities contributed to the maintenance of local health services and there were no so-called health and welfare committees. By 1965 the major municipalities were drawn into the local health movement, and more than 150 health committees are now operating effectively throughout the country. Another significant form of support, which has been greatly broadened in recent years, is the technical and financial assistance stemming from the efforts of the international and other agencies, especially WHO, PAHO, UNICEF, and of AID for the operation of programs included in the National Health Plan.

With regard to capital investments for health establishments, no substantial allocation has been made as yet, owing to the limitations on national funds. With the presentation of the National Health Plan, and the projects developed under it, it has been possible to initiate a program for the construction of buildings that are being gradually incorporated as satellite installations in the system made up of the programs of the medical-care and health areas and the Base Medical Center of the Central Region. The latter project, now in the final stage of financing by AID, represents a total investment of 4 million balboas. These buildings, with the necessary equipment and complete architectural plans, were constructed under a tripartite agreement between the National Government, UNICEF, and AID, with technical assistance from the Pan American Sanitary Bureau. All of these projects, in various stages of completion, are a part of the national short- and long-term investment program, which is subject to annual review and evaluation. It is gratifying to note the increasingly high priority that my country is giving to investments in the health sector, within the general public investment program. Another important step forward in the coordination policy in recent years is the participation of the Social Security Fund in the programs of capital investment for public health installations. With its contribution of 50 per cent of the cost of improvement projects, it has been possible to correct some of the major weaknesses in our institutions, and with the acceptance of Government bonds and the allocation of an agreed-upon percentage of the proceeds, it has been possible to undertake some of the more

complex works, at a cost of more than 1 million balboas.

Institutional resources. The diagnosis of the health situation made in connection with the National Plan revealed an extraordinary inadequacy in the official institutions. That inadequacy was all the more striking in view of the fact that wherever a hospital was operating at the local level, there was also a traditional health center, also inadequate and completely separate from the hospital. The new health policy, designed to provide integrated medical services at the local level, called for the organization of the services under a single command and as a single operational unit. By pooling human and financial resources, and by putting into practice new program methods, it was possible to effect a change in the direction of higher returns, despite the slow progress of changes in the physical structures. Local hospitals were converted into integrated medical care centers as the base of operations in each program area; the basic local health centers, or those with maternity and pediatric clinics, were organized around the centers; and the health subcenters, permanently staffed by a trained auxiliary worker and regularly visited by a medical-health team, were increased. The change that took place between 1962 and 1965 is shown by an increase of from 54 centers to 61, and from 54 subcenters to 61.

Despite the integration of 11 health centers operating in 1962 into base hospitals for the area, by 1965 there was a favorable balance of 7 institutions, 6 of which are official. However, the most meaningful result is the remarkable growth of the health subcenters, a clear indication of the extent to which the health programs have penetrated the area where the needs are greatest, that is, the typical rural areas.

Manpower resources. The expansion of health programs and services necessarily implies an increase in the manpower resources required to meet the resultant demand effectively. In this connection, there has been a significant increase in the professional and subprofessional personnel in the Ministry's services, the total number having increased by 20.5 per cent between 1962 and 1965. The increase in the number of doctors and nurses, 37.2 per cent and 28.5 per cent, respectively, is especially noteworthy. Considerable credit for this achievement goes to the School of Medicine and the School of Nursing, from which an average of 22 and 50 persons graduate each year. Some increases have been recorded for all other professional and subprofessional personnel in the various Ministry programs, with the exception of nutritionists.

On examining the ratio of the total number of professional employed in health programs, in both the public and private sectors, in relation to the total population, we find a notable increase in the case of physicians, the ratio having risen from 4.3 doctors per 10,000 population in 1962 to 5.0 in 1965. The figures do not show an increase from 1962 to 1965 in the case of nurses, the ratio remaining virtually constant at 6.6 nurses per 10,000 population; this situation stems from the fact that when the General Hospital of the Social Security Fund was opened in 1962, a large number of foreign nurses, who were subsequently replaced by nationals, were recruited. No change was reported in the case of dentists, the 1962 ratio of 0.8 per 10,000 population having been maintained in 1965.

Personnel training. Success in implementing the National Public Health Plan depends on a broad program of personnel training at all levels and in all of the disciplines involved in health programs. We have already mentioned that one of the basic changes made in putting the plan in operation was the creation of a personnel training section at the national level, toward the end of 1961.

During the past four years, the training program thus conceived has been directed to the following fields of action: (1) maximum utilization of technical assistance funds and fellowships for specialized study abroad; (2) academic training of technical personnel at the university level; (3) training of subprofessional personnel in formal courses offered in various health institutions, using the Ministry's own resources; and (4) seminars and in-service training.

Under this program, 120 staff members of the Ministry of Health received training in special courses.

In addition to the 76 physicians trained at the School of Medicine and the 189 nurses trained at the School of Nursing, 38 obstetrical nurses, 204 nursing aids, 86 laboratory technicians, and 44 health inspectors were trained through resources of the Ministry.

These courses range from 6 months for health inspectors to 12 months for laboratory technicians. The entrance requirements are: completion of the first cycle of secondary education for nursing aids and a diploma in sciences for the other groups.

The valuable financial assistance provided by UNICEF for the development of these courses merits special mention.

It would require more time than is available here to cover the wide range of activities carried on under the Public Health Plan in Panama during the four-year period. I shall therefore pass over the other subjects taken up in our report—the malaria eradication program, medical care, tuberculosis, mental health, and other programs relating to specific services, to name but a few—to which we shall have occasion to refer during the discussion of other agenda items before this Conference.

Before concluding my remarks, I should like to report our great satisfaction at the progress achieved in my country during the last four years in environmental sanitation and potable water supply.

An enormous amount of work has been accomplished in this field through the mobilization of national efforts and also through the contributions and support received from the international agencies in the form of loans. Panama has thus been able to surpass the goals established in the Charter of Punta del Este, with regard to urban water supply; slightly more than 80 per cent of the urban population is already served by water systems, while the percentage of the rural population served by deep wells, which was 15 per cent in 1961, has now been increased to 35 per cent. This leaves 15 per cent of the rural population to be covered, if we are to achieve the goal set forth in the Charter during the years remaining in the current decade.

Finally, my Government would like to express its appreciation to the international health agencies and others, especially the World Health Organization, the Pan American Sanitary Bureau, and UNICEF, and to AID, which have been catalytic forces in the progress my country has achieved in the health sector over the last four years.

PRESIDENT:* Thank you, Dr. Calvo. In view of the time, I believe it would be preferable to adjourn at this point and resume the discussion tomorrow at 9:00 a.m. I should like to thank the delegates for their cooperation.

The session rose at 5:25 p.m.

FIFTH PLENARY SESSION

Wednesday, 28 September 1966, at 9:15 a.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences (*continuation*)

PRESIDENT: * The session is called to order. We shall continue with the presentation of the country reports. The Chair recognizes the Delegate of Trinidad and Tobago.

Report of the Delegation of Trinidad and Tobago

Dr. JORDAN (Trinidad and Tobago): Trinidad and Tobago attained independence on 31 August 1962, so that the period under review corresponds to the first years of our nationhood. We have thus assumed complete responsibility, among others, for the management and financing of our health services and for the achievement of that goal which must be the first prority of all developing nations: to make the best possible use of all our available resources.

To this end, cooperation in the form of technical advice and assistance in many fields has been generously provided by international and other agencies, particularly the Pan American Health Organization and the Canadian Technical Aid Scheme.

Under the stimulus of increasing demands for improved and expanded health services, the Government of Trinidad and Tobago, catering for a

population of just under one million, has invested a capital expenditure of over $12,000,000 during the past four years, and in 1965 the total amount spent on health was over $25,300,000, or an average of over $25.3 per head of population. This comparatively high level of expenditure is a true index of the support which our Government is prepared to give to the health services and it emphasizes the obligation of those who administer these services to ensure that they function both efficiently and effectively.

During the four-year period under review, the greater part of our capital expenditure has been directed toward hospital development. The two major general hospitals have been modernized and expanded to provide some 300 additional beds and the continued development of specialist departments, such as neurosurgery, dermatology, cardiology, virology, and radiotherapy.

In our largest general hospital, which is soon to seek formal approval as a teaching center for certain aspects of the training of medical undergraduates, a new Central Sterile Supplies Department and a modern pathological and bacteriological laboratory, including a forensic section and an up-to-date blood bank, have been established. The medical library has been transferred to a more spacious site and is now managed by a fully qualified medical librarian.

The Department of Medical Records is undergoing a process of complete reorganization with the assistance of an adviser provided by PAHO. In this connection, fellowships tenable at the University of the West Indies and Jamaica were awarded in 1965 to three officers from this department to enable them to grasp more fully current concepts of medical records and hospital statistics.

The bed strength of the hospital for mental diseases has been increased in 1964 by 200 beds to give a capacity of 1,600, and a total of 46 additional beds has been provided in three of our seven district hospitals.

But despite the high rate of capital expenditure in hospital buildings and equipment, more is required before we can achieve a satisfactory balance between supply and demand. In this respect, I wish to place on record that through the generous cooperation of the Government of Venezuela in making available the expert services of a team of consultants in hospital construction and development, under the auspices of PAHO, we are at this very moment in the preliminary stages of preparing a program of phases hospital development within the wider context of a national health plan.

Disease problems. The highest mortality rates continue to occur at the intra-uterine and neonatal periods. Of every 1,000 maternities, one mother or prospective mother dies. Four in every 1,000 live births die from birth injuries or postnatal asphyxia.

The survey on nutrition carried out in 1961 jointly by the Government of Trinidad and Tobago and the Interdepartmental Committee on Nutrition for National Defense (USA) revealed, *inter alia*, that anemia is one of our most significant public health problems, since 8 per cent of all adult males, 40 per cent of adult females, and 58.8 per cent of the under 15 group have a hemoglobin below 12 grams per cent. As a result of the survey report, and with the assistance of WHO, FAO, and UNICEF, we embarked in 1962 on an expanded nutrition program, which involves the active participation of the Ministries of Health, Education, and Agriculture.

In 1964 we experienced an epidemic of acute glomerulonephritis in the southern part of the island, where over 1,000 cases were diagnosed. The magnitude of this problem has justified, in our eyes, the setting up of a special project to devise means of preventing a recurrence and of specifically identifying its etiology. The Medical Research Council of the United Kingdom and Northwestern University of Chicago, via the United States Public Health Service, are contributing trained personnel and equipment in this endeavour.

Prevention and control of diseases. Our principal achievements for the period under review have been a successful mass oral polio immunization campaign in 1963 and elevation to the status of a malaria-free country in 1966.

A major project which was completed earlier this year was the expansion of the sewerage system in the main urban areas. It is estimated that an additional 200,000 people will take advantage of these facilities.

Improvements to the existing water production and distribution systems have resulted in a supply of potable water to 90 per cent of the population, of whom 39 per cent are served in their homes.

At this point I shall make only a passing reference to the important subject of health planning since it is listed elsewhere on the agenda. I must men-

tion, however, that the first 10-year National Health Plan of Trinidad and Tobago is even now in its final stages of revision by our technical officers, a fact which accounts for the unavoidable absence from this assembly of our Chief Medical Officer, Dr. Comissiong, who is well known, I am sure, to many of you. To planning, then, we shall return at a later date.

We are justifiably proud of the fact that in the face of a shortage of medical and related personnel, particularly in the public health field—our doctor-population ratio is 3.9 to 10,000—the conventional indicators of morbidity and mortality statistics show a general and sustained improvement in the level of health.

When Hurricane Flora struck the island of Tobago in 1963, leaving in its wake 70 per cent of the inhabitants homeless, 90 per cent of the water supply cut off, and tremendous damage to agricultural crops, the health service personnel of the country rose to the occasion and we were able to prevent the occurrence of any epidemics.

It is therefore in a spirit of optimism for the future, so long as we continue to be motivated by the high ideals of a noble profession, that I conclude the summary of the report of the health services of Trinidad and Tobago, and thank you and the honorable delegates for their kind attention.

PRESIDENT:* Thank you, Dr. Jordan. The Chair now recognizes Dr. Hyronimus, of France.

Report of the Delegation of France

Dr. HYRONIMUS (France):* I shall give a brief report on progress in the health and social fields in the French Departments of America for the period 1962–1966, with particular reference to Martinique and Guadeloupe. Martinique has approximately 320,000 inhabitants, and Guadeloupe some 300,000. Demographic problems are extremely serious, since these islands have no mineral resources and their economy is based exclusively on the cultivation of pineapple and several other tropical products of minor importance. Consequently, it is quite difficult to improve the general economic conditions of the population in those Departments through increased local production. Moreover, as result of the population explosion, it is difficult to accumulate exportable surpluses of manufactured goods, and this in turn imposes inevitable limitations on the economy.

The birth rates are extremely high: 30 per 1,000 population in Martinique; 35 per 1,000 in Guadeloupe; and 29 per 1,000 in Guiana. This average of 30 per 1,000 for the three territories is approximately double the rate prevailing in Europe.

We have set up training centers in Martinique and Guadeloupe, and also in Europe, in an effort to provide trade skills for emigrants from the Antilles. Financial assistance is also provided for all emigrants from France, and plans are being made to encourage even more migration to Guadeloupe and Martinique.

The proportion of children is high, the average age of the population in Guadeloupe, Martinique, and Guiana being 19 years. This poses problems in the feeding of certain population sectors. Subsidies are given to families in the lower economic brackets, and school lunches are provided, so that the children at least will be properly fed five days of the week. This guaranteed food supply has made it possible to raise the nutritional level of the children. Moreover, home economics centers offer instruction to mothers and young women. By being permitted to acquire trade skills, the young women gain access to employment opportunities hitherto closed to them.

Disease prevention is based primarily on vaccination, and large-scale programs are carried on. No smallpox outbreaks have been reported in the present century. We have vaccine for diphtheria, for tetanus, and now for poliomyelitis; vaccine is also available for typhoid fever. Malaria has been almost completely eradicated, as we reported to the Organization at the XVI Meeting of the Directing Council. At the present time there is no yellow fever. However, we have not succeeded in achieving complete eradication of *Aedes aegypti* in Guadeloupe and Martinique; eradication had been achieved in Guiana, but this territory is now reinfested. Despite the campaign now in progress, the disease is present in some parts of that territory, according to latest reports.

To counter the problem of insecticide resistance, a kind of personal campaign has been organized with the participation of both the private and public sectors. Instead of "cocktails" or mixtures of insecticides, we are coming to the conclusion that we should perhaps use malathion or return to the use of DDT.

As is true in most of the tropical countries, intestinal parasites constitute one of our most serious

problems. Schistosomiasis is prevalent in Guadeloupe and Martinique; nevertheless, we hope that with the development of new products it will be possible to interrupt the cycle in man, and that a program can be carried on during the next four years that will eradicate this disease in the rural areas, where it now exists and where few sanitary facilities are available.

Although there is abundant water for the population, the problem of making it available to each household is a serious one. Our goal is to promote the establishment of potable water supply systems and to help ensure piped service for each household.

Similarly, community systems are now being installed for the elimination of sewage, and an effort is being made to establish a network for the main population centers.

Leprosy continues to be one of the major enemies that must be combated. Cases are numerous and on the rise, as we have been reporting regularly to PASB. Improvement in the case-detection methods is essential. We have health services in the schools, and the urban children are examined once a year. A number of cases have been reported in children between 10 and 14 years of age. Leprosy detection among the school-age population makes it possible to provide early treatment.

With regard to tuberculosis, a case-detection program using X-rays and BCG vaccination is in operation in the three Departments. The vaccine is administered principally in the schools and in the communities by medical and paramedical personnel, between 6,000 and 7,000 persons being vaccinated each year.

Martinique and Guadeloupe have hospital services, and there is also a tuberculosis sanatorium. The Department of Martinique has chest surgery service. Surgeons from Paris visit these facilities four or five times a year, thus obviating the need for the costly transportation of patients over great distances. For emergency cases, special surgical attention is provided by the University of Bordeaux.

As for mental health and mental diseases, the ratio of 3 hospital beds per 1,000 population is the standard established by WHO and customary in Europe. On this basis, we need between 900 and 1,000 beds for the psychiatric hospitals in each of the Departments and some 100 beds in Guiana. These beds will be used not only for acute and unusual psychiatric cases, but also for mentally retarded children whose I.Q. calls for special care and training.

Finally, I should like to emphasize that, in accordance with our fifth Five-Year Plan (1966–1970), efforts are now being made to modernize the hospitals and provide them with new equipment; expenditures for this purpose will be around 30 to 40 million francs for Martinique and between 60 and 70 million for Guadeloupe.

PRESIDENT:* Thank you, Dr. Hyronimus. The Chair recognizes the Delegation of Argentina.

Report of the Delegation of Argentina

Dr. MONDET (Argentina):* We should like to highlight in this brief summary some of the more relevant aspects of the health activities that were carried out during the quadrennium 1962–1966.

The Argentine Republic is fully committed to the declarations set forth in the Preamble to the Charter of Punta del Este, which reaffirms the determination of the American Republics to join in a common effort to ensure the development of their nations by accelerating economic progress and reforming their basic structures in such a way as to achieve social justice.

It should be pointed out that many demographic conditions in Argentina are remarkably similar to those in the highly developed nations, e.g., the rate of growth, the causes of death, the structure of the population.

Yet, life expectancy at birth is lower in Argentina than might be expected; this situation is due to the relatively high infant mortality in some areas, where certain endemic diseases not yet adequately studied or treated prevail. Likewise, it should be noted that our physical resources, in terms of installed bed-units, are similar to those of the highly developed countries; but this again is a national average and it does not reflect the significant regional differences or variations in the utilization of those resources.

In the matter of human resources, our country has competent professionals in all of the medical specialities, but it must be noted that there are structural defects in the system. It is true that the national ratio of doctors per 1,000 inhabitants is within the optimal range established as an international standard, but their distribution is as defective as that of other resources.

The foregoing summary gives a general idea of

our weaknesses in health matters, but it also indicates the high caliber of our people and of many of their resources, a fact that inspires optimism regarding the possibilities of utilizing those resources through judicious planning. However, we are not unaware that this entails a complex process that must be worked out gradually, with formulas that are continually reviewed and refined so as to make them even more applicable to the solutions required.

Accordingly, it is incumbent upon the Ministry of Public Health to organize its various departments and divisions in such a way that each of them prepares its own programs in the specific field of its responsibility, and devises its own methods of treatment to produce the most logical and effective solution of its particular problems. At the operating level, these programs must, in turn, be coordinated among themselves to provide for the medical care needs of the patients and of the community as a whole. The basic principles that guide the policy of the present authorities are: to satisfy the demand for health services, to study the causes of morbidity, and to attempt to raise the general level of health through the rational and effective administration of available resources.

The international health authorities concur in insisting that the State is responsible for the health of the population as a whole, as well as of the individuals that constitute it, and that health services must therefore be planned and organized by the State, coordinating the efforts of the public sector and enlisting those of the private and semiprivate subsectors.

There is also general agreement on seeking the most efficacious means of ensuring active community participation in health programs, in accordance with the aims set forth in various documents.

The cornerstone of the policy adopted is the application of a medical care program conceived on the basis of *integrated programs,* which would of necessity be provided through the hospital establishment, and in specific areas. In fact, this imposes the further step of improving each of the establishments, including the selection of those that are strategically located and of the system under which they will be coordinated. Naturally, the hospital is conceived primarily as a rehabilitation center, but its facilities are also designed with a view to their full utilization as the basis of preventive care for the individual, and, insofar as possible, to be broadened so as to act upon the environment, thus serving as the nucleus of an integrated health service to the community.

As for the order of priorities within a public health plan, particularly those reflecting basic requirements, it is obvious that any health undertaking worthy of the name must endow its plans and programs with an adequate and workable organization and structure. We are correcting the excessive operational centralization in Argentina, as well as the problems arising from the duplication of agencies, overlapping lines of authority, dispersion of effort, etc. In short, we have adopted a policy of reorganizing certain activities so as to group them under an effective and flexible administrative system, and to support that system with a statistical service that will provide reliable data needed for scientific studies and for the preparation of plans and programs and their proper evaluation.

There is no question with regard to the urgency of improving the rural environment in its economic and social, and specifically the health and educational, aspects. Failure to do so is tantamount to condemning the best of plans to failure, even though they may be particularly appropriate for a specific condition. Accordingly, the Ministry of Public Health has in mind the type of planning that will seek to promote and carry to the vast rural area of Argentina not only its own programs but also the economic and social programs of other sectors, through proper coordination of efforts.

In the period 1962–1966, now under consideration, important accomplishments have been recorded. We cite some of them here because we consider them relevant and of the highest priority in the achievement of our policy objectives.

1. A Coordinating Committee for Sectoral Health Planning has been established, for the rational development of the short- and medium-term projects necessary for launching the National Public Health Plan. In the formulation of those national public health plans, the regional plans will be integrated, including the areas selected for special study in relation to others of economic and social importance.

2. The training of professional and auxiliary health workers in short courses and seminars has been furthered, in cooperation with the School of Public Health of the University of Buenos Aires and with the support of the Pan American Sanitary Bureau.

This activity merits special comment. The major result of the change taking place in the Argentine Republic in recent years, particularly in the period under review, has been—to state it briefly—a trend toward integrated medical care, the feeling that the physician is no longer merely a restorer of health, but something more. In the past, the Argentine medical profession as a whole rarely understood its role within society; now, however, most of the members definitively accept the fact that the administrator, the hospital director, should be a specialist. This is a great triumph for us: for the first time in the Argentine Republic, in 18 of the 22 provinces of which the country is composed, the provincial ministers of health are physicians devoted exclusively to the specialty of public health. It is also important to note that a new attitude is being fostered at the level of the Ministry of Public Health in orienting the education of students in the various schools of medicine. Courses relating to public health, including its administration, are being included in the medical curricula. The hospital residency program, directly related to the quality of medical care, is one of the primary aims of the Government.

3. The preparation of a National Health Statistics Plan is already under way in several provinces.

4. Studies on the organization of data-processing techniques, to encourage and apply new methods of mechanization, are being made.

5. A study of the duties, jurisdiction, and activities of the Ministry of Public Health, with a view to bringing its structure more in accord with the principles of administrative rationalization and more closely geared to the centralization of general policy-making, supervision of its implementation, regional and local coordination and execution of programs, aimed at providing integrated medical care under optimal conditions and in compliance with our international commitments. It is our intention to place primary responsibility for all of the major problems, such as environmental sanitation, certain communicable diseases, mental health, maternal and child care, occupational medicine, etc., in the appropriate provincial health agency, with technical assistance and support, where required, coming from the central agency.

6. The National Government will carry on its program to construct and equip installations according to the pertinent plan. Wholly in agreement with the observation made by the Director of the Pan American Sanitary Bureau at this meeting, we shall endeavor to consolidate and strengthen the work now in progress before undertaking new projects or programs. The possibility of transferring the multipurpose facilities and structures already completed to the provincial and municipal health authorities is under study, so that they may be used for their intended purposes as regional and local centers for health services, according to their planned programs appropriately coordinated with the national plans.

7. The Ministry of Public Health is deeply interested in, and concerned with, attracting social security physicians to these health activities, since they are the real craftsmen of public health. Our great fear is that the young men who enter the public health schools will have the feeling—as someone aptly expressed it—that they are "the Generals in the Health Army," and that the social security physicians are "the soldiers who carry out orders." If we start out with this view, we will have already lost the battle. We are anxious to prevent such a situation, hoping that we can all participate in public health work and that the restoration of health will be an integral part of that work, without holding the belief that public health is either more or less important.

The Argentine Delegation is particularly pleased to acknowledge the assistance of the Organization of American States and its specialized organizations in its long-term plans and programs. Our efforts are being directed to the presentation of adequate programs, with clearly defined objectives, so that we may make the best possible use of that assistance. But, in the final analysis, it is the work of our people in undertaking and carrying out these projects, with a firm determination to improve their lot, that will do the most to further the well-being and happiness of all.

PRESIDENT:* Thank you, Dr. Mondet. The Chair now recognizes the Delegation of Honduras.

Report of the Delegation of Honduras

Dr. PERAZA (Honduras):* I shall present my report in summary form, since the details are given in the document now before the delegates.

I. Health Conditions of the Population

1. *Demographic characteristics.* Honduras is one of the Latin American countries in which the largest number of censuses have been taken—a total of 13, the most recent in 1961.

The under-15 age group constitutes 50.7 per cent of the total population, indicating a relatively young population and thus suggesting the direction to be taken by our health activities. In contrast, the over-50 age group is relatively smaller, indicating a reduced life expectancy, even though we have no life tables that would make it possible to pinpoint the problem. On the other hand, there has been a marked acceleration in the population growth in the past four years. The natural growth rates have averaged 3.5 during that period, as these figures show:

1962	*1963*	*1964*	*1965*
3.5	3.4	3.6	3.5

The distribution of population between urban and rural areas is based on the definition used in the 1961 census, for which it was determined that population centers of 1,000 inhabitants or more and having the following services would be classified as "urban": (a) a complete primary school (6 grades); (b) at least one of the following services: mail, telegraph, or public telephone; (c) surface communications (highway or railroad) or air or maritime service; (d) piped water supply; and (e) electricity. Under this criterion, 23.22 per cent of the population lives in urban areas and the remaining 76.78 per cent in rural areas.

2. *Birth rate.* The birth rate has been gradually increasing over the last four years, reaching 44.6 per 1,000 inhabitants in 1965.

The number of live births and the corresponding rate per 1,000 inhabitants are shown in the following table:

	1962	*1963*	*1964*	*1965*
Live births	92,128	93,649	100,531	101,864
Rate	44.5	43.8	45.5	44.6

This increase reveals a consistently high fertility rate, since, as will be shown later, the death rate has remained stationary during the period, fluctuating between 9 per 1,000 in 1962 and 9.1 per 1,000 in 1965. The general fertility rate per 1,000 women (between 15 and 49 years of age) follows:

	1962	*1963*	*1964*	*1965*
Rate	212.3	211.4	209.8	207.5

3. *General mortality.* Since there is no compulsory medical certification of deaths, and their registration and classification are therefore incomplete, we offer the following figures with due reservations:

	1962	*1963*	*1964*	*1965*
Total deaths	18,650	19,510	20,546	20,784
Rate per 1,000 inhabitants ...	9.0	9.1	9.3	9.1

These figures serve merely to give an idea of the general mortality, it being assumed that the actual rate would be considerably higher if all deaths were registered.

4. *Mortality, by cause of death.* For the reason noted above, it is estimated that barely 30 to 40 per cent of the officially registered diagnoses are prepared by physicians.

5. *Infant mortality.* This is the picture of infant mortality:

	1962	*1963*	*1964*	*1965*
Deaths, under-1-year group	4,020	4,400	4,564	4,593
Rate per 1,000 live births	43.6	47.0	45.4	45.1

Among children under 5 years of age, the death rates remained high during the period:

	1962	*1963*	*1964*	*1965*
Deaths under-5-year group	7,853	8,383	9,023	8,937
Rate per 1,000 inhabitants ...	19.6	19.9	20.5	19.4
Percentage of total deaths ..	42.1	42.9	43.9	42.9

6. *Communicable diseases.* The notification system does not cover the entire country, but only the action area of the local health services; as of 31 December 1965, these services covered 55.6 per cent of the total population. Deaths are recorded at the level of heads of municipalities throughout the country; however, the diagnoses of the causes of death are deficient because of the lack of medical certification.

Enteric diseases. The group of enteric diseases annually accounts for approximately 30 per cent of the reported cases of notifiable diseases. It should be noted that these diseases take heavy toll in children under two years of age, as revealed by the morbidity and mortality figures given below.

Reported cases of diarrheal diseases (including all of the dysenteries), and the respective rates per

100,000 inhabitants in the notification area, are as follows:

	1962	1963	1964	1965
Reported cases in infants under 2 years	No data	No data	20,064	19,892
Rate per 100,000 inhabitants	—	—	183.3	156.3
Reported cases—all ages	30,281	Incomplete data	32,491	33,116
Rate per 100,000 inhabitants	347.6	—	296.9	260.0

The following table shows deaths attributable to diarrheal diseases (including all of the dysenteries) and the respective rates per 100,000 inhabitants:

	1962	1963	1964
Infants under 1 year	442	453	503
Rate per 100,000 live births	479.7	483.7	500.3
All ages	900	1,321	1,581
Rate per 100,000 inhabitants	43.5	60.1	71.0

Reported cases of typhoid and paratyphoid, and the respective rates per 100,000 inhabitants in the notification area, are as follows:

	1962	1963	1964	1965
Reported cases	452	646	926	759
Rate per 100,000 inhabitants	51.8	67.8	84.6	59.6

Finally, the following figures show the deaths from typhoid and paratyphoid, and the respective rates per 100,000 inhabitants:

	1962	1963	1964	1965
Deaths	61	58	82	55
Rate per 100,000 inhabitants	2.9	2.7	3.7	1.7

There was an epidemic outbreak of gastroenteritis in late May 1962 in San Pedro Sula, the capital of the Department of Cortés, in which 3,140 cases were reported, with 104 deaths; children under 5 years of age accounted for 93.2 per cent of the deaths (97) and 80.5 per cent of the reported cases (2,532). The etiological factors in that epidemic could not be determined with much accuracy because of the high contamination level of the city's water supply, in which various pathogenic strains of *Escherichia coli, Shigella, Klebsiellas*, etc., were found. The epidemic curve began to rise sharply on 21 May, and it fell off to a normal level by 30 June.

There is no doubt that unsatisfactory environmental conditions, particularly the poor water supply system and the inadequate excreta disposal, are causative factors in the epidemiological situation in relation to these diseases. The Ministry of Public Health, aware of the situation, sponsored the establishment of the National Autonomous Water and Sewerage Service (SANAA), which commenced operations in 1961.

Tuberculosis. A tuberculosis control program is now in progress, with technical assistance from PAHO/WHO; it covered 20 per cent of the estimated population in 1962, and by 31 December 1965 it had expanded its activities to cover 45 per cent. The control program is carried on by the Local Tuberculosis Campaign Services and by two rural mobile units, which are waging a campaign to penetrate those rural areas of the country that have no permanent medical services.

The following figures on the incidence of tuberculosis and on mortality attributable to the disease clearly reflect the impact of that campaign:

	1962	1963	1964	1965
(a) Incidence per 100,000 inhabitants				
Rate	114.1	142.5	117.8	96.2
(b) Deaths and rates per 100,000 inhabitants				
Deaths	271	223	191	238
Rate	13.1	10.0	8.6	10.4

Whooping cough. This disease continues to be an important epidemiological problem, as shown by the morbidity and mortality figures given below.

Reported cases of whooping cough and rates per 100,000 inhabitants (notification area):

	1962	1963	1964	1965
Reported cases	3,702	3,312	4,533	2,997
Rate per 100,000 inhabitants	388.9	331.2	414	235

Deaths from whooping cough and rates per 100,000 inhabitants:

	Infants under 1 year	Rate per 100,000 live births	All ages	Rate per 100,000 inhabitants
1962	49	53.1	300	145.0
1963	224	239.9	536	250.8
1964	284	282.4	288	130.3
1965	—	—	273	119.5

Recognizing the importance of this problem, and realizing that it can be solved effectively and economically through immunization with whooping cough vaccine, the Ministry has, since 1962, been conducting an immunization program using DPT

triple vaccine (diphtheria-whooping cough-tetanus). The program has a well-defined target—the protection of at least 50 per cent of the most vulnerable sector of the population, that is, children under 5 years of age. To date the following results have been obtained in terms of number of persons immunized:

Year	*Children under 5 who have been immunized*
1962	12,080
1963	17,805
1964	32,180
1965	48,237

As the above tables show, by 1965 the results of the immunization program were reflected in the sharp decline in the number of cases reported, a figure that has even more significance if it is recalled that the reporting procedure was substantially improved in that year as a result of measures taken by the Ministry. The death rate showed a similar downward trend.

Poliomyelitis. An epidemic outbreak of poliomyelitis that occurred in the northern zone of the country in mid-August 1965 indicates the epidemiological importance of this endemic disease, which produces sporadic cases in various parts of the country.

Following is a brief resume of that epidemic. Owing to the method of reporting communicable diseases on the basis of weekly epidemiological reports, and also to the incidence of cases in preceding years, it was possible to note that the number of cases of poliomyelitis in the area of Health District No. 3 began to rise in the last weeks of July 1965. By the middle of August the incidence of cases contrasted sharply with the known index of previous years, and it became obvious that an epidemic outbreak was in progress. The number of cases continued to increase during September. In the early weeks of that month, another epidemic outbreak occurred in the area of District No. 6, and several cases were reported in other localities. Thus, the epidemic outbreak, originally localized in District No. 3, took on the proportions of an epidemic, which by November had spread to practically all Departments of the Republic. The epidemic reached its peak in mid-September, began to diminish in intensity around the middle of October, and declined significantly during November.

By 30 December, 225 cases had been recorded. The greatest number were reported in Health District No. 3 where the epidemic had begun; District No. 6, located to the east, followed in number of cases, and it was there that the epidemic struck with the greatest intensity, the rate of attack being the highest recorded in the country. The epidemic was least severe in the area of District No. 4, where only 3 cases were recorded and where the rate of attack was the lowest: 0.1 per 10,000 children under 7 years of age. The rate of attack was also low in District No. 5, because of the massive vaccination campaign that had been carried out in June, July, and August by the Department of Public Health, using its own personnel stationed in that district and with the cooperation of a group of North Americans known as "Friends of Honduras."

As for the distribution of cases by sex, a relatively larger number, 130 (57.7 per cent of the total), was reported for males.

Poliomyelitis in Honduras primarily attacks persons in their early years. During the epidemic, the largest number of cases occurred among children under 3 years of age, 203 such cases (90.5 per cent of the total) having been recorded.

Of the total of 225 cases, there were 10 deaths, 9 of which can be directly attributed to poliomyelitis and the other to a postoperative complication; hence, the fatality rate is 4.44 per cent.

The necessary measures were taken at the outset of the epidemic to identify the virus type causing the disease. With the timely and vigorous cooperation of the International Center for Medical Research and Training, maintained by the University of Louisiana (USA) in San José, Costa Rica, samples of feces, pharyngeal secretion, serum, and spinal fluid were taken from 79 patients. These were dispatched by air to the Virology Laboratory of that Center. The laboratory reports on 43 patients, the only ones received so far, identify the causative agent of this epidemic as poliovirus Type 1.

Likewise, from the outset of the epidemic, the indicated control measures for such cases were taken. The poliomyelitis immunization campaign, which had been operating at an accelerated rate from the first of the year, especially in the northwestern region of the country, was substantially expanded by the Ministry of Public Health and Social Welfare, through the Department of Public Health, and it was re-enforced with all necessary resources for the effective control of the epidemic. The massive immunization campaign, designed to cover the entire susceptible population, was con-

ducted in two stages. The first stage was concentrated in the area of Health Districts Nos. 3 and 6, which were most affected and where the epidemic had originated, so as to halt its spread to other areas and to reduce morbidity and hence mortality. At the same time, massive vaccination was carried on in different parts of the country, particularly in the major cities, including the capital. The second stage was initiated on 15 November, at which time the campaign was extended to all population centers and to the rural areas in which vaccinations had not been administered during the first stage. The entire country was thus covered.

Between January and December 1965, 319,888 first doses and 110,928 second doses were administered throughout the country by the health establishments, the mobile units, the multivaccination program, and the integrated health centers. Priority was given to the vaccination of children under 7 years of age; however, in special circumstances, children up to 14 years and a relatively small number of persons over that age were also vaccinated.

During the period under review, morbidity and mortality from poliomyelitis were as follows:

(a) Paralytic poliomyelitis: reported cases and rates per 100,000 inhabitants (in the notification area):

	1962	*1963*	*1964*	*1965*
Reported cases ..	10	27	40	225
Rate per 100,000 inhabitants	1.1	2.8	3.6	17.6

(b) Deaths from paralytic poliomyelitis and rates per 100,000 inhabitants:

	Infants under 1 year	Rate per 100,000 live births	All ages	Rate per 100,000 inhabitants
1962	1	1.0	12	0.60
1963	1	1.0	9	0.40
1964	3	3.0	17	0.76
1965	(—)	—	10	0.43

Measles. During the period covered by this report, measles showed consistently high rates of morbidity and mortality. This situation led the Ministry to plan a vaccination campaign, which was initiated in 1966.

Reported cases of measles and rates per 100,000 inhabitants (in the notification area) are as follows:

	1962	*1963*	*1964*	*1965*
Reported cases ..	1,571	3,382	5,375	4,245
Rate per 100,000 inhabitants ...	179.3	355.1	491.2	333.5

The deaths from measles per 100,000 inhabitants are as follows:

	Infants under 1 year	Rate	All ages	Rate
1962	32	34.7	182	88.0
1963	58	61.9	300	140.3
1964	Data unavailable	Data unavailable	390	176.5
1965			280	122.5

Diseases of the respiratory system. Influenza, pneumonia, and bronchitis, in that order, account for the major percentage of morbidity and mortality in the category of respiratory diseases.

Venereal diseases. There has been a marked decline in the incidence of venereal diseases in the period under consideration, although the reported cases are only those detected in the outpatient clinics of the health services, there being no organized venereal disease clinics outside of the capital and the city of San Pedro Sula.

The following table shows the reported cases of syphilis (all forms) and rates per 100,000 inhabitants (in the notification area):

	1962	*1963*	*1964*	*1965*
Reported cases ..	2,345	1,619	2,003	2,158
Rate per 100,000 inhabitants ...	26.9	16.9	18.3	16.9

As for gonococcal infections, the following table shows the reported cases and rates per 100,000 inhabitants (in the notification area):

	1962	*1963*	*1964*	*1965*
Reported cases ..	4,751	3,463	8,077	5,089
Rate per 100,000 inhabitants ...	545.1	363.6	738.2	399.2

Intestinal parasites (helminths). Intestinal parasitic infections account for an average of 47 per cent of the cases of notifiable diseases each year, as recorded in all health establishments of the Ministry. These infections rarely show a high death rate, but they do constitute a health problem of the first magnitude, one that is closely related to the environmental health situation in the rural areas of the country.

7. *Eradication programs.* The major eradication programs in progress are those relating to smallpox, malaria, and the urban vector of yellow fever, *Aedes aegypti.*

Smallpox. This disease has been eradicated, no case having been reported in the country since 1933. The Ministry of Public Health has carried

on a regular program of smallpox vaccination, with the following results:

	Primary vaccination	*Revaccination*	*Total*
1962	44,543	7,713	52,256
1963	73,789	15,466	89,255
1964	71,450	19,655	91,105
1965	273,631	28,677	302,308
Total	463,413	71,511	534,924

Malaria. The malaria eradication program is well advanced. In 1965, the seventh year of the attack phase was completed. By 31 December of that year, 70 per cent of the territory of the country, with 72 per cent of its population (79,217 km² and 1,517,968 inhabitants), was considered free of transmission and in the consolidation phase. By that same date, 20 per cent of the territory, with 16 per cent of the population (22,150 km² and 33,295 inhabitants), was in the attack phase.

Morbidity and mortality from malaria reflect the progress of the campaign. The notification area covers 90 per cent of the territory and 88 per cent of the population; by means of a network of voluntary notification posts, the number of blood samples examined has been substantially increased, 16.76 per cent of the population having been covered in 1965.

Yellow fever. *Aedes aegypti* has been eradicated. A surveillance program, maintained under the National Malaria Eradication Service, was intensified because of reinfestation. No cases of jungle yellow fever were reported in the period under review.

8. *Nutrition.* During the four-year period, the National Department of Nutrition was established. Technical personnel for the agency was trained at the Institute of Nutrition of Central America and Panama (INCAP), and a pilot program in nutritional education was initiated and is now in progress in three selected areas of the country. The aim is to improve the dietary habits and the nutritional level of the family unit, with special attention to mothers and children, through nutritional education, promotion of agricultural and livestock production, and supplementary feeding of mothers and children, in a population group of approximately 20,604 inhabitants. The Ministries of Education and of National Resources are cooperating in this program, which is also receiving technical advice from INCAP.

Under an agreement with the above-mentioned Institute, it was decided that the INCAPARINA to be distributed in Honduras would be produced by a Nicaraguan industrial firm.

Preliminary steps were taken in 1965 to organize the National Nutrition Survey, a project that is now under way in the country, with technical and material aid from INCAP and various institutions in the United States of America.

II. Environmental Sanitation

1. *Water supply.* The Ministry of Public Health and Social Welfare and the National Autonomous Water and Sewerage Service (SANAA), aware of their social responsibility, have accorded top priority to programs for the construction of new water systems and for the improvement of existing ones, utilizing domestic capital and funds obtained from the international lending agencies. The Government has set up the necessary technical and administrative machinery to give effect to the principles and goals enunciated in the Charter of Punta del Este, through SANAA. This agency has been given the necessary legal authority to make foreign loans directly applicable to the construction of water supply systems for the urban and rural populations of the country.

The following brief resume indicates the extent of the effort required to correct the present situation so that the public investment in water supply facilities will increase at a rate roughly in keeping with that of the population growth.

The current environmental sanitation situation, especially the lack of potable water supply, has produced high morbidity from gastrointestinal diseases, with a greater impact on rural areas than on urban areas. For the period 1956-1964, morbidity rates per 100,000 inhabitants as the result of water-borne infections were on the rise, clearly indicating the seriousness of the problem.

Of the 206 water systems now in operation in the country, only 4 have chlorination equipment and, of these, only one has a water-treatment plant. It was estimated that, in 1965, 340,175 persons (15.5 per cent) of the estimated total population of 2,200,000 had piped water supply in the home; 355,425 (16.1 per cent) had service outside the home; and 1,504,400 (68.4 per cent) had no service at all. Estimates for that same year show that 512,600 persons among the urban population enjoyed water service, 227,175 (44.4 per cent) in the home, and 285,425 (55.6 per cent) outside the

home. As for the rural area, it was estimated that 113,000 (6.7 per cent) of the total population of 1,687,400 had service in the home, while only 70,000 (4.10 per cent) had installations outside the home. The total population without service in the rural area amounted to 1,504,400 (89.2 per cent).

2. *Sewerage systems.* Of the 280 municipalities into which the country is divided, only 24 have urban sewerage systems and 8 have systems located in rural communities. Those 32 systems now in operation serve 42,053 dwellings and 237,708 inhabitants, or approximately 10 per cent of the country's total population.

Only 9 of those 32 systems have primary treatment plants; the remainder discharge the sewage in surface streams. The last census showed that only 10 per cent of the dwellings had adequate flush toilets; 4.1 per cent had toilets connected to the sewerage system; 5.5 per cent made use of cesspools; and the remainder, 80.3 per cent, were totally without excreta disposal facilities.

There are 21,856 dwellings in the capital (68.6 per cent of the total dwellings) connected to the central sewerage system; an additional 1,180 have septic tank connections; 1,908 have latrines; and 7,000 (9.7 per cent of the total) have no sewage disposal facilities.

In San Pedro Sula, the second largest city, there are 10,509 dwellings (69.7 per cent of the total) with sewerage connections; 847 have septic tanks; 1,487 have latrines (15.5 per cent of the total); and 2,239 (14.8 per cent of the total) have no service.

In the rural as well as the urban area, the problem of excreta disposal has so far been attacked by the installation of latrines. Up to the present time the population served by these facilities is estimated at barely 35,435 persons (3.1 per cent of the total population of the country). Of that percentage, 2.6 per cent is in the urban area and 0.5 per cent in the rural area.

III. Health Resources

1. *Manpower resources.* First, I shall describe the present situation in the country with regard to the supply of professional personnel available for the tasks of promoting, protecting, and restoring health, and then take up each of the most important professions in turn.

The total number of professional health workers in the country, in terms of rates per 10,000 inhabitants, is shown in the following table:

	1962	*1965*
Physicians	1.8	1.8
Sanitary engineers	0.12	0.89
Dentists	0.05	0.08
Graduate nurses	0.80	0.85
Nursing auxiliaries	4.90	5.47

Physicians. The National Autonomous University of Honduras has embarked on a program to reorganize its medical studies, with the advice of several international institutions, including PAHO/WHO. By 1965, this plan had been extended to the second cycle of studies in the School of Medicine; moreover, there has also been a slight increase in the number of graduates.

Sanitary engineers. The career of sanitary engineer continues to have little appeal for the professional, since the salaries offered are low; nevertheless, the ratio per 10,000 inhabitants has improved slightly, as a result of the establishment of the National Autonomous Water and Sewerage Service, which has brought into its service a number of graduate engineers who have received training abroad in this specialized field.

Dentists. The School of Dentistry of the National University is turning out a very small number of dentists each year, with the result that the ratio per 10,000 inhabitants has not changed appreciably in the last four years.

Graduate nurses. Until quite recently there were no nursing schools in the country, and candidates for the nursing profession had to study abroad, with a resultant limitation on number of fellowships available. This explains why the rates per 10,000 inhabitants have remained virtually static in the period under review.

In 1965 plans were made, with the technical advice of PAHO/WHO, for the operation of the National School of Nursing. The institution, which opened its doors in March 1966, now has its own building specially designed for its needs. It will operate under the auspices of the National University, as a dependent unit of the School of Medicine, under an agreement between the University and the Ministry of Public Health.

Nursing auxiliaries. The ratio of nursing auxiliaries per 10,000 inhabitants has increased slightly, owing to an expansion of the health services.

Manpower resources of the Ministry of Public Health. The expansion program of the health services has brought about an increase in the num-

ber of professional personnel engaged in the health services of the Ministry, as shown by the following figures:

	1965
Physicians	350
Veterinarians	1
Dentists	35
Engineers	20
Laboratory technicians	101
Pharmacists	7
Graduate nurses	120
Nursing auxiliaries	838
Health inspectors	72
Health educators	16
Total	1,560

2. *Health establishments.* Hospitals. The geographical distribution of hospital beds is unsatisfactory, since the available beds are concentrated in certain areas while other zones have none. The Ministry is aware of this situation and, in accordance with the goals established in the National Health Plan, drew up a program for the construction of hospital facilities (with the advice of PAHO) in 1965. On the basis of that plan, it submitted to the Inter-American Development Bank a request for financial assistance that is now under study.

Other health units. The program for the expansion of services brought about an increase in the number of health establishments in operation, from 70 in 1962 to 88 in 1965.

The services covered 12,442 inhabitants in 1962 and 14,462 in 1965.

Along with the increase in the number of health establishments, a construction program has been carried out, under which 23 specially designed health centers have been built; 67 per cent of the local health services have specially constructed buildings and 68 of them (87 per cent) have been equipped with the help of UNICEF.

3. *Manpower training.* Training of advanced technical personnel. In this category we include physicians, sanitary engineers, nurses, dentists, and statisticians. With the cooperation of PAHO/WHO, the entire high-level technical staff of the Ministry of Public Health has received public health training in schools of public health in Latin America. All heads of divisions, departments, and health districts have been trained in public health administration of related disciplines. It is worthy of note that 76 per cent of the total staff trained abroad is now working in the public health field and has permanent tenure. In a splendid gesture of cooperation, the Venezuelan Government has, since 1963, been providing annual fellowships for Honduran doctors to study public health administration in the School of Public Health of the Central University of Venezuela, in Caracas. Within the country, 25 professional nurses have received basic public health training in two six-month courses.

Training of nursing auxiliaries. Since 1958 the Ministry of Public Health has been conducting a training program for its nursing auxiliaries, through regular six-month courses at a training center in the capital. During the period covered by this report, four courses were offered to 106 auxiliaries. By the end of 1965, 60.8 per cent of the auxiliaries assigned to the health services had received training.

Training of health inspectors. Along with the program for nursing auxiliaries, a program for health inspectors was carried on, with the result that 100 per cent of those now assigned to the health services of the Ministry had received training by the end of 1965.

Orientation courses for physicians entering the health services of the Ministry. Since 1963, recent graduates of the School of Medicine about to join the services of the Ministry have been attending an intensive orientation course in public health techniques at the training Center of the Ministry. This course supplements the instruction given the students in the preventive medicine course. In the past three years, 61 doctors received such training.

A National Training Department was created in 1965, with responsibility for all of the Ministry's training activities and with authority to supervise similar activities carried on by outside agencies.

IV. Financial Resources

There was a slight increase in the percentage of public funds devoted to health, from 8.37 per cent in 1962 to 9.73 per cent in 1965. In addition to these regular funds the Government was able to draw up on the above-mentioned foreign loans for the water supply program.

V. Health Activities Carried Out

1. *Health planning.* Honduras was one of the first countries in the Hemisphere to have a National Health Plan designed to serve as a guide for its activities. In fact, the first Five-Year Health Plan (1958-1962) was completed and put into effect in 1958; it was evaluated in 1962 and carried forward in 1963, under a Two-Year Plan covering the period 1963-1964. A second National Health Plan was formulated in 1964, according to the new planning

methodology; however, this Plan has not yet been fully implemented because of problems related to a lack of adequate administrative structure and pertinent legislation. At the present time an effort is being made to correct these two deficiencies through a program for the administrative reorganization of the Public Health Ministry, in which PAHO is providing advisory services, and through the promulgation of a new Sanitary Code, which was submitted to the National Congress this year. Budgetary allocations for the Ministry's programs (1965) were made on the basis of the objectives, goals, and expenditures by activity, as specified in the National Health Plan.

The Planning Unit of the Health Ministry was established in 1965 as a technical and advisory unit of the Ministry of Public Health, serving as the Sectoral Health Planning Office within the nation's general planning system. Its principal functions are the formulation, integration, and updating of the National Health Plan at the national level, on the basis of the local and national programs and in accordance with the national health policy, in cooperation with the National Planning Board, which is the supreme body responsible for coordinating all sectoral plans within the National Development Plan. The Planning Unit in the Health Ministry has no regional offices; instead, through its own staff and in cooperation with technical personnel at the regional and local level, it draws up the local plans that, taken as a whole, constitute the National Health Plan.

VI. International Assistance

1. *Pan American Health Organization.* PAHO provided technical advice to the Ministry through the group of advisers assigned to the office of the PAHO/WHO Country Representative. This assistance was aimed at the development of the national health services and, through the services of a sanitary engineer, special attention was given to the problem of water supply. Furthermore, the malaria eradication program benefits from the advice of a team of PAHO consultants.

During the four-year period, PAHO also furnished technical assistance to the country in the following areas: (a) drafting the proposed Sanitary Code, through the services of a short-term consultant; (b) preparing the plan for the reorganization of SANAA, through a group of six short-term consultants; (c) organizing the National School of Nursing, through the services of a permanent consultant; (d) drawing up a reorganization plan for the Honduran Social Security Institute, through the services of a short-term consultant; (e) working on a program of nutritional education, through INCAP; (f) studying health and urban planning for Puerto Cortés, through the firm of Tippetts-Abbett, with PAHO funds; and (g) health planning, through the services of a short-term consultant. Zone advisers assigned to the Zone III Office visited the country periodically and rendered assistance to the Ministry in epidemiology, environmental sanitation (especially with regard to water supply), medical care, nursing, leprosy, tuberculosis, public health veterinary medicine, community development, statistics, and health education. The malaria eradication campaign also received the regular assistance of short-term consultants. Through its fellowship program, PAHO/WHO granted 15 academic fellowships and 50 short-term fellowships and travel grants.

The Ministry considers that the cooperation rendered by the Pan American Health Organization during the period has been of the utmost value and wishes to express its appreciation.

2. *United Nations Children's Fund.* UNICEF offered assistance to the Ministry in the following areas: (a) the national health service program, through equipment and vehicles for the health establishments; (b) the malaria eradication program, through vehicles, equipment, and insecticides; (c) the nutritional education programs, through equipment and vehicles; (d) the tuberculosis control program, through equipment, drugs, and vehicles; (e) the leprosy control program, through drugs and vehicles; and (f) the training programs, through the allocation of funds for fellowship stipends and equipment for the Training Center. The material aid from UNICEF has contributed substantially to the health programs of the country.

3. *Agency for International Development.* AID, an agency of the Government of the United States of America, made funds available for the following programs: the public health laboratory (until 1963), health education (until 1963), mobile health units for rural areas and family planning, through ALPRO. Its contribution has been a decisive factor in the malaria control programs and in the mobile units designed to penetrate the rural area, and it has also played a very important role in the other programs mentioned.

4. *Other international institutions.* The Organi-

zation of American States, through its fellowship program, contributed to the training program for Ministry personnel. For its part, CARE (Cooperative for American Remittances to Everywhere) cooperated by providing funds or material to the nutrition, sanitation, and tuberculosis control programs.

In conclusion, it is fitting to mention the cooperation that the Ministry of Health and Social Welfare of Venezuela has been furnishing since 1963, through a program of fellowships that has made it possible for Honduran physicians to receive public health training at the School of Public Health in Caracas.

The session was suspended at 10:45 a.m. and resumed at 11:20 a.m.

PRESIDENT:* The session is called to order. We shall continue with the presentation of the reports. The Chair recognizes the Delegate of Colombia.

Report of the Delegation of Colombia

Dr. ACOSTA-BORRERO (Colombia):* Before reading the report prepared by the Delegation of Colombia, I should like, on behalf of the staff of the Ministry of Public Health, to thank all of the delegations represented here for the honor they accorded my country by electing the Minister as President of this Conference. That election will be interpreted by the entire public health team in my country not as an isolated incentive but as a continuing source of encouragement to work even harder, to put forth even more effort, in order to make ever greater progress in the health field for the benefit of our country.

I should also like to request, if the Rules of Procedure so permit, that following my summary report Dr. Mejía Vanegas, Chief of the Office of Personnel Training of the Ministry, give an account of the work accomplished in my country through the Manpower Resources Program for Education and Health.

The population of Colombia was estimated at 18,000,000 in January 1966. The rate of growth is 32 per 1,000. Children under 15 years of age account for 42 per cent, and persons over 60 years for 5 per cent of the total population.

General mortality has been steadily decreasing; from 12 deaths per 1,000 inhabitants in 1956 it fell to 9 per 1,000 in 1965.

The principal causes of death between 1960 and 1965 remained virtually unchanged, as follows: gastroenteric infections, respiratory infections, diseases of the digestive system, infections of the newborn, and diseases of the cardiovascular system. With regard to medical certification of deaths, the figures for 1965 show that there was no certification in 40 per cent of the deaths; in 1956, 66 per cent of the deaths were without medical certification.

Among the several indicators of the level of health, mortality in the over-50 age group expressed as a percentage of the total deaths (Swaroop-Uemera index) has been preferred, not only because it is a more effective discriminant but also because it is more readily obtainable. In fact, preparation of this index does not require population figures, and the index is less affected by the poor quality of the data, particularly as regards defective death records. As the index approaches 100, it indicates a better health situation. In Colombia it has been rising steadily, more markedly in the last years, and is now close to 33 per cent, or, in other words, the over-50 age group accounts for 33 per cent of the total deaths, which indicates an increase in the life expectancy at birth.

Deaths by age group, and their percentages within the total number, show that 48 per cent of the deaths in 1965 occurred in the children under 5 years of age. In that year, deaths in infants under 1 year accounted for 31 per cent of the total. As for infant mortality, the rate decreased from 104 deaths per 1,000 live births just a few years ago to 82 in 1965. Relating these data to the goals established in the Charter of Punta del Este, we anticipate a rate of 46 by 1971, assuming the same downward trend continues, as a result of more intensive programs to improve the quantity and quality of the services designed to prevent, promote, and restore health in infants under 1 year.

In regard to the 1971 target established for deaths in the 1-4 age group, if we consider that the annual average for the period 1960-1962 was 15 per 1,000, we may expect that a rate of 7 will be attained by that year. These rates being affected by the natural environment and by infections, health activities must be directed more and more to controlling adverse environmental factors. Mortality from infectious diseases tended to decrease, with rates ranging from 165 per 100,000 inhabitants in 1963 to 110 in 1965.

With the cooperation of the Colombian Hospital Association, a survey of hospital institutions in the country on 31 December 1962 was made in the

middle of 1963, collecting data from 577 of the 588 establishments known at that time. This survey furnished a useful picture of the hospital situation in the country, previously gained empirically. It also laid the foundation for the organization of hospital policy along the lines of according priority to completion of those buildings already begun and to the renovation of existing institutions, so as to obtain better utilization of available resources. Accordingly, in the period covered by this report, it was possible to increase hospital beds by about 2,400, and to improve their geographic distribution. In 1964, on the basis of the data obtained from the hospital survey, a program was developed to effect a gradual improvement in the medical attention provided by hospital outpatient clinics.

We hope through this program to provide better medical and auxiliary resources in each community and in this way to help reduce mortality and morbidity. We also hope to rationalize admitting practices, to coordinate hospital activities with those of other health institutions, and to improve outpatient services so as to reduce the number of hospital admissions.

The Carlos Finlay Institute continued to develop its program, under an agreement with the Pan American Health Organization, which maintained its annual contribution of $25,000, and carried out the following objectives, among others: continuation of the viscerotomy service for the detection of yellow fever, and the production and distribution, both domestically and internationally, of vaccine against that disease.

With regard to malaria eradication in Colombia, transmission has been interrupted in 70 per cent of the originally malarious area, with the result that 76 per cent of the population originally exposed is now protected. At the same time, reported cases of malaria decreased by 85 per cent between 1958 and the present date.

As for the goal set forth in the Charter of Punta del Este regarding the provision of potable water and sewage disposal services, it had been anticipated that at least 70 per cent of the urban population and 50 per cent of the rural population would be covered by 1971. Available data show that in 1965 those services were provided to 70 per cent of the urban population and 23 per cent of the rural population of Colombia.

Health policy. In view of the present conditions and the state of public health as described briefly above, the health policy in the four-year period was aimed at achieving the following objectives, among others:

(1) Extension of the health services to the entire population, fostering expansion of the minimum health services at the local level by increasing the number of integrated health districts, so as to serve the needs of the community and ensure a gradual improvement in the levels of health and sanitation through continuing programs.

(2) Consolidation of national and departmental structures, aimed at centralization of the procedures that establish governmental health policy, and at operational decentralization in the formulation of programs, administration, supervision, and regional and local assessment.

(3) Fostering the coordination and integration of medical care services with other health activities so that the hospital and outpatient services provided in 1,200 health centers and posts will be increasingly extended to the community, in order to reduce hospital admissions and distribute the patients according to the type of institution.

(4) Organization of maternal and child care programs so that more mothers may be given adequate care during pregnancy, delivery, and postpartum, and continuing attention may be given to the newborn and to the child in general, particularly during the first year of life, with a view to reducing premature births, still births, and infant mortality.

(5) Reduction of the prevalence of communicable diseases, through continuing immunization against whooping cough, diphtheria, tetanus, poliomyelitis, smallpox, and tuberculosis.

(6) Channeling activities in the fields of supplemental feeding, nutritional recuperation, and education, aimed at the most vulnerable population groups, by combining them with programs to increase agricultural and livestock production and to obtain better utilization of available food.

(7) Case-detection of tuberculosis and leprosy, with investigation of their contacts, and provision of institutional and domiciliary treatment in the case of the former and use of chemoprophylaxis for the latter.

(8) Undertaking research on mental illnesses prevalent in the community, with more thorough examination of the causative factors, with a view to fostering mental health programs.

(9) Definition of oral health conditions, for

the purpose of establishing an order of priority among vulnerable population groups, with greater attention to the elimination of dental caries; initiation of preventive and educational activities, particularly in the school-age group; and implementation of water-fluoridation programs.

(10) Increased attention to the prevention, control, and treatment of chronic diseases and accidents, which may be expected to increase in the future because of the increased life expectancy and the resulting changes in the population pyramid.

(11) Promoting a program to ensure an adequate supply of potable water, particularly in the rural areas, together with a program for the sanitary disposal of excreta.

(12) Organization of a statistical system at all levels, encouraging the collection, analysis, and use of vital statistics; refining the system for notification of diseases; and promoting better and more medical certifications at death.

PRESIDENT:* Thank you, Dr. Acosta-Borrero. In response to the request of the Delegate of Colombia, the Chair now recognizes Dr. Mejía Vanegas, Chief of the Office of Personnel Training of the Ministry of Public Health of Colombia.

Dr. MEJÍA VANEGAS (Colombia):* Since 1964, the Ministry of Public Health of Colombia and the Colombian Association of Medical Schools have been making a study of manpower resources in the field of health and medical education, under the auspices of the Milbank Memorial Fund and PASB. This study, conceived as a pilot project for Latin America, grew out of an earlier meeting,[2] to which the Director referred in his Quadrennial Report. That meeting, which was held in New York in 1963, sought to explore bases for modernizing medical education in Latin America in line with the social and economic changes that are taking place at such a rapid pace in this Hemisphere, and the increasing need and demand for qualified personnel in the health professions.

It was agreed at that meeting that the demand for medical and paramedical personnel in the health field must be defined in the light of the dimensions and nature of the existing programs. The definition must take into account the diversity of the tasks the physician is called upon to perform, and the number and functions of paramedical personnel, so as to achieve the targets and objectives previously established in a national health plan.

It was also observed that the content of the curriculum for the health professions ought to be adapted to the functions required of the personnel that will serve the community. For this purpose, it was necessary to agree on a definition of what the health team ought to know, so as to be more effective in meeting the needs and demands of a population ever more aware of its needs and its rights in this area, and also of the possible benefits available through the technological advances in medicine.

Precisely in recognition of those principles, it is now considered desirable to achieve closer cooperation among institutions that train health workers, the medical and paramedical schools, and the communities that are the beneficiaries of the services, whose interests are to a large extent represented by the Ministry of Health.

Our study, based on that doctrine, takes the broad view and approaches the problem from a number of angles.

The study has the following objectives:

(1) To make a pilot study of manpower resources in health and medical education, directed to three main areas: determining the needs and demands for health services, determining the manpower resources required if the health services are to meet their goals, and determining the changes required in medical education.

(2) To develop methods and procedures for scientific planning of human resources in the health field, so that these processes might serve as a basis for similar studies in other Latin American countries, as recommended in the Charter of Punta del Este.

Our study has been divided into several working areas, for operational purposes. The greatest share of responsibility for developing the study has been entrusted to the Ministry of Public Health or the Association of Medical Schools, according to the facilities and resources available in the respective agency. There has been continuing coordination at every stage of the work. Moreover, those two institutions—the Ministry and the Association—are in a position to apply the final recommendations in their respective fields. This concerted effort has made it possible to carry out the study in the manner adopted. Had it been planned as an inde-

[2] *Health Manpower and Medical Education in Latin America*—Report of a Round Table Conference. New York, Milbank Memorial Fund, 1963.

pendent undertaking by either of the two agencies, it would probably have exceeded the possibilities at hand.

I shall now review some of the activities carried on in the course of that study on manpower resources. One of them was a medical census, under the direction of the Association of Medical Schools. A special questionnaire was designed for the purpose and mailed to all physicians whose names appeared on a consolidated list of persons who had graduated from the seven medical schools in Colombia since 1920; those listed in the official registry of physicians whose degrees were obtained abroad; and those listed in other sources of information. A little more than 7,000 replies were received from the estimated 7,500 doctors in the country. This part of the study is now being completed by data obtained in direct interviews, from a representative sampling of physicians from approximately 5 per cent of the total. This latter part is designed to obtain more detailed information on professional training, the social and financial status of the physician, and the type of medical practice in which he is engaged.

By applying procedures similar to those used in the above-mentioned study, a survey of nursing resources was also undertaken. It sought to verify and quantify the resources, by type and geographic distribution; to determine the characteristics of the profession, and to assess the trends, both in regard to the quantity of the resources and to their main features.

The group being small in this case, the nursing questionnaire requested information on nursing activities, sources of satisfaction in the work, and other details concerning this profession. The latter aspects are very important, particularly the matter of work satisfaction, in view of the large number of nurses who customarily leave the profession. The study also surveyed the group of nursing auxiliaries, using a register of the graduates of 28 schools in the country.

The National Institute of Nutrition of Colombia, adopting the methodology applied by us in the Census of Medical and Nursing Personnel, carried out a Census of Nutritionists-Dietitians, which arrived at a total figure for this group, which consists of 77 professional workers.

A study was also made of institutional resources for medical and nursing education. The distinguishing features of current medical and nursing instruction in the country are being studied, and the available resources in this field are being inventoried, with a view to the formulation of necessary recommendations for bringing medical education into line with the requirements of the National Health Plan.

For this purpose, a direct analysis of the following points is being made in the seven medical schools and the six nursing schools in the country: objectives; administrative system; stability; departmentalization; financing; relations with hospitals and with health centers and posts; place of origin, social and economic background, and admission of students; number, specialization, and academic background of the faculty.

Another important project in the study is the national morbidity survey. Under this project an attempt is being made to determine the morbidity profile in the country and to measure the social and economic impact of disease on the population, in terms of disability, invalidity, and cost of medical attention. An effort is also being made to define the social and economic factors related to morbidity, such as the composition and size of the family unit, its educational level, its income, the hygienic conditions of the home, etc. Finally, an effort is being made to verify the completeness and the degree of reliability and comparability of data on certain vital events, especially births and deaths in the under-5 age group, and to obtain certain biometric measurements that we expect to be of great value in constructing a standard of normality for the Colombian population.

We believe the following to be the most important features of this national morbidity survey:

The subject is a representative sample of the Colombian population receiving outpatient medical attention, private not institutionalized. This means that the most important characteristics of the Colombian population from the health viewpoint must be present in the sample, and this will lead to conclusions regarding the entire population.

The group sampled in our case constitutes 98 per cent of the nation's total population, which is concentrated in 20 Departments; it does not include a small portion of the population (1.7 per cent of the total) that is extremely dispersed over approximately 50 per cent of the area of the country.

Through the controlled method of selection, 40 primary sampling units were selected. In the case of our survey, a primary unit was a Colombian municipality with more than 5,000 inhabitants and

some type of health service—a health post, health center, or hospital—or an aggregate of smaller communities.

Another important feature of our survey is that standardized techniques and procedures are being uniformly applied. This is being achieved through the careful selection and training of personnel, regular supervision of activities at the various levels, and preparation of sufficiently detailed manuals of procedures and techniques, with strict qualitative control of the data obtained at the most critical steps in the collection process. Finally, our operational technique is based on the voluntary participation of the population.

Information is being obtained in this national morbidity survey in two clearly defined phases. The first phase consists of domiciliary interviews designed to obtain a clinical history of the families. The interviewers, medical students from the seven schools in the country, had been previously trained for this work in their own schools and then given local reorientation courses in the sampling area to which they were to be assigned.

Direct interviews were obtained from 8,776 Colombian families in their respective homes, some 52,000 persons thus being covered. These interviews give us a ratio of response, or coverage, equal to 97.9 per cent of the sample.

In the second phase, that of clinical evaluation, the information is obtained through a medical examination which in our case included 5,029 individuals of the group interviewed. The examiners were residents in the schools of medicine, specialists in internal medicine and pediatrics, and dentists in the health services, assisted by nursing and X-ray auxiliaries specially trained in their respective fields.

Each of the families in the sample interviewed represents some 350 Colombian families. Each individual undergoing the clinical examination represents approximately 4,000 Colombians. Special examinations (in epidemiology known as "portable data"), such as electrocardiograms, roentgenograms, audiograms, laboratory tests, etc., are being interpreted by special procedures, with the participation of several physicians in each field of specialization; this system tends to reduce individual variability in the data interpretation. All of the findings are then pooled to produce a definitive diagnosis.

We believe that this morbidity study has provided an interesting teaching experience both for the resident physicians and for the medical students, and even for the university professors—an experience that we shall later attempt to assess.

Another area of study covers the medical care institutions. We have been working on an inventory of institutional resources for outpatient care, hospitals, health posts and centers, dispensaries, etc.

We have also designed a representative probability sample applicable to the public sector. In this sample we are analying the costs of medical care being provided; preparing a functional work analysis, which includes a study of medical and nursing activities in particular; and studying the clinical activities that benefit the patient. We are attempting to measure the benefit, that is, the cost-effect, in terms of the actual benefit that the medical care services furnish a sample of hospitalized patients.

This part of the study consists of a thorough and detailed study of feeding in hospitals. In our country a large proportion of the medical care budgets is spent on this item, and it is suspected that there may be a good deal of waste in this area. It is our intention to make a study of hospital and institutional morbidity in general, as revealed in the case records of the outpatient clinics and hospital discharges.

Our study also includes a mortality survey, aimed at a detailed analysis of the principal causes of death, their trends, geographic and age-group distribution, etc.

What is involved, then, is an economic and social study designed to assess the importance of the physical, social, and economic environment as a conditioning factor in the health level, in order to explore the reciprocal relationship between morbidity and mortality and factors such as the educational and financial level of the family unit.

Through the data obtained in these studies it should be possible to diagnose the health situation of the country on the basis of an adequate assessment of the problem and an evaluation of the available resources, for the eventual preparation of a national health plan.

PRESIDENT:* Thank you, Dr. Mejía Vanegas. The presentation of the reports will continue. The Chair recognizes the Delegate of Bolivia.

Report of the Delegation of Bolivia

Dr. DIEZ DE MEDINA (Bolivia):* My Government asked me to serve as its representative at

this Conference after the meeting had already commenced its work, because of the unexpected absence of the Minister of Public Health of Bolivia. Accordingly, I should like to apologize for the brevity of my remarks; it is due not only to my lack of technical background to comment adequately on the important documents under consideration, but also to a desire to hold this preliminary portion of the meeting to a minimum, so that the distinguished professionals and experts in attendance may begin their study of the scientific and technical problems that constitute the principal items on the agenda.

I shall therefore limit myself to expressing my Government's gratification at participating, though to a limited extent, in this important Conference, and its intention to continue cooperating, insofar as its modest possibilities permit, in the great undertaking in which this regional organization is engaged in the field of public health and in raising the living standards of our peoples.

I should also like to add my congratulations to those already extended to the Director of the Pan American Sanitary Bureau and his worthy colleagues for the valuable work accomplished, as can be seen from a reading of the very interesting and detailed reports presented to us.

I wish also to record my country's appreciation for the continuing and valuable aid given to it in the development of its public health and social welfare programs.

Finally, I shall fulfill the obligation of submitting to the delegates for consideration the quadrennial report prepared by the Ministry of Public Health of Bolivia, which report has already been distributed by the Secretariat. The statistical data and tables included therein will give the delegations an opportunity to appreciate the efforts being made by the present constitutional Government of my country to advance the programs developed by this Organization with respect to the eradication of communicable diseases; programs for the control of smallpox, malaria, and tuberculosis; reduction of infant mortality and increase of the life expectancy of the population as a whole; environmental sanitation and nutrition; training of professional health workers; and other matters that are the continuing concern of this regional organization.

In conclusion, may I express my sincere hope that this Conference will meet with success, and my confidence that its results will redound to the benefit of the health and well-being of our peoples—the ultimate objective of the entire collective effort now being made in the Americas.

PRESIDENT:* Thank you, Dr. Diez de Medina. May I remind the delegations that it is now 12:00 noon, and that a meeting of the General Committee has been scheduled for this hour. Inasmuch as I plan to meet two Ministers from my country who are arriving this afternoon, Dr. Interiano has kindly offered to preside at the afternoon session. I expect to return by 5:00 p.m., for the presentation of the bust of Dr. Carrión.

The session rose at 12:00 noon.

SIXTH PLENARY SESSION

Wednesday, 28 September 1966, at 2:45 p.m.

President: Dr. BENJAMÍN INTERIANO (El Salvador)

PRESIDENT:* The session is called to order. We shall now hear a report from the Secretary on the results of the meeting of the General Committee this morning.

Third Report of the General Committee

Dr. SUTTER (Assistant Director, PASB):* The General Committee held its third meeting today at 12:00 noon.

1. Dr. M. G. Candau, Director-General of the World Health Organization, reported that Guyana has officially deposited its acceptance of the WHO Constitution, has thereby acquired the status of a Member of that Organization, with full rights, and is qualified to be represented, if it so desires, on the Regional Committee for the Americas.

It was then agreed that the Committee on Credentials would meet as soon as the Delegation of Guyana presented its credentials and that it would inform the plenary session of whatever decision is adopted.

2. The General Committee then examined the procedure followed at the XVI Pan American Sanitary Conference with regard to Item 12 of the agenda of the XVII Conference, "Election of the Director of the Pan American Sanitary Bureau;" the Committee found it acceptable, and agreed that a document containing those rules would be distributed to all delegations prior to the election.

3. It was agreed that the ceremony for the presentation of a work of art offered by the Government of Chile, to be placed in the headquarters building, would take place on Monday, 3 October, following the afternoon session.

4. Dr. Horwitz, Director of the Pan American Sanitary Bureau, reported that a communication had been received from Trinidad and Tobago inviting the Pan American Health Organization to hold the XVII Meeting of the Directing Council in that country in 1967. The Secretariat will prepare a document conveying this invitation to all the delegations and the matter will be placed on the order of business of one of the plenary sessions for consideration by the Conference.

PRESIDENT: * As the second item in the order of business, we will now hear the third report of the Committee on Credentials.

Third Report of the Committee on Credentials

Dr. WEDDERBURN (Jamaica) (Rapporteur of the Committee): The third report of the Committee reads as follows:

The Committee on Credentials, composed of Dr. Victorio Vicente Olguín (Argentina), Chairman; Dr. Charles Courtney Wedderburn (Jamaica), Rapporteur, and Dr. Carlos Waldheim Cordón (Guatemala), held its third meeting on 28 September 1966, at 2:00 p.m.

The Committee examined and approved the credentials presented by the Delegation of Guyana to participate in the XVII Pan American Sanitary Conference, which serves as the Regional Committee of the World Health Organization for the Americas.

PRESIDENT:* Are there any comments?

Dr. FRAZER (United Kingdom): I do not know what it feels like—I suppose we all wonder—when a dependent member drops off, and one can only express great joy when one finds that the dependent member that has dropped off is, in fact, capable of being independent and on its own. And from the United Kingdom's viewpoint, I can only congratulate Guyana on its independence and its joining this remarkable gathering.

I would also give a personal word of welcome to Dr. Nicholson who, although he may not have filled this chair quite as I fill it physically, has always filled it even more adequately in every other respect.

PRESIDENT:* It is a great pleasure for me to greet the Government of Guyana, which now takes its place as a fully accredited member of the Regional Committee of the World Health Organization for the Americas. On behalf of all the delegates present, I extend a most cordial welcome. I give the floor to the Delegate of Guyana.

Applause.

Dr. MAHRAJ (Guyana): Mr. President, distinguished delegates: Since my country has been accepted as a Member of the World Health Organization, and has been admitted to this august assembly, it is appropriate for me to thank the Director of the Pan American Sanitary Bureau and his staff for the part they have played in facilitating our acceptance by WHO, and for your warm welcome.

My Delegation wishes to assure you that our country is prepared to live up to the high traditions of the Organization, and to cooperate in all matters pertaining to health.

Being a young nation, Guyana no doubt will be called upon to surmount many difficulties which she may encounter, but she is prepared to meet them with humility and a steadfastness of purpose. I will say no more at the present. Again, my Delegation wishes to thank you.

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences (*continuation*)

PRESIDENT:* We shall now turn to the next item on the order of business and continue with the reports. Dr. Martínez Junco, Delegate of Cuba, has the floor.

Report of the Delegation of Cuba

Dr. MARTÍNEZ JUNCO (Cuba):* The Cuban Delegation presents its compliments to those attending the Conference and its apologies to the President and the delegates for not having been able to be present from the start of the meeting. Despite the fact that the visa application was presented through proper channels and that our Delegation was in Mexico in good time, the visas were not granted until Monday, which made it impossible for us to be here for the first session.

A similar problem is now confronting another Cuban Delegation that has been in Mexico for several days waiting to attend the Third International Neurology Congress now meeting in this country.

We do not understand why the Delegation has not been granted visas, despite the fact that Cuba has been invited and has always attended these international meetings.

We also very much regret that the quadrennial report requested by the Director, and which was sent to our office in Washington when due, has not reached you, but we hope it will be received before the close of the meeting.

These incidents have, to a certain degree, marred our pleasure on seeing this building for the first time. We had not previously had this opportunity. Truthfully, along with the pleasant impression made by the building, the thought occurred to us that the mere fact that it is located here can sometimes give rise to the possibility that a sister country of the Americas may experience difficulties in attending these meetings because of visa controls.

The blocking and distortion of information concerning our country make it difficult to make known the facts concerning our development. For this reason we are particularly eager to report and to hear what has been happening in other countries with regard to the levels of health, and to compare the different types of organization, working methods, and the support given by our different social and political systems in the promotion and protection of health.

It is not enough to examine public health activities and programs to arrive at a fair evaluation of the changes in the health indices in a short period of time. It is essential that we do so with the full understanding of the extent to which they have, or have not, been stimulated by other important changes in the country's social and economic policies.

Health activities, as a social function are one of the components of the well-being of our society. Their decisive role in the development of the country is granted to them because of their close link to the country's economy. We consider health to be a basic indicator of social progress and economic development.

Organization and expansion of public health services. In Cuba, the health organization has been changed and integrated into the socioeconomic structure of the country. The work and organization of our health services are determined not only by the degree of economic development but also by the existing levels of production.

Health services are essentially an activity of the State, and health programs are carried out with the active participation of the people. Health activities are directed on a national scale by a single agency: the Ministry of Public Health.

Planning has replaced improvisation. For the first time it has been possible to formulate a national health plan by relating health activities to the country's general social and economic plan, of which they are a part.

Health activities in Cuba are based on the principle of an integrated service, that is, the curative and preventive services are applied to the individual as a psychobiological and social entity.

From the administrative standpoint our service is based on the principle of centralized policy-making and decentralized program execution, based on a regional structure and with the necessary machinery for liaison and control between the different levels and between units at each level. The organization has been consolidated at the national level in seven provincial and 38 regional directorates. Each of these regions is divided into health areas, and these into sectors, both constituting the basic operating level at present in force.

Cuba has more than 60,000 medical workers and it is important to point out that all of them have emerged from the stultifying working atmosphere of a bureaucracy, without social content, and have become active participants in the public health organization. All are given the chance to see that their work is measured by the evaluation procedures of our operating units and they have ample opportunity for advancement. Accordingly, through formal training courses, the general auxiliary worker can become a nursing auxiliary, and then a graduate nurse. Those who attain a certain scholastic level are able to pursue more advanced studies.

It should be noted that under these circumstances the worker's behavior, as well as his productivity, are completely different from that which existed in former times when incumbents felt insecure because of frequent changes in administrations.

In 1965 there were 6,815 physicians in the country, or a ratio of 9.2 per 10,000 inhabitants. Nursing personnel total 9,309, of whom 4,475 were graduate nurses and 4,834 trained auxiliaries. There

were also 1,429 oral hygienists and 5,299 technicians in other fields.

The country has 50 urban general hospitals, 46 specialized hospitals, 45 rural hospitals, 19 factory hospitals, and 70 clinics that were formerly cooperative or private institutions and are now a part of the public health organization. Twenty-three of those are used for teaching purposes.

The total number of hospital beds is 49,103, of which 42,162 are for medical care and 6,941 for other patients. The national ratio of medical-care beds is 5.7 per 1,000 inhabitants.

There are also 202 polyclinics, 7 provincial health and epidemiological laboratories, 16 regional laboratories, 36 dental clinics, 398 oral hygiene services, and other supplementary units, such as homes for the aged, children's homes, blood banks, and others.

There were 17,000,000 medical consultations in 1964 for the entire country, or a national ratio of 2.3 visits per inhabitant. This is still considerably below our aim, but it should be noted that the figures include increased services in the outlying areas of the country that previously had limited or no services at all.

In Cuba there are 250,000 live births a year and we have succeeded in having 70 per cent of those take place in institutions.

Premature births constitute 6.9 per cent of the total. The average hospital occupancy rate is 75 per cent. The average index of hospital deaths decreased from 3.2 in 1963 to 3 per cent in 1964.

The percentage of Ceasarian sections is 6.7, and fetal mortality is 4.3 per cent in maternity hospitals.

In the period under consideration, the rate of autopsies performed in the country averaged around 30 per cent.

In 1965 the Ministry of Public Health had a budget of more than $140,000,000, equivalent to an expenditure of $17.84 per capita.

A very important aspect of the development of the health service is that related to units in the rural areas: 45 rural hospitals with 1,242 beds have been constructed and there are also 19 factory hospitals and 51 dispensaries. In this same rural area, only seven years ago there was no possibility of obtaining medical care, yet in 1964 there were more than 1,500,000 medical consultations, 42,000 hospital admissions, and 12,000 deliveries. In addition to those units, 250 dispensaries have been built in selected locations in the rural areas.

The rural units perform preventive and curative functions and each has a local health committee, headed by the hospital director, while the rest of the members represent local authorities and community organizations. These committees keep informed of all health matters affecting the community, take the necessary decisions, and plan the work to meet local problems as they arise.

Within the area of each rural hospital, 3,000 to 5,000 inhabitants have been grouped into sectors and serviced by the respective hospitals.

This network of preventive-curative services in the rural area, and its relationship with the regional specialized units, are an indication of the success of the Cuban public health organization, which permits flexibility in the services rendered to the people.

It should be noted that 25 oral hygiene clinics have been established in Cuba in the last four years, and 86 such clinics were organized in the hospitals; more than 248 oral hygiene services in polyclinics and other localities, and 8 maxilofacial services were also established.

There are now 600 dental teams serving the Cuban population under organized programs. Dental hygiene care for the school population is provided without charge up to the age of 15, and increasing stress is laid on regular examination and preventive care.

Communicable disease control. The epidemiological picture in our country has changed completely in the communicable disease sector.

Poliomyelitis immunization campaigns, repeated during five successive years, have virtually eliminated this disease as a cause of morbidity and mortality.

The incidence of diphtheria has continued to drop from 20.9 in 1962 to 8.5 per 100,000 inhabitants in 1965.

Similarly, the rate for tetanus has decreased from 8.1 in 1962 to 5.4 per 100,000 inhabitants in 1965.

There were 3,519 cases of malaria in 1962, whereas only 127 cases were found in 1965. We are able to report that there have been 20 cases in the first and only 5 in the second quarter of 1966.

The level of epidemiological control achieved in the first six months of this year indicates that in November, when the next evaluation of the program is made, the entire malarious area can enter the consolidation phase.

While the program to eradicate *Aedes aegypti*, the urban yellow fever vector, has encountered some

difficulties, it has been possible to extend it to another province and the Government hopes to extend it to the entire national territory in the coming year.

As for tuberculosis, more than 1,000,000 miniature X-rays covering 25 per cent of the population over 15 years of age were made in 1965, and a 0.3 per cent positivity was found. Primary vaccinations were administered to 95 per cent of the infants born in our institutions, and all elementary schoolchildren are being revaccinated, after a Mantoux test. National therapeutic and microbiologic standards, to be applied at all levels of our medical care units, have been established. Special attention is being given to bacteriology in tuberculosis; sputum cultures and tests for resistance to the principal drugs are the established procedure in all laboratories of the country.

The national leprosy control program has also made progress and has been developed on the basis of case-detection, free treatment of those who are ill, protection of contacts, and rehabilitation. In 1965 there were 4,235 registered patients; 94.6 per cent of the total were under control, as were 60 per cent of their contacts.

In the group of communicable diseases, mention of the acute diarrheal diseases has been left to the last, since great progress has been achieved in the campaign against this group of illnesses.

The program was initiated in 1962, when the death rate was 51.2 per 100,000 inhabitants; this rate has now been reduced by 50 per cent. In 1965 a death rate of 26.8 per 100,000 inhabitants was recorded, which means that the death of more than 2,000 infants has been prevented.

The mayor elements contributing to the success of the campaign have been the following: (1) improved health education of the public; (2) standards for medical service provided at the level of all the operating units; and (3) expansion in the number of base units.

Vaccination programs for the control of various diseases were carried on in the country during 1964, and 44.6 per cent of the children under six years of age received triple-vaccine protection (whooping cough-diphtheria-tetanus).

In the 6–9 age group 58.3 per cent received diphtheria-tetanus toxoid and 22.9 per cent of the population over 10 years of age were vaccinated against tetanus.

Plans are now being made for a nationwide smallpox vaccination program in order to raise to a maximum the immunity level of the population.

Urban and rural sanitation. Along with the above-mentioned activities, in the period between 1962–1965 the Ministry of Public Health was able to determine the health status of the communities. This information has been brought to the attention of the other State agencies, and through the establishment of investment priorities it was possible to make more efficient use of resources, specifically for water supply and waste disposal systems and improved housing.

The Central Planning Board has coordinated the efforts of the various Government agencies and has promoted the construction of the sanitation systems which are essential if living conditions are to be improved.

Activities carried out in this sector and their significance to the health of the Cuban people can readily be seen from the written report which has been delivered to the Conference and which is at the delegates' disposal.

Nutrition. Nutrition problems constitute a basic concern to the Government. Food production that is adequate in both quantity and quality, and proper distribution and storage to meet the basic needs of the people and ensure great progress in a short period of time, can be accomplished only through an agrarian revolution.

Food distribution in Cuba is becoming increasingly more equitable and is gradually meeting the real needs of the entire population. The Government has plans for providing free food for all schoolchildren in the forthcoming years.

To meet the demands of the nutrition program, the Ministry of Public Health is now setting up the following organization:

1. A National Food and Nutrition Committee.
2. A National Nutrition Department, with international advisory services.
3. A Nutrition Laboratory in the National Institute of Health, Epidemiology, and Microbiology.
4. The assignment of physicians with specialized training in nutrition to all the provinces.
5. Nutritionists-dietitians at the regional level in all regions.
6. Nutrition workers, graduated from our schools, who will work at the level of the operating units: hospitals, child care centers, factory canteens, and school cafeterias.

7. Members of the Cuban Federation of Women who will be given special courses and then placed in charge of feeding activities in the kitchens and dining rooms in the rural areas, on the farms, and in the dining rooms provided for agricultural workers during harvesting periods.

Maternal and child care and school health. A maternal and child care program, to cover the entire country, is being developed. A project designed to give every schoolchild on entry to school a medical examination for prevention purposes was initiated in 1964.

Education and training. With reference to education in general, it should be pointed out that more than 1,500,000 pupils were enrolled in Cuba during the school year 1964–1965 in secondary and vocational schools. More than 800,000 rural workers and women participated in the adult education program.

In 1965 more than 27,000 students were enrolled in institutions of higher learning, including the three universities. The School of Medicine enrolled 4,500 students and the School of Dentistry, 472. More than 14,000 have graduated from the schools of public health and of nursing since the start of the Revolution to the present. There are currently around 4,300 students enrolled in these schools.

All the students are assured employment immediately after graduation. Unemployment has virtually disappeared in Cuba, particularly in the case of technically trained individuals. Training is not restricted except as regards the capacity of the schools to provide it and the demand created by the country's development. On the basis of the foregoing report, and in the light of our experience, we are convinced that the goals of the so-called Alliance for Progress can only be attained when the peoples of the Western Hemisphere assume responsibility for their own destinies, regain full enjoyment of their national wealth, and can truly channel their material resources and their endless reservoir of human capacity to the protection of health and the equitable distribution of food, housing, education, and well-being.

Statistics—1964. We have available the following preliminary figures for 1964:

Births	35.5 per 1,000 inhabitants
General mortality	6.6 per 1,000 inhabitants
Infant mortality	41.5 per 1,000 live births
Age-specific mortality	
1–4 years	1.7 per 1,000 inhabitants
5–14 years	0.4 per 1,000 inhabitants
Maternal mortality	1.0 per 1,000 live births

New prospects for development. Development in Cuba has followed two major growth trends.

The first has been directed to our organizational structure, the creation of sectors and their integrated work program, which is the most important task the Ministry of Public Health has to promote.

The health area will be divided into sectors comprising 3,000 to 5,000 inhabitants, for the purpose of facilitating a study of the over-all task, identifying the problems involved, and establishing the basic work to be accomplished. The sector will be the last division of the health structure. The personnel to be trained specifically for field work will be the field nursing auxiliary, or the field nurse, and the auxiliary health worker or the health worker. However, the development of health programs cannot wait until these workers are trained in our schools and therefore, in accordance with the policy of a people's government, the population will participate in the solution of health problems and community organizations will be assigned some field tasks in these sectors. During this first phase, the sector leader will be a member of a mass organization working under the director of the area polyclinic.

The other trend in our development is directed toward the systematic promotion of qualified services in the country, particularly those centers whose highly specialized activities have placed them at the higher level of medical activity.

These centers will become the institutions of higher education and research, whose activities will enable our medical profession to reach the highest scientific level we may hope to attain.

This summarizes all our experience and efforts during these past years; the details may be found in the more complete report we have delivered to the Secretariat.

In addition to the foregoing, we have learned the significance of the disappearance of illiteracy, seen what happens when a nation is able to control all the elements of production, perceived the vast opportunities that can be made available to the underprivileged masses when monopolies are eliminated and resources are nationalized after breaking away from the interests of the privileged classes, and have begun for the first time in our history to consider the interests of the majorities. Thus we are able to understand all the elements that are needed for health programs that will, in a very short period of time, change the entire health picture that has

prevailed for more than 65 years. In this way, one may truly speak of "Facts on progress."

We believe that the world has now acquired enough experience to be able to conclude that the most important factor in the level of health of a peoples is their economic situation.

The vicious circle of disease and poverty, as it is usually presented, is completely fallacious and can only serve to confuse and deceive the experts. Under the present circumstances in the Americas, it is not true that the economic problems of the people will be solved and their educational level raised by solving the problems of health and disease. The decisive factor in this circle is not disease but poverty; social changes, not health programs or services, release the productive capacity of nations and permit full enjoyment and equitable distribution of their wealth. To eradicate malaria in the endemic areas, thereby making the population and resources productive, is only the first step in a process that is not ended until it can be affirmed that the areas are no longer in the hands of a national or a foreign monopoly and that the man without malaria will not continue to be illiterate, unemployed the greater part of the time, undernourished, infested with parasites, weakened by a hostile environment, a slave and an alien in his own land, living in hope that perhaps the experts will advance a new theory.

The vicious circle of poor health as a cause of poverty, and poverty as a cause of poor health, is broken when the people take possession of their resources and use scientific and technological progress to their own benefit.

For all these reasons, we consider the revolutionary process *per se* as the best health program ever applied in our country.

We thank all the delegates for their indulgence, and hope that the quadrennium that will begin in 1966 and end in 1970 will bring forth many social, political, and economic changes and the complete elimination of those tragic circles in which the imperialists seek to enclose our Latin American countries.

PRESIDENT:* Thank you, Dr. Martínez Junco. I recognize Dr. Ortega Peguero, of the Dominican Republic.

Report of the Delegation of the Dominican Republic

Dr. ORTEGA PEGUERO (Dominican Republic):* I shall now read a summary of the report presented by my country to the XVII Pan American Sanitary Conference.

I. General Outlook

The Dominican Republic, which occupies the eastern part of the Island of Hispaniola, extends over 48,442.22 km²; its estimated population as of 30 June 1966 was 3,697,000, or an average density of 76.3 inhabitants per km².

It has the same geographic, climatologic, and general economic features of the other Caribbean countries located in the tropical area, as well as the same predominantly agricultural economy and connections and communications with the other countries and continents.

Its average annual *per capita* income of $275.00 pesos, the high birth rate (40 per 1,000 population) with a high infant death rate, the young population (44.5 per cent), the illiteracy rate of 35 per cent, combined with other social and economic factors, place it in the group of developing countries.

The political picture has undergone a number of changes in recent years as a result of the transition from an extended period of totalitarianism to the democratic way of life. The country may be described as one that is seeking the sources, the standards, and the structure of legal order and free expression of ideas. It has recently emerged from a conflict that affected its institutional life for more than a year, a period that constituted an interregnum in our political and economic evolution. The present administration of Dr. Joaquín Balaguer, which came to power through an exemplary electoral process, has recently embarked on a period of political and economic reorganization that is enabling the country to overcome economic and other imbalances brought about by the crisis.

In describing the development of the health services over the period 1962–1966, it can be said that we have been witnessing a slow and gradual process of organization at the different levels and sectors of the Ministry of Health and Social Welfare. While it is true that a National Health Plan was prepared in 1962, it has not yet been implemented for lack of the necessary technical and administrative structure. Efforts have been made, particularly in the last year, to establish the basic structures. This phase has been making progress, despite the conflict, for although it may seem paradoxical, those very circumstances served as a com-

pelling force to strengthen the services and facilitate the development of activities.

The general critical assessment has had positive results, because it has corrected courses of action and outlined the bases for what will become the country's health policy. In effect, the present Government is seeking to promote the organization and development of health services, and to carry out extensive programs to cover increasingly larger sectors of the population.

Nevertheless, for the moment progress is limited to the services provided by the Ministry of Health. On the basis of currently accepted ideas and criteria, it will be necessary, within a short period, to tackle the problems arising from a dispersion of resources, which in the past had led to duplication of effort in the health sector, with the ensuing duplication of functions and increased cost of the services.

II. Health Problems

Although it is not yet possible to give quantitative data on the various problems involved, or the return that might be expected from the use of existing resources for their control, there are a few basic guidelines that enable us to determine, in approximate terms, that the health problems affecting the Dominican people are characteristic of their environment. They derive from deficiencies in both urban and rural basic sanitation and from the lack of resources needed for an all-out effort against the problems of health promotion and protection.

Potable water supply is unsatisfactory in both urban and rural areas. Although there are water services in 75 per cent of the urban communities, only 34 per cent of the population is provided with enough safe water. Although the majority of the population (2,568,500 of the total 3,697,000) lives in the rural areas, only a minimal percentage has any water services. Sewerage disposal is a serious problem, which explains the high percentage of persons suffering from intestinal parasitic diseases, particularly in the rural communities.

III. Resources

A recent census of resources allocated to health indicates that the country has 87 hospital establishments, with a total of 7,593 beds. However, 1,493 of these are for chronic diseases, that is, only 5,480 beds (1.6 beds per 1,000 inhabitants) are available for the seriously ill. The equipment in these hospitals is quite inadequate and many of the institutions do not have the necessary services to provide basic medical care.

The total number of physicians is 1,493 (1 per 2,500 inhabitants), but 70 per cent of the medical profession is concentrated in the Federal District, which has 1 physician for each 516 inhabitants, whereas in some provinces, the ratio is 1 per 12,000 to 13,000 inhabitants. Only 51 per cent of the physicians in the country perform service with the Ministry of Health, a factor that is of extraordinary importance when one attempts to plan nationwide health programs with services that will meet the needs of the communities.

IV. Programs

Health Promotion

In recent years an expanded maternal and child care program has been developed, utilizing improved techniques. Care standards were prepared and demonstration centers were established.

Health Protection

Environmental sanitation. The reorganization of the Sanitation Department early in 1966 and the preparation of workable plans led to the initiation of rural sanitation works in certain areas and to the organization of basic sanitation and food control services in other cities, on the basis of precise standards and in-service training for the personnel.

Communicable diseases. Though no cases of smallpox have been reported for 40 years, the level of immunity of the population is very low and probably does not exceed 3 per cent of the total.

There have been no cases of yellow fever but eradication of the vector has been impossible owing to its resistance to chlorinated insecticides.

Unmistakable progress has been made in the malaria control program over the four-year period. The primary objective of the tripartite agreement signed with UNICEF and WHO in 1963, was the eradication of malaria in the Dominican Republic. This tripartite agreement called for the creation of the National Malaria Eradication Service, with technical and administrative autonomy, to carry out its work under a Malaria Advisory Board headed by the Minister of Health and Social Welfare. Proper application of different control techniques and strict compliance with standards and work schedules resulted in a rapid and sure reduction of the disease, which has ceased to constitute a threat for more than 2,500,000 of the 2,950,000 persons that live in malarious areas.

Tuberculosis control has proceeded along traditional lines. A pilot project was carried out between 1964 and 1966 for the purpose of determining the prevalence of the disease in sample urban and rural populations and establishing the control methods and techniques to be used in the future.

Venereal diseases, especially syphilis, are showing the same rising trend as in many other countries, but the rates in our country have reached unusual proportions—296.2 per 100,000 in 1963. A slight decrease was observed in 1965. While there are no planned venereal disease campaigns—which require among other things well-organized local health services—measures are being taken to intensify case detection, diagnosis, and treatment and to adopt epidemiological and control procedures and techniques.

Poliomyelitis has been a cause for special concern. During 1965 there were 46 reported cases and an additional 10 in the first half of 1966. An immunization campaign at the national level was carried on in 1964 and a second campaign was launched in 1966, aimed at reducing the risk for the most vulnerable groups. Although immunization was not practiced regularly or on an adequate scale, this activity is included in the regular programs of the local health agencies.

Despite the fact that effective control measures are available against diphtheria and whooping cough, the mortality and morbidity rates continued to be high.

Schistosomiasis appears in localized foci. Eighteen cases were reported in 1965, but there is a tendency for the disease to spread, and activities have therefore been initiated to control or eradicate the foci.

Intestinal parasitic diseases have reached serious proportions, with hookworm disease and ascariasis constituting major problems. Even though there is a sound therapeutic control program against hookworm disease, including preventive measures, success will perforce be limited until satisfactory basic sanitation levels are attained. Accordingly, coordinated activities of treatment and the construction of sanitary latrines have been planned for the rural areas.

Typhoid fever, though not a particularly important problem, is always included in the planned activities.

Medical services. In order to provide medical services, the Ministry of Health has 54 establishments, with 6,141 beds, of which 1,413 are for chronic disease patients. To these must be added the 18 establishments of the Dominican Social Security Institute and 15 military installations, with 1,260 and 582 beds, respectively.

General health services. Unmistakable progress has been made in improving the Ministry's organization at various levels. The central level was reorganized on more functional lines and coordination among its divisions and departments was strengthened. Obviously certain changes still have to be made but developments so far show that the targets established in the first draft Ten-Year Plan in 1962 have provided the proper guidelines.

The administrative organization, in particular, has been strengthened; there has been a definition of duties of the administrative departments and higher echelon officers have been selected and trained. In addition, they have the added incentive of a career based on the merit system, which has been extended to the local services and is serving as a model for other Government agencies.

Following the practice adopted or being adopted by other countries in connection with health planning, attempts are being made to regionalize the health services and establish health regions on the basis of operational decentralization.

The extension of the integrated health program to rural communities is a new concept that is being developed on the basis of working procedures and a model organization supplemented by basic sanitation and medical care services, that may well prove to be the solution for the problems of rural communities.

Planning. There is no doubt that if it is desired to meet specific targets in the forthcoming years and attain the interrelationship between the different sectors of the development process so as to improve the well-being of the Dominican people, health activities will have to be planned following the same methods applied to the other development sectors.

Planning measures in the health field should begin at the subsectoral level; that will permit rapid coordination or possible integration and lead to expanded services that will cover a reasonable proportion of the population. It may be predicted that the initial steps will show that greater returns can be obtained from more efficient administration and utilization of the existing resources, and that a modest increase in the services will be sufficient to attain acceptable levels of coverage.

The immediate task consists of organizing the medical care services through the establishment of local agencies to carry on programs of health promotion, protection, and restoration. The country has therefore been divided into five health regions, and each region into health areas. The next step will be to organize them properly and establish working procedures for the execution of the programs.

A diagnosis of the health situation will be essential in order to determine the proper type of local plan and the national plan. This phase of the work will be accomplished through staff training in planning methodology, establishment of standards and mechanisms for the collection and analysis of the necessary data, and, lastly, the preparation of a five-year plan that is tentatively scheduled to begin in 1968.

These activities will be centralized in the Sectoral Planning Unit, and in the individual planning units of each sector, under the Ministry of Health and Social Welfare.

Organization and administration. The immediate policy will be directed toward reorganizing, strengthening, or improving the basic health service structures and similar subsector agencies with the ultimate aim of having a single structure for the sector and obtaining for health activities a proper place within the general development process.

The immediate task will be to define the functions of the Department of Health, its divisions and services, and the channels to be followed between them and the regional and local bodies, and to prepare technical standards and outline operating procedures. However, we recognize that the determining factor is the adoption of a doctrine and a philosophy to be observed at all levels, and that it is the responsibility of the principal executive officers to enforce them.

The Dominican Government has adopted the principles set forth in the WHO Constitution that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" and that "Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures."

The health problems of the Dominican people, as is the case in other countries of the Hemisphere, are aggravated by general adverse economic and social conditions that are beyond the bounds of medical techniques. We therefore accept the fact health programs must be a part of the general development policy and must have a priority commensurate with the undeniable interrelation between health and the economy.

In presenting this summary of the accomplishments and objectives of our Government in the health field over the past four years, we are conscious of the fact that our progress has been limited. It is unnecessary to enumerate before this distinguished body all the difficulties that have interfered with the normal development of the main activities of our life as a nation. Those circumstances are all too well known.

But it is important to affirm, on behalf of the Government of His Excellency, Dr. Joaquín Balaguer, that it has every intention of rapidly finding the means conducive to the development of realistic, workable plans that will improve the health of those who need it the most.

Mr. President, members of this Conference: this is the most tangible and effective contribution that the Dominican Republic can pledge to the general efforts of the Pan American Sanitary Bureau in its attempt to attain a better and a higher level of well-being for the peoples of the Americas.

PRESIDENT:* Thank you, Dr. Ortega Peguero. I now recognize Dr. Becerra de la Flor of Peru.

Report of the Delegation of Peru

Dr. BECERRA DE LA FLOR (Peru):* I have brought with me a summary of the report of my country covering our health activities over the past four years, which I had intended to read, and with the material I was to present to this Pan American Sanitary Conference, I have also brought a motion picture which has caught some movingly eloquent examples of community cooperation in the construction of rural water supplies.

Actually, Mr. President, if I may be permitted, I shall merely mention the highlights of the report, so that the rest of the time may be devoted to showing this film, which was made for the purpose of promoting the water program in my country and which illustrates certain basic aspects of health education.

The principal motive in showing the film is its possible usefulness to other Latin American repub-

lics, especially those in the Andean area whose problems are similar to ours, and where, if similar procedures were used, rural water programs could be carried out with the same energy and initiative.

To summarize the report, the most important event in Peru in the four-year period has been the general reorganization of the health service to adapt it to the cultural, economic, and social changes that are taking place so rapidly throughout the country. Moreover, new regulations were applied in the past year affecting the Ministry of Health, and it has been possible to improve the decentralization of the health services and programs in the health areas and units and to provide them with an adequate operating budget.

The most important programs undertaken were those relating to the expansion of hospital services; through the National Health Fund, it has been possible to carry out a hospital construction program that has yielded extraordinary results in both quality and quantity.

We have recently put into operation 11 new departmental hospitals; seven more will be completed in the forthcoming months and next year a total of approximately 30 hospitals will be completed. This means that the increase in our hospital beds is already 78 per cent; by next year it will be 112 per cent.

In the field of preventive medicine, which has been accorded priority and is one of the Ministry's most active and dynamic programs, immunization campaigns have been carried out against the communicable diseases, such as poliomyelitis. In January 1966 the first mass vaccination program to combat this disease was conducted on a nationwide basis. Despite the country's rugged and difficult topography, and a population widely dispersed in the Andean and forested areas, it was possible on a single Sunday, with a good organization working from 8:00 a.m. to 3:00 p.m., to administer 2,500,000 doses of vaccine to children between the ages of four months and seven years throughout the country.

The second dose was administered in March and the service has now been incorporated in the permanent vaccination program for all children.

A similar campaign against measles was launched in August; the vaccine was administered by zones, as effectively as possible, since we only had about 300,000 doses per month available. In the sector of Lima and its outlying districts, a total of 120,000 children were vaccinated on a single Sunday, using disposable needles.

Vaccination work was continued in subsequent months in different departments of the country and we hope that the campaign that will protect all the susceptible children against the disease will have been completed by December.

A BCG immunization program is also in progress in the forested area; it is designed to protect the inhabitants against leprosy, which has shown an upward turn, as well as against tuberculosis. Major efforts have also been directed toward the solution of other health problems such as malaria, Chagas' disease, plague, rabies, and yellow fever. Complete details on all these activities are included in the report submitted to the delegates.

One of the most important health problems in my country is that concerning nutrition. In connection with feeding programs for children, we have been able to expand activities to the point where one million food rations are provided daily for breakfasts and lunches in the schools; at the same time 12 million daily rations are provided for the working classes in welfare kitchens. Nutritional rehabilitation centers have been established and we hope to expand this activity to meet all the needs of a program of this magnitude.

One of our most important policies is the extension of health services to rural areas. To this end the civilian river service was established in 1963; through this service, and using our Navy gunboats and special boats of the Ministry of Health, health and education teams have been transported to all the villages along the rivers of the Amazon Basin. A similar service is operating on Lake Titicaca and we are organizing mobile units to extend medical and hospital services to the surrounding rural areas.

Special emphasis has been given to training of personnel at the School of Public Health and the schools of nursing, as well as in programs developed in the medical schools for the training of specialists.

These are the most important aspects of our work, but detailed information can be obtained from the printed report. Please accept my apology for varying the form of presentation. I would now request the Chair to allow me the privilege of showing the film on the water supply problem in Peru.

PRESIDENT:* Thank you, Dr. Becerra de la Flor. We shall attend the film-showing presented by the Delegation of Peru, which will be followed by a brief recess.

The session was suspended at 4:15 p.m. and resumed at 4:45 p.m.

PRESIDENT:* The session is called to order. The Delegate of Uruguay has the floor.

Report of the Delegation of Uruguay

Dr. PAREJA PIÑEYRO (Uruguay):* The Republic of Uruguay is the smallest in area of the South American countries: 186,926 km². It is divided into 19 departments and the Capital is located in the Department of Montevideo.

Calculated on the basis of the last census taken in 1963, the present population is estimated at 2,749,000. The birth rate is 21.5 per 1,000 inhabitants; the general death rate, 8.6 per 1,000; the infant death rate, 55 per 1,000 live births; and the natural population increase, 12.9 per 1,000. The Department of Montevideo has a population of 1,250,000 (46 per cent), while the remainder of the inhabitants are distributed in the various zones, concentrated for the most part in urban centers. There are 3,250 physicians in active practice, or a ratio of 1 per 830 inhabitants.

The health organization is centralized at the national level. Some areas have low-population density, while other scattered rural populations live in isolated areas without the services of a doctor. Uruguay shares the general economic problems of the rest of Latin America. Economic instability, characterized by inflation resulting from domestic conditions and difficulties in exporting surpluses to foreign markets, has given rise to periodic depressions, the most recent in 1965.

General plans prepared by the Committee on Investments and Economic Development (CIDE) indicate that levels of health and satisfaction of basic needs comparable to those of the most advanced countries are attainable goals for Uruguay, within the framework of its national economic and social development plan.

I. Status of Health

Environmental health. The program for the construction of water supplies, sewage disposal, and treatment plants which will benefit an ever-increasing number of people in urban and rural areas, has been continued over the past four years. Further impetus has been given to the Government's low-cost housing program and new techniques have been applied that have led to reduction in costs. This has been possible thanks to financial aid received from the international agencies participating in the Ten-Year Program of the Alliance for Progress.

Epidemiological characteristics and principal aspects of infectious and endemic diseases in Uruguay (1962–1966). The following were the most important aspects of the epidemiology and treatment of infectious diseases in Uruguay during the past four years:

1. Poliomyelitis control. Mass immunization campaigns with oral vaccines were carried out in 1962 and in 1964. In the first campaign vaccines were administered to 80 per cent of the population under 20 years of age. The new generations of children were immunized in 1964 and those who had been reached in 1962 were revaccinated.

At present the campaign is directed primarily to children under three years, and next month all children under 14 years of age will either be vaccinated or revaccinated.

The results of the campaigns have been evident; since the occasional sporadic cases of polio reported during the last few years were nonimmunized children.

2. Reappearance of rabies. Rabies reappeared in Montevideo in September 1964, 20 years after the country had been considered freed of the disease. From the date of its reappearence to the present, three human cases, 622 canine cases, and 145 cases in other animals have been diagnosed. A total of 350,600 dogs have been vaccinated.

With the advice and participation of the Pan American Health Organization, an intensive preventive campaign has been launched. Nearly 80 per cent of the canine population in the infected areas has been vaccinated; stray dogs are being eliminated, and plans are now being developed for the consolidation phase, requiring a major effort in which PAHO is already cooperating.

3. Diphtheria. In recent years the number of deaths from diphtheria has been averaging seven per year for the entire country. However, in 1966 a diphtheria epidemic occurred in Salto, a city of 50,714 inhabitants located in the north of the country. The epidemic, which is being closely studied, has the following characteristics: (1) the disease is more common in adults and young people than in children; (2) the majority of the clinical forms are benign without complications; (3) there have been only four deaths and two cases with paralytic complications, out of approximately 400 cases; (4) in many instances the patients gave a negative reac-

tion to the Schick test; (5) the disease is spreading in an area in which 80 per cent of the adult population is Schick-negative and more than 80 per cent of the school-age and preschool-age children have been vaccinated.

The epidemic began in February and is continuing despite the high immunization level of the population. It is limited to the confines of Salto and has not appeared in any other part of the country. All its features are being carefully recorded and we hope to obtain useful conclusions.

Morbidity and mortality for typhoid fever and infant diarrheas have shown a downward trend in recent years, no doubt as a result of improved environmental sanitation and health education.

The incidence of viral hepatitis has increased, and extensive epidemics have occurred in the winter months of the past few years.

Morbidity and mortality for tuberculosis have shown a slight decline but the rates for early syphilis have remained stationary.

New epidemiological studies of Chagas' disease and leprosy have been made, and agreements are now being negotiated with PAHO for the initiation of eradication programs against these diseases.

Substantial progress has been made in the control of hydatidosis—a prevalent disease that is related to the livestock industry—through the enactment of a law which makes the campaign against the disease compulsory. An honorary commission, responsible for applying the law, has already been appointed, and an intensive health education campaign has been launched as an initial step to obtain the collaboration required for this activity.

Hospital infections have been a matter of serious concern to the health authorities in recent years; such occurrences often necessitate the costly renovation of surgical facilities, most of which are outdated. This serious problem involves the entire hospital administration, and it is now being studied by a special committee.

Mass vaccination programs. In response to planning directives, the health authorities are giving special attention to the study of expanded vaccination programs aimed at providing the maximum possible protection to the population, through the administration of all the vaccines used for preventive purposes. Some activities of this type have already been initiated.

We have considered it important to propose to PAHO that it hold a seminar on vaccination programs. Such a seminar, which should be a practical one and have the participation of all the countries, will be very valuable in promoting all types of vaccination programs and the practical standards that may be adopted will serve a very useful purpose for health workers of the Americas.

We also believe that the over-all task of infectious disease control, which we are attempting to promote through improved hospital structures for isolation and treatment of patients and through greater coordination of courses in pathology, treatment, and prevention of these diseases, will enable doctors and students to be more conscious of their direct responsibility, not only for early diagnosis and proper treatment but for preventive measures.

It should be borne in mind that courses on infectious diseases should include the fundamentals of epidemiology and preventive medicine, which are disciplines that are being applied to all medical activity.

Endemic goiter. A survey made 10 years ago showed the presence of a mild type of endemic goiter in an area that extended into three of the northern departments. A law was immediately passed to make the consumption of iodized salt obligatory in that area, and it is now being enforced.

The Rural Public Health Program, carried out with advisory services from PAHO and financial aid from UNICEF, has contributed toward the improvement of the general health situation in the interior through a better application of health techniques in the rural zones. This program is soon to be extended to the entire interior of the country.

Principal causes of death. The principal causes of death in Uruguay appear in the following order: cardiovascular diseases, malignant tumors, vascular and cerebral lesions, accidents, respiratory infections, and infant diarrheas.

II. Medical Care Services

Medical care services in Uruguay may be grouped into three categories: those provided by the Ministry of Public Health; those supplied by various autonomous (state) agencies and other semipublic institutions; and those provided by the private institutions (group health or mutual benefit institutions, or partial health insurance for certain groups of workers). Private practice, in the traditional sense, is becoming less important.

Because of their nature and their importance, mention should be made of the services provided

by the Ministry of Public Health, and in particular, of those furnished by the group or mutual associations. The latter include services provided on payment of a membership quota (voluntary insurance of an individual and private nature, without the contribution of any other person or institution, and the partial health insurance schemes that cover risks in the case of workers in industry, trade, or public service). The partial type of insurance is operated by administrative boards or committees on which the workers and employers and, in some instances, government representatives participate. The group contracts for medical services with the existing group health or mutual health institutions on the basis of the best bid and price.

Medical care services of the Ministry. The Ministry provides services through its establishments throughout the country: hospitals in the national capital and in the capitals of the departments; auxiliary centers in the principal urban areas and polyclinics offering home consultation in the smaller communities. The Ministry has available 1,000 beds in two general hospitals in the capital and provides medical and surgical care, as well as various specialized services, for acutely ill patients. There are also a number of independent specialized hospital centers; 18 departmental centers in the respective capitals, with a total of 3,280 beds; and 28 auxiliary centers, two or three in each department, with a total of 1,217 beds.

Medical care for the chronically-ill is provided exclusively in the Ministry's facilities, since the high cost of this type of service makes it virtually prohibitive for the private institutions. Patients with tuberculosis, leprosy, or mental illnesses are treated here. Other divisions of the Ministry and other institutions perform important social welfare functions for tuberculosis patients and their dependents. Among their responsibilities is the provision of financial aid to the families of patients who are hospitalized or unable to work. In addition to this welfare work, the Honorary Committee for the Control of Tuberculosis carries on continuing case-detection and preventive activities at the national level, through free periodic examinations to the public.

Medical care through group health services. The institutions providing this type of care emerged out of philanthropic aid and voluntary group saving projects. Later, as a result of the unexpected increase in the demand for service per person, the increased demand for hospital treatment, the advances of medical technology, and the growing inability of the group to provide the required funds, these mutual benefit institutions were gradually transformed into administrative agencies that sought to give primary emphasis to the maintenance of financial stability. Through this slow but continuing process they have gradually abandoned the social purpose that had led to their creation. Furthermore, they now select those eligible for membership, reject those above a certain age, and exclude those representing a certain risk or affected by certain diseases whose treatment cost is high or tends to increase because of technological progress.

In round figures, the group health agencies cover around 700,000 persons, largely in Montevideo. Very few of these institutions have extended their services to the interior, where medical care is largely private but often quite deficient. To the total number covered by the mutual associations, more than 90,000 beneficiaries of compulsory health insurance schemes, established by law, should be added. At present there are several bills before the Legislative Branch of Government that would make approximately 70 per cent of the population eligible for medical care under compulsory health insurance programs.

This development of the group health or mutual system has impeded the evolution of medical care services along new social lines. A serious effort is being made to coordinate them with the medical care provided by the State so that efforts could eventually be combined and attempts made toward a satisfactory solution.

Hospital bed distribution

Total beds	17,246
Ministry of Public Health	13,989
Private agencies	1,909
Ratio of beds per 1,000 inhabitants	6.6
Beds for tuberculosis patients (5 beds per death per year)	2,000
Beds for mental patients	2,780

III. Health Expenditures

Uruguay has a relatively high per-capita income and, generally speaking, acceptable levels of nutrition and basic services; however, the situation in some geographic areas of the country is unfavorable.

Health expenditures are high in relation to world averages, both in terms of the percentage of the gross domestic product (approximately 5.3 per cent) and in terms of the per-capita dollar value. How-

ever, the geographic distribution is poor and full utilization is therefore not made in terms of services because of low output in certain sectors and lack of planning.

The private sector contributes two-thirds of the national health expenditure and concentrates its resources mainly in the capital, where medical in come is also the highest. Voluntary insurance expenditures constitute 50 per cent of the private sector's contribution. These group plans are showing signs of financial difficulties, with the consequent deterioration in services rendered.

In conclusion it would appear that over-all planning in the health sector is needed, since the percentage of the gross domestic product expended on this sector cannot be increased much beyond the present level, and the only means of improving the service would be through increased productivity, a better geographic distribution, and more effective utilization of resources.

IV. Present and Future Programs to Improve Medical Services

National health plan. By National Decree of the Government Council, the Committee on Investments and Economic Development (CIDE) was created in 1960. This entity was assigned the task of formulating basic plans for economic development; estimating and seeking the necessary local and external funds for their financing; coordinating all efforts to increase national productivity; and ensuring the implementation of plans as approved. In 1965 CIDE presented to the Government for approval the "National Economic and Social Development Plan" in 1965, including the "bases for a health plan."

In August 1965, taking into account the abovementioned bases for a health plan and the Government's special interest in giving maximum emphasis to the effective implementation of the National Economic and Social Development Plan, the Ministry of Health appointed a National Committee for Health to enlist the cooperation of public and private institutions in the health sector, and to establish guidelines that would lead to the development of a national health plan (a function that is ordinarily performed in other countries by the planning units and offices in the ministries of health).

The Committee has been working intensively since its appointment; it prepared a work schedule in order to start implementing the first National Health Plan in 1968, at which time (in accordance with the administrative procedure in effect) the National Budget for Services and Expenses will be approved for a four-year period. The Committee has established different working parties to present recommendations on specific points in order to help in this tremendous planning task.

In the course of these preliminary studies and at the request of the Government, the Committee has had the assistance of the permanent PAHO/WHO adviser and the regional adviser assigned to Zone VI.

Reorganization of the Ministry of Public Health. The Ministry of Public Health, the executive agency responsible for safeguarding the health of the people and for the work involved in that undertaking, is in need of a basic reorganization that will give it a structure adequate to the task. It is therefore essential that its general internal administration be organized in such a way as to maintain centralization of regulatory functions and permit decentralization of operations, with precise definition of functions, delegation of authority, and standardization of administrative practices. It is necessary that medical care and preventive services be coordinated under one direction encompassing health care as a whole, and subdivided into health protection, promotion, reparation, and rehabilitation. Also urgent is the creation of a General Technical Department, with well-defined functions. Regionalization to the peripheral level should be adjusted to proper planning principles, and preferential attention should be given to the problems of the rural area, encouraging and facilitating the assignment of medical staff and providing them with the basic elements to carry out their task more effectively. New guidelines for the statistical services are needed in order to obtain a preliminary survey of resources, production, demands, and requirements, as well as mechanisms for the collection of information needed for the preparation of program budgets. Internal coordination among the various divisions of the central service is an absolute necessity if their activities are to be adjusted to the needs and available resources. The coordination activities recently initiated have witnessed difficulties because of the present rigid structure of the Ministry. However, it is generally agreed that it should be strengthened and regulated since this preliminary step will lead to better operation and projection into the broaden function of collective care for the population.

Improvement in existing hospital installations and construction of new buildings. The problem of insufficient hospital beds for the seriously ill has been increasing in the past 20 years; this fact underlines the inadequate distribution of hospital centers available to the Ministry of Public Health. As a result of the population increase and the expansion of the capital itself, more and more of these facilities have been located in the southern zone of the Department of Montevideo. The Ministry has attempted to cope with this serious problem by equipping an 800-bed hospital in the northern part of the Department of Montevideo, which will be opened in stages. CIDE has assigned an amount of 50,000,000 pesos to this project. The Psychiatric Hospital is also being remodeled with funds from international agencies.

The activities of the Architecture Division of the Ministry of Public Health fall into two categories: (a) routine tasks, and (b) basic studies for hospital construction planning. The work of designing and building medical installations in the country is carried on in two different offices: the aforementioned Architecture Division and the National Department of Architecture of the Ministry of Public Works. Proper coordination with the Medical Services Division is deemed essential for the proper development and adjustment of the programs. We also believe that attention should be given to consolidating the two architectural divisions working in hospital construction.

Improvement in the utilization of hospital services. The work of outpatient departments and improved staffing and proper operation of the auxiliary services is desirable if better utilization of hospital resources is to be obtained. The reorganization of the home-treatment services of the general hospitals is also necessary.

Equipment and materials. Improved diagnostic and treatment equipment and better training in the use of auxiliary personnel are required.

The Ministry has improved its medical equipment through the installation of a betatron in the Institute of Oncology, and the Medical School has acquired modern equipment for the diagnosis of cardiovascular diseases in the Clinical Hospital.

Personnel training. The Ministry should revise its regulations and administrative procedures in order to make the best selection of technical staff, particularly at the higher levels. Agreements have been concluded with the School of Medicine for this purpose, designed to strengthen the relationship between the teaching activities and hospital activities. Discussions are in progress with the Graduate Department of the School of Medicine in order to recognize and give official status to degrees in specialized fields, will make possible the best selection of technical personnel for hospital activities.

The Ministry is also interested in implementing the program of textbooks for medical students, which is on the agenda of the Conference. It is also very much interested in seeing its library become a pilot medical education library. It has been in touch with the School of Dentistry with regard to the establishment of a Dental Care Center. Courses have been given in health and hospital administration, pursuant to agreements between PAHO/WHO and the School of Medicine; and the Ministry is also interested in the establishment of a School of Hygiene. Intensive courses in environmental sanitation techniques are being planned in cooperation with the School of Engineering, with international aid.

As for auxiliary personnel, the Ministry is concerned with the problem of increasing their supply and improving their quality. Its School of Health, which officially trains these workers, coordinates its training with that of the School of Medicine and other teaching institutions so as to develop uniform study programs and obtain the largest possible number of applicants. Higher-level courses are being given for this staff, particularly in relation to multiple tasks to be performed in the surgical centers, with the advice of a recently appointed committee of bacteriologists. This will undoubtedly help reduce the incidence of hospital infections.

Important tasks to be performed rapidly by the Ministry of Health in order to achieve wide coverage in health care for the population. According to the CIDE studies, and in order to ensure the best possible use of existing resources, the Ministry should, along with its reorganization plan, initiate contact with and coordinate its activities with the many official and semi-official agencies that engage in health work and cause duplication of services and dispersion of resources. Once this objective has been attained, it would be necessary to seek coordination and integration of services with mutual benefit institutions. The moment for this is appropriate because of their precarious financial situation.

There should be closer contact with the School of Medicine in order to promote the training of the

technical staff needed to meet present requirements. The creation of the School of Hygiene should also be fostered, since it will make possible the training of a larger group of technical personnel in the health sciences.

Collaboration should also be sought with professional societies, in order to instill in physicians an appreciation of the needs of modern times.

Reform of the Uruguayan social security system. The social security system in Uruguay is in need of a complete and thorough reorganization. Through a series of laws enacted, a system has been established that is designed to provide for those who have retired and a large proportion of resources derived from those still actively employed is being devoted to that end. The country must of course meet the minimum standards established by the International Labour Organisation (ILO) in the field of social security, but the health care aspect of social security has been neglected. The existing multiplicity of agencies call for coordination, integration, and a unified administration. The Ministry of Education and Social Welfare should seek a better coordination of the country's social security policy and attempt to build a coordinated social security system in Uruguay on a realistic basis. Once this is attained, health or sickness insurance will be accepted as an indispensable step toward integrated social security for the entire population.

These objectives are included in the conclusions reached by the CIDE study of the health sector. Coordination with the other economic and social development plans—accorded the highest priority and importance by our Government—will enable us to establish tangible objectives and thereby achieve our desired place within the concert of Latin American nations.

For this task and for all our requirements, we will require the continuing advice and aid of the international agencies.

PRESIDENT: * Thank you, Dr. Pareja Piñeyro. I now recognize Dr. Frazer of the United Kingdom.

Report of the Delegation of the United Kingdom

Dr. FRAZER (United Kingdom): I shall not present a report but rather a dissertation. The reasons for this, I think, are obvious. The position I hold here as a Delegate for the United Kingdom covers a great many territories whose populations vary in size from 250,000 to 7,000 or 8,000. This position, of course, produces many problems and also a mass of statistics, though I shall not bombard you with those.

The United Kingdom has always given the World Health Organization wholehearted support, and the British territories in the Western Hemisphere that I represent are in various stages of political change in internal constitution. They are not yet independent from the point of view of external affairs and foreign representation. Internally, forms of responsible government have been or are being developed, and the main change from the point of view of health is that each territory is responsible for the distribution of its revenue. The United Kingdom considers that she has no part in appearing to influence this expenditure, and that such aid as she may be asked for, and supply should have no strings attached.

Under these conditions, the variety of financial resources, human resources, and political theory may well produce very differing standards of medical services, both curative and preventive, particularly the latter. That may be due to the fact that the present tendency, encouraged and produced by today's international communication agencies, to expect dramatic or quick returns for expenditure and effort, as well as the many much-publicized cures in curative medicine, and the slow development of environmental care and preventive medicine, with its profound long-term results, may not appeal to those responsible for fiscal policy.

With these developing changes, it would appear, from the statistics available, that there has been in some territories a stand-still tendency in the continued attack on endemic disease, and progress in the basic requirements of public health. In part this may be due to a feeling of frustration and insecurity affecting expatriate technical officers of a service previously directed from London, which paid their rather meager salaries.

Despite this, however, progress has been made not only in the coordination of hospital services for the seriously ill, through inter-island air services, but also in the coordination of laboratory services, and in the training, through PAHO and WHO fellowships, seminars, and courses of paramedical personnel, particularly public health nurses.

In environmental control, the great disappointment has been the failure to eradicate the *A. aegypti* mosquito and its reappearance in areas previously cleared. This is said to be due to the occurrence

of resistant strains to present residual chemicals. The tendency to wait and see what new chemical may be produced is prevalent. It does seem that some effort should be encouraged to put into effect the conservative methods of control which had great success before the chemical era came about.

Through family planning propaganda and measures, the health department of one territory reports marked success in reduction of the birth rate.

Poliomyelitis has appeared in epidemic form in various territories and has stimulated immunization campaigns, and an immunization study of this disease in preschool children has been carried out in one territory. There has been no case of quarantinable disease.

I would prefer not to make invidious comparisons between the territories, as their resources vary considerably, both economically and in effective leadership. The provision of potable, safe water, the bottom of the base, so to speak, of all environmental health, is making progress.

Technical and professional help in the field varies considerably, and economy has forced the employment of part-time private practitioners in the field of preventive medicine and public health. Some of the obvious lack of determined application of continual pressure in the field of preventive care is due to the lack of interest of these practitioners.

It therefore appears that a great deal of encouragement and active support will be required by the officers in these small territories as the changes in responsibility develop.

The continual presentation by the technical officers of the importance of basic health requirements in all planning, the promotion of awareness in all individuals in the community of the technical possibilities in the control of environmental and endemic disease, and the reasons why the use of these techniques is absent or limited, seems a most necessary part of public health administration preplanning in these areas.

The importance of the preparation of the human field in which any plan is to be implemented becomes of high importance when changes of responsibility are taking place and the promotion of intense nationalism or insularity is being put forward as a political issue, easily understood by the ordinary voting man.

It is obvious that the small place cannot expect to produce all the necessary disciplines to fill its technical posts, yet more and more small islands are being encouraged to push the expatriate officer or technician out, though in many cases they are unable to replace him with somebody even approaching the same quality.

So in these areas where fiscal responsibility is being removed from the technical officer, new pressures are developing, and, for the survival and progress of broad aspects of curative and preventive medicine, leadership, direction, and encouragement are vital to maintain the cooperation and coordination necessary and proper in our discipline, irrespective of politics.

These particular territories, most of which are to all intents and purposes closed communities, seem excellent areas for the intensive application and study of modern techniques in immunization and environmental progress, to their benefit and to the benefit of all.

PRESIDENT: * Thank you, Dr. Frazer. Dr. Orellana of Venezuela has the floor.

Report of the Delegation of Venezuela

Dr. ORELLANA (Venezuela): * I shall present a brief summary of the public health developments in my country over the last four-year period and shall endeavor to be as sparing as possible in giving statistics.

The principal demographic indices in these four years have been characterized by a notable degree of stability. Birth and death rates have remained practically the same: the first at a very low figure (7.0 per 1,000) and the second at a very high one (44.0 per 1,000). This is a phenomenon which is becoming increasingly common in the Latin American countries.

During the period, life expectancy at birth did not maintain the increase of prior years. On the contrary, between 1962 and 1964 a decrease was registered, from 66.39 to 65.69 years. This is explained by the improvement in death registration. The estimated mortality registered has decreased, with a consequent appreciable increase in life expectancy.

In examining the trends of the principal causes of death, a notable degree of stability is also observed. The first five places were invariably occupied by the diseases of early childhood, heart diseases, cancer, gastroenteritis, and accidents, in that order.

Only one change was registered in the ninth and

tenth places; suicides and homicides moved from tenth place in 1962 to ninth place in 1965, and dysentery became the tenth principal cause of death.

Within the group of communicable diseases, I shall touch only briefly on those that present the most serious problems both for my country and for the Hemisphere as a whole.

Malaria, in the final stages of eradication, has encountered the biological, technical, and administrative problems already well known to experts in this field, and these should therefore not be repeated at this time. The area where malaria was reported as being eradicated in 1961 has not increased, but it is hoped that in the problem area of the eastern part of the country the stipulated three-year period with no cases will be met and that in this area too the disease may be considered to have been eradicated. One year has gone by since the last case was reported in this area, and at the end of the three-year period it may be that a zone of 50,000 km^2 can be added to the total area registered as having achieved eradication.

Smallpox has not reappeared in the country since 1956, although there was a small outbreak of 11 cases in 1962 among an isolated Indian population in southeast Venezuela, due perhaps to the movement of the nomad population in the areas near the border with Brazil. The outbreak had no repercussions in the rest of the country. The vaccination program against the disease continued without interruption in the quadrennium, and a total of 1,260,878 vaccinations were given.

Eradication of *Aedes aegypti* continues to be a source of concern since it has not been possible to overcome biological, financial, and administrative difficulties that make the program more one of control than of eradication. Operational problems probably represent the major obstacle.

Tuberculosis morbidity has shown some decrease in the past few years, but mortality, as is the case in other countries, has decreased spectacularly. An active BCG vaccination campaign has been maintained, covering approximately 500,000 persons a year.

The antituberculosis services, totally integrated in the general health services, have been extended to cover an increasing number of the population. It has been noted with satisfaction that the length of stay of tuberculosis patients in sanatoria has decreased notably, which means better utilization of available beds. Active efforts have been made to improve bacteriological diagnosis; tests have been made with the new Sula medium and its use has been extended even to some rural areas.

Experience acquired in this area made it possible for the country to offer its collaboration to PAHO with reference to an international course on bacteriological diagnosis of tuberculosis and use of new culture techniques.

Leprosy continues to be one of our most serious public health problems. The number of registered cases is very high—almost 11,000—and the number of estimated cases is near 19,000. However, the network of leprosy services is being expanded gradually and most of the registered patients and contacts age given outpatient treatment. Hospitalization has been decreasing every year.

Special attention was given in the four-year period to a leprosy rehabilitation program which has coordinated its services with those of the general rehabilitation program. Experience gained in this field was utilized by the Organization in an international course held in Caracas in 1965. An important step was the initiation of physical rehabilitation courses in the School of Public Health.

During the last two years of the quadrennium, the careful and detailed plan was completed for the control of Chagas' disease, a tropical endemic disease that affects a large proportion of the rural population of the country. The plan calls for the control of the vector in approximately 750,000 rural dwellings, the continuation of epidemiological and immunological studies with a view to improving diagnosis, and the research activities leading to a better knowledge of the miocardiopathies caused by this disease.

After the pilot studies on oral vaccination against poliomyelitis carried out in two states, the national campaign was initiated in 1964. On a single Sunday, a total of 1,447,300 primary doses were given, followed six weeks later—also on a Sunday—by the administration of 1,350,216 second doses. This represented the vaccination of 94 per cent of the population under two years of age with two doses. Trivalent vaccine was used in 6,200 stationary and mobile vaccination posts controlled by 500 local health services.

Cases of poliomyelitis decreased from 398 in 1962 to 116 in 1965, and deaths from 46 to 7. The rates of cases and deaths per 100,000 were 5.1 and 1.4, 0.6 and 0.1, respectively, at the beginning and end of the period.

Whooping cough registered an increase in incidence in recent years because the period coincided with the epidemic cycle, but there was a slight decrease in the rates for diphtheria, tetanus, typhoid fever, and rabies. Yellow fever and plague were kept under control and yaws is in the process of being eradicated. Venereal diseases in general remained stationary, with a slight increasing tendency.

Notable progress was registered in the field of medical care, although it was not proportionate with the country's needs. A total of 885 beds were added during the quadrennium, making a grand total of 28,348. At present a number of hospitals have been completed or are in the final stages of construction, which will add another 3,500 beds to the total. Despite these increments, our rate of beds per inhabitants is still very low: barely 3.5 per 1,000. Length of hospitalization has improved and during the last few years has kept to an average of nine days. Medical care services have been increased, as has the number of rural medical posts (from 379 to 462) and of health centers (from 18 to 24).

The rural medical posts, all attended by one or more physicians, furnish minimum preventive and curative services for the small communities. The same holds true for the health centers, although their medical facilities are larger. A total of 1,050 rural dispensaries, attached to the rural medical services and health centers, take care of the widespread rural population, but these are not serviced continually by physicians.

Despite these facilities, total coverage of the population has not been possible. Therefore, with a view to alleviating the medical care problem, a minimum medical service system has been developed in the past few years, known in the country as "simplified medicine." This consists of care for the most frequent causes of medical consultation in the rural areas, by nonprofessional personnel properly trained and closely supervised by the medical team of the more developed services. The system should not be allowed to function unless these supervisory facilities are available, along with the referral facilities that make it possible to transfer patients to levels able to handle the more difficult cases. This organization, which should not be considered a substitute for, but rather is a complement to the medical care service, has given very good results in the country.

As for the health personnel, the situation has improved considerably, as regards both quality and quantity. The proportion of physicians per inhabitant was 1 per 1,360 at the beginning of the four-year period, and is now 1 per 1,250. The total number of physicians in the country is 7,500, in a present population of 9,000,000.

The number of graduate nurses is 4,000 and it is estimated that there are approximately 15,000 nursing auxiliaries. The degree of training of the latter varies widely and is of course deficient, but it should be noted that during a six-year period almost 5,800 of nursing auxiliaries received different types of training in courses of varying duration.

The Ministry of Health and Social Welfare has continued to cooperate with the national universities for the common purpose of training the physicians required by the country. Within these objectives, the Ministry collaborates in the financing of the School of Public Health and in the development of the departments of preventive and social medicine in the schools of medicine. This collaborative project was organized jointly by the Ministry and the medical schools throughout the country.

During the four-year period the Ministry granted approximately 860 fellowships to medical specialists, nurses, sanitary engineers, and a varied group of other health personnel. These fellowships are for studies abroad or within the country, particularly in the School of Public Health. International fellowships, for the most part, were granted by the Pan American Health Organization and the World Health Organization and totaled almost 200 during the period.

The number of nursing schools increased from 6 to 9 in the Ministry and to a total of 14 in Venezuela as a whole. Changes in curricula have led to stricter admission requirements, with a view to raising the professional level of this personnel. On the other hand, plans for the establishment of three schools of nursing at the university level are well advanced. An active training program for nursing auxiliaries, dietitians, medical records librarians, sanitary inspectors, and related personnel has been maintained.

The seven schools of medicine in the country have an admission limit in the first year of almost 1,000 students and the number of physicians graduated annually fluctuates between 450 and 500.

New fields of action have been established or expanded in relation to other diseases and health problems that formerly received insufficient attention. I refer specifically to cancer, cardiovascular

diseases, and mental health. The underlying principle of these activities consists in making proper utilization of the network of general health services so as to incorporate in them epidemiological services and treatment for these diseases. Naturally, the preparation of specialists has constituted a prior requirement which has been met without fail. The School of Public Health trains cardiologists, radiologists, radiotherapists, psychiatrists, and others, who later participate in this organization.

In the field of mental health, the team composed of the psychiatrist, the psychologist, and the social worker will have to bring into this activity a much larger content of preventive medicine than before, to be supplemented by the well-known intramural treatment system, which was the only one in existence until recently.

As for sanitation in general, I shall refer only to two programs: rural housing and water supplies for the rural population. In rural housing the program initiated in 1958 was continued and during 1965 the number of houses built totaled 12,500. In the four-year period 36,800 units were constructed, and although this is considered satisfactory, we are conscious that much still remains to be done. This program operates under the Ministry of Health and Social Welfare and there is one for urban housing that functions under another organization.

As for rural water supplies, construction in the past few years enables us to assert that within a short period, possibly this year, the goal of supplying water to 50 per cent of the rural population will be met; however, it should be noted that this applies only to communities of 500 to 5,000 inhabitants. Loans from the Inter-American Development Bank have been made available for these two programs.

For communities of under 500 persons, a special program is under way with the assistance of the United Nations Children's Fund. We have no doubt that for a long time to come it will be very difficult to attain total coverage of the population, but this applies also to any other social activity that is carried out among dispersed populations of many of the Latin American countries.

Mention should also be made of the survey conducted with the technical assistance of the World Health Organization for the purpose of demonstrating the effect of water supplies on the incidence of diarrheas and enteritis. Prior to the survey, communities were selected with (a) rural housing programs and with water service in the dwellings; (b) with water service alone, and (c) without water service. A horizontal survey was made of the communities and note was taken of the prevalence of diarrheas and enteritis; following that a prospective two-year study was made which permitted a comparison of results.

It became clear in this survey that the combination of hygienic housing and indoor water service led to a decrease of 50 per cent in the incidence of diarrheas and enteritis. Elsewhere the decrease was much less, which confirmed the fact that the bases for the rural water supply program were indeed excellent. According to those bases, the work is considered incomplete unless water is piped into the house itself. On the other hand, if water is piped into a hygienic dwelling, a truly extraordinary effect will be obtained against one of the most serious diseases affecting our rural population.

The social security system extended its coverage to include 12 per cent of the population; thus, almost 1,300,000 persons will benefit from this organization. The greatest progress, however, has been the enactment of a new Social Security Law that extends coverage to government employees and includes claims for incapacitation, old age, and death. The former law included only illness-maternity, occupational accidents, and professional diseases. The new law will enter into effect on 1 January 1967.

As for the institutional development of the Ministry of Health and Social Welfare, I shall mention only two important events. One was the creation of the Planning Unit, whose characteristics and objectives need not be explained at this time. The new Unit began its activities less than a year and a half ago and its tasks have been supplemented with an active training program for personnel in health planning, through courses given in Venezuela or abroad. We are aware that the preparation of a health plan takes much longer than is originally anticipated; also that this difficult task cannot be completed if first there is not available a strong team to obtain, simultaneously, the whole-hearted participation of all those that form part of the health sector.

The other event was the creation of the Population Division in January 1965. We in Venezuela, as in all the countries in the Hemisphere and throughout the world, are aware of the serious problems caused by the rapid demographic growth of our populations, whose annual increase creates

needs always beyond the services that can be provided. The new Division is responsible for the study of population dynamics and for determining the part that medicine and public health should play in the establishment of a national population policy.

A few comments on expenditures for health. The Ministry's budget increased during the four-year period by 41 per cent; the increase in round figures was from 449 to 635 million bolivars (100 to 140 million dollars). As for the total expenditure of the public sector in health, there was also an important increase, from 1,123,000,000 to 1,505,000,000 bolivars (250 to 334 million dollars). This represents approximately 5 per cent of the gross national income.

To conclude, Mr. President and delegates, I shall make a general comment on health problems. These problems derive fundamentally from the accelerated growth of the population that requires service and from the scarcity of available resources. But growth presents other problems and the most serious is perhaps the lack of a proper administration of resources, whether large or small. One fact is certain: a good administration will always obtain a better utilization of resources and inefficient administration is one of the characteristics of the developing countries.

There is a gap between available knowledge and its wise and effective application to the needs of the community. This gap can be bridged only through a good administration. To administer is to govern, plan, evaluate; it is, in essence, the wisest application of science to the art of obtaining progress and well-being for all peoples. I believe this need has not yet been fully understood and that we should recognize in a good administration the more immediate possibility of obtaining, with ever-scarce resources, the greatest benefits.

PRESIDENT: * Thank you, Dr. Orellana. I recognize Dr. Sutter.

Dr. SUTTER (Assistant Director, PASB): * I merely wish to remind the delegates that, in accordance with the decision of the General Committee, the election of the Director of the Pan American Sanitary Bureau has been scheduled for tomorrow, 29 September 1966, at 10:30 a.m.

PRESIDENT: * We shall now hold the ceremony scheduled for this afternoon, at which the Government of the Republic of Peru will make the presentation of a bust to the Pan American Sanitary Bureau. Dr. Ordóñez Plaja, President of the Conference, will preside.

The session rose at 5:45 p.m.

SEVENTH PLENARY SESSION

Thursday, 29 September 1966, at 9:25 a.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Report of the Working Party on the Application of Article 6 of the Constitution of the Pan American Health Organization

PRESIDENT: * The session is called to order. The first item of business is the report of the working party on the application of Article 6 of the Constitution of the Pan American Health Organization. The Delegate of Mexico has the floor.

Dr. MORENO VALLE (Mexico): * The report of the working party reads as follows:

The working party was composed of one member from each of the following Delegations: Guatemala (Dr. Emilio Poitevin); Mexico (Dr. Rafael Moreno Valle); Trinidad and Tobago (Mr. Solomon S. Lutchman); the United States of America (Mr. Paul J. Byrnes); and Venezuela (Mr. Félix Miguel Sánchez). It met at 4:00 p.m. on 27 September 1966. The Delegate of Mexico was unanimously elected Chairman of the group.

The purpose of the meeting was to examine the status of quota payments by the Governments in the light of Article 6-B of the Constitution of the Organization, which reads as follows:

> If a Government fails to meet its financial obligations to the Organization by the date of the opening of the Pan American Sanitary Conference or a meeting of the Directing Council, by being in arrears in an amount exceeding the sum of its quotas for two full years, the

voting privileges of that Government shall be suspended. Nevertheless, if the Conference or the Directing Council is satisfied that the failure of the Government to pay is due to conditions beyond its control, it may permit the Government to vote.

According to a report of the Secretariat, only two Governments (Bolivia and Haiti) are in arrears in an amount exceeding their quotas for two years, and the position with respect to those Governments is as follows:

Bolivia. This Government is in arrears from 1960 through 1965, inclusive, but it has established a financial plan for the payment of the outstanding quotas within a definite period. Under this plan, the Government will pay an amount equal to the quota due for the current year, plus 10 per cent of the arrears, so that if the plan is fulfilled the arrears would be liquidated in 10 years. Payments were received in accordance with the plan in 1965 and 1966. The amount paid in 1966 was equal to the current quota, plus 4 per cent of the total arrears. Nevertheless, this payment paid off a small outstanding balance on the quota for 1956 and quotas for three full years through 1959.

Haiti. This Government is in arrears for the period 1962–1965, inclusive, but it has presented a financial plan to pay off the arrears within a definite period. Under this plan, the Government would pay the quota for the current year, plus 5 per cent of the arrears. If adhered to, this plan would liquidate the quota arrears in a period of 20 years. In proposing this plan, the Government made a payment in the amount of $4,830, representing a balance due for 1961. It is understood that the plan, if accepted, would enter into force in the following year.

The Director, in presenting this proposal in Document CSP17/24,[1] recommended that it be accepted in view of the difficult economic situation of the country. It is hoped that its economic situation will improve sufficiently to permit payment of the arrears within a shorter period.

The working party also took into account Resolution XII [2] of the XV Meeting of the Directing Council, especially paragraph 2, which reads:

To recommend to the Governments that, whenever appropriate, they establish a plan with the Pan American Sanitary Bureau for the payment of arrears within a specified period, it being understood that should such a financial plan be established and promptly fulfilled, the Pan American Sanitary Conference or the Directing Council may permit the Government concerned to exercise its voting privileges.

In the discussion that followed, all the members of the working party expressed their satisfaction with the improvement in the payment of quotas and agreed that, in view of their financial plans for the payment of quotas in arrears, the two Member Governments concerned should have the privilege of voting during the present meeting. The working party then approved the following resolution:

THE WORKING PARTY,

Recognizing that the number of countries in arrears more than two years is the lowest in several years and that this improvement is due to the combined efforts of the Governments and the Pan American Sanitary Bureau;

Believing that the payments of Bolivia represent substantial fulfillment of its financial plan; and

Believing further that, considering the circumstances, the financial plan proposed by Haiti should be accepted,

RESOLVES:

To recommend to the XVII Pan American Sanitary Conference that it permit these countries to vote;

To recommend to the XVII Pan American Sanitary Conference that it approve a resolution along the following lines:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having received the report of the working party on the application of Article B of the Constitution of the Pan American Health Organization, which indicated:

(a) that only two countries (Bolivia and Haiti) are in arrears more than two years, this being the lowest number for several years;

(b) that Bolivia has adopted a financial plan for payment within a definite period, which commitment it has substantially fulfilled;

(c) that Haiti has presented a financial plan which, in view of the economic conditions in that country, is acceptable to the working party; and

(d) that the Governments and the Pan American Sanitary Bureau deserve commendation for their joint efforts in improving the quota situation,

RESOLVES:

1. To note the progress in reducing quota arrears.
2. To permit these countries affected by Article 6-B of the Constitution to vote in the XVII Meeting of the Pan American Sanitary Conference.

The foregoing statement represents the views of the working party, which submits it for consideration by the Conference.

PRESIDENT: * Are there any comments on this, or may we proceed to a vote?

Dr. ORELLANA (Venezuela): * I think that the report of the working party and the resolution it is proposing should be submitted to the Conference for consideration.

[1] Mimeographed document.
[2] *Official Document PAHO* **58**, 66–67.

PRESIDENT: * I repeat my question: Are there any comments? Is there to be any further discussion before the report is submitted to a vote?

Dr. ORELLANA (Venezuela): * I believe that, if there are no comments on the report or on the draft resolution, it is in order to submit the latter to a vote.

PRESIDENT: * Inasmuch as there are no comments, the draft resolution contained in the report of the working party is now before the Conference for a vote.

Approved.[3]

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences (*continuation*)

PRESIDENT: * Let us now turn to Item 11 and continue with the reports of the Governments of the Organization on their health conditions and progress. I recognize the Delegation of Haiti.

Report of the Delegation of Haiti

Dr. SALVANT (Haiti): * I should first like to offer apologies on behalf of Mr. Gérard Philippeaux, Minister of Public Health and Population, and Chief of the Delegation of Haiti, who has not yet been able to attend this meeting. For the last three days he has been devoting his time to coordinating emergency aid to cope with another violent tropical hurricane that is striking my country at this very moment. We are hoping momentarily to receive good news and to hear that the Minister will be able to join his colleagues at this Conference.

Inasmuch as the report on the health situation in the Republic of Haiti gives full details on the various problems that have confronted the Government of His Excellency Dr. François Duvalier, life President of the Republic, in his efforts to provide better living conditions for the Haitian people, I shall limit myself to a brief summary of it.

The territory of Haiti, which occupies one-third of the Island of Hispaniola, in the Caribbean basin, has an area of 27,750 km^2, the greater part of which consists of inaccessible and largely uncultivated mountain ranges. According to 1965 estimates the population, which was 3,050,000 in the 1950 census, has increased to 4,600,000. The population density is 168 inhabitants per square kilometer, and approximately 87 per cent of the inhabitants live in the rural areas of the plains and mountains and 12 per cent in urban centers. The population is young and the rate of increase is running between 2.5 and 3 per cent.

The country has limited economic resources. In the plains the rural dwellers engage in traditional agriculture. There is little industrial development. The major agricultural products—coffee and sisal, which constitute the basis of the country's economy—are subject to the vagaries of the weather and the fluctuations of world prices.

Because of its geographic situation in the Caribbean basin, the territory is exposed to tropical hurricanes. Between 1954 and 1964 three devastating storms dealt mortal blows to the economy, causing serious setbacks to our programs to improve the well-being of the people. In October 1963 and August 1964 two cyclones leveled the southern portion of the country, causing losses estimated in the millions of dollars over an area approximating one-fifth of the national territory. I am taking the liberty of emphasizing the devastating effects of these storms to give some idea of the magnitude of the task confronting my Government as a result of these natural catastrophes and their obvious impact on health problems with which we are concerned here.

The Ministers of Health of the Hemisphere declared at Punta del Este that improvements in health conditions imply a higher level of living for the people. Because of this, the more developed countries would come to the aid of the less fortunate, to help them break out of the vicious circle of economic poverty that engenders physical poverty and vice versa. Haiti, as is the case with its sister countries of the Americas that also suffer from underdevelopment and poverty, is no exception to this rule.

Hitherto it has not been possible to make a proper diagnosis of the health situation because of the lack of vital statistics. Although the National Statistical Institute has brought about some improvement in the registration of vital events in the past four years, the birth, death and morbidity rates have only a relative value. To correct this deficiency, the Pan American Sanitary Bureau has been requested to provide technical advisory serv-

[3] Resolution I, *Official Document PAHO* **74**, 59.

ices for the purpose of organizing the present biostatistical service on a more efficient basis.

There are only 33,035 hospital beds of all types for the entire population, or 0.7 beds per 100 inhabitants; 311 physicians, or 0.7 per 10,000 inhabitants; 315 nurses (0.7 per 10,000); and 513 auxiliaries (1.2 per 10,000). Consequently many persons are born, live, and die without medical attention.

Despite these conditions, Government action has increased during the last four years: new institutions have been established, including rural dispensaries, hospital clinics, training centers, and other agencies, as may be seen in the report we have presented.

In all these efforts, in which we have had the loyal and vigorous support of PAHO/WHO, satisfactory results have been obtained. Yaws, an endemic disease that once afflicted as much as 70 to 80 per cent of our rural population, is now only a memory; however, active vigilance is still maintained to detect any isolated cases that may appear. Smallpox, once a constant menace, is no longer of any danger to our country. Up to the present time 1,600,000 persons have been vaccinated, and international standards are being rigorously observed. Malaria, the index of which was 14 per cent at the beginning of the campaign, had been reduced to 0.01 per cent by June 1966. It should be emphasized that our population, at all levels, is giving the most enthusiastic voluntary cooperation to these mass campaigns.

Despite these successes, the major part of the task we have undertaken still lies ahead of us. Infectious diseases, intestinal parasites, malnutrition, gastroenteritis, and tetanus of the newborn continue to produce high morbidity and mortality. In the absence of over-all statistics, I shall cite here the results of a survey made in 1963–1964 in the Pediatrics Service of the Port-au-Prince General Hospital by the Tropical Medicine Department of the Medical School of the University of Haiti. Out of 4,312 children in the 0–4 years age group admitted to that Service, 4.5 per cent were suffering from gastroenteritis and malnutrition; 47.9 per cent of them had been admitted for diarrheal diseases. The leading causes of hospitalization for children in the 1–4 age group, in order of frequency, were: enteric diseases, 30.8 per cent; nutritional diseases, 29.3 per cent; diseases of the respiratory system, 12.3 per cent. In the 1–11 months age group, enteric diseases were the leading cause of hospitalization, 72.1 per cent of infants; respiratory diseases accounted for 7.7 per cent and nutritional diseases, 5.1 per cent. Tetanus of the newborn dominated the pathology of infants under one year, with a frequency of 77.9 per cent. The death rate for the 0–4 years age group is 329 per 1,000; for the 1–4 years age group, the principal causes of death are malnutrition, 35.4 per cent; intestinal diseases, 31.7 per cent, and malnutrition associated with diarrhea, 11.3 per cent. An interpretation of these figures clearly indicates the importance the Government of Haiti attaches to the efforts of the Organization to improve the level of health in the Americas, since we know that many other countries of the Hemisphere are facing the same hazards.

The Government of President Duvalier is requesting and accepts, with confidence and enthusiasm, disinterested cooperation in attacking these problems. In this connection mention should be made of the Central Autonomous Metropolitan Water Supply Agency (CAMEP), which is in charge of planning, constructing, and administering the water service, sponsored by the Inter-American Development Bank and the Pan American Sanitary Bureau. The Agency has been in operation for a year and represents the first phase of the effort to provide potable water supply to the city of Port-au-Prince and its environs. A second agency, the National Malnutrition Commission, under the auspices of the Inter-American Children's Institute, has launched a nation-wide program; nutrition centers have been established in the Departments of Health, of Agriculture, and of Natural Resources and they are responsible for educating the rural population in nutrition. Nutritional rehabilitation centers are also being set up. In addition, the National Office of Community Education (ONEC) organized an accelerated literacy program four years ago. With respect to tuberculosis, a project presented by the National Tuberculosis Commission is now under study. The rate of infection in children under 11 years of age has reached the alarming figure of 31 per cent. We have requested the help of international organizations for this program, and projects will soon be submitted to the experts, who will undoubtedly give us their full support.

The Government of the Republic of Haiti is well aware of the dimensions of the task to be accomplished in the health field. If the results so far attained have been minimal, it is solely because of our limited human and material resources. The

Republic is fortunate in having as its chief executive Dr. François Duvalier, who is himself a physician and a graduate of the School of Public Health of the University of Michigan, and who has enriched the literature on tropical medicine with his original works on the treponematoses, malnutrition, and venereal diseases.

The Delegation of Haiti takes great pleasure in extending a fraternal greeting to its colleagues who are present at this XVII Pan American Sanitary Conference, and its cordial congratulations to the Director and staff of the Bureau.

PRESIDENT: * Thank you, Dr. Salvant. The Delegate of Nicaragua, Dr. Pérez Ponce, has the floor.

Report of the Delegation of Nicaragua

Dr. PÉREZ PONCE (Nicaragua): * I shall present a general summary of the report submitted by the Ministry of Public Health covering the four-year period now under consideration. The Ministry, in 1963, defined the national health policy clearly and precisely in the following 10 objectives:

1. To carry out the technical reorganization of the public health services and to prepare the National Health Plan.

2. To effect the gradual coordination of health institutions, at all levels, and of the health services and the other public services, including the National University.

3. To decentralize health activities according to the regional structure proposed in the National Health Plan.

4. To train professional and auxiliary personnel as a means of increasing manpower resources and improving the preventive and curative medical care provided for the population.

5. To expand the health infrastructure in order to provide better services and to extend such services to the rural area.

6. To increase those activities designed to gradually reduce maternal mortality and child morbidity and mortality, such as: deliveries in hospitals, training of empirical rural midwives; immunization programs; and improved education on feeding and nutrition.

7. To foster and carry out programs to provide water supply to communities, principally those in the rural areas, and to provide adequate waste disposal services, to the extent permitted by the available resources.

8. To improve the collection and analysis of monthly biostatistical reports from all the health services.

9. To strengthen measures to achieve the eradication of malaria at the earliest possible date.

10. To foster health education activities in all sectors.

At the present time the health resources and investments are coming from the following sources: the Ministry of Public Health, the National Social Welfare Board (JNAS), the National Social Security Institute (INSS), and the Medical Department of the National Guard.

The Ministry of Public Health operates primarily in the field of preventive medicine, through 48 health centers and 13 rural mobile units, serving 80 communities. Its annual budget has increased from 22 million cordobas in 1963 to 42 million in 1966 (US$6 million). Each year 10 new health centers have been opened on the average, the majority of them in rural areas.

The medical care services are the responsibility of JNAS, through its 20 general hospitals, with 3,594 beds. It has an annual budget of 26,134,422 cordobas (US$3,633,297).

A large part of the population in Managua is covered by the INSS, which has a general hospital and three polyclinics. Its budget for this service amounted to 14,508,214 cordobas (slightly more than US$2,000,000) in 1965.

The military has its Department of Medical Services, with one military hospital and 47 medical dispensaries, and a budget of 4,201,848 cordobas (US$600,264).

Nicaragua has a territory of 130,700 km^2 and a population of 1,700,000, which is growing at the rate of 3.5 per cent per year. The country has a young population of which 48.3 per cent is under 15 years of age. The urban population constitutes 40.8 per cent of the total and the population density is 12 inhabitants per square kilometer. The annual *per-capita* income is US$300.

There are 698 physicians in Nicaragua, but they are distributed very unevenly, being largely concentrated in the cities. It is estimated that approximately 40 per cent of the national territory has some kind of health services, and that about 50 per cent of the population does not have adequate

medical care. We might mention that the health budget has been steadily increasing.

I shall mention the following highlights of the public health services:

Technical and administrative organization. Pursuant to Decree No. 2 on health organization, dated 24 April 1964, the Ministry of Public Health was reorganized along the accepted lines of modern health planning, which facilitated the rounding-out of its structure and the establishment of different levels. It also resulted in the operational functions being decentralized to the local health departments, while regulatory functions and the technical consultation and supervision remained at the central level.

National 10-Year Health Plan. Special mention should be made of the formulation of a National Health Plan for the period 1965–1974, which will make it possible for us to obtain a better knowledge of the actual conditions in the country so that we may adapt the available technical and administrative resources to the programs according to an order of priorities. The several health regions are established in the National Health Plan.

Institutional coordination. Since the population is provided with health services under various systems, it was thought that the best means of improving the quality of these services would be to improve their organizational structure and administration, to coordinate and integrate them as much as possible in order to increase their efficiency. We are gratified to be able to report that, after surmounting a number of difficulties, we have made progress in coordination. The initial results are seen in the training program that has prepared a large number of physicians, nurses, nursing auxiliaries, etc., from all institutions in the health sector. We have been able to obtain financial and technical assistance for this purpose. Other joint programs include BCG vaccination of newborn infants in the hospitals of Managua operated by the JNAS and the INSS; making the X-ray equipment in the departmental hospitals available for tuberculosis control activities, and vice versa; conclusion of an agreement under which the Ministry's "Carmen Schick No. 1" Rehydration and Nutritional Recovery Center is serving the children of insured women, etc. The foregoing are examples of the new policy of institutional coordination now in effect.

Technical standards manual. A new *Manual of Health Services Standards* has been prepared. It contains technical instructions designed to standardize working procedures in the health services.

Coordination with the University. Coordination between the Ministry and the National University has resulted in the establishment of a Department of Preventive Medicine in the University. The importance of this step to the training of the medical profession needs no comment.

On the assumption that "effective coverage" is the only way to reduce the risks of sickness and death for the population, the construction of facilities and the inauguration of new medical care services, especially in the rural areas, have been planned. To provide 100 per cent coverage of the population by 1973, 80 new health centers and posts are required. In 1963 there were 44 centers in operation in Nicaragua, and 12 centers and posts were opened during the period 1964–1965. Activities planned for 1966 and 1967 include the opening of 25 additional centers and posts, which will bring the total to 81. Approximately 70 per cent of the Nicaraguan population will be served by these new facilities. The Plan for Development of Health Centers and Posts, initiated in 1963, has received technical advice of PAHO/WHO and the assistance of UNICEF. The Government of Nicaragua is responsible for constructing the buildings and providing the services.

INSS has commenced construction of a 400-bed regional hospital in the city of León, and is in the process of opening three new medical care centers in the mining towns of Siuna, Bonanza, and La Rosita, which will serve an additional 10,000 persons.

The following aspects of the health protection and promotion activities merit attention:

Communicable diseases. No cases of quarantinable diseases were recorded during the period of this report, but there was one epidemic outbreak of poliomyelitis (1965) and one of influenza (1966).

The Three-Year Malaria Eradication Plan, designed to cover 100 per cent of the malarious area of the country, is now in progress.

Tuberculosis has been receiving priority attention since 1963. A special program was launched, covering approximately 300,000 persons of all ages.

Venereal disease control is being promoted along with the general immunization programs. In 1963 and 1964, DPT, smallpox, poliomyelitis, and TAB vaccines were administered to a total of 419,980 persons, to 859,511 persons in 1965, and to 451,478 in the first quarter of 1966, under a cooperative

program carried out with the staff of the hospital ship "Hope."

Each year an average of 30,000 persons receive treatment for intestinal parasitic diseases.

Special efforts were made in 1965 to step up the rabies control program, and 25,367 stray dogs were destroyed in that year; an accelerated canine immunization program was also carried out.

A program to study brucellosis in samples of milk and in cattle was initiated. Finally, the necessary vigilance measures against *Aedes aegypti* were instituted, because of the reappearance of this mosquito in the neighboring Republic of El Salvador.

Environmental sanitation. The Ministry of Public Health took over the program to supply water to scattered rural communities by the installation of artesian wells. A total of 40 wells had been drilled up to 1965, and it is now planned to expand this work.

The Ministry has been carrying on a program to construct sanitary privies in rural areas; 2,000 were installed in 1963, 4,151 in 1964, and 4,715 in 1965. The target for 1966 has been fixed at 6,000. It will be necessary to install 8,000 privies annually if the goal established in the Charter of Punta del Este is to be attained, and we hope to reach that goal by 1967.

Nutrition. A coordinated nutrition program is now in progress with the participation of the Ministries of Education and of Agriculture, through 66 schools and 26 health centers in two zones of the country. By a liberal distribution of supplementary foods, under the direction of the health centers and rural schools, 35,000 expectant mothers and preschool-age children, and 50,000 schoolchildren, are being served each year.

A nutrition survey was carried out in the first quarter of 1966 in 30 towns of the country, with the active participation of the Institute of Nutrition of Central America and Panama (INCAP). The results of this survey are now being tabulated in the INCAP offices and some important data have already been compiled.

A Personnel Training Division and a School for Auxiliary Health Workers, both in the Ministry, were established. During 1964, 1965, and the first six months of 1966, training in health education, environmental sanitation, nursing, venereal disease, tuberculosis, leprosy, and nutrition was given to 909 persons, in the 35 courses offered. At the same time, the National School of Nursing graduated an average of 25 nurses each year.

Intensive efforts are being made to improve the statistical data available in the country. With the cooperation of PAHO/WHO and UNICEF, 50 auxiliary workers from all sectors of the country are enrolled in a course in elementary statistics.

Finally, a few words must be added concerning some of our plans for the immediate future. According to the National Health Plan, 1965–1974, and the health policy now in effect, public health activities in Nicaragua will be directed primarily to achieving maximum coordination of the institutions in the health sector, in order to utilize all available resources to improve the preventive and medical care and hospital treatment provided for the population, and avoid unnecessary duplication of services. At the same time, through improvements in the infrastructure, we hope to achieve effective coverage in 100 per cent of the national territory in the shortest possible period of time, and provide the minimum acceptable level of care, with primary emphasis on maternal and child health.

PRESIDENT:* Thank you, Dr. Pérez Ponce.

The session was suspended at 10:27 a.m. and resumed at 10:30 a.m.

Item 12: Election of the Director of the Pan American Sanitary Bureau, and Nomination of the Regional Director of the World Health Organization for the Americas

PRESIDENT:* The Secretary is requested to read the pertinent sections of the Constitution on the item before the Conference, that is, the procedure to be followed in the election of the Director of the Pan American Sanitary Bureau, which was approved yesterday by the General Committee and which is the same as that followed at the XVI Pan American Sanitary Conference. The delegates have these texts before them.

Dr. SUTTER (Assistant Director, PASB):* The articles of the Constitution and of the Conference Rules of Procedure, with reference to the election, are the following: Articles 4-E and 21-A of the Constitution of the Pan American Health Organization; Rules 53 and 42 of the Conference Rules of Procedure.

Article 4-E, which appears in the *Basic Docu-*

ments of the Pan American Health Organization,[4] on page 10, reads:

Article 4-E. The Conference shall elect the Director of the Bureau in accordance with Article 21, paragraph A, of the Constitution.

The pertinent portion of Article 21 reads:

A. The Bureau shall have a Director elected at the Conference by the vote of a majority of the Governments of the Organization. The Director shall hold office for a period of four years.

Rule 53 of the Conference Rules of Procedure, which appears on page 58, reads:

Article 53. The Conference shall elect the Director of the Bureau by secret ballot in plenary session, in conformity with Article 21, paragraph A, of the Constitution.

Before voting is begun, delegations that wish to do so may nominate any person they deem suitable for the post, but no official list of candidates shall be drawn up, no eligibility requirements shall be established, and votes may be cast for a person whether nominated or not.

If in the first two ballots no person receives the majority required, two further ballots restricted to the two candidates receiving the largest number of votes in the second of the unrestricted ballots shall then be taken. If no candidate receives the majority required, two unrestricted and two restricted ballots shall be taken alternately until a candidate is elected.

Rule 42 of the Conference Rules (page 56) reads:

Article 42. For the purpose of these Rules "Governments present and voting" means Governments casting an affirmative or negative vote; or, in an election, a vote for a person or a Government eligible in accordance with the Constitution or these Rules of Procedure. For the purpose of these Rules, "majority" means any number of votes greater than half the votes cast by the Governments present and voting or, in the case of the election of the Director, any number of votes greater than half the number of the Governments of the Organization. In computing a majority, any fraction shall be counted as a whole number.

The General Committee—composed of the President, the two Vice-Presidents, the Chairmen of the two Committees, and the heads of the Delegations of Peru and Chile—established, at its third session, the following procedure for the election of the Director:

1. For the purpose of verifying the quorum, the Secretary will read the list of participating countries accredited at the Pan American Sanitary Conference, in the English alphabetical order, and will note all those that reply present.

2. The President will appoint two tellers from among the members of the delegations to perform the counting of votes (Rule 47 of the Rules of Procedure, par. 2).

3. The tellers appointed will sit on the rostrum, to the left of the President, and will verify that the ballot box is empty, then close it, and place it in full view of every one.

4. Each of the delegations present will be given a blank ballot.

5. The President will invite the delegates who are to vote on behalf of their respective countries to come to the rostrum and deposit their ballots in the box.

6. The Secretary will call the delegations in the English alphabetical order, and when the last country entitled to vote has cast its vote, the Secretary will again call the delegations that have not yet voted, and the President will then consider the voting complete.

7. The counting of the ballots will then be carried out as follows:

(a) The tellers will open the ballot box and count the ballots deposited therein to determine the total number deposited and the number valid. A ballot will be considered valid when a single name appears thereon, legibly written. Ballots will be considered null and void when more than one name appears thereon, when they are signed, and when they are blank.

(b) The tellers will write down on special forms, which will be placed before them on the table where they are to sit, the following information on the voting: the number of ballots cast, the number of valid ballots, the number of null and void ballots, and the number of votes received by each person whose name appears on a ballot.

(c) The tellers will sign the ballot form and deliver it to the President, together with the ballots.

(d) The President will read the results appearing on the form signed by the tellers, and if any person has obtained the necessary majority vote, he will declare that person elected. Otherwise, the President will call for a new vote, in conformity with the third paragraph of Rule 53 of the Rules of Procedure.

8. Any matter not covered by the above-described procedure will be submitted to the Conference for consideration.

PRESIDENT:* In accordance with the procedure that has just been read, I shall ask the Secretary to verify the presence of a quorum.

Dr. Sutter (Assistant Director, PASB) called the role in the English alphabetical order: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Haiti, Honduras, Jamaica, Kingdom of the Netherlands, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, United Kingdom, United States of America, Uruguay, and Venezuela.

Dr. SUTTER (Assistant Director, PASB):* Mr. President, there are 26 delegations present, representing an equal number of Governments.

PRESIDENT:* Dr. Manoel José Ferreira of Brazil and Dr. Daniel Orellana of Venezuela are appointed tellers, and are requested to take their places at the

[4] *Official Document PAHO* **65,** 6th edition, March 1966.

left of the Chair. The floor is now open to delegations wishing to nominate candidates.

Dr. MORENO VALLE (Mexico):* Pursuant to Rule 53, which accords the delegations the right to nominate candidates, I take pleasure in placing in nomination the name of Dr. Abraham Horwitz for the post of Director of the Pan American Sanitary Bureau. I make this nomination in the conviction that Dr. Horwitz is one who will fully ensure the future progress of the Pan American Health Organization and its executive organ, the Pan American Sanitary Bureau.

Indeed, during those years in which he has carried the responsibility of this office, great progress has been made in the work of the Bureau in the eradication or control of communicable diseases, the promotion and protection of health, and the training of public health personnel at all levels.

It is pertinent to cite the way in which the Bureau's field of action has constantly been broadened in accordance with the modern idea of public health. Thus we see that medical care, mental health, dental health, occupational health, air pollution control, radiological health, and the improvement of administrative methods and practices have been included in the activities of the Bureau, as revealed in the annual reports of the Director.

Special tribute must be paid to his outstanding contribution in winning widespread acceptance from the economists for the thesis that health activities are an integral part of economic development. He has likewise won general recognition for the theory that economic resources devoted to health are an investment rather than an expenditure. Largely due to his personal efforts, public health programs have been accorded a basic role in economic and social development programs to improve the living conditions of the peoples, and have been written into the Act of Bogotá, the Charter of Punta del Este, and the Alliance for Progress.

His close relationships with and his representations to the international banks, and, in particular, the Inter-American Development Bank, have helped open lines of credit for investment in health and welfare in such vital fields as water supply for the rural populations of the Americas, the financing of community development programs and hospital construction, and support to educational institutions. The list of the many activities developed by Dr. Horwitz in his capacity as Director of the Pan American Sanitary Bureau would indeed be a long one, but we may summarize them in the simple statement that he is a man who by his dedication, his efficiency, his unflagging enthusiasm, his talents, and his vast store of background experience and education, has made an impressive contribution to the development of public health programs in the Hemisphere.

I am sure that the other candidate or candidates who may be nominated will also be deserving of recognition for the contributions they have made to the development of public health. Nevertheless, in the light of the accomplishments I have mentioned, it is an honor for me, in the name of my Government, to propose Dr. Abraham Horwitz for Director of the Pan American Sanitary Bureau.

Dr. AGUILAR PERALTA (Costa Rica):* The Delegation of Costa Rica has the honor to propose the name of Dr. Carlos Quirós Salinas, Director General of Health of the Republic of Peru, for Director of the Pan American Sanitary Bureau. Dr. Quirós Salinas obtained the degree of M.P.H. in 1949; he served as a medical officer in the Inter-American Cooperative Public Health Service from 1943 to 1950. Subsequently he held a number of posts in the Ministry of Public Health of his country, in his field of specialization. He was epidemiology adviser for Zone VI from 1955 to 1960. As representative of Peru, Dr. Quirós Salinas has attended all the meetings of the Governing Bodies of the Pan American Health Organization and the World Health Organization, in which the important proposals he has made to improve the administration of these bodies have received approval. He was a member of the Executive Committee of the Pan American Health Organization from 1961 to 1964 and served as Chairman of that body in 1963 and 1964. At present he is a member of the Executive Board of the World Health Organization. He was also President of the Peruvian Public Health Society in 1950 and 1960 and is now professor and head of the Department of Medical and Social Sciences in the School of Medicine of Peru.

The Delegation of Costa Rica is aware that candidates nominated by other delegations are also highly qualified for the post; but it is a great satisfaction for this Delegation to see democratic principles displayed within this Organization, and we feel that Dr. Carlos Quirós Salinas, if he is elected, would have the necessary qualifications to discharge this important responsibility with great effectiveness.

Dr. BECERRA DE LA FLOR (Peru):* I am requesting the floor at this time for the reason that I have been under the impression that the nomination of candidates was not a requirement. It is true that the possibility is provided for in the Rules of Procedure, under certain conditions, but for my part I was convinced that all the delegates knew that there were two candidates. Accordingly, I did not think it necessary to present this nomination since to do so also violates to some extent the principle of the secret vote that appears in the procedural provisions of this Organization. But in view of the circumstances noted, I consider it necessary to say a few words to explain the basis of the Peruvian position in this instance.

First, I should like to make it entirely clear that our decision to present a candidate from Peru was reached as a matter of principle and without any considerations whatsoever of a personal nature. We did so for two reasons: first, because the right to present a candidate without prejudice to any other person is established in the regulations; and second, because in this particular case the presentation of a Peruvian candidate does not in any way detract from the prestige of Dr. Horwitz. The Delegation of Peru—and I am sure the same is true of the other delegations—has the greatest respect and admiration for the work he has accomplished at the head of the Pan American Sanitary Bureau during the eight consecutive years, or two terms, that he has held this office, and we have the warmest personal regard for him. But on this occasion we are defending a point of principle. We believe that the principle of rotating positions of this nature, thereby offering an equal opportunity to all the countries of the Americas, must be vigorously defended as the foundation of the democratic spirit we profess. I am a member of an American Government—that of Peru—which has been waging a persistent battle to banish any form of "continuism" in office from our country, and to support the principle of renovation in all fields of our national life.

In presenting this nomination, Peru, which is motivated solely by these principles, wishes to state that it would accept any other candidate there may be for the post of Director of the Bureau. In seeking the generous support of the other delegations for the candidacy of Dr. Quirós Salinas, I should also like to state that, should he be unsuccessful in the voting that is about to take place, we will have had the satisfaction of being faithful to our convictions. This always has the gratifying savor of moral victory, and we are further honored to have this privilege of defending democratic principles in the eyes of our esteemed sister nations in this Hemisphere.

PRESIDENT:* The tellers inform me that we may now proceed with the election. The Secretary will please call on the voters according to the established procedure.

The voting proceeded according to alphabetical order.

PRESIDENT:* The count of the ballots will proceed. The tellers are requested to follow the instructions that have been read.

The tellers proceeded to count the ballots and reported the results of the election to the President.

PRESIDENT:* I shall now read the result of the voting that has just been handed to me by the tellers: "Number of ballots cast, 26; valid ballots, 26; ballots null or blank, 0; required majority, 14. Votes obtained: Dr. Abraham Horwitz, 20; Dr. Carlos Quirós, 6; signed by the two tellers."

Accordingly, the Chair declares Dr. Abraham Horwitz elected, by majority vote, Director of the Pan American Sanitary Bureau, and requests the Chiefs of the Delegations of Argentina, Colombia, Nicaragua, and the United States of America to constitute themselves a committee to call upon Dr. Horwitz and inform him of the result of the election.

Applause.

The session was suspended at 11:15 a.m. and resumed at 11:40 a.m.

PRESIDENT:* The session is resumed.

Dr. Horwitz entered the Conference Hall and was accorded a standing ovation.

Dr. HORWITZ (Director, PASB):* Mr. President, ministers, delegates, colleagues, ladies and gentlemen: I should like to thank you for the vote of confidence which I have received and which authorizes me to continue in office as Director of the Pan American Sanitary Bureau.

I should also like to renew my solemn pledge and my determination to serve your Governments and your peoples in both the official and the operational aspects, as I believe I have done heretofore. In the official capacity, with discretion and dignity appropriate to the representation of an organization that,

thanks to your own efforts, has won the prestige it now enjoys, and in the operational, seeking to approach ever closer to our ideals through the application of those methods dictated by the Governing Bodies.

It is my conviction that in general terms, and by reason of their very nature, we must consider the international organizations from the historical perspective. In this way the purpose and the work is remembered rather than the individuals who execute it; those who benefit from their efforts are given importance, not those who make these benefits possible. I think that Ortega y Gasset—as I had the honor of recalling at the XI Meeting of Ministers of Public Health of Central America and Panama—was right when he affirmed that "the substance of history is the structure of life." And he goes on to say that "man has no nature: what he does have is history;" and he adds that "it is essential that history abandon the psychological, or subjective approach, in which some of its finest contemporary works have erred, and recognize that its mission is to construct the objective conditions in which the individuals, the human subjects, are immersed."

Hence the crucial question must be, not how much human beings have varied, but how the objective structure of life has varied. Distinguished ministers and delegates: I believe that there is no better lesson than those admirable reports read during the past few days of this Conference to understand how you have sought to change, for the good of its inhabitants, the living structure of our Hemisphere. It is from this information that we, your Secretariat, must draw the best lessons so that we may continue to work in the future, helping you in your tasks, sharing your ideals, identifying ourselves with your frustrations, since the latter by the very nature of our undertaking exist and will continue to exist. It is in this way that we propose to continue our mandate and we believe that we can continue to count on your understanding and the loyal support we have always received from all members of this Organization.

Applause.

PRESIDENT:* We regret that it is a little late to hear the two remaining country reports. Will the delegates in favor of holding another session this afternoon to hear them please so indicate by a show of hands. Since there is a majority in favor, we shall meet again here at 2:30 p.m.

May I remind the members of the General Committee that we have a meeting immediately after this session.

The session rose at 11:50 a.m.

EIGHTH PLENARY SESSION

Thursday, 29 September 1966, at 2:50 p.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Fourth Report of the General Committee

PRESIDENT:* The eighth plenary session is now open. I call upon Dr. Sutter.

Dr. SUTTER (Assistant Director, PASB):* I shall read the fourth report of the General Committee:

At its fourth session, held today at 12:00 noon, the General Committee agreed as follows:

1. To arrange the activities of the Conference as far as possible in such a way that the closing session can be held not later than Saturday, 8 October. The President has been authorized to convene night sessions should he deem them necessary.

2. To schedule the election of new members to the Executive Committee for Monday next, 3 October, at 11:00 a.m.

3. To submit draft resolutions on the following topics for consideration by the ninth plenary session: (a) Election of the Director of the Pan American Sanitary Bureau and Nomination of the WHO Regional Director for the Americas; (b) Annual Report of the Chairman of the Executive Committee; and (c) Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962–1965, and Annual Report of the Director of the Pan American Sanitary Bureau for 1965.

4. To submit to the Conference for consideration at the same plenary session the report of the working party

on Amendments to the Rules of Procedure of the Conference.

5. If time allows, to examine the Financial Report of the Director and the Report of the External Auditor for 1965 at the eighth plenary session.

PRESIDENT:* At this morning's session of the General Committee I was authorized to do everything in my power to speed up the discussions in Committee and in plenary, so that if possible the Conference may complete its deliberations by Friday afternoon and we can all return to our respective countries. It is only right that there should be a day's rest before we return to work on Monday, which would not be possible if we finish our work on Saturday, spend Sunday traveling, and have to begin again on Monday.

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVI and XVII Pan American Sanitary Conferences (*conclusion*)

PRESIDENT:* I call upon Dr. Layton, of Canada.

Report of the Observer for Canada

Dr. LAYTON (Observer, Canada): I very much appreciate your courtesy, Mr. President, in according me the privilege of addressing briefly this distinguished assemblage. Bearing in mind your earlier admonition, I shall not make any reference to the detailed facts and figures regarding health in Canada which are so ably and accurately recorded in the documentation prepared by the Director and his excellent staff. For this, Mr. Director, our gratitude and heartiest congratulations.

And, bearing in mind a very recent event in which, you were, sir, one could say, the foremost figure, one might also add one's personal felicitation and cordial best wishes for the future.

I would like in these few minutes to comment upon two relatively recent developments in Canada in the health field, which obviously are of particular significance to us and, being interrelated and having a connotation so far as health care is concerned, would, I hope, attract the interest of the distinguished ministers and delegates to this Conference.

On previous occasions I have referred to health planning in general and to what has transpired in Canada in particular. In Canada, the primary mechanism for this important procedure has been what we describe as a Royal Commission, and, in this particular case, one on health services.

Such a Royal Commission was established four years ago, and last year I reported to the Directing Council that it had concluded its work and published its reports. Since that time some 14 relevant studies carried on by the Commission have also been completed and published, these dealing with various aspects of health care, dental care, nursing care, etc.

Among the recommendations rated most highly by the Commission was one pertaining to the provision of a prepaid medical care plan for all Canadians. As this Conference may know, we have a National Hospitalization Plan, but this does not include, other than in a relatively few isolated instances, the services of physicians, or health care *per se*.

The reasons why Medicare, as the popular term puts it, is desirable in Canada, and the means of putting it into effect, have been widely discussed since the report of the Royal Commission became available. It has been increasingly apparent that all of our provincial governments rank high among their objectives the establishment of a health service plan, Medicare, which will enable their residents to have access to comprehensive physician services on a prepaid basis.

There are, naturally, considerable differences as to the type of plan which the provinces favor. Perhaps even more significant are the variations in the capacity of the provinces to finance the health services which they regard as needed.

These are some of the circumstances that create the necessity for a federal role in this program, health services in Canada, as many of you know, being primarily the responsibility of the provinces.

Accordingly, the Federal Government plans to support provincial Medicare plans by means of a fiscal contribution of predetermined size. This proposal will not require detailed agreements; it calls only for a general federal-provincial understanding as to the nature of the health programs which will make a federal fiscal contribution appropriate.

The Federal Government believes that there are four criteria on which such an understanding should be based—the first of these that the scope of benefits should be, broadly speaking, all the services provided by physicians, both general practitioners and specialists. We regard comprehensive physician services as the initial minimum, while considering, of course, a complete health plan as including such

aspects as dental treatment, prescribed drugs and other important services.

The second of the four criteria is that the plan should be universal in scope; that is to say, it should cover all residents of a province on uniform terms and conditions.

Third, federal participation will require that a plan be publicly administered, either directly by the provincial government or by a provincial government agency.

And, finally, each provincial plan should provide full transferability or portability of benefits when people are absent from their own province, or when they move to another.

Under these four criteria, the Federal Government is prepared to accept fiscal responsibility for an amount per capita of approximately one-half of the national cost of Medicare programs. We estimate this half to be $14.00 (Canadian) per capita in 1967. The contribution will be the per capita amount for all provinces and the proposed starting date, when the discussions were taking place, was 1 July 1967—by some coincidence our 100th birthday.

As a related feature, and this is the second of the two innovations to which I referred at the outset, it was anticipated that the proposed provincial Medicare plan should help to create a professional climate to attract increasing numbers of able people to the study and practice of medicine and related professions, and thereby progressively to improve the quality of the care that could be provided.

I will not dwell at this time on the matter of the so-called "brain drain," or, as I have recently heard it described, "piracy" of health personnel as it affects Canada, but under Medicare, it was realized that to provide the necessary personnel would involve large investments of funds in research and physical facilities. Consequently, the Federal Government announced its intention to establish a Health Resources Fund from which it would increase the existing substantial support it has hitherto given to the provinces in this field.

It was proposed that the new fund take effect from 1 January 1966 and this has come to pass. It is now in effect.

Since long-term planning is essential to projects of the kind that it will support, the resources of the fund will be available over a 15-year period. This means that an average of about $33,000,000 (Canadian) will be available each year for the purposes of the program.

As previously noted, the basic purpose of the fund is to meet the greater need for trained people to provide Medicare services. Through the fund, federal capital grants will be available for the construction, renovation, and basic equipment of research establishments, teaching hospitals, medical schools, and training facilities for other health personnel. Grants from the fund would not be available to meet the operating cost of such establishments, this being considered as the provincial share of the necessary preparatory steps in establishing a national Medicare program.

It was also appreciated that the allocation of the grants would require a considerable degree of consultation with the provinces which, as I have noted, in the final analysis are responsible for the provision of these health facilities. For this purpose, a special consultative group has been established to advise the Minister of National Health and Welfare on the operation of the Fund, and this is now functioning.

As a postscript to this outline, I should report that due to certain financial problems and inflationary trends, the date of the initiation of the Medicare program has been set back one year, at least, to July 1968. This, except to the most ardent supporters of the plan, may be, in effect, a blessing in disguise, since it gives us an extra year to prepare health personnel and other necessary ancillary factors through the use of the functioning health resources and fund.

As a concluding thought—and this is not by any means original but certainly is derived from our own experience—I refer to the question of health planning. There is no doubt that we all subscribe fully to the emphasis which has been placed on this important feature and the progress which has been made, especially in the numerous countries of this Region. While the methodology, the principles, the patterns are admittedly the same wherever health planning is carried out, it is my feeling that the words of the Prime Minister of Canada in announcing our Medicare program seem particularly pertinent in this context, in terms of individual country planning.

Referring to standards of performance of health programs in Canada, Mr. Pearson stated: "The fundamental fact does not change. By some methods, Canadian standards must be made possible for

all Canadians." In a broader sense, Mr. President, I think this might be paraphrased: "Through health planning, country standards must be made possible for all the people of that country." And I would simply add, and I am sure we all agree, that it should be of the highest possible quality.

PRESIDENT:* Thank you, Dr. Layton. I recognize Dr. Mahraj of Guyana.

Report of the Delegation of Guyana

Dr. MAHRAJ (Guyana): I thank you for the opportunity to say a few words on the health services in Guyana.

Guyana became independent on 26 May of this year. The Government is determined to secure for the new nations the highest possible level of social welfare. The expansion and improvement of the health services are important social objectives and are also regarded as prerequisites for economic development. The entire structure of the health services and their expansion are, therefore, being planned as an integral part of the development program of the territory.

Curative Medicine. The aim of the Ministry of Health is to regionalize the hospital services. There will be at least one well equipped hospital within striking distance of each district to provide facilities for diagnosis and treatment of all medical, surgical, gynecological and midwifery cases and those suffering from infectious diseases, including tuberculosis. Thus, to afford every medical officer the opportunity to practice medicine with modern facilities and at the same time offer the maximum degree of skill to residents of the districts, every hospital will soon be provided with:

(1) A modern operating theater. Reconstruction work has already been initiated at the New Amsterdam Hospital (250 beds), and the Suddie Hospital (100 beds). Plans are being prepared to provide four additional theater suites at the Georgetown Hospital (nearly 1,000 beds); (2) adequate facilities for outpatients; (3) ante-natal, post-natal and child health clinics; (4) X-ray facilities; (5) laboratory facilities capable of all routine microscopic and biochemical investigations; and (6) adequate mortuary and autopsy facilities.

At the highest level a new hospital will be constructed under the plan. This will be a general reference hospital that will be staffed by specialists with adequate numbers of supporting medical and ancillary staff. Cases requiring specialized care will be separated from those which can be treated adequately in district hospitals. It will be the center in which medical staff are trained at intern level, and at a higher level, with a view to working in district hospitals and as potential specialists.

Typhoid Fever. The Environmental Sanitation Program, which includes the provision of potable water and an adequate feces disposal system, is being advanced to new areas as one of the measures to combat this disease which continues to be one of the main endemic diseases of the territory.

Other communicable disease problems are posed by filariasis and leprosy. Appropriate measures are being taken to combat these diseases.

I thank you for your kind attention. This being our first attempt at producing reports, you will pardon us if we are too brief. We trust in our next report to give you a more detailed and more comprehensive statement of results.

PRESIDENT:* Thank you, Dr. Mahraj. I call upon Dr. Oscar Vargas-Méndez, of UNICEF.

Statement by the Observer for UNICEF

Dr. VARGAS-MÉNDEZ (Regional Director of UNICEF for the Americas):* I should like to convey to the ministers and advisers here present a cordial greeting from the Executive Director of UNICEF, Mr. Henry R. Labouisse, and to express on his behalf and my own our appreciation of the complimentary references to UNICEF made by the ministers in presenting their reports on public health conditions and progress achieved in the Americas.

As a result of the advent of new independent countries, joining the family of the United Nations and requesting cooperation from UNICEF, and in view of the terms of reference of our Executive Board which require it to extend collaboration in the educational and social welfare fields, the resources available for collaboration with Governments in health programs in the Americas have been reduced. Nevertheless, by carefully selecting programs and giving high priority to those connected with national development planning, UNICEF has been able to collaborate with Governments more effectively.

The limitation of resources in no way affects UNICEF's traditional interest in health programs, which are the major sphere of collaboration with Governments and the chief recipient of funds, as

may be seen from the amount spent on malaria eradication programs.

Over the years, cooperation in health matters has tended to concentrate on programs designed to strengthen local services, while not neglecting the very important matter of training of auxiliary personnel. The activities of the Regional Office for the Americas are being conducted with the collaboration of five zone offices, each one corresponding to a group of countries and operating from Mexico City, Guatemala City, Bogotá, Lima, and Rio de Janeiro, respectively. Recently UNICEF's headquarters was transferred from the United Nations in New York to the beautiful city of Santiago, Chile, thanks to the generous and traditional hospitality of the Chilean Government.

From the new headquarters of the Regional Office of UNICEF for the Americas, we shall be at your disposal and anxious to serve you and collaborate with you to the best of our abilities.

PRESIDENT:* Thank you, Dr. Vargas-Méndez. We shall now consider a number of draft resolutions. I call upon Dr. Orellana.

Draft Resolution

Dr. ORELLANA (Venezuela):* We have listened to all the reports of the Governments of the Organization on public health conditions in their countries and on the progress achieved over the last four years. In that connection, my Delegation feels that it would be extremely useful if this collection of valuable material could be made available in one way or another to individuals, Governments, and interested agencies throughout the Hemisphere.

Although written reports have been submitted by each of the Governments, we feel that in view of their bulk and diversity, publication of all of them as originally submitted would be difficult; on the other hand, if these could be summarized following a uniform pattern, we could have a digest that would be much easier to print and distribute.

The Delegation of Venezuela would therefore like to submit the following draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having heard the reports of the Governments of the Organization on public health conditions and the progress achieved during the period between the XVI and XVII Pan American Sanitary Conferences; and

Bearing in mind that both the written and the oral reports contain valuable information about the health situation in the Hemisphere, the publication of which is both useful and desirable,

RESOLVES:

1. To take note of the reports the Governments have submitted to the Conference on public health conditions and progress achieved during the period between the XVI and the XVII Pan American Sanitary Conferences.

2. To recommend to the Director that he prepare a publication summarizing the data contained in the reports which will give a comprehensive picture of health conditions in the Continent in the four-year period 1962–1965.

3. To authorize the Director to transfer the necessary funds from other activities of the Bureau, in such a way as he deems most advisable in order to cover the costs of such a publication.

PRESIDENT:* The proposal read is open for discussion. The Delegation of Jamaica has the floor.

Dr. ELDEMIRE (Jamaica): I would like to support the resolution presented by the Delegate of Venezuela, but would like to go even further. It is a fact that we all meet here fairly regularly, but the time at our disposal is usually short. Each country submits a report which each delegation reads and digests at leisure. The submission I have to make is not a criticism of the past or of the present, but a suggestion for the future.

In view of the fact that our time is very limited, I humbly submit that it would be much better spent if, at these plenary sessions, each delegate could discuss specific problems. Each of us in our various countries have problems and there is no doubt that when we come to these meetings we accomplish and gain a lot. But what worries me personally is that we could gain a lot more.

Since I have been at this Conference, over the last few days I have heard some very interesting remarks about what is happening in various countries, but if I did not hear these at luncheons or cocktail parties I would not appreciate and know that they were going on. I have heard mention of problems of malnutrition and how various countries are coping with this; I have heard of experimental work in polio, which to me was very interesting; I have heard of work in rural water supplies and how the particular country is overcoming this problem; I have heard of the problems of population expansion, with possible explosion, and how these are being attacked. But I have not heard these things in the plenary sessions.

As I say, the state of the health of each of our countries is presented in the report. I, personally, would like to be able to go back home with the knowledge that another country had a problem

similar to mine and with the knowledge of how this country was coping with this particular problem. I personally feel that, with all the benefits we get from conferences like this, we could get even more.

Speaking for myself, I could not possibly say that I could remember what each delegation has read from its report on the state of its country's health. But if a delegate said, for instance, "We have a population problem and are adopting these various methods to cope with the problem," it would be near and dear to my heart and I would certainly remember it without having to read it.

And, as you all know, I am a political minister in that I am elected, and whether I come again depends on the whims of the electorate, but being a political minister I feel PAHO and this Conference could come to some sort of agreement as regard the discussions and debates of problems, not necessarily statistical problems, because we can read of them in a book and we all have to do this because when we compile our own individual reports we use the statistics of other countries for comparison, odious as comparisons might be. But if we got a mandate from a conference such as this to say, "We as a family have a problem; we have discussed this problem; we have recommended these solutions," carrying home a mandate such as this to our various Governments and Cabinets would, I feel, stand us in better stead than it has in the past.

So my humble submission, is that, and I emphasize that I do not want to be misunderstood, in conferences like this we should take the limited time at our disposal and learn by the experiences of other countries, because we all have our problems and we can save a lot of time listening to the experiences and the results of other countries in the solution of these problems.

In my report I said I had certain problems, which my Government is trying to rectify. But perhaps there is another method that I do not know about, and if we can all put our heads together perhaps time and money can be saved in solving this problem of malnutrition. I would like to know the economic possibilities of using various substances. Incaparina has been suggested here. I wonder if my Government can afford this. But maybe I can evolve, with past experience and research, another protein derivative. It might come from another kind of fish, for all I know. But I personally believe that this is the sort of thing that I would like personally to get out of this Conference. As I say, we always get a lot out of it: the fact that we meet and renew old acquaintances is an accomplishment in itself, but I would prefer to be able to go back to my people and say to them, "I attended the Pan American Sanitary Conference in Washington, and one of the problems that we discussed was the problem that we have here in our country. These are the remedies that have been suggested. I, as the Minister, am going to try them out."

So I humbly submit that maybe in the future we could adopt this kind of approach: having already received the reports on the state of health of our countries, we could emphasize in our debates and discussions the problems and possible solutions that each country has experienced.

PRESIDENT:* Is there any other comment on the proposal under discussion?

Dr. MONTALVÁN (Ecuador):* I have listened with great interest to the proposal put forward by the Venezuelan Delegation, and I consider that one of the most important aspects of these meetings is precisely this presentation of the reports by the various delegations on the progress made over the preceding four years. The reports explain not only the individual views of the various countries but the problems on which action by their health services has been concentrated. Hence a perusal of the reports reveals the points to which Governments have paid most attention over the quadrennial period. They are of course a miscellany, as they must necessarily be, since the level of development of health and the type of action initiated by the different Governments varies. The reports of a highly developed country such as the United States of America cannot be the same as that of a country like my own, in the throes of development. The approach to certain health problems in countries like the former is on another level, since they have already solved many of the problems which are still exercizing the rest of us. We still have a great many to solve, and hence as far as viewpoints are concerned, each country has its own.

The proposal presented by the Delegate of Venezuela strikes me as admirable, since the reports are most valuable and it is most important that we should be able to reread them at leisure, at our own convenience, and in our own offices or studies, or bring them to the notice of our colleagues in the various branches of our health departments, and so gain profit and experience from them. I therefore

support the proposal that all the reports be published.

On the other hand, I regret that I am not in favor of the reports being summarized by the Bureau. Each country has expounded its own peculiar point of view and hence the reports cannot be presented according to a given pattern. There is a document prepared by the Bureau under the title of *Health Conditions in the Americas*.[1] Here the Bureau does present the text according to a predetermined pattern, so as to establish certain comparisons in the matter of health indices or data indicative of the level of progress attained in regard to health. But as I say, I do not believe that country reports can be compared one with another. Each country has set forth its views and specified the programs it regards as most important, and hence the reports should be published as presented, in one volume, which I think would be an invaluable aid for the health administrations of the various countries.

In short, Mr. President and delegates, I second the proposal submitted by the Chief of the Venezuelan Delegation, Dr. Orellana, that the reports should be published but not the proposal that they should be summarized. In my view, they should be reproduced as submitted, possibly subject to minor corrections of an editorial nature.

PRESIDENT:* I call upon the Delegation of Nicaragua.

Dr. BONICHE VÁSQUEZ (Nicaragua):* I have listened with the utmost attention to the statements by my distinguished colleagues, and I should like to say that I have found it most gratifying to hear the account as given by the delegates of the events that have taken place in their respective countries in health matters over the last four years.

Nevertheless, I did have certain misgivings in regard to this time-consuming exercise and its results. I pointed this out at a private meeting of chiefs of delegations, where I said that I would have liked to see all of them here to deal with matters of general interest and participate in technical discussions or other matters of major importance, instead of which we are gradually left with the members of the delegations while their chiefs absent themselves, as is happening at the moment, or will happen within the next few days.

It is of course most gratifying to listen to the statements by delegations and to take in properly the points of interest in the reports submitted; nevertheless, I feel that all this could be achieved by merely reading the reports at leisure, in special meetings, with our own technical advisers in our own offices.

I should therefore like to propose a change in the draft submitted by the Delegate of Venezuela: that the ministries in all the countries be urged to produce an explanatory note on all the reports, emphasizing their views on specific parts of each report; that adequate time be allowed for this, say six months; and that the whole compilation would then be published by the Pan American Sanitary Bureau subject to any modifications it felt were desirable in a document for general distribution as representing the considered views of the different countries. All this would of course be done with our authorization.

It seems to me that publication is desirable, but an abridgement such as the Delegate of Venezuela suggests would reduce the importance of the publication. It would be better for each one of us to read the documents one by one in our own ministries, with the help of our technical experts, analyzing them, and in due course forwarding our comments to the Director of the Pan American Sanitary Bureau.

PRESIDENT:* I call upon Dr. Watt, of the United States of America.

Dr. WATT (United States of America): I have listened to the proposed resolution and believe that it has a great deal of merit. However, it is of such importance that I would like to suggest that it be circulated to us in translated form so that we can look at it and really understand its full importance.

As I understood the debate, it seemed to me that there might be some misunderstanding. As I heard it originally, the suggestion was to attempt to synthesize the reports that had been given so that there would be available an easily visible document, one in which the contrast could be brought out more clearly and easily than would be possible by going through a stack of documents that would measure more than a foot when placed in front of us.

I did not understand that there was any suggestion to cut or, in other words, tamper with the reports of the individual Governments. They would obviously stand as presented. Possibly this matter would be clarified if we actually saw the text.

[1] *Scientific Publication PAHO* **138**.

I did not detect this apparent difference when I listened to the translation, but possibly I did not quite follow it.

PRESIDENT:* I call upon Dr. Orellana, of Venezuela.

Dr. ORELLANA (Venezuela):* I should like to explain briefly the real purpose behind the proposal I ventured to put before you. In the first place, it is of course a fact that for the most part reports have already been submitted, and all of us have copies of the original reports as prepared. Perhaps this meets one of the objections that have been raised, namely, that we may not be familiar with the reports. They have already been distributed, and moreover, I am certain we could obtain further copies if we so desired.

Second, the precise point of my proposal is that in addition to these 26 documents which each of our Governments can keep in its libraries, there might also be one more, presenting in one form or another, and according to a specified plan, a synthesis of the material contained in all of them. This would obviously facilitate consultation and give a panoramic view of health conditions throughout the Hemisphere, as has been stated by the Delegate of the United States of America.

On the other hand, it should be remembered that this is the method used by the World Health Organization in its quadrennial report on the world health situation.[2] A similar report covering the Hemisphere would likewise be useful.

Finally, one further explanation in regard to corrections: each country would make the necessary corrections to the part referring to it in the summary, assuming that the proposal were approved.

I trust that these explanations will help to clear up any doubtful points in my proposal.

PRESIDENT:* If the Conference agrees, it might be advisable to accept Dr. Watt's suggestion and suspend the debate until the proposal has been translated into the official languages of the Conference, so that delegates may have an opportunity to study it in greater detail. Those in favor please indicate.

Approved.

The suggestion is approved; I will therefore ask the Secretariat to have the translation made as rapidly as possible.

[2] Document WHO PA/66.46 (mimeographed), "Third Report on the World Health Situation, 1961–1964."

The Conference will now consider the draft resolution on the report of the Chairman of the Executive Committee. I call upon Dr. Orellana.

Item 8: Annual Report of the Chairman of the Executive Committee (*conclusion*)

Draft Resolution

Dr. ORELLANA (Venezuela):* In the interest of the work of the Conference, my Delegation would like to present a draft resolution on the report of the Chairman of the Executive Committee submitted at the second plenary session of this Conference. The draft reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the Annual Report of the Chairman of the Executive Committee, Dr. Manoel José Ferreira, Delegate of Brazil (Document CSP17/23), on the work of that Governing Body during the period since the XVI Meeting of the Directing Council; and

Bearing in mind the provisions of Article 9-C of the Constitution of the Pan American Health Organization,

RESOLVES:

To approve the Annual Report of the Chairman of the Executive Committee, Dr. Manoel José Ferreira, Delegate of Brazil (Document CSP17/23), and to commend him and the other members of the Committee on the work accomplished.

PRESIDENT:* The debate is open on the proposal presented. I call upon the Delegation of Bolivia.

Dr. DIEZ DE MEDINA (Bolivia):* I should like to propose a slight modification. If I am not mistaken, the Spanish text of the draft reads: ". . . felicitar junto con los otros . . ." ("commend him along with the other members"). I think it would be more proper to say: ". . . así como a los otros miembros . . ." ("commend him and the other members").

PRESIDENT:* Does the Delegate of Venezuela agree to the amendment?

Dr. ORELLANA (Venezuela):* Yes, I agree.

PRESIDENT:* Is there any other observation? In the absence of observations, I shall put to the vote the draft resolution submitted by Venezuela.

The draft resolution was unanimously approved with the amendment proposed by the Delegate of Bolivia.[3]

[3] Resolution II. *Official Document PAHO* **74**, 60.

Item 10: Annual Report of the Director of the Pan American Sanitary Bureau, 1965 (*conclusion*)

Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962–1965 (*conclusion*)

Draft Resolutions

PRESIDENT:* I call upon Dr. Interiano of El Salvador to present draft resolutions concerning the Annual and Quadrennial Reports of the Director.

Dr. INTERIANO (El Salvador):* We have listened with satisfaction to the presentation of the Annual and Quadrennial Reports by the Director at the second plenary session and I should therefore like to propose the following draft resolutions:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the Annual Report of the Director of the Pan American Sanitary Bureau, Regional Office of the World Health Organization for the Americas, for 1965 (*Official Document 70*); and

Considering the terms of Article 4-F of the Constitution of the Pan American Health Organization,

RESOLVES:

To approve the Annual Report of the Director for 1965 (*Official Document 70*), to commend him on the excellent work accomplished during the year, and to extend its commendation to the staff of the Bureau.

With the President's permission I should like also to present the second draft resolution, relating to the Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1962–1965. It reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the Quadrennial Report (1962–1965) of the Director of the Bureau on the activities of the Pan American Health Organization during the period between the XVI and the XVII Pan American Sanitary Conferences (*Official Document 72*); and

Considering the terms of Article 4-F of the Constitution of the Pan American Health Organization,

RESOLVES:

To approve the Quadrennial Report (1962–1965) of the Director to the Governments of the Pan American Health Organization, to commend him on the work accomplished in the past four years and on the form of presentation of the Report, and to extend its commendation to the staff of the Bureau.

PRESIDENT:* Since the two draft resolutions are on different subjects, I invite discussion on the first. If there are no observations, I shall put the draft resolution to the vote.

The draft resolution was unanimously approved.[4]

PRESIDENT:* Discussion is invited on the second draft resolution, relating to the Quadrennial Report of the Director. In the absence of discussion I shall put the draft to the vote.

The draft resolution was unanimously approved.[5]

Item 12: Election of the Director of the Pan American Sanitary Bureau and Nomination of the Regional Director of the World Health Organization for the Americas (*conclusion*)

PRESIDENT:* I call upon the Secretariat in connection with the draft resolution concerning the election of the Director.

Dr. SUTTER (Assistant Director, PASB):* The following draft resolution is before the Conference:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind Article 4-E as well as Article 21-A of the Constitution of the Pan American Health Organization, which provide that the Pan American Sanitary Bureau shall have a Director elected at the Conference by the vote of a majority of the Governments of the Organization;

Bearing in mind Article 42 of the Rules of Procedure of the Conference, which provides that the Director of the Bureau shall be elected by a number of votes greater than half the number of the Governments of the Organization; and

Bearing in mind Article 4 of the Agreement between the World Health Organization and the Pan American Health Organization, and Articles 49 and 52 of the Constitution of the World Health Organization, which establish the procedure for the appointment of the Regional Director of the World Health Organization,

RESOLVES:

1. To declare Dr. Abraham Horwitz elected Director of the Pan American Sanitary Bureau, for a period of four years to begin on 1 February 1967.

2. To communicate to the Executive Board of the World Health Organization the above designation of Dr. Abraham Horwitz for appointment as Regional Director for the Americas.

PRESIDENT:* Discussion is invited on the draft resolution read by the Secretariat. If there are no comments, I shall put the draft resolution to the vote.

The draft resolution was unanimously approved.[6]

The session was recessed at 3:57 p.m. and resumed at 4:30 p.m.

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[4] Resolution III. *Ibid.*

[5] Resolution IV. *Ibid.*, p. 61.

[6] Resolution V. *Ibid.*, pp. 61–62.

PRESIDENT:* The Chairman of the working party on the Amendments to the Rules of Procedure has asked me to postpone the presentation of its report since it is not ready.

Item 15: Financial Report of the Director and Report of the External Auditor for 1965

PRESIDENT:* We now turn to Item 15: Financial Report of the Director and Report of the External Auditor for 1965. I call upon Dr. Portner.

Dr. PORTNER (Chief of Administration, PASB): In keeping with the requirements of the financial regulations and the practice of this Organization, presented to this group are the Financial Report of the Director for the year 1965 and the report of the External Auditor on the finances of this Organization for that year. The reports are to be found in *Official Document 68*. Also of relevance is Document CSP17/12[7] dated 8 July 1966.

This report was completed in the spring and was presented, as is the practice, to the 54th Meeting of the Executive Committee. At that meeting an oral report was rendered on the finances of the Organization, and an intensive review made by the members of the Executive Committee. An appropriate resolution[8] was approved at the end of that meeting, transmitting the report to this Conference. This, then, in oral presentation, is a reindication of the stewardship of the finances of this Organization by the Director and his associates. The management of the finances of the Organization represents as telling a requirement as the management of the purely technical operations of the Organization.

Over the years it has been stated that the Director and this administration are deeply conscious of the responsibility which devolves upon them at the direction of the Governing Bodies and the Constitution, for the administration of the funds entrusted to them by the various Governments and peoples.

The measure of this responsibility in financial terms is indicated in this document. The totality of the program is of the order of $17,000,000 plus, as shown in the estimates of activity. The income available for covering these operations was of the order of $18,000,000 plus, the expenditures of the order of $16,000,000 plus. This is the dimension of the totality. The concentration in this document is heavily on a PAHO regular budget of $7.19 millions, but this is the full measure and the background of this activity.

As a guide to action, there has been an essential three-point program over the years. This program has been founded on the prudent administration of the resources of the Organization. It has been the rule and the literal practice to keep expenditure within income. This was evident in 1965, as in all previous years.

Further, it has been the practice to follow the pattern established by the Governing Bodies, authorized in 1959 and implemented in 1961, for the augmentation of the Working Capital Fund, which in the year under review attained the highest point since 1958. You will note by reference to the appropriate table that the Working Capital Fund stood at 35.4 per cent of the authorized PAHO regular budget for this particular year.

Third, as a precaution representing the very essence of prudent administration, the Executive Committee authorized,[9] on the recommendation of the Director, the establishment of reserves to cover any possible contingency in the event of financial disaster. These are reserves to cover costs of termination of personnel and others. These reserves have been established first from the voluntary funds, latterly, with the passage of time, moving toward the PAHO regular budget, and in due course provision being made for the establishment of a similar precautionary device for the INCAP funds.

This, then, is the guide to action, and in this report one finds references to a very happy financial condition. This point is made in the very opening of the report by the Director, in the mid-paragraph immediately under "Financial Situation," and is reiterated with particulars by the External Auditor in that portion of this document which represents his report.

The financial condition, therefore, is good, the best in years. The outstanding indication of that is the fact that PAHO regular budget income was 100.91 per cent of the authorized appropriation. Delegates will note as well that obligations and therefore achievements as represented in program dollar figures, was of the order of 99.99 per cent of the authorized appropriation. Therefore, we had virtually full achievement of our program, established on a dollar basis.

From Table C, one notes also, as I mentioned

[7] Mimeographed document.
[8] Resolution III. *Official Document PAHO* **71**, 29–30.
[9] *Official Document PAHO* **71**, 31–32.

earlier, the very good situation of the Working Capital Fund at the end of last year.

In the pages that follow are the various details. There are exhibits giving an indication of the situation on appropriation, obligation and balances, statement of income and expenditure, and in table after table one gets reference to the situation in the PAHO regular budget, in the funds covered by the Program of Technical Cooperation of the Organization of American States, the funding of the program of the Institute of Nutrition of Central America and Panama, and so on.

This, in very brief dimension, is the financial situation on a PAHO regular budget program of $7,190,000, a gross program estimated in the budget at $17,000,000 plus and an expenditure factor of $16,600,000. Delegates will note references to voluntary contributions: the kind contributions of a number of Governments to the Special Malaria Fund and the Community Water Supply Fund, and a long list of grants, totaling over $48,000, for PAHO activities.

The quota situation is an even happier augury for this year. We will take up that subject in a special presentation, but it has a considerable relationship to the present topic. May we indicate, then, as a foreword to any future note that the situation on quotas for 1966, as of this date, is moving along in the very happy state noted in the prior report.

Mention is made by the External Auditor to the fact that current quotas, that is, current in reference to 1965, are of the order of 78 plus per cent, but as we have seen over a number of past years, and as was emphasized at the 54th Meeting of the Executive Committee, there is a requirement to bring together the statement on arrearages with that of current years. By bringing these two together and by noting extra income, one gets a gross income of more than the appropriation figure for that particular year.

I shall be very happy to answer any questions in detail on this particular presentation.

Dr. Quirós (Peru): * I merely wish to make a few comments on the financial situation of the Organization, along the lines of my comments at the 54th Meeting of the Executive Committee.

Page 67 of the Report of the External Auditor states as follows: "The largest contributor pays 66% of the quotas of the Member States. The quotas assessed to the other Members amount to $2,494,321 of which $943,225 were collected, representing 37.81% of their assessments, or 13.15% of the total collective quotas. For 1964 the percentage was 37%. The collection of the current year quotas from the other Members of the Organization is still too low." Further on (page 69) it states: "It should be noted that the arrears must first be paid before collections of contributions for the current year are credited to the income budget, and it is obvious that unless the collection situation improves, the only way for the Organization to operate on a sound financial basis is to reduce the program activities." It is of course a well-known fact that many of the program activities are being abandoned, as we have pointed out on various occasions.

We are operating on a budget which to my mind is fictitious, since it is balanced on the basis of the outstanding payment of the 1964 quota of the largest contributor, which for various reasons was unable at that time to make a payment of a million dollars. This sum was transferred to the following year and thus the budget was balanced; but of course, a substantial part of the program could not be undertaken.

Similarly, I have referred time and time again to the necessity for the Organization's budget to be drawn up on a functional basis and not by budgetary titles, since, as I pointed out at the meeting of the Executive Committee, transfers are made from the field programs to other programs, in the present instance, to Headquarters. Thus, according to the table on page 14, there was a transfer of $36,564. According to information furnished at the time the transfer in question was made to increase the pressrun of publications, but I do not think that transfers of that kind are justified.

I would therefore urge that the budget should be administered in a more realistic manner and with due regard to the quota payments actually received; and that greater efforts should be made to ensure the payment of quota contributions.

Mr. Calderwood (United States of America): We have listened to the introduction of this item with considerable interest and have read the report of the Director and of the External Auditor with a great deal of care and interest.

The report gives us some concern as well as satisfaction. We are pleased to note that the External Auditor considers that the Organization's financial situation has improved. This is reflected

in the status of the Working Capital Fund and in other ways.

We are also, of course, concerned about the percentage of collections of the current budgets and we hope, as the Auditor has indicated, that this will be improved. He says that it is still too low, but we appreciate the efforts that have been made by the Director and staff in the collection of arrears, and note that there has been a considerable improvement in this regard.

With reference to certain expenditures indicated in the report, we have one or two questions on which we should like the comments from Dr. Portner. Perhaps he can answer them now, perhaps he wishes to answer them at some future time.

We note that the amount spent for Zone Offices in 1965 was $632,307. This was $147,155 more than was planned, as indicated in *Official Document 61*.

In 1964, under the PAHO regular budget, the Organization planned to spend $431,157 for the Zone Offices, and spent $599,892. These amounts considerably exceed the expenditure now planned for the Zone Offices: under the regular budget for 1966, $542,981; for 1967, $567,507; and proposed for 1968, $587,371.

I wonder if we might have some explanation for this and the situation of 1965, in particular. It may be that some expenditures have been incurred for personnel in the field or intercountry projects, in that they are housed and otherwise taken care of through the Zone Offices. We would like to have some clarification.

There is also an expenditure for publications greater than the amount budgeted. The cost of the *Boletín* is shown as $61,000, which is in excess of the $50,000 budgeted. That is the figure included in the 1966, 1967, and 1968 budgets, so it could be that we anticipate an obligation that would be greater than the amounts budgeted.

PRESIDENT: * Is there any further comment? The discussion of the report presented continues. I call upon Dr. Portner.

Dr. PORTNER (Chief of Administration, PASB): First, I will respond to the questions put by the Delegate from Peru. We are deeply sensitive to the situation on the collection of quotas. This has been a matter of discussion over a number of years. We are sensitive to the instructions of the Governing Bodies and it has been a matter which has been dealt with as a regular and continuing activity, with guidance from the Director and his associates, through staff in the field at the Zone and country levels, by communications to the Governments indicating the situation on payments throughout the course of the year, and by reportage made a number of times a year, emphasizing the considerable need for attaining as high a degree of currency as possible. The concentration has been on both the current position and, very heavily, on trying to gain payment of the arrearages.

You will recall from the report of the working party read earlier that the situation indicated in this report, as at the end of last year, has been materially bettered as of this date. So that as of today, only two countries are more than two years in arrears and both have made payments and submitted a plan. The situation as of this moment promises a movement toward a quota payment which will doubtless be better than that of last year.

This does not answer fully the matter of payments in the current year, but we, and you of the Governments working together, will in good season doubtless see that this situation shows an improvement akin to that in regard to arrears. The development has been remarkably upward over the period of the last three years. It is hoped that this year current payments will advance a little more. Certainly, both current payment and arrearage levels will meet the mark of last year.

On the matter of a functional budget, the members of this Conference will recall that with your guidance, this Organization has been in the very forefront of international organizations in putting into effect a functional budget. A functional budget is not something to be introduced easily. There are requirements in the accounting area and in other areas, and the experience of the Ministry of Health in Peru is a clear indication of the measure of the total job of employing a functional budget.

We have made advances. These are reflected in the estimates of the program and budget before you. We have made advances in the application of these ideas and these patterns to the work program of this Organization, and we shall, with time, move forward even further. We are at work now on the effort to computerize other elements of this activity and, with further computerization and mechanization, we shall achieve the ideal of a functional budget, not only this but also the accounting and

other elements of the total process which will make such a budget more deeply meaningful.

Reference is made to the matter of some variations as between estimate appropriation and actual expenditure pattern. As I believe all of you know, there is provision in the appropriation, and this will be a matter before you as you take up the appropriation for 1967, and it has been the pattern over many years, whereby with the appropriation resolution there is a statement that there can be a variation to the extent of the movement of 10 per cent out of any part to another part.

From Exhibit I we note that the movement out of Part III, Field and Other Programs, is modest indeed. It is not 10 per cent, 5 per cent, or even 1 per cent; it is under 1 per cent. And this movement is well within the legal requirement. Certainly, for all of you who are managers of vast enterprises in the public sector, a movement of less than 1 per cent from the appropriation figure for the major part of your activity is well within practical demonstration.

Mention has been made by the Delegate of the United States of America of the expenditures for Zone Offices, and of the expenditure pattern having been somewhat above that indicated in the estimate. This statement is true, and I have an enumeration of the amounts which were the basis for certain of these changes.

In Zone I, the budgeted figure was $65,000, the actual figure was $93,000 plus. One secretary was added, and there was the matter of salary increments. You will recall that within our United Nations system there are reviews, particularly for the local personnel at these stations, at a rate of at least once a year, which led to an incremental action on salaries here. In addition, a vehicle and additional office equipment were purchased.

In Zone II, a minor increase, $3,000 plus, from $71,000 to $74,000 occurred. This was required by the addition of a switchboard operator.

In Zone III, the premises were remodelled at a cost of $16,700 and one secretary was added. The original estimate was $88,000 and the resulting expenditure $109,000, or a total difference of about $21,000.

In Zone IV, the increase of $13,000, from $89,000 to $102,000, resulted from the purchase of a vehicle and increased personnel costs.

In Zone V, the increase of $53,000 was derived from the addition of an Assistant Zone Chief, an additional post made necessary by the expansion of activity and the overload of work on the Zone Chief, a remodelling cost of $18,000 for the Zone Offices, a vehicle, air conditioning, and office equipment.

In Zone VI, an increase of $55,000 plus, from $93,000 to $148,000, was made necessary by the expansion of staff, additional space costing a little over $25,000, remodelling costs of $20,000 and minor personnel services increases.

These are the specific reasons for the differences, as between expenditure and original estimates, for the offices.

I have not at hand the particulars of the increase in cost of $11,000 for the *Boletín*. There have been publication and other increases as a result of inflation, but I would rather submit this for the record when we have absolute identification of that fact.

These are the major points that have been mentioned.

PRESIDENT: * I recognize the Delegate of the United States of America.

Mr. CALDERWOOD (United States of America): I wish to thank Dr. Portner for his figures and for the explanation he gave of the differences as between the budget and expenditure figures. His adding machine is different from the one I used. He found a greater discrepancy in one place than I had.

I had a draft resolution that I intended to propose at the end of the discussion; however, it contains a typographical error, so I would like to have it run off and circulated at the next session.

PRESIDENT:* There is a slight problem of timing, since the presentation of the program and budget takes more than half an hour, and we have a commitment at 5:30 p.m. in connection with the address by Dr. Octavio Mongrut Muñoz, of the Delegation of Peru, who will speak on "Public Health in Economic and Social Development Programs (National Plan for the Advancement and Integration of the Indigenous Population)." Hence it might be well merely to hear what the Secretariat has to say and to add one or two other items of information.

Dr. SUTTER (Assistant Director, PASB):* I should like to remind those delegates who have registered to participate in the Technical Discussions that the opening session will be held tomorrow,

Friday, 30 September, at 9:00 a.m. in this room. The session will be opened by the President of the Conference, who will subsequently turn them over to the Moderator to be elected by the participants.

I should like to point out that members of delegations and observers for international organizations and nongovernmental organizations may take part in the Technical Discussions. All participants act in their personal capacity and do not represent either countries or institutions. If any delegate has not yet registered, he may do so at the end of the present session.

Allow me to announce at the same time, Mr. President, that although there will be no session of the Conference tomorrow morning, the General Committee will meet at 12:30 p.m. in the same room as usual.

Dr. QUIRÓS (Peru): * Mr. President, before the session is concluded I should like on my own behalf and on behalf of the Peruvian Delegation to express our most heartfelt condolences to the Delegation of Paraguay for the loss of Dr. Claudio Prieto, the distinguished Director of Public Health of his country, who was with us in our meetings last year. I would request the Conference to observe a minute's silence in his memory, and to transmit our sincerest condolences to Dr. Prieto's family.

The members present observed one minute's silence.

PRESIDENT: * May I remind you that we shall meet tomorrow at 9:00 a.m. in this same room. On Monday Dr. Stewart, Vice-President of the Conference, will preside over the sessions, and I myself shall again be with you on Tuesday.

The session rose at 5:12 p.m.

NINTH PLENARY SESSION

Monday, 3 October 1966, at 9:20 a.m.

President: Dr. WILLIAM H. STEWART (United States of America)

Fifth Report of the General Committee

PRESIDENT: The session is called to order. I will first ask Dr. Sutter to give the report of the General Committee meeting held following the eighth plenary session.

Dr. SUTTER (Assistant Director, PASB): * The General Committee held its fifth session on Friday, 30 September, at 12:00 noon, and reached the following decisions:

1. It approved the order of the day of the ninth plenary session, including the election of two Member Governments to the Executive Committee on the termination of the periods of office of Brazil and Mexico.

2. It indicated the order in which Committees I and II are to deal with the agenda items assigned to them, as follows: Committee I, Items 32, 33, 23, and 31; Committee II, Items 16, 17, 36, 22, 18, and 19.

3. It was also agreed that as the Committees prepare draft resolutions, activities will be combined through the holding of plenary sessions so that the resolutions of the Conference may be given final approval.

4. The 55th Meeting of the Executive Committee was provisionally scheduled for the afternoon of Friday, 7 October.

5. Notice was given of the ceremony which will take place on Monday, 3 October, at 11:45 a.m., for the presentation by the Chilean Government of a work of art for the headquarters building of the Pan American Health Organization.

Item 15: Financial Report of the Director and Report of the External Auditor for 1965 (*conclusion*)

PRESIDENT: We will now proceed with the concluding discussion on Item 15.[1]

Dr. PORTNER (Chief of Administration, PASB): A question was raised concerning the cost of the *Boletín* of PASB, $61,000 for 1965, as against the original estimate, made two years previously, of $50,000 for that activity.

The reasons for the rise were as follows: first, the accelerating inflationary trend accounted for

[1] *Official Document PAHO* **68.**

an increased publication cost of $4,800. Second, a supplement to the *Boletín* was issued, costing $4,700. The hiring of two persons to assist in the preparation of the *Boletín* and the supplement accounted for the remaining $11,000.

PRESIDENT: Thank you, Dr. Portner. Are there any further comments? If not, I shall ask the Delegate of the United States of America to read his Delegation's resolution on the item.

Mr. BYRNES (United States of America): The draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the Financial Report of the Director and the Report of the External Auditor for the fiscal year 1965 (*Official Document 68*); and

Considering that there has been an improvement in the financial situation of the Organization with regard to higher quota collections, increase in the level of the Working Capital Fund, and the creation of reserves for termination costs,

RESOLVES:

1. To approve the Financial Report of the Director and the Report of the External Auditor for 1965 (*Official Document 68*).

2. To again draw the attention of Governments to the need for quotas to be paid as soon as possible, within the course of each financial year, and especially to the need for plans for the payment of arrears within stipulated periods to be strictly adhered to.

3. To commend the prudent administration of the Director in maintaining budgetary expenditures within income, in building up the Working Capital Fund, and in creating reserves for termination costs.

PRESIDENT: Thank you. Is there any comment or discussion on the draft resolution?

Approved.[2]

Item 4: Amendments to the Rules of Procedure of the Pan American Sanitary Conference (*continuation*)

Report of the Working Party

PRESIDENT: The floor is now open for discussion of the report of the working party. I call upon the Delegate of Ecuador.

Dr. MONTALVÁN (Ecuador): * I have pleasure in presenting the report of the working party on Amendments to the Rules of Procedure of the Conference:

The working party on the Amendments to the Rules of Procedure of the Conference, composed by Dr. Alvaro Aguilar Peralta and Dr. Fernando Escalante Pradilla, of the Delegation of Costa Rica; Dr. Leoncio Andrade Corral and Dr. Juan Montalván Cornejo, of the Delegation of Ecuador; and Mr. Howard B. Calderwood, of the Delegation of the United States of America, met on 28 September. Dr. Alvaro Aguilar Peralta was elected Chairman and Dr. Juan Montalván Cornejo Rapporteur. After a lengthy examination of the proposals submitted, the working party unanimously agreed to recommend to the Conference:

1. That it approve the amendment proposed by the Delegation of the United States of America to Rule 46 of the Rules of Procedure, as worded in Document CSP17/21, Addendum I.[3]

2. That Rules 8, 13, 20, 43, and 54, to which the United States Delegation had likewise proposed amendments, be redrafted to read as follows:

Rule 8. The provisional agenda shall be sent to the Governments and to organizations entitled to representation at least 60 days prior to the meeting. Furthermore, the documents relating to the provisional agenda will, whenever possible, be sent to the Governments, with copies of such documents to the national health authorities, at least 30 days prior to the meeting.

Rule 13. The plenary sessions shall be devoted to matters of general interest and to the discussion and decision on the reports of such committees or working parties as may be established by the Conference.

Rule 20. The President, or a Vice-President while presiding, shall not participate in the discussions, but may vote in the event he is the sole delegate of his country.

Rule 43. A motion shall be considered adopted when it has received the affirmative vote of the majority of the Governments present and voting, except the Constitution or these Rules of Procedure otherwise provide. If the votes are equally divided, the motion shall again be put to a vote without further debate and if the votes are again equally divided, the motion will be regarded as not adopted.

3. That the wording of Rule 54 be maintained.

4. That the amendments proposed by the Secretariat to Rules 1 and 3 of the Rules of Procedure be approved in the form in which they appear in Document CSP17/21.

That Rules 2 and 22 be drafted as follows:

Rule 2. Where Article 7, paragraph B, of the Constitution applies, the Conference shall be held at the Headquarters of the Organization, if, for any reason, it cannot be held in the designated country.

Rule 22. In the event that at the opening of the Conference neither the President nor either of the Vice-Presidents elected at the preceding Conference is present, the President of the immediately preceding meeting of the Directing Council or, in his absence, the Chairman of the Executive Committee, shall preside. If the Chairman of the Executive Committee is not present and if the meeting is held at Headquarters, a President *ad interior* shall be selected by lot from among the heads of delegations, and if the meeting is held elsewhere than at Headquarters,

[2] Resolution VI. *Official Document PAHO* 74, 62.

[3] Mimeographed document.

the head of the delegation of the Host Country shall preside.

PRESIDENT: I call upon the Delegate of the United States of America.

Mr. BYRNES (United States of America): The English text of proposed Rules 13 is slightly garbled. I think it contains perhaps an unnecessary word, which I am sure the Secretariat would wish to delete.

PRESIDENT: Thank you, Mr. Byrnes. I call upon the Delegate of Chile.

Dr. VALDIVIESO (Chile): * I think that a small correction is called for in the Spanish version. The end of Rule 22 speaks of the "país huésped." This is confusing, since "huésped" means guest. The country in question is surely the host country.

Dr. MONTALVÁN (Ecuador): * The point raised by the Chief of the Chilean Delegation was considered very carefully by the working party. According to the dictionary of the Spanish Royal Academy, the word "huésped" means both the "person invited to stay in a house" and the "person who does the inviting," and we considered it fitting to use the word.

PRESIDENT: Does any other delegate wish to take the floor? I call upon the Delegate of the United States of America.

Mr. BYRNES (United States of America): I am sorry to interrupt again. In the last sentence of Rule 22, which we have just discussed, the English text reads *"ad interior,"* but *"ad interim"* is the phrase intended.

PRESIDENT: Are any other corrections of English or Spanish texts proposed? Does the Delegate of Chile accept the Spanish word we have discussed?

Dr. VALDIVIESO (Chile): * If, as the Delegate of Ecuador states, the word "huésped" can be used both for the guest and the host, it is impossible to determine who is to preside; hence I cannot see how the question is to be decided.

PRESIDENT: The Director suggests that we resolve the problem not by using the word "host" but the expression "in the country where the meeting is being held." Is this satisfactory? Are there any other comments?

Dr. FRAZER (United Kingdom): I am not a lawyer, I am a doctor, but the use of the word "shall" in a rule is generally regarded as mandatory. Proposed Rule 8 reads, "The provisional agenda shall be sent to the Governments . . .". That is an absolute direction, but the second sentence reads, "the documents will, whenever possible, be . . .". The two expressions seem to oppose each other. One cannot be mandatory and at the same time allow release.

PRESIDENT: I think you have a good point with regard to the English text.

Dr. FRAZER (United Kingdom): I do not know whether the same would apply in Spanish.

PRESIDENT: I believe we can correct that word. I call upon the Observer from Canada.

Dr. LAYTON (Observer, Canada): Simply to draw attention to what I think is a typographical omission from proposed Rule 43: the phrase ". . . the majority of the Governments present and voting, except the Constitution . . ." should read, I believe, ". . . the majority of the Governments present and voting, except *when* the Constitution . . .". The word "when" has been omitted.

PRESIDENT: Thank you. Are there any other comments? I take it, then, we are ready to vote on the report of the working party on the Amendments to the Rules of Procedure of the Conference.

Approved.[4]

Draft Resolution Submitted by the Delegation of Venezuela on the Publication of Country Reports

PRESIDENT: We now move to the discussion of the proposed resolution presented by the Delegation of Venezuela on the publication of the reports of the countries.

Dr. ORELLANA (Venezuela): * This draft resolution was submitted by my Delegation at the eighth plenary session,[5] but discussion on it was postponed until it had been distributed in Spanish and English. It has now been distributed, and I should like to ask the President whether I need to read the text again or whether it can be discussed at once.

PRESIDENT: I believe it would be preferable to read it again.

Dr. Orellana read the draft resolution.

PRESIDENT: Thank you. Are there any comments on the draft resolution? The Delegate of Brazil.

[4] See eleventh plenary session, p. 181.
[5] See p. 137.

Dr. DE BRITTO (Brazil): * This draft resolution seems to me very interesting, but I imagine that delegates have already made a summary of the data. Hence I feel that the reports should be published in full, exactly as they were presented and distributed to delegates.

PRESIDENT: I call upon the Delegate of Argentina.

Dr. MONDET (Argentina): * My Delegation regards the publications of the Pan American Sanitary Bureau as of the utmost value and importance. However, interesting though the Venezuelan proposal is, I would point out that we are all rather concerned about what the Bureau is spending, since it is quite a problem to collect quota payments. It seems to me that we should do something to keep down costs.

PRESIDENT: Are there any other comments? I call upon the Delegate of Panama.

Dr. CALVO (Panama): * I think it would be most useful if the Bureau were to publish a document summarizing the reports submitted by the Governments at this Conference. What is needed is an analytical document with the reports of Governments annexed, in summary form. I support the draft presented by the Delegate of Venezuela, but I would like to see it modified so as to provide that there would be a summary of each report together with an analysis by the Bureau. We already have the individual reports; and it would not be asking much more of the Bureau to produce a synthesis and an analytical study.

PRESIDENT: I call upon the Delegate of Uruguay.

Dr. PAREJA PIÑEYRO (Uruguay): * The draft resolution submitted by the Delegation of Venezuela admirably reflects the spirit which has guided us here when it states: "To recommend to the Director that he prepare a publication summarizing the data contained in these reports which will give a comprehensive picture of health conditions in the Hemisphere during the four-year period 1962–1965." Paragraph 2 makes it quite clear and explicit that the proposal is that this is a task requested of the Director in the sense that he make a summary of the material contained in the reports, in other words, not that he simply publish all the reports presented or the papers read, but that he attempt to summarize the comparative data to be presented to the countries. The essential point is the clear and precise interpretation of paragraph 2 of the draft resolution as submitted by the Delegation of Venezuela.

Dr. BONICHE VÁSQUEZ (Nicaragua): * I should like to reiterate the points made when the Venezuelan Delegation's proposal was first put forward. It seems to me to be asking too much of the Bureau to require it to produce extracts or summaries of the reports submitted by all the delegations. As I stated during my intervention yesterday, it would be more appropriate for each country to prepare a commentary on the reports as a whole. This would involve an undertaking by chiefs of delegations and their fellow-workers, or at any rate the members of technical councils in each country, to read them within a period of, say, four to six months.

Dr. FRAZER (United Kingdom): In our discussions in the technical field we did consider the question of economy, overlap, and duplication. We have before us the quadrennial report of the Director on *Health Conditions in the Americas, 1961–1964*,[6] and are now proposing—I agree not on quite the same basis—another quadrennial report for the period 1962–1965. One possible approach is that the presentation of the eventual four-year reports, the quadrennial reports, should in fact coincide with meetings of the Conference, so that, purely in the interest of economy, rather than duplication, the future report would cover from, say, 1966 to 1969. Then we should not have two four-year reports running simultaneously.

PRESIDENT: Thank you, Dr. Frazer. I call upon the Delegate of Honduras.

Dr. PERAZA (Honduras): * The Venezuelan Delegation's proposal seems to me admirable, but we have just been told that the *Boletín* of the PASB showed a deficit which meant investing a sum over and above what has been budgeted for. If the Bureau has sufficient funds to make a summary, all well and good, since a first-class digest of the reports would be of great value for our future work.

Each one of our countries has reported in greater or lesser detail on the work done over the last four years. I see no reason why within our ministries we should not make a summary and give our views on the reports presented by the various delegations, which would give us an over-all picture of the work accomplished. But I would agree to such a summary being made by the Bureau, if it has the funds.

[6] *Scientific Publication PAHO* **138.**

PRESIDENT: * I call upon the Delegate of Paraguay.

Dr. GONZÁLEZ TORRES (Paraguay): * I have here before me the complete reports of all the delegations of the Governments. I also have the Quadrennial Report, the Annual Report, and the document entitled *Facts on Progress,*[7] submitted by the Director; and here again I have the summary made by the various chiefs of delegations at previous sessions.

The Delegation of Venezuela now calls for yet another publication. I have no objection, provided it does not imply a vast outlay and there are funds available. The reports of the delegations do not, of course, follow a uniform pattern; each one concentrates on what it regards as most important. Hence it might be stipulated, to ensure the usefulness of the publication suggested by the Venezuelan Delegation, that the summary of the various reports should follow a standard model so as to facilitate reading and allow certain comparisons to be made.

PRESIDENT: I call upon the Delegate of the United States of America.

Mr. BYRNES (United States of America): It seems to us that since several delegations have quite rightly raised the matter of expense in the consideration of this particular item, and since we note that the proposed resolution makes provision for the transfer of funds for the purpose from other activities of PAHO, it might be appropriate, before final consideration is given the item, to ask the Secretariat to estimate the cost of carrying out the proposal, if endorsed by this body.

PRESIDENT: Thank you, Mr. Byrnes.

Dr. HORWITZ (Director, PASB): * We already presented to the General Committee an estimate of costs—only a rough estimate of course. It was drawn up on the following basis: first, the reports as presented by each minister or chief of delegation would be published, subject to approval by them of the final version; second, for each country basic data would be given covering a series of points regarded as indispensable for the interpretation of the contents of each report presented: characteristics indicative of the health situation, financing, etc. On such a basis, a publication more or less similar in format to the Annual Report would cost approximately US$8,000, with sufficient copies for adequate distribution throughout the ministries of health. The cost figure would of course vary according to the bulk of the final document produced as a result of the process I have just outlined.

PRESIDENT: I call upon the Delegate of Guatemala.

Dr. WALDHEIM (Guatemala): * I believe that the suggestion made by the Delegate of the United Kingdom is very much to the point. What he is suggesting is that the information submitted by the various countries should be made to coincide with a quadrennial report to be included in the publication *Health Conditions in the Americas* already issued by the Bureau. In other words, the next edition of this publication would embody the reports submitted by the various countries at the next Conference. It would mean adjusting the data of the publication so as to produce it in the four-year period 1966–1969.

This seems to me a satisfactory solution, since the sources of information on health conditions in the Americas over a given four-year period must surely be the same as those used by the delegations at each Conference. In addition, the publication in question might include an analysis of the material presented by the various countries.

PRESIDENT: I call upon the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * The last thing I wanted to do was to go over the ground I covered last week; but I thought it might be useful to make one or two new points in clarification of the spirit of the proposal. May I say first of all that this topic was discussed in the General Committee, where it was unanimously felt that the publication of such a summary would be useful and desirable.

With regard to the spirit of the proposal, as I said on an earlier occasion, the idea is that we should have a summarized compendium of the matter contained in the reports presented by the various countries at the present Conference. These do not altogether coincide with the Quadrennial Report of the Director nor with *Health Conditions in the Americas* and *Facts on Progress,* the latter being studies of a different kind.

It seems to me that a publication of the type proposed would be useful as giving a panoramic view of the development of the health situation in the Hemisphere over a four-year period, presented by the Governments themselves. Clearly it would never be as valuable as the whole series of reports we already possess. But as the Director

[7] *Miscellaneous Publication PAHO* **81.**

pointed out, if a synthesis of these activities is to reach certain circles such as schools of public health, medical schools, and similar institutions, it may well be that the proposed type of report would be the most suitable.

I should like to refer to one objection raised, namely the question of review of the contents of the summary by the individual countries. I am sure that PAHO would not publish such a summary without giving each of the countries an opportunity to check carefully the data referring to it, and even to proposed additions or make suggestions for their improvement.

PRESIDENT: I call upon the Delegate of Peru.

Dr. QUIRÓS (Peru): * I favor the proposal presented by the Delegation of the United States of America. We all know that such publications are costly, and as we have already observed in connection with the discussion of the Report of the External Auditor, funds amounting to some US$40,000 have already been transferred from the field programs to the Headquarters programs which cover these publications. I would therefore agree to a publication so long as it does not interfere with the program of work.

PRESIDENT: I call upon the Delegate of Brazil.

Dr. DE BRITTO (Brazil): * Having listened to all the various opinions, I am in favor of the proposal of the Delegation of Venezuela concerning the summary, namely that it should be reviewed before publication by the country concerned. We should thus get an accurate picture of what each of the countries regards as essential in the publication.

PRESIDENT: I call upon the Delegate of Ecuador.

Dr. ANDRADE (Ecuador): * A rather different point strikes me. First, perhaps the Secretariat could inform me whether the reports such as I had the honor to read on behalf of my Delegation form part of the proceedings. If this were so, the objection that the summary might ignore points which any one delegation had been anxious to emphasize would be eliminated, for the digest would be revised by each country before it gave approval to the text proposed by the Secretariat. Thus so long as the documents are included in the proceedings, and the summaries are revised by the various countries, I would have no objection whatever to the Venezuelan Delegation's proposal.

PRESIDENT: Are there any other comments? I recognize the Delegate of Argentina.

Dr. MONDET (Argentina): * I should like to point out that the economic side of this matter affects not only the US$8,000 mentioned, but also the whole policy of publications control.

The publication entitled *Health Conditions in the Americas* is a magnificent report in which the data on the various countries are admirably compared in a few pages.

My Delegation is somewhat concerned over the excessive number of publications, for the more documents we receive the fewer can be read. The desks of the delegates bear witness to the way in which PAHO has kept us supplied with data and figures.

I support the proposal that a publication should be prepared, each country receiving its own part to ensure that it agrees with its official statistics. However, since it is difficult to make such a summary, I suggest that the report on *Health Conditions in the Americas* already mentioned should be used as a model. I therefore beg to disagree with the view put forward.

PRESIDENT: I call upon the Observer from Canada.

Dr. LAYTON (Observer, Canada): I apologize for intervening at this time, but as a matter of wording, not substance, and to avoid ambiguity, I invite your attention to the reference in paragraph 2 to health conditions in the "Continent." Because of the dual nature of this Organization, I believe the word "Region" might perhaps be more expressive or representative of what is intended by the word "Continent."

PRESIDENT: Thank you, Dr. Layton. Are there any other comments?

Dr. HORWITZ (Director, PASB): * We shall of course carry out the Conference's wishes. Nevertheless, I beg respectfully to suggest that this matter might well be referred to the 56th Meeting of the Executive Committee, by which time the Secretariat would have ascertained the precise cost of the publication and a suggested form of presentation, possibly including the material for one country as a model. On this basis the Executive Committee might be instructed to make a comparative study of this and the other publications already at the disposal of the delegates and to decide whether to proceed with the scheme or not.

PRESIDENT: The Director has proposed that we submit the matter under discussion to the next meeting of the Executive Committee for a more definitive determination as to cost, format, and so on. I call upon the Delegate of the United States of America.

Mr. BYRNES (United States of America): That seems to us to be a most agreeable solution to the problem we face at the moment. But in suggesting that the Conference accept Dr. Horwitz' proposal, I would like to clarify that in my previous intervention I did not propose or suggest that funds be transferred from the program to cover this. I merely wished to call to the attention of the Conference that this was really what was being proposed in the resolution, and in asking for estimates, I wanted to be sure that this point is considered.

PRESIDENT: I call upon the Delegate of Chile.

Dr. VALDIVIESO (Chile): * I should merely like to state that I support the Director's proposal. I have listened carefully to all that has been said for and against, but I have in front of me this formidable mountain of documents, and I do not see how we can possibly study them all. Such publications always represent a very large expenditure; moreover I see that the Quadrennial Report virtually embodies what is being proposed, namely that the summary should constitute an over-all presentation of the health conditions throughout the Hemisphere during the four-year period. That is precisely what I have found it to be—a report covering the Hemisphere as a whole, not broken down by countries.

It might perhaps be desirable to make a modification in the traditional form in which the Quadrennial Report is prepared, but for the present I believe that the best way to solve this problem is to accept the Director's proposal.

PRESIDENT: I call upon the Delegate of Panama.

Dr. CALVO (Panama): * I should be glad for some clarification of the Director's proposal, explaining whether the decision to be taken by the Executive Committee would be final—since there appears to be a general feeling that this publication should be prepared—or whether the study made would be submitted to the Directing Council for consideration. This should be made clear here and now because if the matter is taken up in 1967, the publication will appear in 1968, and it will be largely a record of historical interest rather than a practical undertaking aimed at giving a picture of the health statistics and conditions as they really are throughout the Americas. In effect, it would cover what has been accomplished up to 1965, yet it would not be published until 1968.

PRESIDENT: I would ask the Director to answer the question of the Delegate of Panama.

Dr. HORWITZ (Director, PASB): * The Conference may delegate to the Executive Committee any responsibility it deems advisable. If the Conference so decides here and now, it can instruct the Executive Committee to study the matter in the terms proposed and settle the issue; in which case, if it decides in favor, the Secretariat would proceed with the publication.

Dr. ORELLANA (Venezuela): * I believe that the only effect of this would be to shift the problem from one level to another. As the Director has said, the Executive Committee has all the authority it needs to take a decision; but we must not forget that it is made up of only seven countries, whereas the Conference comprises all the Member Governments. With all due respect to the Director's proposal, I cannot help feeling it is the Conference that should decide whether or not the proposed document is worth while.

I might add that I have always regarded the publications of the Pan American Health Organization and the World Health Organization as the richest and most important source of information we possess in the Hemisphere in regard to health questions and the latest advances of health science throughout the world. Thus they represent a corpus of scientific knowledge and experience which would not otherwise be available to us. In my country I am a strong advocate of the dissemination of these publications, and I see to it that they are given the widest possible circulation, particularly to the medical schools.

Briefly, then, I would ask the delegates to consider whether we should take a final decision here in the Conference or accept the proposal that the matter be left to the Executive Committee.

PRESIDENT: Are there any other comments? We must decide whether we will refer this issue to the Executive Committee or determine it here. Are the delegates ready to vote on the proposal of the Director to refer this to the Executive Committee? I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * I should be grateful for some information as to the procedure to be followed. Are we to vote on the first proposal, or on the second as submitted by the Director of the Bureau?

PRESIDENT: Our vote will be, I believe, on the proposal that this be referred to the Executive Committee. I recognize the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * Even with this explanation, I am still in doubt. There are two proposals before us, one submitted by the Delegate of Venezuela, and the other by the Delegate of the United States of America, although not produced in written form, to the effect that the former should be referred to the Executive Committee. The Rules of Procedure presumably stipulate the procedure to be followed, namely whether we are to vote on the first or the second proposal.

PRESIDENT: The Delegate of Mexico has, I think, confirmed that some confusion exists in our minds on this matter. I would suggest that the Delegation of the United States of America prepare a draft so that we may then have the two proposals before us for consideration; further, that we postpone the discussion on this item until that is done. Is this agreeable to the delegates? I call upon the Delegate of Panama.

Dr. CALVO (Panama): * It seems to me that we have before us first of all a basic proposal, the original one submitted by the Venezuelan Delegation. After that, discussion arose as to who was to solve the problem—the Conference or the Executive Committee. The Delegation of the United States of America would have the Executive Committee take the decision, and the Venezuelan Delegation urges that the matter be settled by the Conference. The question therefore is which of the two proposals should be voted on first.

PRESIDENT: I call upon the Delegate of Paraguay.

Dr. GONZÁLEZ TORRES (Paraguay): * The Delegate of Panama has taken the words out of my mouth. There is a concrete proposal by Venezuela that a publication should be prepared. That being so there are only two possible decisions: either to publish or not to publish. In the latter case, that is the end of the matter; but if there is to be a publication we must determine first whether it should be a full-length publication or a summary, and second, who is to prepare it.

PRESIDENT: I call upon the Delegate of Costa Rica.

Dr. AGUILAR PERALTA (Costa Rica): * It would speed up this discussion if we took a vote first of all as to whether there should be a publication, and then decide what form it should take. I should like to ask for a vote on the essential point—whether or not the Conference agrees that there should be a publication.

PRESIDENT: Perhaps a way out of our dilemma would be to vote on whether there will or will not be a publication, as the Delegate of Costa Rica has suggested. After that, depending on the outcome, we can then go to the next step. Is this agreeable to the delegates? I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * I am sorry to take the floor once again; but is the final proposal on which we are going to vote the original Venezuelan proposal, or is it to be changed? If so, I would request that the amendment be produced in writing before the vote is taken.

PRESIDENT: It seems that we have before us three proposals, one of which has been drafted. That of the Delegate of Costa Rica will have to be decided first since we cannot take up the next two until we know whether there will or will not be a publication. Perhaps we could ask the Delegate of Costa Rica to present a draft resolution setting forth his proposal, and then proceed from there. I call upon the Delegate of Ecuador.

Dr. ANDRADE (Ecuador): * We are now involved in a question of procedure, but it can be clarified. We have been discussing a proposal by the Venezuelan Delegation which has called forth a number of arguments. A proposal by the Delegation of the United States of America, with which the suggestion made by the Director concurred, was that the matter should be referred to the Executive Committee for consideration of the financial aspects and assessment of the economic possibility or viability of the decision. So far the procedure seems to me perfectly clear.

An amendment to this draft has been proposed; whatever the wording, it can be regarded as an amended version of operative paragraph 2. Instead of reading: "To recommend to the Director that he prepare a publication summarizing the data contained," it would have to read: "To recommend to

the Executive Committee that it study the possibility of producing a summary publication containing the information in question, with an estimate of costs." When, as in the case in point, an amendment is proposed to a draft resolution already submitted, the proper parliamentary procedure is to vote on the amendment. If the amendment is approved, it is incorporated in the draft; if not, a vote is taken on the original resolution. Thus the procedure is quite clear. We are waiting to receive the draft of the amendment. Once it has been submitted it is put to the vote. If we accept it, it means that we have handed the matter over to the Executive Committee; if we do not accept it, the draft as a whole is put to the vote and it will be adopted or rejected according to what the majority decides.

PRESIDENT: Thank you, Dr. Andrade. Rule 36 provides: "Proposals shall be voted on in the order in which they are presented, except when the Conference decides to the contrary. Parts of a proposal or of an amendment shall be voted on separately if any delegate so requests."

Rule 37 provides: "When an amendment to a proposal is moved, the amendment shall be voted on first, and, if the amendment is adopted, the proposal as amended shall then be voted on." I believe this is what the Delegate of Ecuador was saying. I call upon the Delegate of Panama.

Dr. CALVO (Panama): * I should like to ask a question on a point of procedure. When an amendment is made to a proposal, the original proposer must surely agree to the amendment before it can be voted upon. In the present instance, the Venezuelan Delegation which presented the proposal has not accepted the amendment to refer the problem to the Executive Committee, since its wish is that the Conference should solve the matter.

PRESIDENT: I call upon the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * The purpose of my previous intervention was to urge the Conference to take a decision on this matter; but obviously I was not for a moment opposed to discussion of the other proposal, namely, that the matter should be referred to the Executive Committee. In the latter instance we are no longer concerned with the original proposal; this is a new proposal.

PRESIDENT: I think we are becoming mired in the mud of parliamentary procedure and need to find a way out. At the moment we have one written proposal to which several amendments have been suggested orally. I believe it is time to stop the discussion until these amendments have been drafted in a form that can be submitted to delegates. We could then follow parliamentary procedure and vote on them as they are presented, as the Rules prescribe. Is this satisfactory? Otherwise we may go on for the rest of the day trying to find our way out of this.

Each delegation that has suggested a change might do so by way of an amendment to this proposal, unless an entirely different proposal is being made, and such proposals would be discussed as soon as they are drafted.

I suggest that we put the item aside until this is done, taking it up later in the day. Is this satisfactory to everyone? I call upon the Delegate of Costa Rica.

Dr. AGUILAR PERALTA (Costa Rica): * In compliance with the President's request I have handed to the Conference officers an amendment to the Venezuelan proposal, urging that the Conference decide first of all whether or not to proceed with the publication. If it decides to do so, I would ask the Conference to decide likewise what form the publication should take, that is, through the Director's suggestion or through the procedure indicated by the Conference itself.

PRESIDENT: Thank you. I would suggest that other delegations which intend submitting amendments do so as soon as possible so that we may have them translated and distributed.

The session was recessed at 10:35 a.m. and resumed at 11:10 a.m.

Item 14: Election of Two Member Governments to the Executive Committee on the Termination of the Periods of Office of Brazil and Mexico

PRESIDENT: We will now consider Item 14 of the agenda (Document CSP17/2 and Annex [8]). I will call on the Secretary to read the relevant rules.

Dr. Sutter (Assistant Director, PASB) read Article 15 of the Constitution of PAHO and Rules 47 and 51 of the Rules of Procedure of the Conference.

[8] Mimeographed document.

PRESIDENT: Thank you. I would ask the Secretary to confirm that we have a quorum.

Dr. SUTTER (Assistant Director, PASB): * Delegates are requested to reply when their names are called. (*Roll-call is taken.*) Delegations of 25 countries are present: we therefore have a quorum.

PRESIDENT: Thank you, Dr. Sutter. Pursuant to Rule 47, I appoint the Delegates of Jamaica and Argentina as tellers for this election. Would those Delegates please come forward and join us here? I give the floor to the Delegate of Paraguay.

Dr. GONZÁLEZ TORRES (Paraguay): * I should like to know what is the principle underlying the election of members of the Executive Committee. At various times I have heard it said that geographic distribution was taken into account; yet in an organization where all the members are on an equal footing as far as their obligations and rights are concerned, and there are no differences of status or category, we find that over the past 20 years certain countries have been members of the Executive Committee three, four, and even five times, whereas others, such as Paraguay and Bolivia, have been members only once. Hence, bearing in mind the desirability of better geographic distribution, I propose my country as candidate for the vacancy left by Brazil. Paraguay is interested in being a member of the Committee, an honor and a responsibility of which it undertakes to be worthy. The fact that Paraguay has not been a member of the Executive Committee for so many years, and that it is the only country apart from Bolivia which has only once been a member, is in my opinion a strong argument, unless the President has better reasons and explanations to offer.

PRESIDENT: Perhaps the Director could inform us whether there are any guidelines, criteria, or tradition for the election of Committee members.

Dr. HORWITZ (Director, PASB): * The Rules applicable are those read by the Secretariat; thus the decision is entirely a matter for the Governing Bodies, to be taken in accordance with procedures already indicated. If the Governing Bodies wished to establish a regular rota for succession, they would have to reach agreement and establish procedural rules to that effect; but as of the present moment the Rules in force are those read here.

PRESIDENT: I call upon the Delegate of Costa Rica.

Dr. AGUILAR PERALTA (Costa Rica): * I would merely like to ask whether we are to vote for both countries on the same ballot slip.

PRESIDENT: The answer is yes. I call upon the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * My Delegation has pleasure in proposing Colombia as a candidate for one of the vacancies on the Executive Committee.

PRESIDENT: I call upon the Delegate of the Dominican Republic.

Dr. ORTEGA PEGUERO (Dominican Republic): * My country nominates the United States of America to fill one of the vacancies.

PRESIDENT: I call upon the Delegate of Chile.

Dr. VALDIVIESO (Chile): * Chile enthusiastically seconds the nominations of Colombia and the United States of America as candidates for the Executive Committee.

PRESIDENT: I call upon the Delegate of Costa Rica.

Dr. AGUILAR PERALTA (Costa Rica): * The Delegation of Costa Rica likewise supports the proposals of Venezuela and the Dominican Republic nominating Colombia and the United States of America as members of the Executive Committee.

PRESIDENT: I call upon the Delegate of Honduras.

Dr. PERAZA (Honduras): * The Delegation of Honduras likewise supports the proposal.

PRESIDENT: Are there any other nominations? We have nominations for Paraguay, Colombia, and the United States of America, and I will now ask delegates to mark their ballot papers. I am asked to remind you to write the names of the two countries and not those of the persons concerned.

Balloting then proceeded.

PRESIDENT: Will the Secretary please read the results of the voting?

Dr. SUTTER (Assistant Director, PASB): * The tellers have presented a special blank with their report which reads as follows: Number of ballots cast, 25; number of valid ballots, 24; number of void ballots, 0; number of blank ballots, 1; majority of ballots, 13; votes in favor of Colombia, 20; votes in favor of the United States of America, 20; votes in favor of Paraguay, 5; votes in favor of Honduras, 1; and votes in favor of Bolivia, 1.

PRESIDENT: Thank you, Dr. Sutter. Colombia and the United States of America have been elected as members of the Executive Committee. I thank the tellers very much. I call upon the Delegate of Colombia.

Dr. ORDÓÑEZ PLAJA (Colombia):* The Delegation of Colombia would like to thank the Conference most sincerely for electing Colombia to a seat on the Committee. We shall endeavor to carry out as faithfully as we can the obligations which this honor entails, bearing constantly in mind the fact that our goal must be the improvement of health conditions among the peoples of the Hemisphere.

PRESIDENT: I call upon the Delegate of the United States of America.

Mr. BYRNES (United States of America): Similarly, our Delegation would like to thank the Conference for reelecting the United States of America to the Executive Committee and pledge our best efforts to serving the Organization in every way we can during the next three years.

PRESIDENT: I call upon the Delegate of Bolivia.

Dr. ORMACHEA (Bolivia):* I merely wish to point out for the record that Bolivia was not a candidate for this office. In doing so I should like to thank the delegation which voted for my country.

PRESIDENT: I call upon the Delegate of Paraguay.

Dr. GONZÁLEZ TORRES (Paraguay): * I should like to thank most warmly the members who expressed confidence in my country by giving it their vote.

The session rose at 12:00 noon.

TENTH PLENARY SESSION

Monday, 3 October 1966, at 2:30 p.m.

President: Dr. WILLIAM H. STEWART (United States of America)

Item 13-A: Proposed Program and Budget of the Pan American Health Organization for 1967

Item 13-B: Proposed Program and Budget of the World Health Organization for the Region of the Americas for 1968

Item 13-C: Provisional Draft of the Proposed Program and Budget of the Pan American Health Organization for 1968

PRESIDENT: The session is called to order. We will now examine these items. I recognize Dr. Horwitz.

Dr. HORWITZ (Director, PASB):* Mr. President, with your permission I propose to present the program to which the three budgets you mention refer; and if you agree, when I have made some general and specific comments on the program, Dr. Portner, Chief of Administration, will deal with the structure of the budget as such, emphasizing the more significant aspects.

All my comments will be based on the contents of *Official Document 67*. It may be asked how this document came to be prepared so as to embody the formulation of the program proper and its three budgetary expressions. We are, of course, dealing with a budgetary cycle which covers five years. The task of preparing the documentation began two years ago, and the proposals made go as far as 1968.

One point which I feel should be borne in mind in discussing these documents in general or in particular is that the projected activities of the Bureau, as the Secretariat of PAHO and the Regional Office of WHO, must reflect not only the health problems of major significance in the Americas at the present time, but also the priorities established by Governments and the resolutions adopted by the World Health Assembly and the Directing Council, or the Conference as the case may be, of the Pan American Health Organization.

We have proceeded on this basis, and the relevant priorities have been laid down clearly in documents with which you are all familiar. These priorities were reiterated explicitly in the Task

Force on Health [1] held at Washington in 1963, and above all, in my opinion, they were made clear through the important statements made at this Conference, when each of the delegations gave an account of developments in its particular country during the four-year period and outlined projections for the immediate future.

These statements, combined with the experience which the Organization has been acquiring, make it clear that the Hemisphere is a series of distinct societies, with profound differences in tradition and cultural characteristics, and that naturally, these differences are reflected in their health problems. It should be recognized too that within each country, and thoughout the Hemisphere generally, development—however we may define the word—is an unstable factor; hence health problems assume different forms, within each country and between one country and another, which have to be borne in mind in drawing up a program for an international organization which acts as an advisory body and not as a substitute. In short, the diversification observed in the phenomena of development finds its expression in the quality and quantity of health schemes and is a reflection of national progress.

Against this background we have tried to produce a program which for a number of years now has been expressed in a functional or program budget. We take justifiable pride in the fact that the administrative and technical process of this international organization has been improving, and this is no easy matter. It has involved the problem of program budgeting, which has the fundamental advantage that it establishes a common language, and thus permits comparisons to be made in a time sense for each category of functions carried out or projected.

I would ask delegates to peruse Table 6 of *Official Document 67* (pp. 12–13). This is actually the master table showing the main features of our program budget. The classification we adopted was duly approved by the Directing Council. Generally speaking such classifications are conventional and merely constitute a mode of expression, a procedure enabling us to understand one another and facilitating comparison. But as I see it, this classification by categories and sub-categories corresponds to the well-known priorities in regard to the major health problems of the Hemisphere, as described here last week. We have established seven basic categories: four of them may be regarded as fundamentally connected with health problems and the other three with the work of an international body. The first four program classifications are Protection of Health, subdivided into Communicable Diseases and Environmental Health; Promotion of Health, which embraces both General Services and Specific Programs; Education and Training, with a series of subdivisions relating to the various teaching functions; Program Services, comprising activities servicing all of them, such as publications, publicity, library, etc. Then there are the services of Administrative Direction and Governing Bodies; and finally, the sector known as Increase to Assets, which is a basic financial item.

Under each of the categories and sub-categories we have specified what are definite programs, and I should like to point out that the policy which the Organization has followed in the past and is proposing to follow henceforward is precisely defined in respect of each category or sub-category. For each project the objectives and procedures followed or to be followed are clearly defined; and all this has been discussed and scrutinized with the senior health authorities in each country before being fed into the mold of this special program budgeting technique.

I do not propose to embark on an analysis of the document entitled "General Rules for Planning PAHO/WHO Programs" [2] which is in the possession of every Zone Office throughout the Hemisphere, and which is the basic text for the activities of the Organization's technical experts for the formulation of the annual work plan. But what I would like to do is to make some brief comments on certain salient points in this functional budget, which is the expression of the three-year plan we refer to when we compare the years 1966, 1967, and 1968. I should mention that for 1967 and 1968, once this Conference has adopted the relevant resolution, we are proposing to spend 38.8 per cent of all funds on protection of health; 33.5 per cent on promotion of health; 10.5 per cent on education and training; 4.2 per cent on program services; 10.2 per cent on administrative direction, but only 5.4 per cent on administrative services proper; 1.4 per cent will be spent on the Governing Bodies; and 1.4 per cent on increase to assets, whereas during the current year

[1] *Official Document PAHO* **51.**

[2] Mimeographed document.

only 0.4 per cent was spent under this last heading. For 1968, the figures as shown in the document are comparable, so that I think it would be fair to say that there is a reasonable balance between the main general functional areas of the Organization's program.

And now, Mr. President, let us look at some of the programs more closely. We are proposing that for 1967, 30.8 per cent of all funds should be spent on communicable diseases, and for 1968, 29.5 per cent. A prominent item for 1967 is of course the 16.9 per cent for malaria—a total sum of US$3,723,535—and 15.4 per cent for 1968. The malaria program will comprise 33 projects in 1967 and 29 in 1968. These are projects involving direct advisory services to the programs set up by the various countries, as in the case of education and training projects affecting or benefiting a number of countries, and a series of research programs, which I prefer to call operational research programs, connected with biological and administrative problems which experience has brought to our notice throughout the Hemisphere.

The main lines of the program, and the projects with their individual country targets, are reflected clearly in *Official Document 67,* along with the funds budgeted for each country project and for projects benefiting a number of countries simultaneously. All this is at the disposal of delegates, the relevant material having been forwarded to Governments nearly a month before the beginning of this Conference.

We are hoping that the progress made in 1966 to solve financial difficulties facing a number of countries through the United States Agency for International Development's (AID) policy of granting long-term low-interest loans on easy conditions to supplement the financing of the malaria programs will give a push to this program in 1967 and 1968. We hope that the drop in transmission based on the number of known cases of malaria—a mere 5 per cent in 1965—will be substantially greater in 1967 and 1968. I might mention also that in 1967 we included for the first time an item of $200,000 in the PAHO regular budget for malaria eradication, thereby reducing the generous voluntary contribution which AID has been making for the last 10 years. This move was properly examined by the XVI Meeting of the Directing Council. We made it this year as a start, and we hope to keep it up in the coming years with a view to gradually liquidating this contribution.

I believe that under this heading it may be worth while singling out the situation in regard to smallpox. As a result of the exhaustive debate in the aforementioned meeting of the Council and the great attention given to it by the Nineteenth World Health Assembly, the Pan American Health Organization appointed a group of advisers—eight of them if I remember rightly—who together with our Zone epidemiologists and experts from Headquarters visited practically all the Hemisphere and made an analysis of the requirements of Governments to speed up the process of smallpox eradication.

The relevant report will be presented during the Conference in Committee I. In it is assembled all the background material justifying this substantial increase in the pertinent budgetary items for 1967 and 1968. We are in fact proposing to spend 3.4 per cent of all funds or $746,204 for smallpox eradication in 1967 and approximately the same amount ($766,353) in 1968. This merely means continuing the policy followed this year when funds under the PAHO regular budget were used to make the amount allocated for smallpox higher than before, the funds being concentrated—as the Brazilian Minister of Health pointed out in respect of his country—on teams organized to extend systematic immunization to the widest possible sector of the population.

On the basis of these allocations, which are obviously not enough to cater for the immunization of all the countries exposed to the risk of the disease during the next four years, but may be sufficient to consolidate the progress made, I think there will be a very decided advance toward eliminating the disease throughout the Americas, a goal we regard as quite feasible.

In the same sub-category of communicable diseases, I would like to make special mention of zoonoses and foot-and-mouth disease. For the zoonoses campaign, which is carried on mainly through the Pan American Zoonoses Center, a grant of US$1.5 million was obtained from the United Nations Development Program and a start has been made with the spending of this amount, more or less at the rate of $300,000 a year, beginning with the current year. This brings the Organization's annual contributions to more than $800,000 for each of the years 1966, 1967, and 1968. The funds have been earmarked essentially for the campaigns against

rabies, bovine tuberculosis, hydatidosis, and brucellosis, and also for training, research, and advisory services in field programs. The Argentine Government too has increased its generous contribution to this project, adding to the existing installations of the Center at Azul magnificent laboratories, now being built in Buenos Aires. It also makes an annual grant of $50,000 for the general upkeep of the institute. We trust that in view of the tremendous economic significance of the four zoonoses mentioned above, the activities of the Center will crystalize gradually throughout the Hemisphere in more effective action programs than in the past.

Similarly, we are proposing an increased allocation for the Pan American Foot-and-Mouth Disease Center, situated near Rio de Janeiro. In this instance, the Brazilian Government has generously contributed land, buildings, and an annual grant of money.

During the present year, as will be reported at the appropriate time, the Inter-American Development Bank (IDB) and the World Bank have agreed to incorporate in their credit policy a fund for the foot-and-mouth disease campaign. For this purpose, the Hemisphere has been divided into five epizootiological areas. The various countries are familiar with the scheme, and detailed projects are being prepared for immunizing bovine stock against foot-and-mouth disease (with dead or live virus vaccine according to the circumstances) and some countries intend to submit loan applications to the IDB in that connection. This adds an important new dimension to the Center and we believe it will bring about the stabilization of the Center's finances.

Obviously the Center cannot continue to be exclusively dependent on the Program of Technical Cooperation of the Organization of American States; hence we have drawn up a proposal, based on the resolutions[3] of the Inter-American Economic and Social Council and on the decision taken at its Fourth Annual Meetings[4] held in Buenos Aires (March-April 1966), designed to give this institution proper stability. The logical course would be to try to obtain proportional contributions from all the Governments toward its activities, since it is not merely the countries where foot-and-mouth disease exists but equally those where it is not found at present but could break out that are likely to benefit.

Among the latter I would single out in particular the Central American countries and Panama. The mere mention of the way in which meat exports have increased in these countries is sufficient to show the tremendous effect which an outbreak of foot-and-mouth disease could have on their economy. Indeed, they are so acutely aware of this situation that at the II Latin American Meeting of the International Office of Epizootic Diseases (Caracas, Venezuela, 12–16 September 1966), attended by Colombia, Panama, the Central American countries, and Mexico, their Governments voted special funds for intensifying control activities along the frontier between Panama and Colombia. In due course I shall report to the Directing Council and the Executive Committee on the progress made with these negotiations.

In connection with the campaign against communicable diseases reference must also be made to pilot activities in regard to tuberculosis, leprosy, venereal diseases, and treponematosis. The purpose of these activities is to try out procedures for organizing and administering services, as well as the new pharmacopea and products for the destruction of vectors, or to carry out research on specific aspects of these processes. Particulars may be found in the descriptions of the various projects for individual countries or for groups of countries.

Sub-category B of the section Protection of Health deals with environmental sanitation. I do not think I need to dwell on the importance of this topic. It is merely to be hoped that the determined efforts of Governments and the contribution of the various communities to the improvement of their urban and rural sanitation will go on with the same vigor as over the last five years.

In our confidence that this will be so, we are proposing to allocate 8 per cent of the Community Water Supply Fund for *Aedes aegypti* eradication, the campaign against air pollution and contamination of rivers and streams, and other types of action designed to improve the physical environment.

For 1968, the funds budgeted for water supply amount to slightly over $1,000,000, or 4.4 per cent of the total budget. I am still convinced that the rural situation is politically, economically, sociologically, and biologically the most vital problem for the entire Hemisphere, and that the time must

[3] Resolution A-11/E63. *OAS Official Records* OEA, Ser. H/XII.5 (Eng.) pp. 20-21, and Resolution 1-E/64, *OAS Official Records* OEA, Ser H/XII.8 (Eng.), pp. 9–10.

[4] Resolution 34-M/66. *OAS Official Records* OEA, Ser. H/XII.11 (Eng.), pp. 70–71.

come when the highest authorities in the various countries will handle this, on the basis of the very valuable experience accumulated over the last three years. In Latin America all the conditions are forthcoming for a major campaign designed to improve the living conditions of the rural inhabitants by enlisting their active personal and financial participation.

Interpreting the thinking of the Organization's Governing Bodies, we propose to continue to explore this avenue, in the hope that so highly important a task will find expression more and more in large-scale achievements. We are not displeased with what has been done so far; let me now round off the foregoing with data as of October 1966.

By the latter part of 1966, 23 million rural inhabitants will have been supplied with water services; but by 1971, if we are to attain the goal set by the Charter of Punta del Este, namely to bring water to 50 per cent of the rural population, we shall have to serve another 39 million inhabitants to keep pace with the natural growth of the population. Moreover, whatever the average cost per inhabitant of bringing water to the rural areas, the vital importance of water makes an all-out joint effort at the highest political level by all the countries an absolute necessity.

I should mention that what we are proposing under the heading of sanitation for 1967, i.e., 10 general projects, 27 for water supply, 11 for the eradication of *Aedes aegypti,* and 2 relating to housing, will be done on a joint action basis. As for *Aedes aegypti* eradication we are organizing a conference which we hope will take place early in 1967, with a view to considering the best ways and means of disposing of this commitment undertaken by all the Governments in 1947. Experience with a number of phosphorated insecticides may prove to be of great value in certain countries where resistance of the vector has been reported. In addition, the conference will look into the danger which the existence of diseases transmitted by this same carrier in other parts of the world represents for the Hemisphere.

Under the heading of Promotion of Health we are proposing to spend 34.3 per cent of all funds, 17.2 per cent of them on general services, i.e., general public health, nursing, laboratory work, health education, statistics, and administrative methods.

With regard to general public health, we are proposing 68 projects in 1967, and 69 in 1968. These of course involve advisory services, at the national level and also at the regional or local level, connected with the various organizational and administrative activities carried out by ministries of health.

One brief word on the subject of advisory services in relation to administrative methods. It is clear, both from the statements of the Governing Bodies of our Organization and from those made with equal vehemence in other organizations of the Inter-American System, that Governments are convinced that there is a lack of balance between technical knowledge and its application which is due in part to the weakness of administrative structures and practices. In this connection our Organization has been furnishing advice on an increasing scale to a number of Governments in regard to all matters of financial procedures related to personnel, transport, supplies, accountancy, and others, with a view to modernizing methods and practices.

The subject has become much more important since Governments began to draw up national health plans, and here the demand is far higher than the Bureau can cope with. At any rate we are continuing to allocate an item which is very modest in relation to the needs—less than 1 per cent of all funds for 1967, and 1.1 per cent for 1968. I repeat that this direct advisory work embraces all techniques, both the general administrative activities of ministries and specific activities relating to environmental sanitation, antimalaria campaigns, etc. It also covers aspects of administration connected with the formulation of national health plans, e.g. program budgeting.

As regards specific programs, we are laying special stress on nutrition, for which we propose an allocation of 9.5 per cent of all funds for 1967, and 9.4 per cent for 1968. The funds will of course be concentrated on the basic activities of INCAP, which fortunately is now financially stable, thanks to a decision [5] taken by the XVI Meeting of the Directing Council. In addition, because of the great prestige it enjoys, it has been able to obtain grants for a number of highly important research projects from the National Institutes of Health of the Government of the United States of America and from several foundations. It is also expanding its educational activities: what can really be described as a true school of integrated nutrition has been set up

[5] Resolution XIV. *Official Document PAHO* **66,** 66.

which in my opinion—and a great many people agree with me—has few equals anywhere in the world.

Apart from all this, a reference laboratory is being organized within INCAP for the food products of the Central American Common Market, which represent more than 30 per cent of the list of products exchanged in Common Market trade. A consultant with wide experience in such matters has already been appointed to help with the organization. We are hoping that once each of the Governments of Central America and Panama has brought about the necessary measure of agreement between its ministry of economic affairs and its health ministry to put into practice the 400 food standards submitted by the Pan American Sanitary Bureau to the various Governments, and once the ministries of health have organized a special department for the registration, approval, and inspection of foodstuffs, the INCAP reference laboratory will perform a function of tremendous importance for the health and economy of the region.

In addition to the nutrition program proper, there are the applied nutrition programs which have begun to be evaluated during the current year. We hope that the evaluation will be completed in the course of next year and that the findings will be used to extend the benefits to wider sections of the population by means of family education establishments. Finally, the nutrition program is rounded off by research carried on in other countries outside Central America and Panama, and by a series of educational programs intended both for specialist medical practitioners and for nutrition specialists and dieticians.

I should like at the same time to say a word about medical care, a subject to which the 54th Meeting of the Executive Committee [6] gave particular attention, and which provoked criticism of the Bureau's action in reducing the original earmarkings for 1967 and 1968 by some $90,000. As stated under each project in the document, the item "medical care" is intended to cover direct services to countries; to put into practice the initial efforts to improve coordination between the medical services of social security institutions and those of ministries of health and other public and private institutions in the individual countries; and to promote the improvement of the organization and administration of medical care both through schools of public health and through medical schools. This is a fundamental aspect of total health, which explains why the allocation is constantly on the increase.

For education and training, we are proposing in 1967 to allot some 10.5 per cent of the total available funds, and 10.1 per cent in 1968. The funds will of course be spent mainly on the major branches of professional training, for assistance to public health education, for medical training, for nursing courses, and for professional and technical training in sanitation, veterinary medicine, odontology, and biostatistics.

Under the heading of biostatistics we are including the first two programs aimed at the analysis of the relationship between health and population dynamics: training of professional workers to organize population dynamics centers in the various countries, and studies on population problems with a view to compiling the necessary data to enable Governments which so desire to take political measures to cope with this problem. The first two courses are already under way. The first is being given this year at the University of Chile, and a similar one will be started shortly at the School of Hygiene and Public Health of the University of São Paulo. We are hoping that other universities will adopt similar measures in the future.

To service these various program activities, 4.2 per cent of the total budget has been earmarked for 1967, and 4.4 per cent for 1968. Since administrative services, as already pointed out, represent 5.4 and 5.5 per cent of all funds, general expenses—wrongly calculated in my opinion—are given as between 3.5 and 3.6 per cent. All in all, 426 projects have been scheduled for 1967, and funds are allocated for those activities which cannot be carried out by the Organization's permanent staff. But if in addition to the projects already mentioned we reckon a series of activities for which there are no special allocations, the total number of projects amounts to 480. The number scheduled for 1968 is 426, and the total volume is more or less the same. The proposed distribution of personnel to carry out this work is as shown in Table 7 (p. 14). Perhaps you would care to take a quick glance at it.

For 1967 we are proposing 619 professional posts, 531 local staff posts, and 973 consultant months, i.e., short-term consultant posts. This latter system is being used more and more, and as far as I can

[6] *Official Document PAHO* **73**, 28 and 30–31.

discover, Governments find it satisfactory; it means that the services of highly specialized persons can be enlisted to deal with very specific problems within a particular project or program. For 1968, the figures rise slightly, as can be seen from this same Table 7.

In a very general way, Mr. President, and without prejudice to the structural analysis which with your permission Dr. Portner will be making in a moment, I should like to refer briefly to Table 1 (p. 6), where the allocation of all funds for the years 1966, 1967, and 1968 is compared. I want to point out that for the Pan American Health Organization we are proposing between 1966 and 1967 a 2 per cent increase in the over-all funds, and for the PAHO regular budget, which is the first item to be discussed by this Conference, we propose an increase of 12.8 per cent.

The following points should be borne in mind. In the first place, the $200,000 from the voluntary contribution for malaria which according to the instructions given us we are incorporating in the regular budget, represents approximately 2 per cent of the total regular budget of the Pan American Health Organization.

Second, the fact that the cost of living is rising throughout the Hemisphere is a phenomenon common to all the countries, especially in the large towns. This is reflected in the Organization's general expenditures—on rents, telephones and cables, transport, correspondence, etc. All these items, we feel, are likely to amount to something like 5 percent and will probably continue to rise in the years to come.

Taking these two factors into account, what we are proposing as an increase in the programs proper is not more than about 6 to 6.5 per cent of the regular budget of the Pan American Health Organization, a figure which, considering the demand to which I shall refer in a moment, I feel is relatively small.

With regard to the World Health Organization, as can be seen from the table in question, the regular budget for 1967 shows an increase of 22.8 per cent over 1966; but we have to remember the tremendous increase in the allocations for smallpox eradication, as pointed out in the footnote to Table 1, and also the fact that the projects requested of the Organization exceed its capacity. This can be seen clearly in Annex 7 (p. 258), which gives a list of projects requested by Governments but not included within program and budget estimates for 1968 by subject and major expense item.

The projects representing the part of the program over and above the amount budgeted for and hence included in the document we have the honor to present today are marked with an asterisk. But I would ask you, gentlemen, to be good enough to glance at the final column on page 263, showing the total for these projects. The total sum is $4,417,275, or nearly 25 per cent of the total funds which the Bureau would like to spend in 1967 and 1968. In other words this has been an exercise in construction, guided of course by the natural anxiety on the part of the Secretariat to achieve progress in interpreting the repeated votes of confidence and the wishes expressed by Governments—something of which we are very proud.

And now, Mr. President, with your permission, Dr. Portner will explain the details of the structure of the three budgets relating to the programs I have mentioned.

Dr. Portner (Chief of Administration, PASB): The document before you represents an effort of many years under the direction of this and the other Governing Bodies of the Organization which have worked with you to make our budgetary program a model for other international organizations. We have been deeply conscious of the wishes of the Governments of the Organization, as well as of the developments the world over in programming and budgeting which, in a process of rapid development, have been making the budget process a better tool for management and a guide to better understanding by the Governments of this Organization.

We have been sensitive to the experiences of one Government in planning, programming, and budgeting systems which have been given rather wide publicity and on which we have had many discussions. We are also deeply aware of the work of the well-renowned Committee of Fourteen of the United Nations which has only recently finished its work and has come forth with a report on the latest development in the field of budget practice and the management of the fiscal affairs of agencies in the United Nations system.

We feel that in the endeavor within the Organization and also with some of the Governments in connection with administrative methods work where program budgets and program accounting have been developed, we have gone far in meeting the goals set by the Committee of Fourteen and in the general

effort on the preparation of budget estimates. The one before you, the only written indication of the process, is evidence of this movement forward in the program and budget field.

This book, in effect, is a double budget. First, it is a representation of program budgeting and the review by the Director was a review of the program by its major elements and thereunder by subelements of the program.

The first section of *Official Document 67* is related to program budgeting. The tables to which reference has been made are, in effect, program tables, supported by many pages of narrative, by major program headings, and by program and subprogram breakdown. In addition, in the last pages of the document there is an even more definitive listing of the various programs in detail, project by project, under program titles.

If delegates will refer to Annex 3 they will find a definitive breakdown by program and by projects thereunder.

This approach by program is the basis for a common appreciation and serves as a basis for study by subject matter. The last half of the document follows traditional lines but offers information which is absolutely necessary: (1) to give details of the various appropriation parts and (2) as a representation of the various elements under these parts.

The several parts refer to Part I, Organizational Meetings; Part II, Headquarters; Part III, Field and Other Programs; Part IV, Special Fund for Health Promotion, in connection with W.K. Kellogg loans related in turn to the building in which you are meeting today; and Part V, Increase to Assets.

The pages that follow contain infinite details on the attribution of elements under these major part headings. You will note, and this is especially relevant in this section, that there is a pattern of multifunding, the most important of which were mentioned by the Director. There are 12 general funds mentioned here. A number of them, such as the all inclusive PAHO grant category, are really a complex of many individual funds.

This, then, is the pattern. At the conclusion of the book there are seven annexes giving a view, from various approaches, of the material in this publication.

On this total budget, the Conference is called upon to take three actions. First, to take appropriation action on the PAHO regular budget for 1967; second, to make a recommendation to the Director-General of WHO on the 1968 program of WHO funds for the Region of the Americas; third, to take note of the provisional draft of the proposed PAHO program for 1968. These are the three basic activities before this group on which resolutions should be taken.

As to the dimension of the program for 1967, it is in totality a little over $22,000,000. For 1968 it is within the $20,000,000 range, being $22,867,266, or slightly higher than 3 per cent over the 1967 figure.

This particular budget is based on a pattern that has developed throughout the years in this administration. The guide to action has been an endeavor to move an even greater portion of the budget into the program work, as set out in Part III. You will note from the summary which precedes Part I that, of the $22,026,824 for the total program, $17,278,410 are devoted to the field program.

The proposed expenditure for the Headquarters activity is $3,879,489, or slightly more than 16 per cent, on a balanced program, compared with the range of slightly more than 80 per cent for Parts I, III, IV, and V, to which a further 1 per cent plus is added to arrive at the total for the budget. The pattern for 1968 continues to follow this general allocation of funds.

In addition, the pattern by object of expenditure is indicated in Table 5, personnel costs, for instance, being of the order of 65 and 66 plus per cent of the total budget for 1967 and 1968.

There are also indications of the expenditure for duty travel, fellowships, seminars, supplies and equipment, grants, and others, to give a view, by major object of expenditure, of this particular budget.

This, then, is the balance in dollar terms. Reference has been made to the balance by program of personnel. There is a summary in Annex 2, of the post allocation by parts of the budget, which reconfirms the relative importance given to Headquarters as compared to the field program. Taking into account the two major categories, you will note that the figures are: for 1967, 237 for Headquarters and 896 for the field; and for 1968, 244 Headquarters and 904 field. This is the balance between the two, as shown by postings.

This is the general situation, the background that will serve so that this group may take the first action, i.e., a decision on the PAHO regular budget. By referring to Table 1 entitled "Pan American Health Organization," you will note that the pro-

posal for 1967 for the PAHO regular budget is of the order of $9,115,680, an increase of 12.8 per cent. I believe it well that the meaning of this increase be reiterated in terms of dollars.

First, the increase of slightly over one million dollars includes in it malaria projects to a total cost of $200,000, such projects being transferred out of the Special Malaria Fund costing pattern to the PAHO regular budget, in keeping with the policy of including over the years a greater portion of the malaria activity under this budget.

In addition, this figure includes an additional cost of $260,000 for personnel services resulting from the wage increase for professional staff introduced in the United Nations common system and subsequently in PAHO effective as of 1 January 1966.

Further, as the Director said in his presentation, there has been an inflation, and an upward trend in the cost of services, supplies, and materials, which has been even more rapid than we had counted on in our prudent indications when preparing the estimates. The erosion of our budget is evident in this particular fact.

These, then, are items which are having an impact on the budget, and which cut deeply into the real increase in our program. We have sought, under your guidance over the years, a pattern of increase of something of the order of 5–6 per cent. It seems evident at this particular juncture that the reality for 1967 will be something under that figure.

Now, where are the increases that make this total for the PAHO regular budget greater by $1,035,680 in 1967 than in 1966? You will note, by referring to page 130 of the document, an effective decrease is shown in Part I. This is basically the result of the fact that in 1967 we shall have a Directing Council meeting. These meetings have, over the years, been considerably less expensive than that of conducting the Conference. In 1966 we have a Conference. Accordingly, the estimate for this particular part of the budget for the coming year is down.

In Part II (Headquarters) you will note an increase of $169,625, from $2,363,818 in 1966 to $2,533,433 in 1967. Some additional posts make up a modest portion of the total. Four new posts are included in the estimate and one post is deleted. These four posts cover two in a new organizational Office of Health and Population Dynamics: the head of that Office and a secretarial assistant; and two aides in the Headquarters administrative establishment; a property services clerk and a chauffeur. The post deleted is a post of an information officer, P-2 grade. The increase for this part, then, is $169,625, the greater portion of which comes from the normal increases in salaries of staff. This Organization, as do all the organizations in the United Nations system, follows the pattern of within-grade increases annually, on the basis of efficient performance.

The major increase is in Part III under the PAHO regular budget. Delegates will note that for 1966 the total was $5,892,272. For 1967 the total is $6,053,759. The increase is found in the projects that served as a basis for the Director's discussion of the program. Herein is the major increase. As has been traditional in our Organization, the references the Director makes to the developing balance of the program give an indication of where the major portion of the increase for the PAHO budget for 1967 will be allocated.

In Table 1 reference is made to the Special Fund for Health Promotion. There is no change in this item. The $250,000 which have been the pattern since the enlarged loan was made by the W.K. Kellogg Foundation, is continued for still another year.

Under Increase to Assets you will note a greater sum for 1967. This is the increase of $300,000 per annum authorized by the Governing Bodies to raise the amount of the Working Capital Fund. The sum for 1966, as you will note, is $73,860. The reason for this figure is that a portion of these monies is utilized to meet the increased cost of salaries resulting from the increase effective as of 1 January 1966.

These, then, are the changes in dollar terms in the PAHO regular budget for 1967; post changes, plus 3; a net of plus 3 at Headquarters; and an increase over 1966 of $1,035,680.

In this volume, there is before the group a draft appropriation resolution. We shall be happy to answer any questions of detail on this particular section. We can either continue now with the next two items or stop at this point to consider this item further.

PRESIDENT: I should like to give the floor at this time to Dr. Ferreira, the Chairman of the Executive Committee.

Dr. FERREIRA (Chairman, Executive Committee):* First and foremost, allow me to thank you, gentlemen, for the unanimous approval of the report, and on behalf of my colleagues in the Committee

to express our thanks for the flattering reception given to the report.

The explanations by the Director and by Dr. Portner should make it possible for delegates to reach a decision concerning the approval of the budget and the programs; but I would point out that the Executive Committee is the body responsible for submitting the budget and the programs to detailed scrutiny, thus giving the Conference representation through one of its own subsidiary organs on what one might call a select committee of the Conference.

This matter was studied in 1966 at the 54th Executive Committee Meeting, and the outcome was reported in Document CSP17/23,[7] already read at the present Conference, embodying the Executive Committee's recommendation that the budget be approved. *Official Document 71,* now under consideration, likewise contains the resolutions adopted by the Executive Committee at its 54th Meeting.

However, Mr. President and gentlemen, I would merely remind you that when those of us who are ministers or officials responsible for the administration of the institutions concerned with the conduct of health campaigns in our various countries request increases in our budgets, we do so as a matter of principle. I do not imagine there is anyone here present who has ever asked for a reduction in the funds allocated for such purposes in the national budget. But what happens is that when we attend meetings of the Pan American Health Organization, we are as a rule given instructions not to increase the quota contributions. This is an old story; it invariably causes difficulties and calls forth recommendations that any increase in international expenditures should be restrained and examined with the utmost care.

The delegates here present are no strangers to national budgets. They are familiar with every detail of the situation in their particular countries; but I am wondering—just as it were thinking aloud—what is the ratio or percentage of the individual contribution of each one of our countries to the international organs in relation to our national expenditures. I think this would give us a certain reassurance and encourage us in the struggle we have to face if this Organization is to fulfill its mission.

As we have seen, the proposed budget amounts to $9,115,680. This actually means that $22 million will be available, apart from the contributions of the Agency for International Development and the banks which are financing the various countries, as well as the increase in national budgets themselves. Thus, this Organization is a catalyzing agent, a body which acts as a stimulus, and it needs to grow and develop in keeping with its international role and responsibility.

In his excellent statement, the Director drew attention to the fact that the increase for 1967—the year with which we are concerned—was 12.8 per cent; but the overall increase is 6.6 per cent. This is an increase which surely cannot be regarded as capable of causing difficulties or complications for any of the contributor countries.

Moreover, the Executive Committee in Resolution I which you heard or which you read yourself in the Committee's report, proposes that the budget for 1967 recommended by the Committee, in other words recommended by the representatives whom you yourselves have entrusted with its detailed budget-by-budget scrutiny, should be approved in its total figure of $9,115,680. This is the resolution now before you for consideration, with the unanimous approval of the Executive Committee. At the present stage in the debate on the reports, the Representative of the Committee at this Conference, namely its Chairman, can only once again recommend the approval of the resolution as presented.

PRESIDENT: Thank you, Dr. Ferreira. I believe that after a short recess we should cover the next two items, 13-B and 13-C, so that we may have the entire picture before commencing the discussion.

The meeting was recessed at 4:03 p.m. and resumed at 4:35 p.m.

PRESIDENT: I call upon Dr. Portner to continue the presentation.

Dr. PORTNER (Chief of Administration, PASB): The second of the items to which the Conference should address itself in its review of the program and budget is the matter of the WHO budget for the Region of the Americas for 1968.

You will note by referring to Table 1 (p. 6) that the WHO funded program for 1968 as contained in this document totals $5,468,259. This is an increase of 8.7 per cent over the figure of $5,029,455 in 1967. By referring to page 130, under the various heads for the parts of the budget, delegates will have an

[7] See pp. 329–334.

indication of the 1968 movement over 1967 in the PAHO regular entries.

You will note that in Part I there is a minor increase of $4,000 plus for 1968 over 1967. This increase is essentially related to very incremented salaries for posts funded from the WHO regular budget under this part.

In Part II the amount proposed for 1968 is $65,000 over the figure for 1967, that is, $1,390,948 as compared to $1,325,831. This is for that portion of the staff and the Headquarters expenses funded from the WHO regular budget.

Included in this estimate is the cost of two positions: one an assistant in a Data Processing Unit at the grade G-8, and the other a second messenger in the service at Headquarters. In addition, in this part there are costs of salary increments for a post funded under WHO regular funds and also for that portion of the maintenance of the building funded from the WHO regular budget.

In Part III there is an increase in the WHO regular budget from $3,613,177 to $3,982,588. The pattern here is essentially in line with that described by the Director in his evaluation and review of the program allocations. There are no major deviations from the pattern described by him in those activities funded from the WHO regular budget.

In summary, there is a rise which you will note by reference to the detail, by fund, to the bottom of page 130, from $5,029,455 to $5,468,259 for the program in the Region of the Americas funded out of the WHO regular budget. This is an integral part of the total program described by the Director and in no fashion is isolated from the other activities. That concludes the review of the WHO regular budget.

There is also presented at this time for the attention of this Governing Body, the provisional draft of the program to be funded out of PAHO regular funds for 1968 (Item 13-C).

As you know, there will be a presentation giving the outline and the general balance of funds as between parts, for the program and budget for 1968 funded out of the PAHO regular budget. This particular presentation will be followed in the spring of 1967 by the usual intensive, detailed review by the Executive Committee, to which Dr. Ferreira referred in his comments a few minutes ago on the presentation of the PAHO 1967 regular budget before that Committee.

Following the action by the Executive Committee, the 1968 PAHO regular program and budget will be presented to the XVII Meeting of the Directing Council for appropriation action in the fall of 1967.

By referring again to the basic Table 1, delegates will note that a program and budget of the order of $10,190,000 is contained in *Official Document 67* for 1968. This is an increase over the 1967 budget of 11.8 per cent. Once again the major increase is in the program, with lesser increase in other parts of the budget.

On page 130 you will note that for Part I the PAHO regular budget calls for $233,494, an increase of $5,000 plus over the 1967 estimates. No new posts are added. Once again the increase is basically in the salary increment which is mandatory for posts in our Organization.

Under Part II there is an increase of $248,849 over the figure for 1967. The new estimate for 1968 is of the order of $2,780,000 plus as against $2,533,000 in 1967.

Included in this increase are several new posts at Headquarters. Mention has been made under the WHO regular budget of an assistant in the Data Processing Unit. It is planned to fund, out of the PAHO regular budget, the posts of the professional staff member at P-3 in that Unit.

In addition, a clerk has been added in the Budget and Finance Branch as well as a clerk in the Property Services Unit. This particular post is essentially a transfer of a post out of the Building Reserve Fund to the PAHO regular fund and does not, in the total organization, constitute a new post. A further addition is a secretary in the Personnel Office.

Also included in this part of the budget are increased costs for the maintenance of the headquarters building of $11,000 plus, and estimated increases in communication costs of $17,000, in various contractual services, and for temporary personnel.

In Part III, Field and Other Programs, you will note an increase of over $800,000 in the PAHO regular budget for 1968 over the 1967 figures—$6,600,000 plus compared to $5,800,000. There is virtually no change in the cost of the Zone Offices. The statutory costs for personnel services runs into some $10,000, and the remainder of the increase for the Zone Offices, $8,000 plus, represents the cost of the operation of the offices. Also included in the $820,000 is an item of some $15,000 for certain editorial services. The major portion of the increase, which is actually $785,000, or slightly under $800,000, is

for direct program activity in the projects. The balance in 1968 follows that indicated by the Director in his review of the program.

There are no changes in Parts IV, Special Fund for Health Promotion, and Part V, Increase to Assets.

In summary, then, for 1968 this advance notification, this provisional budget, notes an increase of 11 plus per cent—approximately $1,074,000 over the 1967 figure. The number of posts added at Headquarters is four. No posts are added at the Zone Offices. By all odds, the major portion of the increase of more than $800,000 out of a slightly over $1,000,000 is taking place directly in the field. The balance that we have had of about 15-17 per cent for Headquarters costs with approximately 80 per cent in the field program has been maintained once again, giving a continuation of the balance obtained in former years.

PRESIDENT: Thank you, Dr. Portner. You have now heard the presentation and discussion by Dr. Horwitz and by Dr. Portner of Items 13-A, B, and C. The floor is now open for questions, discussion, or comment. I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico):* Before we proceed to vote and approve the budgets submitted to us, I regret to inform the Conference that I have received instructions from my Government to abstain from voting. The Mexican Government considers that this constant increase in the budgets could in the long run constitute a danger for the Organization.

In spite of great shortages and restrictions, Mexico has been regularly cooperating with its annual contributions in a form which seems to me exemplary. But at the present time, we have to find approximately $1.5 million each year for international health programs. This amounts to 1.5 per cent of the annual budget of Mexico's Ministry of Health and Welfare. Obviously these figures have no real meaning for anyone who is not familiar with the problem and is unable to interpret them accurately in relation to the daily needs of the people.

What the Mexican Delegation most deplores is that the increases include further increments in the items relating to Headquarters. We have been given a very brief account of the uses to which these increases have been put or the purposes to which they are to be devoted; but I would merely like to recall what Dr. Portner said, namely that between 1966 and 1967 there is an increase of $180,000, in round figures, in the Headquarters budget. In the estimates for the following year there will be an additional increase, swelling still further the present disproportionate figures for expenditures at Headquarters as compared with field programs. I am not in any way questioning the justification of the budgets as presented to us; I merely wish to put on record my country's attitude toward these constant increases. In my personal opinion they should be scrutinized with the utmost care, so as not to raise issues and provoke reactions which would hardly promote the harmonious development of this Organization.

I have no doubt that the budgets are quite properly nothing more than the reflection of the desires of the peoples associated in this Organization to improve the health of the Hemisphere. However that may be, each of the delegations should bear in mind the situation of the other countries and not merely its own particular wishes. Similarly, the Organization itself, the Bureau, should bear carefully in mind the repercussions which these budgetary increases are likely to have.

For these reasons, Mr. President, I should be glad if the attitude of the Mexican delegation could be placed on record, namely its intention to abstain from voting and its expression of profound disquiet at the increases announced, especially those referring to expenditures at Headquarters.

PRESIDENT: Thank you, Dr. Martínez. I call upon the Delegate of Chile.

Dr. SANTA MARÍA (Chile):* The budget of this Organization is indeed likely to rise constantly and considerably, since the need of our countries for assistance, as the Director pointed out, is steadily growing and will continue to do so for many years to come. It may well be that the demand will always exceed our capacity to meet it since obviously these funds, which come from Governments, are subject to the limitations pointed out by the Delegate of Mexico. The problem is a complex one, and obviously it is one which faces every organization like ours, where common resources contributed by all have to be distributed in accordance with the needs of each country, which may well be different in their proportions from the amount contributed by each. This is inherent in the concept of our countries as a single entity. The field of health is a demonstration of the fact that we constitute a whole and render one another mutual assistance.

It is difficult to quantify in percentage terms whether in giving in order to receive we give more or less than we receive. Possibly the question should be tackled in another frame of mind—in a spirit of reciprocity. But it is obvious, as the Delegate of Mexico very pertinently pointed out, that topics such as the program and budget in which the means of implementation—the funds required to carry out projects—are specified, should be studied far more thoroughly.

I would suggest that in meetings such as this which imply much effort on the part of countries and of the Organization, the results might possibly be greater if from the first week of deliberations delegates were to set about studying documents of this kind, as a first basic task, even before listening to what has been done already and what it is proposed to do.

In one way or another—the legal advisers will tell us how—some change must be made in the procedure of this Conference and similar meetings, so that from the very date on which they come here, delegates would hold small meetings and make direct contacts, individually or in groups, with a view to studying this voluminous and very well presented *Official Document 67,* and thus becoming familiar not merely with the figures—for this purpose all that is needed is an adding machine to check them—but more important still, with their significance. It is very difficult in the course of a few hours, and moreover in the concentrated form in which it was outlined by the Director, or from the even more concentrated account given by Dr. Portner, to grasp this magnificent financial study in its entirety. Personally, and I stress that I am speaking only for myself, I should have preferred a different type of explanation than to be told that the Bureau is taking on one messenger more or one messenger less. These things are perfectly obvious, since the moment there is more activity there is bound to be more staff. An explanation of the reasons for increases of three or four posts paid from funds A or B would also have been preferable. I personally consider that it would have been much more interesting for us to discuss, for example, topics such as the following: in view of the needs of the Hemisphere, the time has come to earmark for medical care not the present 4 per cent, but a larger proportion of funds. It is clear, even though, for example, in my country the problems are not as pressing as they are in others, what should be allotted for the eradication of malaria or smallpox.

In short, Mr. President, it seems to me difficult at this moment to make an analysis of the various items, one by one, as it should be done. Let me take a single example: here I find a statement, and I consider it perfectly acceptable, to the effect that 9.5 per cent of this program budget is devoted to improving nutrition among our populations. But looking over the details I see that a very high percentage is concentrated in one single zone. Possibly the time has come to urge—and my Delegation might well do so—that what has been achieved in one country should be extended to others.

There is no doubt, as Dr. Ferreira carefully explained, that these matters are discussed thoroughly in the Executive Committee. But if the budget has to be presented in the Conference, and we merely rely on the good sense and thoroughness with which the Executive Committee has studied the matter, it might be argued that in some respects this debate is a mere formality, since we have no opportunity to give the document the detailed analysis it deserves.

To summarize, the Chilean Delegation would like to propose, in a statutory and adequate manner, that the Conference should spend more time analyzing the objectives and aims of each type of program, and keep the time devoted to receiving country reports down to a minimum. Instead of approving programs in financial terms, we would approve the principle upon which the funds are to be spent. For example, if malaria has top priority, the other needs of the countries concerned might warrant some reduction. Once this analytical study of what is most urgently needed for health in the Americas has been completed, the budgetary calculation is a matter of secondary importance.

My second proposal is that if there were an opportunity, this topic should be studied in greater detail, either in a plenary session, or if this is impossible, in a study group, as in the case of other items.

PRESIDENT: Thank you, Dr. Santa María. I give the floor to the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * Every time I have found myself in the present situation, where we are discussing the program and budget of the Organization, I have expressed two opinions which I venture to put before you once again. The first is our status as health specialists, which explains why

we are at this moment studying the Organization's program of activities. As specialists, and because we are aware of the magnitude and complexity of health problems in the Americas, we obviously must support the program and budget presented to us here. We know that no conceivable amount of money would be sufficient to cover all the needs of the Hemisphere; but we also know that within the existing limits, a program has gradually been built up which to the greatest possible extent meets the needs of each of the countries.

My second point I make as a representative of a country, and not as a technical expert. We are delegates of our Governments, and as such we find ourselves obliged to vote for a budget which increases in size every year. In this respect I have always been categorical in stating my concern, that is, the concern of my Government, about the constant increase in the budgets of the international organizations—and I do not mean only this one, but all the organizations to which countries have to contribute. I see no end to this soaring movement. The truth is that there is also no end to the progress to be made by our countries; and since these two notions are not incompatible, we must wherever possible promote progress both within each country and at the level of the organizations to which they belong.

And now, as a practical issue arising out of the document we are discussing, I should like to refer to one particular program which was considered at the 54th Meeting of the Executive Committee, when the Committee, in approving the resolution recommending that this Conference adopt the budget we have before us, also recommended that the Bureau should bear in mind the relevant discussions in that Committee.[8] I refer to the program on training of health inspectors, particularly in regard to control of foodstuffs as shown in the document on page 233.

This project was presented in the Executive Committee for implementation in 1967, but it was not approved. The Executive Committee then agreed to ask the Bureau to bear in mind in preparing the definitive program the discussions which had taken place in the Committee, and particular reference was made to two points: medical care programs and the training of food inspectors. I now propose to ask the Bureau to agree that as far as possible the program approved for 1968 under this budgetary head should be moved forward to 1967.

[8] Resolution I. *Official Document PAHO* **71**, 27–28.

PRESIDENT: Thank you. Does any other delegate wish to speak? I call upon the Delegate of the United States of America.

Dr. WILLIAMS (United States of America): The Delegation of the United States of America believes that the Director's budget as submitted to us in *Official Document 67*, and totalling for the fiscal year 1967 a little more than $9,000,000 would, in fact, provide an effective program for the satisfactory development of the Hemisphere-wide health programs, in which we all have a great deal of interest.

Furthermore, we have a great deal of confidence in the Pan American Sanitary Bureau. We know its past performance; we have confidence in its future; we know that the program has good leadership, and that it will continue developing satisfactorily in the future. We are also quite confident that this program will be a constructive one.

We should like to congratulate the Director and Dr. Portner and their staff for their presentation. The format of *Official Document 67* is good and has enabled us to carry out a satisfactory analysis of the program. We have listened with interest to some of the comments that Dr. Portner has made, in particular those referring to program budgeting. The Delegation to which he referred, which has been discussing program budgeting with him for the past several years is ours, as I am sure you all know. We have been extremely interested in this development and are very pleased to see Table 6 (pp. 12–13), giving a breakdown of the proposed program of the Organization. This has been very useful and has appeared in the last two or three annual program and budget documents. It would be useful if this information, which is available for all funds, were also to be made available in a separate table for the PAHO regular budget and perhaps included in future budget documents.

Also, we find that it would be convenient for us, in analyzing this document, to have available figures on expenditures, actual expenditures, for prior years. Admittedly, these data are available in the Financial Report, but it is a different document and it is sometimes difficult to go back and forth between one book and another to determine the funds budgeted and the funds expended on specific items. They are nonetheless there, but it would be useful if they could be combined.

There are several items of special note having to do essentially with program rather than with budget

per se, on which we should like to make a few comments.

The first concerns malaria eradication. We are delighted to see that the Director has budgeted $200,000 for the fiscal year 1967, and is proposing something like $403,000 for malaria eradication in 1968 in the PAHO regular budget. We hope that this trend will continue and that a steady increment of roughly this amount will continue to be added to future regular budgets. Our major reason for this desire is not so much one of economy so far as the voluntary contributions of the United States of America are concerned, but one of sound programming.

In our view, it is important that the Director have, and maintain, reasonable control over the funds with which he is expected to carry out an obligation so absolute and so far-reaching as the eradication of malaria from the Western Hemisphere. We feel that it is appropriate that the Director have more control over the funding and over the budgeting of funds for this purpose than can be achieved through any system of voluntary contributions.

Second, a word or so about tuberculosis. If I interpret the figures correctly, the funds from all sources, budgeted in 1966, were roughly $134,000; for 1967, $143,000; and for 1968, $150,000. This shows a very small progressive increase in an item which to begin with is, in our opinion, much too small. We also believe that tuberculosis is a Hemispheric problem of sufficient magnitude to deserve a higher priority within over-all budgetary ceilings than this represents. We would also prefer to see a greater proportion of the funds for tuberculosis appropriated out of the regular budget. Most of the funds budgeted which I have quoted are from sources other than the regular budget. In our opinion tuberculosis is a problem of great importance for the Hemisphere and should receive considerable attention by the Organization.

We are very pleased to note the increasing support in the regular budget from all sources for the Community Water Supply Program in the Hemisphere which rose from $175,000 in 1966 to $315,000 in 1967 and $400,000 in 1968. We have said many times, and it bears repeating, that we feel this is a program of fundamental importance and deserves a high priority within budgetary ceilings.

Similarly, we feel that the program for Hemisphere eradication of the *A. aegypti* mosquito is a very important one and that it should be continually supported. We have noted Dr. Horwitz' comments on the importance of this program insofar as its possible significance vis-a-vis the importation of diseases other than yellow fever, which may be of very considerable importance. As you know, Mr. President, fairly recently we experienced a very sharp outbreak of hemorrhagic dengue, or dengue fever, in Puerto Rico. We were fortunately spared the difficulty of an outbreak of the same disease on the mainland, for reasons we are unable to determine. The vector, as you know, is abundantly present in southern Florida and other portions of the United States of America. We are, as you also know, continuing our campaign to eradicate the urban vector of yellow fever within the country, and will reserve further comments until this item comes up on the agenda of the Conference.

However, we have noticed that there do not seem to be any funds budgeted for personnel in the headquarters office, and we are wondering if the necessary direction of the program can be adequately handled by the assignment of AMRO project staff, which appears to be the contemplated method for handling it. This merely is a question.

I should like to say just a word or so about the Foot-and-Mouth Disease Center in Rio de Janeiro. This is a program and a Center in which our Delegation has a great deal of interest, and which we feel is of vital importance to public health in the Hemisphere. The budget shows the funds budgeted for this activity in 1966 to be some $645,000; in 1967, $842,000, and in 1968, $926,000, which is a reasonable and gratifying rate of increase. Nonetheless, it does not reflect the apparent fact that we have been advised that the Organization of American States, which funds this activity, will presumably fund only some 75 per cent of the amount for 1966, and may well fund even less than that in 1967 and 1968.

The United States of America remains in full accord with the provisions of Resolution XX [9] of the XIII Pan American Sanitary Conference of 1950, part of which reads as follows: ". . . The action of the Bureau in preparing the project for the Organization of an Anti-Aftosa Center in the Americas, and to authorize the participation of the Bureau in the organization of such a Center until such time as some other Specialized Agency of the OAS is prepared to take full charge, on the condition that

[9] *PAHO Publication* 257, 18–19.

financing of the Center is provided by funds other than those of the Pan American Sanitary Bureau."

I should just like to state that the Government of the United States of America remains in full accord with the principle and with the words of that resolution. We feel, first, that the work of the Foot-and-Mouth Disease Center must not suffer during any period of refinancing which may be undertaken for the Center.

Second, we feel that the responsibility for arranging for the long-term financing for the Center is and should continue to be in the hands of the OAS, and we hope that the transition, if there is to be one, will not damage the work of the Center.

Going on very rapidly, I should like to say just a word or so about the Hemisphere program for the eradication of smallpox. We have noted that it is planned to transfer funds from or to use funds from the regular budget of the World Health Organization for the eradication of smallpox. It is proposed to use something of the order of $700,000 for the prosecution of the campaign in the Americas.

Also, we have noticed that the smallpox items in the PAHO regular budget have been eliminated. Therefore, it appears that there is to be complete dependence on the WHO budget. We feel that this is a matter for determination between the Director of PASB and the Director-General of WHO. We merely wish to note it and emphasize the fact that the important thing here is to be certain that we do not compromise the objective of Hemisphere-wide eradication. As long as we have the confidence and the assurance of the Director-General of WHO and of the Director of the Bureau that it will be done and they believe that the final objective will not suffer, we will feel relaxed about it.

A few words about nutrition. We are pleased to see that slightly over $2,000,000 have been budgeted in the total funds available for carrying out work in this field. In the past we have frequently stated our very strong feelings that nutrition is an important problem and one that deserves a high priority both by the World Health Organization and by the Pan American Health Organization. Our opinion has been, and continues to be, that the major nutrition problem which demands attention is that of protein-calorie malnutrition in preschool children; I am confident that this is an area to which the Organization proposes to assign a major priority within the program, and we would like to support it.

The final point I should like to make is related to the Working Capital Fund. *Official Document 67* proposes that $300,000 be added to the Fund, which now stands at the figure of some $2.8 million. We should merely like to observe that we wonder if this figure may not be sufficient particulary since the Organization has made some additional demands on the Working Capital Fund, without any apparent embarrassment of the status of the Fund. Specifically, $25,000 has been taken from it to add to the Emergency Revolving Fund and the Organization has used some $260,000, if we interpret the figures correctly, for the purpose of defraying the increased salary costs that went into effect for all United Nations employees in 1966.

We would therefore like to express our feeling that it may well be that the additional $300,000 may not be necessary and that we may be justified in not providing those additional funds. Before going any further on this item, however, we should like to ask Dr. Horwitz and Dr. Portner several questions and would be very grateful if they could give us some information on these points.

First, in order to pay the additional salary costs, would it not be possible, to take such additional costs out of operating economies in the budget of somewhere between eight and nine million dollars? Second, how many additional funds might or will be needed from the Working Capital Fund during the current fiscal year, 1966? Third, what will be the total cost to PAHO of the salary increases during the current fiscal year, 1966? Fourth, Dr. Horwitz and his staff very kindly provided us with a table showing the status of the Working Capital Fund at monthly intervals during the fiscal year 1965. We have noted that the lowest point to which this Fund decreased during that year was $953,000. We are wondering if you would be willing to provide us with some indication of this type of data for a reasonable period in the past, perhaps four or five years, and for the first six or seven months of 1966. What is the actual status of the Working Capital Fund? Is there any indication that the Fund has decreased to a point where it was unsafe or was too low at any time during the last five years?

Also, are there any other sources of funds that the Director and his staff have available to them, which may be used for emergencies such as non-payment of quotas by one of the large contributors, or late payment of quotas, which is probably the

main reason for the establishment of the Working Capital Fund?

This is essentially the essence of my remarks. Let me close by saying that we are uncertain as to what the effect of eliminating this relatively small item of $300,000 might be on the Working Capital Fund. We would very greatly appreciate the kind indulgence of Dr. Horwitz and his staff in answering these questions and we would like to reserve our judgment as to whether or not this seems to justify any further action. Thank you very much, Mr. President.

PRESIDENT: Thank you, Dr. Williams. Are there any other delegates that wish to speak at this moment? I call upon the Delegate of Paraguay.

Dr. MARTÍNEZ QUEVEDO (Paraguay): * I should like to make a comment in connection with *Official Document 67*. If we analyze the data for 1966, 1967, and 1968, we find a tendency for personnel costs to increase. For 1966 this item represented 69.6 per cent; for 1967 it is 70.6 per cent, and in 1968 it will be 72 per cent. It may be noted that the trend is upward, while the funds allocated for what might be called "real" activities are gradually decreasing—from 30.4 per cent to 29.4 per cent and to 28 per cent, for the same years. I feel that the proportions should be the other way round, in view of the state of development in technical matters which Latin America has gradually been achieving through the very work of promotion carried out by the Pan American Sanitary Bureau, and also in view of the fact that most of the countries already possess technicians sufficiently well trained to undertake the administration of their programs. Hence what is needed is more materials, more funds for supplies and equipment, fellowships, seminars, etc.

PRESIDENT: Thank you, Dr. Martínez Quevedo. I call upon the Delegate of France.

Dr. HYRONIMUS (France): * I have listened with great attention and interest to the statements made by the Director and by Dr. Portner, and I should like to congratulate the Director on his report and his presentation of it.

The points made by the Delegates of Mexico and Chile have much to commend them. As a country which contributes very substantially to the budgets of international organizations, France is naturally at times greatly concerned with the budgetary aspect of their activities. I trust that the Director will take note of the observations made by the Delegations of Mexico and Chile. As far as I am concerned, I would endorse many of the points made by my Chilean colleague. It does seem to me that in the future we may have to take more effective measures to prevent resources from being frittered away on matters that possibly would not yield very significant results. For example, there is still a great deal to be done in regard to nutrition and health education. I would urge that the studies made on these subjects should be borne in mind, as the Chilean Delegate has suggested, and I would like to see more time spent on examining certain parts of the budget, even if this means spending less time on statements on other items.

PRESIDENT: Thank you, Dr. Hyronimus. I call upon the Delegate of Brazil.

Dr. FERREIRA (Chairman, Executive Committee): * I find myself in a dilemma, Mr. President, for though Brazil has been replaced in the Executive Committee, I am still its Chairman. Hence I do not know whether I shall be speaking still as a member of the Executive Committee or as the Delegate of Brazil. I should like to refer to the point made by the Delegate of Chile, namely, that a more thorough study should be made of the program and budget, as already done in the World Health Organization through its Executive Board.

Meanwhile, the examination undertaken by the Executive Committee, as mentioned in its report, was certainly the best it could do to present the subject adequately to this Conference. To my way of thinking, the dilemma with which all the experts belonging to this Organization are faced is largely an insoluble problem, like worshipping both God and Mammon. When an individual belongs to the Executive Committee he acts as a member of the Organization and does whatever lies in his power, judging issues exclusively from the viewpoint of the Organization. But when he leaves the Committee and has to speak as a delegate, he finds that his hands are tied, since he is acting as a representative of his country.

I was very glad to hear Dr. Williams state that his Delegation would to all intents and purposes be approving the budget once a complete clarification was given of the funds budgeted. To conclude my statement—not merely as a member of the Executive Committee but also in my personal capacity—I would like to repeat our earnest hope that this

Organization may go forward more and more confidently, and not fall behind as a result of budgetary reductions. Indeed, if it were decided to reduce the budget by a given number of dollars, and the Conference were asked to indicate precisely which programs should be sacrificed, I think we should find ourselves in a very awkward situation.

PRESIDENT: Thank you, Dr. Ferreira. If no other delegate wishes to speak I will call on the Director to answer some of the questions or comment on some of the suggestions that have been made.

Dr. HORWITZ (Director, PASB): * Thank you, gentlemen, for your valuable observations on the program and budget we have had the honor to prepare.

I would like to refer to certain observations, especially concerning the program part, and specifically to the questions put by the Delegate of the United States of America concerning the budget and above all concerning the Working Capital Fund. Dr. Portner will furnish the appropriate replies. But first let me say for the benefit of the Delegate of Chile that it is the usual practice in the Directing Council, once the Chairman of the Executive Committee has made his statement and the Annual Report has been presented, to begin to discuss the proposed program and budget, the Financial Report of the Director, and the Report of the External Auditor, so that the practice mentioned by him actually does exist. It is true that at the same time the practice has been established at the Conference for delegates to report on the health situation in their countries over the four-year period. But in the meetings of the Directing Council the practice he suggests is the one actually followed.

It is our custom to try to send to Governments the official documents, plus the report on the exhaustive study made by the Executive Committee, at least a month in advance. Naturally, in some of the meetings of the Committee time is required—as much as four days—to scrutinize the proposed program and budget; at other times the scrutiny is completed in fewer days; but the custom does exist, and I think it is a satisfactory one and should be continued.

The Delegate of Venezuela has suggested that the program for the training of food inspectors should if possible be moved forward from 1968 to 1967; we ourselves feel that it is extremely important and will do our best to comply with this proposal, always providing that the Conference approves it.

The Delegate of Paraguay thought that the ratio as shown in Table 5 (p. 11) between the amount of funds allocated for personnel costs and those for the other purposes mentioned in that table: fellowship, supplies, and grants, might be inverted. Actually, the fact that the Bureau is spending some 65 per cent of its budget on personnel costs should not surprise any of the delegates, since this is normal in ministries of health anywhere; and unfortunately it is a practice which is bound to become more marked as time goes on, since wages and salaries are rising in every country and hence, naturally, in the international organizations. Indeed, I might point out that the professional staff of the international organizations have for many years received no increases in salaries other than their regular annual increment.

If we still consider that the most valuable resource of ministries of health and international health organizations is their staff, I venture to say, with all due respect to the comment made by Dr. Martínez Quevedo, that my own firm conviction is that this is a healthy sign, which incidentally is observable in all ministries of health, where round about two-thirds of the funds are spent on personnel and one-third on the activities which this personnel undertakes to carry out.

The Delegate of the United States of America made a series of comments on the program, and I wish to reiterate that provided we have in advance the blessing of the Conference and the Directing Council, we plan to continue to incorporate gradually, as and when it is feasible, an item of at least $200,000 in the PAHO regular budget until we have finally absorbed all the items received in the form of voluntary contributions, just as the World Health Organization itself did.

It is our intention to continue to review the malaria eradication program carefully so as to ascertain how far it is possible to effect savings on personnel, in all instances where Governments possess the necessary technical experts and do not find it desirable to enlist international help.

I entirely agree with Dr. Williams that without any doubt tuberculosis is still a highly important problem; nevertheless, I regard the progress made in Latin America over the last 15 years as extraordinary. The mortality rates are between 30 and 40 per 100,000 inhabitants. Following the technical

conferences on tuberculosis control held last year in Venezuela—incidentally some very valuable documents [10] were published on the subject—the Bureau is concentrating on what we call "verification areas," where we are advising certain Governments with a view to the application of modern techniques for tuberculosis control. It is hoped that the tests can be carried out with national resources; nevertheless, insofar as Governments request and specify this, we are proposing to increase these budgetary items.

I am grateful to Dr. Williams for his support of the sanitation program. As regards the *Aedes aegypti* eradication program, the practice of paying PASB officers out of specific funds is one we follow likewise for other projects; we regard the accumulation not only of salaries for technical personnel, but also of funds allocated for seminars, fellowships, and other activities relating to the program, as a budgetary mechanism which in no way inhibits action as such.

I thank Dr. Williams also for his support of the foot-and-mouth disease program. We have all heard, of course, that the Organization of American States is not in a position to provide the whole of the funds needed for the Pan American Foot-and-Mouth Disease Center. In budgetary matters, naturally, we live in a permanent state of illusion, and we are reluctant to accept hard facts until they thrust themselves upon us. But for this reason we are in close contact with the OAS with a view to seeking a common policy which would put the finances of the Center on a stable basis; and we think that the remaining months of this year and the whole of next year will give us time to reach an agreement for submission to all the Governments of the Hemisphere. We hope to be able to submit a formula to this effect at the 56th Meeting of the Executive Committee, so as to obtain the approval of the Governing Bodies. Meanwhile we have reduced the activities of the Center very slightly, without upsetting its essential work, since there are Governments which have requested advice with a view to formulating their proposals to the Inter-American Development Bank.

In the case of smallpox we receive financial assistance from WHO, and we are entirely in agreement with the Director-General. We nevertheless feel that if experience next year makes it clear that the funds allocated—over $700,000—are absorbed by the various Governments, it would be well to consider how to make up what is needed with the help of larger quota contributions either from WHO or from PAHO; in our opinion, before allocating further sums, a proposal should be tried out for investing $1.5 million over the next two years, so as to have the certainty, I repeat, that national funds have been spent.

Finally, I should also like to thank the Delegate of the United States of America for his support of the nutrition program. I agree of course with the Delegate of Chile that activities similar to those being carried out by the Institute of Nutrition of Central America and Panama should be undertaken in other areas of the Hemisphere. This ties in with our desire to evaluate the applied nutrition programs, so that in agreement with UNICEF and FAO, the benefits can be extended to larger numbers of children. It likewise ties in with our proposal to take the initial steps, in agreement with FAO, with a view to organizing in the Caribbean region a nutrition institute which would concern itself simultaneously with agricultural promotion and nutrition.

In conclusion, I would suggest that Dr. Portner might answer the questions put by the Delegate of the United States of America concerning the Working Capital Fund.

Dr. PORTNER (Chief of Administration, PASB): Over the years we have been preoccupied with the matter of the Working Capital Fund. There have been numerous discussions on the subject in the various meetings of the Governing Bodies.

Before you, in the Financial Report and Report of the External Auditor, there is an indication that that preoccupation has not ended. While we may note with satisfaction that we have attained 35.14 per cent of the appropriation figure at the end of last year with a holding of 2.8 millions in the Working Capital Fund, that in itself did not stay the preoccupation. You will observe first that on page 2 of the Financial Report there is indication that this matter is to be studied and that a recommendation on it will be given the Governing Bodies; second, on page 70 of the same Report, the very vigilant Mr. Brunskog, the External Auditor, commends the progress and the rise in the Working Capital Fund, yet does not set this aside because

[10] Published in Spanish in *Scientific Publication PAHO* **112.**

he indicates that this is a matter which will necessitate continuing attention.

The fact that we attained 35.14 per cent in the Working Capital Fund, in effect the highest figure percentage-wise since 1958, was important. But you will recall that the Financial Regulations state that the level of the Fund will be established periodically by the Directing Council. At its X Meeting, the Council established [11] the level at 60 per cent of the approved budget. Therefore we have not attained the golden day by some measure as yet.

More specifically on the questions asked by the Delegate of the United States of America: the Working Capital Fund is the resource on which we call to continue operating in PAHO regular fund matters, especially during the first six months of the year. You will recall that the pattern of quota payments to PAHO gives evidence year after year of only modest payments in the first six months of the year. If we attain 4 or 5 per cent of the appropriation figure granted in the first six months of the year, that is essentially a good performance. Accordingly, we need, in this resource, funds that will carry us through into month seven of any given year. This is the important period, the first half of July.

Now what has been the experience in the last two years? The Delegate of the United States of America gave indication of the situation in 1965; I shall refer to that and to the situation in the current year. Last year, at the end of June, we had more than $900,000 dollars. We were working then at a rate of expenditure of close to $600,000 a month. Furthermore, it is imperative, in an establishment such as this with operations throughout the Hemisphere, to have our finances at a number of points in the field. We need about a $500,000 to $600,000 in cash, which is really floating money, distributed throughout the Hemisphere. This is required at any given time in addition to the monies needed immediately for operations from this point on.

The $900,000 included the $600,000. We were therefore at the point of being $300,000 away from an effective red point in our accounts.

This year the situation is not markedly different if one looks at the statistics on finances, again through the June period. At the end of that month we had slightly over $1,000,000. We were working on a PAHO regular budget of a little over $8,000,000. Our rate of expenditure flattened out and our average per month is of the order of $660,000. We need a little more than $600,000 in floating money. Again, we would have been in difficult straits.

Over the years you have guided us, and we have been proud to follow, in a program of prudent financial management. We feel that it would be something less than prudent—and on this we are extraordinarily conservative—to get to the point where our balance in months five and six of the year is down to the point that we are almost out of the PAHO regular budget limits. This year we may save 35 per cent—we have still a number of months to go in the collection of quotas—but we may be fractionally higher. But if you will recall the review in the Financial Report, within the recent past, the movement over the years has been from as low as 23 plus per cent up to this high point of 35 per cent.

And so there is need for caution. Though one could say, in the philosophical absolute, that perhaps the $300,000 are not necessary, as a matter of practical administration it would seem imperative that we have this continued in the 1967 budget, and in due course report to the Governing Bodies on the recommendations that should be considered for this Fund in the future. I believe that covers the broad points raised.

Turning now to specific points and the matter of meeting the salary costs out of the operating activity, I think it is important to emphasize that, in the balance of PAHO funding, a great deal of the PAHO regular budget is for the established stations of the Organization. Therefore, to cut into the PAHO regular budget would both hurt the program and force heavy cuts in the funds for those stations as well.

These matters have been considered and you will recall that $260,000 were necessary for salary increases. We sought savings wherever we could, in lapses and delays and on some purchases, and in effect picked up some money out of these from the PAHO regular budget. We were forced to go to the Working Capital Fund for a little more than $200,000. This meant that we were conscious of the need for seeking, out of savings in the PAHO regular budget, what we possibly could. Again, prudent administration dictated this as the first course of action. We then fell back on the use of the Working Capital Fund for the remainder.

[11] Resolution VI. *Official Document PAHO* **22**, 17.

PRESIDENT: Thank you, Dr. Portner, I call upon the Delegate of the United States of America.

Dr. WILLIAMS (United States of America): One very brief question for Dr. Portner. Would it be correct to say that the appropriation of $300,000 for the Working Capital Fund will, in fact, do little more than reimburse the Working Capital Fund for the expenditures necessary to cover the increased salaries during 1966, so that the effective increase in the Working Capital Fund would be about $40,000?

Dr. PORTNER (Chief of Administration, PASB): The figure is slightly higher, but in essence that is true.

PRESIDENT: Does any other delegate wish to speak? Perhaps we can proceed with the vote. I call upon Dr. Ferreira.

Dr. FERREIRA (Chairman, Executive Committee): * I should explain that Rule 9 of the Rules of Procedure of the Executive Committee reads as follows: "The Executive Committee shall elect a Chairman and a Vice-Chairman, who shall hold office until their successors are elected. The election shall take place each year at the first Meeting of the Executive Committee following the election of its new Member Governments." This being so, I shall continue not as Delegate of Brazil but as Chairman of the Committee.

PRESIDENT: Thank you, Dr. Ferreira. I will ask the Secretary to read the resolution on Item 13-A.

Dr. SUTTER (Assistant Director, PASB): * The proposed allocations resolution is to be found on page 2 of both the Spanish and the English texts of *Official Document 67*. It reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE

RESOLVES:

1. To appropriate for the financial year 1967 an amount of $9,115,680 as follows:

Purpose of Appropriation	
Part I: Pan American Health Organization Organizational Meetings	$ 228,478
Part II: Pan American Health Organization Headquarters	2,533,443
Part III: Pan American Health Organization Field and Other Programs	5,803,759
Part IV: Pan American Health Organization Special Fund for Health Promotion	250,000
Part V: Pan American Health Organization Increase to Assets	300,000
Total—All Parts	$9,115,680

2. That the appropriation shall be financed from:

a. Assessments in respect to:	
i) Member Governments assessed under the scale adopted by the Council of the Organization of American States in accordance with Article 60 of the Pan American Sanitary Code	$8,920,756
ii) Jamaica (based on assessment of those Member Governments having comparable population size and per-capita income)	27,654
iii) Trinidad and Tobago (based on assessment of those Member Governments having comparable population size and per-capita income)	27,654
iv) France (Resolutions XV and XL of the V Meeting of the Directing Council)	14,832
v) Kingdom of the Netherlands (Resolutions XV and XL of the V Meeting of the Directing Council)	10,094
vi) United Kingdom (based on assessment of those Member Governments having comparable population size and per-capita income)	27,654
b. Miscellaneous income	87,036
Total	$9,115,680

3. That, in accordance with the Financial Regulations of the Organization, amounts not exceeding the appropriations noted under paragraph 1 shall be available for the payment of obligations incurred during the period 1 January to 31 December 1967, inclusive.

4. That the Director shall be authorized to transfer credits between parts of the budget, provided that such transfers of credits between parts as are made do not exceed 10 per cent of the part from which the credit is transferred. Transfers of credits between parts of the budget in excess of 10 per cent may be made with the concurrence of the Executive Committee. All transfers of budget credits shall be reported to the Directing Council.

PRESIDENT: I call upon the Delegate of the United States of America.

Dr. WILLIAMS (United States of America): If the Conference has no objection, I would request that we postpone a vote on this item perhaps until tomorrow morning, for this reason: our Delegation would very much like to be able to vote for this proposed budget because we believe that it is a constructive one and because, according to our technical judgment as public health men, that it is both desirable and needed.

As things stand at the moment, however, we are still somewhat uncertain about the Working Capital Fund question which we asked, and note that Dr. Portner left unanswered two or three of our ques-

tions. I am sure he has in mind providing us with the data that we asked for, but at the moment we do not have them at hand. It is, then, our hope that the explanation that he has agreed to provide us will give us the information we need, on which we can base a favorable vote on this budget. But of course we cannot be certain of that as things stand now.

Specifically, we would like information on, first, sources of emergency funds other than the Working Capital Fund; second, the five-year data on the status of the Working Capital Fund by month; and third, the total cost of the salary increases to the Pan American Health Organization. All of these were specific questions to which we have not as yet received an answer. Under those circumstances, we would appreciate it very much if the Conference were willing to postpone the voting until tomorrow morning, at which time we would hopefully have an opportunity to study the data which Dr. Portner would provide for us.

PRESIDENT: Thank you, Dr. Williams. Does any delegate wish to speak on the proposal of the Delegate of the United States of America to postpone the consideration of the resolution until tomorrow? I think that in view of the hour the voting will be postponed until tomorrow morning. I will ask the Secretary to read the resolution on Items 13-B and 13-C at this time, so that we can proceed in the morning with the votes on the three items.

Dr. SUTTER (Assistant Director, PASB): * The first draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the WHO Program of Technical Assistance expected to be financed under the United Nations Development Program, which appears in *Official Document 67* of the Pan American Health Organization;

Noting that in addition to projects requested by countries direct to the Inter-Agency Consultative Board of the United Nations Development Program there are regional projects which benefit countries throughout the Americas; and

Noting also that the percentage of health projects requested by Governments within the Program of Technical Assistance of the United Nations Development Program has continued to decrease,

RESOLVES:

1. To approve and support for submission to the United Nations Development Program Inter-Agency Consultative Board, the proposed regional projects for the biennium 1967–1968.

2. To urge that the Governments give full consideration to the importance of health activities in social and economic development, and that in the future they increase the proportion of health projects requested within the United Nations Development Program.

Dr. SUTTER (Assistant Director, PASB): * The next draft resolution, on Item 13-B, reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined *Official Document 67*, submitted by the Director of the Pan American Sanitary Bureau, which contains the Proposed Program and Budget of the World Health Organization for the Region of the Americas for 1968; and

Bearing in mind that the aforesaid Proposed Program and Budget is presented to the Conference as Regional Committee of the World Health Organization, for review and transmittal to the Director-General of that Organization, so that he may take it into consideration in the preparation of the proposed budget of WHO for 1968,

RESOLVES:

To approve the transmittal of the Proposed Program and Budget of the World Health Organization for the Region of the Americas for 1968, contained in *Official Document 67*, and to request the Regional Director to transmit it to the Director-General of that Organization so that he may take it into consideration when preparing the WHO budget for 1968.

Dr. SUTTER (Assistant Director, PASB): * Lastly, Mr. President, we have the following draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined *Official Document 67*, submitted by the Director of the Pan American Sanitary Bureau, which contains the provisional draft that is to constitute the basis for the preparation of the 1968 Proposed Program and Budget of the Pan American Health Organization, to be considered by the 56th Meeting of the Executive Committee and by the XVII Meeting of the Directing Council;

Recognizing that the provisional draft of the Proposed Program and Budget contains well-conceived and much-needed public health projects; and

Taking into account the recommendations and comments made by various delegations during the discussion of the provisional draft,

RESOLVES:

1. To take note of the provisional draft of the Proposed Program and Budget of the Pan American Health Organization for 1968 contained in *Official Document 67*.

2. To request that the Director, in preparing the Proposed Program and Budget for 1968 and in his consultations with Governments on this matter, give due consideration to the recommendations and comments made by the several delegations.

PRESIDENT: Thank you. The resolutions will be circulated and available to delegates so that we may proceed to the vote promptly in the morning.

Presentation of a Work of Art by the Government of Costa Rica

Dr. AGUILAR PERALTA (Costa Rica): * The Government of Costa Rica, on whose behalf I am speaking, is greatly honored to be able to donate the work of art you are about to see, a painting by the Costa Rican artist Carlos Poveda, here present. It is a figurative expressionist work entitled "El Débil." Poveda is 26 years of age and is self-taught. He has exhibited in both one-man shows and collective exhibitions, in Costa Rica and elsewhere. At the present time he is making preparations for an exhibition in New York. He won the National Painting Award in Costa Rica and a gold medal and honorable mention at the VIII Biennial in São Paulo.

The Government of Costa Rica is happy to demonstrate in this manner its appreciation of the work of the Organization, as well as its policy of encouraging the arts through different organizations.

The picture was unveiled.

Applause.

The session rose at 6:12 p.m.

ELEVENTH PLENARY SESSION

Tuesday, 4 October 1966, at 9:30 a.m.

President: Dr. WILLIAM H. STEWART (United States of America)

Item 13-A: Proposed Program and Budget of the Pan American Health Organization for 1967 (*conclusion*)

PRESIDENT: The session will please come to order. Is there any further discussion of the draft resolution relative to Item 13-A, which is to be found on page 2 of *Official Document 67*, and which the Secretary read for us at the conclusion of the tenth plenary session?[1] I call upon the Delegate of the United States of America.

Dr. WILLIAMS (United States of America): I should just like to say, on behalf of our Delegation, that after the tenth plenary session several members of the Delegation had the opportunity to meet with Dr. Portner and two other members of his staff, who very kindly stayed afterward to answer the questions that we had in mind.

We are very pleased to report that the session was productive. We obtained the information that we sought, and it is a pleasure for me to announce that the United States of America will support the Director's budget for 1967.

In doing so, however, we would like to make two observations in passing: first, with regard to the Working Capital Fund, which was the item with which we were concerned; it appears to us that this Fund has been, in fact, used to a certain extent as a substitute for a possible supplemental budget request. The Director has elected to use the Fund, in effect, to pay unanticipated salary increases to the staff of the Organization. Naturally this has had the effect of reducing the Working Capital Fund, which we feel is important.

We shall have some additional comments to make when the proposed budget of the Organization for 1968 comes up for discussion, but for the moment that is all.

PRESIDENT: Does any other delegate wish to speak? If not, we will vote on the appropriation resolution.

The draft resolution was approved by 20 votes in favor, 0 against, and 2 abstentions.[2]

Regional Projects to be Implemented in 1967–1968 with Funds of the United Nations Development Program (*conclusion*)

PRESIDENT: The draft resolution on this item was also read to the delegates at the end of the tenth

[1] See p. 176.

[2] Resolution VII. *Official Document PAHO* **74**, 63–64.

plenary session.[3] Is there any discussion? If not, we will proceed with the vote.

The draft resolution was approved by a vote of 21 in favor, 0 against, and 1 abstention.[4]

Item 13-B: Proposed Program and Budget of the World Health Organization for the Region of the Americas for 1968 (*conclusion*)

PRESIDENT: The draft resolution on this item also was read to delegates at the end of the tenth plenary session.[5]

Is there any further discussion? If not, may we proceed to vote on the draft resolution? I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * I should like to point out that there is a discrepancy between the English and Spanish versions of the draft resolution under consideration. The operative part, in the Spanish text, reads: "Aprobar el Proyecto de Programa . . ." whereas the English reads: "To approve the transmittal . . ." Before the vote is taken I should like to see the point cleared up, since the two statements are entirely different.

PRESIDENT: The Spanish version is correct. The English version should be amended by striking the words "the transmittal of" from the first line of the third paragraph. We shall now proceed with the vote.

The draft resolution was approved by a vote of 20 in favor, 0 against, and 2 abstentions.[6]

Item 13-C: Provisional Draft of the Proposed Program and Budget of the Pan American Health Organization for 1968 (*conclusion*)

PRESIDENT: The draft resolution on this item was likewise read to the delegates at the end of the prior plenary session.[7] I call upon the Delegate of the United States of America.

Dr. WILLIAMS (United States of America): As I mentioned earlier, we have comments to make with regard to this item. Our Delegation proposes to vote against this resolution and I should like to explain the reasons for our negative vote.

It appears to us that the Governing Bodies of the Organization should perhaps give somewhat more careful attention to the provisional draft of the 1968 PAHO budget than has been possible during this meeting. The comments that were made yesterday by the various delegates were almost exclusively focused on the 1967 budget. It did not seem that what we would consider a satisfactory discussion of the 1968 budget was taking place.

It is of course the task of the Executive Committee, at its meeting in April 1967, to review this budget in more detail, and it is the opinion of our Delegation that the Executive Committee should undertake a more careful, more thorough, and more complete review than has been the practice in the past. The Representative of the United States of America on the Executive Committee will seek to enlist the cooperation of the Committee in carrying out this detailed review. But we are going to vote against this resolution today.

PRESIDENT: If no other delegate wishes to speak, we will proceed with the vote.

The draft resolution was approved by a vote of 16 in favor, 4 against, and two abstentions.[8]

PRESIDENT: I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * I should like to mention something which is worrying my Delegation in connection with the Pan American Sanitary Bureau's programs for 1967 and 1968. Although I am aware that the topic is on the agenda for discussion at another time, I should like to refer to the problem of eradication of the yellow fever vector, a subject whose importance was brought dramatically into the limelight in the years 1948 and 1957, when there was an outbreak of jungle yellow fever in Panama, Costa Rica, Nicaragua, Honduras, Guatemala, and Mexico. The absence of cases of urban yellow fever during this epidemic is attributable to the *Aedes aegypti* eradication programs.

The persistence of the threat in South America has been demonstrated every year by the appearance of jungle yellow fever in various countries. It has been found since 1947 in Trinidad, and in all the other countries. The importance of yellow fever as a threat to cities and seaports was demonstrated by the outbreak in Port of Spain, Trinidad, in 1954.

By 1961 all the Governments of the Organization, with the exception of the United States of America,

[3] See p. 177.
[4] Resolution X. *Official Document PAHO* **74**, 66.
[5] See p. 177.
[6] Resolution VIII. *Official Document PAHO* **74**, 64–65.
[7] See p. 177.
[8] Resolution IX. *Official Document PAHO* **74**, 65.

had undertaken campaigns for the eradication of *A. aegypti.* Haiti interrupted its program in 1959; similarly, the main islands of the Caribbean and various other regions governed by European countries did the same, with the exception of Dutch Guiana.

In 1961, Mexico and the United Kingdom, together with other countries, pressed for a crash program to eradicate *A. aegypti* rapidly in the Americas. The XIII Meeting of the Directing Council unanimously approved [9] the recommendation to carry out the campaign completely within a period of five years, so that the eradication of the vector would be announced as a *fait accompli* at the XVII Pan American Sanitary Conference, and here at the Conference we find that the United States of America has its eradication program under way both in the southern states of the mainland and in Puerto Rico and the Virgin Islands. Elsewhere, however, the situation is not so satisfactory. French Guiana, Guyana, and El Salvador have been extensively reinfested. Colombia, which for many years was free from *A. aegypti,* reports numerous cases of reinfestation. Mexico suffered from reinfestation last year, but it was brought under control immediately. On the other hand, the dengue epidemic in the Caribbean since 1963 has shown how precarious the situation is in Jamaica and Puerto Rico, and still more in Venezuela.

Recently researchers from the Gorgas Memorial Laboratory have reported finding cases during the past year, under control conditions, among young monkeys in Panama close to the border with Colombia. These cases may indicate a further outbreak of yellow fever in Panama, from where it could easily spread to Central America and Mexico.

The Mexican Delegation is prepared to make a special voluntary contribution, if the administration of PASB is equal to the task of organizing the efforts of the countries interested in this grave problem, with a view to preventing the health situation in the Americas from deteriorating, as unfortunately it is beginning to do, in the way I have just described.

I trust that this offer on the part of my country will be judged as an indication of our anxiety and concern, and not in any way as an ostentatious gesture. Mexico spends large sums of money every year to ensure that the eradication of *A. aegypti* in the country remains complete, and we would like to see this vector eradicated as quickly as possible throughout the Hemisphere. We are especially anxious to prevent it from gaining a new foothold in the Hemisphere after the strenuous efforts which all the countries of Latin America have made, and the efforts which some are still making today.

I trust also that what I have said will be borne in mind not only by the Director of the Bureau but by the members of the Executive Committee and the Directing Council; for I am sure they are all sensible of the concern and the needs of the countries and will wish to express these in programs and budgets to meet more and more the individual needs of the members of our Organization.

PRESIDENT: Thank you, Dr. Martínez. As you know, this is a special item on the agenda, Item 34. It has been assigned to Committee I, where I am sure it will be discussed further and in detail.

Does any other delegation wish to speak on the budget resolution? If not, we shall proceed with the next item.

Proposed Amendments to the Draft Resolution Presented by the Delegation of Venezuela on the Publication of Country Reports

PRESIDENT: I will ask the Secretary to read Article 38 of the Rules of Procedure of the Conference so that we may understand the procedure that should be followed this morning in voting on these amendments.

Dr. Sutter (Assistant Director, PASB) read Article 38 of the Rules of Procedure.

PRESIDENT: Thank you, Dr. Sutter. The Chair rules that the proposed amendment further removed from the original proposal is that of the Delegation of Costa Rica, calling for the deletion of paragraphs 2 and 3.[10] Does any delegation wish to speak on this proposed amendment? Then we will proceed to vote.

The amendment proposed by the Delegation of Costa Rica was approved by a vote of 11 in favor, 3 against, and 5 abstentions.

PRESIDENT: Since paragraphs 2 and 3 have been deleted it is not necessary to vote on the other proposed amendments. We therefore have before us, for discussion and vote, the proposal of the Venezuelan Delegation, as amended. I call upon the Delegate of Nicaragua.

[9] Resolution XXXIV. *Official Document PAHO* **41**, 34.

[10] See ninth plenary session, p. 154.

Dr. BONICHE VÁSQUEZ (Nicaragua): * Before the vote is taken I should like to request that the proposal of the Delegation of Venezuela be read, omitting paragraphs 2 and 3.

PRESIDENT: I call upon the Secretary to read the proposal of the Venezuelan Delegation.

Dr. SUTTER (Assistant Director, PASB): * The draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having heard the reports of the Governments of the Organization on public health conditions and the progress achieved during the period between the XVI and XVII Pan American Sanitary Conferences; and

Bearing in mind that both the written and the oral reports contain valuable information about the health situation in the Hemisphere, the publication of which is both useful and desirable,

RESOLVES:

1. To take note of the reports the Governments have submitted to the Conference on public health conditions and progress achieved during the period between the XVI and the XVII Pan American Sanitary Conferences.

PRESIDENT: Is there any further discussion? I call upon the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * Since the plenary session has decided to suppress paragraphs 2 and 3 of this draft resolution, which constitute the main operative part of the draft—in other words, which involve some action—it seems to me that neither paragraph 1 nor the preambular paragraphs have any practical meaning. In these circumstances the Delegation of Venezuela withdraws the draft resolution.

PRESIDENT: Thank you, Dr. Orellana. We therefore have no proposal before us and we can move on to the next item of business.

Item 4: Amendments to the Rules of Procedure of the Pan American Sanitary Conference (*conclusion*)

Draft Resolution Prepared by the Working Party

PRESIDENT: We shall now examine the draft resolution prepared on Item 4.

Dr. SUTTER (Assistant Director, PASB): * The draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/21, Addendum I and Corrigendum, and the report of the working party on amendments to the Rules of Procedure of the Conference,

RESOLVES:

To amend Articles 1, 2, 3, 8, 13, 20, 22, 43, and 46 of the Rules of Procedure of the Conference, as follows:

"*Rule 1.* The Director of the Pan American Sanitary Bureau shall convoke the Conference to meet at the time and place determined in conformity with Article 7 of the Constitution. Notices of convocation shall be sent not less than three months before the date fixed for the opening of the meeting to all Governments and to all organizations entitled to be represented at the Conference."

"*Rule 2.* Where Article 7, paragraph B, of the Constitution applies, the Conference shall be held at the Headquarters of the Organization, if, for any reason, it cannot be held in the designated country."

"*Rule 3.* Whenever the Conference meets elsewhere than at the Headquarters of the Organization, the inaugural plenary session shall be held at the place set by the Host Government in consultation with the Director of the Bureau."

"*Rule 8.* The provisional agenda shall be sent to the Governments and to organizations entitled to representation at least 60 days prior to the meeting. Furthermore, the documents relating to the provisional agenda will, whenever possible, be sent to the Governments, with copies of such documents to the national health authorities, at least 30 days prior to the meeting."

"*Rule 13.* The plenary sessions shall be devoted to matters of general interest and to the discussion and decision on the reports of such committees or working parties as may be established by the Conference."

"*Rule 20.* The President, or a Vice-President while presiding, shall not participate in the discussions, but may vote in the event he is the sole delegate of his country."

"*Rule 22.* In the event that at the opening of the Conference neither the President nor either of the Vice-Presidents elected at the preceding Conference is present, the President of the immediately preceding meeting of the Directing Council or, in his absence, the Chairman of the Executive Committee, shall preside. If the Chairman of the Executive Committee is not present and if the meeting is held at Headquarters, a President *ad interim* shall be selected by lot from among the heads of delegations, and if the meeting is held elsewhere than at Headquarters, the head of the delegation of the Host Country shall preside."

"*Rule 43.* A motion shall be considered adopted when it has received the affirmative vote of the majority of the Governments present and voting, except when the Constitution or these Rules of Procedure otherwise provide. If the votes are equally divided, the motion shall again be put to a vote without further debate and if the votes are again equally divided, the motion will be regarded as not adopted."

"*Rule 46.* In addition to the cases expressly provided for elsewhere in these Rules, the Conference may vote on any matter, except budgetary matters, by a secret

ballot if it has been previously so decided by a majority of the delegations present and voting."

PRESIDENT: The draft resolution is before the Conference for consideration.

The draft resolution was approved by a vote of 22 votes in favor, 0 against, and 1 abstention.[11]

Item 14: Election of Two Member Governments to the Executive Committee on the Termination of the Periods of Office of Brazil and Mexico (*conclusion*)

PRESIDENT: Unless delegates wish to discuss this item, we shall proceed with the vote.

Approved.[12]

Establishment of Committees I and II

PRESIDENT: I call upon the Secretary, who has an announcement to make.

Dr. SUTTER (Assistant Director, PASB): * May I remind delegates that the work of Committees I and II will begin today, and their respective Chairmen should proceed at once to form them, so that both Committees can make a start on the items assigned to them.

The session rose at 10:10 a.m.

[11] Resolution XI. *Official Document PAHO* **74**, 66–68.

[12] Resolution XII. *Official Document PAHO* **74**, 68.

TWELFTH PLENARY SESSION

Wednesday, 5 October 1966, at 11:20 a.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Item 28: Technical Discussions on "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and other Institutions that Conduct Activities related to Health"

Report of the Rapporteur

PRESIDENT: * The session is called to order. The next item for discussion is the Report on the Technical Discussions. I call upon Dr. Alfaro, the Rapporteur.

Dr. ALFARO (Panama): * I have pleasure in presenting the final report of the Technical Discussions. We trust that this final report will receive the approval of the four working groups.

Dr. Alfaro read the final report of the Technical Discussions contained in Document CSP17/DT/8.[1]

PRESIDENT: Thank you, Dr. Alfaro, for the excellent report you have been good enough to read to us. I invite discussion, and I call upon the Delegate of Argentina.

Dr. MONDET (Argentina): * If there is no motion against, I would propose that the XVII Pan American Sanitary Conference, having considered the report presented by the Rapporteur of the Technical Discussions, approve a draft resolution worded as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the Final Report of the Technical Discussions on "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activities Related to Health," held at this meting; and

Considering the importance of coordinating all resources in order to achieve a better return from the medical care programs sponsored by various public and private institutions,

RESOLVES:

1. To take note of the Final Report of the Technical Discussions and to express its satisfaction with the conduct of the Discussions.

[1] Published in Spanish in the *Boletín de la Oficina Sanitaria Panamericana,* Vol. LXII, No. 1, pp. 1–6, January 1967.

2. To express its thanks to the Organization of American States for its assistance in organizing and conducting the Technical Discussions and to the other international organizations for their participation, as well as to the senior officials of the social security institutions who attended the Technical Discussions.

3. To recommend to the Director of the Pan American Sanitary Bureau that he give this report the widest possible distribution and take appropriate measures to provide those countries that request it with technical assistance in implementing the recommendations contained in it.

PRESIDENT: * The draft resolution presented by Dr. Mondet is open for discussion. I call upon the Delegate of Venezuela.

Dr. ORELLANA (Venezuela): * The Venezuelan Delegation supports the draft resolution presented by the Delegate of Argentina.

PRESIDENT: * I call upon the Delegate of Nicaragua.

Dr. BONICHE VÁSQUEZ (Nicaragua): * I, too, would like to express my support for the resolution submitted by the Delegate of Argentina.

There is one point which may not be of vital importance, but which seems to me quite important as a moral stimulus. I propose that in bringing this excellent report to the notice of our national authorities, the fact that representatives of international agencies were present and cooperated in our work should be placed on record. To this end, I would suggest that in the second paragraph on page 1 of the report, where it says that the Organization of American States took an active part in organizing and conducting the discussions, and that six representatives of international agencies attended, these international bodies should be mentioned by name.

Then, the last paragraph under subtitle IX. "Personnel Policy," reads: "The establishment of a single salary and wage scale, uniform job classification, recruitment policy, working conditions, and social benefits for all employees, without regard to the system in which they are employed, is accordingly indispensable," it seems to me that the word "indispensable" is likely to prove an obstacle to the implementation of this coordination policy. I would prefer "very necessary" to "indispensable."

Dr. RISTORI (Chile): * I am anxious to forestall any misinterpretation of the stand to be taken by the Chilean Delegation when this draft resolution is put to the vote. My Delegation will abstain from approving the resolution, but we wish to make it clear that this in no way implies a doubt that the document is a true reflection of the views of the majority of the delegations here present. However, I must explain that in Chile we have a National Health Service which has succeeded, in what we consider to be a highly satisfactory manner, in integrating the various medical activities, while keeping them separate from the welfare activities coming under Social Security; and we are fully satisfied with the results achieved through this arrangement. Consequently coordination, recommended in this report as a final and ideal goal, is to our way of thinking merely a very useful and desirable step for countries where no such coordination exists as yet and where medical activities are in the hands of a series of institutions with no coordination between them. We feel that the report does not reflect the conviction of our Delegation that this should be an approach, a general direction to be followed, and not an ultimate target to be attained.

I feel that this explanation is called for inasmuch as in some of the statements in the proposed resolution there are phrases—taken from documents dating from before the discussion took place—to the effect that fusion may be an unjustified aim and that the coordination of activities does not mean the absorption of one institution by another.

PRESIDENT: * Thank you, Dr. Ristori. Would the Secretariat please take note of the abstention and the Chilean Delegation's reasons.

Dr. CALVO (Panama): * My Delegation entirely approves the report as presented; however, perhaps we could be told whether there will be an opportunity to discuss the draft resolution submitted by the Delegate of Argentina, whether it is to be distributed, or whether it is already open for discussion. It seems to me that what is being discussed is the report itself, yet at the same time a draft resolution has been submitted. My Delegation is greatly interested in commenting on the report, and we should also like to add something to the draft resolution, to supplement it with an idea that has occurred to us.

PRESIDENT: * As I understand it, the matter under discussion is the draft resolution; the Delegate of Panama is therefore at liberty to propose any addition he wishes to make to the draft.

Dr. CALVO (Panama): * I am fully in agreement with the draft resolution, but I would like to add

a further point. This would state that in addition to providing countries with advice on a continuing basis in regard to coordination, the need should be established for a report, to be presented if possible at the XVII Meeting of the Directing Council in 1967, on the progress of the coordination activities carried on in the various countries. It is most important in these Technical Discussions that we should be given an opportunity each year to assess the progress made with coordination in the direction of certain specific goals. Otherwise, we might well have to wait until the XVIII Pan American Sanitary Conference in 1970 before we gain a real picture of what has been happening. This is too long a time in relation to the vital need for the rapid achievement of a coordinated operation by the various institutions dealing with health in the Hemisphere. If the Argentine Delegation agrees, I would request that a paragraph be added instructing the Director to report to the XVII Meeting of the Directing Council on the progress made. This would, of course, mean that prior to that date Governments would have to present a report to the Pan American Sanitary Bureau.

Dr. MARTÍNEZ JUNCO (Cuba): * My Delegation would like to explain the stand it proposes to take in the voting on the draft resolution. We shall abstain, the reason being that the document read as the final report on the Technical Discussions does not reflect the account given by the Cuban Delegation of Cuba's experience in the matter under discussion.

Our experience has been that coordination of the various separate services with a view to disposing of the difficulties arising in connection with efficient functioning of health services is only a first step, though a useful and necessary one, toward solving this problem. We believe that coordination in itself will lead to the need to integrate these various separate services. To stop at this initial stage is, in our opinion, to disregard and ignore the real opportunity for solving the existing problem.

Dr. FERREIRA (Brazil): * The attitude of my Delegation differs in form but is similar in substance to that outlined by the Delegates of Cuba and Chile. However, I do not think that at this juncture my Delegation need abstain, since the general feeling and the relationship between social security services and health services would suggest that coordination is desirable and to be recommended.

The Brazilian point of view is that coordination is a stage along the road to integration. Consequently, although the Brazilian Delegation is in agreement with the reservations made, it will vote in favor of the draft resolution on the grounds that at the present time coordination is the immediate goal. This is the fact of the matter, as was recognized during the Technical Discussions. It does not mean that Brazil regards coordination as the final goal of its policy of total health; it is merely a stage.

Dr. MONDET (Argentina): * I endorse what Dr. Ferreira has said, since the Argentine position is very much the same. I should also like to say for the benefit of the delegates who have spoken before me that in Argentina the problem of lack of coordination is a highly complex one and that we are so far from achieving integration that we prefer not to raise this question in our country as a matter already decided upon. I share the Brazilian view, and for this reason my Delegation will vote in favor even though our attitude does not differ appreciably from that expressed by the Delegates of Chile and Cuba.

Dr. PAREJA PIÑEYRO (Uruguay): * It seems to me that in the report submitted, which we approved in general terms in the working groups, a point was omitted which needs to be brought out. In the final section it speaks of the establishment of a single salary and wage scale, uniform job classification, recruitment policy, working conditions, and social benefits for all employees, without regard to the system in which they are employed. In view of the problem as it exists in our various countries, and in my country in particular, in the light of the multitude of different systems and the chaotic state of social security, something should be said about the beneficiaries; and the report says nothing. I also think that as a basis for better coordination it would be useful to express the wish that benefits or services to be rendered by these institutions to different social or employment categories should be similar.

In a report such as this, which actually raises problems of a general nature and suggests solutions to be adopted in countries where at present there is little coordination—and Uruguay is one of them—it seems to me that as a first step toward achieving

a better system of social security in the future, a concrete proposal to this effect is called for, stating that beneficiaries under the various systems at present in force during the period of coordination should receive the same benefits from the various institutions if they are engaged in the same type of work.

Dr. ORTEGA PEGUERO (Dominican Republic): * In my country there is complete separation of the social security services and the Ministry of Health and Social Welfare. The situation has been a matter of great concern to various authorities, and it has been found necessary to institute a certain measure of coordination between the social security services and the Ministry. We therefore share the views expressed, and like the Delegate of Chile we agree that coordination should be regarded as a first stage only.

Dr. GONZÁLEZ TORRES (Paraguay): * I would like to make a suggestion concerning the wording of point 6 under subtitle I "Coordination" which reads: "Establishment of a national health policy in the planning of programs in which all the interested institutions would take part." It seems to me, Mr. President, that what we should aim at is the establishment of a health policy setting forth the main guidelines and targets in health matters. Planning is an operational procedure for achieving that end.

Dr. ACOSTA-BORRERO (Colombia): * This apparent conflict in regard to the meaning of the terms coordination and integration need not concern us greatly at this moment, since the topic was discussed fully during the Technical Discussions. I see no reason why we should labor the point, which has already been discussed under the heading of "Coordination." This does not, of course, exclude the possibility that some time in the future there may be a wish for further discussion or review of the item or of the question of integration. Fundamentally, I think that the countries which have raised this issue are afraid there may be some backsliding in regard to the progress made so far towards integration if the term "coordination" is accepted as the final goal. It would be well to adopt the idea accepted unanimously by the working groups, namely that coordination should be not only planned but given proper backing. Dr. Martínez of Mexico made a very sound suggestion on the concept of the coordinating authority. Thus, from the practical point of view, it is specified by the Assembly that in due course the fundamental backing of authority should be forthcoming. The problem seems to me merely one of terminology, and I do not think it desirable from any point of view that this technical discussion should be left hanging in the air, as would be the case if the experience of Cuba and Chile, which have achieved practical results in this field and set an example for the entire Hemisphere, were disregarded. Finally, I would like to ask those delegations which have indicated their intention to abstain to reconsider the matter; I trust they will have a change of heart when the vote is taken.

Dr. MARTÍNEZ (Mexico): * I am a little confused, Mr. President. In reply to the question asked by the Delegate of Panama, you explained that what we were discussing was the draft resolution, and it seems to me that what is being discussed is the report. I should be grateful if you would be good enough to clarify the situation again. We are surely not expected to vote on the report. What we have to do is to find out whether it reflects or does not reflect—as a number of delegates have suggested—the views of the working groups.

I also think that this is not the moment for introducing individual views; for this purpose rapporteurs were appointed by each of the groups, and they have tried to interpret the views of all the groups into which the study was divided. It seems to me that the only thing remaining to be done at present is to put the finishing touches to the report, and of course to take note of any motions submitted with that end in view.

As regards the Argentine draft resolution, to which the Delegate of Panama expressed a wish to add a further point, I would request the President to have the draft submitted in writing and circulated and to arrange it so that if anyone wishes to amend the resolution of the Delegate of Argentina, he should discuss the matter with him, so that in due course the original draft with the proposed amendments can be discussed adequately and voted upon.

PRESIDENT: * It was announced from the Chair that the subject under discussion at present was the draft resolution. Actually I was just on the point of asking the Delegate of Argentina, Dr. Mondet, whether he would agree to the suggestion that a paragraph be added to the draft to the effect that a report should be made in due course on the

results obtained. This I think is the only amendment that has been proposed so far to the draft resolution. The other observations referred to the text of the report itself, unless I am mistaken.

Dr. BONICHE VÁSQUEZ (Nicaragua): * That is so, Mr. President.

Dr. MONDET (Argentina): * I agree, Mr. President, and I thank the Delegate of Panama for the amendment he has suggested. I appreciate that it is not desirable to wait four years. I venture to ask the Delegate of Panama whether he would agree to this or some such recommendation being made to the Governments.

Dr. CALVO (Panama): * This would bring us back to exactly the same situation. It would be preferable to request the Director to have a report submitted at the XVII Meeting of the Directing Council in September 1967. The Director would thus make the necessary arrangements to obtain information from the various Governments.

Dr. FRAZER (United Kingdom): I would like to add my confusion to that of the Delegate of Mexico. I had the impression that in the Technical Discussions we had reached a decision, but now somehow we appear to have changed our minds and we are again discussing a matter that apparently had already been resolved.

I really do not know what we are discussing. Dr. Mondet read his resolution at enormous speed, and quite frankly, if I were asked to write down two consecutive words of the English translation of it, I could not do so. May we have a written resolution in front of us before proceeding further?

Also, it seems odd to me, when one has attained haven, to withdraw and abstain from voting on a resolution that may help those who have not yet attained it to get there also.

Dr. ORELLANA (Venezuela): * I wish to make a statement in regard to the nature of the Technical Discussions and the discussions on which we are now engaged. If you read the Rules for Technical Discussions [2] of the Conference carefully, you will notice in Article 5 that "in the Technical Discussions, opinions are expressed in a personal capacity." Thus, when we were engaged in the Technical Discussions we were not acting as representatives of our Governments but as technical experts on a particular subject.

Second, Article 12 of the Rules for Technical Discussions states that "the Pan American Sanitary Bureau shall not be held responsible for the opinions and ideas expressed in the introductory statements." Hence, it is the experts' statements we are approving, and not opinions expressed by the Organization itself. Third, the first operative paragraph of the draft resolution of the Delegate of Argentina reads: "To take note of the Final Report of the Technical Discussions." This has been the usual practice. The simplest procedure is for the report to be referred to the Conference with the request that it take note of the report if it sees fit to do so, and then to adopt the agreement as set forth in the resolution, in conjunction with the participating nations, specifying those present and adding any further pertinent observations on the report. In actual fact, various observations have already been made, and the Secretariat can bear them in mind in the final version of the report.

Dr. HORWITZ (Director, PASB): * To supplement the reference made by the Delegate of Venezuela to the Rules for Technical Discussions, I should like to recall that Article 21 reads as follows: "The Conference or the Council may adopt decisions on the topic of the Technical Discussions, following the same procedures as those applied for the other decisions of the meeting." The Conference states its views by way of resolutions, and the present debate, which I think has been both useful and interesting, should be crystallized in a resolution duly translated and distributed so that the Conference can vote on it at the appropriate moment.

PRESIDENT: * In accordance, then, with what you all appear to be agreed upon, the Argentine Delegation is to be asked to draft the resolution so that it can be translated and distributed. It would thus be put to the vote at the next session; presumably all the observations made here will be taken into account.

Item 29: Selection of Topics for the Technical Discussions during the XVII Meeting of the Directing Council of the Pan American Health Organization, XIX Meeting of the Regional Committee of WHO for the Americas

PRESIDENT: * Turning to the next item, I call upon Dr. Sutter.

[2] *Official Document PAHO* **65**, 76.

Dr. SUTTER (Assistant Director, PASB): * The next item on the order of business is 29 (Document CSP17/3 and annexes).[3]

PRESIDENT: * With your permission a working party will be set up comprising the countries which have indicated a wish to submit items, as well as two which have not done so, making a total of six. The group would thus consist of Brazil, Colombia, Ecuador, El Salvador, Jamaica, and Venezuela. The group will present the pertinent report on the item.[4] The Secretariat has further announcements to make.

[3] Mimeographed document.
[4] See p. 204.

Dr. SUTTER (Assistant Director, PASB): * The delegations comprising the Committee I working group on the subject of "Textbooks for Medical Students" are asked to meet at 12:30 p.m. Those belonging to the Committee II working group on "Quality Control of Pharmaceutical Preparations" are asked to meet immediately following the present session.

PRESIDENT: * I should also like to remind the members of the General Committee that we shall be meeting immediately, and to thank you all for your collaboration in clearing up the item we have been discussing.

The session rose at 12:25 p.m.

THIRTEENTH PLENARY SESSION

Friday, 7 October 1966, at 9:28 a.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

PRESIDENT: * The session is called to order; the Secretary will give information on yesterday's session of the General Committee.

Dr. SUTTER (Assistant Director, PASB): * The General Committe held its seventh session yesterday, 6 October, at 12:00 noon. The Chairmen of Committees I and II reported on the activities of those Committees, and the order of the day for the twelfth plenary session was approved.

The 55th Meeting of the Executive Committee was announced for today, 7 October, at 3:00 p.m., and it was agreed that the closing session of the XVII Pan American Sanitary Conference should likewise take place today at 5:00 p.m.

PRESIDENT: * In accordance with the order of the day, we shall now discuss the report of Committee I. I shall ask Dr. Andrade to come to the platform and read the report.

Report of Committee I

Dr. ANDRADE (Ecuador, Rapporteur): * The report of Committee I which I have the pleasure of presenting reads as fellows:

Committee I met in the Main Conference Room at 11:30 a.m. on 4 October 1966, under the Chairmanship of Dr. Daniel Orellana (Venezuela) and proceeded forthwith to elect Dr. Lennox de Lacy Jordan (Trinidad and Tobago) and Dr. Leoncio Andrade (Ecuador) to the posts of Vice-Chairman and Rapporteur, respectively.

The Committee subsequently met in Room C, where it held six sessions, in the course of which 10 agenda items assigned to it by the General Committee were discussed. The items were as follows, in the order in which they were discussed: 32, 33, 23, 31, 24, 25, 34, 27, 38, and 20.

The Chairman set up a working party to prepare a draft resolution on Item 23, comprising representatives of the Delegations of Brazil, Chile, Colombia, the United States of America, and Venezuela. The working party had before it a draft resolution submitted by Dr. Ordóñez Plaja (Colombia) and a statement by Dr. de Góes (Brazil).

In connection with the other items, draft resolutions were submitted by the Delegations of Brazil, Chile, the Dominican Republic, El Salvador, Honduras, Jamaica, Mexico, Trinidad and Tobago, and the United States of America.

The debates took place in an atmosphere of frank cordiality and understanding, with all delegations showing keen interest. The importance of the items under discussion was enhanced by the constructive spirit in which they were examined. We are convinced that the minutes of the sessions will reflect the high technical level of the statements made and will constitute a valuable document

for the interpretation of the draft resolutions approved. The resolutions before the Committee were unanimously approved by the delegations with the exception of four (Items 20, 27, 31, and 33); in the voting on each one of these there was one abstention.

As a result, the following draft resolutions are before the Plenary Conference for approval:

Item 32: Report on the Status of Malaria Eradication in the Americas

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the XIV Report of the Director of the Pan American Sanitary Bureau on the status of malaria eradication in the Americas (Document CSP17/4);

Considering that the progress achieved in 1965 has not continued at the same pace as in previous years, even though new areas have been shifted into the consolidation and maintenance phases; that real progress has nevertheless been made in the administrative organization of various programs;

Considering that plans for financing various programs have met with delays and, for this reason, work planned for 1966 could not be carried on;

Bearing in mind that, as a result of this setback, it has been necessary for various areas already in the consolidation phase to be shifted back into the attack phase, with a consequent increase in costs;

Considering the studies made by the Pan American Sanitary Bureau in cooperation with the Governments to clarify the biological problems that make it impossible to eradicate malaria in certain areas solely through intradomiciliary spraying with residual-action insecticides;

Considering that the high-grade resistance of certain vectors to DDT is not generalized and that the suspension of spraying with this insecticide results in an increase in the number of cases; and

Bearing in mind that, on the basis of the studies made, various complementary methods of attack can effectively be used to control extradomiciliary transmission in the Hemisphere,

RESOLVES:

1. To take note of the XIV Report on the status of malaria eradication in the Americas (Document CSP17/4).
2. To express its satisfaction with the progress made in the administrative services of various programs.
3. To emphasize the need to improve such services in programs where this has not yet been done.
4. To remind the Governments of the need to intensify their efforts to obtain the funds required for the programs, in order that the increased costs resulting from unnecessary prolongation of the eradication work may be avoided.
5. To recommend to the Pan American Sanitary Bureau that it continue to carry out studies in cooperation with the countries to find solutions to biological and operational problems.
6. To recommend intradomiciliary spraying with DDT as the basic element of attack in malaria eradication programs, complemented by such methods, as larviciding, collective treatment, and others, wherever appropriate.
7. To accelerate the coordination between local health services—whether governmental, autonomous, or private—and the malaria eradication programs, including radical-cure treatment of the greatest possible number of patients.
8. To express appreciation for the valuable cooperation rendered to the Governments during the 1965 campaigns by the Pan American Health Organization, the World Health Organization, the United Nations Children's Fund, and the Government of the United States of America, through the Agency for International Development.

PRESIDENT: * Is there any objection to this draft resolution? In the absence of objection, the draft will be regarded as approved.

Approved.[1]

Item 33: Estimated Requirements for Malaria Eradication in the Americas

Dr. ANDRADE (Ecuador, Rapporteur): * The draft resolution on this subject reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report on the estimated requirements for malaria eradication in the Americas (Document CSP17/5);

Bearing in mind the increasing efforts of Governments to adequately finance their malaria eradication campaigns;

Considering that the Pan American Health Organization can only continue to furnish the Governments with the technical assistance they require as a result of considerable aid from the Special Malaria Fund, in addition to the allotments of the PAHO and WHO regular budgets;

Bearing in mind the approved plan for the annual increase in the regular budget of PAHO so as to bring up to two million dollars the sum allotted to financing its assistance to the continental malaria eradication program; and

Considering that the Pan American Sanitary Bureau needs more specialists in order to fulfill its responsibilities in the malaria eradication program,

RESOLVES:

1. To take note of the estimated requirements for the PAHO Special Malaria Fund.
2. To reiterate to the Governments its deep satisfaction with the efforts they are making to provide the campaigns with the funds necessary for continuing them.
3. To express its thanks to the Government of the

[1] Resolution XIII. *Official Document PAHO* **74**, 68–70.

United States of America for its extraordinary assistance to the malaria eradication programs in the Hemisphere.

4. To insist on the need to maintain the PAHO Special Malaria Fund by means of voluntary contributions until such time as the necessary funds are available in the regular budget for financing the program together with WHO funds.

5. To again urge the Governments to cooperate with the Pan American Sanitary Bureau by providing the technical personnel it requires to intensify its assistance to the malaria eradication program in the Hemisphere.

PRESIDENT:* Is there any comment on this draft resolution, or any objection? Since there is none, we shall proceed to the vote.

Approved.[2]

Item 23: Supply of Textbooks for Medical Students

Dr. ANDRADE (Ecuador, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the proposed program for the supply of textbooks for students of schools of medicine in Latin America (Document CSP17/27);

Bearing in mind the value and importance of this program for the professional training of future physicians of the Americas;

Bearing in mind the interest expressed by the universities and schools of medicine in this program;

Bearing in mind the interest expressed in this program by the Pan American Federation of Associations of Medical Schools, the agency recognized by the Directing Council as representative of the medical schools of the Americas;

Recognizing the feasibility and utility of this proposed program;

Considering that this program could have important potential for extension to other health professions;

Considering also that the proposed book program may be complemented advantageously by other teaching materials to facilitate and improve the learning process; and

Bearing in mind that the Executive Committee, at its 54th Meeting, invited the Director to continue his negotiations to implement such a project and recommended that the Conference authorize the Director to sign the necessary loan contracts,

RESOLVES:

1. To emphasize the importance of the proposed program for the supply of textbooks and its significance for a better professional training of physicians and other health personnel in the Americas, since such textbooks should be based on the most advanced educational processes.

2. To commend the initiative of the Director and to instruct him to continue his negotiations with the Inter-American Development Bank or other agencies to obtain financial support for the program for the supply of textbooks to medical students in Latin America.

3. To authorize the Director to negotiate with the Inter-American Development Bank or other agencies the most favorable terms possible for the financing of the program, and to report to the Executive Committee on the results of these negotiations and their effect on the regular budget and staff of the Organization; such report may be made to a special session or by other means if necessary, in order that the program may be implemented at the earliest possible date.

4. To instruct the Executive Committee to approve the loan agreement if it is satisfied that the terms are the best available.

5. To authorize the Director, in special cases where U. S. dollars are not available, to accept reimbursement for textbooks and teaching materials in national currency of the Member Governments, subject to the capacity of the Organization to utilize such currencies in its program.

PRESIDENT: * I should like to explain that there is a mistake in the Spanish text for which I alone am responsible. I did not altogether understand the phrase, and I had the text read "y que (and that) dichos textos . . . ." inserted in operative paragraph 1. The original read: "ya que" (since). I had it changed because I did not feel that it reflected the idea at the back of Dr. de Góes' mind; but in the context it is clear that it should be "ya que."

Furthermore, in operative paragraph 5 there is a superfluous semicolon after the words "en aquellos casos." For this error I am not responsible.

I call upon the Delegate of Chile.

Dr. RISTORI (Chile): * I would point out that the Committee entrusted with the study of this draft resolution was asked to put on record the fact that in view of the great importance of the draft it was desirable that its approval should not be held up, as would have occurred if approval of the Director's approach to the Inter-American Development Bank and other financing bodies were referred to one of the regular sessions of the Executive Committee.

I wish to make it perfectly clear that the addition to the final sentence of operative paragraph 3 which reads "such a report may be made to a special session or by other means if necessary, in order that the program may be implemented at the earliest possible date" is designed precisely to ensure that a measure as important as this is not postponed but can be implemented at the earliest possible date.

[2] Resolution XIV. *Official Document PAHO* **74**, 70-71.

PRESIDENT: * If there is no other comment or objection I shall put the draft resolution to the vote. Will those in favor please raise their hands? Against? Abstentions?

Approved.[3]

Item 31: Research Policy and Program of the Pan American Health Organization

Dr. ANDRADE (Ecuador, Rapporteur): * I shall now read the next draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having reviewed the report of the research activities of the Pan American Health Organization during the past four years (Document CSP17/17);

Having taken cognizance of the offer made by the Delegations of Argentina, Brazil, and Uruguay of additional funds to facilitate the further expansion of the PAHO research program;

Recalling that Resolution XXVI of the XVI Pan American Sanitary Conference stressed the importance of research training and requested the Director "to take all possible steps to expand the research activities of the Organization, including specific projects and their financing, for the mutual benefit of the countries of the Region";

Realizing that the solution to the research and training problems of the Region must rest with the countries themselves acting singly and in collaboration with others, with reference to which the President of the United States of America, on the occasion of the Fifth Anniversary of the Alliance for Progress, stated: "The time has also come to develop multinational institutions for advanced training in science and technology";

Considering that additional funds for the direct support of research and research training in closer adherence to the research priorities set by the Organization would:

(a) make possible the implementation of research projects of most critical importance to the health of the Americas;

(b) facilitate the strengthening of centers for research and advanced training in the Americas; and

(c) thereby serve to moderate the migration of health personnel, scientists, and engineers from those Member Countries where the problem exists,

RESOLVES:

1. To congratulate the Director on the research accomplishments of the Organization.

2. To authorize the Director to establish a Special Fund for Research.

3. To invite Governments to make voluntary contributions to the Special Fund.

4. To request the Director to pursue the expansion of this Special Fund through additional voluntary contributions from foundations and from other sources.

5. To request the Director, taking account of other program priorities, and within budgetary ceilings, to make provision for the further development of the research program in future regular budgets of PAHO.

6. To request the Director to study means for expanding and augmenting the number of multinational centers for training and research in the life sciences and medicine in the Americas, and to present appropriate proposals to the XVII Meeting of the Directing Council.

7. To thank the Governments of Argentina, Brazil, and Uruguay for the contributions they have offered to the Organization for the further development of the research program.

PRESIDENT: * In the absence of observations or objections the draft resolution will be put to the vote.

Approved.[4]

Migration of Professionals

Dr. ANDRADE (Ecuador, Rapporteur): * The next draft resolution for consideration reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having reviewed the report *Migration of Health Personnel, Scientists, and Engineers from Latin America,* prepared for the Organization;

Noting the serious problem created in many Latin American countries by the migration of valuable human resources to the United States of America, and considering that this movement is encouraged by factors in the native country as well as in the countries to which the professional personnel migrate; and

Considering that the adoption both by the United States of America and by the Latin American countries of the measures required to moderate this flow of professional personnel would:

(a) expand the capacity of countries to develop economically and culturally;

(b) strengthen universities; and

(c) facilitate the provision of more adequate health services,

RESOLVES:

1. To request that the Governments take appropriate measures to strengthen national policies leading to research and training programs in health and the sciences which will provide incentives for nationals to remain at home.

2. To request the Director to study further the role that both the Organization and the Governments should play in moderating the international migration of professional personnel, and to present a report of progress and proposals for further action for consideration by the XVII Meeting of the Directing Council.

PRESIDENT: * I invite discussion on the draft resolution. If no delegate wishes to speak, I venture

[3] Resolution XV. *Official Document PAHO* **74,** 71–72.

[4] Resolution XVI. *Official Document PAHO* **74,** 72–74.

to suggest that where the second preambular paragraph reads "Migration . . . . to the United States of America" the words "and other countries" should be added. Do you agree to this addition? In that case, I shall put the draft resolution as thus amended to the vote.

Approved.[5]

Items 24 and 25: Status of Smallpox Eradication in the Americas and Estimated Requirements for Achieving It

Dr. ANDRADE (Ecuador, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/20, Rev. 1, and Addendum I, on the status of smallpox eradication in the Americas and the estimated requirements for achieving it;

Bearing in mind the resolutions adopted by the Governing Bodies of the Pan American Health Organization, which date from 1949, and of the World Health Organization, and especially Resolution XXX of the XVI Meeting of the Directing Council, which reiterates and confirms the previous resolutions to the effect that smallpox eradication is one of the major objectives of the Organization but that it has to be carried out by the Governments; and

Bearing in mind Resolution XVI of the 54th Meeting of the PAHO Executive Committee, which indicates effective measures for carrying out national smallpox vaccination programs simultaneously and in a coordinated manner, within the framework of a general policy of international cooperation,

RESOLVES:

1. To take note of Document CSP17/20, Rev. 1, and Addendum I, on the status of smallpox eradication in the Americas and the estimated requirements for achieving it.

2. To recommend to the Governments in whose territory smallpox still exists that they undertake smallpox eradication programs as soon as possible.

3. To recommend to the Governments of the countries in which smallpox has been eliminated that they continue maintenance programs and epidemiological surveillance programs until such time as the disease is eliminated in the Hemisphere.

4. To recommend to the Governments that they give one another technical and material assistance in conducting smallpox eradication programs as well as in the maintenance and epidemiological surveillance phases.

5. To recommend to the Governments that special care be taken in the preparation of smallpox vaccines so as to ensure that it meets the international standards for potency and purity, and to urge them to use the services of the reference laboratories with which the Pan American Sanitary Bureau has concluded contracts for that purpose.

6. To recommend to the Director of the Pan American Sanitary Bureau that he continue to coordinate smallpox eradication programs in the Americas and that he provide the countries with the technical advisory services necessary to carry them out.

7. To urge the Director of the Bureau to provide the countries with material assistance, in accordance with the budgetary resources available, and that it be furnished to the Governments as the progress of the program requires it and according to the needs of each of the stages of the program.

8. To recommend to the countries engaged in smallpox eradication programs that, in order to achieve effective coordination of their efforts, the officials responsible for the programs hold periodic meetings to exchange information on the progress of the activities, to study and solve such problems as may occur, and to share any new developments that may be of value to other countries.

9. To request the Director of the Bureau to make provision for assisting the countries in holding such meetings and to transmit the results to other interested countries.

PRESIDENT: * If no delegate wishes to speak, I shall put the draft resolution to the vote.

Approved.[6]

Item 34: Status of Aedes aegypti Eradication in the Americas

Dr. ANDRADE (Ecuador, Rapporteur): * I shall read the next draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the status of *Aedes aegypti* eradication in the Americas (Document CSP17/14, Rev. 1);

Bearing in mind that 19 years have already elapsed since the Directing Council entrusted the Pan American Sanitary Bureau with the eradication of the mosquito in the Hemisphere;

Considering that, notwithstanding the results achieved to date, there are still many areas in the Americas that are infested by the vector;

Bearing in mind that in the last four years the eradication campaign made some progress in only a few restricted areas and that in several countries and territories the situation during that period has in fact considerably worsened;

Bearing in mind that the extensive areas still infested by *A. aegypti*, primarily where the resistance of the vector to chlorinated insecticides has become general, constitute dangerous sources of reinfestation for the countries and territories already free of the mosquito;

Bearing in mind that the frequent reinfestations which have been occurring in several areas endanger the very success of the continent-wide campaign;

Considering that that danger will only disappear if the

[5] Resolution XVII. *Official Document PAHO* **74,** 74.

[6] Resolution XVIII. *Official Document PAHO* **74,** 75–76.

mosquito is rapidly eliminated from the areas still infested in the Hemisphere; and

Bearing in mind that insecticides are now available with which *A. aegypti* resistant to chlorinated insecticides can be eliminated,

RESOLVES:

1. To urge that the Governments of the countries and territories already free of *Aedes aegypti* maintain a strict vigilance service against reinfestation, and that that service take all the necessary measures to prevent the introduction of the mosquito into those areas.

2. To urge that the Governments of the countries and territories still infested take timely measures to overcome any administrative difficulties that may be hampering the progress of their campaigns, and that they give the highest priority to the provision of the funds, personnel, and supplies needed to complete those campaigns as soon as possible.

3. To instruct the Director to take all necessary measures to intensify and accelerate the continent-wide campaign so that *A. aegypti* may be eradicated in the Americas as soon as possible.

4. To authorize the Director to obtain funds to finance the prompt eradication of *A. aegypti*.

5. To request the Director to study and put into practice appropriate systems for ensuring that the *A. aegypti* eradication campaign is carried out simultaneously and in a coordinated manner in all countries in which the problem still exists, including frequent and periodic meetings, under the auspices of the Pan American Sanitary Bureau, of the national authorities responsible for the programs.

PRESIDENT: * Does any delegate wish to speak? If not, I shall put the draft resolution to the vote.

Approved.[7]

Criteria for the Eradication of Aedes aegypti

Dr. ANDRADE (Ecuador, Rapporteur): * The next draft resolution on our list reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind that the Pan American Sanitary Bureau has establishd the requirements that must be fulfilled before the Governing Bodies of the Pan American Health Organization can declare *Aedes aegypti* to have been eradicated in a country or territory;

Considering that among these requirements, included in the *Guide for the Reports on the Aedes aegypti Eradication Campaign in the Americas,* no mention is made of the presence of colonies of *A. aegypti* in laboratories situated in areas from which this vector has already been eliminated;

Considering that the existence of colonies of the mosquito in a country already free of it constitutes a possible source of reinfestation, not only for that country but also for the other countries of the Americas that have already eradicated *A. aegypti;*

Bearing in mind that in South America it has already been proved on two occasions that the existence of colonies of *A. aegypti* in localities where the mosquito finds favorable ecological conditions may easily give rise to the reinfestation of those localities;

Bearing in mind that, even when the mosquito colonies are in ecologically unfavorable areas, there is a possibility that *A. aegypti* from those colonies may be taken to areas in which the ecological conditions permit the vector to develop;

Bearing in mind that the Pan American Sanitary Bureau, notwithstanding the fact that it made no reference to colonies of *A. aegypti* when establishing the criteria for eradication, is of the opinion that the presence of *A. aegypti* colonies should not be allowed in areas from which the vector has been eradicated and is systematically recommending to the Governments concerned that all colonies of the mosquito that exist in those areas be eliminated;

Bearing in mind that that policy is absolutely correct since the elimination of colonies of the mosquito in areas already free from it is implicit in the very idea of eradication; and

Considering that it is essential that the Pan American Health Organization formally adopt a policy on this matter,

RESOLVES:

1. To approve the requirements for eradication established by the Pan American Sanitary Bureau and included in the above-mentioned *Guide for the Reports on the Aedes aegypti Eradication Campaign in the Americas.*

2. To confirm that these requirements must be fully complied with before the Governing Bodies of the Pan American Health Organization can declare a country or territory free of *A. aegypti.*

3. To establish that, in order to be considered free of the vector by those Governing Bodies, a country or territory must satisfy the following conditions, in addition to the above-mentioned requirements:

(a) To eliminate all colonies of *A. aegypti* that exist in areas in their territory in which the ecological conditions are favorable to the development of the vector.

(b) Not to permit the existence of any colony of the mosquito except in recognized scientific centers situated in areas that are ecologically unfavorable to the vector.

(c) To ensure that colonies of the vector existing in those unfavorable areas are permanently maintained in such a way as not to allow the country or territory to be reinfested by *A. aegypti* from those colonies.

4. To recommend to the Director that he make the necessary arrangements for a group of experts in this field to meet under the auspices of the Pan American Health Organization to establish the conditions those colonies must satisfy if their presence in a country or territory is not to prevent that country or territory from

[7] Resolution XIX. *Official Document PAHO* **74, 76–77.**

being considered free of *A. aegypti* by the Governing Bodies of the Organization.

5. To request the Director to submit the conditions established by the above-mentioned group of experts to the next meeting of the Directing Council and, when approved by the Council, to bring them to the attention of the Governments concerned.

PRESIDENT: * In the absence of observation or objection I shall put the draft resolution to the vote.

Approved.[8]

Item 27: Status of National Health Planning

Dr. ANDRADE (Ecuador, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the status of national health planning (Document CSP17/10);

Recognizing the importance of systematic planning in health within the framework of national plans for economic and social development; and

Recognizing the contribution made by the Organization in assisting Governments in developing systematic approaches to national health analysis and planning,

RESOLVES:

1. To commend the Director on the report presented, which shows the substantial progress made by the various Governments in the field of health planning since the XVI Pan American Sanitary Conference.

2. To recommend to the Director:

(a) That the Organization continue and intensify its assistance to the Governments for the further development of health planning, especially in the process of macroanalysis of national health situations and also during the implementation stage of national health plans; and that it continue to give assistance in the training of health planners in international and national courses.

(b) That the Organization intensify its activities to promote research for the improvement of planning methodology and stimulate the international exchange of research findings within the Americas and, through the Headquarters in Geneva, with other Regions of the World Health Organization.

(c) That he continue, through the Director-General of the World Health Organization, efforts to secure the assistance of the United Nations Development Program or other entities for the establishment of a Pan American Center for Health Planning, to be organized in close association with the Latin American Institute for Economic and Social Planning.

(d) That he continue his efforts, in association with such members of the Inter-American System as the Inter-American Development Bank and the Inter-American Committee on the Alliance for Progress, toward having integrated health considered in its appropriate priority within the process of economic and social development planning.

(e) That he report next year to the Directing Council on the progress made in the planning field.

PRESIDENT: * If there is no objection, I shall put the draft resolution to the vote.

Approved.[9]

Item 38: Aspects of Health Related to Population Dynamics

Dr. ANDRADE (Ecuador, Rapporteur): * I shall read the next draft resolution.

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the Director's report on population dynamics (Document CSP17/16) and having reviewed Resolutions WHA18.49 (1965) and WHA19.43 (1966) of the 18th and the 19th World Health Assembly, respectively, and Resolution IX of the XVI Meeting of the PAHO Directing Council (1965);

Noting that Resolution 11-M/66 of the Fourth Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level (1966) recommended to the Governments that they consider the need to make demographic studies that will take into account both quantitative and qualitative aspects of the problem, especially the mutual relationship between population factors and economic and social development;

Recognizing the significance and implications of rapid population growth in every aspect of life of the community;

Observing that the essential instrument of the development process is specialized manpower at all levels of planning and operations, and that there is a scarcity of trained professionals and research workers in the field of population dynamics as related to national development; and

Recognizing that the health component should be an integral part of all national development programs and projects, and that to help bring this about collaboration is both necessary and desirable between the Organization and the various agencies involved in international cooperation in national development planning and implementation, both bilateral and multilateral, official and voluntary,

RESOLVES:

1. To approve the initiatives taken by the Director, in complying with the above-cited WHO/PAHO resolutions, through the following measures:

(a) the establishment of regional education and research training centers on the health aspects of population dynamics; and

[8] Resolution XX. *Official Document PAHO* **74**, 78–79.

[9] Resolution XXI. *Official Document PAHO* **74**, 79–80.

(b) the establishment of an Office of Health and Population Dynamics, including a Population Information Center (PIC).

2. To commend the Director on the breadth and scope of the Organization's program activities to date and to recommend further development of the activities in accordance with the requests of the Governments for cooperation.

3. To request the Director to cooperate with other agencies of the Inter-American System and of the United Nations as appropriate to assure the full participation of the health sector in international programs concerned with population dynamics.

PRESIDENT: * Thank you, Dr. Andrade. The draft resolution is open for discussion.

Dr. FRAZER (United Kingdom): In the English translation of the fifth paragraph we have lost the 24 words between subject and verb which I mentioned yesterday in Committee, but in the third line of the present version the order of words should be "collaboration is both desirable and necessary."

PRESIDENT: * I think we can all agree to this correction. I call upon the Mexican Delegation.

Dr. MARTÍNEZ (Mexico): * The present version of operative paragraph 1-b reads as fellows: "the establishment of an Office of Health and Population Dynamics, including a Population Information Center." This wording seems to me somewhat imprecise, and I venture to suggest improving it to read as follows: "the establishment within the structure of the Pan American Sanitary Bureau of an Office of Health and Population Dynamics, including a Population Information Center." As it stands, it might be interpreted as authorizing the Bureau to establish an office of health outside its own structure, and my Delegation could naturally not agree to this.

PRESIDENT: * I think all will agree that this clarification more accurately reflects the spirit of the draft resolution. As a matter of form, I should like to ask whether those present agree to the two amendments—the one proposed by the United Kingdom and the other proposed by Mexico. Those in favor please indicate. The two amendments are unanimously approved.

In the absence of any further observation, we shall take a vote on the draft resolution as thus amended.

Approved.[10]

[10] Resolution XXII. *Official Document PAHO* **74,** 81–82.

Item 20: Planning of Hospitals and Health Facilities

Dr. ANDRADE (Ecuador, Rapporteur): * The last of the draft resolutions reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the planning of hospitals and other health services (Document CSP17/29),

RESOLVES:

1. To note with satisfaction the progress made in the program of administration of medical care services.

2. To thank the Organization of American States and the Inter-American Development Bank for the efficient assistance they have given to date to this program and to express the wish that it will be maintained and intensified in the future.

3. To confirm in its entirety the policy formulated by the Director of the Bureau in this matter and to recommend that the program be strengthened, especially as regards field activities.

4. To recommend to the Governments that both health institutions and social security institutions take part in studies for the formulation of national health plans.

5. To request the Director of the Bureau to submit an annual report to the Directing Council and, if appropriate, to the XVIII Pan American Sanitary Conference on the progress made by the countries of the Americas in the organization and administration of integrated health services.

PRESIDENT: * The draft resolution is open for discussion. If no one wishes to speak, we shall proceed to the vote.

Approved.[11]

Dr. ANDRADE (Ecuador, Rapporteur): * Before we dispose of this report, my Delegation would like to suggest that it be placed on record that a tribute from all quarters was paid to the Chairman for the skill and the singular efficiency with which he conducted the deliberations of the Committee.

The Committee completed its work and disposed of the last of the items assigned to it on 6 October 1966, at 6:30 p.m.

PRESIDENT: * I think I am voicing the feelings of the Conference in congratulating Committee I and Dr. Andrade on the excellent work accomplished.

The session was recessed at 10:20 a.m. and resumed at 11:05 a.m.

[11] Resolution XXIII. *Official Document PAHO* **74,** 82–83.

Report of Committee II

PRESIDENT: * The session is resumed. I call upon Dr. Acosta-Borrero to read Committee II's report.

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The report reads as follows:

Committee II met on 4, 5, and 6 October, in Room C, under the Chairmanship of Dr. Manoel José Ferreira, of the Delegation of Brazil. At the first session, Dr. Raymond G. Hyronimus, the Chief of the Delegation of France, was elected Vice-Chairman, and I myself was elected Rapporteur. The Committee held five sessions, at which the following 11 items assigned to it by the plenary of the Conference were examined in detail: 16, 17, 18, 19, 21, 22, 26, 30, 35, 36, and 37.

Two working parties were established, on Items 22 and 36. The membership of the first was as follows: Dr. Dionisio González Torres, of the Delegation of Paraguay, who was elected Chairman; Dr. Paulo de Góes, of the Delegation of Brazil, who was elected Rapporteur; and Dr. Victorio Vicente Olguín (Argentina), Dr. Julio Santa María (Chile), and Dr. Benjamin D. Blood (United States of America). Dr. Emilio Budnik of the Pan American Sanitary Bureau acted as Secretary. The working party on Item 36 consisted of Dr. Victorio Vicente Olguín (Argentina), who was elected Chairman-Rapporteur, Dr. Manoel José Ferreira (Brazil), Dr. Julio Santa María (Chile), Dr. Benjamin B. Blood (United States of America), and Dr. Mario Pareja Piñeyro (Uruguay). Dr. Emilio Budnik and Dr. Pedro N. Acha, of the Pan American Sanitary Bureau, acted as Secretaries of this working party.

The Committee was informed that the Delegations of Peru and Costa Rica had requested that the item proposed by them: "Health Law as an Independent Branch of General Law" should be postponed until another meeting of the Governing Bodies.

The Committee completed its examination of the items assigned to it by the morning of 6 October, and by agreement between the Chairmen of the two Committees, Item 35: "Status of the Problem of Venereal Diseases and of Venereal Disease Control in the Americas" was transferred to it.

At the end of the final session, all the delegations congratulated the Chairman, Dr. Manoel José Ferreira, on the manner in which he had directed the debates.

The Committee agreed to submit the 13 draft resolutions which are now to be read for consideration by the plenary session:

Item 16: Report on the Collection of Quota Contributions

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report on the collection of quota contributions (Document CSP17/24, Rev. 1 and 2), as well as the information and comments on quotas contained in the Financial Report of the Director and the Report of the External Auditor for 1965 (*Official Document 68*);

Noting that the payment of quota arrears has substantially improved and that the number of countries owing quotas more than two years is the lowest in several years;

Recognizing that the collection of current-year quotas has not improved significantly; and

Considering the importance of the prompt and full payment of quota contributions to assure financial support of the entire approved program,

RESOLVES:

1. To take note of the report on the collection of quota contributions (Document CSP17/24, Rev. 1 and 2) and of the information and comments of quotas contained in the Financial Report of the Director and the Report of the External Auditor for 1965 (*Official Document 68*).
2. To commend Governments on their progress in paying quota arrears and urge them to put quota payments on a current basis as soon as possible.
3. To commend the Director on his efforts to improve the level of quota payments and recommend that he continue to keep Governments amply informed on the status of quota payments and their importance to the fulfillment of the program of the Organization.

PRESIDENT: * Discussion is invited on the draft resolution just read. If no delegate wishes to speak, we shall proceed to the vote.

Approved.[12]

Item 17: Emergency Revolving Fund

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the report of the Director on the Emergency Revolving Fund (Documents CSP17/11 and CE54/11) and Resolution X approved by the Executive Committee at its 54th Meeting,

RESOLVES:

1. To take note of the report of the Director on the Emergency Revolving Fund and of Resolution X approved by the Executive Committee at its 54th Meeting.
2. To invite the Governments which receive assistance from the Fund to reimburse the amounts advanced as soon as possible.
3. To increase the ceiling of the Fund to $100,000 and to authorize the Director to transfer to the Fund for this purpose an amount of $25,000 from the Working Capital Fund.

PRESIDENT: * Discussion is invited on the draft

[12] Resolution XXIV. *Official Document PAHO* **74**, 83.

resolution just read. If no delegate wishes to speak, we shall proceed to the vote.

Approved.[13]

Item 18: Amendments to the Staff Rules of the Pan American Sanitary Bureau

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall now read the next draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind the provisions of Staff Regulation 12.2,

RESOLVES:

To take note of the amendments to the Staff Rules of the Pan American Sanitary Bureau presented by the Director in the annex to Document CE54/5, and approved by the Executive Committee at its 54th Meeting, with the effective date of 1 January 1966.

PRESIDENT: * The draft resolution just read is open for discussion. Since no delegate wishes to speak, I shall put the draft resolution to the vote.

Approved.[14]

Salary of the Director of the Pan American Sanitary Bureau

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Considering the revisions that were made as from 1 January 1966 in the salary scales for internationally recruited staff in graded posts;

Having noted the action taken by the Executive Committee to approve the proposal of the Director fixing the salary of the Deputy Director at $21,000 per annum and that of the Assistant Director at $20,000 per annum, effective from 1 January 1966;

Bearing in mind Resolution EB37.R4 of the Thirty-Seventh Session of the WHO Executive Board, which establishes the salaries of WHO Regional Directors; and

Considering the role of the Director as head of the Pan American Sanitary Bureau, the inter-American specialized organization for health of the Organization of American States,

RESOLVES:

To establish the salary of the Director of the Pan American Sanitary Bureau at the level of $22,000 per annum, with effect from 1 January 1966.

PRESIDENT: * Discussion is invited on the draft resolution just read. Since no delegate wishes to speak, we shall proceed to the vote.

Approved.[15]

Item 19: Report on Buildings and Installations

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall now read the next draft resolution on the list:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the report of the Director (Documents CSP17/18 and CE54/7, Rev. 1) on the work done to complete the installations and services in the headquarters building and the acquisition of space to expand the Zone VI Office (Buenos Aires, Argentina), and the additional space requirements for the Zone IV Office (Lima, Peru);

Bearing in mind that, as stated in the above-mentioned report, the Governments of Argentina, Barbados, Brazil, Canada, Chile, Costa Rica, Guatemala, Haiti, Honduras, Mexico, Peru, Surinam, Trinidad and Tobago, Venezuela, and Spain, as well as the Pharmaceutical Manufacturers' Association and Mrs. Carlota M. de Inurria (of Argentina) have donated works of art for the headquarters building,

RESOLVES:

1. To take note of the report of the Director on buildings and installations (Documents CSP17/18 and CE54/7, Rev. 1).
2. To express its thanks to the Governments of Argentina, Barbados, Brazil, Canada, Chile, Costa Rica, Guatemala, Haiti, Honduras, Mexico, Peru, Surinam, Trinidad and Tobago, Venezuela, and Spain, as well as to the Pharmaceutical Manufacturers' Association and Mrs. Carlota M. de Inurria, for the works of art they have donated to the new headquarters building.
3. To take note of the additional space requirements for the Zone IV Office and to concur in the planned action of the Director to purchase a house to obtain adequate space as well as the acquisition of additional space to enlarge the Zone VI Office.
4. To request the Director to report on this matter at a future meeting of the Executive Committee, as he deems necessary.
5. To express its appreciation to the members of the Permanent Subcommittee on Buildings and Installations for their valuable assistance in the activities related to this matter.

PRESIDENT: * Discussion is invited on the draft resolution just read. Since no delegate wishes to speak, we shall proceed to the vote.

Approved.[16]

[13] Resolution XXV. *Official Document PAHO* **74**, 84.
[14] Resolution XXVI. *Official Document PAHO* **74**, 84–85.
[15] Resolution XXVII. *Official Document PAHO* **74**, 85.
[16] Resolution XXVIII. *Official Document PAHO* **74**, 85–86.

Item 21: International Transportation of Human Remains

PRESIDENT: * If I may interrupt Dr. Acosta-Borrero, I should like to put a question to the Conference. Since the item "International Transportation of Human Remains" is well known to all of you, and in view of the length and nature of the item, perhaps the Conference would agree that the reading of the Declaration appearing in this draft resolution might be omitted. If you are agreed please raise your hands.

It was so agreed.

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The draft resolution, without the Declaration, reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/6 on this topic, and bearing in mind that the Executive Committee at its 54th Meeting made a detailed examination of the draft standards (Document CE54/6 and Addendum 1) prepared by an Expert Committee which when it met in Washington from 13 to 15 December 1965 had before it a report of a study group convened in August of the same year;

Bearing in mind that the working party of the 54th Meeting of the Executive Committee prepared a new set (Document CE54/17) of draft standards;

Bearing in mind the letters from the Governments and health authorities concerning this subject; and

Considering Resolution XVIII of the 54th Meeting of the Executive Committee,

RESOLVES:

1. To approve and transmit to the Governments of the Organization the following Declaration and Standards concerning the International Transportation of Human Remains:

. . .

2. To recommend to the Governments that they apply the above-mentioned Standards in the way they deem most appropriate.

3. To invite the Governments to inform the Director of the Bureau of the steps taken to implement the above-mentioned Standards, so that he may report them to the other Governments and to the Governing Bodies of the Organization.

4. To urge the Director that he endeavor to ensure, in the way he deems most appropriate, that the Governments of the Organization take appropriate measures to implement in their territories the Standards on International Transportation of Human Remains appearing in the first operative paragraph of this resolution.

5. To recommend to the Director that he transmit this resolution to the Director-General of the World Health Organization.

PRESIDENT: * Discussion is invited. Since no delegate wishes to speak, we shall proceed to the vote.

Approved.[17]

Item 22: Relationship of the Pan American Health Organization with Other Organs of the Inter-American System

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall next read the draft resolution relating to Item 22.

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the Fourth Annual Meetings of the Inter-American Economic and Social Council (IA-ECOSOC) at the Expert and the Ministerial Levels (Document CSP17/22 and Annex I);

Bearing in mind the recommendations that were approved at those meetings concerning health and the activities of the Pan American Health Organization as a specialized organization of the Inter-American System;

Bearing in mind the recommendations on social principles approved by the Fourth Special Meeting of the Inter-American Economic and Social Council, which are to be incorporated into the Charter of the Organization of American States; and

Considering Resolutions XIV and XV of the 54th Meeting of the Executive Committee and Resolution XV of the XVI Meeting of the Directing Council of PAHO, XVII Meeting of the Regional Committee of the World Health Organization for the Americas,

RESOLVES:

1. To commend the Director on his efforts at the meetings of the Inter-American Economic and Social Council held since the approval of the Act of Bogotá, which have incorporated the health sector into development and have given it the attention it deserves because of its fundamental importance for the economic and social well-being of the peoples of the Americas.

2. To take note of the report of the Director (Document CSP17/22 and Annex I) on the Fourth Annual Meetings of the IA-ECOSOC at the Expert and the Ministerial Levels, held in Buenos Aires, Argentina, from 15 March to 1 April 1966; the Second Extraordinary Inter-American Conference, held in Rio de Janeiro, Brazil, from 17 to 30 November 1965; the Meeting of the Special Committee for the Preparation of Draft Amendments to the Charter of the Organization of American States, held in Panama from 25 February to 1 April 1966; and the Fourth Special Meeting of the IA-ECOSOC, held in Washington, D.C., from 6 to 18 June 1966.

3. To underline the importance of the resolutions ap-

[17] Resolution XXIX. *Official Document PAHO* **74**, 86–89.

proved at the Fourth Annual Meeting of the IA-ECOSOC at the Ministerial Level concerning health and development planning; population; permanent coordination of planning offices and improvement of planning techniques; improvement of statistics of the Latin American countries; social security within the framework of the Alliance for Progress; Statutes of the Inter-American Emergency Aid Fund; and study of the future financing of the Pan American Foot-and-Mouth Disease Center.

4. To instruct the Director to continue to develop and strengthen the relationship of the Organization with the IA-ECOSOC and with the Inter-American Committee on the Alliance for Progress (CIAP), with a view to integrating health activities into economic and social development programs.

5. To urge the Director to endeavor to obtain the inclusion in the agenda of future meetings of the IA-ECOSOC of items directly connected with the health of the people of the Hemisphere, and to underline the advisability that in the letters convoking the meetings that are sent to Governments they be invited to include in their delegations health experts so that they may contribute their knowledge and experience when those items are examined.

6. To instruct the Director to take steps to ensure that certain health problems which, because of their characteristics and scope call for solutions at the highest level, be placed on the agenda of the next Meeting of the American Chiefs of State.

7. To recommend to the Director that he continue to pay attention to the meetings on the amendment to the Charter of the Organization of American States, with a view to maintaining the recognition of the Pan American Health Organization as an inter-American specialized organization and so that health may continue to be one of the main principles inspiring the activities of the OAS and of the Governments.

PRESIDENT: * Discussion is invited.

Dr. FERREIRA (Brazil): * In setting up a working party to prepare this topic for Committee II, special attention was given to the problem of obtaining scientific information by means of sensors from outer space, and I think it would be advisable at this juncture to ask the Conference to give consideration to the topic presented in this working party under point 6. I shall read it with a view to its being included among the resolutions of the Conference rather than merely incorporated in the official records.

Point 6 of the working party's report reads as follows: ". . . . that the Director of the Organization maintain contact with the Secretary General of the Organization of American States with a view to facilitating the use by Governments and inter-American organizations of programs aimed at the exploitation of artificial satellites for obtaining scientific information with the help of sensors in connection with Pan American Health Organization programs such as the programs for the utilization of water power."

I would request a debate on this proposal.

Dr. OLGUÍN (Argentina): * The Argentine Delegation shares the view expressed by Dr. Ferreira, as to the tremendous importance of the issue he has raised. Without any doubt, it opens up extraordinary possibilities both from the purely scientific point of view and in regard to its applications, which include basic aspects of health.

At the meeting of the working party, in addition to the two draft resolutions drawn up in connection with the specific item entrusted to it, this topic was also considered, because of its great importance, and it was felt that it should be referred to the Director of the Bureau with a view to study and the adoption of appropriate measures.

Thus, since it does not appear in the resolutions attached to the report of Committee II, the Argentine Delegation now endorses Dr. Ferreira's views, and feels that the matter should be given due prominence. As to whether a new resolution should be drafted or the Director should be asked to take note of the general consensus on the subject, the Argentine Delegation is prepared to support whichever procedure appears to be the more speedy and effective. Bearing in mind the importance of the item, it considers that the Director should be requested to inform the Executive Committee at the next meeting concerning possibilities of action.

PRESIDENT: * The discussion continues. I call upon the Chilean Delegation.

Dr. SANTA MARÍA (Chile): * I wish to endorse the statement by the Delegate of Argentina and I would like the minutes of this plenary session to show not only that the item by the Delegate of Brazil was discussed, but that other aspects of the subject were also dealt with from the strictly procedural point of view which had perhaps a more remote connection with the wording of the item. I should also like to endorse the suggestion that the question be considered by the Director as an expression of the thinking of the various countries.

There is no point in discussing whether or not the matter should at present take the form of a resolution, since as we all know, once it appears in the minutes, the Organization and the Director will in due course take the appropriate steps to see that the ideas involved are crystallized in action.

Dr. HORWITZ (Director, PASB): * To enable me to carry out as scrupulously as possible any decision taken by the Conference, I should like to know whether what is desired is that the matter under consideration should be included in the minutes or incorporated in the resolution itself. Obviously if it is included in the minutes, the Secretariat will assume that it is expected to deal with the matter, compile the necessary information, and perhaps propose to the Executive Committee at its next meeting that it report to the Directing Council at the earliest session so that in turn the latter can take whatever decision it thinks fit.

In other words, the paragraph in question would not be added to the resolution; the matter would constitute instructions to the Secretariat. This, Mr. President, might perhaps be decided by the Conference here and now. We shall merely carry out whatever decision is taken.

Dr. OLGUÍN (Argentina): * The procedure suggested by Dr. Horwitz is entirely in keeping with the Argentine Delegation's view.

Dr. FERREIRA (Brazil): * This was exactly what the Brazilian Delegation had in mind. It is not sufficient that the matter should appear in the minutes; it is essential that it should elicit some action on the part of the Director. Hence my Delegation approves the Director's proposal.

PRESIDENT: * The discussion is still open. If no other delegate wishes to speak, we shall now take a vote.

Approved.[18]

Pan American Foot-and-Mouth Disease Center

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall now read the next draft resolution on the list:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Recognizing the importance in the economic development and the nutritional status of the Americas of the Pan American Foot-and-Mouth Disease Center, which receives assistance and support from the Government of Brazil as the host country, is administered by the Pan American Sanitary Bureau, and is financed by the Program of Technical Cooperation of the Organization of American States;

Recognizing the important work that the Center has carried out in the field of education and training, advisory services to Governments, and research on various problems with a view to reducing the incidence of foot-and-mouth disease;

Bearing in mind the serious financial problem which has arisen from the fact that the budget covering the period 1 April 1966 to 30 June 1967, recently approved for the Center by the Inter-American Economic and Social Council (IA-ECOSOC) at its Fourth Annual Meetings in March-April 1966, is insufficient to permit the activities to be continued even at the 1965 level;

Believing that the Center has reached a stage in which the expansion of services is urgently necessary to enable it to assist the Governments in the planning and execution of national immunization programs;

Bearing in mind the resolution adopted at the Fourth Annual Meeting of the IA-ECOSOC at the Ministerial Level, which recommends that the Organization of American States and the Pan American Health Organization take joint measures to study how to establish a system of payments by the countries with a view to ensuring the permanent and stable financing of the Center; and

Considering that the Inter-American Development Bank and the World Bank have both recognized the economic importance of the programs and have informed the Inter-American Committee on the Alliance for Progress of their intention to grant loans to Governments to finance national control programs,

RESOLVES:

1. To emphasize the importance of maintaining the activities of the Pan American Foot-and-Mouth Disease Center, administered by the Pan American Sanitary Bureau, at a sufficient level to enable it to provide Governments with scientific cooperation and technical advice in the planning and execution of national foot-and-mouth disease control programs.

2. To express its concern about the immediate financial situation arising from the inadequate budget approved by the Inter-American Economic and Social Council, which would not even allow activities to be maintained at the present level, and to instruct the Director to cooperate with the Organization of American States in efforts aimed at securing the financial support necessary to avoid a reduction in present activities, and at obtaining a gradual increase of that support according to the needs of the program.

3. To express its satisfaction with the fact that, as far as long-term needs are concerned, and in accordance with the provisions of the afore-mentioned resolution of the IA-ECOSOC, the Director has begun a study in collaboration with the competent officials of the Organization of American States to draw up a plan for the continuing and stable financing of the Center.

4. To instruct the Director to report to the Executive Committee at its 56th Meeting on the progress made in his regard.

PRESIDENT: * We shall now take a vote.

Approved.[19]

[18] Resolution XXX. *Official Document PAHO* **74**, 90–91.

[19] Resolution XXXI. *Official Document PAHO* **74**, 91–93.

Item 26: Training of Auxiliary Personnel

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall read the draft resolution relating to Item 26.

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/8, and bearing in mind that the various public health specialities are suffering from a manifest shortage of trained personnel at different levels;

Considering that as a logical consequence of the development of the services the need for this personnel is daily increasing and it is to be expected that this increase will continue in the future; and

Bearing in mind the urgent need to define in each country the characteristics and functions of auxiliary personnel that are to take part in health programs,

RESOLVES:

1. To recommend to the Governments that, when the training plans in the various ministries are drawn up, the specific functions to be discharged by personnel should be determined, the needs connected with their training should be carefully established, and pertinent measures should be adopted to implement those plans.

2. To instruct the Director of the Pan American Sanitary Bureau to assist the Governments in studying and defining present and future needs for personnel and in preparing instructors for the training and supervision of auxiliary health workers.

3. To recommend that at future meetings of the Directing Council the Governments submit reports on the progress achieved in the training and utilization of auxiliary personnel in their countries, and on the experience gained in these activities.

PRESIDENT: * The draft resolution is open for discussion. Since no delegate wishes to speak, we shall take a vote.

Approved.[20]

Item 30: Resolutions of the WHO Executive Board and the World Health Assembly of Interest to the Regional Committee

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Considering Document CSP17/7, in which the Director submits to the attention of the Regional Committee for the Americas several resolutions adopted by the Nineteenth World Health Assembly, and by the Thirty-Seventh Session of the WHO Executive Board,

RESOLVES:

To take note of the following resolutions: EB37.R41, Consolidation of the Special Fund and the Expanded Program of Technical Assistance in a United Nations Development Program; WHA19.7, Establishment of a Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training; WHA19.13, Malaria Eradication Program; WHA19.16, Smallpox Eradication Program; WHA19.20, Establishment and Operation of World Health Foundations; WHA19.21, Establishment of the Dr. A. T. Shousha Foundation; WHA19.33, Headquarters Accommodation: Voluntary Contributions from Governments; WHA19.40, Program and Budget Estimates for 1967: Voluntary Fund for Health Promotion; WHA19.43, Program Activities in the Health Aspects of World Population Which Might Be Developed by WHO; WHA19.48, Study of the Nature and Extent of Health Problems of Seafarers and of the Health Services Available to Them; WHA19.50, Community Water Supply Program; and WHA19.51, Reports of Expert Committees.

PRESIDENT: * The draft resolution just read by Dr. Acosta-Borrero is open for discussion. Since no delegate wishes to speak, we shall proceed to the vote.

Approved.[21]

Item 35: Status of the Problem of Venereal Diseases and of Venereal Disease Control Programs in the Americas

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * I shall now read the next draft resolution prepared by Committee II:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/25 on the status of the problem of venereal diseases and of venereal disease control programs in the Americas; and

Bearing in mind the limited information available on the incidence and prevalence of venereal diseases, the increase in which over recent years is a matter of serious concern on the part of the health authorities, primarily because of the social repercussions of such diseases,

RESOLVES:

1. To take note of Document CSP17/25 on the status of the problem of venereal diseases and of venereal disease control programs in the Americas.

2. To recommend to the ministries of health that they undertake studies to determine, with the greatest possible precision, the incidence and prevalence of venereal diseases, particularly syphilis, in their respective countries.

3. To recommend to the competent national health authorities that they organize the appropriate laboratory services for the diagnosis of venereal diseases and that they gradually extend such services to cover the total needs of their respective territories.

[20] Resolution XXXII. *Official Document PAHO* **74**, 93–94.

[21] Resolution XXXIII. *Official Document PAHO* **74**, 94.

4. To recommend to the ministries of health that the required steps be taken to plan, program, organize, and evaluate venereal disease control programs and that such programs be implemented at the earliest possible moment.

5. To recommend to the ministries of health that special attention be given to programs for the training of personnel in the various aspects of venereal disease control programs, and that efforts be made to assure the inclusion of obligatory courses on venereal disease in the curricula of the schools of medicine, nursing, and public health.

6. To recommend to the Governments that they prepare health education programs on the subject of venereal disease with the greatest care, and apply such programs for the purpose of creating social awareness of these diseases in the patients, in their contacts, and in the general public, so as to include venereal diseases openly in the category of communicable diseases.

PRESIDENT: * Since no delegate wishes to speak, we shall take a vote.

Approved.[22]

Item 36: Quality Control of Pharmaceutical Preparations

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * The next draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind the great interest the Governments of the Americas have shown in having adequate control of drugs and pharmaceutical preparations, for which purpose the pertinent control laboratory services need to be established;

Considering Resolutions WHA17.41 and WHA18.36 of the Seventeenth and Eighteenth World Health Assembly, and Resolution XII of the XVI Meeting of the Directing Council of the Pan American Health Organization;

Having examined the reports of the PAHO/WHO consultants on the establishment of international laboratories for the control of pharmaceutical preparations and the location of such laboratories, as well as PASB Document CSP17/26 and Document CSP17/31 presented by the Government of Chile; and

Bearing in mind the views the delegates have expressed on this item,

RESOLVES:

1. To commend the Director of the Pan American Sanitary Bureau on the steps he has taken to promote and improve drug control and the assistance being given to the Governments in organizing laboratories for the quality control of drugs.

2. To recommend to the Director that he continue and expand the assistance to the Governments in establishing, operating, and improving their services for the control and analysis of pharmaceutical preparations.

3. To request the Director to continue negotiations aimed at the establishment of international laboratories for the control of pharmaceutical products, which would serve as training, research, and reference centers in this field.

4. To thank the Government of Uruguay for its cooperation and its great interest in establishing an international laboratory of this type in its country, for which purpose it has taken the necessary official steps.

5. To bring to the attention of Governments the importance of the considerations and recommendations on the quality control of pharmaceutical preparations contained in the report (Document A19/P&B/5) which the Director-General of the World Health Organization submitted to the Nineteenth World Health Assembly (Geneva, 3–20 May 1966).

6. To request the Director to make a study, by appropriate means, of the supply of generic drugs and pharmaceutical preparations so that a better technical and social return can be obtained from the funds invested in them, and that he give technical assistance to the Governments that request it in standardizing their present systems for the supply and control of drugs.

7. To request the Director to convene a meeting of an expert group to study immediate and long-term needs for providing the countries of the Americas with adequate services for the quality control of drugs and pharmaceutical preparations.

8. To request the Director to submit a progress report on this program to the 56th Meeting of the Executive Committee.

PRESIDENT: Since no delegate wishes to speak, we shall proceed to the vote.

Approved.[23]

Item 37: Mental Health Program

Dr. ACOSTA-BORRERO (Colombia, Rapporteur): * Finally, the draft resolution relating to Item 37 reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director (Document CSP17/15) on national mental health programs;

Bearing in mind the importance of mental health as an essential component of total health;

Considering the need to establish integrated mental health programs as part of national health plans; and

Recognizing the importance of research in the field of mental health as a basis for the formulation in the countries of programs of assistance, prevention, and rehabilitation,

RESOLVES:

1. To recommend to the Governments that have not yet done so, that they establish mental health sections or departments to draw up national programs for incorporation in the general health plans.

[22] Resolution XXXIV. *Official Document PAHO* **74,** 95.

[23] Resolution XXXV. *Official Document PAHO* **74,** 96–97.

2. To urge the Pan American Sanitary Bureau to promote and coordinate a research program on the frequency and distribution of alcoholism and on the cultural patterns that condition the habit of imbibing alcoholic beverages.

3. To recommend to the Director that he continue to promote research on the frequency and distribution of epilepsy in the Hemisphere.

PRESIDENT: * We shall vote on the draft resolution.

Approved.[24]

As before, I think it is only right that we should congratulate the Committee, its Chairman, and its Rapporteur on the excellent work they have done.

Item 28: Technical Discussions on "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activites Related to Health (*conclusion*)

Draft Resolution Presented by the Delegation of Argentina

PRESIDENT: * I call upon Dr. Sutter.

Dr. SUTTER (Assistant Director, PASB): * The draft resolution, already read at the twelfth plenary session,[25] states as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the Final Report of the Technical Discussions on "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activities Related to Health," held at this meeting; and

Considering the importance of coordinating all resources in order to achieve a better return from the medical care programs sponsored by various public and private institutions,

RESOLVES:

1. To take note of the Final Report of the Technical Discussions and to express its satisfaction with the conduct of the Discussions.

2. To express its thanks to the Organization of American States for its assistance in organizing and conducting the Technical Discussions and to the other international organizations for their participation, as well as to the senior officials of the social security institutions who attended the Technical Discussions.

3. To recommend to the Director of the Pan American Sanitary Bureau that he give this report the widest possible distribution and take appropriate measures to provide those countries that request it with technical assistance in implementing the recommendations contained in it.

4. To request the Director to report at the next meeting of the Directing Council on the progress made in the coordination of the services in the Member Countries.

PRESIDENT: * The draft resolution is open for discussion. I call upon the Chilean Delegation.

Dr. RISTORI (Chile): * Mr. President, as I pointed out when the proposal by the Argentine Delegation was first submitted to the Conference, the Chilean Delegation would be obliged to abstain on the grounds that the document on which this resolution was based appeared to imply that the coordination of the various health services attached to any ministry was the ideal to be aimed at, in spite of the fact that there are countries which have already succeeded in integrating all services into organizations dependent on their ministries of health.

The Chilean Delegation would like nothing better than to be able to avoid abstaining, but that would necessitate a slight amendment in the draft resolution. To this end we have today submitted a draft amendment to the Conference; but the wording presents syntactical problems which make it difficult to incorporate it into the text proposed by the Argentine Delegation.

We wish to withdraw this draft amendment and to submit to the Conference for consideration another simpler amendment which would involve adding a third preambular paragraph to the Argentine draft to read as follows: "Considering that some countries have already integrated their medical services in the ministries of health."

If the Delegation of Argentina could agree to this amendment, or if it were approved by the Conference, my Delegation would vote in favor of the resolution.

Dr. OLGUÍN (Argentina): * The Argentine Delegation accepts the proposed amendment.

Dr. MARTÍNEZ (Mexico): * The Mexican Delegation would be gratified if the Chilean Delegation did not abstain from the vote; but the Mexican Delegation would be obliged to vote against the amendment, and that would be even worse.

Mexico is opposed to the Chilean proposal on the grounds that in our view it suggests something

[24] Resolution XXXVI. *Official Document PAHO* **74**, 97–98.

[25] See p. 182.

which was not discussed, namely the structure and organization of the health services. The topic discussed was coordination, which is an entirely different thing.

The fact is, Mr. President, that the incorporation of all health organizations under a single head does not in any way ensure coordination. As we all know, there are bodies whose subsidiaries are not coordinated, and the item we discussed was merely the coordination of services.

I have the impression from what the Chilean Delegate said, that the difference has arisen because the resolution put forward by the Delegation of Argentina appeared as the culmination of the programs. As I understand it, coordination is the culminating stage, whatever the structure. Actually, sound organization has only one goal, namely to ensure coordination.

Coordination is what any institution or association of individuals aims at, but this does not mean that it need necessarily be achieved always in the same manner. Mexico is a liberal country, and it would be extremely difficult to attempt to integrate all the various services.

In conclusion, Mr. President, I would merely press the point that the problem of organization was neither studied nor discussed, and therefore could not be the subject of the debate. The debate was simply and solely on the question of coordination.

Dr. VASI PÁEZ (Peru): * I would merely like to say, on behalf of the Peruvian Delegation, and simply because we made statements and took part in the discussion, that we fully endorse what the Delegate of Mexico has just said, since without any doubt we were discussing one specific subject.

Dr. CALVO (Panama): * I should like to associate my Delegation with the views expressed by the Delegates of Mexico and Peru.

Dr. STEWART (United States of America): We would like to associate ourselves with the remarks of the Delegation of Mexico. It seems to us that the subject of integrating all health services into a governmental unit, in any government, is a different subject from that of coordination of health services within the governmental structure; and since the Technical Discussion was really aimed at coordination, I think to take the other subject would require different parameters for the Technical Discussion.

Dr. RISTORI (Chile): * My Delegation has no desire to be obstinate, but I must revert to the reasons which have led us to act in this way. The truth is that we are not in any way opposed to "coordination"—quite the contrary; but the document which motivated the draft resolution states clearly—and this is the point we opposed—that coordination is the ideal, transcending integration.

If the Chilean Delegation were to endorse this, its vote would be in contradiction to the legal structure and organization of its own National Health Service.

Dr. MARTÍNEZ (Mexico): * I have some diffidence in asking for the floor once again, but I do so in the hope that I can make some contribution to the final drafting of this resolution. I would like to suggest the following solution: the problem is not to change the significance of the facts, but to establish the facts. As far as the Mexican Delegation is concerned, there would be no objection to wording to the effect that "Some delegations or some Governments stated that they had achieved a satisfactory degree of coordination through the integration of all the medical services within their ministries of health."

Dr. SALVERAGLIO (Uruguay): * The Delegation of Uruguay fully supports the view expressed by the Mexican Delegation.

Dr. VASI PÁEZ (Peru): * Actually I asked for the floor before I realized the gist of the Mexican Delegate's statement, with which I am fully in agreement. I wonder if we might have a recession of five minutes so that we could discuss matters with the Delegate of Chile and arrive at a formula acceptable to all concerned?

Dr. CALVO (Panama): * I should like to ask the Chilean Delegation whether there is any fundamental incompatibility between the report of the Technical Discussions and the resolution. It seems to me that they are two different matters.

Dr. RISTORI (Chile): * The third paragraph of the draft resolution reads as follows: "To recommend to the Director of the Pan American Sanitary Bureau that he give this report the widest possible distribution and take appropriate measures to provide those countries that request it with technical assistance in implementing the recommendations contained in it."

The document on which the resolution is based contains statements such as the following: ". . . .

coordination of activities did not mean the absorption of one institution by another; on the contrary, the legal, financial, and administrative autonomy of each of the participating institutions should be respected." Further on it states that "Coordination does not mean submission;" and in the succeeding paragraph it says: "Coordination does not mean the disappearance of either system, nor does it mean to create more problems as a result of an unwarranted desire for a merger."

If the Chilean Delegation were prepared to request the Pan American Sanitary Bureau to give this report the widest possible distribution and to take appropriate measures to advise countries wishing to put this recommendation into practice, our National Health Service, in virtue of this recommendation by the Bureau, would be requesting the derogation of our own legislation.

I do not know whether I have explained myself sufficiently clearly. This is the paragraph we cannot accept. If the third paragraph were suppressed, we would have no hesitation in giving our approval to the resolution.

Dr. VASI PÁEZ (Peru): * I should merely like to point out that this paragraph to which the Chilean Delegation takes exception merely puts in a nutshell some of the ideas expounded by the sponsors, and it has been established beyond any doubt that the opinions expressed in the Technical Discussions are made in a purely personal capacity.

Dr. HORWITZ (Director, PASB): * With a view to finding some way of completing the remaining items on today's agenda and closing the Conference this evening, I venture to ask the Chilean Delegation whether it would agree to revert to its original amendment which reads as follows: "Considering that some countries have already integrated their medical services in the ministries of health." In this way the mere fact would be stated, without qualification.

Dr. RISTORI (Chile): * The Chilean Delegation has no objection.

PRESIDENT: * I think we are approaching the end of this discussion. I call upon the Delegate of Mexico.

Dr. MARTÍNEZ (Mexico): * I wonder, Mr. President, whether you would be good enough to have the passage read out as it is to stand.

Dr. HORWITZ (Director, PASB): * The two preambular paragraphs of the draft resolution would stand as at present worded, and the following further paragraph would be added: "Considering that some countries have already integrated their medical services in their ministries of health;" and then would come the entire operative part, unchanged.

PRESIDENT: * It might be better to add "or are in the process of integrating."

Dr. FERREIRA (Brazil): * My Delegation would have no objection to adding the countries which have integrated these services and those which are in the process of doing so.

Dr. OLGUÍN (Argentina): * After intimating that the Argentine Delegation agreed to the amendment suggested by the Chilean Delegation, we did not take any further part in the debate, since the initial acceptance implied that the idea involved was not changed. The new amendment proposed is equally compatible with our view of the problem.

Dr. VASI PÁEZ (Peru): * The Peruvian Delegation fully endorses the Director's proposal.

PRESIDENT: * We appear to have reached a tacit agreement, and I think now we can perhaps put the draft resolution to the vote. Will those in favor please raise their hands.

Approved.[26]

Item 29: Selection of Topics for the Technical Discussions during the XVII Meeting of the Directing Council of the Pan American Health Organization, XIX Meeting of the Regional Committee of WHO for the Americas (*conclusion*)

Report of the Working Party

Dr. SUTTER (Assistant Director, PASB): * At the request of the Rapporteur, Dr. Wedderburn, I shall read the report of the working party on the selection of topics for the Technical Discussions of the XVII Meeting of the Directing Council:

At 12:30 p.m. yesterday, 6 October 1966, the working party set up by the XVII Pan American Sanitary Conference met with a view to making a preliminary selection of topics for the Technical Discussions of the XVII Meeting of the Directing Council. Attending the meeting were Dr. Ferreira (Brazil), Dr. Acosta-Borrero (Colombia), Dr. Montalván (Ecuador), Dr. Piñeda Martínez (El Salvador), Dr. Wedderburn (Jamaica), and Dr. Orellana (Venezuela). The working party elected Dr.

[26] Resolution XXXVII. *Official Document PAHO* **74**, 98–99.

Orellana as Chairman and Dr. Wedderburn as Rapporteur.

The topics proposed by various delegations were considered at some length, and finally it was agreed to submit the following three topics for consideration by the plenary session:

(1) Methods of Increasing Health Service Coverage in Rural Areas;

(2) Evaluation of Actions and Progress in the Coordination of Medical Care in Latin America;

(3) Medical and Social Aspects of Family Planning.

The working party agreed that it should be made clear in the report that the order of mention of the three topics did not presuppose any preference or priority in regard to them.

PRESIDENT: * The subject is open for discussion.

Dr. SUTTER (Assistant Director, PASB): * In accordance with the General Committee's instructions, delegations are asked to indicate the topic they select, as explained in Document WP/25.

PRESIDENT: * Is this procedure acceptable?

Dr. VASI PÁEZ (Peru): * Are we to check one only, or are we to mark them 1, 2, and 3 in order of preference?

PRESIDENT: * Yes, mark them 1, 2 and 3.

Dr. ACOSTA-BORRERO (Colombia): * I thought we were to select one out of the three topics.

PRESIDENT: * If only one topic is to be selected, there is actually no point in numbering all three. It will be sufficient if each delegation will indicate the topic it selects.

Taking the beginning and end of the alphabet, I should like to ask the Delegates of Argentina and Venezuela to be good enough to act as tellers. Are you ready to have the slips collected?

A vote was taken, and the tellers counted the votes.

PRESIDENT: * The Conference has expressed its will. The 20 votes cast have given the following results: in favor of "Methods of Increasing Health Service Coverage in Rural Areas," 11 votes; in favor of "Evaluation of Actions and Progress in the Coordination of Medical Care in Latin America," 3 votes; in favor of "Medical and Social Aspects of Family Planning," 6 votes. Thus the first topic: "Methods of Increasing Health Service Coverage in Rural Areas" is selected. The Secretariat has prepared a draft resolution on the subject.

Dr. SUTTER (Assistant Director, PASB): * The draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind the provisions of Rules 1, 2, and 7 of the Rules for Technical Discussions,

RESOLVES:

1. To select the topic "Methods of Increasing Health Service Coverage in Rural Areas" for the Technical Discussions to be held during the XVII Meeting of the Directing Council of the Pan American Health Organization, XIX Meeting of the Regional Committee of WHO for the Americas.

2. To recommend to the Director that, in convoking the XVII Meeting of the Directing Council, he invite the Governments to include in their delegations representatives of social security institutions so as to permit their participation in the Technical Discussions.

Dr. VASI PÁEZ (Peru): * I would merely like to propose a minor addition to the draft. In view of the highly topical nature of the item, it would be well to incorporate in the resolution a recommendation to the effect that when the item is dealt with, Governments should be invited to include in their delegations representatives of the social security institutions.

Dr. CALVO (Panama): * I am entirely in agreement with the Peruvian Delegate. It seems to me to be not merely a matter of courtesy, but the logical consequence of the interest aroused by this year's discussions.

PRESIDENT: * Would you prefer that the additional wording should be embodied in the resolution, or should it take the form of a recommendation to the Director to bear the point in mind when issuing invitations? The object can be achieved either way.

Dr. VASI PÁEZ (Peru): * If there is no objection, I would suggest that the point be incorporated in the resolution.

Dr. FERREIRA (Brazil): * I should like to know whether the addition proposed by the Delegate of Peru will be put to the vote. It implies an expression of opinion concerning the way in which the various Governments make up their delegations. In the working party we took the view that what the various countries proposed should be respected in all instances. The addition proposed implies modifying the contents of the draft resolution, and the Brazilian Delegation would therefore prefer that it should not be incorporated in the draft.

PRESIDENT: * I was in fact on the point of asking for views on the question whether the addition was

acceptable or whether it would be better that it should remain in the form of a recommendation to the Director.

Dr. OLGUÍN (Argentina): * The Delegation of Argentina regards participation by the social security organs in this discussion as important. We feel that the Director should be requested to bear this in mind in sending out invitations.

Dr. CUTLER (Deputy Director, PASB): I think it is evident that the sense of the discussion is that it is desirable to have the institutions mentioned represented at the meeting.

As has been suggested, the Conference considers that the invitations should be distributed widely so that, from the point of view of procedure, there is no need to add this formally to the resolution as proposed.

PRESIDENT: * Do you agree with what Dr. Cutler suggests?

Dr. VASI PÁEZ (Peru): * I am in agreement.

PRESIDENT: * Since your proposal was seconded by the Delegation of Panama, both Delegations would have to concur likewise in respect of the procedure to be followed at the present time.

Dr. CALVO (Panama): * I would like to see it placed on record that the recommendation by the Conference should be specific. Last year the Director was requested when inviting the Governments of the countries to attend the Conference to recommend that they include in their delegations representatives of their social security organs. I recall this very well, since I was a member of the committee which drafted last year's resolution; and for that reason, the Peruvian Delegation requested that even if it did not appear in so many words in the resolution, there should be an express recommendation to the Director to the effect that in inviting Governments to the next Directing Council in 1967 he should ask the Governments to include representatives of the social security institutions in their delegations.

PRESIDENT: * I call upon the Delegate of Colombia.

Dr. ACOSTA-BORRERO (Colombia): * Unless I am mistaken, the item we are discussing is the fourth item on the order of the day. This might perhaps be put aside for discussion under the next item, "Other Matters." The Delegates of Peru and Panama could then submit a definite resolution.

PRESIDENT: * Are you in agreement with this proposal, gentlemen?

Dr. VASI PÁEZ (Peru): * Mr. President, I should explain that I brought up this proposal under this item because in fact it entails an addition to the draft resolution read. To prevent complications and to obviate the necessity for submitting a new resolution, we might vote first of all on the resolution and then on the recommendation without waiting until the next item of the agenda is discussed. The procedure proposed by the President, namely that we vote on the draft resolution and agree to make a specific recommendation to the Director of the Bureau, is acceptable to us and we have no desire to complicate the agenda by adding a further draft resolution.

PRESIDENT: * Are you all in agreement? Is there any other observation? I shall put the original proposal to the vote first.

Would the Delegate of Peru care to read a particular recommendation to be put to the vote, or shall we merely submit the spirit of his statement to the vote?

Dr. VASI PÁEZ (Peru): * Merely the spirit, Mr. President.

PRESIDENT: * I am submitting to the vote the desire expressed by the Peruvian Delegation, and supported by the Delegation of Panama, that we should recommend the Director to include the point in question when sending out the invitations. We shall now take a vote on this proposal.

Approved.[27]

Item 39: Other Matters

Draft Resolution Presented by the Delegation of Jamaica

Dr. WEDDERBURN (Jamaica): The Delegation of Jamaica has the honor to submit to the XVII Pan American Sanitary Conference the following draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Mindful that the reports of the Governments of the Organization on public health conditions and the progress achieved during the interval between two consecutive Conferences contain valuable data and results of experiences; and

Considering that it would be in the interest of the Governments to use the Conference as a forum for the

[27] Resolution XXXVIII. *Official Document PAHO* **74**, 99.

exchange of information and ideas about important aspects of the health conditions in their respective countries,

RESOLVES:

1. To invite the Governments to transmit to the Pan American Sanitary Bureau, at least three months before the XVIII Pan American Sanitary Conference, their reports on public health conditions and progress achieved in this field for the years 1966–1969.

2. To request the Director of the Bureau to make a comparative study of the reports and select those aspects he considers to be of the foremost importance for health in the Americas.

3. To instruct the Director to inform the Governments of the selection he has made and to invite them to make special reference to them when they make their oral presentations at the XVIII Pan American Sanitary Conference.

My Delegation is proposing this resolution because we feel that we have an extremely unusual occasion presented to us at this Conference, when many more leaders in public health and health administration of the Region than usual attend the meeting. Here we have an opportunity of discussing specific problems in our countries and of exchanging ideas which may assist us in solving them.

The Pan American Health Organization, we know, exists for just this purpose: to provide a forum for discussion, and our Delegation feels that this would be another means of furthering that particular aim, so that those who attend the Conference could derive the fullest benefit.

PRESIDENT: * The draft resolution is open for discussion.

Dr. CALVO (Panama): * I should like to signify my full support for the draft resolution submitted and to ask the Delegate of Jamaica if he would be willing to agree to a slight amendment to the first operative paragraph with a view to extending the grace period referred to from three to four months.

It seems hardly likely that the Bureau could make an evaluation, and forward the results to Governments, and that Governments could make preparations to comment on the more important aspects of the documents, all within a space of three months. Four months would be more appropriate.

Dr. WEDDERBURN (Jamaica): The proposed change in the period involved, from three to four months, is acceptable to us.

PRESIDENT: * If there is no objection, we shall take a vote. Since the addition to the original draft has been approved, the amended draft is open for discussion. If no delegate wishes to speak, the draft resolution will be put to the vote with the addition introduced by Panama and accepted by Jamaica.

Approved.[28]

Place of the XVII Meeting of the Directing Council

PRESIDENT: * I call upon Dr. Sutter.

Dr. SUTTER (Assistant Director, PASB): * You have in your folders, gentlemen, copies of Document CSP17/45 which I propose to read in Spanish, along with a translation of the letter received in the English original by the Director from the Government of Trinidad and Tobago.

The Director has the honor to transmit to the Conference the following communication received from the Government of Trinidad and Tobago:

Embassy of Trinidad and Tobago
2209 Massachusetts Avenue
Washington, D. C.
September 27, 1966

Dr. Abraham Horwitz,
Director,
Pan American Health Organization,
Washington, D. C.

Sir,

I have the honour to refer to your letter CT–278–65 of 10th November, 1965, indicating that the invitation of the Government of Trinidad and Tobago for the Directing Council of the Pan American Health Organization to hold its 1967 meeting in Trinidad and Tobago would be submitted for the consideration of the XVII Pan American Sanitary Conference.

I wish to confirm that the Government of Trinidad and Tobago will provide the facilities requested by the Organization's Conference Officer on his recent visit to Trinidad and Tobago, and request that the invitation be placed on the agenda of the XVII Pan American Sanitary Conference for consideration.

Yours faithfully,
(signed)
Ellis Clarke
Ambassador

For the information of the Conference, the following are the countries where meetings of the Council have been held during the last ten years:

1956	IX Meeting	Antigua, Guatemala
1957	X "	Washington, D. C.
1959	XI "	" "

[28] Resolution XXXIX. *Official Document PAHO* **74**, 99–100.

1960	XII	"	Havana, Cuba
1961	XIII	"	Washington, D.C.
1963	XIV	"	" "
1964	XV	"	Mexico City
1965	XVI	"	Washington, D. C.

PRESIDENT: * Discussion is invited.

Dr. CALVO (Panama): * While greatly appreciating the offer made by Trinidad and Tobago, I should like to ask the Director of the Bureau whether actually, in making use of the installations we have here in this beautiful building, and all the facilities we have at our disposal, we are saving money. If this is so, I wonder whether it is justifiable that we should meet in our own countries, outside Headquarters.

I recall that at the 52nd Meeting of the Executive Committee something was said on this subject. My impression was that in the Bureau's present circumstances a considerable saving is involved if the sessions of the Conference and the Council are held in Washington.

PRESIDENT: * I call upon Dr. Cutler.

Dr. CUTLER (Deputy Director, PASB): In answer to the question raised by the Delegate of Panama, the arrangement is that when the meeting takes place outside the seat of the Organization the host Government contributes towards defraying any excess in costs caused by holding the meeting away from Headquarters.

Under the circumstances, conversations have already been held with the Government of Trinidad, the proposed meeting place has been carefully looked over together with the Government, and the Organization is satisfied that the facilities are completely satisfactory.

Therefore, if the Conference wishes, it is fully appropriate for it to accept the invitation.

PRESIDENT: * I think that the information just given to us makes it incumbent upon us to express our gratitude to the Delegation of Trinidad and Tobago for this kind invitation. We shall now take a vote in regard to the invitation.

Approved.

PRESIDENT: * I ara glad that the proposal was unanimously accepted, and I think I am voicing your wishes in sincerely thanking the Delegation of Trinidad and Tobago for its invitation. There is another proposal before the Conference.

Dr. SUTTER (Assistant Director, PASB): * The final draft resolution reads as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE

RESOLVES:

To thank the Government of Trinidad and Tobago and accept its invitation to hold the XVII Meeting of the PAHO Directing Council, XIX Meeting of the Regional Committee of WHO for the Americas, and the 57th Meeting of the Executive Committee in Port-of-Spain.

PRESIDENT: * I do not think there is any point in putting this to the vote, since it had already been approved in the abstract. I shall regard it as approved unanimously.

Approved.[29]

Dr. Jordan (Trinidad and Tobago): On behalf of the Government of Trinidad and Tobago, I should like to express our thanks for your unanimous acceptance of our invitation. It had been the intention of my Government that His Excellency, the Ambassador, should be present when this matter was being discussed, but since he has been called away to New York on business connected with the United Nations, the duty falls on me to state how conscious my country is of the honor it has been paid, and to assure the delegates here present and all those who will come to Trinidad and Tobago that we will endeavor to make your sojourn there as pleasant and productive as possible.

PRESIDENT: * Let me once again express our thanks to Trinidad and Tobago.

Finally, may I remind delegates that at 3:00 p.m. this afternoon the Executive Committee will meet in Room C, and that the closing session will be held in this Room at 5:00 p.m.

The session rose at 1:00 p.m.

[29] Resolution XL. *Official Document PAHO* **74**, 100.

CLOSING SESSION

Friday, 7 October, 1966 at 5:25 p.m.

President: Dr. ANTONIO ORDÓÑEZ PLAJA (Colombia)

Reading, Approval, and Signing of the Final Report of the Conference

PRESIDENT: * Gentlemen, the closing session of the Conference is called to order. I call on Dr. Sutter, the Assistant Director of the Pan American Sanitary Bureau, to read the Final Report of the Conference.

Dr. SUTTER (Assistant Director, PASB): * You have before you, gentlemen, Document CSP17/46 containing the Final Report of the XVII Pan American Sanitary Conference, XVIII Meeting of the Regional Committee of the World Health Organization.

Dr. Sutter read the preamble and the forty resolutions contained in the Final Report of the Conference.

PRESIDENT: * I call upon Dr. Acosta-Borrero, of Colombia.

Dr. ACOSTA-BORRERO (Colombia): * Mr. President, if the Rules of Procedure allow, I should like to propose the inclusion in the minutes of this session of an expression of appreciation from the delegates participating in the Conference to the Secretariat staff for the valuable and unflagging assistance they have given us throughout the Conference. I think it is only right that we should put on record the gratitude of the delegates of the various countries for the cooperation we have received from all the staff of the Organization during the last two weeks.

PRESIDENT: * Are there any objections to the proposal submitted by the Delegate of Colombia?

Approved.

PRESIDENT: * The Final Report is open for discussion. Are there any comments on the text read by Dr. Sutter? In the absence of comment, the text is approved.

Approved.[1]

Acknowledgments

Dr. PAREJA PIÑEYRO (Uruguay): * The Uruguayan Delegation would like to propose a vote of thanks to the President of the Conference for his brilliant handling of the meetings concluding with the present session.

Applause.

PRESIDENT: * With your permission I will not reply to this gesture at the present moment, but let me at once thank the Uruguayan Delegation, and all of you, for the warm response to his kind proposal.

Dr. ALFARO (Panama): * My Delegation proposes that the compliments of the Conference be extended likewise to the Director of the Pan American Sanitary Bureau for the magnificent way in which he has organized this meeting.

Applause.

Dr. VASI PÁEZ (Peru): * It is hardly necessary for me to add yet another expression of congratulations either to the President of the Conference or to the Director of the Pan American Sanitary Bureau, though the Peruvian Delegation would like to congratulate the Director very particularly, and indeed to applaud once again. At the same time we would request the Director to pass on our congratulations to the program chiefs and other members of the Bureau's technical staff who have made the success of the Conference and the Technical Discussions possible. My Delegation would also like to dispense with the formalities of the Rules for Technical Discussions and to be regarded for a moment as representing the delegates of the social security institutions invited for the first time to take part in the meeting along with the representatives of ministries of health.

Peru is in a peculiar position, inasmuch as it can be said to have already attained a relatively high degree of coordination in health matters, thanks to the important part played by the Pan American Sanitary Bureau and the Organization of American States. Through its social security program, it has stimulated our interest in coordination and all joint activities in these matters, through ministries of health and social security institutions. Peru is making progress in this direction. We have gone beyond the first hesitant steps and we are now able to point to positive achievements.

[1] *Official Document PAHO* **74.**

I should like to reiterate that I am paying this tribute to the Bureau in the name of all the representatives of the social security institutions, especially in view of the fact that a recommendation has been made to the Director, and a resolution has been submitted, to the effect that these institutions should be invited to the XVII Meeting of the Directing Council, when further attention will be given to a topic of the utmost interest to social security, namely, the extension of health care to the rural population.

As I see it, our task does not end with the discussion of the subject of coordination. It will only begin to be effective when we who represent the social security institutions return to our own countries and report to our parent bodies not only on the resolutions dealing with coordination, but also on all the resolutions relating to the health problems of the vast populations under our charge.

Allow me once again to congratulate the Pan American Sanitary Bureau on this achievement, for without any doubt, if we are familiar with the principles underlying these resolutions and promote their application to the peoples under our protection, we shall be practicing coordination much more thoroughly than through agreements drawn up between our various institutions.

Closing of the XVII Pan American Sanitary Conference

PRESIDENT: * If no one else wishes to take the floor, I should like to say a few words in taking leave of you. In doing so I should like to thank the delegates here present on several counts: first of all, I am grateful to the Delegation of Uruguay for its kindness in proposing the vote of thanks a few moments ago and to all here present for the tribute paid to my country and to me personally, on my arrival, when you were good enough to entrust me with the Presidency of this Conference. As I said on the first day, I look on this as a great honor and a matter of pride and gratitude.

When I was congratulated on the way in which I have conducted these debates, as an amateur psychologist I could not help reflecting that children—and there is something of the child in all of us throughout our lives—always want to be firemen, policemen, etc., never to be orchestra conductors. This has deep significance. What the child wants is to wield power, but the conductor of an orchestra can only give back what the orchestra gives him—and the same is true of the man who presides over a meeting. Hence, I must invite you to take the bow, gentlemen, just as the conductor does with his orchestra.

I think that everyone attending this Conference deserves congratulations, for everyone has worked hard and effectively. The discussions have been held in an atmosphere of cordiality and frankness, and with a speed which indicates clearly that we are all speaking the same language—a basic necessity if agreement and positive action are to be achieved.

I take this opportunity also to thank the Director and all the staff of the Bureau for their zeal and enthusiasm, and most especially Dr. Sutter, who has acted as my loyal and able secretary during the Conference. I also extend this acknowledgment to the interpreters, whose work seemed to me to be really excellent.

I have no desire to make a speech. I want our conversation to continue on the same friendly and cordial tone, free of dogmatic utterance, as throughout the Conference. At the same time it would hardly be right of me not to refer to one or two matters which I think call for special mention. Apart from this spirit of frankness and cordiality which has pervaded the Conference, enormous interest has been aroused by the questions of education, research, and economy. On this last point there were differences of opinion, though I think they were matters of form rather than of substance; and I am sure we are all agreed that what we have to aim at is the best possible utilization of resources, both through cooperation with a view to integration, and through integration designed to bring about a greater and greater degree of cooperation. We must avoid duplication of effort and endeavor to ensure that whatever resources we have, however meager, may have their effect on the preservation of health, or the rapid recovery of health when lost.

The fact that the subject of research aroused such enthusiasm and meaningful argument seems to me very significant. It is indicative of a common view throughout the Hemisphere that research and human resources are factors of far greater importance than physical resources. This gave rise to a wide-ranging and constructive discussion on the question of textbooks and other educational materials.

To sum up, if you will allow me to play the uncalled-for role of judge, I think it can be said

without exaggeration—and, I repeat, thanks not to the conductor but to the orchestra—that this Conference has been a real success and a model of the mechanics of cooperation, understanding, and methods of consolidating old friendships and making new ones.

I take leave of you with an old Scottish saying I first heard from Sir George Pickering in a meeting at Princeton: "Happy to meet, sorry to part, happy to meet again." Many thanks to all of you, and may we meet again soon.

Applause.

The session rose at 6:05 p.m.

3. PRECIS MINUTES OF THE COMMITTEES

COMMITTEE I

FIRST SESSION

Tuesday, 4 October 1966, at 10:40 a.m.

Chairman: Dr. DANIEL ORELLANA (Venezuela)

Election of Vice-Chairman and Rapporteur

The CHAIRMAN called the session to order and asked the delegates to bear in mind the need to complete the Committee's program within the prescribed period. He then called upon Dr. Sutter, who had been designated by the Director of the Bureau to act as Secretary at the sessions of Committee I, to read those Rules of Procedure of the Conference pertaining to the Committees, their structure, and operation.

Dr. SUTTER (Assistant Director, PASB) read Rules 28, 29, and 30 of the Rules of Procedure of the Conference.

The CHAIRMAN invited the delegates to nominate candidates for the posts of Vice-Chairman and Rapporteur of Committee I.

Dr. MARTÍNEZ (Mexico) nominated Dr. Jordan (Trinidad and Tobago) as Vice-Chairman and Dr. Andrade (Ecuador) as Rapporteur.

Decision: Dr. Lennox de Lacy Jordan, Delegate of Trinidad and Tobago, and Dr. Leoncio Andrade C., Delegate of Ecuador, were unanimously elected Vice-Chairman and Rapporteur, respectively, of Committee I.

Item 32: Report on the Status of Malaria Eradication in the Americas

Dr. DA SILVA (Chief, Malaria Eradication Branch, PASB) outlined the XIV Report on the status of the malaria eradication program in the Americas, submitted by the Director of the Bureau to the XVII Pan American Sanitary Conference in Document CSP17/4.[1] He explained that the decision to launch the campaign had been taken in September 1950 at the XIII Pan American Sanitary Conference;[2] nevertheless it was the XIV Conference,[3] held at Santiago, Chile, in September 1954, which had granted the Bureau the minimum funds required to begin operations. In 1955, the Eighth World Health Assembly had endorsed[4] the wishes of the countries of the Hemisphere and had decided to tackle eradication on a world scale, and shortly afterwards the Executive Board of UNICEF and the Government of the United States of America, through its International Cooperation Administration (ICA), later renamed Agency for International Development (AID), had decided to cooperate in the campaign. He added that 1955 had been a preparatory year, devoted mainly to gathering together the external resources necessary for helping Governments to eradicate malaria in their respective territories. For that reason the campaign was regarded as having begun in the Hemisphere in 1956; prior to that date only some countries, for example, Argentina, Ecuador, and Venezuela, had been steering their control campaigns towards that goal, but the pace had been slow because it had depended on the relative inflow of resources in a given year.

He then summarized the history of the campaign during its first decade. He pointed out that Figure 1 in the working document, which reproduced a diagram presented in 1957, showed the most important developments of those first years. It also indicated the headway made up to December 1956 in converting the control programs into eradication programs and in establishing services where none had existed before, just as the current malaria eradication terminology had not existed hitherto; for example, the term "advanced" in the figure meant that the attack measures had been in operation. Figure 2 showed the history of each campaign year by year, in terms of the percentage of population of the malarious area at each phase of the program, thus indicating that many programs had progressed steadily during the various phases, that some had reached the maintenance phase, while others had remained, wholly or to a large extent, in the attack stage and one was even in the preparatory phase.

Tables 1 and 2 gave population statistics by countries at the different phases of the 1956 to 1965 campaign. The number of persons living in zones from which malaria had been completely or vir-

[1] See Annex 2, pp. 335–475.
[2] Resolution XVIII. *PAHO Publication* **261**, 159 (Sp.).
[3] Resolution XLII. *Official Document PAHO* **14**, 643–644.
[4] Resolution WHA8.30. *Off. Rec Wld Hlth Org.* **63**, 31–32.

tually eliminated had amounted in 1956 to 39 per cent of those present in the originally malarious areas, and 67 per cent in December 1965. If the inhabitants of countries in which malaria had been eradicated prior to 1955 were deducted and the populations were compared by phases in countries attacked by malaria at the beginning of the period, the percentage distribution would show that, in 1956, 6 per cent of the population of the originally malarious areas of the Hemisphere had been in the consolidation or maintenance phase, while 50 per cent of the said population had been in that phase in 1965. In some parts of those areas in the consolidation stage it had been impossible, owing to the lack of funds for adequate surveillance, to prevent the disease from developing further, and such sectors would return to the attack phase when funds were available.

Dr. da Silva then described what had happened during those years from the time when, in 1958, the first biological problems had arisen and regular tests had been carried out with insecticides to determine the susceptibility of the vectors which had proved resistant to dieldrin in Central America, Jamaica, and Mexico. Other problems had also been identified, particularly the fact that dieldrin in 12-month cycles had not interrupted transmission in areas with susceptible vectors. Investigation had shown that the number of new houses, walls, roofs, and coverings, the number of washings and coats of paint, and other changes in the surfaces sprayed in the course of one year, had been greater than anticipated and that there had been more unsprayed surfaces than was compatible with a satisfactory campaign based on a residual-action insecticide. Later the resistance of the anophelenes to DDT in some limited areas had been discovered, especially in Central America, where resistance to dieldrin had already been established, and PASB had organized a study of the residual activity of DDT, sprayed in different doses and at different intervals, and of new insecticides. Two organophosphorus compounds—malathion and Bayer 2949—had been tested in the laboratory.

Between 1958 and 1959, the attack on the disease had been extended to other areas of the Hemisphere. Thus, in Peru, the last hitherto uncovered malarious area, namely the river zone of the upper Amazon basin, had been attacked by the program. In Brazil, the attack throughout Brazilian Amazonia had been launched by means of a chloroquinated salt program; and in Trinidad a collective-treatment experiment had been made for the first time using chloroquine-primaquine combined with intradomiciliary spraying in monthly cycles in a zone of the interior where the vector, *Kertezia bellator*, bit man occasionally by day outside his domicile.

As the programs had moved ahead, more importance had had to be given to evaluating results and, for that reason, a seminar had been held in Brazil in order to disseminate information and encourage the exchange of experiences in that field. The last two American countries with malaria but without eradication programs—Cuba and Haiti—had begun the preparatory phase in 1960-1961 and, in Venezuela, the first area in the world to receive certification of the eradication of malaria had been delineated. The list of biological problems had increased in 1960 with the discovery of chloroquine-resistant cases of *Plasmodium falciparum* in the Magdalena Valley of Colombia and in the States of Táchira and Trujillo, Venezuela; in order to help overcome the difficulties in the problem areas, the Bureau had set up a research unit to study the reasons for the persistence of transmission.

In 1961, the financial difficulties of some programs had become more acute. In Paraguay, attack operations had had to be suspended and those in Argentina and Panama had been curtailed. In Ecuador, on the other hand, the attack had been relaunched on a wider scale and the area in the consolidation phase had been extended in several programs. In the Brazilian Amazonian basin the chloroquinated-salt program had been completed at the end of the year, after an evaluation of the results had indicated that it had not been effective enough. The main reasons for its failure had been insufficient coverage and the existence of cases of chloroquine-resistant *P. falciparum*.

By that time it had become apparent that the simplicist eradication criterion, based entirely on intradomiciliary residual-action spraying with insecticides, did not cover every situation, and that in many areas supplementary methods had to be used. In Mexico, Guatemala, and Nicaragua larvicides had been applied; in El Salvador antimalaria collective treatment had been used; in Guyana chloroquinated salt had been introduced; and the radical cure of *P. vivax* cases had been applied in foci situated in Costa Rica and Nicaragua and in order to eliminate the traces of transmission in Jamaica and British Honduras.

He then stated that, in 1962, research on larvicides had been continued; Guayaquil, Ecuador, had received that type of protection; the shores of Lake Managua in Nicaragua had been treated in the same way; and a focus in an area of double resistance to insecticides in the Sanarate Valley of Guatemala had been completely eliminated. New collective-treatment experiments had also been carried out in Mexico with the Bureau's financial assistance, and in Guatemala with the cooperation of the owners of cotton plantations and the United Fruit Company. In the insecticide attack on adult vectors, experiments had been carried out in Haiti, in conjunction with the United States Public Health Service, on the effectiveness of the fogging insecticide, DDVP. In Guatemala, an alternative method of DDT spraying had been tested in a continuous spraying experiment designed to maintain complete DDT coverage in order to cope with the rapid construction of new houses in a settlement area. In Nicaragua, as a field experiment, spraying had been begun with a new insecticide, malathion, in areas where the vector had been resistant to DDT and dieldrin, and three farms with a high incidence of malaria had been treated.

The Malaria Eradication Epidemiology Team had completed its studies on DDT; one of its findings had been that DDT deposits on certain hard surfaces were effective for a much longer time than had been believed, and were usually active so long as they were visible. In El Salvador the Insecticide Testing Team had completed 18 months of intensive studies designed to isolate the factors responsible for the persistence of transmission; it had also started a series of selected measurements of factors chosen from a group of different localities in order to improve the methods of identifying operating causes more swiftly. Lastly, in 1962, more accurate information had become available on the tolerance and resistance of *P. falciparum* strains to chloroquine, and a center for the study of that problem had been organized at Riberão Prêto, São Paulo, Brazil, in cooperation with the Brazilian Government.

Nevertheless, the problems created by inefficient administration had continued to be one of the chief reasons for the rather unsatisfactory result of the projects. Much effort had been expended on inducing national authorities to reorganize their working methods in order to make them more efficient, and to allocate the requisite funds to their eradication services with the necessary flexibility. Inefficient administration and the lack of funds had continued to constitute greater obstacles to the campaign's progress than technical problems, although, as usual, the latter had received more public attention.

He then described the progress of the campaign during the two-year period 1963-1964. The studies in many fields had been continued, and in some sectors substantial headway had been made which had brought the Hemisphere closer to its goals. Major strides had been made in the matter of administration in the Dominican Republic, Colombia, and Brazil. In 1963, the health ministers of Central America and Panama had decided to launch a coordinated campaign in the six countries, but it had proved impossible to find a formula for the proposed organization that was acceptable to the different juridical systems, and no joint campaign had been embarked upon during that period. In Central America, Mexico, and Panama, the financial problems had become more acute and conditions had remained unsatisfactory in various South American programs. Bolivia had undergone an acute crisis in 1963-1964, as had Honduras. Despite those setbacks, important advances had been made. The population in the areas in the consolidation phase had grown by one third in 1963 and by even more in 1964. The areas in the maintenance phase had expanded in Venezuela and Guadeloupe, and some had reached that phase in Peru. Both Jamaica and Trinidad and Tobago had moved into the maintenance phase (in 1965 they had received certification of the eradication of malaria). As the number of programs approaching eradication had risen, it had become more urgent to establish procedures for transferring surveillance to the general health services and to develop, in good time, adequate coverage and training as part of general health services.

For that purpose the Bureau had organized two Seminars on the Role of the General Health Services in the Eradication of Malaria,[5] which had been attended by the Directors of the general health services and of the National Malaria Eradication Services. During the two-year period it had also been concluded that the combined application of various selected attack measures, after studying a given local area, was the most productive procedure in problem areas. To the extent that financial re-

[5] The reports of these Seminars were published in Spanish in *Scientific Publication* PAHO **118**, 1965.

sources had permitted, the combined attack method had been used. It had also been observed that intradomiciliary DDT spraying had been useful in areas where the vector had been resistant to that insecticide, since the degree of resistance was not the same in all cases but varied from locality to locality and from one season to the other.

Comparative studies made in Guatemala in some localities where the *Anopheles albimanus* was DDT-resistant had revealed a substantial increase in transmission in places where spraying had been suspended, as compared with other places where it had been maintained. Many of those tests had demonstrated the effectiveness of the measures applied but, owing to the impossibility of applying them on the required scale with the authorized budget, the malaria situation had deteriorated in parts of the problem area, and little progress had been made elsewhere in areas with refractory malaria. During that period, the possibility had been considered of using a long-acting antimalaria drug, but a planned test of cycloguanil pamoate had been postponed when it was noted that experiments in other parts of the world had shown that the doses for children were insufficient and necessitated changes.

He pointed out that the figures presented in the document would make it easier to analyze the existing situation. Figures 3 and 4 showed how well-administered and well-financed campaigns but with no major biological problems progressed favorably toward eradication. In all of them the number of malaria cases declined noticeably as case detection increased. Figure 3, however, showed that very little work had been done in the Dominican Republic owing to the shortage of funds and administrative facilities. Once those problems were solved, there was every indication that eradication would not be far off. Figures 5 and 6 illustrated the effects of technical problems combined with a shortage of funds, for example in El Salvador, and of the shortage of funds without serious technical problems, as in Panama and Costa Rica. Part of Figure 7 referred to Bolivia and clearly showed the effect of the steep decline in activity following the budget cuts of 1963 and 1964; the slight increase in the number of positive cases of malaria in 1962 had developed into very serious outbreaks, and control of the situation had been re-established in 1965 when adequate budgetary allocations had been provided. The other part of the figure relating to Ecuador showed the harmful effect, in comparison with the progress achieved, of not having sufficient funds for launching a complete attack. On the other hand, Brazil's program, which alone covered half the Continent, was moving ahead at a livelier pace than ever before. However, an inadequate budget had reduced the speed at which the original plan approved by the Government could be carried out. Legislation and regulations had recently been promulgated to ensure that the resources and facilities recommended by the international agencies were available for the campaign. Theoretically, Brazil's Malaria Eradication Campaign had all the facilities necessary for discharging its functions, but its future depended on the budgetary allocations earmarked for its stage-by-stage execution and on an administration capable of coping with the magnitude of the problem.

To complete the analysis, he drew attention to Table 3 in the document under consideration which itemized the expenditure (in thousands of United States dollars) incurred in eradicating malaria during the decade 1956-1965, by source of funds, and to Figure 8 containing a graph which showed that the Governments of the Americas had made substantial contributions in order to honor the commitments they had assumed under the Charter of Punta del Este in regard to malaria. It was nevertheless imperative to make a further effort, as all the parties interested in the program from 1966 to 1975 had agreed.

Dr. da Silva then pointed out that Maps 1 and 2 compared the status of the campaign, by phases, at the end of 1964 with the position at the end of 1965. There had been an obvious deterioration in several areas in the consolidation phase in 1964, which had had to return to the attack phase because the disease had clearly re-established itself. If an analysis were made of the Hemisphere as a whole it would show that definite progress had been made. That was apparent from Table 4, for instance, which showed that there had been a proportionate increase in population and in areas in the various phases of eradication properly speaking, as compared with those without protection in 1964. On the other hand, Table 5 showed how much the momentum gained in 1961 had slackened off, especially because of the lack of substantial resources for applying complementary methods of attack in the areas with biological problems and, at the same time, of the inadequate surveillance system in

the areas in the consolidation phase, which had prevented the early detection of malaria cases, mainly imported from other malarious areas of the same country. With a proper surveillance system, the few cases detected could have been treated in time and propagation of the disease could thus have been averted.

Referring to Table 7 concerning the extent and nature of the problem areas and the action taken and planned to deal with them up to December 1965, he observed that the fact that the table was more detailed than that presented to the XVI Meeting of the Directing Council [6] did not mean that there had been a proportional increase in those areas but that more detailed and comprehensive information was available than in December 1964. The results shown in the relevant column might be regarded as disappointing, inasmuch as all the measures planned in 1965 had not been carried out; the reason was the lack of adequate funds. Table 8 gave information on the collective-treatment programs carried out in 1965. One important point was the fact that in Haiti the number of inhabitants receiving collective treatment had risen to 1.7 million in May 1966.

There followed in the document a detail of the progress of the campaign in every country or territory. The tables dealing with epidemiological evaluation in areas in the attack, consolidation, and maintenance phases were particularly important. A rise in the number of malaria cases in any of those phases showed that there was something wrong that required remedial action, and that should be analyzed locally by the authorities of each country so that the necessary, mainly financial and administrative, action could be taken.

He thought that, generally speaking, the section of the report dealing with special technical problems showed that the situation had remained much the same as in the previous year, except for the growing number of localities with real or suspected chloroquine-resistant *P. falciparum*. That was a problem requiring closer investigation since the actual definition of the term "resistance" remained controversial. Special studies were being made during the current year, and it was planned to carry out, at the earliest opportunity, an inquiry into the matter which would provide basic information for the next meeting of the PAHO Advisory Committee on Medical Research, which had recommended that the topic be included in the agenda of its Sixth Meeting in 1967 and had appointed Professor Walsh McDermott as coordinator of the relevant information.

Dr. da Silva then gave an account of the malaria research being undertaken in collaboration with the Governments, and he drew attention to the studies on a new insecticide, identified as OMS-33, a carbamate which promised to be effective in certain areas with problems of transmission persistence where chlorinated insecticides were not completely effective.

Lastly, it was highly gratifying to note the statement in the document that international and bilateral cooperation had been magnificent. Commenting on Table 22, which showed that the international organizations (PAHO/SMEF, WHO/SMEA, WHO/TA, and UNICEF) had provided more, and AID apparently less, assistance in 1966 than in 1965, he pointed out that the Government of the United States of America was negotiating with a view to assuming the local costs of many programs and that the document referred only to assistance committed up to the end of 1965 and 1966 without specifying what was being negotiated during the current year. The assistance given to Haiti in 1966 had been greatly increased in order to cope with contingencies at the beginning of 1966, pursuant to the recommendations of the study group which had analyzed the problem in February.

In conclusion, he observed that the report indicated that: (1) effective methods of controlling the extradomiciliary transmission of malaria in the Hemisphere were available; (2) the intradomiciliary application of DDT should be continued, even in areas where the vectors were DDT-resistant, because resistance was not very widespread and the suspension of spraying led to a rise in the number of cases; (3) DDT should be applied until some other more effective insecticide of proven residual action could replace it economically, without involving additional procedures which might raise the cost of the campaign; (4) collective medication was an effective complementary element of attack in places where intradomiciliary spraying failed to interrupt transmission; (5) in some circumstances antilarval measures were more economical than collective medication; (6) radical-cure treatment should be expanded to the utmost with the cooperation of the local health services, whether governmental, semiprivate, or private; (7) concurrently

[6] See *Official Document PAHO* **69.**

with attack measures, it was essential to maintain an adequate organization to evaluate their effectiveness; (8) economic resources were essential but could not be effective unless the administration of the programs allowed them to be properly used; (9) the malaria eradication programs should be given facilities for selecting, training, recruiting, and replacing their personnel as the circumstances warranted; (10) campaign personnel should be offered the opportunity to participate in the planned expansion of rural health services; (11) existing local health services should play an active part in the national malaria eradication campaign, especially as regards the detection and radical-cure treatment of malaria cases.

The CHAIRMAN thanked Dr. da Silva for his statement and remarked that he had been deeply impressed by his references to the serious technical, financial, and administrative problems involved in carrying out malaria eradication campaigns in the Hemisphere. He then invited those delegates who wished to participate in the discussion to make their statements.

Dr. GUÉDEZ LIMA (Venezuela) described the considerable advances made in Venezuela, where an area of 50,000 km² had been in the final phase for two years. At the end of the statutory period, the relevant certification would be applied for in respect of that area. The main feature of the campaign in the Americas was also visible in Venezuela in its problem areas, where the main difficulty was the vector's DDT-resistance. He added that the application of residual-action insecticides with other characteristics was expensive for two reasons: the actual price of the insecticide, which had risen considerably in the world market, and the cost of application, because spraymen required much greater protection than when using chlorinated insecticides since the risk was also greater. Despite that, efforts were being made to solve the problem by applying the same principles as were followed by Venezuela's traditional antimalaria campaign.

Dr. WEDDERBURN (Jamaica) thanked PAHO, WHO, and the United Nations Children's Fund (UNICEF) for the great assistance his country had received for its malaria eradication campaign. Jamaica had been relatively fortunate in encountering only a few difficulties, and within eight years, as of January 1966, had been certified as being completely free of the disease.

However, with eradication had come certain anxieties, in particular that of ensuring that the country did not become reinfected by the movement of visitors from areas that were still malarious.

As an example, he reported that in August 1966, Jamaica had been host to the Eighth British Empire and Commonwealth Games. Of the 1,500 athletes who had attended, a number had come from countries where malaria was still present, and the problem had consisted of dealing with the situation without giving offence. The athletes in question had been asked to submit to the taking of blood smears. Cooperation had been received from nearly all, though the manager of one team had preferred that his athletes leave the country.

In the village where the athletes were housed, the walls of the rooms had been sprayed as a precautionary measure because *Anopheles* mosquitoes were still present in the area. One athlete was found to have malaria parasites; although he had been experiencing no symptoms, he had previously had malaria and he therefore consented to take antimalaria drugs. Fortunately, though the athletes were in the country for almost three weeks, there had been no evidence of transmission.

While every effort should be made to avoid travel restrictions, it was clear that there should be agreement among countries on the matter so that the effort devoted to the malaria eradication programs would not be nullified by visitors who inadvertently constituted a source of reactivation of the infection.

He welcomed the proposal of the Organization to convene a seminar later in 1966 on that particular problem, and looked forward to receiving suggestions which would help allay some of the fears felt by Jamaica, and perhaps by others in similar situations.

Dr. MARTÍNEZ JUNCO (Cuba) expressed his satisfaction with the information supplied on the progress of the different malaria programs in each country. That information would make it possible to analyze the various technical and administrative aspects involved.

He then described Cuba's antimalaria activities since February 1959, when the first agreement with PAHO had been signed to delimit the malarious area, following which the Ministry of Public Health had set up the body required to implement the eradication program.

With reference to spraying operations, he stated that, so far, over 3,000,000 intradomiciliary spray-

ings had been carried out in Cuba and that, in seven of the 15 sectors into which the area to be sprayed had been divided, the eight prescribed cycles had been completed and an area of 18,351 km² with 194,191 houses and 883,314 inhabitants had been covered. In the other six sectors the eighth cycle was being completed over 13,508 km² with 170,049 houses and 797,580 inhabitants, and the seventh cycle was nearing completion in two sectors covering 5,643 km² with 72,994 houses and 346,605 inhabitants. Coverage had been extended over half of the originally malarious area (37,502 km² with 2,267,000 inhabitants) and full coverage would be completed in the next few months. At all times the maximum technical care and speed had been maintained in the sprayings, and common problems had not affected the campaign from the operational standpoint.

The operational bases and structures had been established at the outset of the program, and since then the utmost care had been taken to ensure the most effective participation possible of the other general health services in the campaign's epidemiological activities. He then cited the following figures referring to the steady increase in blood samples and the decrease in the number of malaria cases:

Year	Slides examined	Positive	Positivity percentage
1962	100,247	3,519	5.51
1963	126,334	883	0.66
1964	276,470	624	0.23
1965	423,790	131	0.03
1966 *	300,232	24	0.01

* From January to June.

Of the 24 positive slides obtained in the first half of 1965, only 10 were from indigenous cases. Even though the thoroughness with which house-to-house detection was conducted in areas in the consolidation phase forced the spraymen to become epidemiological evaluation assistants, that did not detract from the importance of the preventive-care network of health services at that stage; on the contrary, that network formed the nuclei which served as operational bases and coordination units and thus enabled the work to be carried out efficiently in the most remote sectors of the territory. By way of illustration, he pointed out that the general services had examined 88 per cent of the total slides in Cuba in 1963 and 85 per cent in 1964.

The main feature of the campaign in Cuba had been the total absence of financial and personnel problems. The same was true of equipment and supplies which were obtainable nationally because they were available in the country. In addition to the fact that the annual budgets were approved at the top ministerial levels, every year there had been sufficient flexibility to deal immediately with any emergency. Once the spraying activities had been organized, the number of spraymen had risen from 450 to the present 674, and 7,888,686 pesos had been spent on the campaign during that period.

He then went on to say that from 15 to 18 March a general evaluation of the program had been made at Santiago de Cuba, in which national officials, the Chief of PASB Zone II, and the Deputy Chief of the Malaria Eradication Branch of PASB had participated. At that meeting the possibility of shifting a vast area in the northwest of Oriente Province, equivalent to one quarter of the originally malarious area and with an estimated population of 400,000, into the consolidation phase had been explored. In view of the fact that the epidemiological situation in the rest of the area was just as favorable, the group had scheduled another meeting for November 1966 for the purpose of studying the possibility of shifting the remainder of the initially malarious zone into the consolidation phase.

He summarized his comments in the following conclusions: the four years of the malaria eradication program in Cuba coincided almost exactly with the attack phase; the results were encouraging as was illustrated by the fact that, of the 24 cases detected in the first half of 1966, only 10 could be classified as indigenous; the number of blood samples had grown fivefold over that period and their distribution had steadily improved; the understanding and cooperation of the people in all spraying and epidemiological operations had been a decisive factor in the success achieved so far; the participation of the general health services in the program since its very beginning had been satisfactory and was increasing at a time when training was being organized for the purpose of consolidating general health service personnel of different levels in order to perform epidemiological activities on a sectoral basis; no economic difficulties of any kind had been encountered during the execution of the program and there were no doubts as to its future financing, thanks to the Government's policy to attain the eradication of malaria in Cuba.

Dr. VAN DER KUYP (Kingdom of the Netherlands)

said that his statements would be brief, since the Director's report on the subject and his own report to the Nineteenth World Health Assembly, which would be distributed, contained complete information on the malaria eradication program in Surinam.

His country wished to thank PAHO, WHO, and UNICEF for the assistance received.

He stated that the number of new cases of malaria reported by district physicians, particularly in the coastal area of Surinam were 13,788 in 1931; 7,034 in 1941; 1,013 in 1951; and 288 in 1957. When the eradication program had been started the number of positive slides obtained from the entire country had been: 2,288 during eight months of 1958; 2,703 in 1959; 997 in 1960; 646 in 1961; 716 in 1962; 1,882 in 1963; 1,681 in 1964; and 4,311 in 1965. Ninety-eight per cent of the positive smears had shown the presence of *P. falciparum*. The figures appeared discouraging, but those for 1958–1965 applied mainly to the interior. Of a total of 4,311 positives, 4,191 (97 per cent) had been located in two areas, the Upper Surinam River and the eastern border. Moreover, the number of smears collected in those problem areas had increased in recent years. Some 86 per cent had been collected at the collaborating posts.

The transmission of malaria had been interrupted in the coastal and savannah zones where 93 per cent of the population of Surinam lived. The problem remaining, therefore, was one only affecting the interior. Combined attack measures, i.e., five cycles of residual house spraying with DDT and seven with dieldrin, mass drug administration, and larviciding, had not sufficed.

To safeguard the people in the consolidation area, barrier zones were still being sprayed, thus increasing the region in the attack phase, which represented 20 per cent of the population. The salvation of the interior might well be through medicated salt. The first trial use of chloroquinated salt had been made in cooperation with missionary doctors of the Upper Surinam River. "Malaria salt," as the people called it, was well accepted. A medicated salt plant had been built, which would permit the expansion of the program in the problem areas.

Dr. Calvo (Panama) began by congratulating the Director of the Bureau and especially Dr. da Silva on the report submitted, which gave a comprehensive picture of the tremendous progress made by the Americas in the malaria eradication program with the strong support and technical cooperation of the Bureau and the financial aid of UNICEF, the Inter-American Cooperative Public Health Service of the United States of America, and some other countries.

As he had had occasion to do at the Seventeenth World Health Assembly, he wished to bring to the Bureau's attention a point, not of substance but of form, bearing on the expression "Panama Canal Zone," which appeared in the report. The expression should be corrected, because the Canal Zone was not Panamanian but a zone ceded under international agreements for the operation and maintenance of the interoceanic canal. He therefore appealed once again to the Director that some explanation should be included in the Bureau's official reports, if it was considered necessary to state that the territory of the Canal Zone presented epidemiological features different from those of the territory of the Isthmus of Panama as a whole. The explanation was necessary in order to avoid offending the susceptibilities which Panama shared with all the other free countries of America in such important matters of sovereignty. Moreover, without such an explanation, there might be some misunderstanding about the eradication phase, because it was common knowledge that, if the Canal Zone was in the consolidation phase, that was even more true of the cities of Panama and Colón, and in one of the strips of the Canal Zone there was a problem area called Los Lagos, one of the five problem areas in the Republic, which presented enormous difficulties so far as malaria eradication in Panama was concerned. That was why the Panamanian authorities had wished to reach some kind of understanding with the health authorities of the Canal Zone in order to launch a joint attack on the problem area of Los Lagos, an artificial problem deriving from the artificial creation of the lakes in question.

Since 1957, when the eradication campaign had started, the malaria index had dropped from 8 to 2.2 per cent in the first five years, and in 1965 to 1.6 per cent. Nevertheless, since the administrative and financial problems mentioned by Dr. da Silva were common to all the countries of the Hemisphere, the problem of malaria eradication remained as pressing as it had been three or four years before. He therefore thought it necessary that all the countries of the Hemisphere—as already agreed among the Central American countries—should receive substantial financial support to assist their own financial efforts, as reflected in their regular budgets, in the form of loans, such as those they were already using in the final phase from AID sources, so that

the ultimate objective, the eradication of malaria, could be attained within three years.

Dr. ORTEGA PEGUERO (Dominican Republic) said that Figure 3 in the document submitted on the status of malaria eradication presented the record from 1962 to 1965, in order words, since the Autonomous Malaria Eradication Campaign had been organized in his country. The campaign, he explained, had complete operational autonomy. It was a vertical campaign, which was being conducted throughout the national territory and which had been a matter of general and personal concern. He himself had attended the Cuernavaca Seminar, in which all the Directors of national health services had participated in order to discuss the integration by those services of the malaria surveillance phases. In conclusion, he added that he considered the statement by the Delegate of Cuba to be interesting and asked whether some other countries had managed to achieve such integration and what results had been obtained.

Dr. MONTALVÁN (Ecuador) stated that he had listened with keen interest to the report submitted by the Pan American Sanitary Bureau on the item. No doubt his feeling of gratification at the progress achieved in the programs of some countries was shared by all, although there was also reason for concern about the difficulties which had limited the success of the campaign in some others, or which at least had prevented the goal of eradication from being reached.

With regard to the health campaign, Dr. da Silva had referred in his report to the origin of the malaria eradication movement. In that connection Dr. Montalván recalled that the Delegation of Ecuador had proposed in 1950, at the XIII Pan American Sanitary Conference, the resolution designed to initiate action in the Pan American Sanitary Bureau for the eradication of malaria. At that time, the Ecuadorian Government, encouraged by the statement made at the International Congress of Tropical Medicine, held at Washington in 1948, concerning the great progress and success achieved by the health services of the United States of America, Italy, Chile, and other countries which had succeeded in eradicating the disease by the modern methods of applying residual-action insecticides, had promulgated an Act in order to organize the malaria campaign.

As was correctly recorded in the report of PASB, Ecuador had been the first country to state, in that resolution, that the goal of the malaria campaign was total eradication. Ecuador's hope had been for international action but, owing to the lack of funds, that action had not been started until after 1954, when the XIV Pan American Sanitary Conference, meeting at Santiago, Chile, had amended the proposal agreed on in 1950 and had promoted the project by establishing a fund so that the Bureau could begin the work. Since then considerable progress had been registered in the Americas: according to the report, many countries were steadily expanding their eradication areas or at least the areas in the consolidation phase, although it sometimes appeared as if the goal would not be reached.

With regard to developments in Ecuador in the past four years, he reported that the positivity index had been 2.1 in 1962, 1.3 in 1963, 1.5 in 1964, and 1.3 in 1965. The number of slides had risen from 269,000 in 1962 to 340,000 or over in 1965. The downward trend reflected in the decimal fractions gave the over-optimistic impression that the figure was gradually coming closer to zero, but there was always a residual amount, and despite the continued mathematical effort, that residual amount remained. With regard to the problem under consideration, he thought that it was necessary to forge ahead with the operation until the zero point had been reached. The difficulties in the way were sometimes biological; at other times they were due to a slackening of effort, or to weaknesses in the technical and administrative organization on which the quality of the work depended. Although perfection was impossible, every facility should be primed for optimum operation and that was what Ecuador was trying to accomplish. If necessary, the entire technical and administrative policy so far followed should be revised with a view to finding a solution which would really lead to the best possible system.

On behalf of his country, he thanked the institutions, such as UNICEF, PAHO, and WHO and also the official organizations and agencies of the United States of America which, in that and other fields, had strongly supported the other countries of the Hemisphere, for their generous assistance which had made itself felt and continued to make itself felt. In conclusion, he pointed out that an agreement was being negotiated with AID which could certainly usher in a new phase of activity and expressed the hope that, four years hence, it would be possible to include in the Pan American Health Organization's report on malaria eradication other areas from which the disease had been eliminated.

The session rose at 12.06 p.m.

SECOND SESSION

Tuesday, 4 October 1966, at 2:35 p.m.

Chairman: Dr. Daniel Orellana (Venezuela)

Item 32: Report on the Status of Malaria Eradication in the Americas (*continuation*)

The Chairman called the session to order and announced, on behalf of the General Committee, that a plenary session would be held the following day after the recess. The topic for the Technical Discussions to be held at the XVII Meeting of the Directing Council would be selected at that session. He recommended that delegations intending to present topics should submit them in writing to the Secretariat of the Conference.

Dr. Salvant (Haiti) congratulated Dr. da Silva on behalf of his Delegation on his brilliant presentation of the document and thanked the Pan American Health Organization, the World Health Organization, UNICEF, and the U. S. Agency for International Development, which were contributing so generously to the eradication of malaria in Haiti. The program was developing both technically and administratively to the full satisfaction of his Government. The national malaria eradication service, a technical cooperative body that was administratively completely autonomous, had started its activities in 1961 with a series of topographical and epidemiological surveys carried out in representative zones in order to delineate the malarious area. Those studies had established the fact that the transmission of malaria had not assumed major proportions in the zones situated at altitudes over 600 meters. It had therefore been decided to spray 950,000 houses with a total of 3,600,000 inhabitants. Two methods had been used: the first had been to treat the houses with two grams of DDT per square meter of sprayable surface and, as had been noted from the sixth spraying cycle onward, the project had not been fully effective owing to the condition of the rural dwellings whose walls were constructed of very friable materials. Because of that difficulty, it had been decided to apply mass chemotherapy with effect from 1964. After a pilot project had been carried out in a group of 47,000 inhabitants of the district of Petit Goâve, situated in the southern peninsula of the country, tablets consisting of a mixture of 200 mg of chloroquine and 16 mg of pyrimethamine had been administered. The results achieved were encouraging and, in May 1966, the number of people under treatment had risen to 1,718,000. Incidence had dropped from 14 per cent at the beginning of the campaign to 0.1 per cent in 1966, and the sprayings had been extended to 679,615 houses. The coverage index for mass chemotherapy had, generally speaking, been not less than 93 per cent of the towns and villages treated, and its impact on the incidence of malaria had been really astounding; in all zones the indices had fallen gradually and, at the end of a few cycles, hardly any positive cases were to be found. Seasonal outbreaks of transmission had disappeared in some places where treatment had been started before July 1965; in numerous other areas, where for various reasons execution of the program had been delayed and the positive cases had become more frequent, sometimes reaching epidemic proportions, the introduction of collective treatment had led to a sharp fall in incidence as soon as adequate coverage had been provided.

In July 1966, mass drug treatment had been started in all known transmission zones and in those which had become real reservoirs of infection. Although transmission had not yet been completely eliminated in those areas, the reservoir had been kept very small, since the positivity index and the absolute number of positive cases in June and July 1966 had been the lowest ever recorded in the annals of the eradication service and, of course, in the country's history. Despite the difficulties and problems he had mentioned in his last statement, which were probably due to the country's geographic, economic, and social conditions, it was to be hoped that the program would shortly—perhaps in 1967—enter the consolidation phase.

Dr. Pineda Martínez (El Salvador) said that his country had not been very fortunate in the antimalaria campaign in which it had invested substantial funds for many years, although perhaps on a smaller scale than was required for eradication. The situation had been favorable in the past decade, because the vector had been very susceptible to insecticides and full support had been forthcoming from the population, but financing, on the other hand, had not been sufficient. The situation had

deteriorated steadily in the current decade. El Salvador might have been the first country in which the mosquito's resistance to insecticides, its changes of habits, and other adverse factors had been discovered.

El Salvador, covering an area of only 20,000 km² (18,000 km² of which were malarious) was densely populated, having 143 inhabitants per square kilometer. In addition there were frequent migratory movements of population groups in search of work, so that the infection was passed from one area to the other.

Since it was impossible to cover the entire malarious area and owing to the mosquito's resistance to insecticides, collective drug treatment was being given to 200,000 persons, but it had been impossible to cover a large part of the territory from which new outbreaks spread to previously consolidated areas.

The funds were carefully used and the people were cooperating. There were some 2,000 voluntary workers throughout the malarious area who had been trained to take blood samples, administer drugs, and supply information. From that information 52 per cent of the epidemiological data concerning malaria in the country had been compiled.

In 1962, 190,000 blood samples had been examined, and the figure had risen to 238,000 in 1963, 350,000 in 1964, and 508,000 in 1965. In other words, the epidemiological information was steadily improving, and positivity had dropped from 7.9 in 1962 to 6.7 in 1965. But a serious epidemic had recently broken out, and it was estimated that there would be more than 40,000 confirmed cases of malaria by the end of 1966.

That was due primarily to the lack of finance. Central America had therefore agreed to formulate a Regional Malaria Eradication Campaign Plan using AID low-interest loans granted on exceptional repayment terms (50 years) and with 10 years' grace. If malaria could be successfully eradicated by that method in the next three years, a great precedent would have been set and it would be possible in the future to launch programs for the eradication of other diseases, such as tuberculosis.

He drew attention to the reciprocal aid given by all the Central American Governments to solve that and other problems, and thanked the Pan American Sanitary Bureau, particularly its Director, and UNICEF for the assistance they had rendered his country in the antimalaria campaign. In conclusion he stated that, beginning in 1967, the campaign in Central America would be intensified and that it was hoped that the results would be highly satisfactory.

Dr. WILLIAMS (United States of America) said that his remarks would apply to both the present item and Item 33, Estimated Requirements for Malaria Eradication in the Americas. The report presented had been a source of interest and satisfaction and he congratulated both the Director and Dr. da Silva upon their clear presentation of the malaria eradication effort in the Americas.

PAHO was providing first-class leadership in that monumental program, and UNICEF had also contributed in a major way. The United States of America continued to be firmly committed to the concept of world-wide and Hemisphere-wide malaria eradication and would, during 1967, contribute $1,300,000 to the PAHO Special Malaria Fund.

The bilateral program which the Government of the United States of America had been carrying out had been mentioned several times by delegates in recounting the progress made in their countries. In the past, the program had been under the operating sponsorship of AID, but since March 1966, the Public Health Service had assumed the management and administration of the program funded by the Agency. In turn, the responsibility had been assigned by the Surgeon-General to the Director of the Communicable Disease Center in Atlanta, Georgia, and the officers of that Center would henceforth be working with the Governments in that field. Bilateral programs were now in effect with nine countries of the Americas and, if necessary, other countries might well be added to them.

Briefly, the United States of America regarded as the minimum criteria for success in bilateral as well as other antimalaria programs, those outlined in the WHO Document, WHO/MEM/3, entitled *Manual of Preparation of Malaria Eradication Programs* (1961). His country hoped and believed that, as Dr. Horwitz had indicated, the Organization would continue to budget progressively increasing funds for the prosecution of the malaria eradication program in the Western Hemisphere.

The CHAIRMAN thanked the United States of America, on behalf of the countries of PAHO, for its contribution to the malaria eradication program in the Americas.

Dr. MARTÍNEZ QUEVEDO (Paraguay) said that, in accordance with the recommendations of the XIV Pan American Sanitary Conference and with the help of international advisory services, studies had been started in 1956 which would indicate the magnitude of the malaria problem in his country. The malarious area had been determined and, according to calculations, was less than one third of the total area of Paraguay. An eradication plan had been drawn up and spraying operations had been started.

During the first three years of the attack phase, Paraguay had far exceeded the targets set for house spraying, but it had been discovered that malaria had spread over a much vaster area, with the result that spraying operations had been suspended so that more intensive field research could be undertaken.

It had been determined, on the basis of the new studies, that practically the whole country was malarious and an eight-year plan had been formulated to cost approximately $6 million to $7 million dollars. Paraguay's contribution to the initial program had amounted to about $300,000, which was equivalent to 15 per cent of the entire budget available for public health.

Thereafter efforts had been made to solve the financial problem. The Government of Paraguay had studied the situation and had found ways and means of doubling the figures for the malaria eradication program in order to comply with the requirements prescribed by the lending agencies.

Over two years ago UNICEF had allocated $250,000 for the development of the program in Paraguay, and it was hoped to use that loan in order to accelerate eradication activities.

Dr. JORDAN (Trinidad and Tobago) reported that in the period between the last Pan American Sanitary Conference and December 1965, they had had no cases of indigenous malaria; in fact, the position had remained unaltered for the last five years in Trinidad, and for the last eight in Tobago. Nevertheless, there had been quite a few imported cases, brought by persons visiting Trinidad from endemic areas.

Earlier in 1966 his country had been declared malaria-free. Since then, however, it had had the unfortunate, though not unique, experience of an outbreak of quartan malaria in Tobago. The source of the infection had not yet been definitely established, but since all 31 cases were of the quartan type there was a strong possibility that the outbreak was a recurrence of indigenous malaria that had resulted from a latent, undiscovered case. No evidence had been found that the infection had been imported. Further epidemiological investigations were in progress, and Trinidad and Tobago was to be privileged to have available the services of Dr. Rossi-Espagnet of the World Health Organization, who would visit Tobago in December 1966.

Consideration was being given to the gradual integration of the Insect Vector Control Division, which dealt with both malaria and *A. aegypti*, with the country's general health program, while at the same time strengthening the machinery for central epidemiological control and the technical supervision of field activities.

He shared the concern of the Delegate of Jamaica that visitors might reinfect countries that had achieved eradication status. How tragic it would be if the results won by regional cooperation and assistance were to be lost through failure to continue such cooperation.

Trinidad and Tobago looked forward with interest to the concrete proposals which it felt would emerge from the forthcoming seminar on malaria control.

Dr. SALVERAGLIO (Uruguay) stated that, fortunately, malaria presented no problem in his country because no indigenous cases had ever been detected. Nevertheless, the Uruguayan authorities were interested in the subject, because various species of possible vectors had been identified in the national territory and every year persons suffering from acute malaria arrived from the malarious areas of other countries and had to be treated. The only danger was, if the circumstances changed, that species of more dangerous vectors might proliferate in the country or that the inflow of a large number of foreigners with the disease might create a reservoir of infection. That explained the deep interest with which the Uruguayan authorities followed the efforts being made throughout the Hemisphere to eliminate malaria and their admiration at those tremendous efforts and at the scale on which the Pan American Health Organization was carrying out its investigations.

Uruguay had to remain alert to that risk and to the problem of keeping the country free of *Aedes aegypti*. The Government was also studying the organization of a campaign to deal with Chagas' disease. With regard to the discussions on the coordination of public health plans with social secur-

ity plans, he expressed the view that it would be advisable also to study the coordination of health plans and proposed to the Conference that a practical research program should be initiated for exploring, in a suitable zone, the possibilities of integrating the programs for the prevention of malaria, yellow fever, Chagas' disease and other infections transmitted by insects which were creating, and had been creating for some time, serious problems in all the countries of the Americas.

Dr. PERAZA (Honduras) remarked that his country had been suffering from the scourge of malaria for a long time when the current eradication program had been started with the help of PAHO, UNICEF, and lately AID, which had granted a loan for the continuation of the campaign over the next three years.

Various methods had already been adopted for implementing the plan formulated by the competent working party and approved by the Ministry of Public Health and Social Welfare. Since January 1966, a medical officer appointed for the purpose had been responsible for coordinating the national health services and the National Malaria Eradication Service. That officer, who had immediately joined the working party, was under the jurisdiction of the National Health Department and had received three months' training in the activities and working methods of the Department and of the National Malaria Eradication Service. In addition to maintaining close and direct liaison with the Director and the technical staff of the Service, the officer ensured the proper execution of the plan at all its stages, supervised all the additional activities of the health establishments, analyzed the results, proposed the necessary changes, organized meetings of the staff of the intermediate and local services, attended the meetings, promoted the dissemination of information on the campaign, reviewed every month the performance of each health district and of the different establishments, and prepared monthly reports on their work and the results obtained.

For the purpose of organizing the operations, the basic health structure of the Ministry of Public Health and Social Welfare and the division of the national territory into seven districts with a total of 107 establishments had been taken into account; that procedure was inevitable because of the country's geography, there being zones at all altitudes and with all types of climate. Before starting field operations, maps of all the districts had been prepared, the areas covered by all the establishments and their staff, material, and transport resources had been studied, and the forms for controlling their production and recording blood tests, basic information cards, and registration sheets for inspection visits had been printed.

He observed that various forms of malaria had existed in Honduras prior to the campaign, and, in some areas, even hemoglobinuric bilious fever, following intensive treatment with quinine which had been administered at that time. Currently, hemoglobinuric fever had disappeared and the malaria problem was practically solved, except in the south of the country where contagion and invasions of mosquitoes from neighboring areas maintained the disease. But even in those areas the program was really in the attack phase. The Ministry had approved the necessary credit for the proper operation of the liaison service with the eradication program. Part of the credit would be used for the recruitment of seven laboratory technicians for some other establishments, in accordance with the medical coordinator's recommendation, as the program required. In addition, a vehicle for the use of the coordinator and several microscopes for diagnostic analysis had been requested from UNICEF.

Lastly, it should be noted that the Government of Honduras had exerted every effort and the best of goodwill to expedite eradication, and that the enthusiastic cooperation, assistance, and support of the top-level health authorities and all public health employees had been enlisted for the relevant plan; through those efforts the objective of the program, namely the eradication of malaria from the entire national territory, would be more swiftly achieved.

In conclusion, he read a draft resolution on the item.

The CHAIRMAN announced that the draft resolution just presented by the Delegate of Honduras would be distributed in due course for submission to the Committee at a later session.[1]

He then paid a tribute to Dr. Fred L. Soper, Director-Emeritus of the Bureau, who was attending the meeting, and, recalling that Dr. Soper had been one of the first champions of the eradication of malaria, proposed a vote of thanks.

Applause.

[1] See p. 269.

Dr. HORWITZ (Director, PASB) said that it was difficult for him to comment on the eradication of malaria with Dr. Soper in the room, but added that what was said in the Committee was only intended to further the work which Dr. Soper had begun before becoming Director of the Bureau and which he had continued during the term of office which he had served so brilliantly and successfully.

He thanked the delegates for their statements on the report, adding that he had been highly gratified to note that the quality of the data presented on the vital problem of malaria had been steadily improving over the past few years, a fact which was largely attributable to the improvement in the information sent in by countries. That made analysis easier in the Malaria Eradication Branch, which had an excellent statistician, Dr. Gladys Conly, who was dedicated exclusively to that function.

He also congratulated the delegates on the commendable approach they had adopted in analyzing the situation in each country: they were resolutely determined to obtain the means required to maintain eradication, where eradication had been achieved, or to forge ahead with the work of achieving it. He had noted with satisfaction the success of the steps taken to increase external financial assistance, for instance, in Central America and Brazil, an example that would certainly be followed soon in Ecuador, Paraguay, and other countries.

He also pointed out that it was daily becoming a more frequent practice to link the consideration of those problems with major development projects. For example, it was obvious that, in the Caaguazú and Upper Paraná area, where very large-scale hydroelectric installations were being set up, and at Puerto Stroessner, a new town with a vast program for the settlement of immigrants from other countries, a serious malaria epidemic had broken out which was delaying those development activities.

There were numerous examples in the Americas to justify the inclusion of the eradication program in the credit policy of the Agency for International Development, and he hoped that such a step forward would be taken in the near future in the case of the Inter-American Development Bank.

As Dr. da Silva had very ably stressed, 70 per cent of the large funds invested since the systematic start of operations came from national sources, which in short periods were not sufficient to achieve the final objective of eradication.

He associated himself with the expressions of thanks addressed to the Government of the United States of America for its contribution of $1,300,000 for the 1967–1968 fiscal year and reaffirmed his intention of including adequate amounts in the PAHO regular budget each year in order progressively to lessen the contribution from that country. He drew particular attention to the fact that there would thus be each year a larger increase in the regular budget which, in 1968, would amount to $400,000 and constitute 4 per cent of the over-all increase he was proposing, to which the rise in common costs should be added. That rise, being a product of development, whatever its levels, in every country, was inevitable not only throughout the Hemisphere but also throughout the world.

He announced that he would submit a specific proposal to the Executive Committee to the effect that the funds intended for malaria eradication should be included in the Organization's regular budget, as was the case in WHO. He explained, however, that the proposal should be analyzed because, as the funds mentioned were absorbed, it should be borne in mind that the development of other joint activities, which the Governing Bodies requested of the Organization, should not be impeded.

He also considered the draft resolution submitted by the Ministry of Public Health of Honduras in order to expedite coordination of the malaria eradication programs with local services to be satisfactory.

He added that two special consultants had been appointed to collaborate practically and specifically with the ministries of each country in order to comply with the recommendations of the Seminars held on the subject in Brazil and Mexico. He had also noted the comments of the Delegate of Panama and the proposal of the Delegate of Paraguay, which would be submitted in due course to the Governing Bodies for their consideration. In conclusion, he thanked the delegates for the words of encouragement they had voiced during the discussion of the item.

Item 33: Estimated Requirements for Malaria Eradication in the Americas

The CHAIRMAN announced that the relevant working document would be introduced by Dr. da Silva.

Dr. DA SILVA (Chief, Malaria Eradication Branch, PASB) said that Document CSP17/5 [2] had been prepared in response to a special recommendation,[3] formulated several years before by the XIII Meeting of the Directing Council, to the effect that, at meetings of the Governing Bodies, financial estimates should be submitted for the malaria eradication campaigns. The document submitted was the fifth in the series of those prepared to date on the estimated requirements of the Special Malaria Fund and related to anticipated annual expenditure for the programs of the individual countries, for zonal projects, for regional projects, and for Headquarters activities.

The CHAIRMAN thanked Dr. da Silva for his presentation and invited comments from the floor.

Dr. ORTEGA PEGUERO (Dominican Republic) submitted a draft resolution for the Committee's consideration.

The CHAIRMAN announced that the draft resolution submitted by Dr. Ortega Peguero would be distributed to all delegations and discussed at a later session.[4] He then called upon Dr. Villarreal for the presentation of Item 23 of the agenda.

Item 23: Supply of Textbooks for Medical Students

Dr. VILLARREAL (Chief, Medical Education Branch, PASB), introducing Document CSP17/27,[5] began by pointing out that the need to reform the educational systems and to ensure that they were geared for the purposes of faster development was apparent specifically in the urgent efforts being made to improve the quality of university graduates. Doctors, physicians, chemists, agronomists, and other professionals were required whose training kept pace with modern science and technology. They would not be of the required professional standard so long as professors and students lacked the facilities necessary for reaching it. One such facility was the high-quality textbook which the student had to use under the professor's guidance and instruction.

PAHO's interest in the supply of textbooks for medical students derived from its responsibility for promoting the education of health personnel. In addition, requests from Governments for the Organization's assistance in developing their medical schools were steadily increasing, as was illustrated by the fact that, in recent years, staff members and consultants had been focusing their attention on the status of medical education in the Region, the problems affecting its development, and the machinery which the Organization, as an intergovernmental agency, might use in order to help to secure better training for health personnel, including physicians.

He pointed out that the Organization had assisted the Governments in postgraduate training, since one of the fundamental problems involved was the shortage of textbooks in medical schools.

He recalled the interest long shown by the Organization in the subject, which was illustrated by the fact that it had published some handbooks which had been hailed as teaching aids by the various professions concerned with health. Those books had been distributed free of charge or sold at low prices. He nevertheless thought that the problem of textbooks for medical students could not be solved in the same way, because substantial sums would be required to publish them and also because each textbook would have to be universally accepted, since that was the only way to achieve economies that would enable publication on a large scale.

As part of its medical education program, the Organization had studied the problem with the help of expert consultants and had established that, generally speaking, the shortage of textbooks for teaching medicine was very serious, that their sales price was excessive, and that most of the existing textbooks were printed in languages other than that used in teaching. Furthermore, the books most frequently used were out of date.

The problem had been tackled in two institutions by setting up genuine "book banks" which were operating satisfactorily. He added that the academic authorities, the professors, and the students consulted had shown interest in similar programs and had offered not only their firm support but also their cooperation in carrying out the program.

For all those reasons the Organization had undertaken to study a program for the preparation of modern textbooks which could be offered to the students on terms that were within their means. In order to cut publishing costs, very large pressruns

[2] See Annex 3, pp. 476–511.
[3] Resolution XXVI, *Official Document PAHO* **41**, 20–30.
[4] See p. 270.
[5] See Annex 15, pp. 578–589.

should be made and advantage should be taken of some of the Organization's established administrative facilities and of those agencies which had offered to help, such as the Pan American Federation of Associations of Medical Schools, the National Associations of Medical Schools, and each of the relevant universities and schools of medicine. He stressed that, to be effective in promoting education, the program should be established on a continuing basis.

Since a large amount would have to be invested in the program in a short time, financing methods would have to be found which would allow amortization over a rather long period, and the most advisable procedure was to secure a loan with which to set up a revolving fund at the PASB level. This proposal had been presented for the first time at the 54th Meeting of the PAHO Executive Committee. That Governing Body, after exploring the matter thoroughly, had authorized [6] the Director to negotiate, with the Inter-American Development Bank and other agencies, the most favorable possible terms for financing the program and had recommended to the XVII Pan American Sanitary Conference that it should authorize the Director to contract a loan and make all the necessary arrangements for executing it.

He then outlined the proposed program. The situation prevailing in Latin America was as follows: there were 110 schools of medicine with a total of 83,568 students, the number of those beginning the first year being 14,896. The first-year students could be broken down as follows: 97 schools admitted an average of 70 and there were 13 schools which admitted over 200 each; of the latter, 6 admitted from 200 to 400, and the 7 others more than 400 each, with one admitting over 2,000. Those data had been taken, for the most part, from the statistics for the 1963 academic year, although in some cases the figures for 1960 had been used.

He announced that PAHO was proposing that 97 schools should be supplied with all the textbooks they required, in other words, 6,790 for each of the 22 medical subjects, and up to 200 copies per school to the other 13 schools admitting 200 or more students per year, giving a total of 2,600 and a grand total of 9,390 books per subject for the 110 schools. In round figures, 20,000 copies of each text would have to be published to cover needs over a three-year period, it being understood that some copies would be used more than once.

So far as the selection of subjects for the production of textbooks was concerned, it was thought that the suggestions of the schools of medicine should be followed, and it had been considered good policy to begin with the textbooks required for the first years of medical studies. By way of experiment, the possibility was being explored of publishing 22 titles of the most important subjects in medical studies. During each of the first two years five titles would be published, and four more in each of the three following years. According to the program, a sufficient number of books would be published the first year to satisfy the demand for textbooks of that group of subjects for a three-year period; each edition would last three years, which was a reasonable period for a textbook to last and remain up to date. Thus, under the plan, reprints would begin in the fourth year of the 10-year period envisaged in the project.

Dr. Villarreal then referred to the need to select the textbooks carefully, because the success of the program would largely depend on their acceptance by professors and students alike. They would be published in Spanish or Portuguese and, in countries where English or French was required, the Organization would take the necessary steps to ensure that schools of medicine had textbooks already printed in those languages. The Organization would maintain an active program on a continuing basis to make sure that the textbooks were always up to date. In addition, he explained, the program would be under constant review in order to guarantee its usefulness and efficiency at all times. He emphasized that one of the program's main features was the selection of textbooks which could be used in all schools, so that large pressruns could be made at a low unit cost. It would thus be possible to achieve the objective of providing books that would be within the modest means of medical students.

Interviews had already been held and there had been an exchange of opinions on the subject with the authorities of national and international bodies and with private and public institutions conversant with the international production of textbooks. The question had also been explored with representatives of the publishing industry, and the conclusion had been reached, in the discussions with them, that, generally speaking, the program would be of great assistance in the teaching of medicine.

[6] Resolution XVII. *Official Document PAHO* **71**, 41–42.

Since the proposed system was based on large-scale and, therefore, low-cost production, a new market would emerge, and PAHO proposed to use existing publishing plants and editorial facilities, but he stressed that the Organization did not intend to become a publishing house. Plans were being made to establish coordination, in the event that the program was approved, with other similar textbook programs being carried out by national and international agencies, both public and private.

Schools of medicine would participate in the administration of the program under an agreement signed by the respective Governments and the Pan American Health Organization.

He then referred to Table 2 [7] in the document before the Committee, which showed the estimates for the production of 640,000 textbooks on 22 subjects, the figure projected for five years (1967 to 1971). The total amount required was estimated at US$3,174,000. The Organization would make a major contribution to the program through its permanent staff and services. The Office of the Director, the Medical Education Branch, the administrative departments, the Zone Offices, and the Representatives in the various countries would also collaborate in those activities, but he emphasized that it would be impractical to try to express that contribution in figures because it could not have any substantial financial implications.

He then invited the members to examine Table 3,[8] which showed the estimates by groups of subjects, the gross cost of production of the textbooks, the net income from the operation of the revolving fund and, lastly, the net expenditure in textbooks.

Dr. Villarreal pointed out that, in order to facilitate partial and total calculations, the annual budget of the program was set forth in the document by years and by groups of textbooks, and the unit cost had been rounded to $5.00 (estimated cost $4.95). An examination of Table 3, which covered a nine-year period (1967 to 1975 instead of 1967 to 1971), showed what the prospects were and served as a basis for the following considerations: the first income from the sale or rental of books would be paid into the revolving fund in order to help finance the second year of the program. It was expected that, after the fifth year of operation, the production of textbooks would be financially self-supporting, in other words, if the fund began operations in 1967, the income accumulated in 1972 would be sufficient to cover the printing costs estimated for 1973 and 1974, and so on. He drew attention to the fact that the gross cost of the program for the first five-year period amounted to $3,200,000. However, given the anticipated income, the net amount required to establish and maintain the revolving fund would not exceed $2,000,000.

The best way of financing a new enterprise like the one proposed, which entailed a relatively high capital investment over a five-year period, was perhaps to obtain loans, because it was not feasible to increase the annual budget by such amounts. The loan would make it possible to make smaller repayments over a longer period and, according to the program, the total amount of the loan would continue to appear as an asset of the Organization through the revolving fund to be established.

Under the plan, the Organization proposed to repay the loan out of the regular budget over a 20-year period after a five-year grace period. If the loan was obtained, a definite long-term liability would be created which would be included in the Organization's regular budget in such a way that the loan would impose no unknown or unforeseen burden on the Governments. The annual amortization payments would amount to approximately $130,000, which represented only 1.4 per cent of PAHO's regular budget for 1967.

He concluded his presentation of the document by stating that the speed with which the countries were tackling their respective health problems made it imperative to take energetic and effective action in the training of health personnel. The training of physicians was of the utmost importance in that connection and, in the training of personnel, the textbook was the key element for introducing the changes necessary for improving the entire educational system.

The CHAIRMAN announced that a communication had been received on the item under discussion from Dr. Gabriel Velázquez Palau, Vice-President of the Pan American Federation of Associations of Medical Schools, expressing that organization's interest in the project of publishing textbooks for medical students.

Dr. VILLARREAL (Chief, Medical Education Branch, PASB) read the communication in which it was stated that a survey had been carried out by 10 schools of medicine in Brazil by a group of

[7] See p. 588.
[8] See p. 589.

medical instructors headed by Dr. Ernani Braga, Executive Director of the Federation. The Administrative Committee of the Federation had been officially informed of the project about a year previously; it had approved it unanimously, and had personally approached the Inter-American Development Bank to support the request for financing that might be made to it. That request had later been repeated in a communication addressed by Dr. Amador Neghme, President of the Federation, to the President of the Bank and in the representations made to the Bank by all the National Associations of Medical Schools, the Federation's affiliates.

The communication added that all teachers of medicine in Latin America were perfectly aware that one of the greatest obstacles to their teaching activity was the shortage of textbooks, that many of the books used were out of date or published in languages which the students did not know very well, and that they were priced beyond the student's means.

The communication went on to say that the proposed program was entirely feasible, according to the experience of a number of schools. The proposed methods of selection guaranteed the quality and acceptability of the textbooks. The project submitted by the Organization would not only bring a permanent solution to the shortage of textbooks, but would also be a most important factor in improving the learning process in the schools. By being given texts of high scientific and pedagogical quality in adequate numbers, students would become accustomed to consulting sources for information, their spirit of inquiry would be sharpened, and their training would be greatly improved.

The communication praised the proposed system of selection and stated that the establishment of a revolving fund to finance the program would guarantee the program's continuity and would enable the teaching material to be constantly revised and brought up to date.

The session was suspended at 4:10 p.m. and resumed at 4:35 p.m.

Dr. DE GÓES (Brazil) welcomed the timely and well-founded proposal of the Organization to publish books for students in medical schools in Latin America. While the documents dealt with the problem in a satisfactory manner, he wished to make a few comments and suggestions connected with the proposal.

To begin with, although his Delegation agreed with what was recommended in the document under consideration, it felt that it must be made clear that the books would not be the only source to be used by medical students, lest the teaching should be made too uniform. Those books must be the minimum resources of every student. The students should also be encouraged to consult many other sources, particularly books in foreign languages—above all English, as no one could acquire an adequate medical education unless he was familiar with that language.

Secondly, the committees which would prepare the books should recommend that those books must not be mere compilations; on the contrary, they should be texts produced in accordance with the most advanced pedagogical principles, in other words, they should enable the student to acquire knowledge more on the basis of a learning process than of the traditional systems of instruction.

There was currently a tendency to attach greater importance to learning and less to instruction, so that perhaps the best method would be that followed by the National Science Foundation and by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) with respect to the exact sciences, such as physics, chemistry, and mathematics.

For the preparation of the textbooks, PAHO deemed it essential to set up organs to prepare and supply audiovisual and other educational equipment which would supplement the books and enable them to be used for their true purpose.

The necessary material should be made available so that the students could practice what they learned in the books. On that basis, the Delegate of Brazil supported the publication of medical textbooks and made the following proposals: first, that the Organization should continue its negotiations with the Inter-American Development Bank to obtain financing for the project; secondly, that a supplementary financing plan be prepared under which the necessary funds would be made available to provide adequate supplies for medical schools in accordance with what was recommended in the new textbooks.

He emphasized that ambitious plans must be prepared, which should not be limited to the publication of textbooks. Those textbooks should be supplemented by equipment making it possible to practice the exercises they described, thereby im-

proving the training of medical students. They would then be not merely sources of information, but would bring about a change in the attitude of the teaching staff, which would have to work more closely with the students and teach them in a practical and objective manner. That was what UNESCO had achieved when, in addition to supplying textbooks, it had also furnished sets of materials for experiments and practical work. In conclusion, he stated that the books should be supplemented, if the new educational philosophy was to be applied and the existing system of medical education in Latin America was to be changed.

Dr. RISTORI (Chile) said that his country's Government was keenly interested in this most important undertaking of the Pan American Health Organization. The subject was of capital importance and would be a landmark in the life of the Organization, but there were two aspects to the proposal, both of which should be considered. The first was the technical aspect, since the method proposed would be highly effective in improving the professional training of physicians in the Hemisphere. The second, no less important, was the social aspect, for not all medical students had the financial means to be able to pursue their studies.

The undertaking in question should receive the full support of the Conference, and certainly the Delegation of Chile welcomed it with enthusiasm. If the books had to be published in some order of priority, he would recommend that the Organization should give preference to textbooks in preventive medicine. The texts, no doubt, would be very carefully selected and the views of the various schools of medicine would be sought. Surveys had been made of material obtained from those schools, and a committee of experts on each subject would surely succeed in selecting texts best suited to the needs.

Dr. PEREDA CHÁVEZ (Cuba) congratulated the Bureau on the program of medical textbooks and remarked that the great expansion of medical services in Latin America called for improvement in the training of qualified staff to operate those services. The program would make available one of the principal means of training such personnel, mainly medical personnel.

There was only one school of medicine in Cuba, in the capital; but another one had recently been established in the Province of Oriente and another one was being planned in the country's central region, in the Province of Las Villas. Although education planning in Cuba had special characteristics, education being completely free at all levels and textbooks for medical students also being free, Cuba would participate in the program and accommodate itself to its special conditions, being desirous of collaborating for the program's complete success.

Dr. GUÉDEZ LIMA (Venezuela) supported enthusiastically the magnificent program for the publication of medical textbooks. He was a member of the Board of Directors of the Venezuelan Association of Schools of Medicine, which had shown great interest in the program in the past few months, and had informed the various other schools of it. The program was of extreme importance in that it would benefit not only students in various medical courses and schools, but the professors as well. The Delegation of Venezuela therefore associated itself with the enthusiastic support expressed by other delegations.

Mr. CALDERWOOD (United States of America) said that his Delegation had read with interest and care the proposal to establish what was sometimes called a book bank. The United States of America strongly supported the idea, as meeting a great need, generally recognized throughout the Hemisphere. As delegates perhaps knew, it had, through AID, agreed to fund the publication of more than 100 textbooks in the field of science and technology over a three-year period. As one who had been in the academic world, he could appreciate the importance to the student, as a means of learning, of a dialogue over a monologue.

Certain aspects of the proposal, however, needed further exploration and clarification, especially the question of the source of funds. It was proposed that the Organization should repay, over a 20-year period, a loan obtained from the Inter-American Development Bank or another source. The latter was not identified, nor was it clear what other agencies had been approached for funds.

However, a payment was certainly involved, wherever the financing was obtained, and it was estimated that that sum, which would be met from the PAHO regular budget, would be $130,000 a year. Since it should be accorded a certain priority over other possible expenditures, however worthwhile it might be, delegates should be fully aware of what it involved for the Organization year by year. He understood that at the time of the Executive Committee meeting in April 1966, the figure

had been $100,000 a year, and in only a few months it had increased by $30,000.

It had been said that an indispensable supplement to the textbooks was the provision of other means of education, such as visual aids, but it was not known what the cost of those would be.

Thus, while endorsing the program strongly, his Delegation felt that it should receive more detailed consideration before adoption. Specifically, it should be known what banks or other sources of funds thought about the proposal generally.

Dr. MONDET (Argentina) said that his country's Delegation supported unreservedly the general view on the question, as the problem of textbooks was becoming an increasingly difficult one for students and professors of medicine. The latter could hardly recommend to students very expensive textbooks which were seldom available in the libraries.

After stating that he agreed with the opinion expressed by the Delegate of Brazil, he remarked that his country was endeavoring to solve the problem, which was of extreme importance, since students entering the schools in 1967 would not really begin to practice what they had learned until 1980; in addition to the six or seven years of undergraduate studies, there was the period of postgraduate training, and one or two years of adaptation to the environment in which the new physician would have to exercise his profession. It was therefore important for the textbooks to be written with a view to the future conditions of medical practice; above all, no distinction should be made between preventive and curative medicine. The medicine of the future was integrated medicine and it would, in his view, be a mistake to give the students entering the schools the impression that they were going to become, so to say, "health mechanics," and would have to act only when health broke down. The physician should be an integral element of the community and his fundamental mission was to watch over and protect that community's health. Consequently, the Committee should expressly state that the textbooks should not make a water-tight compartment of each subject, but should seek to reestablish the basic unity of all branches of medicine.

Associating himself with the views of the Delegate of the United States of America, he declared that the financial viability of the project should be analyzed with great care and that an undertaking of such scope should not be initiated hastily at the risk of being interrupted, like so many others. After expressing his confidence in the Director of the Bureau, who had made great efforts to resolve the problem and had done much to find funds in financial and banking circles and to make the economists aware of the capital economic importance of the human factor, he stressed the great interest of his Delegation in a study of the financial aspects of the project, to which his Government gave its approval and its warmest support.

Dr. ESCALANTE PRADILLA (Costa Rica) associated himself unreservedly with the views expressed on the project and congratulated the Director on his proposal. If Dr. Horwitz agreed that the Governments should take joint action to support his proposals on the financing of the fund, all the delegations should put the matter before their respective national administrations.

Dr. ORTEGA PEGUERO (Dominican Republic) associated his country with the enthusiastic welcome received by a proposal which was particularly timely for the Dominican Republic, where during the current year two new universities had been opened: the Catholic University, in the central region of the country, and the "Pedro Henríquez Ureña" University in the capital. The proposed textbooks would be useful not only for the professional training of future physicians, but also to standardize principles and methods of teaching medicine.

Dr. SALVERAGLIO (Uruguay) said that the project had aroused keen interest in the School of Medicine of Uruguay and that he hoped to see it become a reality as soon as possible. After expressing his agreement with the pertinent remarks made on the subject and his confidence that the methods proposed for the selection and publication of the textbooks would make it possible to overcome any obstacles that might arise, he associated himself with the proposal of the Delegate of Chile that priority should be given to a text on preventive medicine. He then drew attention to the difficulties as regards the use of textbooks in schools of medicine which had more than 200 students. Those difficulties might act as a stimulus to keep down the number of students in those schools, which nevertheless were now performing a most useful and indeed essential social function and were the ones most in need of better access to textbooks. Consequently, he thought it would be best not to have such a categorical reference to the limited possibilities to be offered to those schools of medicine.

Dr. SALVANT (Haiti) associated himself fully with the Organization's proposal, which his Delegation warmly supported. For various reasons, the present situation was particularly prejudicial to students from the less favored economic groups, who frequently were unable to study medicine because they lacked the means to buy the textbooks. In Haiti, there were at most 200 to 300 students entering medical schools every year; the authorities sought to arouse interest in the study of medicine, but many of the eligible students were too poor. He therefore supported the proposed undertaking, although he did not share the view expressed by other delegates on the priority to be given to textbooks on preventive medicine. He felt, on the contrary, that the texts should deal with the fundamental medical sciences, such as physiology, bacteriology, parasitology, etc., as those were the texts most needed by the schools of medicine.

Dr. ORDÓÑEZ PLAJA (Colombia) then read a draft resolution in which an attempt had been made to reconcile the different views expressed during the debate.

In addition to the resolution and as an "educator temporarily at liberty," he wished to draw attention to three points with which he was greatly concerned. Dr. Mondet had stressed coordination and integration with the community, a most important point. It was sad to have to say it, but the university had to integrate itself with the community. A dichotomy had occurred, and it should be eliminated. The university was obviously a reflection and an outgrowth of the community, at the same time as it was a motive force for change in that community.

Another aspect he was concerned with was that the bureau or section, if it was approved, should be dynamic, for care should be taken to ensure that the books not be out of date by the time they were ready for sale.

There was yet another form of dynamism, which had been mentioned at several meetings: the changes to be made in medical education itself in the near future. As a result of the study of human resources, there would surely be a campaign in Colombia to promote substantial changes in medical education. The need was now recognized of introducing the social sciences and the behavioral sciences in medical training, in order to give physicians a broader insight and enable them to discharge more effectively their role of leadership.

Moreover, if the programs of integration with the social security and other welfare services were successful, medical education too would surely respond to that type of medical activity, and substantial changes would be made. At present, schools of medicine continued in the tradition of training physicians for private practice, although they knew that a high percentage of them would engage in private practice not at all, or for only a small part of their working time. Most of them would practice social medicine in state social security services or in hospitals, and they should be given different training.

The project had been presented in that particular form because the Bureau and the Conference were mainly concerned with medical problems. Moreover, it had been recommended by the Vice-President of the Pan American Federation of Associations of Medical Schools. However, if the program was successful, it should without delay be extended to the so-called paramedical professions, with a view to training groups which dealt with all the aspects of health. The sanitary engineer, the nurse, and all the other members of those professions should no longer be regarded as inferior to physicians; they were part of the team. The physician, having had longer and possibly better training, became the leader of the team, but its other members should be increasingly regarded as fellow workers and not as mere servitors.

The CHAIRMAN recalled that the Delegation of Colombia had submitted a draft resolution, which would be placed before the Committee at one of the forthcoming sessions.[9]

Mr. CALDERWOOD (United States of America) stated that his country's Delegation agreed with much of what was contained in the draft resolution presented by the Delegate of Colombia. However, there was one part he would like to see amended. He therefore wondered whether a small working party might not be appointed to seek agreement on the text of a resolution rather than have the Committee consider the proposed amendments at that time.

Dr. DE GÓES (Brazil) supported the proposal made by the Organization and expressed agreement with the draft resolution prepared by the Delegate of Colombia; he suggested that the considerations he had expressed immediately after Dr. Villarreal's presentation should be added to the draft resolution.

[9] See p. 281.

He stressed his concern that the textbooks selected should be modern teaching texts and not mere compilations of facts, and that they should be in line with the modern philosophy of education, which attributed greater importance to learning than to teaching. In line with the modern trends in scientific training, the knowledge acquired from books had to be supplemented by other practical teaching aids, audiovisual and others, of the most advanced technical type, which would enable the students to carry out the work suggested in the textbooks.

The CHAIRMAN announced that he was establishing a working party, composed of the Delegates of Brazil, Colombia, Chile, the United States of America, and Venezuela, to prepare as soon as possible a draft resolution taking into account the views expressed in the course of the debate.

Dr. HORWITZ (Director, PASB) expressed profound gratitude for the enthusiastic welcome received by his proposal. He felt that the delegates had spoken in the name of the 90,000 medical students of Latin America, who in his view were continuing to learn their profession under obscurantist conditions, since, with very few exceptions, what they learned was what they had understood the professor to say, by jotting down notes on the ideas the latter conveyed. In a discipline such as medicine, in which research was being very actively pursued, the knowledge acquired by the students manifestly did not keep pace with the daily advances of the scientific world. That situation should not be allowed to continue in a Hemisphere which had resolved to achieve development, in the spirit of the Alliance for Progress and the Charter of Punta del Este, especially considering the very small investment required to resolve a problem of such magnitude.

He was certain that the resolution which would be adopted would allow the Organization to continue the necessary negotiations in order to be able to implement shortly the proposal he had explained. The comments made during the debate reinforced the idea underlying the proposed program. He was in agreement with Dr. de Góes that the provision of books should be supplemented by audiovisual and other teaching aids which facilitated understanding of the contents of the books by allowing experimentation; that proposal was most commendable, provided there were funds to carry it out. He recalled in that connection that the Nineteenth World Health Assembly [10] had approved a system for the provision of laboratory equipment and supplies for education, an undertaking which could be regarded as complementary to the book publication project, without prejudice to the adoption of other measures which the Pan American Sanitary Bureau might deem advisable.

He thanked the various delegates for what they had said and Dr. Ristori for his reference to preventive medicine. That text should be written by professionals in Latin America, as it would not be easy to find something written by experts from other countries who would be familiar with the cultural, sociological, economic, medical, and social conditions in the Region. As soon as possible, a group of technicians should be invited to make an outline of such a text, and then to draft it and find someone to publish it. He thought that that would be the best way to proceed and mentioned that, in private conversations, distinguished specialists had already expressed their support of the idea.

He appreciated the caution with which the Delegation of the United States of America wished to proceed regarding the financing of the program, and agreed with that approach. The plan was to finance operations progressively over a period of five years, and he thought that was quite feasible.

He explained that the difference between the sum mentioned in the project submitted to the Executive Committee and the figure which appeared in the document was connected with the size of the loan. The proposed loan from the Inter-American Development Bank would be a line of credit, an arrangement which would make it possible to withdraw funds as required in the course of the project. Lastly, if the project could be carried out with less than $1,500,000 so much the better, since the Organization would have to pay less interest and a smaller capital would have to be amortized.

In reply to Mr. Calderwood's question as to what the Inter-American Development Bank thought of the textbooks program, he said that he would like to know it himself; he was, however, convinced that the Bank's reply would be favorable if the resolution adopted by the Conference gave strong support to the initiative.

He agreed with Dr. Mondet that the medicine of the future should be an integrated medicine which would not train mere health mechanics. He also

[10] Resolution WHA19.7. *Off. Rec. Wld Hlth Org.* **151**, 3.

thought that, as suggested by Dr. Escalante Pradilla, it would be most useful for each Government to approach the Inter-American Development Bank, whose Board of Executive Directors was already cognizant of the proposal under consideration. He recalled, in that connection, the representation made to the Bank by the Associations of Medical Schools of various countries mentioned in his letter by Dr. Velázquez Palau, Vice-President of the Pan American Federation of those associations.

Replying next to Dr. Salveraglio's question on what would be the situation of the few schools which had more than 200 students in each course, he said that the possibility had been considered of printing the necessary copies, but that naturally the copies over and above that figure would have to be paid for by the university. As Dr. Villarreal had pointed out, very few schools of medicine were in that position; as regards the particular case of Haiti, books in French would be acquired directly from universities using that language, and they would be selected in the same way, rather than have books translated from other languages, a much more expensive operation.

He was in agreement with the opinion of Dr. Ordóñez Plaja that the program must be carried out rapidly so that the books would not be out of date by the time they were published. In that connection, he emphasized that the mechanism to be established would entail the existence of committees of experts for each discipline, selected by the professors themselves, who would have to meet annually to revise the books in use, to complete some of the chapters, for which *ad hoc* translations could be made, or to draw attention to the existence of another book of better quality, or to indicate that the time had come to write a new book, because valuable experience had been accumulated in the Hemisphere. He also shared Dr. Ordóñez Plaja's view that it was time to stop speaking of "paramedical" professions and that means should be rapidly found to incorporate those professions into a system similar to that being proposed for medical students. He added that if the project gave the expected results, useful initiatives could be taken for the benefit of those professions, which were also of fundamental importance, by the universities.

In conclusion, he expressed confidence that the Committee would approve a resolution which would not handicap the Organization in seeking to obtain funds, either from the Inter-American Development Bank or from other as yet unexplored sources. The Bank, however, seemed to him the natural source of such funds, given the great interest it was showing in the improvement of higher education in the Americas, and also because, in principle, it had offered credit terms which were not easily obtainable elsewhere; mention had been made of a 25-year loan with only 3 per cent annual interest.

The session rose at 5:35 p.m.

THIRD SESSION

Wednesday, 5 October 1966, at 9:15 a.m.

Chairman: Dr. Daniel Orellana (Venezuela)

Item 31: Research Policy and Program of the Pan American Health Organization

Dr. Martins da Silva (Chief, Office of Research Coordination, PASB) presented Document CSP17/17 [1] and stated that the previous four years had witnessed the expansion and intensification of the PAHO research program, which had had its beginnings with the establishment of the Office of Research Coordination in 1961, and the appointment of a 15-member PAHO Advisory Committee on Medical Research (PAHO/ACMR). The role of the Office, initially supported by a planning grant from the National Institutes of Health of the United States Public Health Service, was seen as fundamental for the promotion of research, and steps

[1] See Annex 9, pp. 532–543.

were therefore taken in 1964 to ensure its continuity by including its financing in the PAHO regular budget.

The main thrust of the program had been in the stimulation of those fields of biomedical research and research training related to the objectives of the Organization. Within the guidelines provided periodically by the Advisory Committee, and the recommendations of consultants, the Office of Research Coordination had implemented the Organization's policy in that field.

There had been stimulation of research projects in such broad fields as nutrition, communicable diseases, zoonoses, environmental health, and scientific communication, and in such specific areas as endemic goiter, nutritional anemias, epidemic typhus, plague, schistosomiasis, arboviruses, Chagas' disease, population genetics, dental health, radiation hazards and, recently, public health research policy at the national level.

To accelerate research programs calling for the standardization of methodology, reagents, techniques, and the training of research personnel, the Organization had established four reference laboratories and training centers.

At each of the annual meetings of the PAHO/ACMR, beginning with the second, a Special Session had been devoted to the discussion of a topic selected by the Committee because of its particular relevance to existing and emerging health problems. In 1963, an appraisal had been made of the research needs in tuberculosis; in 1964 the Special Session had focused on the issues posed by the development of "shanty towns;" in 1965, factors in deprivation known or likely to influence mental development and intellectual functions had been discussed by a distinguished group of scientists; and in 1966 the Special Session had dealt with "Life at High Altitudes."

A study group had been convened in 1964, on the recommendation of the Advisory Committee, to examine national policies for biomedical research in the Americas and the general conditions under which it was conducted.

In 1965 the Committee had considered the desirability of making an analysis of the factors operating in the international migration of scientists, in particular the problems faced as a consequence of manpower losses through migration of trained health personnel. Of special significance were the qualitative aspects of the movement, such as the loss of scientific leaders whose potential for developing fields of biomedical science in Latin America had not been fully realized.

In order to give a panoramic view, summary reports of each of the 90 research projects stimulated, coordinated, or financially assisted by PAHO from 1961 to May 1966 had been compiled.[2]

Dr. Martins da Silva said that, after four years of operation, the time had come to review the stability, equilibrium, and direction of the PAHO research program and the desirability of increasing direct support for research projects of critical importance to the health of the peoples of the Americas. Such support, derived from PAHO regular and other funds, would ensure not only prompt implementation of specific research projects in strict adherence to the research priorities set by the Organization, and as recommended by the PAHO/ACMR, but would also permit the development and implementation of a program of advanced training to increase and strengthen the manpower resources for research in the various countries.

Dr. Kidd (United States of America, Chairman, PAHO Subcommittee on Migration) expressed his appreciation for the opportunity to study with such a competent group the migration of highly trained persons, a subject of great importance to the developmental process of the countries.

It was becoming generally recognized that too little attention had been paid to the increasing shortage of talented people, who were in many respects the key to national development. The object of the study had been to gather all the statistics available. Data had been presented for every country, showing the movement over the last five years, by occupation, to the United States of America. He hoped the subject would be more widely studied than hitherto, and would cite as an example the excellent work done in Argentina and Chile.

The significance of the movement could not be measured by statistics alone. Dr. Martins da Silva had referred to the quality of the people who emigrated, a critically significant number of whom were intellectual leaders, such as professors, with the capacity to build departments, schools, and institutions.

A third object of the study had been to bring the problem to the attention of the countries in

[2] *PAHO Research Activities, 1961–1965—A Summary.* Document RES 5/8 (June 1966).

a way that would stimulate reflection and, hopefully, action. Finally, it was hoped to provide, not a prototype, but an indication of what could be done by way of stating a policy issue for Governments from the data available. Contrary to expectation, it had been found that the fundamental data needed to assess and publicize the significance of the movement was already at hand in the various countries.

Another finding had been that the effect of the movement varied greatly between countries. For instance, the absolute numbers moving to the United States of America from Colombia and Argentina were approximately equal, but in terms of national resources it was a much more serious problem for Colombia.

Again, the movement from Ecuador and Brazil was about the same in absolute numbers, but the impact on the availability of physicians and scientists, the economy, the culture, and the development of universities, was much more severe in Ecuador than in Brazil. Accordingly, one had to consider the problem qualitatively.

An attempt had also been made to assess more precisely the factors that drew people to the United States of America. Those obviously included the availability of posts in the universities and in industry, and the shortage of medical personnel in that country. It was equally evident that certain factors within various countries of Latin America tended to push trained people out. Those included the difficulty of obtaining adequate support for universities, political instability, inflation, and all of the factors associated with the basic development process.

The aim was not to attempt to stop the migration but to prevent it from rising to a level that was pathological and harmful to the countries concerned. One should seek the cause rather than the symptom, and undertake to build the institutions and create the circumstances that would make it possible and desirable for such people to remain in their own countries.

The problem was not one arising entirely from economic conditions; it related as much to working conditions, to the ability to pursue a profession in a dignified way, and to availability of all of the prerequisites for research. It was the Subcommittee's belief that closer attention should be given to the conditions under which people entered the United States of America for training; and that country should give much closer attention to supporting research from the viewpoint of the development of the Latin American countries, as distinct from the support to its various agencies for research and for their limited internal functions.

To quote his Subcomittee's report: "High priority should be given to the reinforcement of existing strength in engineering, science, and medicine. In general, investments in selected existing centers of high quality—organizations already in being that have good leadership, facilities, equipment, and students—will yield a greater return in terms of the training and quality of research than investments in new centers."

The Subcommittee had approached the question of migration in terms of its being a symptom of differentials rather than a basic phenomenon in itself, with a view not of prohibiting migration but rather of attempting that the United States of America take positive, realistic steps to restrain it and, within Latin America, of enhancing the attractiveness of professional work and life.

Dr. DE GÓES (Brazil) congratulated the Director of PASB on the excellent work done by the Advisory Committee on Medical Research with the effective support of the Office of Research Coordination, as the report testified.

He said that without basic research it was not possible to obtain the practical tools with which to combat those diseases for there were as yet no efficacious remedies, but that it did not suffice to identify and clarify the problems of the various countries.

He commended PAHO for its work in research on the most important problems in the Americas, although only a very small proportion of those problems were covered by the research program. It had been possible to carry out only 90 projects in the last five years with the annual contribution of $2,500,000 obtained, as stated in the Director's report, from private sources, especially from the National Institutes of Health of the United States of America. The reason was that the PAHO regular budget provided funds only for the maintenance of the Office of Research Coordination, the meetings of the Advisory Committee, and advisory work—a situation which ought to be changed.

He expressed appreciation of the interest shown by the United States of America and other developed countries in studying problems which did not directly affect them; but the scientists of those

countries could not be expected to devote the best of their efforts to those problems. Latin America had sufficient domestic talent for that purpose. As the history of medical research showed, scientists from many of its countries had made major discoveries; they included the work of Carrión, of Peru, in identifying the agent causing warts, and of Carlos Chagas, of Brazil, who had described the vector and the basic characteristics of the disease which bore his name. Those discoveries had been made at a time when biomedical scientific research could be carried on with very modest means, since equipment had been cheap and since the remarkable technological resources available today but for the most part too expensive for the poorer countries, had not existed.

He consequently felt that the Latin American countries should build up not only a "manpower," but a "mindpower" so that their problems could be resolved in accordance with their specific ecology. To that end, it would be necessary to increase the number of national and multinational research and advanced training centers in those regions in which the most pressing problems arose. That would reduce costs and would remedy the current shortage of scientists, a matter which was becoming a problem for Brazil.

He announced that he would present a draft resolution with a view to affording a practical solution to the problem. As a first contribution towards a special research fund, his country's Delegation placed at the disposal of PAHO the sum of US$30,000 for the financial year 1967–1968. That contribution had been donated, in equal parts, by the National Research Council of Brazil, the Ministry of Health, and the Cultural Department of the Ministry of Foreign Affairs; he expressed the hope that other delegations would also make financial contributions to that fund. He then presented a draft resolution on the item.

Dr. MONTALVÁN (Ecuador) remarked that, like all those present, he had listened with great interest and appreciation to the statement on that important item and that he was happy with the progress achieved every year in the PAHO research program, one financed almost entirely by the National Institutes of Health and other agencies of the United States of America.

Research had been carried out on a number of diseases, but there was one—schistosomiasis—which still required investigating. That disease was a very important health problem in certain American countries, although not in his own; on the other hand, a related disease—paragonimiasis—was developing both in his country and in others, for example, Colombia. While it was not yet continent-wide, that disease represented a health problem of considerable magnitude, and it was even more serious in other parts of the world, particularly the Far East.

Paragonimiasis, which at first had been limited to a very small area of his country, had spread to others and was continuing to spread; consequently, in line with the trend of giving special attention to preventive medicine, he suggested that research should be initiated on the factors helping to spread the disease.

He stressed the importance for various countries of a study of the factors influencing the dissemination of schistosomiasis, and expressed the hope that the problem of intermediary hosts and mollusc agents would be included in the research and study program of PAHO itself or that it would arrange for such research, as it had done with regard to other infectious and parasitic diseases in the Hemisphere.

With regard to the problem which the migration of its professionals represented for Latin America, he agreed that the best solution was to offer greater opportunities for work and study and improve working conditions for professionals. That would prevent their migrating in order to be able to engage in scientific research or to carry out their professional activities at a higher level, for the cause of such migration was not purely financial, but had an intellectual aspect as well—a desire to exercise one's profession to the best of one's ability.

Dr. MONDET (Argentina) said that his country attached great importance to the subject under discussion and also wished to congratulate the Director and those who had worked with him, since it would not otherwise have been possible to appreciate the extent of the migration of technicians from various countries, the available figures having always been open to doubt. His country was greatly concerned with the problem, since, as the tables clearly showed, a considerable number of professionals and technicians were emigrating from Argentina. Dr. Ezequiel Dago Holmberg, Minister of Public Health of Argentina, had done a great deal of work on the problem of hospital internship

in Argentina, a problem in whose solution the speaker had participated.

After mentioning the great importance of the migration of physicians in his country, he added that in Argentina there was a higher concentration of doctors in the cities than anywhere else in the world. In the capital, Buenos Aires, there was one doctor for each 200 to 210 inhabitants. If that figure were compared with the figure for New York City, where there was one doctor for approximately 340 inhabitants, the difficulty would be readily seen. Since the 1,100 doctors who graduated every year from the University of Buenos Aires wanted to live in that city, they sought to complete their education there, and because of their numbers they could hardly receive adequate postgraduate training. In economic terms, the situation was even more critical. He stated that, in order to solve the problem, pilot hospitals were being established in different parts of Argentina, the idea being that they would become training centers to which doctors would be attracted; that was the so-called "resident doctors" program. The matter had become urgent in recent years, for many Argentinians—and, no doubt, nationals of other countries—knew of the hospital internship system in the United States of America, which offered full satisfaction to young people eager and anxious to work.

In his view, if Latin American countries were to introduce a system of hospital internship with good instructors and good working conditions, physicians would remain in their own countries and, as experience had shown, improve their professional knowledge.

The Delegation of Argentina fully associated itself with the remarks of the Delegates of Brazil and Ecuador and supported the research program proposed by the Bureau, towards which his Government would contribute US$10,000, a sum which hopefully would be increased in the future.

Referring to research and various other matters, including the textbook program, which his Delegation also supported, he said that the Bureau was obviously forging ahead and that the "health business" was developing and bringing in good returns. So long as investment in health was sound, there was no reason to fear an increase in the countries' quotas. The Pan American Sanitary Bureau had done remarkable work in his country in the past 10 years, and Argentina was extremely satisfied with it. Although it had had to make great sacrifices to pay its contributions, it had also made a magnificent investment. The results would not be felt for some years, but in the long run Argentina would be making a better use of its own resources in improving the health of its people.

Mr. SÁNCHEZ (Venezuela) felt that the dynamic development of the PAHO research policy and program was most praiseworthy, and that the praise should go to the Director and staff of the Bureau. That dynamic policy was a sign of real progress, and any investment made in that area would certainly be most productive.

The migration of technical personnel from Venezuela to the United States of America was not a serious problem compared with that of other Latin American countries. On the other hand, sending personnel to be trained in the United States had the advantage that they would learn the English language, an indispensable working tool.

His Government was very interested in the Bureau's program of studies, especially with reference to Chagas' disease, not only as regards the ecological environment of the vector, but also from the clinical point of view, since cardiovascular disease was the second largest cause of death in his country.

The Delegation of Venezuela supported in principle the draft resolution submitted by the Delegate of Brazil and felt that funds should be made available to develop those programs, since they were of great usefulness, both for the quality of the results and for the diversity of the subjects dealt with.

Dr. SALVERAGLIO (Uruguay) emphasized that everyone was aware of the importance of research in medical and health activities and he was therefore interested in seeing, in the report of the Director, PAHO's fundamental concern with the problem of research and its practical achievements. The program was a dynamic one, for as one problem was solved, others arose which required attention.

The Government of his country was duly appreciative of the research carried out by PAHO, and had decided to contribute US$3,000 for that purpose. While that sum was no more than symbolic, it was intended to express the Uruguayan Government's support of the work, which it hoped would continue to expand and develop.

Dr. WILLIAMS (United States of America) said that his country's Delegation had followed the discussion of the item with great interest, and would

like to congratulate Dr. Martins da Silva and Dr. Kidd on their excellent presentation. Also of interest had been the recent meetings of the Advisory Committee on Medical Research in Washington, in which he personally had had an opportunity to participate. The discussions had, he felt, been on an extremely high plane scientifically, and very useful.

The reports of the Advisory Committee had been valuable, especially those of the kind that Dr. Kidd and his Subcommittee had produced on migration; and he considered the one on deprivation and psychobiological development of extreme importance to the development of public health programs in the Western Hemisphere. He would ask Dr. Horwitz and Dr. Martins da Silva whether the program of the ACMR and the Office of Research Coordination included any work on the relationship between the social sciences and public health.

It was appropriate that the Organization move with all energy and speed in pursuing the encouragement and promotion of research in the Americas, setting aside, within the limits imposed by budgetary ceilings, a reasonable sum in the regular budget for the purpose.

The major force and direction of the research program of the Organization should be directed not so much toward the actual performance of specific research projects as toward the encouragement and development of research, as well as research centers of excellence wherever they might appear, or might be potentially available for development throughout the Americas.

All of the interventions of delegates had been interesting, but he would like especially to congratulate the Delegates of Brazil, Argentina, and Uruguay on the statements they had made and the good will they had shown in announcing voluntary contributions.

He could recall no new program, during the many years of his association with PAHO and WHO, which had been the object of three voluntary contributions within 20 minutes of its being announced. That was a remarkable achievement and of great significance. He sincerely hoped that the trend so well begun would continue and would be accelerated.

On behalf of his delegation he proposed a draft resolution which had particular reference to the migration of scientific personnel mentioned by Dr. Kidd and Dr. Martins da Silva.

Dr. HORWITZ (Director, PASB) remarked that, having listened to the debate, he was even more impressed by the priority being assigned to research among the Organization's activities than he was by the contributions pledged. Until quite recently, it had not been usual in international health organizations to discuss research, to attribute to it such importance as the speakers in the debate had done, to support it, and to allocate special funds for its development.

He felt that the Committee should express its gratitude to the Advisory Committee on Medical Research, which was composed of eminent personalities in the scientific world of the Americas and whose advice had formed the necessary basis for the achievements made. Indeed, the role which the Organization should play in that complex problem had become clearly apparent. It was working hand in hand with the World Health Organization; there was no duplication of effort, but rather complementary, expansion, and new initiatives relating to the problems prevalent in the Americas. In that connection, he said that PAHO had three different functions: promotion, in which it relied on the collaboration of dozens of highly qualified scientific experts who had traversed the Hemisphere, studying problems and resources, suggesting particular areas of research and indicating who could best carry it out; coordination, of which the Conference itself was the best expression; and lastly, execution, since some problems were strictly international in nature and could best be resolved by an organization representing the Governments, such as PAHO. One example in that category was the Inter-American Investigation of Mortality, now completed, and a similar study directed basically to those under 15 years of age in rural areas, which was being planned.

Funds were being sought for an inter-American study on abortion, for it was felt that rational and objective information on the subject would be most valuable for any Government which was interested in adopting—or not adopting—a population policy.

He thanked the Governments of Brazil, Argentina, and Uruguay for their contribution to the Special Research Fund and all speakers for their interest. He also thanked Dr. Montalván for his remarks on the foci of paragonimiasis. He was aware that the disease was very widespread in Korea and it was extremely important to determine its extent in Ecuador to see whether it could be arrested.

Replying to the question of the Delegate of the United States of America on the inclusion of social sciences in research, he said that the matter had not been neglected. In the course of the year a contribution had been obtained from the Milbank Memorial Fund and an Argentine sociologist, Dr. Juan César García, had been appointed; he was completing a study on medical education—including the entire process of the teaching of preventive and social medicine—in 10 schools of medicine of the Hemisphere. The study would serve as a basis for assessing the results of seminars on the teaching of preventive medicine organized 10 years previously, and it was hoped to carry out that assessment jointly with the Milbank Memorial Fund, starting in 1967.

He hoped that the sociological study he had mentioned could be presented at the forthcoming meetings of the Advisory Committee on Medical Research and the Directing Council and he thought that, after seeing how much the social sciences could contribute in the field of health, the Directing Council would consider incorporating them in the regular activities of the Organization.

The report on migration was excellent and stated the problem in objective terms. He had had the impression that some Governments had approached it rather emotionally, an attitude which might lead to hasty judgments which would worsen rather than improve the situation. He recalled in that connection the remark of Dr. Bernardo A. Houssay that, since all living creatures migrated, men could not be prohibited from doing so. He stressed that there was need, not for coercive action, but for a thorough study of the problem in order to try to reduce it to proportions which would be in both the national and the continental interest; it was on that basis, in particular, that the Organization was desirous of cooperating.

In conclusion, he said that, as such studies continued, the need would arise to provide incentives, not merely economic, but intellectual and spiritual, for the scientists of the Hemisphere, so that most of them would feel a moral responsibility to pay back to their countries what they had received from their universities.

The PRESIDENT announced that the two pending draft resolutions would be considered at a later session.[3]

The session rose at 10:40 a.m.

[3] See p. 270.

FOURTH SESSION

Wednesday, 5 October 1966, at 2:40 p.m.

Chairman: Dr. DANIEL ORELLANA (Venezuela)

Item 32: Report on the Status of Malaria Eradication in the Americas (*continuation*)

The CHAIRMAN said that, before taking up the items on the agenda, he would call on Dr. Deoroop Maharaj, Delegate of Guyana, to submit a report on the status of the malaria eradication program in his country, as he had been unable to do so during the session at which that item had been discussed.

Dr. MAHARAJ (Guyana) said that, as long ago as 1945, as a result of residual DDT spraying of houses, malaria had been eradicated from the densely inhabited coastal lands of Guyana. Thus, since more than 90 per cent of the population lived there, the greater part of the people were protected.

It had never been expected that malaria would be eradicated from the interior, as most of its inhabitants were nomadic and lived in dwellings which presented no walls for residual DDT spraying. However, spectacular results had been obtained from the use of chloroquinated salt in the northwest district, there having been only two cases observed from 1961, when spraying was introduced, to the end of 1965.

The use of chloroquinated salt in the area had been discontinued in 1965. Less impressive results

had been achieved in the Rupununi District, bordering Brazil. In that part of the country *P. falciparum* resistant forms of the parasite had developed as early as 1962. But, with the introduction of residual DDT spraying, malaria had virtually disappeared from the area. The institution, in 1963, of DDT spraying on adjoining Brazilian territory to a depth of 10 miles had undoubtedly assisted control.

There had recently been one setback, however. In the northwest district an outbreak of *P. vivax* malaria was discovered in March 1966. That appeared to have originated among the Carib Indians of the Upper Barama, a very inaccessible area which was probably not served regularly and adequately during the 1961–1965 medicated salt campaign. Intensive civilian measures had since been instituted and medicated salt, combined with residual DDT house spraying, had been introduced.

His country was grateful for the technical and material assistance it had received from PAHO and WHO in the various measures it had taken.

Item 24: Status of Smallpox Eradication in the Americas

Item 25: Estimated Requirements for the Eradication of Smallpox in the Americas

The CHAIRMAN declared that Items 24 and 25 would be examined together.

Dr. BICA (Chief, Communicable Diseases Branch, PASB) introduced Document CSP17/20 [1] and remarked that, because of its epidemiological characteristics, smallpox was one of the infectious diseases which lent themselves most readily to eradication; it afflicted man only, it was transmitted directly, and man was the only known reservoir of the virus. The disease was relatively simple to eradicate by vaccinating, and thereby immunizing a sufficiently large proportion of the population to interrupt transmission.

After tracing the history of the disease, he said that although means of preventing smallpox had been known since the end of the eighteenth century, it continued to be endemic in a number of countries in the Hemisphere, as was to be seen from the fact that, from 1948 to 1965, the countries and territories of the Americas had reported 171,140 cases to PASB.

Some advances had been made since 1950 in eradicating smallpox, although progress varied from country to country. A large group of countries had succeeded in eliminating the disease, while others had nearly reached that target; but smallpox still persisted in some countries, and campaigns had to be undertaken there. Smallpox was currently confined to a group of South American countries: in 1965, Argentina, Brazil, Colombia, Paraguay, Peru, and Uruguay had reported 3,367 cases. In 1966, by 28 September, the same countries had reported 247 cases. The number of cases notified had progressively diminished since 1962, when the number of smallpox cases had reached 9,719.

He then referred to the various resolutions adopted by the Governing Bodies of both PAHO and WHO with reference to eradication. Following those mandates, PAHO/WHO had collaborated with the individual countries, helping to organize laboratories for the production of freeze-dried smallpox vaccine and training local personnel in the techniques of large-scale production of that type of vaccine. Eleven laboratories in the Americas, which had received PAHO assistance, were capable of producing freeze-dried smallpox vaccine. The services of Serum Institute in Copenhagen, Denmark, had been made available to countries for testing the purity and potency of the vaccine prepared in national laboratories. In addition, long-term and short-term advisory services had been given for the study of the smallpox problem and for the organization, development, and evaluation of national smallpox vaccination programs. Through the United Nations Expanded Program of Technical Assistance and with its own resources, PAHO had provided supplies and working equipment; progress had been made in studying the use of jet injectors for administering smallpox vaccine in urban and rural areas. In accordance with the request of the XV Pan American Sanitary Conference,[2] the Bureau prepared and submitted to the XIII Directing Council certain criteria for smallpox eradication, which were approved unanimously.[3]

With a view to determining the nature and volume of international collaboration the countries would need to eradicate smallpox in the Americas, the Bureau had carried out a survey in the countries of the Region early in 1966 at the request of the XVI Meeting of the Directing Council.[4] Courses

[1] See Annex 11, pp. 548–568.

[2] Resolution VI. *Official Document PAHO* **27**, 26–27.
[3] Resolution XXXII. *Official Document PAHO* **41**, 32–33.
[4] Resolution XXX. *Official Document PAHO* **66**, 81–82.

were being organized for laboratory diagnosis of smallpox. The first two would be held in October, in cooperation with the Adolfo Lutz Institute of Brazil.

Table 2 of the document he was presenting summarized the type of technical assistance requested by the countries from PAHO/WHO for the study, organization, development, and evaluation of smallpox vaccination programs; for consolidation programs; and for the organization of epidemiological surveillance services. He emphasized that smallpox eradication programs had to be carried out in three stages: preparation, execution, and maintenance and epidemiological surveillance, each stage having its own characteristics and requirements. In the first stage, attention should be centered on the collection of information on the smallpox problem, analysis of working techniques, and study of available resources; on the basis of that work, the aims of the program had to be determined and the corresponding plan of operations prepared. It was advisable that a smallpox eradication program should be prepared jointly by the staff of the program and the staff of the permanent health services, at the central, intermediate, and local levels. The programs would also be executed by or with the participation of the permanent health services, where they existed. Where they did not exist, an independent or vertical service would assume that task. Such a service should then be used as a point of departure for the organization of permanent health services.

Although the target of eradication programs was to vaccinate the entire population of a country during the intensive phase of the campaign, there would always be a certain percentage of the population not vaccinated, and vaccination of not less than 80 per cent of all the different age groups would in all probability prevent transmission of the disease. The more densely populated areas were more vulnerable to the disease, because transmission was easy and rapid. It was therefore recommended that special attention be paid to the vaccination of urban populations, where the percentage of protected population should be as high as possible, to reduce the possibility of a patient infecting a susceptible person. Generally speaking, the cost per person vaccinated rose rapidly as level of vaccination approached 100 per cent of the population; nevertheless, in urban areas, where population density was high and people voluntarily came to vaccination centers, it was possible to vaccinate as many as 90 per cent of the inhabitants without an appreciable rise in cost per person vaccinated.

The eradication program in the Americas should take a maximum of four years, by the end of which the maintenance and epidemiological surveillance programs should be in full swing.

During the execution phase, the operational plans should be strictly adhered to and field activities should be evaluated from day to day, so that the expected targets could be maintained; where it was found that the targets were not being reached, the causes should be looked into, and the necessary changes introduced, so that the total development plans of the programs were not altered.

He added that every smallpox vaccination program should be followed up by a maintenance and epidemiological surveillance plan. Insufficient attention had been paid to maintenance, and in consequence there was a resurgence of smallpox in countries in which it had been eliminated. In his opinion, most countries of the Americas lacked such epidemiological surveillance services, which should begin to operate in every geographic area as soon as the vaccination programs were completed. For a better epidemiological knowledge of smallpox, for the evaluation of eradication programs, and for the operation of the epidemiological surveillance services, it was both necessary and urgent to organize appropriate data recording systems. The maintenance program and the epidemiological surveillance services should be operated by the permanent health services, where such services existed; where there were none, appropriate measures would have to be taken to ensure the regular operation of maintenance and surveillance activities.

The speaker believed that the rugged topographical conditions in some countries should not be an obstacle to the smallpox eradication program, since the various existing means of transportation between them permitted access to most places in which vaccination should be administered; moreover, the national information and communication media made it possible to give guidance and health education to the population. There was a network of health and medical care establishments which, properly used, should greatly contribute to the execution of the program, thereby shortening the time and lowering the costs of the operation. Furthermore, the countries of the Americas were in a

position to produce the vaccine required for a continental smallpox eradication program.

He reiterated that it was possible to eradicate smallpox in the Americas within a relatively short time, by immunizing the susceptible population, provided that the Governments assigned the necessary funds for the campaign and solved the administrative problems which might impede it. International aid would then be of greater value, and it could take the form of technical advisory services and of the provision of those basic working elements which were not produced locally or which could be imported at a saving.

Bearing in mind epidemiological and financial factors, the PASB presented to the Conference for consideration a plan of action for eradicating smallpox in the Americas, as follows:

1. Smallpox vaccination of the population in those countries in which smallpox existed. Argentina, Brazil, Colombia, Paraguay, and Peru belonged to that group. Uruguay, which had reported smallpox in 1964 and which was situated between two countries where smallpox was endemic, was also included in that category. Bolivia was carrying out an eradication program in which the Bureau was cooperating.

2. Continuation or organization, as the case might be, of maintenance and epidemiological surveillance programs in countries neighboring on countries with smallpox, which had themselves already eliminated the disease by well executed smallpox vaccination programs. Chile, Ecuador, and Venezuela composed that group.

3. In countries in which there was no smallpox, but which were not included in group 2, it was recommended that the necessary security measures be taken to avoid the introduction and spread of the disease following exposure. It would be advisable for that group of countries to make an effort to raise the level of the protected population, preferably through the national health services and as part of broader immunization programs.

The countries were requesting international collaboration in the execution of the smallpox eradication programs. The survey carried out by the Bureau to determine the nature and volume of such aid would be found in the appendix [5] to the document being presented.

As regards priorities, PASB recommended that international aid should go first to countries in which there was smallpox, and then to those which were or should be carrying out maintenance and epidemiological surveillance programs and which bordered on countries where smallpox occurred.

The cost of international aid, in the form requested by countries and in accordance with the priorities recommended, was US$2,470,284 for a four-year program; the total cost of the smallpox eradication program in the Americas was $16,081,-121. Of that total, $13,610,841 (65 per cent) was the share of the different countries and $2,470,284 (15 per cent) would be internationally contributed. The international aid figure did not include requests from two Governments for financial assistance to pay the salaries and travel costs of national personnel of the smallpox vaccination programs. The total cost of the requests of those two Governments was $3,449,200.

The international contribution to the smallpox eradication program would be largest during the first year; in the following years, it would be gradually reduced. Available to finance a program of that kind were funds already approved by WHO, PAHO's own resources, and contributions from the United Nations Development Program, amounting to $746,204 for 1967 and $766,353 for 1968. In conclusion, he stated that the sum of $1,512,557 was available for the first two years of operations; the proposed program would cost $2,470,284 for four years.

Dr. Ortega Peguero (Dominican Republic) remarked that in the past 40 years not one case of smallpox had been registered in his country, which was protected from the disease by geographic conditions; neither in Haiti nor in the Dominican Republic was smallpox endemic, and any case detected would be imported. For that reason, little heed had been paid to smallpox vaccination, so that there was barely 3 per cent protection, a figure that was so low as to be disquieting. The Dominican Republic was included in the third group of countries mentioned by Dr. Bica, whom the speaker congratulated on the report presented.

However, he drew attention to the alarming fact that, among the increased number of travellers arriving at the airports of his country, some did not have international vaccination certificates; measures should therefore be taken to require such certificates not only upon entry to a country but also at the point of departure. That would econo-

[5] See pp. 558–568.

mize on health personnel employed in examining certificates and vaccinating those passengers who had not complied with the requirement.

Dr. MONDET (Argentina) said that some years earlier there had been serious smallpox epidemics in his country, but that now only sporadic cases were registered, as could be seen from Table 1 of the document;[6] thus, beginning with 1960, when there had been 65 cases, there had been only 6 cases in 1961, 2 in 1962 (one of them imported), and 13 cases in 1964, 10 of them imported; nevertheless, he believed that the campaign should be pursued intensively, with a view to ensuring the level of immunization. He had doubts about the quality of the vaccine being used and believed it essential to introduce strict control of the vaccine. Argentina was working in that direction, having discovered in a number of cases that the vaccine produced was below standard. It was also advisable that, as the vaccine was not freeze-dried, its transportation should be controlled as strictly as was conservation. There should also be strict supervision of the administration technique. He stressed that it was traditional in Argentina to teach that technique to medical students during their first years of training, and some schools of medicine still required students to practice smallpox vaccination.

He then referred to the control of vaccination certificates, a point to which he attached enormous importance, for although vaccination and vaccination certificates were obligatory, those certificates were not always issued by qualified and responsible personnel and were frequently delivered to persons who had not been vaccinated. He believed that the certificates, particularly international certificates, should be subject to strict and responsible controls. He therefore felt that four types of control were needed in order to combat smallpox: of the quality of the vaccine; over transportation, to maintain the validity of the vaccine; of the administration technique; and of vaccination certificates.

Dr. SCORZELLI (Brazil) remarked that, although his country had been one of those which had carried out the smallpox vaccination campaign with the greatest enthusiasm, it was the largest focus of that disease in the Hemisphere. The smallpox vaccine had been introduced in Brazil in 1904, and vaccination had been obligatory ever since. Some of the reasons which, in his opinion, explained the presence of smallpox in Brazil were: the belief that the only clinical form discovered was alastrim, and as that was a benign form, both the population and the health services had underestimated the problem; the low potency of the vaccine; and the weakness of the country's health infrastructure.

The detection of cases in recent years had caused the Government to undertake in 1962 a nationwide smallpox campaign, but the figures on the persons vaccinated had not been published. The campaign had, however, suffered from considerable deficiencies which had been corrected in 1966 by the enactment of a General Act on Public Health Campaigns laying down stricter measures for the fight against smallpox; it was also hoped that larger funds would be available.

In 1966, the equivalent of US$440,000 would be made available for the smallpox eradication campaign by the Federal Government and PAHO. The states, for their part, would also make a financial contribution in varying proportions, the State of São Paulo, for example, having assigned about $800,000 for that purpose.

He observed that the quantity of vaccine available for the campaign was more than adequate to cover the needs, as Brazil, in its three laboratories—one at the Oswaldo Cruz Institute in Rio de Janeiro and two others in Pernambuco and Rio Grande do Sul—was capable of producing more than 50,000,000 annual doses of good potency vaccine, for the most part freeze-dried, as required for the operations. In its new stage, the campaign would be the direct responsibility of the Ministry of Health, with the participation of state authorities and such national and international public and private institutions as might wish to collaborate.

The planning of the campaign was of strategic importance, and special attention was being paid to the area extending from the State of Ceará to the State of Bahia, because of the large volume of migration from those areas to other regions. The target was to vaccinate or to revaccinate at least 90 per cent of persons of all ages and it was hoped to eradicate smallpox from the territory of Brazil in the space of three years, although maintenance and epidemiological verification activities would be continued.

Between 1962 and April 1966 more than 30,000,000 persons, or 36 per cent of the total population, had been vaccinated or revaccinated; of that number, over 23,000,000 persons had been reached as a direct result of the campaign. The number of

[6] See p. 549.

known cases of smallpox had decreased considerably in the past few years: from 7,745 in 1961 to 7,605 in 1962, the figure had dropped to 5,503 in 1963 and 1,889 in 1964, had risen again to 2,120 in 1965, and had dropped to 241 as of 8 September 1966. In conclusion, he expressed his confidence in the full success of the campaign in eliminating smallpox, to the benefit of the nation and in the interests of the Hemisphere.

Dr. RISTORI (Chile) expressed assurance that the countries represented at the Conference were convinced that smallpox could and should be eradicated in the Americas within a short time, although not all of them faced a task of equal magnitude, since some had smallpox in their territory and others not. Moreover, geographic conditions and the population structure made the task of eradication more difficult for some countries.

He welcomed the encouraging remarks of the Delegate of Brazil, since that country had the most to do to eradicate smallpox.

Chile had achieved smallpox eradication; there had been a reinfestation in 1950, continuing until 1952 or 1953, but not a single case had been registered since, except one in 1959, which in itself was proof of the high level of population immunization.

Because of the situation in the neighboring countries, Chile was obliged to maintain a high immunization rate in order to avoid new cases; that situation was common to many Latin American countries, which had succeeded in eradicating malaria, but were now threatened by it from across their borders. For that very reason, the smallpox problem was not a national problem for each country alone, but a continental problem, and whatever any given nation did to eradicate the disease had necessarily repercussions on the others, which therefore could not remain indifferent to the situation elsewhere in the Hemisphere.

He added that he had followed with close attention the work done by PAHO in that regard, both by providing assistance to countries and by carrying out its recent inquiry into the real situation in those countries and the necessary requirements for supplies and equipment for eradication purposes. The World Health Organization had a very important responsibility—that of coordinating the efforts of the countries so that initiatives undertaken separately in the past would be harmonized in the future. That would be to the benefit of all, both as regards the campaign itself and as regards the prevention of reinfestation.

In addition to the work to be done by the countries which had not yet eradicated the disease, it would be important for countries which had eliminated smallpox to intensify their program of revaccination, in order to support and assure the success of the eradication campaign, now that it was known how difficult it was to control that particular disease.

He congratulated Dr. Bica on his valuable report and read a draft resolution on the item.

The CHAIRMAN stated that the draft resolution would be translated and considered at a later session.[7] In an annex to the document under discussion, there was a list of 13 resolutions adopted by the PAHO Governing Bodies on the problem. All were similarly drafted and expressed the same purpose and the same need, i.e., that a problem did in fact exist but that there was a technical recourse which should be used for the development of an eradication program.

He sincerely hoped that the new resolution would serve as a starting point in order to put an end to that problem as soon as possible.

Dr. WATT (United States of America) said that he was discouraged by the numerous resolutions on the present item, essentially repetitive in nature and promising little progress. The report on the status of smallpox eradication tended to deepen one's depression still further, because it conveyed an impression not of movement towards a goal, but rather of the listing of things already known or agreed upon. By contrast, a significant appropriation had been made by the Nineteenth World Health Assembly [8] for the prosecution of the global smallpox campaign.

However, the document before the Committee envisaged funds being available for the rendering of international assistance, and to that extent represented a step forward. Also, the debate had given some cause for optimism. Brazil, for instance, had not only faced the problem, but had committed itself fully to its solution, an essential course of action which induced the feeling that solid progress was being made.

Perhaps the draft resolution on the item should propose the establishment of a mechanism for

[7] See p. 270.

[8] Resolution WHA19.16, *Off. Rec. Wld Hlth Org.* **151**, 8–9.

achieving effective coordination with Brazil in that regard. The countries bordering on Brazil would certainly welcome that, if only from the point of view of saving time and energy. The Delegate of Brazil also would doubtless agree that within two or three years of achieving eradication in the interior, his country would have to deal with a re-invasion of the disease unless the foci along its borders had been removed.

It now appeared that not only would financing for the purchase of materials be available, but that there was a firm commitment to proceed on the part of the countries in which the major work would have to be done. It only remained to ask the Director to develop the mechanism for coordinating the activities of those countries and informing the others on the manner in which they could cooperate.

PAHO was, he felt, the central command post for the attack: it was able to keep itself informed of day-to-day activities and it met regularly to review progress. Information could be transmitted to countries willing and able to help, but that would achieve nothing in the absence of a working party to coordinate activity.

If the Director were instructed to set up that kind of coordinating mechanism, and then through it obtain assistance from the various Governments, a measure of progress quite beyond that achieved in the past would be obtained. He hoped that his feeling of enthusiasm was shared by other delegates, and that it would now be possible to really move forward in the campaign against smallpox.

Dr. Martínez Quevedo (Paraguay) said that serious attention had been given to the problem of smallpox in his country, in accordance with the international recommendations. In 1958, 1959, and 1960 an eradication program had been carried out with the collaboration of PASB, with interesting results. On that occasion, 80 per cent of the country's total population had been vaccinated.

The year 1960 was the last in which cases of smallpox had been recorded. No further cases had appeared until 1965, when there had been a small outbreak in an isolated village in the north of the country.

The program had not been adequately followed up in the maintenance phase. In a country of great distances, a scattered population, and a weak health infrastructure, many of the vaccinated areas had not been sufficiently protected and precisely five years later the people in those areas had been reinfected.

Paraguay found itself in a really difficult position, for it had thousands of miles of frontier with Brazil, Argentina, and Bolivia, and the frontier areas formed a unified geographic area. People crossed them freely without any formalities or difficulties, so that there would always be a danger of reinfection unless health action was properly coordinated. The problem of Paraguay, Argentina, and Brazil was truly interesting and deserved special study, since coordination would be needed to establish a common protection system for those countries.

Moreover, vertical programs had the disadvantage, when it came to maintenance, that not much collaboration was received from the local services. Those services were being expanded, and it would be more logical to launch vertical programs only in those areas where there were no health services, the latter providing the only opportunity for permanent large-scale action.

Dr. van der Kuyp (Kingdom of the Netherlands) said that in 1810-1811, more than 10,000 African slaves of a total population of nearly 60,000 in Surinam, had died from smallpox. The last indigenous cases had been reported in 1880, and one imported case had been noted in 1920.

As primary education had been obligatory in Surinam since 1877, and all children enrolling should be vaccinated, almost every inhabitant had been vaccinated against smallpox at least once. Moreover, all persons entering the country must have a valid vaccination certificate.

Dr. Pineda Martínez (El Salvador) stressed the persistence of the smallpox problem in the Americas and agreed with Dr. Watt that the information furnished by the Delegates of Ecuador, Peru, and Brazil, among others, was encouraging.

El Salvador had known no cases of smallpox, either domestic or imported, for over 40 years. However, in 1962 vaccination levels in his country had been dangerously low, and plans had been made to raise them. So far, about 1,000,000 persons had been vaccinated or revaccinated, raising the protection rate to 30 per cent. It was proposed to attain the 80 per cent level, not by means of campaigns but through a permanent vaccination program, using all the resources of the Ministry, especially the outpatient clinics, where it was part of the duties of the nurses and nurse's auxiliaries to vaccinate

all non-immunized persons. Some 300,000 persons were being vaccinated annually.

The smallpox focus in South America was in the zone comprising Brazil, Peru, Ecuador, and Paraguay, and those countries were spending a great deal of money and effort to stamp out the disease. He proposed that all the countries of the Americas should resolve to eliminate smallpox in the next four years. Of the many feathers in Dr. Horwitz's cap, perhaps the brightest would be if four years hence he could report that America was free from smallpox, which was feasible. El Salvador would agree to the investment of the greatest possible volume of funds and resources in the area he had mentioned, which required the Bureau's full cooperation.

Dr. BICA (Chief, Communicable Diseases Branch, PASB) thanked the delegates for their valuable comments, which would greatly help the Bureau to orient and coordinate its work with respect to those programs.

It was important to synchronize the programs in the various countries and to terminate them at the same time, in order to avoid the problem the delegates had mentioned: the frequent reintroduction of smallpox in areas already freed from it. The Bureau had an important role to play in coordinating all the programs, and he trusted it would have the assistance of the various countries in that endeavor.

With regard to the problem mentioned by the Delegate of Argentina on the question of vaccine control, he stated that the Bureau had been constantly concerned with it since the program had been initiated in 1950. It had endeavored to stimulate countries and cooperate with them in producing a vaccine capable of resisting the various environmental conditions, and had therefore urged them to prepare a freeze-dried vaccine of good quality under an agreement with Serum Institute of Copenhagen; unfortunately, very few countries were making use of that service, which was absolutely free.

International control was obviously not to be thought of as a substitute for control in the national laboratory; it was simply added security. With a view to increasing that type of assistance to countries, negotiations were being carried on with a highly reputable laboratory in the Americas, for the purpose of having one of its technicians visit at least once or twice a year the vaccine-producing laboratories in order to check the preparation and help with any difficulties that might arise. In addition, new freeze-dried vaccine-producing equipment, more modern and with a larger capacity, was being supplied. In conclusion, he expressed full agreement with the Delegate of Paraguay that the campaign should be carried out through the local health services.

The session was suspended at 3:55 p.m. and resumed at 4:25 p.m.

Item 34: Status of *Aedes aegypti* Eradication in the Americas

The CHAIRMAN stated that a plan of work would have to be prepared so that the activities would be completed on schedule. He stated that Dr. Musa would introduce the item.

Dr. MUSA (Communicable Diseases Branch, PASB), introducing Document CSP17/14,[9] said that when the Pan American Sanitary Bureau received instructions[10] from the I Meeting of the Directing Council (Buenos Aires in 1947) to solve the problem of urban yellow fever the mosquito had already been eradicated in Bolivia and a large part of Brazil, but, with the exception of Canada, all the other countries and territories of the Americas had been infested by the vector.

Since then PAHO had urged the infested countries and territories to launch or intensify their campaigns against the vector and the Governing Bodies of the Organization, anxious that the continental campaign should not be indefinitely prolonged, with the increasing risk of reinfestation of areas freed from *Aedes aegypti*, had repeatedly urged those countries and territories to complete eradication of the vector as quickly as possible.

During the 19 years which had elapsed since the Buenos Aires meeting, eradication work had been completed and the following countries and territories were considered free of *A. aegypti:* Argentina, Bolivia, Brazil, British Honduras, the Canal Zone, Chile, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, and Uruguay. The campaign had also been completed in Bermuda, where a special survey in 1963 had confirmed the eradication of the mosquito.

Two other countries, El Salvador and Mexico, had eradicated the mosquito but had been reinfested in 1965. Reinfestation in Mexico had been limited to a small area of the city of Nuevo Laredo, on the

[9] See Annex 6, pp. 521–527.
[10] *PAHO Publication* **247**, 3.

border with the United States of America, and it had been rapidly eliminated; the situation in El Salvador was more serious. In June 1965, the surveillance service of that country had discovered that the city of San Salvador had been reinfested. It had been thought at first that the reinfestation was limited to parts of the city, and the Government had immediately resumed eradication work with a view to eliminating the reinfestation as soon as possible. As the campaign had proceeded, however, more had been learned about the situation and it was soon obvious that the problem was much more extensive than had been believed. A complete inspection of San Salvador had shown that infestation had spread throughout the city, which had a total of about 80,000 houses, and a survey in the surrounding area, within a radius of some 12 kilometers, had shown that of the 28 inhabited localities inspected, 24 had also been infested by the mosquito.

With the cooperation of AID and PAHO, the Government of El Salvador was surveying the situation in the rest of the country. The first results showed that other parts of the country were also reinfested, so that in order once again to eradicate the mosquito, the Government would have to intensify its campaign considerably.

Where the cause of the reinfestation was concerned, a survey made a few days after discovery of the first breeding places of the mosquito in San Salvador had shown that *A. aegypti* had probably been reintroduced into the city in used tires, which had been imported from an infested country and in which the vector had laid its eggs.

Apart from reinfestation in Central America, the problem of *A. aegypti* still existed in the extreme north of South America, in the United States of America, and in the Caribbean. In the north of South America, French Guiana, Surinam, Guyana, Venezuela and a town in Colombia were still infested. French Guiana had been declared free from *A. aegypti* in 1958; nevertheless, in 1963 the territory was found to be extensively reinfested, and eradication work had not yet been resumed. In Surinam, the campaign had been begun only in 1963, and no satisfactory results had as yet been obtained. Guyana, too, had been widely reinfested in 1962, although for years it had been free of the mosquito; the eradication campaign had been resumed in 1965, but had given very meager results. In Venezuela, the campaign continued to encounter the same administrative and technical difficulties which had impeded all progress in eradication work during the past four years. Colombia had completed eradication in 1961, but between September 1961 and October 1964 it had been discovered that the towns of Cúcuta and San Luis, near the frontier with Venezuela, and the harbor of the town of Santa Marta, on the northern coast, were reinfested. Those foci had been eliminated, and in July 1965 the entire territory of Colombia had again been considered free of the vector. However, late in 1965, reinfestation was discovered in Cúcuta, which had been inspected seven times from January 1964 to July 1965 for *A. aegypti*, with negative results. Accordingly, the work of eradication had been resumed in that town in November 1965, but the reinfestation had not yet been cleared up.

He added that the United States of America, whose campaign included Puerto Rico and the U.S. Virgin Islands, had begun eradication operations in 1964; nevertheless, those had thus far covered only part of the areas presumed infested. Those areas, in addition to the above-mentioned islands, comprised part or all of the territory of nine southeastern states; the results obtained by the campaign had been limited.

In the Caribbean area, the campaign was in its final phase in Trinidad and was proceeding in Cuba, but it continued interrupted in Jamaica, the Dominican Republic, Haiti, the British Virgin Islands, Guadeloupe, and Dominica. In the rest of the area the campaign was paralyzed or proceeding very slowly, and the results obtained were unsatisfactory.

As had been mentioned on previous occasions, one of the obstacles encountered in the campaigns in the Caribbean and northern South America was the resistance of *A. aegypti* to chlorinated insecticides. That resistance, however, was only part of the problem, and its development was obviously due in part to the fact that many of the campaigns, for various reasons, had progressed slowly over a number of years without succeeding in eradicating the vector, although at that time the mosquito had been very susceptible to DDT.

As stated previously, the Organization, with a view to solving the resistance problem, had established in Kingston, in collaboration with the Government of Jamaica and the University of the West Indies, a laboratory which, since 1962, had been investigating the susceptibility of *A. aegypti* from the Caribbean and the north of South America to various insecticides and evaluating new products

which might be substituted for the chlorinated compounds in eradicating the mosquito.

The laboratory had so far tested susceptibility of *Aedes aegypti* to chlorinated insecticides from 66 localities in 18 countries and territories of the abovementioned areas. The results of the tests, supplemented by data obtained earlier by various researchers, had shown that, with rare exceptions, the mosquito strains in those areas were resistant to DDT or dieldrin, or both.

The laboratory had also investigated the susceptibility of those strains to insecticides which might replace the chlorinated compounds, and had evaluated the persistence of the residual action of some of those products in the various types of breeding places to be commonly found in the Caribbean and in South America.

Of the new insecticides the laboratory had studied, one above all had proved most effective against resistant mosquito strains. That product, a phosphorus compound of low toxicity for mammals and with a long residual action, commercially available under the name of Abate, was being tested more extensively in the field, in Jamaica and Venezuela. If the results were satisfactory, within a few months it would probably be possible to use that insecticide on a large scale in the fight against *A. aegypti*.

Two other phosphorus insecticides, malathion and fenthion, had been used for some time for eradication purposes, the first in Puerto Rico and the second in Venezuela and Barbados, with results which could be considered satisfactory. Those products had a shorter residual action than DDT or dieldrin, but the results obtained in those areas showed that they could be used to eradicate *A. aegypti* resistant to chlorinated insecticides.

Solving the resistance problem would not in itself, however, solve the eradication problem in the Caribbean and northern South America. For the campaign in those areas to be successful, the other difficulties encountered in nearly all infested countries and territories in those areas also had to be eliminated. Among those difficulties, the following deserved special mention: (a) inadequate budget for proper coverage of the infested areas; (b) defective administration of the campaign; (c) personnel problems, owing to which field work of the quality needed for such a campaign could not be done; (d) lack of surveillance to prevent reintroduction of the mosquito in freed areas; and (e) lack of, or failure to observe, the necessary legislation to back up the campaign.

In conclusion, he explained that, as the Director had already stated, PASB proposed to convene in 1967 a meeting of the countries and territories in which the problem of *Aedes aegypti* still existed, in order to review the continent-wide campaign and study in detail the obstacles it had encountered. There was reason to hope that, as a result of that meeting, the Governments concerned would be able to solve those difficulties, thereby ensuring the success of the campaign.

Dr. WATT (United States of America) thanked Dr. Musa for his summary of the current situation. The presence of the vector of yellow fever, dengue, and hemorrhagic dengue in his country represented a situation analagous to that of smallpox, in that a large country was a major source of the vector and there too coordinating action with neighboring countries was called for.

He regretted very much his inability to announce that his country had succeeded in eliminating the vector in the terms of the resolution of the XIII Meeting of the Directing Council in 1961.[11] Unfortunately, many countries and territories had not been equally successful; indeed, another had now joined their number through the process of reinfestation. He would like to express sympathy for that country. He hoped that the assistance that had been rendered had been helpful and that it would be possible to do much more.

The determination of all the countries to face the position frankly and eliminate the vector was evidenced by the long record of resolutions and effective action taken. He believed it was Brazil that had first called on the Organization, and through it the other nations, to collaborate to that end. Apparently the call had not been heard, and the further step of asking PAHO to go beyond mere communication and actually coordinate efforts had been taken. That had galvanized a great deal of the effective action that had been taken subsequently. Immediately afterward Brazil, Argentina, and some of their neighbors had pooled resources and had been able to proceed with their task of eradication.

As the work had moved northward, away from the danger zone, there had been a lessening of intensity and a decreased recognition of the need for

[11] Resolution XXXIV. *Official Document PAHO* **41**, 34.

coordination. The threat from importation of the vector was not at hand, so there was little regular reporting on progress, or technical failure, such as would have been helpful in improving future efforts.

For that reason, he particularly welcomed the plan of the Director to call together those responsible; he also wondered whether, as had been proposed for smallpox, a group composed of those actually in charge of eliminating mosquitoes, should not be formed, to meet regularly, so that they could learn from the successes and failures of others.

The picture was not all black, however. There had been some very real progress, and in general where there was a planned, coordinated program, even though there might be resistance, the mosquito had had to fall back. *Aedes aegypti* was a very effective hitch-hiker that managed to adapt well to human habitation and use man's artifacts as breeding grounds in remarkable ways, as with the automobile tire; but those on the firing line, so to speak, had shown that its eradication was possible.

He would like to emphasize the responsibility of all to assist in carrying the campaign through to its ultimate conclusion and hoped that any resolution on the subject would make that clear.

Some time ago the Government of his country had been asked by WHO to establish a reference center for *A. aegypti*, and preserve a colony of the vector to be commonly used as a research tool throughout the world. He understood that it was a very efficient tool and very plastic from a genetic viewpoint.

In some countries research workers had established similar colonies in the conviction that they could prevent the vector from escaping and becoming a source of reinfection, but at least one had learned to its sorrow that that could not be done and had been forced to remove its colonies.

Thus, though the United States of America was honored by the request of the world body, the Surgeon-General had informed the Nineteenth World Health Assembly (May 1966)[12] that his country could not undertake the maintenance of *A. aegypti* colonies nor the shipment of eggs of various strains in and out of the United States of America, until the nations of the Americas, acting through PAHO, had established conditions under which that might be properly done in the Hemisphere.

Considerable concern had been expressed by some entomologists and others in the United States of America that the destruction of their own colonies might result, thus making it very difficult for them to carry on their research work.

A great deal was not known on the subject, but common standards should be adopted for use by countries in which colonies were to be kept, once eradication had been achieved. There were ways in which that could be done. Certainly WHO, with its work against hemorrhagic dengue in Asia and other areas, might very well be compelled to consider ways of eliminating the mosquito from parts of the world other than the Western Hemisphere.

He hoped the Conference would find it possible to act in the matter and at least begin to develop standards to the carry out such work.

Dr. PINEDA MARTÍNEZ (El Salvador) said that, as he had pointed out earlier, his country had been very unfortunate for, having completely eliminated *Aedes aegypti* from its national territory, as the Bureau had verified in 1960,[13] the vector had again been found in 1965 in the course of a routine investigation and it had been discovered that the entire area had been reinfested.

During a recent investigation made throughout the country with the assistance of the Government of the United States of America and PAHO, it had been ascertained that, of the 22 towns that had been surveyed, some 20 were infested with *A. aegypti*.

The reinfestation presented the country with a serious problem, as the eradication of the vector would require special funds that were not available and might be estimated as being of the order of US$1,000,000, that was to say, $400,000 per annum to meet the cost of a three-year campaign.

The *A. aegypti* problem was a further example of the close links that bound all the countries of the Americas, particularly in an era of rapid communications and extensive international trade. The cause of the reinfestation in El Salvador—one that might be repeated in any other country—had been the presence of eggs of *A. aegypti* in a consignment of imported used tires.

In conclusion the speaker submitted a draft resolution on the item.

Mr. SÁNCHEZ (Venezuela) congratulated Dr. Musa on the account he had given of the problems connected with the yellow fever vector in the Hemisphere. Venezuela was aware of those prob-

[12] *Off. Rec. Wld Hlth Org.* **152,** 99.

[13] Resolution IV. *Official Document PAHO* **36,** 15-16.

lems and their magnitude, and the difficulties referred to also applied to his country, particularly those of an administrative nature. On the other hand, the vector had assumed new characteristics resistant to chlorinated insecticides, as a result of which it was necessary to deploy resources on a considerable scale based on the use of organophosphorus insecticides with which the vector could be effectively eradicated. Other problems that affected the development of the campaigns were the shortage of funds and the repeated infestations of certain areas where it had been believed that the vector had been eradicated.

Lastly there was the major problem of field personnel, which had led to administrative difficulties that had finally resulted in the suspension of the campaign until January 1967. A new start would be made on that date, with a new approach and a new impetus, designed to achieve, within a relatively clearly defined period of six years, the complete eradication of the vector.

Dr. MARTÍNEZ (Mexico) regarded the problem of the eradication of the *A. aegypti* as a typical example of the need for and the advantages of coordination, already set forth in the Technical Discussions of the Conference. As had already been stated in those Discussions, what was involved in coordination was the direction of the energies of an organized group with a view to securing single-minded efforts designed to realize a common objective. Therefore it was wrong to regard eradication of *A. aegypti* as a national problem; rather it was a problem for the Organization to assume responsibility for the delicate task of establishing a system of coordination that would impose unity of purpose on all nations whether or not they suffered from infestation from this vector.

To fail to complete that health task would represent a tragic step backward that would also reflect on the coordinated efforts of the nations of the Americas. As he had pointed out previously,[14] the Government of Mexico had offered such economic assistance as it could give to aid in the search for a solution to that extremely difficult financial problem and to further the objective of inviting the countries concerned to formulate a properly coordinated program. Mexico was prepared, as were undoubtedly many other countries, to offer whatever resources it might have available that would help the Bureau to more effectively convince those countries infested with *A. aegypti* of the need to achieve eradication simultaneously and at the earliest possible date.

After expressing his complete agreement with the views put forward by Dr. Watt, he congratulated Dr. Musa on his lucid and precise exposition of the problem of *Aedes aegypti* in the Hemisphere, and expressed the hope that Mexico's offer would encourage all nations to combine their forces under the direction of PASB. Dr. Martínez then read a draft resolution on criteria for the eradication of *Aedes aegypti*.

The CHAIRMAN announced that the two draft resolutions submitted in connection with the item would be considered at a later session [15] and expressed his conviction that all delegations would enthusiastically and gratefully welcome the offer of assistance in eradicating *A. aegypti* from the Hemisphere made by the Government of Mexico.

Dr. PEREDA CHÁVEZ (Cuba), speaking on behalf of his Delegation, congratulated Dr. Musa on his presentation of the item. As the Director's report had indicated, serious difficulties had arisen in Cuba principally as a result of frequent reinfestations of areas in which the vector had been eradicated.

The Government of Cuba, advised by PAHO experts, had made a thorough study of the measures adopted in prior years to rectify possible errors and bring the campaign to a successful conclusion by extending it to the rest of the country, i.e., to the three western provinces. There was no doubt that the Government of Cuba was prepared to provide all the manpower and equipment needed to ensure the successful outcome of a campaign of such evident value and importance. In conclusion, he expressed his appreciation of the offer made by the Government of Mexico, one that would benefit all countries.

Dr. VAN DER KUYP (Kingdom of the Netherlands) stated that the development of *A. aegypti* control in Surinam could be divided into 12 stages: (1) from the beginning of the century, when the use of mosquito netting and house-screening had been adopted on a larger scale than before; (2) during the yellow fever epidemic of 1908 to 1909, when a mosquito squad had been charged with cleaning the yards and eliminating mosquito breeding places; (3) from 1912, when legislation was enacted on sanitary conditions of the yards; (4) from 1 June 1948,

[14] See eleventh plenary session, p. 179.

[15] See p. 271.

when the treatment of water receptacles with DDT had been commenced in the capital; (5) from April 1949, when the Insect Control Service had instituted residual DDT house-spraying; (6) from December 1949, when a start had been made in destroying worthless water receptacles; (7) from 2 January 1953 when, with the aid of PAHO, WHO, and UNICEF the insect control program had been converted to *Aedes aegypti* eradication and had expanded insect control activities; (8) from May 1953, when he had discovered that the *A. aegypti* of Paramaribo was resistant to DDT; (9) from 1955, when perifocal spraying with gammexane had been introduced; (10) from 1958, when total coverage spraying under the malaria eradication program had been started, also benefiting *A. aegypti* control; (11) from 1963 when, with the aid of PASB, *A. aegypti* eradication had been begun again through perifocal spraying with dieldrin; and (12) from May 1966, when the chlorinated insecticides, to which *A. aegypti* was resistant, were substituted for fenthion.

Aedes aegypti was found in the coastal and savannah zones but not in the sparsely populated interior of Surinam. The area assumed initially infested was 48,500 km². The initial index in 1963 in the capital, where most efforts were concentrated, was 25.5 per cent. Up to April 1966 the results obtained had been discouraging. The infestation index had remained high, notwithstanding a mass clean-up campaign at the beginning of 1966.

On 2 May 1966 a start had been made with perifocal spraying, using Baytex 40 per cent wettable powder. After the second cycle, 26,534 houses had been verified, and the infestation index had dropped to 4.4 per cent. It was envisaged that when the index in the capital dropped to a low level, a few squads would be deployed to adjoining rural districts. As all hopes were centered on Baytex, it was of the utmost importance not to interrupt the supply of that insecticide.

Of the six islands of the Netherlands Antilles, Aruba, Bonaire, Saba, and St. Eustatius were free of *A. aegypti*. On the other two islands, Curaçao and St. Martin, the mosquito had not yet been eradicated. Curaçao, however, had made available $250,000 to intensify the campaign in 1966, and malathion or fenthion would be used together with DDVP.

Dr. JORDAN (Trinidad and Tobago) said he had been instructed by his Government to emphasize what he believed had been adequately stated by preceding speakers concerning malaria, smallpox, and now *Aedes aegypti*. However, when a country, particularly a small one such as his, had, with the assistance of WHO and at considerable national expense, successfully eradicated a dangerous disease vector, it was difficult to remain silent while there was a constant danger of reinfestation through the apparent negligence of other countries that could afford to take the necessary action.

It was not their intention to wound the sensibilities of any of their friends, but they did feel that PAHO would accomplish nothing of lasting value in those matters unless all of the nations concerned played an active part in ensuring that.

A potent argument in its favor was that the cost of coping with epidemics of dengue fever or yellow fever, often met in large part by the wealthier countries themselves, would be appreciably greater than the cost of taking the necessary preventive measures.

For those reasons he wished to support enthusiastically the suggestion of the Delegation of the United States of America for a permanent committee of auditors whose task it would be to improve techniques and coordinate efforts to that end. Provision for that should be made in the resolutions finally placed before delegates for formal approval.

The CHAIRMAN stated that the list of speakers had been exhausted and the discussion could therefore be regarded as concluded, except for the fact that there remained outstanding the proposals made by the Delegate of the United States of America and the Delegate of Trinidad and Tobago on the formation of a standing committee or expert group to study problems connected with the eradication of *A. aegypti*. The best course, then, would be for the delegations that had signed the proposals to attempt to incorporate them in the draft resolutions presented on the question.

As no further speakers wished to speak, he proposed that, in order to save time, the meeting should turn to the discussion of Item 27.

Item 27: Status of National Health Planning

Dr. MCKENZIE POLLOCK (Chief, Office of National Health Planning, PASB) presented Document CSP17/10 [16] and said that, as had been so eloquently

[16] Mimeographed document.

expressed by delegates, since the Task Force on Health at the Ministerial Level had met in April 1963 there had been much activity in what one might call the objective auto-analysis by national health administrations. He believed that the systematic health planning method developed in the Region of the Americas had assisted the countries in that technical introspection. The resultant diagnosis of the health situation had provided a definition of priority needs which was a prerequisite to orderly forward planning. The health planning process was now mature enough to undergo critical assessment, with a view to indicating future trends. For understandable reasons, much of the planning activity had been concentrated in the governmental part of the health sector, which in some countries constituted only a fraction of the national resources expended on health. It was now necessary, perhaps, to expand methods of macroanalysis to incorporate the total health sector. Information produced by such a national health analysis could be helpful in high-level decision-making affecting future national policies, thereby contributing to long-term improvement in the health level of nations. Closer association and cooperation with their economist colleagues at the national planning level was necessary to evolve further the methodology of macroanalysis of the health sector of the total national economy.

It had become apparent that health planning could not be expected to proceed very far in advance of general planning, and that the general development was the overriding, constraining influence. However, even in the absence of substantial additional resources, systematic planning and management was already improving and could further expand the quantity and quality of output from the estimated $2,000,000,000 spent annually on health in Latin America and the Caribbean.

The history of health service organizations in all countries, both highly developed and developing, had been that organizational patterns which had evolved over the years tended to become static, though technology and needs might change rapidly, and that at a certain stage in the health planning process, the need for a reorganization of services became apparent.

There was always resistance to change and in that regard the Hemisphere was no exception, so perhaps a clear definition was needed of the reorganization process as a distinct phase in the planning process.

Many countries in the Region were confronted with massive problems of the implementation of health plans and at such a stage the accumulated skills of public health practice, assisted by the specialized techniques of professional management were called upon in full measure. The closer association between planning and management was one of the very worthwhile developments of the new planning approach.

A need existed for additional collaboration with other planners in a multisectoral approach at program and project levels in such interdependent fields as education, agriculture, and food processing, to mention only a few.

The considerable experience gained in health planning over the last few years indicated that that new, systematic approach to community health improvement was as yet merely in the early stages of development. Each country committed to health planning was contributing to the improvement of the planning method. The need was now paramount for the creation of a permanent center for national health planning in order to consolidate the substantial amount of experience accumulated and conduct research so that the concept could be expanded further to become an established discipline. Such a center would serve as the focal point for training, research, and advisory services to Governments.

In addition to the official approaches made under the United Nations Development Program, the Director was in close contact with the leaders of the Inter-American System regarding the establishment of a Pan American Center for Health Planning, to be operated in close association with the Latin American Institute for Economic and Social Planning.

During the year the Office of National Health Planning had continued to assist the Organization in collaboration with the Inter-American Committee on the Alliance for Progress, especially in the preparation of annual country reviews. Advisory assistance was also given to the Inter-American Development Bank on questions relating to investments in health.

Table 1 of Document CSP17/10 gave the situation of national health planning in the Americas as of mid-1966, but the position had been changing so rapidly that he would appreciate any comments that would serve to bring the table up to date.

The CHAIRMAN said that in view of the importance of the item it was preferable to leave the discussion until the next session. Before closing the session, the Chairman asked the Delegates of Ecuador and El Salvador to notify those persons who would attend the meeting of the working party on the selection of topics for the Technical Discussions, that the meeting would commence on the following day at 12:30 in room C.

The session rose at 5:33 p.m.

FIFTH SESSION

Thursday, 6 October 1966, at 9:05 a.m.

Chairman: Dr. DANIEL ORELLANA (Venezuela)

Later: Dr. LENNOX DE LACY JORDAN (Trinidad and Tobago)

Item 27: Status of National Health Planning (*continuation*)

The CHAIRMAN announced that discussion of the item would continue and invited those delegates who so wished, to speak.

Dr. RISTORI (Chile) said the first steps toward the preparation of a national health plan were taken in 1964 when his country's National Health Service appointed a committee for that purpose. Various state health agencies and the School of Public Health of the University of Chile were represented on the committee, which had also obtained assistance from the Ministry of Finance, through its Budget Division, from several private health agencies, and from PAHO.

It was deemed advisable that the first step should be the introduction of a training program with the assistance of PAHO, the Latin American Institute for Economic and Social Planning, and the School of Public Health; simultaneously, in 1965 work was begun on the preparation of the first national health plan, covering the 1966–1975 period, on the basis of the information that had been obtained from the committee; a program of methodological, clinical, and administrative research was initiated with a view to obtaining a better understanding of the problems that would arise in implementing the plan and of the characteristics of the country that would have to be taken into account in order to plan on more realistic terms.

In connection with the training of planners, three courses had been organized: the first was given in 1964 to 30 physicians holding very responsible technical and administrative positions in the National Health Service; a second was given in 1965, attended by 40 students, among them high level administrative officers; and the third had been held in 1966 in Concepción, outside the capital, with a view to decentralization of such training activities. The School of Public Health of the University of Chile had also introduced courses on planning into its academic program and from 1965 onward the curriculum for degrees in public health had included a section on methods of health planning.

During the first stage of the formulation of the health plan valuable assistance had been obtained from the Organization's experts and also from the School of Public Health, the Production Development Corporation, the Medical School of Chile, and various others national agencies. In November 1964 the Ministry of Public Health had assumed the responsibility for the preparation of the plan, i.e., from the subsectoral level of the National Health Service, it acquired ministerial status, which made it possible to coordinate programs more effectively with other agencies. In December 1965 the responsible department of the Ministry had completed the first national health plan (1966–1975), with the assistance of the graduates of the first course; that was, in point of fact, a first attempt since it had not been possible to obtain all the necessary data, although, in general terms, it had been satisfactory, provided caution were exercised in the interpretation of some of the indicators of efficiency that had been adopted.

At the same time the traditional budgets of the various Services were being transformed into program budgets consistent with the health objectives adopted, so that from 1966 onward Chile had been using program budgets instead of the traditional system, which had been based solely on an examination of the appropriations for previous years and increasing them according to rises in the cost of living. All those developments had been most important and significant but, of course, they took time and it was therefore necessary to regard Chile as still being at an early stage in health planning. In conclusion he wished to express the appreciation of Chile for the efforts that had been made by the Organization in assisting the Government in carrying out such measures and, more especially, in holding the international planning course in his country.

Dr. Ortega Peguero (Dominican Republic) said that the first 10-year plan had been submitted in 1954 but had never been put into practice, as it had been found to be unrealistic in terms of national resources and the necessary personnel had, moreover, not been available. The Dominican Republic had no plan to orient and coordinate health activities; however, in May 1966 a start had been made on the formulation of a preparatory four-year plan and a final longer-term plan. It had not been possible, for lack of data, to prepare a diagnosis and quantification of health hazards, but efforts were being made to considerably improve statistics and the sources of information with the assistance of a PAHO consultant.

It was the intention of the Dominican Republic to set up, first of all, a central organization of a peripheral and intermediate character and then seek to integrate curative and preventive medicine, as was already being done in the hospitals. Such an integration was so far primarily a physical integration, as time was needed to educate the public and obtain staff who understood the objectives of the program. The following steps had been taken: division of the country into five regions, themselves subdivided into subregions or areas according to the provinces included in each; zoning of hospitals in the capital city and their conversion into general hospitals, each with its own sphere of influence within which it would be responsible for providing complete medical care facilities for the community; inventory of resources to make for better rationalization; in-service training of personnel through practical, intensive short courses, fellowships, etc.; selection of operational regions in accordance with existing resources and potential, for example, the central and southeastern areas of the country.

Although practically all the measures were administrative in nature, it should be remembered that a health plan required an administrative basis and an effective form of organization; it was hoped that in a short time it would be possible to prepare a more long-term plan on sound foundations and with a trained personnel already available to carry it out.

In conclusion, he wished to thank the PAHO advisers who had been stationed in the Dominican Republic for the contribution they had made to its health services, which had reached a high point during the dark days of the revolution that had recently taken place in his country.

Dr. Pineda Martínez (El Salvador) thanked PAHO for the efforts made to help the countries of the Hemisphere to raise their health and living standards and also to ensure that their health ministries had available the funds needed to discharge their responsibilities. It had been the Organization's concern with those problems that had led it, in association with the World Health Organization and the Central University of Venezuela, to set up the study group that had laid down the principles to be adopted in health planning, seeking to express all its aspects in quantitative terms. In 1962 the first health planning method had been devised. In a developing country such as El Salvador, however, the financial resources were insufficient to cover the needs of the people and therefore, in 1963, with the assistance of the Organization, it had been resolved to plan national health activities one year ahead of over-all Government planning.

It was possible that his country had been better prepared in the health field than the others and the intensive effort that had been made to overcome the difficulties created by the absence of statistics had been successful in making all the essential data available. It had not been expected to be able to provide complete statistics but merely to plan in terms of such data as could be obtained. To that end, committees of engineers, physicians, nurses, professional workers, and nutritionists had been set up throughout the country to gather information that was subsequently analyzed and tabulated to form the basis for a diagnosis of the national health situation.

A decision had been made to prepare and carry

out the plan prior to the stages of diagnosis and prognosis but it had first been necessary to undertake a complete reorganization of the Ministry of Public Health and Social Welfare. That was done in 1963 with the establishment of the General Health Department, which brought all hospital and preventive services in the country under a single department and thus made it possible to initiate the plan in 1964.

The 1963 diagnosis had presented a somewhat gloomy picture and he would quote the following paragraphs from that report:

The population of El Salvador is a very young one and 50 per cent are under 15 years of age and therefore susceptible to environmental hazards. The health of young children is especially affected: the major health hazards are a consequence of the reaction to an unfavorable environment of highly susceptible age groups. The majority lack safe water supply and sewerage services, school attendance is poor, housing inadequate and defective, family incomes low, and the illiteracy rate high; for a large percentage of the population medical care centers are not available; diet is also deficient. As a consequence of all that, 50 per cent of the deaths occur below the age of five years. The general mortality rate in 11.6 per 1,000 and medical certificates are issued only in the case of 22 per cent of deaths. In three regions of the country, the leading cause of death is "other diseases of early childhood" and in the fourth region the primary cause is "accidents and violence."

Dr. Pineda Martínez stated that the latter area was one in which property rights were not clearly defined, a situation that led to dispute between families that resulted in violence.

In the western region—continued the report—the secondary and tertiary causes are acute respiratory diseases and gastroenteritis; in the central region, the order is reversed: gastroenteritis and respiratory diseases; in the areas adjoining the central region, the order is accidents and acts of violence and acute respiratory diseases; in the eastern region, it is "Other diseases of early childhood and gastroenteritis;" in all the regions, injuries of childbirth are in fifth place.

Hospitalization because of illness varies in the four regions but in all of them 60 per cent of the persons admitted to hospitals belong to the category of productive workers between 15 and 69 years of age. Tuberculosis makes the heaviest demand on hospitals in terms of hospitalization. The average length of stay in general hospitals is high, i.e., 20 days. The distribution of beds by regions is not equitable nor are they fully utilized.

The nature of the demand for medical consultation also varies in different parts of the country, although the primary cause is respiratory diseases, followed in second place by gastroenteritis. Forty-five per cent of the patients are under five years of age, although the information should be more fully investigated as the medical records of such consultations are very unreliable. The product of each hour of medical consultation is not as high as it should be and varies from one region to another.

The administrative services are neither adequate nor efficient; there are no generally applied standards and hospitals have been operating in accordance with regulations issued by their directors, who in most cases have received no training in hospital administration. There is no communication between the hospitals and the staffs employed in them. Personnel working in the hospitals are only aware of their individual responsibilities but lack any conception of how the various activities in a hospital are correlated.

The premises and physical installations of medical establishments are inadequate and progressively deteriorating, especially in the areas adjoining the central region and in the eastern region. Such resources as they possess have not been properly employed and their level of efficiency is low.

From the survey that has been made it can be inferred that the health policy until 1962 has principally assumed the form of awaiting the onset of a health hazard before taking action to combat it. In practice, some 90 per cent of the national funds allocated to health were used for this purpose and their distribution is, moreover, very inequitable since some two thirds of the funds are concentrated in the central region, whose population represents only a third of the total population of the country. The result of this is to impose a different instrumental composition on each activity and a fluctuating pattern of cost. It is paradoxical to find that, although the resources of some regions are scanty, their output is higher. This is probably due to the fact that community pressures for medical care have obliged the medical services to increase the volume of medical care to the detriment of its quality.

As a consequence of the complete absence of certain forms of statistical data and as a result of the unequal distribution of resources and the disproportionate yield of various instruments in each region, it is impossible to make an adequate quantification of health activities although efforts have been made to do so in the case of particular health hazards and the cost by region of the principal activities has been obtained in this way. These procedures will need to be refined and intensified as and when the plan is reviewed.

With reference to the prognosis, he read the following pasages:

The results of the prognosis are available in detail for each disease. It should nevertheless be pointed out that these differ from region to region.

It is expected that there will be an increase in deaths attributable to acute respiratory diseases in the areas adjoining the central region and in the eastern region beginning in 1964. In the case of the central region itself it is estimated that the deterioration in the health situation will take the form of an increase by 1966 in deaths attributable to tuberculosis, typhoid fever, dysentery, and other infectious and parasitic diseases. This prognosis has been based on the assumption that there will be no reduction in the funds available per unit of population

and that there will be no changes in their use. The prognosis is not, however, immutable and can be modified as changes are made in health policy.

We should like to make it clear that the health situation in El Salvador was not compared with that in any other country, as has been commonly done, but that projections have been made of what is expected to happen in the next 10 years, assuming a continuation of the same policy of waiting until data are available, the use of the same techniques of prevention and cure, the same yield from the resources available, and the maintenance of the same ratio in the production of manpower.

If due allowance is made for the population increase at a rate of 3 per cent per annum, the future prospects for the health of Salvadoreans appear somewhat gloomy, if not disastrous. It is clear that a radical change in health policies is essential.

Realizing the urgent needs of the situation and in the light of the decision to effect a reversal of trends in health policy, the following objectives have been set:

First: distribution of available funds and manpower in such manner as to provide better services in the least protected regions; second: meeting the demand for preventive-curative consultations and hospitalization in the case of members of the population close to the established services and in the case of those in areas remote from such services; third: staff training, making information and educational facilities available to the population, and furnishing technical information with respect to health programs to other Government departments and private agencies; fourth: increased research in the technical and administrative fields; and fifth: building of hospitals and health posts, and improvement of existing research and equipment facilities to the maximum possible extent.

The Salvadorean health plan, he continued, was an integral part of the national plans for social and economic development and, in the course of the six months in which the health plan had been in operation, it had been subject first to a preliminary review and then, toward the end of 1964, to a final review, in which some objectives that had proved unrealizable had been corrected; they had already been adjusted and the plan was subject to a continuous process of reevaluation and amendment.

In 1963 the Planning Unit had become a part of the Ministry and, on a par with the unit itself, was a Planning Department that undertook the continuous evaluation of the results that were being obtained. A major reorganization had been necessary in the Statistical Department, which received data at regular intervals from all the services in the country, including an epidemiological report compiled every eight days for which it had been necessary to introduce mechanized IBM equipment.

He then read the results of the evaluation that had been made in December 1965, from which it appeared that the number of inhabitants that had received medical care had risen from 418 per 1,000 in 1963 to 444 per 1,000 in 1965, a figure that should be increased to 521 per 1,000 if medical services provided by nurses were added to those rendered by physicians; although there had not been any significant increase in the number of hospital beds available, the improved utilization of existing resources had made it possible to provide medical care for more patients without additional capital cost; in 1965 mass vaccination measures had been on a scale 19 times greater than in 1963; extensive changes had been made in the program of home visits by nurses and put into effect since 1966; and there had been a marked increase in the efficiency of sanitary inspectors as a result of the introduction of a system of priorities by region and locality.

In the area of personnel training, the number of graduates of nursing schools had been doubled since the previous year and the same had also been true of the output of schools for nursing auxiliaries. Regular training courses were being conducted for personnel at various levels (secretaries, statisticians, nurses, nursing supervisors, etc.), as called for by the National Planning Council or the Planning Department.

Never before had El Salvador had so much information available in the health field and, as a result, officials of the Ministry of Public Health and Social Welfare had been able to hold discussions with those of the Ministry of Economic Affairs and the National Council for Planning and Economic Coordination, with the result that during 1965 and 1966 they had obtained twice the funds that had been offered them at the outset, as they had been in a position to present firm data concerning the health situation and the requirements of the health sector. Although there had been three Ministers of Public Health and four Under-Secretaries in El Salvador in the preceding four years, health policy itself had not changed as it was very difficult to refute hard facts on the health situation or fail to agree when the realities of the situation were clearly demonstrated.

He wished to thank the Director of PASB and the Organization as a whole for the assistance it had provided for only by proceeding on such lines would the developing countries be able to meet more effectively the health needs of their peoples.

Dr. Guédez Lima (Venezuela), speaking on behalf of his Delegation, thanked the Director of

PASB and his staff for the interest they had shown in establishing in Venezuela the working party that had devised a method of health planning, which had made it possible to express in scientific terms the structure and operation of health services. The document in question had been prepared in 1962 as a result of collaboration between PAHO, the Center for Development Studies (CENDES), of the Central University of Venezuela, in association with the Ministry of Health and Social Welfare, through the School of Public Health. Since that time the Government, the Ministry of Health, and other agencies had shown sufficient interest in taking the necessary measures to formulate the plan.

He then summarized the four stages in Venezuela's plan. The first had been the establishment in 1964 of the Health Planning Unit. Owing to some administrative difficulties the Unit had not become effective until 1965 although, in the meanwhile, the School of Public Health had been organizing courses on methods of health planning and had defined a field of research with a view to verifying what had been theoretically postulated in the method.

The second stage had been the development of the training of personnel at all levels. Here the Government and the Organization had awarded fellowships to nine students, enabling them to take part in the international course on health planning that was being held in Santiago, Chile, and also, during the current year, three further students drawn from regional levels and a professor of the School of Public Health had been sent to a similar course. Moreover, in the School of Public Health a planning section had been formed and the subject had been included as part of the general training of administrative and technical personnel.

As the third stage, mention should be made of the formation of the committee for statistical centralization: its terms of reference included vital statistics as well as health statistics in general.

Lastly, he referred to the establishment of a committee for the study and organization of technical standards. The Planning Unit would be in a position to undertake a complete diagnosis in 1967 although it would first be necessary to overcome certain difficulties concerning lack of data and also the higher and middle levels of the organization.

Dr. JORDAN (Trinidad and Tobago) said that late in 1964 his Government had decided, rather tardily in the opinion of many technical officers, that its health services should be thoroughly reviewed and improved, and with PAHO assistance the work had been started in 1965. It had soon become evident that a complete overhaul of the organizational structure and adjustments to the administrative machinery had to precede the implementation of a viable health plan. That had led inevitably to the publication of organizational charts, never before devised, to definitions of levels of responsibility and authority, and to clear-cut job descriptions.

Simultaneously, there had taken place, with the assistance of the Ministry of Education, the University of the West Indies, and PAHO the indoctrination of 35 senior officers of various health disciplines in a health planning methodology adapted to a country with limited resources, where there was no social security institution, where the data-collecting machinery was deficient, and where the demands of the health services were rapidly increasing. The training course had emphasized the need to make the best use of all available resources, rather than hope for a Utopia beyond the realms of economic possibility.

The enthusiasm displayed by the participants had dispelled doubt as to the acceptance of health planning by those who would have to implement it. That did not mean that in his country all opposition to it was dead: it was inevitable that any change aimed at increasing efficiency and production should be considered by some as an attack on their personal performance, or even professional competence. It was to be hoped that the concrete results and visible progress obtained would enable those individuals to see the change in a more scientific and impersonal light.

One of the earliest steps taken had been the creation of a Sectoral Planning Committee, chaired by the honorable Minister of Health and Housing, and comprising the senior technical and administrative officers of the Ministry, a member of the National Economic Planning Division and, of course, the planning officer for the newly-created Planning Unit within the Ministry of Health and Housing. For almost a year regular weekly meetings had been held, and, with the impetus given by the present Minister of Health, the health services had been reorganized into two health regions, each controlled by a Director with full executive responsibility for all activities, preventive or curative, in his area.

The fundamental concept of participation had led to the creation of a Central Program Formula-

tion Committee and a Program Execution Committee at the same level, charged with responsibility for devising and implementing, within economic limits, all national programs. Committee members included key personnel at both decision-making and executive levels, reinforced by specialists in particular fields, whose services could be co-opted.

Hospital committees had been formed in the two general hospitals, which were being encouraged to assume more and more executive authority as reorganization proceeded.

Implementation had been cautiously undertaken: 1965 had been a year devoted to preparatory orientation of health and other personnel. His country had not hesitated to modify and adjust practice, when necessary, to its special circumstances, while leaving the basic principles unimpaired. For example, it had been found impractical, in arranging priorities, to apply the concept of the social significance of a disease, as provided for in the CENDES/PAHO methodology. Priorities had been based on the cost-effect of diseases, on their vulnerability to attack, and on international commitments, all of which could be more easily assessed than could social significance.

They were aware that, as one of the first English-speaking nations to attempt the application of that Latin American methodology, they were under close scrutiny from other former or present British territories, which might also, he hoped, be introducing that new process, within the rather rigid structure of an organized civil service. Economists would not, it seemed, learn medical terms, so physician-planners had to learn the jargon of the economist; to speak, for example, not in terms of the desirability of promoting or preventing a certain disease, but of the financial effects that would follow its occurrence.

Trinidad and Tobago hoped its work would be a guidepost to success for other English-speaking territories or nations in the Caribbean. In August 1966, the efforts of the Planning Unit and its advisers had produced a draft 10-year National Health Plan which at that very moment was receiving its final scrutiny from the Sectoral Planning Committee and the country's chief technical officers, a fact which accounted for the absence from the Conference of their Chief Medical Officer, Dr. Leonard M. Comissiong. The approval of the Cabinet was expected to remove the last barrier to complete commitment to a health plan, designed to go into effect in January 1967.

His country was grateful for the selfless devotion and industry of the PAHO advisers who, while providing technical and expert advice, had toiled at their side in health planning, administration, medical records, finance, personnel administration, and other fields. Without their unremitting efforts little or nothing could have been accomplished.

He then proposed a draft resolution on the item.

Dr. PERAZA (Honduras) said that the Honduran health plan was already in operation and that a detailed account of it had been included in the report that had been distributed to delegates. Speaking on behalf of his country, he would like to thank PAHO, and especially Dr. Horwitz, and also the other international agencies for the advice they had given in recent years and for the strenous efforts they had made in his country.

The Honduran health plan had been initiated in 1964 as an experiment and was then applied directly; even if it had a number of failings, he was confident that they would soon be overcome. In conclusion, he wished to point out that two young professionals from Honduras were training in Chile with the assistance of a PAHO fellowship and that, when they returned to Honduras, they would continue their work in connection with the plan.

Dr. MARTÍNEZ QUEVEDO (Paraguay) observed that his country had also initiated planning activities with the establishment in 1962 of the Technical Planning Department, responsible to the Executive Offices of the President of the Republic, which had led to the formation of the Planning Unit of the Ministry of Public Health based on the former Department of Regulatory Services.

Health planning activities had been based on PAHO guidelines. The first course on health planning had been introduced in 1962 and, as a result, there had been a change of emphasis in the planning method and the main efforts had been concentrated at the level of local and regional units. Progress made by the directors of local health centers, directed toward the establishment of the bases for the plan, a health policy, etc., had been slow as a result of organizational deficiencies and the absence of data concerning health services.

It had not yet been possible to set up a national planning commission covering all the health sectors so that, in place of a global diagnosis, it had been necessary to make a limited diagnosis that had failed to reflect all the factors in the situation. A

two-year plan had been prepared, relating solely to the Ministry of Public Health and lacking national coverage. The plan included six programs covering communicable diseases; treatment of postnatal complications and of the diseases of the newborn; medical services and social welfare; statistics; training; and research.

The targets set in the plan had been very ambitious and had been based principally on the assumption that external assistance would be forthcoming and they had subsequently to be modified. The plan, nevertheless, had immediate repercussions and, with the assistance of UNICEF, it had been largely possible to carry out the programs proposed. The plan covered the years 1965–1966, the plan for 1967–1968 having been subsequently prepared and presented.

In order to develop staff training, plans had been made, in association with PAHO, to introduce in the following year two intensive courses that would cover all local services. The presentation of statistics had also been reviewed and improved, as a result of which the information necessary for planning would be available in the current year.

Progress had also been made in the budgetary field: program budgets had been introduced in previous years and the 1967 budget had been prepared on the basis of a new breakdown of activities into hospitalization, outpatient consultations, sanitation projects, etc.

Despite the difficulties common to all nations and in the face of the natural resistance to any process of systematization, considerable progress had indeed been made and there were reasons to believe that such progress would continue. Finally he would like to associate himself with the praise bestowed by previous speakers on the work that had been done by the Pan American Health Organization.

Dr. Pereda Chávez (Cuba) said that, included among the steps that had been taken in his country to put into effect a serious public health plan, were various fundamental changes in organizational procedures, as it had been necessary to transform a Ministry of Public Health that had been the instrument of interests indifferent to the health of the people into one that would promote action in the public health field at all levels. It had been necessary to solve serious equipment difficulties, such as the inadequate number of beds—21,000—a figure that had been raised to 42,000, distributed primarily in areas in the interior of the country, since previously nearly all of them (70 per cent) had been concentrated in the capital.

Forty-seven rural hospitals had been built in areas in which even the services of a doctor had not been available and the annual budget of 21 million Cuban pesos had been progressively raised to the current level of 140 million pesos. One of the major difficulties to be overcome had been the dispersal of responsibility for public health services, some of which had been in the hands of the municipalities, others in those of institutions organized on mutual aid lines, others operated by medical schools, etc. Conditions had been established in which all public health services, including the mutual aid clinics, would be the responsibility of the Ministry of Public Health. The structure of the Ministry at its central level had also been modified by the establishment of five posts at the Under Secretary level with responsibility for medical care, hygiene and epidemiology, advanced medical education, supplies, and planning. At the same time the country had been divided into seven provincial directorates, each in different regions; health areas were being established in those regions and each health area was being subdivided into sectors of 3,000–5,000 inhabitants, thus making curative and preventive health services available to even the smallest units.

So far as the training of skilled personnel was concerned, the number of nursing schools had been increased to 10 and a second medical school had been established in the most easterly province; very shortly another such school would be established in the central province and the old School of Public Health would be reorganized on more functional lines.

In 1962 a five-year plan had been drawn up with a view to achieving a certain number of general objectives, of which the most important had been to emphasize the role of preventive medicine. The problem of the excessive involvement of doctors in social welfare, as mentioned by the Delegate of Argentina, had also arisen in Cuba; it had therefore been necessary to change the plans of both the Medical School and the Ministry, with a view to incorporating preventive medicine and to set up microbiological and bacteriological laboratories.

Among the goals established had been the reduction of child mortality, largely caused by gastroenteritis; the control of infectious and contagious diseases; and the extension of public health activi-

ties to include the vast mass of the people. The latter objective had been achieved through campaigns of immunization against infectious and contagious diseases.

In organizing the health services, the guiding principle had been the centralization of regulatory procedures and the decentralization of executive processes and the health service as a whole had been given a uniform character designed to carry out both preventive and curative medicine activities. Another of the plan's objectives had been to maintain contacts with other countries of the world with a view to the exchange of scientific knowledge.

So far as its positive achievements were concerned, by the end of 1965 the child mortality rate from gastroenteritis had been reduced by some 50 per cent—from 59 per 100,000 at the end of 1964 to 26 per 100,000. Poliomyelitis has practically been eradicated. Currently the Minister's principal function was to develop the organizational structure; health areas were in course of consolidation and each would be under the direction, as most already were, of a "polyclinical" institute that would undertake integrated programs of curative medicine and social welfare with field personnel, such as field-recruited nurses and health workers. It was necessary, he believed, to extend the coverage of the medical services; in order for medical care and knowledge to reach every corner of the country, better institutions would be created, such as microbiological and bacteriological laboratories and teaching hospitals, of which the three that had originally existed had already been replaced by over 200. In those better-equipped institutions efforts were being made to develop the future research centers, in sharp distinction to the days when such activities had been restricted to copying the scientific skills of other countries and nothing had been contributed to scientific knowledge on an international scale.

Dr. Pereda Chávez believed that it would not have been possible to make such changes and achieve such progress if the structural changes in the Ministry did not reflect the radical changes that had been made in the economic and social structure of the country and he would like, in conclusion, to quote a remark of José Martí "We should all roll up our sleeves and work like Trojans."

The session was suspended at 10:37 a.m. and resumed at 11:10 a.m.

Dr. Lennox de Lacy Jordan (Trinidad and Tobago) took the Chair.

Dr. SUTTER (Assistant Director, PASB) announced that, with the approval of the General Committee, the Chairmen of the two Committees had agreed that Item 35, Status of the Problem of Venereal Diseases and of Venereal Disease Control Programs in the Americas, would be discussed by Committee II and that delegates interested in that item could take part in the discussion.

Dr. CALVO (Panama) said that he would limit his statement to making certain general observations, the sole purpose of which was to expand some of the points already made by other delegations.

In the first place, the problem of planning was not a difficult one at all; what was involved was rather a process that required continuous implementation and evaluation. In seeking a solution, it was essential to take the fundamental decisions with respect to the structure of each country in relation to its over-all economic and social development. Such problems were so bound up with one another that it was inconceivable that, even if superb techniques for planning the health sector could be devised, it would be possible to realize rapid progress, unless all the countries in the Hemisphere were to participate in that tremendous effort of administrative reorganization. Progress was in fact being made, as was evident from the Director's report presented by Dr. McKenzie-Pollock, and, even if health plans based on one or other of the methods were not yet ready, they were already in course of completion: the real problem was still, however, how to implement the plans. Therefore, his initial recommendation would be that planning efforts, however good and scientifically based they were, should not be considered in isolation from administrative practices but rather that such practices and procedures should represent an important element in the efforts that were being made to improve health services.

In the second place, a change of attitude was taking place as a result of the emergence of a kind of planning elite, a change that was not confined to the health sector, although it was perhaps more evident in it, as a number of its personnel were being trained in the new methods. The new approach would need to be accepted at all levels and, for that, measures were needed that, through active participation, would succeed in changing the attitudes of mind of a large number of professional and other

workers and securing their understanding of the new processes of planning.

In Panama the difficulty being faced was the following: at the national level there was an elite conversant with the problem and well-equipped to deal with it; at the intermediate level, it could only be said that it was fairly well understood whereas, at the lowest levels, very little was known of it. As a consequence, whenever an effort was made to implement planning at local levels, it encountered tremendous difficulties and resistance, not merely from political quarters but also from the medical profession itself. That situation should be changed and action taken at the sectoral level should be designed to impinge rapidly on the subsectors in a combined and inter-sectoral operation. As an example of such action, he recalled an occasion on which the Pan American Sanitary Bureau had been involved and had sent to Panama a selected group of high-level personnel in connection with the National Health Conference held in 1966: it had been the climax of a series of efforts designed to bring about such a change of attitude in the various health sectors and subsectors.

It was also necessary to convince Governments that such measures would not cost less but rather more as they were better and therefore required a heavier investment of funds. It was scientifically demonstrable that health programs were currently being operated with inadequate resources, as had been shown by the evaluations that were periodically made by the Bureau; it was therefore only logical to suppose that effective planning would call for even greater outlays.

He pointed out that, in the document presented by the Director, it was clearly shown that only three countries were devoting 10 per cent of their Government expenditures to health and that the majority of the countries were therefore spending less than that figure. If the level of expenditure were projected in terms of the national product, not even those countries at the 10 per cent level were spending what was currently required and it was therefore essential to appropriate more funds for health planning.

It was highly desirable that the Organization should undertake further investigations to establish the minimum essential outlay in relation to the national product of the countries of the Americas, so as to provide an effective criterion. In Panama it had been calculated that 5 per cent should represent the objective for the forthcoming five years—currently only 2 per cent of the national budget was being devoted to the health sector—accordingly the balance of 3 per cent would have to be met from the Social Security Fund or from the private sector: the social security system was in no position to provide such a sum, whereas the private sector was spending heavily, a fact that could not be justified as those sums should be contributed to the welfare of the people.

He stressed the need to make continuous efforts—they had already been initiated in Panama—to bring about a vast change in the upcoming generations through the agency of schools and training courses. Such measures should not be confined to medical schools but should also be introduced elsewhere in the educational system. In particular, the education of medical students should include administration, planning, and medical sociology.

In conclusion he wished to thank the Organization, the Director, and Dr. McKenzie-Pollock for the encouragement that had been given to planning in Panama.

Dr. Pareja Piñeyro (Uruguay) stated that his country was in the early stages of health planning and he would briefly outline what had so far been achieved. He added that, in the report that had been presented, an error had been made in the date, since it had read: "Most of the countries of the Americas had already established health planning units in previous years, although by mid-1966 Uruguay could be added to the list." In point of fact, his country had done so in 1965.

In 1960, under a decree of the Cabinet, the Committee on Investment and Economic Development (CIDE), had been formed and had been entrusted with the following tasks: formulation of organic economic development plans; projecting and seeking domestic and external financing; coordinating efforts to raise national productivity; and surveillance of the implementation of approved plans.

In 1965 CIDE had presented the national economic and social development plan, which had been approved by the Government and which had laid the foundations for the health plan. In August of that year the Ministry of Public Health had appointed a committee of the Ministry of Public Health to enlist the collaboration of public and private agencies in the health sector and to formulate principles for the implementation of a national health plan. The committee had drawn up a

schedule with a view to the initiation of the first national health plan in 1968; participating in the preliminary work had been the PAHO/WHO permanent adviser and the Zone VI Regional Adviser on Planning and he would like to take the opportunity of acknowledging, on behalf of his country, the assistance given by them.

After reporting that Uruguayan experts would be taking part in the planning course to be conducted in Chile, Dr. Pareja Piñeyro observed that CIDE had awakened in his country a state of awareness and a new frame of mind that would make it much easier to carry out the work of planning, which, in turn, would make it possible to make a better utilization of the funds available, correlate health planning with proposed economic development plans, and secure integrated progress toward the realization of their objectives.

The CHAIRMAN stated that the correction to which the Delegate of Uruguay had referred had been noted by the Secretariat.

Dr. SCORZELLI (Brazil) said that the documentation that had been distributed might lead to the false impression that Brazil was allocating a much reduced share of its budget to health services. He explained that the percentage in question merely indicated the part of the budget allotted to the Ministry of Health; if it were remembered that social welfare agencies in Brazil received extremely high allocations of funds and made large appropriations to health services, it would be realized that the total amount made available for health services was, in fact, more than double than what appeared at first sight. If the investments made by certain states such as São Paulo were added, the amount devoted by Brazil to health activities would be even clearer.

Brazil was deeply concerned with planning problems. It was accepted that health plans should form part of general economic planning and that in planning no sector should be regarded as superior to or having priority over the others. In the health field the Ministry of Planning worked in association with all the ministries concerned with health matters and, in preparing the plan, emphasis was laid on two aspects: the long- and short-term implications of the plan. In the former case it was realized that the various factors should be closely related and that planning should be responsive to changes in the situation. A special bureau in the Brazilian Ministry of Planning was dedicated exclusively to the study of health plans.

Reforms were shortly to be introduced with a view to dealing more effectively with administrative problems, but first it would be necessary to form a planning unit in association with various national agencies and with the assistance of PAHO. That step would be correlated with the Ministry of Planning and would take into account the changes that administrative reforms would bring.

The planning procedures should be founded on the soundest possible basis and Brazil was therefore attaching special importance to the training of the skilled personnel needed. Appropriate courses already existed in Brazil and elsewhere: a number of Brazilian doctors had attended one such course in the United States of America and others were provided by the National School of Public Health, an institution in which the Government of Brazil had invested a sum of US$2,500,000. Efforts had been made in the School to introduce the idea of planning into courses for physicians, nurses, veterinarians, and paramedical personnel; there was also a social science department devoted to studying the most effective means of creating the conditions essential to the realization of an over-all health plan.

In conclusion, he expressed his country's appreciation for the valuable assistance it had received in the health field from other countries and from the Pan American Health Organization.

The CHAIRMAN declared that in the majority of countries it had been found that projected costs in the health field were invariably somewhat lower than actual costs. However, there was no doubt that, as procedures for the preparation of budgets were improved, it would be possible to furnish more precise estimates.

Dr. MCKENZIE-POLLOCK (Chief, Office of National Health Planning, PASB) expressed his gratitude for the valuable statements that had been made on health planning. They confirmed that the CENDES/PAHO method was but the starting point for the planning process and that the actual planning methods were developed within the countries. The fact that each was contributing so much to the development of planning methodology generally made necessary the establishment of a Pan American Center for Health Planning, which would serve as a central point for the concentration of knowledge gained in practice, and thus make possible the development of a real technology in that field.

He wished to thank the Delegate of Brazil for pointing out that Table 2 of Document CS17/10 was inadequate to the needs of countries with a federal structure. He hoped that by the following year, with an improvement in planning methodology within the countries, figures would be available which would enable the presentation of not only central government, but also total government, expenditures.

Item 38: Aspects of Health Related to Population Dynamics

Dr. ALLEN (Special Adviser in Health and Population Dynamics, PASB) presented Document CSP17/16 [1] and said that during the quadrennium under review, the health aspects of population growth had emerged as an important determinant in the planned development of human and material resources. The Director's Quadriennial Report set forth the Organization's policy regarding the complex issues and interdependent variables involved, and pointed out that the repercussions on the family unit, the community, and planned development of rapid population growth were of concern to all sectors of a country's economy.

Following staff studies in 1963, the Advisory Committee on Medical Research had, in June 1964, set forth the broad scope and variety of the research problems involved. That very able group of scientists and educators had seen clearly at that time that they were dealing with a multidisciplinary, multifaceted problem requiring research of great scope and depth.

The growing field of population dynamics involved both the disciplines of the university and the professional disciplines of the developmental process itself, including genetics and the biology of reproduction, fertility and its regulation, epidemiology, ecology, maternal and child health, and family structure; the social sciences, and the professions of social psychology and anthropology, sociology, economics, agriculture, education, urbanization, and communications; in general it involved the application of all sciences and technologies, especially those of modern management and administration to the over-all social and economic development requirements of each country.

However, at the heart of the process of the development of the human society lay the humane values, the morality and ethics of people and especially Governments, without which any movement toward a better life for impoverished, sometimes hopeless, people would surely fail. The principle was as true in an affluent country such as the United States of America, with its antipoverty program, as in any Latin American country, whatever its stage of development.

Those were the considerations that appeared to have motivated Governments and international organizations to come to grips with population problems in relation to the development of human and material resources to be directed toward achieving an equilibrium between the striving for a decent existence and the supply of essential goods and services, the size of the population to be served, and the allocation of available national and international financial resources.

In short, the health of the family and the community depended upon the socioeconomic health of the nation and of the region; they were mutually interdependent. Healthy parents in a healthy, developing community might be expected to be responsible parents. As morbidity and mortality rates declined, fertility rates fell also. Dr. Harold Fredcriksen, a distinguished statistician from the U. S. Agency for International Development, after studies in Ceylon, Mauritius, and the former territory of British Guiana, now Guyana, had come to the following very interesting conclusion:

> In a balancing movement, fertility tends toward approximate equilibrium with mortality; that is, toward a rate of net reproduction above the replacement level but near unity. The feedback mechanism of this rational system of social homeostasis has been obscured by relating the reduction in fertility to improvements in economic components of the levels of living when, in fact, a deliberate reduction in fertility is a sequel to a reduction in mortality, which develops individual and collective motivation as well as the need for a commensurate restraint of fertility; moreover, the extension of health services provides facilities for the extension of family planning. With increased longevity increasing the returns from the development of human resources and decreased fertility decreasing the burdens of dependency, the maximum improvement in the levels of living as well as the desired changes in mortality and fertility will result from the synergism of optimum efforts in the demographic as well as economic aspects of economic and demographic transition.

Dr. A. Peter Ruderman, Economic Adviser, PASB, had confirmed the rather complex mathematics involved in this scientific validation of what doctors had always known: that the control of dis-

[1] See Annex 8, pp. 530–532.

ease through preventive and curative services was an important contribution to socioeconomic development which would eventually lead to responsible family planning. Population growth rates were a product of an infinite variety of private and community decisions. With adequate health and educational services the next decade should see a growing equilibrium between population growth and the rate of increase of income.

The documentation before delegates included the World Health Assembly resolutions [2] on the subject, a fascinating historical record of international action of great importance, which emphasized the need for scientific investigation in both the biomedical and the biosocial aspects of population dynamics, as well as professional training and advisory services related, within the responsibilities of WHO, to technical advice on the health aspects of human reproduction and not involving operational activities.

Dr. Allen recalled that the XVI Meeting of the Directing Council in 1965, in confirming the decision of WHO, had resolved [3] to cooperate with the Alliance for Progress in studies assigned to it, and to conduct such studies as might be desirable on population dynamics related to program activities of PAHO, as well as supporting professional training as appropriate.

Pursuant to that resolution, an active program of cooperation with the Inter-American Committee on the Alliance for Progress (CIAP) and other institutions of the OAS, had been initiated by PAHO, including plans for an inter-American technical-scientific conference on population policies, vis-a-vis planned development. That conference, which would probably be convened in July 1967, would be preceded by a preparatory seminar to be held in February. Those meetings would endeavor to determine the roles that Government, the private sector, and international organizations should play vis-a-vis population as a factor in the economic development of the Latin American countries. He hoped the Governments would send representatives not only from health and planning ministries but also from others, such as finance and agriculture. There appeared to be general enthusiasm for an approach, directed toward developing guidelines by which governments could develop population policies if they so wished.

Document CSP17/16 dealt with three major areas of the PAHO program which were of immediate concern to the various Governments: education and training, research, and advisory services. The education and training programs had been developed in 1965 in cooperation with the University of Chile, the University of São Paulo, Brazil, and the Latin American Demographic Center (CELADE). The first pilot course was in progress and 23 students from a number of countries, including professors from medical schools as well as officers from ministries of health, were currently in attendance. That experiment, which was being met with enthusiasm, had been initiated largely by Dr. Ruth R. Puffer, of PASB.

In research, WHO and PAHO were combining resources and supporting projects to be initiated in Peru and in São Paulo, Brazil. Epidemiological studies of communities, and especially of women of child-bearing age, would be undertaken to obtain information on pregnancies, fetal deaths, abortions, dates of termination of pregnancy, menstrual period, breast feeding, live births, and so on. Moreover, the Inter-American Investigation of Mortality was being extended into infancy and childhood, under a new research program of PAHO which was to receive financial support from AID, for which PAHO was grateful. Retrospective data would be obtained regarding the pregnancy history of women with infants who had died, and of a control group. Thus, information regarding fertility and abortion would be obtained from many areas. In the pilot phase, in 1966 it was hoped to obtain such data in Guatemala, Colombia, and Northeast Brazil as well as in North Carolina in the United States of America. In the investigation of 1968 and 1969 it was expected that 10 to 12 areas would be incorporated in the study.

Those programs of education and training and research were calculated also to stimulate similar activities throughout the Region in schools of medicine and public health, as well as in other institutions in cooperation with the ministries.

Interest in population dynamics was growing and a number of countries including Brazil, Colombia, Honduras, Peru, and Venezuela, had undertaken research and training programs. Units devoted to health and population dynamics were being established and intercountry cooperation in seminars

[2] Resolution WHA18.49. *Off. Rec. Wld Hlth Org.* **143,** 35, and Resolution WHA19.43, *Off. Rec. Wld Hlth Org.* **151,** 20–21.

[3] Resolution IX. *Official Document PAHO* **66,** 62–63.

in comparative research was increasing. Such a seminar had been held in Tegucigalpa in June 1966. Advisory services had been limited so far to assistance in research and education.

The establishment of famliy planning services was, of course, the responsibility of the countries. The role of PAHO and WHO was to offer technical advice upon request. The use of various fertility control methods for example, IUD and the pill, was being monitored by WHO Headquarters in Geneva through groups of experts, as well as by several Governments, including the United States of America, through the Public Health Service.

In order to obtain the counsel of population experts, and to exchange information with foundations, universities, agencies of the Government of the United States of America, and international agencies including the OAS and CIAP, the Organization had convened conferences in January 1965 and January 1966. The second conference had recommended that PAHO should establish a permanent center for the exchange of information on health and population dynamics as a needed service to all interested agencies, thus facilitating cooperative interinstitutional and intercountry programming.

The Director had also established an Office of Health and Population Dynamics, responsible for liaison with other official and voluntary agencies working in that field and for the coordination of all such activities of the Organization.

Plans were at hand, with the support of the AID grant, to develop a Population Information Center (PIC) which would profit from the experience of the PASB Medical Education Information Center over the last 14 years in providing liaison and coordinating services.

The session rose at 12:15 p.m.

SIXTH SESSION

Thursday, 6 October 1966, at 2:50 p.m.

Chairman: Dr. DANIEL ORELLANA (Venezuela)

The CHAIRMAN opened the session and announced that the draft resolution on items that had been discussed at previous sessions were to be submitted to the Committee for a vote; he invited Dr. Sutter to read the draft resolutions.

Item 32: Report on the Status of Malaria Eradication in the Americas (*conclusion*)

Draft Resolution Presented by the Delegation of Honduras

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of Honduras on the item.

Decision: It was unanimously agreed to recommend to the Conference to take note of the XIV Report on the status of malaria eradication in the Americas; express its satisfaction with the progress made in the administrative services of various programs; emphasize the need to improve such services in programs where that had not yet been done; remind the Governments of the need to intensify their efforts to obtain the funds required for the programs; recommend to the PASB that it continue to carry out studies in cooperation with the countries to find solutions to biological and operational problems; recommend intradomiciliary spraying with DDT as a basic element of attack in malaria eradication programs; accelerate the coordination between local health services and the malaria eradication programs; and express appreciation for the valuable cooperation rendered to the Governments by PAHO, WHO, UNICEF, and the Government of the United States of America, through its Agency for International Development.[1]

[1] See thirteenth plenary session, p. 188.

Item 33: Estimated Requirements for Malaria Eradication in the Americas (*conclusion*)

Draft Resolution Presented by the Delegation of the Dominican Republic

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of the Dominican Republic on the item.

Decision: It was unanimously agreed to recommend to the Conference that it take note of the estimated requirements for the PAHO Special Malaria Fund; reiterate to Governments its deep satisfaction with the efforts they were making to provide the campaigns with the funds necessary for continuing them; express its thanks to the Government of the United States of America for its extraordinary assistance to the malaria eradication program; insist on the need to maintain the PAHO Special Malaria Fund by means of voluntary contributions until such time as the necessary funds were available in the regular budget; and again urge the Governments to cooperate with the PASB by providing the technical personnel it required to intensify its assistance to the malaria eradication program.[2]

Item 31: Research Policy and Program of the Pan American Health Organization (*conclusion*)

Draft Resolution Presented by the Delegation of Brazil

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of Brazil on the item.

Decision: It was agreed to recommend to the Conference that it congratulate the Director on the research accomplishments of the Organization; authorize the Director to establish a Special Fund for Research; invite Governments to make voluntary contributions to the Special Fund; request the Director to pursue the expansion of this Fund through additional voluntary contributions; request the Director to make provision for the further development of the research program in future regular budgets of PAHO; request the Director to study means for expanding and augmenting the number of multinational centers for training and research; and thank the Governments of Argentina, Brazil, and Uruguay for the contributions offered for the further development of the research program.[3]

Draft Resolution Presented by the Delegation of the United States of America on Migration of Professionals

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of the United States of America on the migration of professionals.

Decision: It was unanimously agreed to recommend to the Conference that it request that the Governments take appropriate measures to strengthen national policies leading to research and training programs which will provide incentives for nationals to remain at home; and request the Director to study further the role that both the Organization and the Governments should play in moderating the international migration of professional personnel and to present a report of progress and proposals for further action for consideration of the XVII Meeting of the Directing Council.[4]

Items 24 and 25: Status of Smallpox Eradication in the Americas and the Estimated Requirements for Achieving It (*conclusion*)

Draft Resolution Presented by the Delegation of Chile

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of Chile on the item.

Decision: It was unanimously agreed to take note of the document on the item; recommend to the Governments in whose territory smallpox still existed that they undertake smallpox eradication programs as soon as possible; recommend to Governments of the countries in which smallpox had been eliminated that they continue maintenance and epidemiological surveillance programs until such time as the disease is eliminated in the Hemisphere; to recommend to the Governments that they give one another assistance in conducting smallpox eradication programs as well as in the maintenance and epidemiological surveillance phases; recommend to the Governments that special care be taken in the preparation of smallpox

[2] See thirteenth plenary session, p. 188.

[3] See thirteenth plenary session, p. 190.

[4] See thirteenth plenary session, p. 190.

vaccines so as to ensure that it meets the international standards for potency and purity; recommend to the Director of PASB that he continue to coordinate smallpox eradication programs; recommend to the Director to provide the countries with material assistance; to recommend to the countries engaged in smallpox eradication programs that the officials responsible for the program hold periodic meetings to exchange information on the progress of the activities, to study and solve such problems as might occur, and to share any new developments that might be of value to other countries; and to request the Director to make provision for assisting the countries in holding such meetings and to transmit the results to other interested countries.[5]

Item 34: Status of *Aedes aegypti* Eradication in the Americas (*conclusion*)

Draft Resolution presented by the Delegation of El Salvador

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of El Salvador.

Decision: It was unanimously agreed to recommend to the Conference that it urge the Governments of the countries and territories already free of *Aedes aegypti* to maintain a strict vigilance service against reinfestation; urge the Governments of the countries and territories still infested to take timely measures to overcome administrative difficulties that might be hampering the progress of their campaigns, and that they give the highest priority to the provision of funds, personnel, and supplies needed to complete the campaigns as soon as possible; instruct the Director to take all necessary measures to intensify and accelerate the continent-wide campaign; authorize the Director to obtain the funds to finance the prompt eradication of *A. aegypti;* and request the Director to study and put into practice appropriate systems for ensuring that the campaign is carried out simultaneously and in a coordinated manner in all countries in which the problem still existed.[6]

[5] See thirteenth plenary session, p. 191.
[6] See thirteenth plenary session, p. 191.

Draft Resolution presented by the Delegation of Mexico on Criteria for the Eradication of Aedes aegypti

Dr. SUTTER (Assistant Director, PASB) read the draft resolution presented by the Delegation of Mexico.

Decision: It was unanimously agreed to recommend to the Conference that it approve the requirements for eradication established by PASB; confirm that the requirements should be fully complied with before the PAHO Governing Bodies could declare a country or territory free of *A. aegypti;* establish that, in order to be considered free of the vector by those Governing Bodies, a country or territory should satisfy certain conditions in addition to the abovementioned requirements; to recommend that the Director make the necessary arrangements for a group of experts to meet under PAHO auspices to establish the conditions the colonies of vectors should satisfy if their presence in a country or territory was not to prevent that country or territory from being considered free of *A. aegypti* by the Organization; and request the Director to submit the conditions established to the next meeting of the Directing Council.[7]

Item 27: Status of National Health Planning (*conclusion*)

Draft Resolution presented by the Delegation of Trinidad and Tobago

Dr. SUTTER (Assistant Direcor, PASB) read the following draft resolution presented by the Delegation of Trinidad and Tobago:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the status of national health planning (Document CSP17/10);

Recognizing the importance of systematic planning in health within the framework of national plans for economic and social development; and

Recognizing the contribution made by the Organization in assisting Governments in developing systematic approaches to national health analysis and planning,

RESOLVES:

1. To commend the Director on the report presented, which shows the substantial progress made by the various Governments in the field of health planning since the XVI Pan American Sanitary Conference.

[7] See thirteenth plenary session, p. 192.

2. To recommend to the Director:

(a) That the Organization continue and intensify its assistance to the Governments for the further development of health planning, especially in the process of macroanalysis of national health situations and also during the implementation stage of national health plans; and that it continue to give assistance in the training of health planners in international and national courses.

(b) That the Organization intensify its activities to promote research for the improvement of planning methodology and stimulate the international exchange of research findings within the Americas and, through the Headquarters in Geneva, with other Regions of the World Health Organization.

(c) That he continue, through the Director-General of the World Health Organization, efforts to secure the assistance of the United Nations Development Program or other entities for the establishment of a Pan American Center for Health Planning, to be organized in close association with the Latin American Institute for Economic and Social Planning.

(d) That he continue his efforts toward having integrated health considered in its appropriate priority within the process of economic and social development planning in association with such members of the Inter-American System as the Inter-American Development Bank, and the Inter-American Committee on the Alliance for Progress.

(e) That he report next year to the Directing Council on the progress made in the planning field.

Dr. MONTALVÁN (Ecuador) proposed that subparagraph (d) of operative paragraph 2 of the draft resolution be rephrased as follows:

That he continue his efforts, in association with such members of the Inter-American System as the Inter-American Development Bank and the Inter-American Committee on the Alliance for Progress, toward having integrated health considered in its appropriate priority within the process of economic and social development planning.

Decision: It was agreed to transmit the draft resolution to the Conference with the amendment proposed by the Delegation of Ecuador.[8]

Item 38: Aspects of Health Related to Population Dynamics (*continuation*)

The CHAIRMAN opened the discussion on the item introduced by Dr. Allen.

Dr. RISTORI (Chile) reported that since 1962 various private bodies, such as the National Association for Family Protection and some university departments, had been promoting activities in the field of birth control in Chile, with generous material and financial assistance from private agencies abroad, particularly in the United States of America.

To adequately coordinate and orient those activities, the Ministry of Public Health had established in 1965 an Advisory Committee on Population and Family, to define its policy and guidelines on the fundamental basis of the incorporation of its activities in general economic and social development plans and with the health activities of maternal and child health programs. Acting on parallel lines, the Subsectoral Committee in the National Health Service determined the methods to be adopted in its own establishments and supervised the activities and plans of private bodies in order to comply with the standards established by the Ministry.

The Government of Chile maintains that the birth and procreation of children should be intentional, but that the size of the family should be the responsibility of the parents, without State intervention or involvement of any kind. It was undeniable that there were parents who did in fact seek to limit the number of their children and that they did so by one means or another, according to their cultural level. The best-educated were naturally those whose economic and social status was higher and who were fully aware of contraceptive methods, using them in the light of their religious or other convictions; on the other hand, those of a lower cultural background had recourse to illegal procedures or those injurious to health, such as abortion, or resigned themselves to having more children than they could reasonably afford to maintain, thus raising the infant mortality rate. With adequate information and instruction, sufficiently imparted but without pressure of any kind, through the maternal and child health programs, it was possible to contribute, on a long-term basis, to a reduction in the rate of accelerated demographic growth that was the cause of so much concern to sociologists, economists, and other groups. In the field of health an immediate outcome would be the reduction in the large number of forced abortions, estimated in Chile to be one to each three normal births, and also in the infant mortality rate. In conclusion, he stated that an International Conference on Family Planning, officially sponsored by the Government, would be held in Santiago in 1967, during which all aspects of the problem would be discussed.

Dr. FRAZER (United Kingdom) said that two years earlier he had referred to a community experiment being conducted with a view to seeking equilibrium between population and resources, a question of some importance to a small country—

[8] See thirteenth plenary session, p. 193.

in that instance used as a test tube—such as Bermuda, where he was Director of Health.

The various advantages of trying to make that particular "balance sheet" work out, and of not having larger members that one could afford to maintain had been publicized. He expected that no information on community reaction would be available for study until the 1970 census, but already it had become apparent that much of the theory of population control worked out in practice.

One could do extraordinary things with rates, though one basic truth was that all were born and all were destined to die, so there was no increase in population so far as the individual himself was concerned.

He had been impressed by Dr. Allen's reference to the achievement of near unity in Guyana, which sounded slightly like logarithms; but the fact was that if, for instance, the infant mortality rate were lowered quite suddenly, the population in the 0–10 year age group would be increased. Meanwhile, those who had been producing babies were producing as many, or more, but there were more survivors than before, so the apparent rate might go down.

Again, people were living longer. One should seek to arrive at an average life for the population and to obtain truly comparative figures, but few countries had the basic statistics to enable that to be done.

He had presented the financial outlay on the experiment as representing an investment, for health was the basis of all planning. Individuals were the very bricks of planning, so to speak, and preventive medicine was directed to preserving those bricks. The family unit was at the center of western civilization. Mental health, as a whole concept, was a part of nurturing the individual brick, and every effort to remove strains and stresses increased the national investment in the individual.

Planning was directed principally at families which were too large for the parents to care for. It was not, of course, a matter of dictation, rather one of imparting knowledge and advice, so that the father knew he could arrange his family in such a way as to achieve the optimum standards for them.

It was interesting to recall that a great many of the present social security agencies originated from a wish to protect the particular families that were productive so that they would continue to be productive. The whole object there was also to try to protect productive families. In numbers of babies born a plateau had been reached in 1959, 1960, and 1961. Since then the actual numbers of babies born had dropped; by the end of the current year it would be of the order of 15 per cent. The years of compulsory school attendance, which he had always considered too short, had been from 7 to 13; now they were from 5 to 14. In 1967 the school-leaving age would be 15 years and in 1968, 16 years. Bursaries for university and higher education abroad were possible. Thus a concrete return on the investment made in 1957 and subsequent years was already being received. That was an exciting development. He need only add that, as far as the "bricks" were concerned he had noted that not only were the women happy with the results, but the men were also.

Dr. Olguín (Argentina) stated that his Delegation was not unaware of the importance of the problem and had participated actively in the discussion of the question in international health agencies. In his view, the health questions related to population dynamics were no more than one facet of the demographic problem, which should be studied in proper economic, social, cultural, psychological, and health perspective.

The Argentine Delegation regarded as well-advised the principles laid down by PAHO/WHO with respect to their relative responsibilities for advice and assistance to the countries in connection with the services in question, that was to say on the medical problems of sterility; methods of birth control; health problems connected with population policy and dynamics; services of expert consultants and questions of public health connected with human reproduction, not to mention other forms of activity. It was essential, in his view, that advice on matters of family planning should be part of the functions of the established health services, without detriment to those activities in the field of preventive and curative medical care that constituted the basic, fundamental, and continuing responsibility of such services.

Dr. Wedderburn (Jamaica) congratulated the Director and Dr. Allen on their very lucid review of the work being done in the field of population dynamics. His country also felt that population control and family planning were tied to a broad acceptance of the concept of health, including social, mental, and physical well-being.

In most countries the individuals who continued to have larger families were those in the lowest economic group. Much of that was attributable to ignorance, but sometimes superstition was also a factor. In Jamaica, for instance, some women were subjected to abuse if they did not have a certain number of children: it was regarded as an indication of lack of femininity. Therefore, considerable work in education was still needed.

A few years earlier Jamaica had embarked on a program of family planning, as an integral part of its public health program. In all health centers and outpatient clinics advice and material were available free of charge.

Through the generosity of the Ford Foundation they had been able to distribute the Lippes Loop widely. That had been done because it was more likely to win acceptance than the use of tablets, which necessitated remembering when one should be taken. However, a 20 per cent rejection of the loop by women had been encountered. For instance, where there had been an individual instance of discomfiture, a number of other women in an area proved unwilling or afraid to take advantage of the device.

He wished to express his Government's gratitude to AID for both the financial and consultant assistance rendered in public health education.

The opportunity had been seized to use the clinics for cancer screening and the taking of smears for Pap staining. AID had also assisted by providing a cytologist to assist their pathologist in the expansion and improvement of cytology work in the laboratory.

Their experience, though limited, indicated that a great deal more research needed to be done in the control of fertility, perhaps by drugs, certainly by means that did not require of the user any high degree of literacy. In view of the PAHO/WHO decision to provide advice rather than become involved in actual operations, the Organization could provide no greater service to its Governments than by continuing to act as a clearing house for worldwide research, and keeping them constantly informed of progress in the field.

He then presented a draft resolution on the item.

The CHAIRMAN stated that the draft resolution presented by the Delegation of Jamaica would be distributed to the delegates and put to a vote later in the session.[9]

[9] See p. 280.

Mr. COLEMAN (United States of America) said that his Government had a clear policy of strengthening family planning programs. The basic philosophy underlying the effort had been clearly stated by President Johnson earlier in the year when he had referred to the growing concern to foster the integrity of the family and opportunity for each child: it was essential that all families have access to information and services that would allow freedom to choose the number and spacing of their children within the dictates of individual conscience.

The Department of Health, Education, and Welfare had announced a policy on population dynamics and family planning which included support for research, training programs, data collection, information, and services. A task force was arranging for a series of regional meetings to inform state and local governments of the resources available.

The Children's Bureau, under its maternal and infant care services, provided the principal support for family planning programs. Practically all of its 50 projects provided for those grants included approximately $1.85 million for family planning in 26 states, with an estimated expenditure in 1966–1967 of $3 million and $5 million, respectively.

The Department of Health, Education, and Welfare also assisted impoverished families. There were currently 1,000,000 mothers receiving aid, including reimbursement of portion of the cost of medical services, which embodied expenditures on family planning, services, and supplies.

Under recent new legislation, the Welfare Administration also supported care of the medically indigent through comprehensive state programs. California had already included family planning in the medical services to be covered, and other states were expected to follow suit shortly. Within the U. S. Public Health Service, grants to a state could also be used to support family planning.

Research in the field of fertility, sterility, and population control was financed largely by the National Institutes of Health, the principal research arm of the Public Health Service. Some $2,000,000 had been expended during the previous year in that field.

In the poverty program, the Office of Economic Opportunity had made substantial sums available for the provision of family planning information, with some 50 projects and nearly $2,500,000 expended, representing about half of the total Federal effort.

In addition to programs supported by the Federal Government, it was estimated that family planning services were offered by at least 20 per cent of all local health departments. Services were provided by at least some health departments in 32 states and in the District of Columbia.

Generally, in programs provided through public health departments, family planning had been assigned to ongoing maternal health clinics instead of being provided through separate services. There was an increasing awareness in the hospitals, particularly the larger ones, of the need to have readily available family planning services. Nearly half of the larger, short-term general hospitals now provided those.

The great majority of privately-financed family planning services in the United States of America were offered through community groups affiliated with the Planned Parenthood Federation of America. During 1965, 132 affiliates, located in 36 states and in Washington, had provided family planning information and services to more than 320,000 women. There had been an increase of some 158 per cent in attendance over 1960, and oral contraceptives were particularly popular.

The great majority of American women, however, received family planning information and service from private physicians: some 5,000,000 were presently taking oral contraceptives which required a physician's prescription.

There was a continuing need for more complete courses on fertility and sterility problems in medical schools, to keep private physicians aware of developments in the field.

Family planning had become a very important part of the health scene in the United States of America. Government support would increase substantially over the next three years, and interest among local governments, private physicians, and community organizations was also rising. He looked forward to a time, in the not too distant future, when every family in the United States of America would have available the information and services needed to plan the family in accordance with its individual desire and conscience.

Dr. Horwitz (Director, PASB) thanked the delegates for the comments they had made on the problem and stated that he wished to explain briefly the reasons that had led him to form the Office of Health and Population Dynamics in PASB. A simple statement of the current activities of the Bureau and of those that it had been asked to undertake would provide the best justification of the need for that Office, which had nevertheless been included in the program and budget on a very frugal basis. In the first place those institutions that were most greatly concerned with the problem in the Hemisphere had requested the Bureau at two consecutive meetings to centralize the accumulation, analysis, and synthesis of the data obtained and to transmit the outcome to the Governments, universities, institutions, and persons interested. As there was great activity in the field, of which the discussions would have given some idea, it was clear that the proper discharge of such responsibilities required the establishment of the necessary administrative machinery.

In the second place, the Bureau had continued to be asked to convoke yearly meetings to examine specific problems. Arrangements were already being made for the meeting in January 1967 in which, besides reviewing the information presented by those institutions that were concerned with the question, two fundamental issues would be considered. The first was that of teaching of demographical problems in the professional and graduate schools of the Americas, in which the minimum content of a curriculum would be considered and the report made available to Governments. The second question was that of communications between the various social groups in the field of population problems and, here again, an expert report would be prepared, describing various experiments currently taking place in Latin America and reporting the discussions at the meeting, a report that would also be transmitted to the Governments.

As had already been pointed out, a course on health and population dynamics, making demands on a whole series of disciplines, was being conducted at the School of Public Health of Chile; it was to be hoped that future courses would be organized, invariably calling on the skills of various experts in fields directly and indirectly related to the population problems: physicians, sociologists, economists, priests, statisticians, and distinguished national figures. The objective was to make available to Governments experts with the skills that were essential to the formation of departments and centers of population studies, who could continuously review the consequences of policies or of their absence, and who could examine the impact of all such factors on development.

Commencing in the forthcoming year, it had been decided to conduct a similar course at the School of Hygiene and Public Health of the University of São Paulo, Brazil; training of such a nature should be provided in the major universities of all the countries, since it was essential to examine the problem at the university level and prepare projections that went beyond what was being done, whether openly or covertly and whether or not a clearly defined policy had been laid down by Governments.

Speaking personally, he considered that Governments could not remain indifferent to population growth, since a situation might well arise, within 20 or 30 years, in which the prospects of development and of the application of advanced technologies were jeopardized by qualitative and quantitative inadequacies in the available resources of intellectual and manual manpower. With the assistance of funds from the World Health Organization, a study relating to two or three selected communities in Peru was in course of preparation, entitled, somewhat graphically, the "Epidemiology of Human Reproduction."

An experimental study that had been initiated in São Paulo on the problem of abortion was being expanded. Lastly, in compliance with the terms of resolutions adopted at the Eighteenth and Nineteenth World Health Assemblies, the Regional Office had to deal with requests made to it by Governments. The only one received so far was from the Government of Peru, which had asked for and obtained the services of a consultant for a period of five months to organize a population study center.

The Bureau also intended to keep a very close watch on developments affecting the problem as a whole, to the extent that funds were available, such as the generous contribution for such activities that had been made by the Agency for International Development and on which Dr. Allen had reported. Its aim would be to arrive at a fair interpretation of the general policy laid down by Governments and to take all appropriate steps to ensure that the Organization participated fully in all activities relating to such a vital problem. It was on the basis of the foregoing considerations that it had become necessary to include in the Secretariat, with, for the time being, modest financial resources, an Office of Health and Population Dynamics.

The session was suspended at 4:15 p.m. and resumed at 4:50 p.m.

Item 20: Planning of Hospitals and Health Facilities

Dr. Bravo (Chief, Medical Care Administration Branch, PASB) presented Document CSP17/19[10] and observed that the Director had taken the opportunity of reporting to delegates on all the activities in which the Bureau had been engaged in the course of the past four years in the field of the administration of medical services.

The results of a survey on the coordination of medical care, undertaken in 10 countries of Latin America by personnel appointed by ministries of health and social security agencies, with advice from the international staff of PAHO and the OAS, had been examined at the Technical Discussions of the Conference. Adopting for its basis the general principles laid down in numerous international documents, PAHO had succeeded in formulating a continental policy for medical care and the methods by which that policy could be applied in the Region; it recognized that medical care should form one of the basic health services in an integrated national health plan providing such services for the entire community. He emphasized that some Latin American countries were not yet ready for such a process of integration and, meanwhile, it was essential that all public and private institutions providing medical services should participate in the planning process and in the various phases of the execution of the plan and that their activities should be coordinated. At the local level, such services should be coordinated through a system of regional organization and, within each region, there should be a subdivision into sectors or districts that made the services available to the entire population: it was therefore essential to develop the necessary resources of manpower and equipment and improve the methods for utilizing what was currently available.

Directly involved in the formulation and execution of a national health plan were the higher political agencies responsible for drawing up national plans for economic and social development, the ministries of health, the social security agencies that were responsible for providing medical services for insured persons and sometimes for their families as well and, finally, the organized medical profession, responsible for the surveillance of medical ethics and the economic and social well-being of the medical corps.

[10] See Annex 10, pp. 543–548.

In the judgment of the Director of the Bureau, it was essential to first obtain the views of the international bodies representing the various groups involved, if the policies of the Organization in the field of medical care were to be made more effective. Accordingly, in the preceding year, PAHO had been represented at all inter-American meetings devoted to such problems and had obtained favorable decisions on the coordinated planning of health services with the participation of ministries of health, social security agencies, and other medical institutions. In point of fact, during the preceding week, the International Labour Organisation had held in Ottawa, Canada, its Eighth Conference of American Member States of the ILO, at which resolutions along similar lines had been adopted.

With regard to the program of hospital building, he noted that the Director of the Bureau had continued his discussions, with a view to establishing a common basis for the criteria and procedures of PAHO and the Inter-American Development Bank (IDB), designed to enable the countries to make use of international credit facilities for the building and equipping of hospitals and of similar institutions; he had succeeded in reaching a wide measure of understanding with the President of the Bank and other officers of that international agency and it was to be hoped that satisfactory bilateral decisions would soon be taken that would solve outstanding problems. The Bureau was endeavoring to create the necessary technical machinery within its Medical Care Administration Branch where, with the aid of its regular staff and of short-term consultants, the problems of hospital building were already under study. To that end a number of basic principles governing the functioning and architectural planning of hospitals had already been laid down, after a survey of the national, regional, and local procedures of health agencies. The study in question, undertaken at the three levels, was being based on the number of hospital beds needed to meet the demands and essential requirements of health personnel.

The theory of hospital planning was founded on the application of a number of basic principles of medical care: the integration of preventive services, the promotion, and restoration of health, assumptions that represented an essential part of the planning of hospitals and other similar institutions and envisaged the hospital as a focal point in the provision of services to the community. Primary importance was attached to mobile and outpatient services, which should not only operate through the hospital, but through clinics representing an extension of the hospital into the community. He believed that the hospital should be regarded as a potential source of education and research that, whatever its nature, extent or location, it should be utilized for the education and training of health personnel. From the architectural point of view the objective should be to find less complex and more functional solutions, involving a substantial reduction in building costs and providing for methods of construction that were simple in character and rapid in execution. Such criteria and methods of hospital planning had already been applied by PASB to three projects in Brazil, El Salvador, and Honduras, where there had been an opportunity both to evaluate and supplement the original methods.

Turning to the subject of staff training he noted that, while the First Pan American Conference on Medical Education had been taking place at Bogotá in August, a parallel conference had been held, under the sponsorship of the Kellogg Foundation and of the Association of University Programs in Hospital Administration (AUPHA), on training in the administration of medical services and in hospital administration. Members of the Bureau had attended the meetings and had explained its views on the training of suitable staff for the teamwork involved in the administration of hospitals and other similar health establishments, both from the general and the community standpoint. It had been very satisfactory to note that all the participants and, in particular, the President of the Pan American Federation of Associations of Medical Schools, had shared the Organization's views. Other meetings on the same question were to be held and it was hoped to be able to formulate a policy on the entry requirements and qualifications needed by professional and technical personnel to ensure the efficient administration of medical services by modern methods. In conclusion, he said he would like to point out that a modest start had been made with the organization of a reference center, with sections dealing with legislation, institutions, personnel, and publications, and he emphasized that the Bureau was currently providing advisory services for those countries that had requested them.

Dr. Santa María (Chile) said that he was in agreement with the document presented but wished

to indicate that, in discussing the planning of hospitals, more detailed consideration should be given to the scope of the medical care provided in them and that it would be desirable to include not only curative medicine and rehabilitation, as both were very closely associated with the clinical function of the hospital, but also the concept of total medical care.

Ninety per cent of medical care could be provided in the outpatient clinics, whereas in practice only 10 per cent of the curative facilities were provided there, and yet those services should be fully available to the community and provide a center for health activities of all kinds. He said that in Chile the hospital committees, on which the community was represented, expressed their views on the services provided by hospitals.

He stressed the importance of the integration of activities, the topic of the Technical Discussions, and asserted that the objective of any sound policy in the health sector should be to obtain the effective coordination of health and social security services, in order to improve standards of medical care, in all its forms.

He then referred to the qualifications of the administrators of medical establishments, whose training in hospital management involved a knowledge of various procedures ranging from food purchase to more mundane questions affecting the operation of maintenance services for hospital buildings. In the School of Public Health of Chile, education in hospital administration covered such broad aspects that it included the study of the country's medical resources as a whole and of its organization and operation, providing a clear insight into the need for coordination. The principles governing medical care formulated in the document presented should appear at the outset of the text, as it was on those principles that the item itself was based, although he recognized that they had been readily understood whenever they had been the subject of discussion.

He was pleased to note the conclusions that had been reached at the Ninth Pan American Medico-Social Congress held at Lima in April 1966, in which it had been recommended that the benefits of social security and health services should be extended to meet the needs of the majority of the population in the countries of Latin America, and also that the medical services provided by social security programs should be effectively coordinated with health services provided by the State, within the framework of national health plans. Those conclusions, he stressed, went to the very root of the medico-social problem.

He was pleased to see that the Organization was concerned with the actual hospital buildings and noted with satisfaction its efforts to ensure that the architectural design of such buildings should be simple and functional. He stated that the Government of Chile had sought the support and advice of the Organization in such matters. He was concerned, however, over the fact that too much emphasis was placed on material resources for hospitals, forgetting the personal problem, when what was direly needed was adequately trained staff. The Government of Chile was especially interested in securing functional designs for hospital buildings, as they were the most economical, and it also wished to obtain advice from the Organization in the training field.

Dr. Guédez Lima (Venezuela) said he believed that the Bureau had helped to arouse sufficient misgivings on the part of Government authorities and experts on medical administration, to bring to the fore a series of principles that it was essential to understand, if the foundations for the desired coordination of services were to be laid. Although the document did not completely reflect the various situations in which the countries under consideration found themselves, it did so adequately and indicated what was being done in the Latin American nations.

He drew attention to what had been achieved at the Second Venezuelan Congress on Public Health in 1960, at which it had been possible to review the status of the medical care services, not only of the Ministry of Health and Social Welfare but also of private institutions and other Government and social security services. The defects in the investment field had been brought into the open, which had helped to point to the direction that would need to be followed in the future, especially with respect to medical care. It had been concluded that the basic medical care service should form an operational unit, capable of discharging preventive, curative, and social functions. To realize such an objective it was necessary to prepare the ground carefully and to win acceptance at all levels for an attitude of mind that would secure the future coordination of all health activities.

He added that the conclusion had been reached, based on the architectural and operational princi-

ples to which reference had previously been made, that a hospital should be designed to discharge all the functions essential to the effective conduct of health activities. Hospital building patterns continued to be colored by tradition and to be so conceived by the public itself, but approaches were progressively changing through the participation of other experts, such as engineers, architects, etc. He was convinced that by 1970 the country's program of general hospitals would have been completed to the point of making medical care available in all the cities in which regional health services had been or were shortly to be established.

It was to be hoped that between 1970 and 1980, the national hospital system would be finally completed, based on the principle of establishing smaller health centers for towns of between 5,000 and 20,000 inhabitants, although, even by that date, medical care services would not be available to rural areas that were covered by the programs of mobile medical services.

He attached importance to training programs and to the continuation of the building program. In the former case, Venezuela was undertaking a training program for health personnel, based primarily on the approach adopted by the School of Public Health and adopting the essential principles laid down by the Organization. So far as the training of auxiliary personnel was concerned, the difficulties encountered were considerable and it was not possible to envisage any rapid elimination of the deficit in that category, although he was confident that the targets set for 1970 would be realized.

Dr. Olguín (Argentina) declared that it was clear, according to the information in the document presented by Dr. Bravo, that the Hemisphere had a very clearly defined medical care policy on the basis of the experiences of the countries themselves throughout the development of their health services and with the participation of PAHO in that field.

It was unnecessary to stress the scope of that policy, as it had been clearly defined and the importance of its contribution in some areas such as the reconciliation of the promotion of community health with follow-up services was well known. Such activities, were, in his view, indivisible, just as the need for action in the case of all the various sources of medical care in each country was inseparable from them. Such an approach presupposed a rational utilization of the total resources in an effective and logical manner, as well as the extension of the coverage of the health services.

He shared the view that services should be coordinated as a preliminary stage in the realization of the objective of integration: some countries had already succeeded in doing that, which could be explained in terms of their various national characteristics, local opportunities, and state, political, social, and economic structures. Coordination was essential to the achievement of full coverage in campaigns through the rational utilization of available equipment. Similarly, international action was an essential means of providing countries with advice and assistance and of obtaining the funds required to carry out such programs.

He re-emphasized that in Argentina the hospital was regarded as the focal point of medical care, envisaged in the widest sense and with the broadest responsibilities for curative and preventive medicine, for education, for research, and especially for the projection into the community of that social function that was a primary part of all health activities. In realizing those objectives, the training of medical personnel was an essential factor, as the shortage of health experts and administrators at all levels was manifest. The training of health technicians and auxiliary health personnel should therefore be given priority in any general program of medical care.

Another aspect of health that should be given priority in the Hemisphere was hospital building. In Argentina there were areas in which there was an overlap of hospital activities or a duplication of hospital facilities, whereas there were others where there were very serious shortfalls or in which the existing installations were not fully utilized. There were certainly parts of the Americas in which it continued to be essential to build new hospitals or to provide those already in existence with more beds and, in resolving such problems, it was most important to obtain the advice of PAHO on a rational approach to the technical principles involved, not only in questions of hospital construction but also with respect to the review of administrative and operational principles in an effort to increase yields and maximize savings.

He wished to stress the importance of all such national efforts, supported by international assistance, and considered that it would be extremely valuable to set up pilot centers of medical care, an idea in which his country was extremely inter-

ested, as it believed that the experience and results that could be obtained from such centers would be of great value to other areas in which comparable and similar conditions existed. Such centers would, in his view, fall within the category of research, a field to which the Bureau had attached importance and whose significance he would also like to emphasize at a time when such great interest was being shown in medical care and its implications.

Dr. CALVO (Panama) said that he would like to define his views on hospital planning by clarifying that the hospital should no longer be considered in the traditional sense of a room but in terms of a new attitude being developed in the Americas that considered it as a basic instrument for implementing health plans.

The meaning of some of the terms used by Dr. Santa María had appeared to him to be obscure and he believed that some of the concepts should be defined more clearly. He would therefore take the opportunity of suggesting that the Pan American Sanitary Bureau, although requiring effort, should initiate the preparation of a glossary of new terminology that would include neologisms in the planning field recently introduced in the Americas. When the term "planning of hospitals" was employed, it appeared to be the proper expression as the planning of hospitals was, in fact, nothing more more than the introduction of systems and policies for the utilization of resources: such resources might not only be the most costly but were also essential so that the planning could properly be applied to the item, whatever the approach might be. Since the hospital bed was regarded as an instrument, it was evident that planning was necessary in order to determine how it could be better employed, how health systems providing effective treatment at all levels could be organized in the Americas and how complete and costly hospitals could be established on a national scale and related to regional institutions and small hospitals. Whatever terms one cared to employ, they were all health agencies that should be integrated into a system that would provide the necessary services in a proper, satisfactory, economical, and efficient manner.

In the course of the discussion he had been left somewhat confused by the fact that it had been sought to view the hospital primarily as a building. Even if, in the planning process, the architectural design of a hospital formed part of the objective, in arriving at such a design it was necessary to adopt a planning procedure based on a correlated and consolidated approach. In the absence of such a systematic approach lay the explanation for the serious defects that existed in the building of hospitals in the Americas and for which a remedy was so badly needed. Feasibility studies should be undertaken, in which the social security agencies and the private sector should also participate, with a view to preparing a long-term projection of the institutional structure, so that health plans could be effectively and satisfactorily carried out, in a manner consistent with the total resources of countries. He added that in hospital planning manpower remained the decisive and overriding factor.

Dr. ORTEGA PEGUERO (Dominican Republic) stated that he had prepared a draft resolution on the item.

Dr. BRAVO (Chief, Medical Care Administration Branch, PASB), on behalf of the Director and of the Bureau, thanked the delegates for the observations they had made, which completed the presentation of the item and would provide a guideline for subsequent activities.

With regard to the discrepancy that existed between the agenda item and the contents of the document, he agreed with Dr. Santa María that the document in fact included questions that were, strictly speaking, not connected with the planning of hospitals, although it was evident that such planning could only be the outcome of a program of hospital building, which in turn had to form part of a national health plan. He referred to the working document, which confirmed what he had just stated, and said that the comments made, together with Dr. Calvo's statement, would be taken into account.

The CHAIRMAN said the discussion on Item 20, the last item of business of the Committee was closed, and announced that the Committee would proceed to consider the draft resolutions relating to that item and to the two preceding items.

Item 38: Aspects of Health Related to Population Dynamics (*conclusion*)

After a brief discussion of procedural questions, in which Dr. PINEDA MARTÍNEZ (El Salvador), Dr. FRAZER (United Kingdom), Dr. SANTA MARÍA (Chile), and Mr. POVEDA QUIRÓS (Costa Rica),

participated, the draft resolution referred to above was submitted to the vote.

Decision: It was unanimously agreed to recommend to the Conference that it approve the WHO/PAHO resolutions, through the following measures: (a) establishment of regional education and research training centers on the health aspects of population dynamics, and (b) establishment of an Office of Health and Population Dynamics, including a Population Information Center; commend the Director on the breadth and scope of the Organization's program activities to date and to recommend further development of the activities in accordance with the requests of the Governments for cooperation; and request the Director to cooperate with other agencies of the Inter-American System and the United Nations as appropriate to assure the full participation of the health sector in international programs concerned with population dynamics.[11]

Item 23: Supply of Textbooks for Medical Students (*conclusion*)

Draft Resolution Prepared by the Working Party

The CHAIRMAN opened the discussion on the draft resolution on the item, which had been referred for study and for the drafting of a final text to a working party under the chairmanship of the Delegate of Colombia.

Dr. ORDÓÑEZ PLAJA (Colombia) stated that the draft resolution had been submitted by the Delegation of Colombia and that, in view of the observations that had been made, especially by the Delegations of Brazil and of the United States of America, the Chairman had decided to set up a working party, composed of the Delegations of Brazil, Chile, Colombia, the United States of America, and Venezuela. The working party proposed that the text of the resolution should be as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the proposed program for the supply of textbooks for students of schools of medicine in Latin America (Document CSP17/27);

Bearing in mind the value and importance of this program for the professional training of future physicians of the Americas;

Bearing in mind the interest expressed by the universities and schools of medicine in this program;

Bearing in mind the interest expressed in this program by the Pan American Federation of Associations of Medical Schools, the agency recognized by the Directing Council as representative of the medical schools of the Americas;

Recognizing the feasibility and utility of this proposed program;

Considering that this program could have important potential for extension to other health professions;

Considering also that the proposed book program may be complemented advantageously by other teaching materials to facilitate and improve the learning process; and

Bearing in mind that the Executive Committee, at its 54th Meeting, invited the Director to continue his negotiations to implement such a project and recommended that the Conference authorize the Director to sign the necessary loan contracts,

RESOLVES:

1. To emphasize the importance of the proposed program for the supply of textbooks and its significance for a better professional training of physicians and other health personnel in the Americas, since such textbooks should be based on the most advanced educational processes.

2. To commend the initiative of the Director and to instruct him to continue his negotiations with the Inter-American Development Bank or other agencies to obtain financial support for the program for the supply of textbooks to medical students in Latin America.

3. To authorize the Director to negotiate with the Inter-American Development Bank or other agencies the most favorable terms possible for the financing of the program, and to report to the Executive Committee on the results of these negotiations and their effect on the regular budget and staff of the Organization; such report may be made to a special session or by other means if necessary, in order that the program may be implemented at the earliest date.

4. To instruct the Executive Committee to approve the loan agreement if it is satisfied that the terms are the best available.

5. To authorize the Director, in special cases where U. S. dollars are not available, to accept reimbursement for textbooks and teaching materials in national currency of the Member Governments, subject to the capacity of the Organization to utilize such currencies in its program.

Dr. SALVERAGLIO (Uruguay) considered that the importance of the program on the entire range of health activities being planned through the Bureau was clearly brought out in both the preamble and the operative part of the resolution. The Director of PASB should be congratulated by the Conference on the draft resolution he had presented, which, with his usual force of character, he would undoubtedly carry into effect at the earliest possible moment.

Dr. GUÉDEZ LIMA (Venezuela) thought that the

[11] See thirteenth plenary session, p. 193.

draft resolution satisfied all the criticisms of substance that had been made of its operative part at the working party. However, it should be pointed out that, in view of its importance, the Delegation of Venezuela had urged that the Director of the Bureau should be given all the powers necessary to deal with problems of financing. There were, however, in the draft resolution a few phrases that might be regarded as conflicting with that need, such as the procedure requiring the Director to report to the Executive Committee before any step for implementing the program could be adopted.

Dr. MONDET (Argentina) indicated that his Delegation attached great importance to the draft resolution which, in his view, reconciled the various views that had been expressed in the discussion of the item and in the course of the deliberations of the working party responsible for its drafting. All he wished to say with respect to it could be summarized in the five words of paragraph three of its operative part: the program should be implemented "at the earliest possible date."

Dr. MONTALVÁN (Ecuador) believed that the majority of the delegates who had spoken or intended to speak in the discussion had been surprised at the inclusion of a delaying clause in the draft resolution. The Delegation of Ecuador was also in favor of rapid action, especially in procedural matters, and felt that the clause would hold back the implementation of an extremely important program, that deserved the unanimous and enthusiastic support of all delegations. It would have been best to leave to the good judgment of the Director the choice of a more flexible procedure that would enable the program to start at the earliest possible date.

It was the understanding of the CHAIRMAN that the proposed resolution authorized the Director to convene a special session of the Executive Committee, should that be necessary. In his view the Director could, without overstepping the terms of the resolution, accelerate any essential negotiations in whatever manner he thought fit.

Dr. GONZÁLEZ TORRES (Paraguay) wished to state that his Delegation was fully aware of the importance of the matter and would do everything in its power to see that it was carried into effect with all speed. In the text that had just been read there was however a certain inconsistency since the Executive Committee, at its 54th Meeting, had invited the Director to continue his efforts to implement the project and had recommended to the Conference that it authorize the Director to arrange for any loans that might be necessary. The Director was therefore, in practice, authorized to make a decision whereas the draft resolution gave the impression that some unusual course had been adopted. The Delegation of Paraguay would nevertheless vote for the draft resolution, while indicating that it was its view that its implementation should be accelerated by all possible means.

The CHAIRMAN considered, in view of the wide interest that had been expressed in the establishment of a rapid procedure, that the records of the session should be forwarded to the lending agencies, as the acceleration of procedures would also depend on them.

Dr. SANTA MARÍA (Chile) asked why it should again be necessary to discuss the matter with the Executive Committee with the delays that that would involve. The Delegation of Chile would, of course, vote for the draft resolution although, in its view, operative paragraph 4 was barely necessary, since it merely provided that the Director should give an account of the action he had taken.

Mr. POVEDA QUIRÓS (Costa Rica) said that, in the light of the observations that had been made on the matter, the Delegation of Costa Rica proposed that operative paragraph 4 should be taken out, as that would avoid the procedural problem and give the Director greater freedom of action in the implementation of the program.

Dr. HORWITZ (Director, PASB) assumed that the question raised by the Delegate of Chile amounted to asking whether operative paragraph 4 of the draft resolution, in which provision was made for the Conference to delegate to the Executive Committee the power to approve the loan agreement, was drafted in the most favorable terms or whether it merely amounted to a delaying mechanism. In Dr. Horwitz' view the position could, in practice, be interpreted as follows: the Conference desired, in the first place, that if IDB approved the loan agreement, the Executive Committee should approve the terms of the loan and, in the second place, that the Director should be given power to obtain the views of the members of that Committee at the earliest moment and by the most expeditious procedure possible. If that interpretation was correct, the para-

graph in question could not be regarded as a delaying mechanism.

The CHAIRMAN stated that, before putting the draft resolution to a vote, he would ask the Conference to make a decision on the proposal of the Delegate of Costa Rica that operative paragraph 4 should be taken out, but, before doing so, the Delegate of the United States of America wished to speak.

Mr. CALDERWOOD (United States of America) said he was not sure that the deletion of operative paragraph 4 would help speed the action; in fact, it might very well delay it. Under the Financial Regulations, the Executive Committee had authority to approve the making of a loan. In paragraph 4 the Conference was instructing it to do so if it was satisfied with the proposal, convening if necessary a special session. That was all directed to speeding up the process.

What were not yet known were the conditions of the loan. Those should be known in order to conclude an agreement and obtain funds. Nor were they sure yet whether the Bank would provide the money, but an attempt was being made to get the program under way as early as possible and the deletion of paragraph 4 might very well delay that.

The CHAIRMAN put the draft resolution to the vote.

Decision: The draft resolution was unanimously approved.[12]

Item 20: Planning of Hospitals and Health Facilities (*conclusion*)

Dr. SUTTER (Assistant Director, PASB) read the following draft resolution submitted by the Delegation of the Dominican Republic:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having considered the report of the Director on the planning of hospitals and other health services (Document CSP17/29),

RESOLVES:

1. To note with satisfaction the progress made in the program of administration of medical care services.

2. To thank the Organization of American States and the Inter-American Development Bank for the efficient assistance they have given to date to this program and to express the wish that it will be maintained and intensified in the future.

3. To confirm in its entirety the policy formulated by the Director of the Bureau in this matter and to recommend that the program be strengthened, especially as regards field activities.

4. To recommend to the Governments that both social security institutes and other health institutions take part in studies for the formulation of national health plans and that they gradually coordinate the local activities of these institutions in carrying out those plans in the field.

5. To request the Director of the Bureau to submit an annual report to the Directing Council and, if appropriate, to the XVIII Pan American Sanitary Conference on the progress made by the countries of the Americas in the organization and administration of integrated health services including hospitals and other establishments.

Dr. PINEDA MUÑOZ (Honduras) supported the draft resolution and congratulated the Director of PASB and his colleagues on the work that had been achieved in the planning of hospitals and other health services. He wished to express his appreciation for the advice that had been given in connection with the Hondurean hospital program and for PASB's assistance in obtaining a loan from IDB for hospital building and the training of personnel.

Dr. SCORZELLI (Brazil) proposed that the last part of operative paragraph 4 of the draft resolution should be taken out, so that special needs and characteristics of each country could be taken into account.

Dr. MARTÍNEZ QUEVEDO (Paraguay) supported the proposal made by the Delegate of Brazil and agreed to the deletion of the final part as it would give freedom of action to countries such as Cuba, which were already at a more advanced stage.

Dr. PINEDA MARTÍNEZ (El Salvador) agreed with the views that had been expressed by the Delegates of Brazil and Paraguay and suggested that the end of operative paragraph 5 should be deleted, so that it would read as follows "To request the Director of the Bureau to submit an annual report to the Directing Council and, if appropriate, to the XVIII Pan American Sanitary Conference on the progress made by the countries of the Americas in the organization and administration of health services." He proposed the deletion of the word "hospitals," as he assumed they could also be regarded as health services.

Dr. SANTA MARÍA (Chile) expressed his agreement with the Delegate of Paraguay and said that it also appeared to him that the last part of operative paragraph 5 was repetitive. At the same time he supported the proposal made by the Delegate of

[12] See thirteenth plenary session, p. 189.

Brazil and took the view that "activities in the field" could also refer to the field activities undertaken by the Organization in various countries, since both "field" in English, and "campo" in Spanish had various implications, although he did not feel able to suggest either the deletion of those terms or an amendment to them, as he was not aware of how wide an interpretation it was intended to give the word "field" in the text.

Dr. HORWITZ (Director, PASB) said that he did not like the use of either the word "campo" or "terreno," as both words had agricultural connotations, although they were in fact the terms often used to indicate the extent of activities being undertaken in various countries. It was, of course, true that, in the case of hospitals, it was most likely that reference was being made to those functioning in an urban context. He saw no objection whatsoever to conveying the idea by the use of the words "activities . . . in the countries."

The CHAIRMAN called to a vote on the draft resolution with the amendments proposed.

Decision: The draft resolution, as amended, was approved by 21 votes in favor, none against, and one abstention.

Dr. CALVO (Panama), Dr. MONDET (Argentina) and Dr. PAREJA PIÑEYRO (Uruguay) congratulated the Chairman on his effective conduct of the session.

The session rose at 6:37 p.m.

COMMITTEE II

FIRST SESSION

Tuesday, 4 October 1966, at 10:45 a.m.

Chairman: Dr. MANOEL JOSÉ FERREIRA (Brazil)

Election of Vice-Chairman and Rapporteur

The CHAIRMAN opened the session and again thanked the Committee for electing him Chairman of Committee II.

Dr. CUTLER (Deputy Director, PASB) read the pertinent rules of the Rules of Procedure applicable to the establishment of main committees, and also quoted Rule 30 dealing with the election of a Vice-Chairman and a Rapporteur who would report to the plenary session on the conclusions reached by the Committee.

The CHAIRMAN asked for nominations for the offices of Vice-Chairman and Rapporteur.

Mr. BYRNES (United States of America) proposed Dr. Hyronimus (France) as Vice-Chairman and Dr. Acosta-Borrero (Colombia) as Rapporteur.

Dr. SANTA MARÍA (Chile) and Dr. DE GÓES (Brazil) seconded the proposal of the Delegate of the United States of America.

Decision: Dr. Raymond G. Hyronimus, Delegate of France, was unanimously elected Vice-Chairman of Committee II, and Dr. Roberto Acosta-Borrero, Delegate of Colombia, was elected Rapporteur.

The CHAIRMAN suggested that to enable the delegates to be present during the discussion of items of interest to them in both Committees, the Committee might begin by examining Item 22 and then take up Item 36.

Dr. MONTALVÁN (Ecuador) proposed that the order of discussion of the item relating to quality control of pharmaceutical preparations be maintained as he was particularly anxious to be present when that item was discussed.

Dr. DE GÓES (Brazil) asked that that item be placed last on the agenda so that he could be present during the discussion.

Mr. BYRNES (United States of America) asked whether it would be possible to move up Items 7 and 8 and consider them with Items 3 and 4, instead of moving up Items 5 and 6, which would create difficulties.

The CHAIRMAN said that the necessary arrangements would be made to meet the wishes of all the delegates, and suggested that the Committee begin with the discussion of Item 22.

It was so agreed.

Item 22: Relationship of the Pan American Health Organization with Other Organs of the Inter-American System

Dr. CUTLER (Deputy Director, PASB) presented Document CSP17/22 [1] on the item. He stated that the subject had been presented to the 54th Meeting of the Executive Committee, which had been informed of the Fourth Annual Meetings of the Inter-American Economic and Social Council at the Expert and the Ministerial Levels,[2] held in Buenos Aires, Argentina, from 15 March to 1 April 1966. The items relating to health included in the agenda of that meeting had been: "Examination of the First Five Years of the Alliance for Progress—Economic, Social, and Informational Aspects," and "Rural Development—Economic and Social Aspects." As had been the custom in recent years, efforts had been made by the Organization to have representatives of the health sector included in the delegations to the meetings of the IA-ECOSOC.

Two groups of resolutions had emanated from the Meeting at the Ministerial Level: one was related directly to health and the second was of particular interest with respect to functions also being carried out by PAHO. In the latter group the most important resolution had been that related to the future financing of the Pan American Foot-and-Mouth Disease Center. There had been considerable discussion on the Program of Technical Cooperation of the OAS, established originally to provide short-term support to programs expected to be financed by other methods once they became established.

[1] See Annex 12, pp. 568–571.
[2] *OAS Official Records* OEA/Ser.H/XII.11 (English).

For special reasons which are documented elsewhere, the Pan American Foot-and-Mouth Disease Center had continued to be financed under the Program of Technical Cooperation, but the demand for services had increased, with the consequent increase in cost of operation. During the same period, however, the rate of increase of contributions from Governments and related increased appropriation had been slower than needs. The IA-ECOSOC at the last meeting had approved a normal 12-month budget for a 15-month period from 1 April 1966 to 30 June 1967, and consequently reduced the planned level for all 1966 Technical Cooperation projects, including the Pan American Foot-and-Mouth Disease Center, by 25 per cent. It was therefore essential to meet financial needs while at the same time planning for the long-term operation of the Center. The IA-ECOSOC resolution [3] acknowledged the importance of the program and of the need to establish a firm and adequate financial basis. It also recommended that a study be made of the present status of the foot-and-mouth disease problem and of the control campaigns under way or being prepared. The study had already been initiated and both PAHO and the OAS were negotiating with a view to obtaining short- and long-term financing of the Center at a level that would allow it to meet the needs of the Americas.

The Fourth Annual Meetings of the IA-ECOSOC had also approved a resolution [4] on the Statutes of the Inter-American Emergency Aid Fund, established by the Second Special Inter-American Conference held in Rio de Janeiro, Brazil. The Fund, operating on the basis of voluntary contributions from Governments, was dedicated to providing, without political considerations, aid in the form of food, medical equipment, medicines, or other types of economic and technical assistance to any country threatened by or suffering from emergency situations of whatever origin. The Fund would establish relations with the World Food Program, FAO, PAHO, the International Red Cross, and other international institutions whose activities and experience might be useful in achieving its purposes.

The amendments proposed by the Special Committee to Prepare a Preliminary Draft Proposal on Amendments to the Charter of the Organization of American States, which regulated the Specialized Organizations, did not change the present situation. They dealt merely with adaptations to the new structure of the OAS with a view to giving the General Assembly the functions at present held by the Council.

In closing, Dr. Cutler stated that there was under consideration a Meeting of the American Chiefs of State and plans were being made with the cooperation of Ministers of Foreign Affairs and strong participation of the OAS. It was hoped that there would be items of significance to the health sector discussed at that meeting and to that end discussions had been held between the Director of the Bureau and the Secretary General of the OAS.

Dr. DE GÓES (Brazil) said that the Brazilian Delegation had nothing to add to the documentation on the item except to note that in Document CE54/4,[5] the proposed amendments to the Charter of the OAS submitted at the meeting in Rio for incorporation into the Charter of the OAS, approved at Bogotá, included a new draft of Article 53, paragraph ii, which made it the duty of the General Assembly of the Organization "To strengthen and harmonize cooperation with the United Nations and its specialized agencies."

If the Pan American Health Organization, as a member of the Inter-American System through its ties with the OAS, was linked up also with the United Nations through the World Health Organization, its relations with the United Nations would be still further strengthened once the proposed amendment was ratified. Hence it would be well to clarify whether the activities of the United Nations in the health field paid due regard to the interests of the Americas.

As all present were aware, pursuant to the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas, held in Geneva in 1963, a Committee on Science and Technology had been set up under the United Nations Economic and Social Council for the purpose of bringing to the Council's notice the problems of highest priority in those matters related to development.

The Committee thus set up had held five meetings, and the working documents for the final meeting, which he had attended, did not include a single one relating to problems peculiar to Latin America, such as Chagas' disease, certain diseases transmitted by arboviruses, and others. Moreover, the recom-

[3] *Ibid.*, Resolution 34-M/66, pp. 70–71.

[4] *Ibid.*, Resolution 30-M/66, pp. 57–60.

[5] See Appendix to Annex 12, pp. 569–571.

mendations relating to the health field covered only problems of a general nature, such as water supply, protein intake, African trypanosomiasis, and population, without paying sufficient attention to problems of great importance for the Hemisphere, such as infant mortality, schistosomiasis, Chagas' disease, malaria, leprosy, tuberculosis, and others.

The situation was most unsatisfactory and should be remedied; and he would like to propose that the Director of PASB request the Director-General of WHO to arrange for the Advisory Committee on Science and Technology to be furnished with the relevant documentation on the health problems of major importance for the Americas, at the same time urging that in the allocation of funds by the United Nations, special attention be paid to any research programs or health campaigns indicated by PASB as being of top priority for the Hemisphere.

The CHAIRMAN suggested that the Delegate of Brazil prepare a draft resolution on the subject.

Dr. OLGUÍN (Argentina) said that the relations of the Pan American Health Organization with other organs of the Inter-American System were a vitally important means of contributing to and participating in development programs for the Hemisphere. The document presented by Dr. Cutler emphasized the desirability that the health sector should participate in the activities of the Inter-American Economic and Social Council. At the meeting of the IA-ECOSOC in Buenos Aires, resolutions had been adopted and a number of points brought out which strengthened the conviction that the active participation of all sectors, including the health sector, was an indispensable contribution to economic and social development. He regretted that representatives of the health sector had not attended the meeting in question as members of national delegations, and he thought that an effort should be made to secure effective participation of health experts, on a permanent basis, in activities connected with general planning of economic and social development.

Dr. GONZÁLEZ TORRES (Paraguay) commended the report presented by Dr. Cutler, and expressed his concurrence with the view of the Delegate of Argentina, for while man's well-being was the goal of economic and social development plans, man was at the same time a vital means of carrying out those plans. The inference to be drawn was that if men enjoyed good health, the goals would be attained all the more easily.

Dr. SANTA MARÍA (Chile) said that the presentation of the item had brought out four main points. First, there were the Organization's general relationships with others working in the same field. In that connection the Chilean Delegation was glad to note the forceful manner in which the Organization had made its voice heard in international circles in recent times. Progress had been such that health activities were no longer regarded as services but as actual productive investment, and indeed reproductive investment, in the economic sphere.

Second, with regard to the problem of foot-and-mouth disease, Chile would support any measure for the eradication of the disease, which was a problem of the utmost importance, not only because of the financial losses it occasioned, but also because it deprived large numbers of children of milk and adults of meat.

Third, activities undertaken in situations of extreme emergency such as hurricanes or earthquakes —the generous response, both official and private, by organizations and peoples everywhere—was most praiseworthy. At the same time it should be pointed out that occasionally such aid defeated its purpose because of ignorance as to what sort of supplies were needed. For example, following some of the earthquakes in Chile, medical aid had been forthcoming in abundance when what was most needed was building materials; or at times drugs had been sent to avert the risk of epidemics when there was little likelihood of an epidemic occurring. The Organization might study the best ways and means of giving proper guidance to donors, informing them as to what was vitally needed in any given emergency situation. The problem was of course a complex one, since it was difficult to foresee what would be needed. Nevertheless, with the speed of communications today, it should be possible to centralize available information and place it at the disposal of donors. In that way, international charity in favor of the disaster victims would undoubtedly be even more fruitful.

Referring finally to the proposal submitted by the Chilean Government and reproduced in Document CSP17/32,[6] he said that the effort made by international organizations in the Americas to spon-

[6] Mimeographed document.

sor technical meetings on a variety of subjects was most praiseworthy. Hitherto, such seminars, meetings, and conferences had always been held outside the Hemisphere. Today they were organized within the Hemisphere, and that might well have contributed to the understanding of mutual needs. It did happen at times, however, that three or four conferences were being held one after another on the same topic, in different places, and under the auspices of different bodies. For example, the population explosion and child problems had been the subject of at least three or four recent meetings. In the light of that situation, Chile had submitted a proposal requesting the Director of PASB to study ways and means of strengthening the coordination between United Nations agencies and other organizations that sponsor technical meetings in the Hemisphere, so as to facilitate attendance at such meetings and obtain a greater return from them.

He congratulated the Organization on the fighting spirit it was showing in bringing health problems into the arena among economic problems.

Dr. Blood (United States of America) stated that it was a source of great satisfaction to note that the work of the Pan American Foot-and-Mouth Disease Center had received much recognition, not only by the Organization's Governing Bodies, the Governments, and the ministries of health but also by ministries of agriculture and in the economic field, as evidenced by the recognition given by the Inter-American Economic and Social Council. The Center had been extremely successful to the point where many countries, with the Center's leadership and stimulus, were developing plans and active programs for combating the disease. As a result of the new programs, the Center's role was becoming more instead of less important. The lending agencies that were or might become involved in helping finance national programs had invariably stated that the Center should continue to guarantee a standard of excellence as far as technical consultation was concerned.

The need for the Center's stable financing was undeniable, but there were two problems involved: one was the immediate financial assistance and the other was long-term financing. The Agency for International Development had under study a request for a grant to develop vaccines for sheep and swine amounting to approximately $200,000. That would not make up for the shortfall faced by the Center in the immediate future, but it was to be hoped that it would provide some additional basis for the work in progress.

He recalled that the Pan American Sanitary Bureau operated and administered the Center under authority given in a resolution [7] of the IV Meeting of the Directing Council in 1950, in which it was also stated that the Bureau would participate in the organization of such a Center until such time as some other specialized organization of the OAS was prepared to take full charge, provided that all costs connected with the Center would be covered by funds other than those of the PASB. The Government of the United States of America remained in full accord with the provisions of the 1950 resolution. The ability of the Bureau to carry out that particular mission was quite clear and it should therefore continue to do so until another agency were able to take it over. The Government of the United States of America would therefore support any effort made by the OAS or PAHO to find a solution to the immediate and long-term financing for the Pan American Foot-and-Mouth Disease Center.

Dr. Acosta-Borrero (Colombia) agreed entirely with all the views expressed by his colleagues as to the need for efforts on a more permanent basis to raise the standing of public health matters within the economic sector proper. With that in mind, in might perhaps be useful to draft a resolution recommending to the Governments that in all such meetings in the future they regularly include a representative of the health sector. He recalled that at the Fourth Annual Meetings of the IA-ECOSOC in Buenos Aires, Argentina, when Colombia had been represented by its Minister of Health, that fact had evoked a certain amount of criticism. No one could understand why a Minister of Health should take part in a meeting of that nature. To prevent such situations from occurring, a draft resolution such as he had suggested would be most desirable and he expressed his willingness to draft that resolution.

Dr. Candau (Director-General, WHO) thanked the members of the Committee for the opportunity to speak on the cooperation between the United Nations organizations with those of the Inter-American System. In his opinion, the health field had found the way in the past to avoid confusion between the two systems. The presence of WHO

[7] Resolution X. *PAHO Publication* **255,** 9.

in the Americas was felt only through the Pan American Health Organization and the complete integration of activities had permitted a better utilization of funds and manpower available while at the same time avoiding an overlap in similar activities. While the Delegate of Chile had mentioned overlapping in certain fields, there were activities that were clearly defined, such as health, and there were others that were marginal to other organizations. Marginal activities would always present the problem of coordination, overlapping, and duplication. The population problem had been mentioned and it was inevitable that in that connection there would be much overlapping between what was considered the social and the medical aspects of the problem.

He then referred to the statement made by the Delegate of Brazil on the Committee on Science and Technology created by the Economic and Social Council, and to the Third Report of that Committee, which had not given health the place it deserved. He clarified, however, that the Committee had 18 members and only two of them were physicians. Since the beginning, the World Health Organization had presented a series of problems for consideration, but as time went on those were given less and less importance. The reason was that the Committee was currently interested only in items having a direct bearing on economic development of the countries. That also was the general policy of the Governments themselves, which was reflected in the priorities established by them with regard to economic problems. The United Nations Special Fund had not assigned more than 1 per cent of its total funds for health projects, and that percentage was limited to water supply and water projects.

As a basis for establishing priorities, the Committee on Science and Technology established lists, but those were reduced at the request of the Economic and Social Council. While the Committee had recommended that more funds be allotted to the programs listed, it was obvious that nothing could be done along those lines unless requested by the Governments themselves, and they were inclined to favor projects related to economy rather than health. As for the United Nations Development Program, the assistance given through WHO had decreased from about 22 per cent of the total budget of the Expanded Program of Technical Assistance to slightly over 14 per cent. For that reason WHO was anxious to have a regular budget so that it could provide the assistance that the Development Program could not furnish under the current political structure.

Dr. Candau therefore thought it extremely important that the Conference request WHO to call to the attention of the Committee on Science and Technology that more emphasis should be given to health projects and that the Development Program give health programs the status granted to others. However, it depended on the Governments to establish those priorities and to take the necessary action in that respect.

The CHAIRMAN suggested that a working party might be set up to prepare a draft resolution embodying the views expressed.

Dr. DE GÓES (Brazil) thought that the statement made by the Director-General of the World Health Organization confirmed the fact that the Brazilian Delegation's proposal was very much to the point. His Delegation was anxious that its proposal should furnish the Director-General of WHO with yet another argument for emphasizing, at the level of the United Nations, the importance of health problems in development. Consequently, it was essential to bring out the importance of health as an economic factor and to give it equal priority status with other aspects of economic and social development. The purpose of the concrete proposal put forward by the Brazilian Delegation was to ensure that the problems of the Region were given due consideration.

The CHAIRMAN suggested that the working party to draft the resolution should consist of the Delegates of Argentina, Brazil, Chile, Paraguay, and the United States of America, and should meet immediately.

It was so agreed.

Dr. CUTLER (Deputy Director, PASB) informed the members of the working party that draft resolutions and background material were already included in the documentation, which could be used as a basis for preparing their resolutions.

The session rose at 12:10 p.m.

SECOND SESSION

Tuesday, 4 October 1966, at 2:25 p.m.

Chairman: Dr. MANOEL JOSÉ FERREIRA (Brazil)

Later: Dr. RAYMOND G. HYRONIMUS (France)

Item 22: Relationship of the Pan American Health Organization with Other Organs of the Inter-American System (*continuation*)

The CHAIRMAN invited Mrs. Alzora H. Eldridge, Observer, Organization of American States, to comment on the item under discussion.

Mrs. ELDRIDGE (Observer, OAS) first commented in general on the document and on the various areas of collaboration of PAHO with the OAS, and acknowledged the welcome participation of the Organization, particularly in the economic and social area, and the valuable representation of the health sector at the meetings of the Inter-American Economic and Social Council.

There had been a special and recent development within the Secretariat of the OAS and which might be of interest to the Committee: the possible applicability of the use of remote sensors in satellites for the gathering of scientific data, which would hopefully be available by the end of the decade. Discussions had been held and Inter-American collaboration was being considered to serve as a channel for making available to the Governments information they might wish to gather through that means. Discussions had also been held within the Pan American Institute of Geography and History, another Specialized Organization of the OAS, and an *ad hoc* committee on remote sensor use had been established at that Institute's last Directing Council meeting held in Mexico City. The Secretariat was exploring the best possible means to provide the Governments with a method of deciding upon priorities from satellites which might be of most use to them, since some of the satellite equipment might be available for aiding programs implementing the goals of the Charter of Punta del Este, such as those related to water resources. It was therefore hoped that PAHO, through its Secretariat, might collaborate in any discussions held by the OAS in regard to possible future use of the satellite programs.

Dr. CUTLER (Deputy Director, PASB) supplemented the information furnished by the Observer of the OAS and stated that PAHO was gratified by the interest shown by the Pan American Institute of Geography and History and by the OAS in considering the possible health implications of any of the sensing devices that might be made available through the organs of the Inter-American System. The benefits to be derived from the satellite programs were tremendous and opened up great possibilities in the field of environmental sanitation and water supply. In discussions with the lending agencies, particularly the Inter-American Development Bank, it had been emphasized that attention should be focused not in terms of individual or small numbers of systems but in terms of hundreds of thousands of a standard design. Terrain studies and mapping such as were required for large-scale planning were possible and feasible with the instruments used in satellites; furthermore, through them it would be possible to determine the location of contaminated and uncontaminated surface waters. In the case of malaria, water bodies that served as breeding places for mosquitoes could also be studied and steps taken accordingly to expedite completion of the eradication program, particularly in inaccessible areas where malaria persisted and constituted a potential problem.

The CHAIRMAN announced that a working party was preparing a draft resolution on agenda Item 22.

Item 16: Report on the Collection of Quota Contributions

The CHAIRMAN asked Dr. Portner to introduce the working document on the item.

Dr. PORTNER (Chief of Administration, PASB) presented Document CSP17/24 and Rev. 1 and 2 [1] on the item, which was an up-to-date report on the status of quota contributions. The current year quotas due on 1 January 1966 amounted to $8,023,627; $4,613,915 had been received, or 57.5 per cent of the total due. On the comparable date in 1965 the percentage collected had been 45.76. As for arrears, there were $3,068,147 due on 1 January

[1] Mimeographed documents.

1966, of which $1,710,870 were received (55.76 per cent), as compared with 21.51 per cent on the same date in 1965. The arrears and quotas therefore amounted to $11,091,774, of which $6,564,850 had been received. That figure represented 57.2 per cent of the total, as compared with 38.79 per cent on the comparable date a year before.

While forecasting was difficult, it was hoped that the current year collections would be higher than in the past. The Secretariat was deeply conscious of the instructions given by the Governing Bodies, had kept the Governments amply informed on the status of quota contributions, and had made every effort to keep the collections as current as possible.

The CHAIRMAN said he had listened with interest to the presentation of the item, a draft resolution on which had been considered at the 54th Meeting of the Executive Committee. He was of course aware that the solution of problems of that nature did not depend on the delegates present, but mainly on their respective Governments. He nevertheless invited discussion on the item.

Dr. OLGUÍN (Argentina) stressed the importance of the problem under discussion for the proper execution of programs. As far as his own country was concerned, Argentina was behind with some of its contributions, but his Government intended shortly to submit a financial plan for settling its outstanding debt as rapidly as possible. Having said that, he would like to submit a draft resolution.

The CHAIRMAN thought there was no need to continue the debate on the item; he put the draft resolution submitted by Dr. Olguín to a vote.

Decision: It was unanimously agreed to recommend that the Conference take note of the report on the collection of quotas; commend the Governments on their progress in paying quota arrears; and commend the Director on his efforts to improve the level of quota payments.[2]

Item 17: Emergency Revolving Fund

The CHAIRMAN asked Dr. Portner to introduce the item.

Dr. PORTNER (Chief of Administration, PASB) presented Document CSP17/11[3] on the item and stated that the matter had also been discussed at the 54th Meeting of the Executive Committee because of the obvious and compelling need to make still another addition to the Emergency Revolving Fund in order to make purchases of an emergency nature on behalf of Governments.

He recalled that the level of the Fund, since its inception until 1965, had been $50,000. An increase to $75,000 had been authorized that same year, but since then experience had shown that there was a clear need to increase it even further. The status of the Fund was as follows: of the $75,000, purchases had been made in the amount of $51,650 and funds had actually been expended. There was cash in bank amounting to $23,349, but of that amount there were orders from two Governments for supplies, amounting to $7,000, leaving a balance of $16,349. Attempts were constantly made to obtain replenishment to the Fund as soon as possible after purchases were made, but that was a difficult process.

After a detailed study of the situation, the Executive Committee had approved Resolution X[4] in which it took note of the report of the Director on the Emergency Revolving Fund, invited the Governments which received assistance from the Fund to reimburse the amounts advanced as soon as possible, and recommended to the XVII Pan American Sanitary Conference that it increase the ceiling of the Fund to $100,000 and authorize the transfer of an amount of $25,000 from the Working Capital Fund.

Dr. Portner then called attention to a resolution contained in the working document on which the Committee might wish to take action.

The CHAIRMAN said that before deciding on a voting procedure he would like to hear more views on the subject; he gave the floor to the Delegate of the United States of America.

Mr. BYRNES (United States of America) stated that the Government of his country supported the Emergency Revolving Fund, recognized the need for it, and supported the increase to $100,000. However, it was not in favor of using the Working Capital Fund for increases in another fund. At the XVI Meeting of the Directing Council, another delegation had pointed out that unless measures were taken to repay loans, it would not be possible to maintain the Fund at an adequate level. The Secretariat should therefore continue to encourage Governments to make repayments as soon as pos-

[2] See thirteenth plenary session, p. 195.
[3] Mimeographed document.
[4] *Official Document PAHO* **71**, 34.

sible in order to avoid increasing the level constantly. He then asked the Secretariat to indicate what possibility there was of obtaining repayment of the $51,000 mentioned.

The CHAIRMAN said that one of the difficulties arising in some countries was that it was at times more difficult to collect a small sum than a large one. In Brazil, for example, under certain legal provisions in force, State debts not settled by 31 December of any given year were labeled "Previous financial years," which meant a whole series of complications and delays. He then called upon Dr. Portner to reply to the question of the Delegate of the United States of America.

Dr. PORTNER (Chief of Administration, PASB) stated that the Secretariat was deeply conscious of the importance of replenishing the Emergency Revolving Fund. Efforts were made from the moment the items were delivered, which sometimes required one or more communications or personal contacts with the Governments concerned. However, bill collecting was not a pleasant operation and prudence and diplomacy had to be exercised at all times, but every attempt was made to obtain complete repayment as soon as possible.

The CHAIRMAN called upon Dr. Cutler to make further comment.

Dr. CUTLER (Deputy Director, PASB) stated that every effort had been made to obtain prompt repayment to the Fund. There were problems within the Governments themselves and on occasions it was more difficult to obtain repayment of a small amount than of a large one. There were unavoidable delays and the Organization was handicapped at certain periods in meeting urgent requests for assistance because the balance of the Emergency Revolving Fund was inadequate. He therefore felt that by bringing up the facts once again it would be possible to call attention to the need for repaying the amounts expended at the earliest possible date following delivery of the items ordered.

The CHAIRMAN thought that the meeting was sufficiently well-informed on the item under consideration, and he asked Dr. Portner to read once again the draft resolution contained in the working document, before the vote was taken.

Dr. PORTNER (Chief of Administration, PASB) read the draft resolution on the item.

The CHAIRMAN put the draft resolution to the vote.

Decision: It was unanimously agreed to recommend that the Conference take note of the report of the Director on the Emergency Revolving Fund; invite the Governments which receive assistance from the Fund to reimburse the amounts as soon as possible; and increase the ceiling of the Fund to $100,000 and authorize the Director to transfer to the Fund for this purpose an amount of $25,000 from the Working Capital Fund.[5]

The CHAIRMAN said that, in the absence of the Delegate of Chile, who was particularly anxious to participate in the discussion on Item 36 (Quality Control of Pharmaceutical Products), that item would be left until the end, and the meeting would now turn to agenda Item 18.

Item 18: Amendments to the Staff Rules of the Pan American Sanitary Bureau

The CHAIRMAN said that Dr. Portner would introduce the item.

Dr. PORTNER (Chief of Administration, PASB) presented Document CSP17/13[6] on the item and stated that pursuant to Staff Regulation 12.2, the Director had submitted to the 54th Meeting of the Executive Committee for confirmation, the amendments to the Staff Rules set forth in the annex to Document CE54/5.[7] They were similar to the amendments that had been introduced into the Staff Rules of the World Health Organization by the Director-General and subsequently confirmed[8] by the Executive Board at its Thirty-seventh Session held in January 1966. The PAHO Executive Committee had already confirmed[9] the changes, some of which were substantive, while others were merely editorial in nature.

Dr. Portner then reviewed each of the changes in detail and stated that the Executive Committee had approved two resolutions: one dealt with the amendments to the Staff Rules as a whole, and the other with the salaries of the Deputy Director and the Assistant Director of the Pan American Sanitary Bureau.[10] However, there was still the matter of salary of the Director, on which the Executive

[5] See thirteenth plenary session, p. 195.
[6] Mimeographed document.
[7] Mimeographed document.
[8] Resolution EB37.R4. *Off. Rec. Wld Hlth Org.* **148**, 6–7.
[9] Resolution V. *Official Document PAHO* **71**, 31.
[10] Resolution VII. *Ibid.*, p. 32.

Committee had not taken definitive action and which was presented to the Conference for consideration.

The CHAIRMAN said that the Committee had listened to a well-documented analysis of the amendments to the Staff Rules; the only point not dealt with was the question of the salary of the Director of the Pan American Sanitary Bureau. Dr. Oostendorp, of the Kingdom of the Netherlands, would present a draft resolution.

Dr. OOSTENDORP (Kingdom of the Netherlands) presented a draft resolution on the question of the salary of the Director of the Bureau.

The CHAIRMAN recognized Dr. Quirós, Peru, who wished to make a statement.

Dr. QUIRÓS (Peru) said he could not agree with the last of the changes introduced into the Staff Rules as read by Dr. Portner. It seemed to him unjust and discriminatory in respect of some of the staff of the Organization. The rights of local staff members recruited away from Headquarters should be brought into line with those of international staff, and travel expenses for the former should be payable in the same way as for the latter; they should also have the right to periodic home leave.

The CHAIRMAN said that, unless anyone objected, it would be preferable to continue with the discussion of the draft as it stood, and to consider the point raised by Dr. Quirós later. Before the vote was taken he asked Dr. Portner to read the draft resolution a second time.

Dr. PORTNER (Chief of Administration, PASB) read the draft resolution on the amendments to the Staff Rules of the PASB.

The CHAIRMAN asked Dr. Quirós whether the point raised by him was in any way in conflict with the draft resolution just read.

Dr. QUIRÓS (Perú) said there was no conflict whatver; the two subjects were quite distinct.

The CHAIRMAN put the draft resolution to the vote.

Decision: It was unanimously agreed to recommend to the Conference that it take note of the amendments to the Staff Rules presented by the Director.[11]

The CHAIRMAN next put to the vote the draft resolution on the question of the salary of the Director of the Pan American Sanitary Bureau submitted by the Delegate of the Kingdom of the Netherlands.

Decision: The Committee unanimously agreed to recommend to the Conference that the salary of the Director of PASB be established at $22,000 per annum, effective 1 January 1966.[12]

The CHAIRMAN suggested that Dr. Quirós present his proposal or recommendation in the form of a draft resolution, so that the meeting could vote on it.

Dr. QUIRÓS (Peru) said he had no wish to submit a draft resolution; he merely wished to record his opposition to the amendment introduced, since he considered that it discriminated against Secretariat personnel contracted outside Headquarters.

The CHAIRMAN said that in the absence of a draft resolution, the view expressed by Dr. Quirós would be placed on record in the minutes of the session.

Dr. PORTNER (Chief of Administration, PASB) then read resolution VI[13] of the 54th Meeting of the Executive Committee on the Transfer of Funds from Part V to Other Parts of the PAHO Regular Budget, since there were financial implications in the amendments proposed to the Staff Rules.

Item 19: Report on Buildings and Installations

The CHAIRMAN announced that Item 19 on buildings and installations would be introduced by Dr. Portner.

Dr. PORTNER (Chief of Administration, PASB) stated that as had been the custom in the past he would like the Chairman of the Permanent Subcommittee on Buildings and Installations to take the floor before his presentation.

Mr. BYRNES (Chairman, Permanent Subcommittee on Buildings and Installations) commended the excellent collaboration that had existed between the Subcommittee and the Secretariat and stated that the building had in fact lived up to expectations. He once again thanked the staff of the Bureau for their assistance and cooperation.

The CHAIRMAN thanked Mr. Byrnes, on behalf of all those attending the meeting, for the work done in the Subcommittee under his Chairmanship, and

[11] See thirteenth plenary session, p. 196.

[12] See thirteenth plenary session, p. 196.

[13] *Official Document PAHO* **71,** 31–32.

gave the floor to Dr. Portner, who had some further details to add on the item.

Dr. PORTNER (Chief of Administration, PASB) then presented Document CSP17/18 [14] and stated that it constituted a report on the latest developments with regard to the building. It had continued to receive high commendation, both for its esthetic appeal and for its functional utility. Work had continued throughout the first year of occupancy to correct and adjust any inadequacies in the structure, such as a change in the air conditioning distribution system, relocating control instruments affecting individual room temperature, providing adequate entrance vestibules in the main lobby, repairing or replacing items affecting the finished appearance of the building, and others.

Action had also been taken with respect to the field installations and efforts had been made to secure additional space for the Zone Offices located in Lima and Buenos Aires. Additional space had therefore been purchased for the Zone VI Office (Buenos Aires) in the amount of $20,000 and negotiations were under way for additional space for the Zone IV Office (Lima), which had been estimated at $79,000.

Since the previous report on buildings to the 54th Meeting of the Executive Committee, works of art had been received from the Governments of Barbados, Costa Rica, and Trinidad and Tobago. After due consideration of the item the Executive Committee had approved Resolution IV [15] and the Conference might therefore wish to approve a resolution as follows:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined the report of the Director (Documents CSP17/18 and CE54/7, Rev. 1) on the work done to complete the installations and services in the headquarters building and the acquisition of space to expand the Zone VI Office (Buenos Aires, Argentina), and the additional space requirements for the Zone IV Office (Lima, Peru);

Bearing in mind that, as stated in the above-mentioned report, the Governments of Argentina, Barbados, Brazil, Canada, Guatemala, Honduras, Mexico, Surinam, Trinidad and Tobago, Venezuela, and Spain, as well as the Pharmaceutical Manufacturers' Association and Mrs. Carlota M. de Inurria (of Argentina) have donated works of art for the headquarters building,

RESOLVES:

1. To take note of the report of the Director on buildings and installations (Documents CSP17/18 and CE54/7, Rev. 1).

2. To express its thanks to the Governments of Argentina, Barbados, Brazil, Canada, Guatemala, Honduras, Mexico, Surinam, Trinidad and Tobago, Venezuela, and Spain, as well as to the Pharmaceutical Manufacturers' Association and Mrs. Carlota M. de Inurria, for the works of art they have donated to the new headquarters building.

3. To take note of the additional space requirements for the Zone IV Office and to concur in the planned action of the Director to purchase a house to obtain adequate space as well as the acquisition of additional space to enlarge the Zone VI Office.

4. To request the Director to report on this matter at a future meeting of the Executive Committee, as he deems necessary.

The CHAIRMAN said that before the vote was taken, there were one or two additions to be made to the draft resolution. First of all, during the last few days immediately preceding the session, the Pan American Sanitary Bureau had received several donations intended for the headquarters building—from Chile, Peru, Haiti, and Costa Rica—and mention should be made of them in the draft. In addition, he thought it would be only fair to express thanks to Mr. Byrnes and the other members of the Permanent Subcommittee on Buildings and Installations for the excellent work they had done during the difficult period prior to the inauguration of the building. That too, he thought, should be recorded in the resolution.

Dr. ACOSTA-BORRERO (Colombia) proposed that the vote should be taken on the draft resolution with the additions arising out of the foregoing discussion, so that it would include an expression of thanks of the delegations on the points mentioned by the Chairman.

The CHAIRMAN put the draft resolution to the vote, with the additions mentioned during the discussion of the item.

Decision: The draft resolution was unanimously adopted.[16]

The session was recessed at 4:00 p.m. and resumed at 4:35 p.m.

The CHAIRMAN, before inviting discussion on Item 36, gave the floor to Mr. Byrnes.

Mr. BYRNES (United States of America) recalled

[14] See Annex 16, pp. 590–591.

[15] *Official Document PAHO* **71**, 30–31.

[16] See thirteenth plenary session, p. 196.

that during the past two years the Organization had sold two properties, had taken up ownership of the present building, and had purchased additional space for the Zone Offices. He wondered whether it would be possible for the Secretariat to prepare a report and present it to the 56th Meeting of the Executive Committee on the extent of the property owned or rented by the Organization, with an indication of the financial transactions involved, the number of employees housed in these various properties, and other details.

Dr. PORTNER (Chief of Administration, PASB) said that a listing containing the information requested would be appended to the report on buildings and installations prepared for the 56th Meeting of the Executive Committee.

The CHAIRMAN announced that Mr. Byrnes' wishes would thus be met, and the matter would be considered at the spring meeting of the Executive Committee.

Item 36: Quality Control of Pharmaceutical Preparations

The CHAIRMAN requested Dr. Cutler to present the corresponding document.

Dr. CUTLER (Deputy Director, PASB) presented Document CSP17/26 [17] and stated that the problem of the quality of pharmaceutical preparations was becoming increasingly serious. The matter had been discussed at length at the Seventeenth World Health Assembly,[18] which had called attention to the need to subject all products sold in a country, whether produced there or not, to adequate control. Attention had also been called to the need to ensure that pharmaceutical preparations exported from a country complied with the same quality standards as those applicable in the country of origin. The World Health Assembly also emphasized the need for assistance to Governments by WHO with respect to the establishment of laboratories for pharmaceutical quality control, and that such laboratories should be adequately staffed and equipped.

The WHO Expert Committee on Specifications for Pharmaceutical Preparations,[19] pointed out that the establishment of adequate facilities or extension of existing ones for the training of all levels of personnel required for the quality control and regulatory testing was of primary importance.

The Director-General of WHO had presented a report on the subject to the Eighteenth World Health Assembly, in which it was pointed out that the situation with respect to quality control throughout the world was generally unsatisfactory. In addition, the resolution [20] of the Assembly had requested the Organization to continue assisting the Governments in developing their own laboratory facilities or securing access to those of other countries.

In view of the foregoing, the Director had consulted with WHO and with the United Nations Development Program on the possibility of financing in this Region an international center or centers for the control of pharmaceutical preparations. Such a center would serve first as a training facility, provide scientific information to national control centers, and act as a communication center with respect to work in that field.

The first report [21] on the matter had been presented to the XVI Meeting of the Directing Council, which had approved Resolution XII [22] requesting the Bureau to continue studies on the possibilities of establishing international laboratories for the analysis of pharmaceutical products that might serve as reference laboratories for the Governments. Pursuant to that resolution, two experts had visited Uruguay, Brazil, Venezuela, and Panama in June-July 1966 with a view to studying the establishment of such an international center, and had examined possible patterns, available and desirable locations, and other aspects. They had also looked into the matter of manpower and had found general shortages. All the countries visited had indicated interest in the matter and Uruguay had taken official action and offered facilities for the organization of such a center. PAHO and WHO had ample experience in staffing international centers of that type and therefore participation of the international organizations was both feasible and extremely important.

The CHAIRMAN requested Dr. Hyronimus, the

[17] See Annex 14, pp. 576–578.
[18] Resolution WHA17.41. *Off. Rec. Wld Hlth Org* **135**, 18.
[19] *Wld. Hlth. Org. techn. Rep. Ser.* **307**.
[20] Resolution WHA18.36. *Off. Rec. Wld Hlth Org.* **143**, 22–23.
[21] Document CD16/19, Addendum 2, Annex 2 (mimeographed).
[22] *Official Document PAHO* **66**, 64–65.

Delegate of France, to take the Chair, so that he himself could speak as Delegate of Brazil.

Dr. Hyronimus (France) took the Chair.

Dr. HYRONIMUS (France) thanked the Committee for electing him Vice-Chairman. He then recognized the Delegate of Brazil.

Dr. FERREIRA (Brazil) said that his country's Delegation recognized the need to ensure that pharmaceutical preparations sold to the general public complied with predetermined standards and that there was adequate control; however, he felt that those objectives could be achieved by the methods used by WHO in respect of biological products: a WHO Expert Committee laid down minimum specifications for such products, and also determined which laboratories in the Member Countries should be allowed to supply samples, reference preparations, and if necessary reagents, to enable national laboratories to test products manufactured in the country and thus abide strictly by the regulations laid down by the Expert Committee.

The Brazilian Delegation was of the opinion that PAHO could adopt a similar system without prejudice to its policy of continuing to provide technical assistance for the establishment of quality control laboratories in the countries. Consequently, his Delegation would like to make the following proposals: first, that a committee should be set up to study the situation in the Region in regard to the control of pharmaceutical preparations, and that the adoption of the regulations already established by the WHO Expert Committee should be encouraged; second, that instead of having a single center, located in one particular country, reference laboratories and personnel training centers should be selected from among national laboratories already existing and adequately equipped and that such institutions should be given any financial assistance required to help them to fulfill their new functions; and third, that the efforts being made to establish national laboratories for drug control should be continued, and that such laboratories should operate in accord with the guidelines laid down by the WHO Expert Committee.

Dr. VALDIVIESO (Chile) thanked the Committee for having agreed to accede to his request for postponement of the discussion on Item 36 until this session. He recalled that the Government of Chile had requested the inclusion of a new item, but to simplify the work of the Conference he had agreed that his proposal be discussed in connection with the item on the quality control of pharmaceutical preparations. Naturally the Delegation of Chile regarded it as highly important that machinery should be available for controlling the quality of drugs for public consumption. But that was but one aspect of the over-all problem of pharmaceutical preparations. He mentioned that 20 per cent of the funds allocated for public health in Chile was spent on drugs. That meant that Chile spent more than twice as much per capita as the United Kingdom on pharmaceutical products. In the United States of America about 20 or 22 per cent were spent in this area but the figure meant little, since the average per-capita income there was $3,000 a year, whereas in Chile it was only $500, and this was significant. He was therefore anxious to bring that aspect of the matter into the discussion of the problem of quality control of pharmaceutical preparations, as one which affected not only Chileans but also other countries of the Organization.

The basic problem was to achieve equally effective therapeutic results while using fewer drugs than were available on the market. As for the price of drugs, there were enormous differences at present between one and the same drug according to where it was bought and whether or not it was protected by patents or trade marks, and at times between products which had the same therapeutic action but had different prices.

The aspect of quality control of pharmaceutical preparations was one which affected the entire world, but it was a matter of greater concern for producing countries than for importing countries, the burden of cost being on the latter. In Chile the production of biological products—antitoxins, vaccines of various kinds, etc.—was sufficient, but other types of drugs had to be imported. When it did, these were bound by registered trade marks and production patents. Obviously that meant a quality control warranty issued by the producing countries.

What was required, therefore, was a system of drug supply governed by what might be called a list of essential drugs, which must not be scarce in quantity or deficient in quality. If the cost of such preparations was to be reduced they would have to be purchased as drugs or raw materials. Once again there arose a need for quality control. In effect, transport to the country, processing of the drugs, distribution to pharmacies, and ultimate

consumption, constituted a series of stages that could cause deterioration in quality. For that reason the Chilean Delegation shared the view of the Delegate of Brazil that it was essential to improve and perfect the existing systems of quality control.

It might well happen that for certain countries there was a shortage of skilled personnel or of facilities for carrying out the control. In such circumstances the cooperation of the international community might be extremely important. Therefore, he felt that the policy of the Organization should be directed toward the training of personnel and the equipping of laboratories for the control of drugs and foodstuffs in the individual countries. Subsequently, that policy could be linked up with another, designed to achieve a more rational use of drugs in all countries, but especially in those where resources were invariably insufficient to meet the needs that arose.

What was happening in Chile was not unlike what was being done in Australia in that respect. Corresponding to the Australian national list of pharmaceutical preparations was what was called in Chile the "national schedule of drugs." State medicine in Chile reached 60 per cent of the population; hence it would be easy for the Ministry of Health to decide which drugs should be included in the schedule and which excluded from it. That seemed to him the first step, and a distinctly important one, in the search for a more rational use of drugs aimed fundamentally at maintaining their efficacy, ensuring adequate quantities of all basic medical supplies, and reducing considerably the cost of therapeutic preparations. Naturally the national schedule system would not be a periodically revised list of the drugs regarded as essential; to that should be added a policy of industrializing to the greatest possible extent the pharmaceutical forms of drugs. That would make for a considerable reduction in the unnecessarily high expenditure on drugs currently incurred by hospitals in his country.

He believed, too, that it would have the further beneficial effect of getting rid of a large number of medicinal preparations that were still to be found, for no good reason, in hospital dispensaries. He cited a number of preparations belonging more properly to the history of medicine, yet still found in clinics and hospitals. Clearly, the target to be aimed at was drugs that were both adequate in quality and more economical; and he urged that every effort be made to bring the scheme for establishing quality control laboratories to fruition.

The CHAIRMAN thanked the Delegate of Chile for his statement and recognized the Delegate of Uruguay.

Dr. PAREJA PIÑEYRO (Uruguay) said that on the whole he was in agreement with the speakers who had preceded him. Uruguay had studied the problem and welcomed the idea of setting up a laboratory for quality control of pharmaceutical preparations, in support of the project proposed by the Pan American Health Organization. His country felt that if the proposed laboratory were set up in Uruguay, technical skills could be developed and improved, and a type of personnel could be trained so that in due course, with the collaboration of PAHO, the laboratory could be converted into a regional institution. He recalled that both the Government and the Ministry of Public Health had shown interest in the establishment of the laboratory in Uruguay, and read the following resolution of the Uruguyan Council of Government:

Considering that by resolution of the Executive dated 3 February of the present year it was resolved to express the hope of the Government of the Republic that the International Center for Quality Control of Pharmaceutical Preparations for South America, which the Pan American Sanitary Bureau was proposing to set up, would have its headquarters in Uruguay; considering that the Ministries of Health and Foreign Affairs were entrusted with the task of transmitting the views of the Government on the matter to the health organizations, national and international, and that likewise the Ministry of Health was instructed to continue its studies with a view to acquiring the resources needed for the installation of such a Center in the country; considering that the Council of the School of Chemistry in a meeting of 3 March last took note of the resolution and resolved to take active measures to collaborate in the project, offering in advance to provide any assistance deemed desirable; trusting that the Ministry of Health has a piece of land available within the compound now occupied by the Fermín Ferreira Hospital, 10,000 m² in area, where the proposed International Center for Quality Control of Pharmaceutical Preparations for South America could be built, subject to adequate technical advice; considering that the national authorities and the most outstanding experts on such matters are of the opinion that the establishment of the reference center in question in Uruguay would be an event of immense significance in improving the control of pharmaceutical preparations, as would be its repercussions in the medical, educational, and economic fields, and a symbol of great international prestige; the National Council of Government resolves:

1. To notify the Pan American Sanitary Bureau that the Uruguayan Government is prepared to make avail-

able a piece of land within the compound now occupied by the Fermín Ferreira Hospital, 10,000 m² in area, sufficient for the installation of the International Center for Quality Control of Pharmaceutical Preparations in South America.

Signed by the President of the Council of Government, the Minister of Health and the Secretary.

Dr. MONTALVÁN (Ecuador), said that the point he had wished to make had already been expressed by the Delegates of Brazil and Chile. He thought that for health purposes generally, national laboratories such as were at present being organized would be much more effective than the international center which had been proposed for some time. It seemed to him preferable to encourage the development of the reference laboratories already existing in Latin America. Apart from the problem of international trade in pharmaceutical preparations, there was of course the problem of the domestic control of drug production. As he had pointed out on another occasion, certificates of origin were a prior guarantee of the purity of preparations; he therefore shared the view of the Brazilian Delegate that instead of setting up a Latin American laboratory it would be preferable to give encouragement to national laboratories.

Dr. ROJAS OCHOA (Cuba) said that the views of the Cuban Delegation coincided with those expressed by the Delegates of Brazil and Ecuador. He believed that Governments ought to have a hand in solving such problems. The statement by the Delegate of Chile, although it did not refer specifically to the item under discussion, was an inseparable aspect of control of drugs available to the general public. His statement seemed to cover every aspect of the matter, and all he would like to do was to signify his endorsement of the views thus expressed. He felt that the policy adopted by Cuba with a view to solving the problem was the correct one. The task of drawing up a national schedule of drugs, listing the names of preparations for consumption by the general public, was a matter of the highest authority of the State—in the case in point, the Ministry of Health. It was likewise the Governments which should decide what drugs should be sold to the public. The Delegate of Chile had raised another very important question: that of cost. He agreed with the Chilean Delegation that once the State was directly involved in the national production of drugs as well as in importing, much cheaper retail prices could be obtained than under a system of free competition among commercial firms.

Dr. FRAZER (United Kingdom) stated that from the point of view of the territories in the Hemisphere, they were so small that they were not and never would be in a position to set up any form of local laboratory control. He favored the idea of the service that could be provided in the form of lists, exchange of information, references, etc., that would enable everyone to find out whether certain drugs were of the standard required.

Dr. BLOOD (United States of America) felt certain that no country was exempt from concern with the problem of quality control of pharmaceutical products. However, he believed that the same terminology was not being used by all. To some it meant obtaining samples of a finished product and sending them to a laboratory to determine whether they met specifications. To others it meant systematic surveillance and testing that began with the raw materials and continued throughout the entire manufacture and handling of a given pharmaceutical until it reached the consumer.

The CHAIRMAN, apologizing for interrupting the speaker, said he would like to remind the delegates that the official presentation of a picture donated by the Delegation of Haiti was about to take place in Room A.

The session was recessed at 5:45 p. m. and resumed at 6:05 p.m.

The CHAIRMAN said that the Delegate of the United States of America had agreed to postpone the end of his statement until the following day. He suggested that a working party be established, composed of the Delegates of Argentina, Brazil, Chile, and the United States of America to clarify the complexities of the item under discussion.

Dr. Cutler had informed him that the Director-General of WHO had expressed a desire to attend the discussion on Item 30; he therefore proposed that the item should be taken up at the meeting to be held at 2:30 p.m. the following day. The current discussion would be resumed the following day at 9:00 a. m.

Dr. PAREJA PIÑEYRO (Uruguay) speaking on a point of order, said he believed that the Chairman had mentioned setting up a working party, and he would like to know whether it would examine the problem on the following day.

The CHAIRMAN said he was under the impression that the Committee had agreed that the working party should be established.

Dr. PAREJA PIÑEYRO (Uruguay) said he did not think the Committee had given its approval, and he would like to propose Uruguay as a member of the working party.

The CHAIRMAN asked whether the Delegates were agreed that the working party should be constituted as follows: Argentina, Brazil, Chile, the United States of America, and Uruguay.

It was so agreed.

The session rose at 6:10 p. m.

THIRD SESSION

Wednesday, 5 October 1966, at 9:15 a.m.

Chairman: Dr. RAYMOND G. HYRONIMUS (France)

Later: Dr. MANOEL JOSÉ FERREIRA (Brazil)

Item 36: Quality Control of Pharmaceutical Preparations (*continuation*)

The CHAIRMAN, opening the session, said that the discussion would begin with Item 36. The item could be regarded from several angles: first, there was control of the quality of the drugs themselves; secondly, there were the customs formalities involved; and finally there was the question of preparing schedules of drugs—in his opinion a matter for the Governments of the various countries.

Dr. BLOOD (United States of America) continued his comments begun at the previous session and stated that there was concern with the problem, not only in the Americas but throughout the world, and that there might be some difference in the way the terminology of quality control was being used. To some it meant withdrawing a sample of a given lot to test and see whether it contained what was stated on the label and in the amount specified. To others it started with the raw products and went through the entire process, including supervision in the plant, until the product was delivered to the consumer. He cited the similarity of that particular problem to milk control, which was originally a matter of collecting samples and testing them for the amount of butter fat, specific gravity, and absence of sediment, but which currently started at the farm and followed milk through thorough controls and testing until delivered.

Control was therefore a local and national problem and could not be solved internationally. Each country should have its own regulations supported by law, with a staff of inspectors to enforce the law, and no international organization could practice quality control of pharmaceutical products for each country.

The Government of the United States of America and its agencies would support any training activities that might be devised for that purpose. Eventually there might be a need for reference services and checktesting where national laboratories could have their procedures and products tested, which was another area in which the international agencies could work. The Pan American Health Organization could also assist the countries in making cooperative arrangements, such as that which exists in Panama, whereby a laboratory provides a service of testing pharmaceutical preparations for the other countries of the Central American area.

Dr. Blood reiterated the interest of his country's Government and agencies in the problem and offered their full collaboration to the Organization in attempting to improve quality control of pharmaceutical products in the Americas.

Dr. OLGUÍN (Argentina) said that quality control of drugs was a subject of the utmost importance, and his own country was intensely interested in it. It was a matter of national and international concern alike, since drugs were a basic factor in medical treatment, and in regard not only to quality as such

but to the commercial aspect and the possibility of their use by the general public, it was essential to lay down adequate therapeutic standards conforming to suitable principles of uniform quality and efficacy. In that respect the situation in Latin America was quite difficult, since centers suitable for carrying out quality control were non-existent, and there was an acute shortage of trained analytical chemists. Partly as a result of those two factors, drug control, at the local, national, and international level, left much to be desired and called for the adoption of drastic measures.

He agreed with the Delegate of the United States of America as to the desirability of having national quality control centers, since control of quality at the source was a matter for the individual countries concerned. But in view of the acute need to train personnel and exchange information, the idea of an international reference center was a matter of great importance. That had been urged time and time again in the past, not only within the Hemisphere but also at meetings of WHO, in repeated resolutions adopted from the Seventeenth World Health Assembly onward. The delegations of the Hemisphere countries taking part in such meetings had expressed views in keeping with those mentioned above. As far as the Pan American Sanitary Bureau was concerned, it had adopted a series of measures as a result of which definite budgetary allocations had been made for assistance to countries in that sphere. To give an example, Argentina was receiving technical advice on how best to proceed in setting up its center for the control of pharmaceutical and biological products. He commended the study carried out by Dr. C. A. Morrell on the problem in the Americas, as well as the work of the experts who had visited Latin American countries to study the question of establishing an international reference center; and he regarded the Uruguayan Government's definite offer of facilities for the establishment of such a center as of the utmost importance.

For all those reasons, the Argentine Delegation considered it both important and necessary that there should be national centers as well as technical, and indeed economic, collaboration between the Pan American Sanitary Bureau and Governments. At the same time careful attention should be given to the desirability of an institution to be used for the educational training of personnel, especially analytical chemists, and also as a center for furnishing scientific advice and information to national control centers and a reference laboratory for use in the control of drugs.

Dr. González Torres (Paraguay) agreed that each individual country should be responsible for the control of pharmaceutical preparations used within its frontiers; but he pointed out that not all the countries of the Americas had the necessary installations, adequate personnel, or economic resources to maintain such centers. In the past, the situation had been even more serious, since in some countries which produced drugs, or the raw materials for their production, pharmaceutical preparations intended for domestic consumption had to satisfy conditions more rigorous than those required for preparations intended for export. PAHO and WHO had approached Governments in an effort to ensure that the requirements laid down for domestic consumption would apply with the same rigor to products intended for export. For example, Paraguay had to rely on the honesty of the declaration made by the manufacturers of raw materials in the United States of America, Germany, Japan, France, and other countries. But more than once it had been found that drugs did not conform to what was indicated in the printed literature accompanying them, or that what was sent was not the pure product; in short, there would be small faults to find in regard to quality, weight, price, etc., which affected the economy and health. Consequently, as one of the Latin American countries lacking the necessary resources for the establishment of a drug control center, Paraguay warmly welcomed the idea of setting up a center of that kind for the Region or the Hemisphere.

Dr. Santa María (Chile), referring to the statement by the Delegate of the United States of America, thought that the analogy drawn between quality control of drugs and control of the quality of milk was very much to the point. In the countries of the Americas, "milk" arrived ready packaged, with sheaves of worthless publicity material, and channeled through special drug departments geared to the developing countries. He agreed with the Delegate of Paraguay concerning the honesty and the scientific scruples of the big firms. Nobody suspected that they supplied cyanide instead of vitamin C.

But there were many ways of looking at quality and what was disquieting was the enormous quantity of useless material; the quality of a drug was

reflected not only in its strict compliance with the chemical formula but in its medical usefulness, and quality control should apply there too. Chemical quality was one thing and therapeutic quality another, not forgetting that both were linked with the question of price. How to combine maximum therapeutic value with minimum prices was a perennial problem. While the Delegate of the United States of America had stated that each country should set up its own quality control arrangements, at a time when the world was growing smaller and smaller and national frontiers were becoming blurred from the medical point of view, it would not contradict the principle of integration for the quality control laboratory to be located anywhere in the Americas. The United States Food and Drug Administration was located in the State of Maryland, yet served a vast number of countries. As a matter of fact, following the principle that anything in America was American, i.e., that it belonged to countries which, if not entirely united, endeavored to give one another mutual help, the proposed Center should not be called "International" but "American," with headquarters in Uruguay as proposed.

With regard to the problem of quality as such, two aspects should be distinguished: control of biological products and that of chemicals, since the two groups were entirely different. He therefore agreed with the Delegate of Paraguay that, in the interests of satisfactory quality standards, producers of therapeutic raw materials should be bound by the same controls as producers of raw materials for industry. He realized that that might be considered as running counter to the notion of free enterprise and free competition, but in medical matters what was needed was not unrestrained free competition, but rather technical competition in producing cheaper and more efficacious drugs.

Referring to the desirability of widening the scope of the subject under discussion, he said that the Chilean Delegation would like to see embodied in the resolution as finally adopted the text of the resolution appearing in Document CSP17/31,[1] the operative part of which read as follows: "To request the Director of the Bureau to examine, by appropriate means, the problem of the supply of generic drugs and pharmaceutical preparations so as to obtain a better technical and social return from the resources invested in them; to request the Director to service the request for technical assistance submitted by Member Countries for standardizing their present systems for the supply and control of medicaments; to request the Director of the Bureau to establish machinery for informing Member Governments about matters of drug policy and regulation; on new products of proven utility; and, in general, on progress in theoretical and applied pharmacology; and to recommend that appropriate machinery be established in this field to ensure the coordination of the activities of the Organization in this field and those of international and government agencies, both in the Hemisphere and elsewhere."

Dr. Frazer (United Kingdom) stated that it would be ideal if there could be adequate protection against poor quality of imported products. However, drugs exported by some countries were not of the same quality as others and some of the smaller nations found it difficult to purchase them, to the point where they bought less expensive drugs that might not be of adequate quality. Without adequate drugs the smaller countries might have to resort to hospital treatment for patients, which might prove more expensive in the long-run. It was therefore to be hoped that the smaller countries could benefit from a drug control center in the Americas where they could obtain information on the drugs they purchased at a cheaper price.

Dr. Ferreira (Brazil) thought he should give some explanation regarding his Delegation's stand in the matter. Two aspects of the question had been considered, the first was general, namely drug control, the preparation of drugs, their necessity, and principles; and the second was specific, namely the establishment of an international laboratory in Uruguay. He added that Brazil had no objection whatever to the laboratory being established in Uruguay, since the findings of two eminent experts, Dr. George P. Larrick and Dr. Solón N. Suárez pointed in that direction. In any case, an international institution must not be bound up too closely with any particular country, whatever its actual location. International institutes such as the Institute of Nutrition of Central America and Panama in Guatemala, the Pan American Foot-and-Mouth Disease Center in Brazil, and the Pan American Zoonoses Center in Argentina, had been transformed into international institutes once they had demonstrated their capacity to act as such. For that reason, in the view of the Brazilian Delegation, if drug con-

[1] Mimeographed document.

trol laboratories existed in a number of countries it would be advisable to wait a while before deciding which of the various institutes seemed best suited for conversion into the international reference laboratory which was so badly needed, rather than to hand over the task to a particular laboratory from the outset.

Dr. BLOOD (United States of America) clarified that he did not wish his earlier remarks to be interpreted that the Delegation of his country was opposed to an international or Pan American center. He felt that it was a matter of learning to walk before running. International centers could not possibly carry out those activities without national programs, nor could they accomplish what the countries themselves should do. It was extremely important to assist in training since a program of that type would not be useful unless there was a properly trained staff to apply the knowledge available.

In view of budgetary limitations within the Organization, he felt that the first priority should be assigned to training, the second should be in the form of assistance to countries where special testing services were required, and the third should be directed toward strengthening national services until such time as each country could apply the knowledge the international center might provide. That center might be a future requirement, but was not considered to be a first priority at that time.

Dr. PAREJA PIÑEYRO (Uruguay) said that, in response to the survey carried out pursuant to the resolutions passed by the World Health Assembly and the Directing Council of the Pan American Health Organization, his country had very naturally been anxious to contribute to the establishment of a laboratory which in due course, with the Organization acting in an advisory capacity and with the collaboration of technical experts, might come to be recognized, once the necessary preliminary stages had been passed, as the Latin American control laboratory. Uruguay had made a concrete offer and had demonstrated its interest in the matter by inviting the country and its experts to put forth an all-out effort to help to achieve the goal of a great reference center. The problem of furnishing advice on drug control to national laboratories was a matter of the utmost importance, and the Organization was the obvious body to solve it effectively as far as pharmaceutical preparations produced in the individual countries were concerned. In conclusion, he reiterated his country's offer and its sincerity in the matter.

Dr. CUTLER (Deputy Director, PASB) requested that Dr. Pedro N. Acha, PASB Regional Adviser, inform the Committee with reference to his experience in that field and give additional information on the item.

Dr. ACHA (Regional Adviser on Veterinary Medicine, PASB) said he would like to supplement the information given on the Organization's activities in that field. He described how the idea had arisen of setting up international centers, possibly to be called international reference centers. In 1965 the Twenty-First Report of the WHO Expert Committee on Specifications for Pharmaceutical Preparations had been published. The Expert Committee had been in existence for nearly 15 years; it had carried out a series of studies, and had collaborated in the publication of the *International Pharmacopoeia,* the second edition of which, containing over 555 basic pharmaceutical preparations used in a variety of medical products, was to appear at the end of 1966.

The Expert Committee's studies, together with the survey made by the World Health Organization and submitted to the Nineteenth World Health Assembly (May 1966), showed basically that the problem affected the whole world and created a serious situation, both for exporting and for importing countries. The lack of legislation was perhaps the most serious drawback for the importing country, and in some instances even for the exporting country whose products were not subject to the legislation of the former for exporting purposes. It was clear that in many instances drugs in the raw state sold on the market did not come from the so-called exporting country, but from several countries; he cited a case which had occurred in Canada, where an antibiotic produced in Italy was sold in Spain, found its way to Portugal, from there to a firm in England, and ultimately reached Canada.

The inability of national laboratories to control exports was self-evident. Very few countries had laboratories sufficiently equipped or staffed with the analytical chemists needed to carry out quality control of pharmaceutical preparations satisfactorily. In the majority of the Latin American countries drugs were accepted with a so-called unrestricted sale certificate granted in the exporting country, often by the health authorities. The certificate indicated that the product was registered in the

country, but it did not certify that the product contained in the particular consignment for export complied with the quality conditions required there.

PAHO had been working for many years in that field in collaboration with the various countries by sponsoring specific projects, by providing consultant services, and by granting large numbers of fellowships. Incidentally, he would like to thank the Delegate of the United States of America for the generous cooperation given by the Food and Drug Administration of his country in regard to the training of personnel, and the Observer of Canada for the facilities provided in the same field and the services of experts who had acted as consultants of the Organization. PAHO had been collaborating with the individual countries, providing them with technical information and putting them in touch with the World Health Organization's International Reference Center for Chemical Substances, located in Stockholm, Sweden.

The Center in question provided countries, at their request, with drugs and the necessary chemical formulas for production and testing at the national level. Nevertheless, it was clear from the study submitted by the Director-General that progress was not as rapid as the countries needed, and that while it was necessary to strengthen national laboratories, as pointed out in Document A19/P&B/5 [2] of the Nineteenth World Health Assembly, there was also a need to study, in conjunction with the United Nations Development Program, the possibility of establishing international reference centers for quality control for pharmaceutical products which would furnish assistance to countries in the training of personnel and the analysis of drugs, acting as a reference service. The matter had been discussed at the above-mentioned Assembly, and as a result, PAHO, bearing in mind what the XVI Directing Council Meeting had recommended [3] the year before, had carried out a survey in four countries of the Hemisphere and was still collaborating on that subject with countries which had requested assistance.

It had been felt that the proposed international center might be located in one of the South American countries, in view of the experience with the Drug Control Laboratory of the Government of Panama, located at the University, which for the past two years had been acting as a reference laboratory for the Central American countries. The last report submitted to the XI Meeting of Ministers of Public Health of Central America and Panama [4] in August mentioned that the Laboratory had undertaken over 100 analyses for the Central American countries, which used it both for analysis when a drug was registered in a particular country and for the analysis of drugs submitted to ministries in cases, for example, of bidding in connection with large-scale purchases.

There were many instances in which the usefulness of the reference service had been demonstrated. The Minister of Public Health and Welfare of El Salvador had cited the case of purchase of an antibiotic where his Government had saved almost 60 per cent of the cost on discovering, thanks to the report of the reference laboratory, that the quality of the drug offered at the cheaper price was just as good as that of the higher-priced article. The Panama Laboratory was also being used for training analytical chemists from the laboratories of the Central American countries.

Analysis for drug control purposes demanded that the qualifications and competence of the analytical chemist should be excellent as far as the handling of instruments was concerned. One of the main problems facing PAHO in the light of requests from countries concerning the training of personnel had been the fact that the only places where training was available were in English-speaking countries, or at any rate where a language other than that of the persons concerned was spoken. That was in itself a fundamental disadvantage which had prevented awarding a number of fellowships. One of the basic premises of an international center of the type being considered was training, since what the majority of countries required was skilled personnel to man the service units. That was the experience in Central America today, where thanks to the analytical chemists already trained in the Panama Laboratory, the reference laboratory was constantly furnishing analyses to national laboratories, and would continue to do so until they were self-sufficient. Reference services, as such, were useful not only to the testing laboratories of ministries of health, but also to the pharmaceutical industries of countries lacking an institution able to give them guidance.

In accordance with the foregoing, as stipulated

[2] Mimeographed document.

[3] Resolution XII. *Official Document PAHO* **66,** 64–65.

[4] Mimeographed document.

in the program and budget document[5] the Organization intended over the next three years to carry out the regional food and drug control program designed to advise all the countries in regard to consultants, fellowships, supplies and equipment, as well as on specific projects. The latter included program AMRO-4703 for Central America, under which that region would be provided with funds for personnel, fellowships, and other necessary expenditures. Thus it had been possible to set up a magnificent program which, although limited in scope, was extremely useful.

The Organization felt that the suggestion presented by the delegates regarding the establishment of a training and reference center was of the utmost importance, not only in itself but for the development of the Organization's own program.

Dr. CUTLER (Deputy Director, PASB) after hearing the comments made during the discussion, stated that it had become obvious that there were needs at several levels: first, for proper types of laboratory and testing facilities at the level of each country, and, second, training of personnel to staff the national laboratories. Mention had been made of the contributions of several countries in training, but because of the magnitude of the manpower problem and language barriers, it was necessary to develop additional training facilities.

In the Americas there was a growing attempt within the Inter-American System to develop free trade arrangements. Those had been successful in Central America, as demonstrated by the Common Market through agreements with the Governments concerned. The Drug Control Laboratory in Panama was an example of collaboration among the various national laboratories. An international laboratory could cooperate with the other elements of the Inter-American System in providing assurance that the testing done in one laboratory was acceptable to other countries and would thus contribute to the promotion and growth of trade within the Americas.

As for the participation of PAHO as the health service agency, in the programs for social and economic development in the Americas, centers of the type mentioned were related to the economic planning that was being carried out. There were, then, needs at the national level for the strengthening of national services, and at the international or inter-country level, for the development of proper training facilities required.

As for location and financing, Dr. Cutler stated that it was necessary to have the interest and support of the Governments and the Governing Bodies and to seek resources, for example, from the United Nations Development Program, for any center or centers that might be established. In that connection, it was important for the Director to have the freedom to work with both the Governments and international sources of financing in order to attempt to obtain the necessary funds for one or more centers. The one in Panama was an expanding one that would require further support and assistance. The magnitude of the quality control problem was such that it was desirable to think in terms of growing needs and of the requirements to meet those needs.

Item 26: Training of Auxiliary Personnel

The CHAIRMAN said that Dr. Carlos Díaz-Coller would introduce agenda Item 26.

Dr. DÍAZ-COLLER (Chief, Professional Education Branch, PASB) presented Document CSP17/8[6] and said that in the face of the need for the rational organization of human resources in regard to health, it was clear that in Latin America there were not enough technicians and facilities in the majority of the countries to cover the entire Region adequately and to cope with the problems arising out of the growth of the population. There were rural areas in the Hemisphere which had no health services whatsoever. Hence the interest of the Governing Bodies of the Pan American Health Organization in studying the problem of the education and training of the various grades of nonprofessional health workers, i.e., technicians and auxiliary workers. An increasing number of such personnel would need to be provided in order to cope with present and future demand.

At earlier meetings of its Governing Bodies the Organization had been asked to strengthen its collaboration and to carry out studies and hold meetings of experts with a view to determining the measures aimed at procuring and utilizing the auxiliary personnel required. Pursuant to the recommendations of the 50th Meeting of the Executive Committee[7] and the XV Meeting of the Di-

[5] *Official Document PAHO* **67**, 75.

[6] See Annex 5, pp. 515–521.

[7] Resolution X. *Official Document PAHO* **60**, 226–227.

recting Council,[8] the Director had appointed Dr. Branko Kesić, Dean of "Andrija Stampar" School of Public Health, Zagreb, Yugoslavia, for the purpose of visiting a number of countries, including Brazil, El Salvador, Mexico, Peru, and Venezuela and drawing up a report on the training and utilization of auxiliary personnel to serve as a basis for discussion by a Study Group which subsequently met in Mexico City from 27 March to 1 April 1966.

In addition to the above mentioned report and earlier WHO documents the Study Group, consisting of the persons mentioned in the working document, had considered the matter at great length and had drawn up the report being presented to the Conference.[9] First it gave a general picture of the Latin American countries, with special reference to the population increase and the consequent rising trend of very young populations, with 45 per cent of the inhabitants in the age group 0–14 years and only about 3 per cent in the age group 65 years and above.

It was felt that the main problem in regard to the solution of health problems was the rapid migration of the rural population to the cities, bringing socioeconomic and educational disorders which had a direct effect on health. The fact that the rural population was scattered over wide areas, and that communications were difficult was regarded as a factor which also deserved consideration in relation with the problem. Another socioeconomic factor affecting the Latin American countries was the high degree of illiteracy (in some countries as high as 50 per cent). The low level of national income, ranging from $117 and $585 per capita, was further aggravated by the unequal distribution of national wealth.

Among other health problems, communicable diseases, especially infectious and parasitic diseases of the gastrointestinal tract, tuberculosis, and sanitation still had top priority, although rapid urbanization was creating the same health problems as occurred in developed countries—cardiovascular diseases, accidents, etc. The Study Group had come to the conclusion that there was a vitally important positive factor in dealing with those problems, namely the fact that all the Latin American Governments acted on the principle of the full responsibility of the State for the people's health.

Fully trained health workers were too few in number to cope with the situation, and the problem was aggravated by the fact that many auxiliary health workers had no training whatever. It was also felt that the distribution of health personnel was uneven and created an extremely unfavorable situation.

It was felt that the definition proposed by the United Nations Administrative Committee on Coordination should be modified so as to introduce the idea of special training, the amended definition would thus read as follows: "An auxiliary worker is a paid member of the health team with less than full professional qualifications who has been specially trained to assume defined responsibilities under the direction and supervision of the professional worker in the same field."

The Study Group had considered that it was essential to set forth clearly its point of view about the work of auxiliary personnel in the health field. The essential framework for the use of auxiliary personnel was an organized health service which provided continuing opportunities for training, supervision, and a system for referral of cases.

The Study Group had been convinced that it was advisable to have that doctrinal principle firmly laid down, since in recent years there had been a tendency, due to the extremely serious situation in the medical care field in many Latin American countries, to assume that auxiliary personnel could work independently or as substitutes. *On the contrary, auxiliary personnel were part of the health team and not substitutes for other members of the team.*

The Study Group had pointed out that auxiliary health personnel included the auxiliary personnel of professional workers that concerned themselves with health, other than physicians, such as dentists, nurses, pharmacists, veterinarians, statisticians, engineers, and health educators, as well as the auxiliary personnel of certain medical specialties which had become differentiated, such as various types of laboratory workers and various types of rehabilitation workers.

An organized health service was felt to be the *sine qua non* for the employment of auxiliary personnel. In the working document prepared for the meeting, Dr. Kesić stated: "The health center, with its health subcenters and stations, represents, from the standpoint of health administration, the only health unit responsible for the total health of the people of a certain region. The activities of such a

[8] Resolution XXIX. *Official Document PAHO* **58,** 81–82.
[9] See Appendix to Annex 5, pp. 515–521.

health center, its subcenters, and stations should be based on the principles of integrated medicine. The center should approach all health problems, no matter whether they relate to the individual, the family, or the community as a whole, from the curative, preventive, and social points of view."

Schools of public health, where they existed, should be responsible for training the teaching staff of the courses, in collaboration with local educational institutions. The report discussed the characteristics and nature of the courses to be followed, and the selection of instructors and students. Further on there was some discussion of the number of personnel needed, and the Study Group pointed out that it was not advisable to try to apply ratios for professional personnel, auxiliary personnel and population served, as had been done in developed countries in the health field.

Finally, Dr. Díaz-Coller said that the Study Group's conclusions stressed that the training of health personnel was a major priority for Latin America; that organized health services were an essential factor in the use of auxiliary workers; and that in-service practice and field work was very important in training auxiliaries. The conclusions emphasized the necessity for a clear definition of the functions of auxiliaries through the preparation of manuals, and the importance of the selection of students. The report suggested that the planning and training of auxiliary personnel should be the responsibility of the ministry of health, through a coordinating agency representing the various public or private institutions which trained that type of personnel, and that the ministry should be responsible for the award of certificates and the registration of such personnel.

In conclusion, he said that the Pan American Sanitary Bureau had already held preliminary talks with a number of directors of schools of public health on the subject of collaboration by the Organization in the training of teaching staff for work with auxiliaries; and he mentioned that some of the schools of public health were already programming courses for teachers of that type.

The session was suspended at 10:25 a.m. and resumed at 10:45 a.m.

Dr. Ferreira (Brazil) took the Chair.

Dr. Olguín (Argentina) said that the item, presented so comprehensively and in such detail by Dr. Díaz-Coller, was a matter of the utmost importance for Latin America. In view of the shortage of personnel, the training of auxiliary staff played a prominent role and could prove extremely useful, especially if the teaching was of high quality, if it could be imparted in the form of in-service training, and if the personnel involved carried out their duties within the normal structure of the health services. That had always been the Argentine view, and after a number of years of experience with such programs, he could testify that the results achieved were highly satisfactory. A great many services in his country, hospitals and medical care establishments, had auxiliary personnel, who performed an essential function very efficiently. The consequence was that requests were constantly being received from private and official institutions interested in procuring the services of that type of personnel.

In Argentina, medical care establishments, public and private, came under a variety of departments and agencies, but the ministry responsible for the training programs vigorously supported the desire on the part of the various bodies—provinces, universities, and even municipalities—to become part of the general program for the training of nursing auxiliaries.

He had mentioned nursing as an example of a program being carried out in Argentina, but attention should also be given to the training of health inspectors, a category currently of particular importance, when health programs were being intensified, and rural water supply programs were under way, as well as other schemes designed to improve the well-being of the rural community. One of the most vital needs was for administrative and legal provisions ensuring proper recognition of the training of auxiliary personnel and assigning them their rightful place within the administrative structure.

In his opinion, the collaboration of the Pan American Sanitary Bureau on a continuing basis in regard to personnel training was vital to its success.

Dr. Hyronimus (France) said that the problem under discussion was of great importance, since there was a shortage of properly trained personnel in the majority of hospitals and similar institutions in practically every country in the world. With regard to graduate nurses and nursing auxiliaries, he felt that the proper proportion of each category should be determined. Naturally, the proportion would differ according to the service. In any event, auxiliary personnel should have sufficient training to enable them to perform specific kinds of duties and thus relieve the graduate nurses of certain tasks.

He also thought it essential that personnel should be trained for work in specialized fields such as radiology and laboratory techniques. Finally, there was a call for training a type of personnel becoming more and more indispensable, namely, sanitary engineers and assistants in that field, in subjects which were not always taught in schools of engineering, i.e., sanitary techniques in relation to public health.

Dr. PAREJA PIÑEYRO (Uruguay) said that the problem of auxiliary personnel was of great importance for his own country, and their training had to be improved. He agreed that there must be different categories of personnel, but the problem under discussion was that of auxiliary personnel. The question must also be asked: who was to be responsible for the training of auxiliaries? In his own country the Ministry of Public Health and to some extent the university hospital of the School of Medicine looked after the training of auxiliary personnel, whereas instruction to technical and professional workers was given in the School itself. In addition to the Ministry of Public Health, a number of private and semi-official bodies provided training for auxiliary personnel, although there was still no coordination, a matter which should be handled by the Ministry as being the logical body to undertake the responsibility for supervision of teaching, curriculum, registration of diplomas, etc. If that were the case, full advantage would be taken of the achievements of all the institutions involved. He therefore entirely endorsed the importance given by the report to coordination.

Another matter he regarded as fundamental was that there should be a school of hygiene or public health. He was convinced that there was a lack of technicians trained in public health administration such as should be at the head of public health services, and he thought that encouragement should be given to the establishment of schools of public health in countries where they did not yet exist. Such schools would train personnel for the technical services, and their knowledge would in turn help to provide better training for auxiliary personnel. They would also turn out teachers for training technicians at the intermediate and auxiliary levels. In conclusion, he stressed the desirability of the higher technical personnel at schools of public health being full-time faculty members.

Dr. MERRILL (United States of America) stated that his Delegation had studied the report with much interest and was particularly pleased with the definition presented. Auxiliary personnel were used extensively in the United States of America, but problems had arisen with reference to defining their functions and in providing the supervision necessary to enable them to carry out their outlined functions in an acceptable manner.

Another point mentioned in the report was the role of the supervisor of the auxiliary personnel. He felt that a method should be devised whereby the supervisor could participate in some phases of auxiliary training, in order to obtain a better understanding of the capabilities and type of training they had actually received, which would in turn make for better supervision.

As for the minimum requirements for admission of candidates, the Study Group had very aptly indicated that they had to be varied because of requirements in each particular country or area. There should, however, be a standard and those falling below that standard should not be accepted.

In connection with present trends in the United States of America, four priorities had been established with reference to activities of the Agency for International Development (AID) and in planning for its bilateral programs. The first related to health manpower development, since AID was particularly interested in participating in institutional development in the countries where projects were being carried out. The second priority was in the field of nutrition, particularly that of the preschool child. The third related to demography and the entire field of population, and the fourth concerned disease control, which was a continuation of the emphasis placed on malaria, with expanding emphasis and interest in measles and water supply, particularly from the standpoint of enteric diseases. All those programs depended on the provision of adequate health manpower to undertake the work, which was why the training of auxiliary personnel was an important element in planning for and carrying out health programs.

Dr. CUTLER (Deputy Director, PASB) made two announcements, one referred to the working party on quality control of pharmaceutical preparations which was to meet in his office for the purpose of reviewing the draft resolution and report, and the other to the report on agenda Item 22.

The session rose at 11:15 a.m.

FOURTH SESSION

Wednesday, 5 October 1966, at 2:30 p.m.

Chairman: Dr. Manoel José Ferreira (Brazil)

Item 26: Training of Auxiliary Personnel (*conclusion*)

The Chairman opened the meeting and stated that the discussion would continue on Item 26. He then recognized Dr. Scorzelli, of Brazil.

Dr. Scorzelli (Brazil) said he would like to mention one or two aspects of Brazil's experience in training auxiliary personnel that might perhaps be of interest to other Latin American countries. In his country there were two distinct grades of auxiliary personnel: intermediate and elementary, and the health sector generally was subdivided into two groups—public health and medical care activities.

The Brazilian National School of Public Health, attached to the Ministry of Health, supervised the training of technical specialists and intermediate auxiliaries only, but the training of auxiliary personnel at the elementary level was left in the hands of the agencies interested in employing such personnel. There were two types of intermediate personnel which could be described in general terms: sanitary inspectors, and female health visitors. Both were trained on the basis of elementary schooling to the level of the first cycle of the secondary course, with six months of intensive instruction and training in public health. Sanitary inspectors worked under the supervision of sanitary engineers, and they were employed mainly on educational and guidance work. The work of the health visitors was to bridge the gap between the health unit and the home, and they operated in teams under the direction of public health nurses. Thus, neither category took the place of the professional workers in their particular field, i.e., the sanitary engineer or the public health nurse. Indeed the system represented only a partial and by no means satisfactory solution to the problem of the shortage of technical personnel in the country. Both in theory and in practice, the system was fully justified. There could be no objection to assigning tasks of no great complexity to auxiliaries sufficiently well trained to carry them out, always provided they received the necessary supervision.

Dr. Gage Barragán (Mexico) said that the item under discussion had been proposed earlier by Mexico because of the growing importance of the auxiliary personnel situation in the Latin American countries. He agreed with the views expressed already, especially by the Delegate of France, that in the face of a shortage of professional personnel an effort had to be made to ensure that such personnel as did exist rendered maximum service and that the best way of achieving that end was to provide a well-trained team of auxiliary personnel to assist them. With that in mind he would like to present a draft resolution the first part of which read as follows: "To recommend to the Governments that, when the training plans in the various ministries are drawn up, the specific functions to be discharged by personnel should be determined, the needs connected with their training should be carefully established, and pertinent measures should be adopted to implement those plans." The motive underlying the draft was that frequently training was given to personnel without their precise functions being defined in advance, with the result that the best use was not made of such personnel later on. The second operative paragraph of the resolution read as follows: "To instruct the Director of the Pan American Sanitary Bureau to assist the Governments in studying and defining present and future needs for personnel and in preparing instructors for the training and supervision of auxiliary health workers." The third operative paragraph submitted to the Committee for consideration read as follows: "To recommend that at future meetings of the Directing Council the Governments submit reports on the progress achieved in the training and utilization of auxiliary personnel in the various countries, and on the experience gained in these activities."

Dr. Rojas Ochoa (Cuba) said that in his country a crash program for the training of auxiliary personnel had been undertaken, based on principles similar to the recommendations in the Final Report of the Study Group on Training of Auxiliary Health Workers which had met in Mexico City. On the occasion of that meeting, some of the experts consulted through the Pan American Sanitary Bureau had reacted unfavorably to the Cuban experiment with such programs. Nevertheless, as time went on,

it was seen that the recommendations made at the meeting were similar to the principles used by Cuba as a starting-point. That was true of the definition of the scope of training, the function of schools of public health in relation to training, the location of such schools, and scholastic requirements. With regard to the last of those points, it had been argued at the time that candidates admitted to courses for auxiliary personnel should have reached at least the ninth grade of primary school. Cuba on the other hand had maintained that six years of primary schooling were a sufficient basis for the duties of a nursing auxiliary, and as it turned out, the Study Group currently accepted that view. Nor had it been agreed at the time of the Study Group that courses should be of less than nine months' duration; but since then the courses of no more than six months had come to be regarded as acceptable. In the early stages, a country suffering from a drastic shortage of health personnel was forced to speed up the training of auxiliary workers. If Dr. Branko Kesić, the author of the report in question, had paid a visit to Cuba, he would have seen for himself that the recommendations he made in the document tallied with what had been the regular practice in that country over the last few years.

Between 1961 and 1965, 5,466 auxiliary workers in Cuba had qualified as nursing auxiliaries; 661 persons as sanitary technicians and assistant sanitary technicians, and 204 as statistical auxiliaries. The responsibility for training that type of personnel lay with national ministries of health. In Cuba all health activities were centered in the Ministry of Public Health with the exception of those of the armed forces. Even there, the training of health workers was carried on through the schools attached to the Ministry.

Admission requirements and duration of courses had to be geared to the needs of each particular country and needs could change, even within a single country. The length of the studies for the training of personnel was necessarily relative to the demand for such trained personnel.

The opportunities to be provided before auxiliary personnel were likely to be forthcoming in large numbers were of various kinds. One important point was the assurance that any person who qualified would find work the moment his course was completed. Secondly, the auxiliary, who was on the lowest step of the ladder in the matter of technical qualifications as a health worker, should have ample opportunities to get ahead and should not feel himself doomed to remain indefinitely at the same auxiliary grade as when he qualified.

Auxiliary personnel should be given the chance to improve themselves, and not be condemned to remain forever the technically least skilled members of the health team. Another important point was that when persons working in an institution were admitted to a school for training, they should continue to draw their wages; otherwise, schools of nursing would have few candidates. In Cuba, nursing school students received their full pay. That made the training of such personnel costly, but the cost was unavoidable.

The report of the Study Group that met in Mexico also went into the question of accommodations, and recommended that the student should find his own. Experience in Cuba did not corroborate that recommendation. The students were treated as fellowship-holders in institutions coming under the Ministry of Public Health, where they were given board and lodgings; if they had been receiving wages or salaries they continued to receive them, or otherwise they were paid an allowance, at a much lower rate. On that basis, it was possible to obtain vast numbers of personnel in a short space of time.

Obviously, when personnel were trained in such circumstances, there were bound to be misgivings as to the quality of the personnel. That depended upon two basic factors—the material resources and the equipment available in the schools where such personnel were trained. Certain minimum requirements had to be laid down and met before the establishment of a school in any particular place could be approved. For example, a school for nursing auxiliaries could not possibly be established in a place where there was no hospital that met certain minimum standards.

Another point to be considered was the teaching staff in charge of courses; there extreme care had to be taken in the selection. The use to be made of such personnel was also related to the way in which their work was supervised. Side by side with the wholesale training of students by the thousand, the health authorities of the country had to have a sufficient number of competent staff to exercise adequate supervision over them. Among those responsible for supervising the work of auxiliaries, the importance of the role of the physician should be emphasized. Experience in Cuba showed that

at the outset, physicians were not trained to make proper use of auxiliary personnel. Generally speaking, if they did not have a thorough training in health matters they made poor use of auxiliary health workers. It was important to bear that point in mind in the training of physicians, even in medical schools. Again, when auxiliaries were trained on a large scale, the numbers of physicians currently being trained should also be considered, so as to ensure that there would not be an excessive number of auxiliary workers in relation to the number of physicians in the country.

Finally, the report of the Study Group recommended that schools of public health should not take a direct part in the training of auxiliary personnel. He agreed with that; however, in certain concrete instances it might be necessary in the early stages for schools of public health to take part in that type of training, so long as the practice was restricted to exceptional cases.

Dr. Santa Maria (Chile) considered that the working document was an excellent piece of work, and endorsed the definition given of auxiliary personnel as an indispensable part of the health team. He also felt that there should not be one type of auxiliary personnel for medical care activities and another for the so-called health activities. There was only one approach to medicine, namely, the comprehensive approach. That was a goal to be aimed at and the distinction frequently made between medical activities of the ministries and those carried out by other institutions should be dropped; medicine was a single entity, and there was only one type of auxiliary personnel for medicine. He endorsed in practically every respect the method of training auxiliaries as described by the Delegate of Cuba. It was essential to be practical and to take people at whatever level was possible, always aiming at the higher standards compatible with the possibility of obtaining personnel. In Chile, as elsewhere, the basic level had been stepped up little by little, though there was no intention of exaggerating the admission requirements.

He agreed that an effort should be made to ensure that skilled auxiliaries would be eligible for promotion in due course to a higher grade. With that in mind, for some time in Chile, auxiliaries had been receiving, side by side with their practical training and experience gained in the field, general education courses, on the principle that mere technical skills were not enough, and that they should also acquire a higher level of general education.

He then reported on the unduly high qualifications required for the teaching staff. His experience was that the best doctors as such frequently made poor teachers for auxiliary personnel, since they tended to talk over the heads of their students. Stress on professional qualifications could be overdone. What was perhaps more urgently needed by faculty members was training in teaching methods; and that had always been a major difficulty.

With regard to the role of the schools of public health, he agreed with the Delegate of Cuba. At a given moment they constituted the only center where there are persons capable of teaching; but training of auxiliaries could be carried out anywhere, even in the smallest village. Incidentally, it was to be hoped that one day schools of public health would cease to be specialization institutions and become an integral part of medical schools following the trend to incorporate as much as possible into the undergraduate curriculum. It was also preferable, he felt, that the term social medicine should be used to denote the application of medicine to the community rather than to the individual.

Teaching should be done locally. That type of training did of course require a minimum of equipment, which Chile had been able to obtain through international cooperation. In short, there was distinct evidence of progress in the report prepared at the meeting in Mexico; the training of auxiliary personnel was more in line with conditions as they really were in the Latin American countries, while at the same time it was sufficiently flexible to permit adaptation to the requirements and peculiarities of the individual countries. All that was needed was for each country to manifest its desire to have the best auxiliary health personnel it was capable of producing within its environment, taking care at the same time not to set its sights too high. Otherwise, within a few years, the problem would have to be faced of training personnel as auxiliaries to the auxiliaries.

Dr. Acosta-Borrero (Colombia) observed that it seemed to be generally agreed that the training of auxiliary personnel should be the exclusive responsibility of ministries of health; but it should also be pointed out that in some countries the ministry of education might participate in the work of training public health auxiliaries.

Dr. Díaz-Coller (Chief, Professional Education

Branch, PASB), thanking the delegates for their comments on the report of the Study Group, said that one of the points that should receive greater attention was the importance of supervision. An auxiliary worker could not perform satisfactorily without proper supervision. In the more developed countries auxiliaries had been used in the past and were being used more and more because there was adequate and competent supervision, and persons properly qualified to provide it. An auxiliary worker could only be as good as the supervision he was given. Secondly, note should be taken of the recommendation of the Study Group to the effect that the body that should be responsible for registering and as far as possible supervising the training of auxiliaries was, logically, the one which was subsequently going to employ them. The Study Group recommended specifically that the ministry of health should be the body responsible for keeping a register, and the authority competent to award diplomas wherever possible, subject to the conditions in each country, which naturally varied. With regard to the role of schools of public health, the conclusion had been reached that the training of the teaching body, i.e., the training of personnel to give tuition to auxiliaries, was one of the legitimate functions of a school of public health, but that the training of auxiliaries proper was mainly a matter to be left to the institutions which were going to use them.

Dr. GAGE BARRAGÁN (Mexico) read the draft resolution along the lines stated previously.

The CHAIRMAN put the draft resolution read by Dr. Gage Barragán to the vote.

Decision: It was unanimously agreed that the Conference recommend to the Governments that, when the training plans in the various ministries are drawn up, the specific functions to be discharged by personnel should be determined; instruct the Director to assist the Governments in studying and defining present and future needs for personnel; and recommend that at future meetings of the Directing Council the Governments submit reports on the progress achieved in the training and utilization of auxiliary personnel.[1]

Item 30: Resolutions of the WHO Executive Board and the World Health Assembly of Interest to the Regional Committee

The CHAIRMAN asked Dr. Cutler to introduce the item and said he would take advantage of the fact that Dr. M. G. Candau, Director-General of the World Health Organization, was present, and request him to outline and explain the background of the item which Dr. Cutler would introduce.

Dr. CUTLER (Deputy Director, PASB) presented Document CSP17/7[2] on the item and reported on each of the resolutions of the Thirty-Seventh Session of the WHO Executive Board and the Nineteenth World Health Assembly of interest to the Regional Committee.

The first concerned the consolidation of the Special Fund and the Expanded Program of Technical Assistance in the United Nations Development Program. Both the Executive Board and the Assembly had considered that the Organization should continue participating in the Expanded Program of Technical Assistance and the U.N. Special Fund, requested the Director-General and the Regional Committees that, in planning and coordinating health programs, they be guided by the responsibility of WHO to act as directing and coordinating authority, and noted the inseparability of health and other factors of social and economic development.

The next resolution related to the establishment of a Revolving Fund for Teaching and Laboratory Equipment for Medical Education and Training. The World Health Assembly recognized that trained manpower was of fundamental importance for health programs and realized that the shortage of teaching and laboratory equipment in medical and paramedical schools was a handicap in imparting medical education. The Assembly authorized the Director-General to accept reimbursement for purchases in national currency, subject to certain provisions, one of which was payment in advance of purchase.

The resolution on the malaria eradication program urged Governments of countries where these were already in operation to undertake critical annual appraisals of the programs and to revise and review operations when indicated. In connection with the smallpox eradication program, the Assembly decided that the Organization's participation in that program should be financed from the WHO regular budget. A very important point in the resolution was that Member States and multilateral and bilateral agencies were requested to

[1] See thirteenth plenary session, p. 200.

[2] Mimeographed document.

provide adequate material support for the realization of the program.

As for the establishment and operation of World Health Foundations, the Director-General was requested to pursue his efforts and to include a report on this subject as part of his regular reports to the Executive Board on the Voluntary Fund for Health Promotion.

The other resolutions included the establishment of a Dr. A. T. Shousha Foundation; Headquarters Accommodation: Voluntary Contributions from Governments; Program and Budget Estimates for 1967: Voluntary Fund for Health Promotion; Program Activities in the Health Aspects of World Population which might be developed by WHO; Study of the Nature and Extent of the Health Problems of Seafarers and of the Health Services Available to Them; the Community Water Supply Program; and Reports of Expert Committees. On the subject of population, it was important to note that the Assembly confirmed that the role of WHO was to give Members technical advice upon request, in the development of activities in family planning, as part of an organized health service, without imparing its normal preventive and curative functions.

Dr. LAYTON (Observer, Canada) reported that under the very able and effective stimulation of Dr. Nathan Sinai, WHO consultant, Letters of Patent had been issued by the appropriate department of the Canadian Government calling for the formal incorporation of a World Health Foundation of Canada. Among the applicants had been the former Director-General of WHO. Though as a Government official he was not identified with that movement, Dr. Layton was hopeful that the Foundation of his country would soon become a reality.

Dr. OLGUÍN (Argentina) said that the Executive Board and World Health Assembly resolutions under consideration were of vital importance for health policy in the Hemisphere. At the same time he would like to express his disquiet concerning the cuts reported by the Director-General himself at an earlier meeting of the Committee as being made in the funds allocated by the United Nations Special Fund and the United Nations Development Program for health projects in the countries of the Americas.

The CHAIRMAN invited the Director-General of the World Health Organization to take the floor.

Dr. CANDAU (Director-General, WHO) said he had nothing to add to Dr. Cutler's excellent presentation of the item.

The CHAIRMAN said he was sorry that the Director-General of WHO did not wish to add any further comments; he would therefore ask Dr. Cutler to read a draft resolution.

Dr. CUTLER (Deputy Director, PASB) reported that within the past few days steps had been taken to establish a World Health Foundation in Peru. He then read the draft resolution on the item.

The CHAIRMAN put the draft resolution to the vote.

Decision: It was unanimously agreed to recommend to the Conference that it take note of the resolutions of the Executive Board and the World Health Assembly of interest to the Regional Committee.[3]

Item 37: Mental Health Program

The CHAIRMAN said that Dr. René González would introduce the item.

Dr. GONZÁLEZ (Regional Adviser on Mental Health, PASB) presented Document CSP17/15[4] on the item and said that mental health, regarded as a state of intrapsychic balance and of interpersonal relations and social adjustment, was an essential component of total health, and its loss, resulting in mental illness and personality maladjustment, constituted a serious public health problem. Mental conditions had a direct bearing on general morbidity and mortality rates, and an indirect bearing on other sectors which, though not immediately related to collective health, were nevertheless closely linked with it, such as for instance economic development and social welfare.

Various epidemiological studies had been made in the Region with a view to defining the basic aspects of the problem of mental illness, namely its incidence and distribution. Although the data were not comparable owing to differences in method, nevertheless a certain uniformity could be noted in the findings in respect of psychosis, alcoholism, and epilepsy. In some countries there were alarmingly high homicide mortality rates and in others alcoholism was found to be a very serious problem.

Mental health problems existed all over the world,

[3] See thirteenth plenary session, p. 200.
[4] See Annex 7, pp. 528–530.

and the World Health Organization had recognized as much ever since its foundation, and was interested in solving them. The WHO Expert Committee on Mental Health had held 13 meetings since 1958, and had produced a series of important documents dealing with the most varied mental health topics, ranging from the guidelines for drawing up mental health programs to training in psychiatry and mental health, and a study of the role of the general practitioner and the public health physician in that field. In addition, the Organization had participated in joint committees and study groups with the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the International Labour Organisation (ILO), to discuss such specific subjects as the mental health aspects of adoption, and of the peaceful uses of atomic energy, juvenile epilepsy, and the like. In addition to the above-mentioned Expert Committee, the Organization had an Expert Committee on Alcoholism, and an Expert Committee on Dependence-Producing Drugs.

The Pan American Health Organization had convened three seminars [5] at which the main health problems in the Region had been examined and a preliminary inventory made of resources available in that field. The various aspects of research and personnel training had also been discussed. All three seminars had emphasized the need for incorporating mental health programs into public health activities.

In 1965 the Organization had convened a study group on the epidemiology of mental illness in Latin America, which had met in Washington, D. C. The group had recommended investigations of that nature at the international level, especially in regard to epilepsy.

In one of the countries of the Organization epidemiological research on the last-named disease, under the sponsorship of the Bureau, was now in progress; and during the current year the Mental Health Information Center on Latin America had completed the initial phase of its task of compiling legislation affecting epileptic patients in Latin America.

In 1960 a Latin American Seminar on Alcoholism had been held at Viña del Mar, Chile, under PAHO auspices, and in June 1966 a study group on the epidemiology of alcoholism in Latin America had met at San José, Costa Rica. During the latter meeting, general lines had been formulated for an international study on the frequency of alcoholism, alcoholic beverage consumption habits, the attitude of the public towards alcoholism, and the economic and health effects of the disease. In August 1966 a symposium on alcohol and alcoholism had been held in Santiago, Chile, with support from the Organization, at which important aspects of alcohol biochemistry and of the clinical and pathological aspects of alcoholism had been discussed, as well as preventive and curative programs.

A review of data collected in the Hemisphere had made it clear that one of the most pressing problems was the lack of qualified personnel. Very few centers were equipped to train personnel, and therefore students had frequently to be sent abroad. That had the obvious drawbacks of uprooting them, changing their cultural environment, and requiring them to use a foreign language.

In most countries of the Region, mental patients were cared for almost exclusively in psychiatric hospitals, which were usually of a custodial nature and offered little opportunity for active treatment and rehabilitation. Even so, that kind of care covered only a fraction of the population. Hardly a single country in the Region attained the minimum figures of one psychiatric bed per 1,000 head of population. Psychiatric services in general hospitals, and the other activities included in so-called social psychiatry or mental health community services were in very early stages of development or simply non-existent, with very few exceptions.

Yet it was precisely such integrated community services that could carry out suitable preventive work by giving prompt assistance and performing effective rehabilitation. Preference should therefore be given to the establishment of such services over the building of psychiatric hospitals, as was the traditional practice.

The development of a national mental health program and the attainment of a rational utilization of resources required the establishment of an order of priorities. In view of the situation obtaining in most countries the order suggested in the working document (see p. 529), might be suitable, bearing in mind that local conditions in a given country might suggest the desirability of certain modifications.

The implementation of a program of that kind at the national level would require the cooperation

[5] The reports of two of the seminars have been published in Spanish in *Scientific Publications PAHO* **81** and **99**.

of both official and private sectors, as well as of universities and specialized schools. A coordination body would be needed to integrate those programs with national health plans. Approximately one half of the countries of the Region now had mental health sections, departments, or divisions within their ministries of health which were fulfilling those functions either wholly or in part.

Dr. HYRONIMUS (France) congratulated Dr. González on his excellent summary of the item. It was possible to observe, at any rate in his own country, that as the population became more and more concentrated in the cities, the environment became more and more intolerant of the presence of mental patients. That was particularly true of oligophrenics, who as a rule, especially in country areas, used to be regarded with tolerance in the past; but as the family tended to dissolve, a completely different situation had arisen. The result was that an increasingly large number of hospital beds had to be set aside for oligophrenics and other patients who could definitely be regarded as hopeless cases. Alcoholism raised similar problems, owing to its undoubted relationship with mental illness; and there again, there was a noteworthy increase in the number of alcoholics in mental hospitals. Finally, strikingly large numbers of elderly persons were becoming inmates of psychiatric hospitals, either because their families could no longer tolerate them or because they could not be accommodated in rest centers or homes for the aged. It was essential, therefore, to calculate the number of hospital beds needed in any given country to meet the requirements of mental health. The WHO standard was based on a figure of 3 per 1,000, but it was doubtful whether that figure took account of all categories of patients.

With regard to personnel training, it was clear that something should be done about the training of specialist nurses, since the training of hospital nurses was not exactly what was required for the special situation found in psychiatric hospitals. As to medical personnel, he agreed that proper training in mental health matters called for a fairly long internship which might be set at three years or even four. Turning to certain problems related to the detection and treatment of mental cases, he endorsed the need for more intensive research in the epidemiological field. He also favored the idea of day hospitals—clearly a very necessary type of establishment—for many mental patients. Finally, he warned against the dangers of excessive specialization, or rather against the isolation of psychiatrists from other members of the medical profession. He advocated more contact between the general practitioner and the psychiatrist, and he thought it desirable that a closer link should be established, in psychiatric hospitals, between the psychiatric ward as such and the general wards.

The session was suspended at 4:10 p.m. and resumed at 4:32 p.m.

The CHAIRMAN gave the floor to Dr. Scorzelli, Brazil.

Dr. SCORZELLI (Brazil) said that the inclusion of mental health in the agenda of the Conference was encouraging as corroborating the fact that public health administrators were willing to follow the path marked out some 20 years earlier by the World Health Organization. Mental Health was an essential factor in public health planning, which had already successfully tackled other types of problems such as infectious diseases. Life currently tended to widen steadily the gap between man and his natural instincts and tendencies; and in many cases the result was a psychological or toxic escape. It was of course difficult to obtain data on the incidence and prevalence of mental illness and disorders, but estimated figures suggested a figure of 0.4 to 0.8 per cent for psychosis among the adult population of the United States of America, and 1.6 to 30 per cent for neuroses. Nor, according to Document CSP17/15, were the figures for Chile and Mexico any more comforting. Yet there was no direct treatment available except for a limited number of episodes observable in mental disturbance, although some success had been achieved by means of work therapy and play therapy. Rehabilitation should be an objective of concern to society itself, for the mental patient was a costly item owing to the medical attention and length of stay in institutions he required. Hence there were two factors to be borne in mind: the patient himself, and at the same time the necessity for shortening the period of his stay in an institution. Failure to take rehabilitation measures explained situations such as that occurring in Brazil, where in a single institution, 20 per cent of the total population of 5,000 in-patients had nowhere to go and nothing to do.

He went on to explain that the Ministry of Health of Brazil, pursuant to what was known as the

Public Health Campaigns Act, was proposing shortly to launch a mental health campaign with a view to collecting government and private resources for the protection, recovery, and rehabilitation of mental patients. In Brazil today, approximately 18 per cent of the total number of hospital beds were used for mental patients. Cases of schizophrenia accounted for 32.7 per cent of all hospitalized cases; manic-depressive psychoses 9.4 per cent; alcoholism 15.4 per cent; oligophrenia 6.7 per cent; and neuroses 9.6 per cent. He then gave an account of the measures envisaged under the proposed national mental health campaign. In conclusion he said that the subject was one of such vast importance that perhaps PAHO should sponsor a special meeting of psychiatrists and public health administrators to examine the bases and the requirements of the mental health program in the Americas.

Dr. Ordóñez Plaja (Colombia) observed that the etiology of mental illnesses was still a matter for discussion. Some regarded it as a genetic and a biological problem; others regarded it as the outcome of psychological and environmental factors. The fact that etiology was not yet properly defined made the non-specialist's guess as good as that of the expert. In those circumstances, what was needed was epidemiological research. He referred to a study by Dr. Anthony M.-M. Payne which appeared to indicate that schizophrenia, like tuberculosis, was conditioned by the environment. A series of large-scale epidemiological investigations might perhaps throw some light on the problem.

Mental health was a problem of equal interest to all, and one of the factors which had not been sufficiently studied was the difficulty man found in adapting to an environment which changed more rapidly than he himself was capable of changing psychologically and biologically.

The effects of such drastic changes of environment, he believed, should be studied epidemiologically, as an etiological factor which might conceivably lead to positive results. He also thought it might be worthwhile to study the notion of "institutional cure," since persons who had to deal with mental patients inevitably tended to modify their views as to what was normal. For example, a patient would be declared normal when he adapted his behavior to the norms of the institution where he was confined; when he behaved himself; when he showed proper respect for the nuns in charge, or the doctors, or the auxiliary personnel; and in due course he was declared "cured." But in actual fact that was not the environment into which he would emerge and in which he would have to live once he left the sanatorium. Possibly that explained the large number of cases of relapse—yet if such cases were carefully examined it would be found that they had not suffered a relapse. They had never actually been cured, but had merely adapted themselves to an environment which was not that of the outside world.

In the same way, there were grave doubts about the question of treatment. The research carried out with drugs and placebos, and the highly contradictory results obtained, were well known. The truth appeared to be that the person giving the drug or the placebo, the way in which he administered it, and the doctor-patient relationship established, were factors of greater importance than the actual material used. Similarly, a neurotic patient could be cured by a general practitioner just as well as by a specialist. The important point appeared to be the empathy existing between the two, in other words the affective *rapport* and the sensation of being helped.

On the question of the importance of the environment, he said that in Colombia two types of campaigns were being considered. One was based on the use of vacation colonies for low-income workers and employees, the idea being that instead of spending their two weeks' vacation doing nothing, such persons would be living in pleasant surroundings, at low cost, with their families. They would spend those two weeks all together, and an effort would be made to inculcate in them, with the guidance of skilled personnel, new eating and hygienic habits. The other campaign which it was planned to start as soon as the necessary resources were forthcoming involved the establishment of kindergartens for children who, because their parents were out at work, were in a state of neglect. The children would be given general instruction in matters of diet and cleanliness.

Dr. Frazer (United Kingdom) stated that the item under discussion was one of the most important current areas of interest and concern in public health. In that connection he felt that small nations had tremendous advantages. It was possible to attract competent persons into the field, over and beyond those who voluntarily specialized in mental health. Another important phase was attacking the

problem from the point of view of the general public's attitude toward acceptance of mental illness as an illness. Even more important was the realization that it was possible to live with persons suffering a mental illness and that they could be integrated into society and family life with proper care.

He then drew a comparison between mental hospitals 12 years ago and those currently in operation. It was obvious that tremendous strides forward had been made in that respect. In his country, mental patients had been given an opportunity to enter a float, designed by them, in their annual floral parade. Patients had also been among the spectators and accepted by the public.

As a preventive measure in that field, Dr. Frazer felt that relieving stresses was extremely important, particularly in the family circle, where each person spent most of his time. The changed approach toward abnormality in children would also have positive repercussions in the future, since stress within the family group could be taken care of at an early date.

The CHAIRMAN thanked Dr. Frazer for his statement and emphasized the importance of the current debate. He then called upon Dr. González to make a few final remarks.

Dr. GONZÁLEZ (Regional Adviser in Mental Health, PASB) said he would merely like to summarize briefly the essential facts concerning the program along with certain points which had a direct bearing on the situation in the Hemisphere and should be kept in mind in planning and implementing programs of that kind.

As he saw it, there were three or four factors affecting the peoples of the Hemisphere which gave the problem of mental health a very special character. In the first place, life expectancy in the developing countries was increasing little by little, as a result of the strides made in public health and other socioeconomic activities. After the age of 50, there was a greater likelihood of depression or cerebral arteriosclerosis, or at any rate of personality maladjustments brought on by the sensation of loneliness that came with old age and could reach the point of psychosis. As was well known, in the European countries and the United States of America, the proportion of patients of advanced age in institutions was very high. Something similar was to be expected in Latin America.

Second, the countries of the Americas were undergoing a violent urbanization process, which was frequently accompanied by an atmosphere of breakdown of the social order, dispersal of the family, unemployment, and various kinds of diseases that were bound to give rise to serious personality disorders in the individual.

Third, the Latin American countries were steering their economic policies in the direction of an advanced level of industrialization, and it was a well-known fact that the problems created by industry could have a serious effect on the integrity and the mental health of the individual. Finally, the countries of the Americas had a young population—almost 50 per cent of the total were under 20 years of age. That was the background against which must be viewed the serious problems of economic development, accidents, alcoholism, and internal migration, especially the migration of persons without any special skills from the country districts into the towns.

Replying to the Delegate of France, he said that in practically all the surveys carried out, the incidence of mental illness was about 3 per 1,000. The rate varied greatly according to the methods used in determining it. For example, a New York suburb showed a rate of 233 per 1,000, or more than 20 per cent, for persons over 20 years of age. In another survey covering persons over 16 years of age, the rate had been in the area of 30 per cent.

In conclusion he said that in 1968, if that particular budget item was approved, the Bureau had the idea of arranging a meeting of public health administrators concerned with mental health problems, with a view to discussing in greater detail the general shape and mode of operation of mental health programs.

The CHAIRMAN, thanking Dr. González, said that in his view the debate had been one of exceptional interest. He then called upon Dr. González Torres (Paraguay) to present a draft resolution.

Dr. GONZÁLEZ TORRES (Paraguay) read a draft resolution on the item.

The CHAIRMAN said that if there were no objections, he would consider the resolution adopted.

Decision: It was unanimously agreed that the Conference recommend to the Governments that they establish mental health sections or departments; urge PASB to promote and coordinate a research program on the frequency and distribution of alcoholism and cultural patterns that condition the habit of imbibing alcoholic beverages;

and recommend to the Director that he continue to promote research on epilepsy in the Americas.[6]

Item 21: International Transportation of Human Remains

The CHAIRMAN said that an item on Health Law as an Independent Branch of the General Law (Item 39) had been proposed by Peru and Costa Rica, but the sponsors had withdrawn their proposal. After reading Rule 40 of the Rules of Procedure, he asked whether any delegate would like to re-submit the proposal thus withdrawn. In the absence of any indication to that effect, he took it that the proposal was withdrawn and opened the discussion on Item 21.

Dr. CUTLER (Deputy Director, PASB) presented Document CSP17/6[7] on the item and stated that it had been the subject of very extensive study and a matter of international concern to many countries for many years. In 1937, within the League of Nations, an attempt had been made to establish an international treaty or agreement concerning the international movement of human remains and a treaty was prepared (No. 4391, Treaty Series 1938) and circulated, but no effective action resulted as only a few Governments signed the treaty. In 1949 it was brought up before the WHO Executive Board and the Member Governments requested that an Expert Committee on International Epidemiology and Quarantine study the item and report on the advisability of incorporating the standards in the International Sanitary Regulations. No further action was taken, though lately renewed interest in the problem had been shown by certain sectors.

Although originally concern with the transportation of human remains had stemmed largely from the possibility of transmission of the etiologic agents of epidemic diseases from a dead to a living person, with the advances of modern technology, control, and regional eradication of various quarantinable epidemic diseases, the risk of transmission in that manner had decreased and had even reached a negligible point.

After presenting the item to the PAHO Governing Bodies in 1964, information had been collected from the Governments on existing legislation governing the transportation of human remains, and the information had been presented to the 52nd Meeting of the Executive Committee[8] in 1965. Following that meeting, a Study Group prepared preliminary draft standards for consideration by the XVI Meeting of the Directing Council[9] in September 1965. The Directing Council examined the matter and suggested that the draft regulations be studied by an Expert Committee and that it prepare a draft of standard international regulations that might be applied throughout the Americas for consideration by the XVII Pan American Sanitary Conference.

The Expert Committee, composed of leading authorities of both the consular and health fields, had met, worked on the matter, and prepared a final set of draft standards which was now before the delegates. The Expert Committee considered that their proposals satisfied the requirements of the various Governments; at the same time, they provided the maximum protection insofar as the health aspect was concerned. Full cognizance had been taken of the requirements for protecting the legal rights of both the individual's family and the recipient nation, as well as the nation from which the cadaver might be moved.

Mr. CALDERWOOD (United States of America) declared that his Delegation was satisfied with the report presented and commended the Expert Committee on the work accomplished.

With respect to the proposed standards, he called attention to a discrepancy in Article 3, which defined an impervious coffin, and suggested that it be clarified by making an addition to the last sentence which would then read as follows: "The body may also be encased in a plastic container which has been sealed by heat or by adhesive materials prior to being placed in a non-impervious coffin, and which, for the purpose of these standards, will be considered the same as an impervious coffin." As for Article 5, he proposed that an addition be made to subparagraph (b) as follows: "Proper embalming (arterial and cavity) and encasement in a plastic container which has been sealed by heat or by adhesive materials prior to placement in a non-impervious coffin."

Mr. Calderwood then referred to the resolution[10] of the 54th Meeting of the Executive Committee which recommended in paragraph 2 that the standards be transmitted to the Governments so that they might be incorporated into their legislation in such

[6] See thirteenth plenary session, p. 201.
[7] See Annex 4, pp. 512–514.
[8] *Official Document PAHO* **69**, 403–405.
[9] *Ibid.*, pp. 407–408.
[10] *Official Document PAHO* **71**, 42–43.

a way as they saw fit. In the United States of America "legislation" might include regulations, executive action, and application at the state level. He therefore suggested that the standards be applied by any means appropriate to the legal system of each country.

The CHAIRMAN said that the appropriate amendments would be made; he then recognized the Delegate of Trinidad and Tobago.

Mr. LUTCHMAN (Trinidad and Tobago) as a member of the Expert Committee that had drafted the first set of norms on the subject, stated that he was very gratified at what had been accomplished in a short time. He was particularly struck by the response received and the agreement reached so quickly by consular, customs, and health officials on the necessity for formulating a simple set of rules to govern the international transportation of human remains. He then presented the following draft resolution:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Having examined Document CSP17/6 on this topic, and bearing in mind that the Executive Committee at its 54th Meeting made a detailed examination of the draft standards (Document CE54/6 and Addendum 1) prepared by an Expert Committee which when it met in Washington from 13 to 15 December 1965 had before it a report of a study group convened in August of the same year;

Bearing in mind that the working party of the 54th Meeting of the Executive Committee prepared a new set (Document CE54/17) of draft standards;

Bearing in mind the letters from the Governments and health authorities concerning this subject; and

Considering Resolution XVIII of the 54th Meeting of the Executive Committee,

RESOLVES:

1. To approve and transmit to the Governments of the Organization the following Declaration and Standards concerning the International Transportation of Human Remains:

Declaration

The greater ease of communications today and the considerable increase in tourism make the international transportation of human remains a matter of practical interest that justifies the establishment of uniform standards.

The international transportation of human remains should be simplified so as not to increase the problems of the families with complicated and unnecessary procedures that appear to overlook the moral and social considerations involved in such cases.

It is possible to simplify the administrative procedures involved in obtaining authorization for the international transportation of human remains if it is borne in mind that, contrary to a deep-rooted opinion, a corpse does not constitute a health risk even when death was due to a quarantinable or communicable disease, since its power to infect disappears when it is suitably embalmed.

Embalming might become the general practice in the countries of the Americas since it is the most appropriate method of preserving human remains; however, this in no way implies that other, simpler, and equally effective methods cannot also be used.

Definitions

Article 1. International transportation of human remains is understood to be the shipment of the body from the country where the death occurred to the country of its final destination after either death or disinterment.

Article 2. The transportation of bodies between frontier districts within 48 hours after death shall not be subject to these standards.

Article 3. For the purpose of these standards, an impervious coffin shall be any container or box, of whatever material, which can be hermetically sealed and so maintained by plastic or rubber gasket or by metal or similar material which has been soldered or welded. The body may also be encased in a plastic container which has been sealed by heat or by adhesive materials prior to being placed in a non-impervious coffin, and which, for the purpose of these standards, will be considered the same as an impervious coffin.

Documentation

Article 4. For international transportation of human remains, the following documents shall be required:

(a) An official certificate of cause of death issued by the local registrar of death, or similar authority;

(b) A statement by the person authorized to prepare the remains, certified by an appropriate authority, indicating the manner and method in which the body was prepared and indicating that the coffin contains only the body in question and necessary clothing and packing;

(c) A transit permit stating the surname, first name, and age of the deceased person, issued by the competent authority for the place of death, or the place of burial in the case of exhumed human remains; and

(d) Copies of the documentation required under subparagraphs (a), (b), and (c) shall accompany the shipment of remains. The outside of the coffin should bear an immovable plaque or other appropriate marking, in a conspicuous place, indicating name, age, sex, and place of final destination of the body.

Health Measures

Article 5. The human remains shall be subject to the following measures:

(a) Thorough washing with an effective disinfectant; disinfection of all orifices; packing of all orifices with cotton saturated with an effective disinfectant; wrapping in a sheet saturated with an effective disinfectant; and placing in an impervious coffin; or

(b) Proper embalming (arterial and cavity) and placement in an impervious coffin; or

(c) Proper embalming (arterial and cavity) and encasement in a plastic container which has been sealed by heat or by adhesive materials prior to placement in a non-impervious coffin.

Shipment Requirements

Article 6. Human remains prepared for international shipment must be placed in an impervious coffin. Where the cause of death was a quarantinable disease, as defined in the International Sanitary Regulations, the human remains must be embalmed (arterial and cavity) and placed in an impervious coffin.

The impervious coffin must thereupon be hermetically sealed and may be shipped without any other covering (except in the case of shipment by sea); or for protective purposes may be fitted in a wooden box, or one made of other material, so as to prevent movement; or may be wrapped in a specially designed fabric.

Transportation by Land, Air, and Sea

Article 7. The following regulations shall apply to the transportation by rail:

(a) The impervious coffin may be transported in the baggage compartment of a passenger car.

(b) Each country shall be responsible for fixing the time limit within which the body must be removed at its final destination.

In case of transportation by road the impervious coffin must be conveyed preferably on a closed hearse or, failing such, in an ordinary closed van (truck) or automobile, placed in such a way as to prevent movement.

The impervious coffin may be conveyed also in the baggage compartment of a passenger aircraft or in a cargo aircraft and may be equipped with a vent or safety valve provided that precautions are taken to prevent the escape of liquids or nauseous gases.

In case of transportation by sea the impervious coffin, in order to preclude movement, must be packed in an ordinary wooden case, or one made of other material, or may be placed in a specially designed fabric container.

Common Provision

Article 8. Regardless of the mode of transportation, wreaths, flowers, and other similar funeral articles may be sent with the coffin only when it is permitted by the provisions in force in the country to which it is being sent.

Final Provisions

Article 9. The above formalities may be reduced either through bilateral agreements or by joint decision in particular cases.

Article 10. The transportation of remains exhumed after the period established in the local provisions in force have elapsed, and the transportation of ashes, shall not be subject to health or other special measures.

2. To recommend to the Governments that they introduce in their health legislation the above-mentioned Standards in the way they deem most appropriate.

3. To invite the Governments to inform the Director of the Bureau of the steps taken to implement the above-mentioned Standards, so that he may report them to the other Governments and to the Governing Bodies of the Organization.

4. To urge the Director that he endeavor to ensure, in the way he deems most appropriate, that the Governments of the Organization take appropriate measures to implement in their territories the Standards on International Transportation of Human Remains appearing in the first operative paragraph of this resolution.

5. To recommend to the Director that he transmit this resolution to the Director-General of the World Health Organization.

The CHAIRMAN asked Mr. Calderwood whether he found the wording of the proposed recommendation acceptable.

Mr. CALDERWOOD (United States of America) requested time in order to study the draft resolution.

The CHAIRMAN agreed to the request.

Mr. CALDERWOOD (United States of America) proposed that operative paragraph 2 of the draft resolution read as follows: "To recommend to the Governments that they apply the above-mentioned Standards in the way they deem most appropriate."

The CHAIRMAN suggested that in the absence of objections the draft resolution should be regarded as adopted, subject to the change proposed by Mr. Calderwood.

Decision: The draft resolution was unanimously adopted.[11]

Dr. CUTLER (Deputy Director, PASB) thanked the Delegates of Trinidad and Tobago and Venezuela for their active participation in the work carried out on the subject. He then made two announcements with reference to the session to be held the following day.

The session rose at 5:55 p.m.

[11] See thirteenth plenary session, p. 197.

FIFTH SESSION

Thursday, 6 October 1966, at 9:25 a.m.

Chairman: Dr. MANOEL JOSÉ FERREIRA (Brazil)

Item 22: Relationship of the Pan American Health Organization with Other Organs of the Inter-American System (*conclusion*)

Report of the Working Party

The CHAIRMAN opened the session and announced that the discussion would continue on Item 22.

Dr. GONZÁLEZ TORRES (Paraguay) read the first part of the report of the working party containing a draft resolution on the item.

The CHAIRMAN put the draft resolution to the vote.

Decision: It was unanimously agreed to recommend to the Conference that it adopt the draft resolution included in the first section of the report of the working party on Relations of the Pan American Health Organization with Other Organs of the Inter-American System.[1]

Dr. GONZÁLEZ TORRES (Paraguay) read the second part of the report of the working party containing a draft resolution on the Pan American Foot-and-Mouth Disease Center.

He then read the final part of the report, as follows:

The working party likewise agreed to place on record in the present report, and hence in the minutes of the session, the observations made by certain delegations taking part in the debate. Although some of the views expressed refer only indirectly to the item submitted to Committee II for consideration, all of them are of interest and constitute a significant contribution to the exchange of ideas which has taken place at the current Pan American Sanitary Conference.

The working party considers it desirable that the Director of the Pan American Sanitary Bureau should bear in mind the following suggestions:

1. That the recommendation made to Governments urging them to include health experts in their delegations to future meetings of the IA-ECOSOC should be extended to other international meetings or conferences at which development problems are discussed.

2. That at all such meetings the view should be emphasized that health is an essential factor in productivity and as such is a prerequisite for development deserving of a high priority in investments made to that end.

3. That the Director of the Bureau should point out to Governments the advisability of utilizing the United Nations Development Program as a means of financing programs aimed at solving health problems. The working party also considers it important that the Director-General of the World Health Organization should support these requests.

4. That the Director of the Bureau should make a study, in whatever form he deems suitable, of a procedure designed to provide information as to the concrete needs of countries in emergencies, for transmittal to international, governmental, or private agencies desirous of furnishing help in such circumstances.

5. That the Director of the Bureau should seek, by the means he deems appropriate, to strengthen the mechanism for coordination between the United Nations agencies and others sponsoring technical meetings within the Hemisphere, with a view to coordinated planning calculated to facilitate attendance at such meetings and make for maximum efficiency.

6. That the Director of the Bureau should maintain contact with the Secretary General of the Organization of American States with a view to utilization by Governments and by inter-American organizations of programs for utilizing artificial satellites for the transmission of scientific sensor data, in conjunction with programs of the Pan American Health Organization, such as the water resources program.

Dr. SANTA MARÍA (Chile) suggested a number of editorial changes in the latter part of the report and asked that the record should show clearly that since the Conference was its own master, even the passages not in resolution form represented the definite will of the Governments.

Dr. OLGUÍN (Argentina) likewise clarified a drafting point.

Dr. MONTALVÁN (Ecuador) said that in his opinion the Pan American Sanitary Bureau should intervene directly in the administration of the Pan American Foot-and-Mouth Disease Center; he would therefore abstain from voting.

The CHAIRMAN put the draft resolution to the vote.

Decision: By 11 votes in favor, none against and one abstention it was agreed to recommend to the Conference that it adopt the draft resolution included in the second part of the report of the

[1] See thirteenth plenary session, p. 197.

working party, referring to the Pan American Foot-and-Mouth Disease Center.[2]

Item 36: Quality Control of Pharmaceutical Preparations (*conclusion*)

Draft Resolution Prepared by the Working Party

Dr. OLGUÍN (Argentina) read the following draft resolution prepared by the working party on the item:

THE XVII PAN AMERICAN SANITARY CONFERENCE,

Bearing in mind the great interest the Governments of the Americas have shown in having adequate control of drugs and pharmaceutical preparations, for which purpose the pertinent control laboratory services need to be established;

Considering Resolutions WHA17.41 and WHA18.36 of the Seventeenth and Eighteenth World Health Assembly, and Resolution XII of the XVI Meeting of the Directing Council of the Pan American Health Organization;

Having examined the reports of the PAHO/WHO consultants on the establishment of international laboratories for the control of pharmaceutical preparations and the location of such laboratories, as well as PASB Document CSP17/26 and Document CSP17/31 presented by the Government of Chile; and

Bearing in mind the views the delegates have expressed on this item,

RESOLVES:

1. To commend the Director of the Pan American Sanitary Bureau on the steps he has taken to promote and improve drug control and the assistance being given to the Governments in organizing laboratories for the quality control of drugs.

2. To recommend to the Director that he continue and expand the assistance to the Governments in establishing, operating, and improving their services for the control and analysis of pharmaceutical preparations.

3. To request the Director to continue negotiations aimed at the establishment of international laboratories for the control of pharmaceutical products, which would serve as training, research, and reference centers in this field.

4. To thank the Government of Uruguay for its cooperation and its great interest in establishing an international laboratory of this type in its country, for which purpose it has taken the necessary official steps.

5. To bring to the attention of Governments the importance of the considerations and recommendations on the quality control of pharmaceutical preparations contained in the report (Document A19/P&B/5) which the Director-General of the World Health Organization submitted to the Nineteenth World Health Assembly (Geneva, 3–20 May 1966).

6. To request the Director to make a study, by appropriate means, of the supply of generic drugs and pharmaceutical preparations so that a better technical and social return can be obtained from the funds invested in them, and that he give technical assistance to the Governments that request it in standardizing their present systems for the supply and control of drugs.

7. To request the Director to convene a meeting of an expert group to study immediate and long-term needs for providing the countries of the Americas with adequate services for the quality control of drugs and pharmaceutical preparations.

8. To request the Director to submit a progress report on this program to the 56th Meeting of the Executive Committee.

Dr. MONTALVÁN (Ecuador) thought that the expression "drugs and pharmaceutical preparations" in paragraph 7 was tautological, and that "pharmaceutical preparations" should be deleted.

Dr. BLOOD (United States of America) said his suggestions referred to the same point raised by the Delegate of Ecuador but in the opposite sense. He preferred the resolution to limit itself to the title of the agenda item, i.e., control of the quality of pharmaceutical products. In English, drugs included not only pharmaceutical products but also biological products. Undoubtedly that was a very important and broad item for discussion, but he felt that any advisory group appointed should focus its attention on pharmaceutical products rather than upon drugs in general.

Dr. SANTA MARÍA (Chile) thought it would be better, in order to avoid confusion, to keep the word "drugs" but to add "other than biological products."

The CHAIRMAN thought that to solve the problem of the different meanings attached to one and the same term in various languages, and even in a single language as used in different countries, it might perhaps be necessary to produce a glossary giving precise definitions of the terms drugs, medicaments, and pharmaceutical products.

Dr. OLGUÍN (Argentina) said that the problem of terminology was indeed so complex that its solution would require a special committee on nomenclature comprising representatives of the various languages and techniques, one of its functions being to produce a dictionary of synonyms defining the meaning and scope of the various expressions.

Dr. MONTALVÁN (Ecuador) said that in his opinion the term "medicaments" included not merely pharmaceutical and biological products—

[2] See thirteenth plenary session, p. 199.

the control of which, however strict, could never be excessive—but included generic drugs as referred to in the final line of paragraph 6 of the draft resolution.

The CHAIRMAN suggested as a way of solving the problem that a vote be taken on the draft resolution as submitted, the minutes and other documents to include the statements made on the subject of terminology.

Dr. BLOOD (United States of America) referred again to paragraph 7 and stated that his Delegation would have no objection to the expert advisory group giving attention to both pharmaceutical and biological products if the majority of delegations so desired.

Dr. ACOSTA-BORRERO (Colombia) suggested that the matter be left in the hands of the expert group to be convened on the subject, as stated in paragraph 7 of the draft resolution.

Dr. CUTLER (Deputy Director, PASB) stressed the fact that the problem of definitions and terminology was a serious one. The Secretariat had taken due note of the suggestions made during the discussion and would attempt to provide the type of glossary suggested, but recalled the difficulties encountered in that respect by expert and technical committees that had been attempting to find solutions to the problem. The matter, then, would be left in the hands of an advisory group, which would then appoint subcommittees to deal with related subjects if it considered it advisable.

The CHAIRMAN endorsed Dr. Cutler's remarks and put the draft resolution to the vote as it stood, with the understanding that the minutes and other documents would incorporate the necessary commentary and explanations.

Decision: It was unanimously agreed to recommend to the Conference that it adopt the draft resolution included in the report of the working party on the item, subject only to such amendments to the text as were necessary to resolve differences of meaning between the Spanish and English texts.[3]

The session was recessed at 11:10 a.m. and resumed at 11:30 a.m.

[3] See thirteenth plenary session, p. 201.

Item 35: Status of the Problem of Venereal Diseases and of Venereal Disease Control Programs in the Americas

The CHAIRMAN announced that the General Committee had decided that this item, assigned originally to Committee I, be transferred to Committee II since it had completed the examination of items assigned to it.

Dr. BICA (Chief, Communicable Diseases Branch, PASB) explained that the report on the item submitted by the Director to the Conference was contained in Document CSP17/25.[4] He said that PAHO had on various occasions expressed its concern about the problem of venereal diseases in the Americas. In 1964 it had submitted for consideration by the XV Meeting of the Directing Council[5] in Mexico City a study on the problem based on the information available at the time. The debate on the item had brought to light the interest of all the countries in the subject and their wish to undertake campaigns to reduce the incidence and prevalence of that group of diseases, in particular syphilis. The Directing Council had on that occasion requested[6] the Director of PASB to undertake a study of the current situation of the venereal disease problem in the countries of the Americas, for the purpose of preparing a proposal for a continental program to control these diseases, and to report thereon to a future meeting of the Directing Council. However, for administrative reasons and for lack of funds, the Bureau had so far been unable to initiate the study, although it hoped to do so in the near future and to report on the question at a forthcoming meeting. Preliminary work was being done on the drafting of a questionnaire to be used as a basis for the study; and the valuable assistance of the Communicable Disease Center of the U.S. Public Health Service had been enlisted.

Describing the various activities undertaken by PAHO during 1965 and 1966 in connection with the venereal disease problem, he said that the most significant event had been the Seminar on Venereal Diseases, sponsored by PAHO and the U. S. Public Health Service, and held in Washington, D. C., in October 1965. The report of the Seminar and the papers presented had been published in Spanish

[4] See Annex 13, pp. 571–575.
[5] *Official Document PAHO* **60,** 295–299.
[6] Resolution XXXV. *Official Document PAHO* **58,** 86.

by the Organization.[7] The Bureau had likewise translated the manual on *Serologic Tests for Syphilis* (1964 edition),[8] and it was hoped to begin distribution before the end of the year.

It gave him great pleasure to be able to refer to the assistance rendered to the Bureau by the Venereal Disease Branch of the Communicable Disease Center (USPHS), as a result of which it had been possible to organize in Chile two courses on laboratory techniques for the diagnosis of venereal diseases, and two others to be held shortly at the National Institute of Microbiology of the Ministry of Social Welfare and Public Health of Argentina. It was also hoped in the coming year to organize further courses in other countries of the Hemisphere. The object of the courses was to train personnel from the countries concerned in modern techniques for the serological diagnosis of syphilis, and a certain number of participants from other countries were accepted. The Organization had invited the countries of the Americas to participate in the program on the serological evaluation of syphilis being carried out by the Communicable Disease Center. Argentina, El Salvador, Jamaica, Mexico, Nicaragua, Trinidad and Tobago, Uruguay, Venezuela, Curação and Guyana were already taking part, and participation by other countries was being arranged.

Likewise with the collaboration of the Bureau a venereal disease control program had been started in Chile, and it was hoped to begin similar activities in other countries of the Region. In addition, the Bureau had awarded fellowships for the training of personnel in various aspects of venereal disease control; it hoped to continue and extend its activities in that direction in the future, and to provide countries with the short-term services of expert consultants. Currently, most of the advisory services concentrated particularly on the laboratory aspect and the training of investigators.

The problems of controlling venereal diseases, like the control of other communicable diseases, called for the establishment of an appropriate system of data registration and control, and also an efficient administrative organization. PAHO was in a position to give assistance to countries in both those directions. In conclusion, he said that the purpose of the document presented was to express once again the interest and the concern of the Organization in regard to the problem of venereal disease, and to report both on the activities carried out during 1965 and 1966 and on those it hoped to carry out in the future.

Dr. HYRONIMUS (France) congratulated Dr. Bica on the report presented, which contained matters of concern to all countries. Following the dramatic reduction in the incidence of venereal disease with the introduction of antibiotics, the world was now witnessing a recrudescence of venereal diseases for which there were a number of reasons, such as carelessness or ignorance in the use of antibiotics, inadequate treatment, and others. In addition, contact tracing was less frequent, especially in seaport towns, and there had been a recrudescence of syphilis and gonorrhea, despite the fact that venereal disease cases and contacts were notifiable. In his opinion there was room for improvement in the training of physicians in those matters, and it was also desirable to have properly trained nursing personnel and social welfare workers.

The CHAIRMAN invited Mrs. Josephine V. Tuller, Observer for the International Union against the Venereal Diseases and the Treponematoses, to address the Committee.

Mrs. TULLER (Observer, International Union against the Venereal Diseases and the Treponematoses) extended to the delegates greetings on behalf of the President and Secretary General of the Union she represented. She congratulated the Organization on the recent steps taken to solve the problem, beginning with Resolution XXXV[9] of the XIV Meeting of the Directing Council in 1964, to the present.

With reference to the working document on the item, Mrs. Tuller expressed concern that there was little or no mention of the value of citizen support for the problem nor of the role of the nongovernmental organizations in promoting citizen support. Furthermore, the Union urged that the special study of the current situation of the venereal disease problem in the Americas requested in the Directing Council resolution should give prominent place to the behavioral science aspects of the venereal diseases, since today's ecological factors decreased the effectiveness of a purely medical approach to the problem.

[7] *Scientific Publication PAHO* **137.**

[8] *Scientific Publication PAHO* **144.**

[9] *Official Document PAHO* **58,** 86.

Though the emphasis was primarily focused from the point of view of the Region, any useful consideration of the venereal disease problem should include worldwide aspects that could not be approached solely on a national or regional basis.

Mrs. Tuller then invited the members to the Union's 25th General Assembly to be held in 1967 in Munich, Germany. In addition, the Union suggested that in order to take full advantage of the Seminar on Venereal Diseases sponsored by PAHO in 1965, the Ministers of Health give complete support to a follow-up conference for Latin America with participation made up largely of persons working directly in the field. The Union, through its Regional Office for the Americas, would be willing to render any assistance that might be required.

Since it was obvious through the discussion on the item and in meetings of the World Health Organization that there was a lack of adequately trained workers, the Union had undertaken a study, in collaboration with WHO, of the teaching of venereal diseases in medical schools throughout the world.

In conclusion, Mrs. Tuller stated that the Union felt that in the present situation, national and international action should be intensified with a very close cooperation of official and voluntary organizations. The Union was ready to take its share in the work and would continue to give its full support to the activities of PAHO/WHO.

The CHAIRMAN thanked Mrs. Tuller for her statement and agreed that the problem of venereal diseases could not be solved by the use of medical resources alone, but also required efforts in the educational and social spheres.

Dr. ROJAS OCHOA (Cuba), referring to the statement in Document CSP17/25 that epidemiological investigation, especially in syphilis, was the method of choice in the search for sources of infection and the prevention of new cases, and that special techniques were used which called for especially trained personnel, said that in his country the practice was to use polyvalent staff. In fact it was felt that such special training was the kind that any public health nurse or nursing auxiliary in the public health field, or even any social worker, should receive.

Dr. OLGUÍN (Argentina) felt there could be no doubt as to the importance of the venereal disease problem from both the medical and the social points of view. Efforts to combat venereal diseases should be one of the normal and continuing activities of health services at all levels, and diagnosis was a vital factor as far as syphilis and gonorrhea were concerned. For that, well-trained and skilled laboratory technicians were required, such as the laboratories of many countries still did not possess. Personnel training should be supplemented by health education, epidemiological studies and case-finding. He stressed the importance of the work of the Pan American Sanitary Bureau and the need for joint action, at the national and international levels, to combat venereal diseases, in the light of the recrudescence witnessed over the past few years.

Dr. GONZÁLEZ TORRES (Paraguay) agreed with the Delegate of Cuba that the task of combating venereal diseases should be handled by polyvalent personnel. In his own country, efforts were being made to control infectious diseases and their sequelae with the help of female social workers trained and given guidance by physicians. These women undertook health education work among persons exposed to venereal diseases, seeking out the sources of infection existing in the country, though officially prostitution did not exist.

Dr. MEREL (Panama) said that in his country the problem of venereal diseases had always been a matter of the utmost concern. The situation was not under control, for the simple reason that no central establishment existed. The Ministry was trying hard to set up such a center, which would be staffed with social workers, nursing personnel, and medical specialists.

With regard to the training of personnel in that field, especially the training of laboratory technicians, the new techniques which had been introduced, such as that of fluorescent antibodies and the immobilization of the *Treponema pallidum* were of great importance in the campaign against venereal diseases. In conclusion, he considered it most desirable that venereal disease control centers should be set up in all countries.

Dr. BICA (Chief, Communicable Diseases Branch, PASB) referring to the Seminar held in 1965, explained that the Organization's idea had been to bring together a group of persons in Washington with a view to arousing their interest in the development of specialized personnel. With that in mind, plans were being made for holding within

two or three years, as convenient, a further seminar which would be specifically for personnel specializing in that field. With regard to the points mentioned by the Delegate of Argentina, he said that PAHO fully agreed that venereal disease should be regarded simply as a communicable disease and hence that action to combat it should form part of the general health services. Venereal diseases could not be combated except through the health services. The Organization was also giving special attention to diagnosis, and was trying to assist countries in that direction. It had organized courses to that end, first in Chile and then in Argentina, and in 1967 further courses would be held in Brazil. In that connection he cited the assistance given to PAHO by the Communicable Disease Center of the United States Public Health Service in organizing the courses. With regard to the points mentioned by the Delegates of Cuba and Paraguay, he said that experience had shown, at any rate in the countries which made frequent use of contact investigation, that that type of work by its very nature had to be in the hands of especially-trained personnel. Apart from that, it was a time-consuming occupation, and it was unlikely that anyone having other duties could investigate all contacts thoroughly.

Dr. CUTLER (Deputy Director, PASB) was gratified with the comments made by the various delegates on a matter of such grave concern. The Organization had received requests for consultant services from Governments desirous of setting up special training courses, providing opportunities for training laboratory personnel, conducting research, and other phases. The Organization was also benefiting from the collaboration of the Communicable Disease Center in the standardization of laboratory tests and of quality control of reagents used for the tests throughout the Americas.

He acknowledged the Organization's appreciation to the International Union against the Venereal Diseases and the Treponematoses for its interest and support in that important program. He was also pleased to report that at the Fourth Annual Meetings of the Inter-American Economic and Social Council it had been recommended that steps be taken to support or promote the participation of citizens in meeting certain needs of the community. That could be done effectively by channeling citizen's support into various health programs through such organizations as the International Union against the Venereal Diseases and the Treponematoses, League of Red Cross Societies, International Union against Cancer, and others.

The CHAIRMAN asked Dr. Acosta-Borrero to read the draft resolution on the item.

Dr. ACOSTA-BORRERO (Colombia) read a draft resolution, submitted by the Delegation of the Dominican Republic.

Decision: It was unanimously agreed that the Conference take note of the report on the item; recommend to the ministries of health that they undertake studies to determine the incidence and prevalence of venereal diseases; recommend to the competent national health services that they organize appropriate laboratory services for diagnosis; recommend that the ministries of health plan, program, organize, and evaluate venereal disease control programs and that special attention be given to training programs; and recommend to Governments that they prepare health education programs on venereal diseases.[10]

The CHAIRMAN said that Committee II had reached the end of its deliberations. He thanked the Committee for the honor it had done him and for its forbearance with his unorthodox manner of conducting the discussions.

Dr. OLGUÍN (Argentina) said he was pleased to have been able to participate in the Committee's deliberations, which had culminated in important resolutions; and he commended Dr. Ferreira's personal gifts and his able conduct in the Chair.

Dr. GONZÁLEZ TORRES (Paraguay) endorsed the remarks of the Delegate of Argentina.

Dr. HYRONIMUS (France) joined in the congratulations to the Chairman and expressed his satisfaction at the pleasant and at the same time highly serious atmosphere of the debates.

The session rose at 11:55 a.m.

[10] See thirteenth plenary session, p. 200.

4. ANNEXES

Annex 1

ANNUAL REPORT OF THE CHAIRMAN OF THE EXECUTIVE COMMITTEE[1]

Presented by Dr. Manoel José Ferreira (Brazil)
Chairman of the 53rd and 54th Meetings of the Executive Committee

Pursuant to Article 9-C of the Constitution, I have the honor to submit to the Conference this report on the activities of the Executive Committee between October 1965 and September 1966, during which period it held its 53rd and 54th Meetings. The Directing Council at its XVI Meeting provided that the Executive Committee would be officially represented at the meetings of the PAHO Directing Council or the Pan American Sanitary Conference, by its Chairman, or any other member designated by the Committee. Having been so designated by the Executive Committee at its 54th Meeting, I should like to state that this is the first time that the Executive Committee is officially represented at a meeting of this Governing Body.

At the 53rd Meeting held in Washington, D. C. on 8 October 1965, after the close of the XVI Meeting of the Directing Council, the Representatives of Ecuador and Guatemala, the two countries elected by the Directing Council to serve on the Executive Committee, took office. The following representatives were also present: Dr. Manuel José Ferreira (Brazil); Dr. Charles C. Wedderburn (Jamaica); Dr. Pedro Daniel Martínez and Dr. Manuel B. Márquez Escobedo (Mexico); Dr. Alberto E. Calvo (Panama); and Dr. Francisco Castillo Rey and Dr. José Luis Aponte-Villegas (Venezuela). Also present as observers were: Dr. Gérard Philippeaux and Dr. Hubert Delva (Haiti); Dr. Carlos Quirós Salinas (Peru); and Dr. Charles E. Williams, Jr., and Mr. Howard B. Calderwood (United States of America).

At the 53rd Meeting, I had the honor of being elected Chairman of the Executive Committee for the period covered by this report, and therefore presided over the 53rd and 54th Meetings of the Committee. Dr. Alberto E. Calvo, the Representative of Panama, was elected Vice-Chairman.

The 54th Meeting was held in Washington, D. C., from 18 to 22 April 1966, and was attended by the following representatives: Dr. Manoel José Ferreira (Brazil); Dr. Miguel Yépez Aschieri (Ecuador); Dr. Orlando Aguilar Herrera (Guatemala); Dr. Charles C. Wedderburn (Jamaica); Dr. Manuel B. Márquez Escobedo and Dr. Ignacio Avila Cisneros (Mexico); Dr. Alberto E. Calvo (Panama); and Dr. Daniel Orellana (Venezuela). The following observers were also present: Dr. Bogoslav Juricic (Chile); Mr. André Cira (France); Mr. Johan B. Hoekman and Miss Christine Yvonne Henny (Kingdom of the Netherlands); Dr. Carlos Quirós Salinas (Peru); Dr. Benjamin D. Blood, Mr. Leonard M. Board, and Mr. Paul J. Byrnes (United States of America); and Mr. O. Howard Salzman, Mrs. Alzora H. Eldridge, Mr. José Carlos Ruiz, Miss Dahlia Colombo, and Miss Marietta Daniels Shephard (Organization of American States).

Pursuant to Rule 12 of the Rules of Procedure, the Director of the Pan American Sanitary Bureau is Secretary ex officio of the Committee. Accordingly, Dr. Abraham Horwitz acted as Secretary.

The 53rd Meeting considered the following agenda items:

Study of Resolutions of the Directing Council, of Interest to the Executive Committee

The Director of the Bureau reported on the resolutions approved by the XVI Meeting of the Directing Council, which were transmitted to the Committee for its consideration or for action by the Secretariat. The resolutions dealt with the

[1] Document CSP17/23 (24 August 1966).

travel and subsistence expenses of the official representative of the Executive Committee at meetings of the Directing Council and the Pan American Sanitary Conference, the donations of objects of art made to the Organization for its new headquarters building, the authorization of contributions from the Building Reserve Fund to the Special Fund for Health Promotion, the preparation of a final draft on standards for the Americas on the international transportation of human remains, and the proposed program and budget of the Organization.

The Director explained in detail what measures and steps would be taken to comply with the instructions of the Directing Council.

Date of the 54th Meeting of the Executive Committee

The Committee resolved to authorize the Chairman of the Executive Committee to fix the date of the 54th Meeting of the Committee in agreement with the Director of the Bureau.

During the 54th Meeting of the Committee, which held nine sessions, the following agenda items were considered:

Proposed Program and Budget of the Pan American Health Organization for 1967

The Committee made a careful study, item by item, of the proposed program and budget for 1967, presented by the Director. In the course of the discussion various views were expressed on the activities of the Organization, special stress being laid on projects of medical care and the training of food inspectors.

The Committee decided to submit to the XVII Pan American Sanitary Conference the proposed program and budget for 1967 prepared by the Director; to recommend to the Conference that it establish the level of the PAHO budget for 1967 at $9,115,680; and to recommend that the Director take into account the views expressed by the members of the Executive Committee, especially with reference to medical care and the training of food inspectors.

Report on the Collection of Quota Contributions

After making a detailed examination of the report of the Director on the collection of quota contributions, the Committee took note of the report and commended the Director on his efforts to obtain settlement of the outstanding arrearages; expressed its concern, nevertheless, especially over the arrearages of more than two years' standing; recommended that the Director instruct the PAHO Zone Chiefs and PAHO Representatives in the respective countries to maintain continuous efforts to have the payment of quotas effected on a current basis and to have arrearages paid as soon as possible; requested the Director to continue his efforts to keep the Governments amply informed of the status of quota payments and of the implications of non-payment on the prosecution of the program of the Organization; and urged that Governments which have outstanding quotas pay them as soon as possible, and that those Governments in arrears two or more years fulfill their respective financial plans for the payment of outstanding quotas within a definite period.

Financial Report of the Director and Report of the External Auditor for 1965

After a careful study of these reports, the Committee took note of them and resolved to transmit them to the XVII Pan American Sanitary Conference. It also resolved to again draw the attention of Governments to the need for quotas to be paid as soon as possible, within each financial year, and especially to the need for plans for the payments of arrears within stipulated periods to be prepared and strictly adhered to. The Committee also commended the policy followed by the Director over the years in maintaining budgetary expenditures within income, in building up the Working Capital Fund, and in creating reserves for termination costs.

Report on Buildings and Installations

After taking note of the report of the Director on buildings and installations, the Committee resolved to transmit it to the XVII Pan American Sanitary Conference, and to express its thanks to the Governments of Argentina, Brazil, Canada, Guatemala, Honduras, Mexico, Surinam, Venezuela, and Spain, as well as to the Pharmaceutical Manufactures' Association and Mrs. Carlota M. de Inurria for the works of art they had donated to the new headquarters building. It also resolved to take note of the additional space requirements for Zone

IV Office in Lima and concur in the planned action by the Director to purchase a house to obtain adequate space.

Amendments to the Staff Rules of the Pan American Sanitary Bureau

The Committee approved the amendments to the Staff Rules of the Bureau presented by the Director, which were similar to those adopted by WHO and related to salary adjustments and to editorial changes in Rules 230.2, 230.4, 235.1, 235.2, 235.3, 255.1, 255.2, 450.2, 450.3, 670.7, 730.3, 970.1, 970.2, 970.3, 970.4, and 1110.4.

Transfer of Funds from Part V to Other Parts of the PAHO Regular Budget for 1966

The Executive Committee authorized the Director to transfer a maximum of $260,000 from Part V to other Parts of the PAHO regular budget for 1966, as necessary to meet the additional personnel costs arising from the salary increases.

Salaries of the Deputy Director and Assistant Director of the Pan American Sanitary Bureau

The Executive Committee approved the proposal of the Director fixing the salary of the Deputy Director at $21,000 per annum and that of the Assistant Director at $20,000 per annum.

Planning of Hospitals and Other Health Facilities

The Executive Committee, after examining the report of the Director on the planning of hospitals and other health services, submitted pursuant to Resolution XVI of the 52nd Meeting of the Executive Committee, took note of the report; confirmed the steps taken by the Director to promote the coordination of medical care services in the countries; instructed the Director to continue his negotiations with the Inter-American Development Bank to obtain financial support for programs for the building of hospitals and other health facilities, within the framework of national health planning and as part of economic and social development; and recommended to the Governments that they include in their delegations to the XVII Pan American Sanitary Conference high officials of the medical services both from the ministries of health and from social security institutes so as to ensure a full treatment of the topic at the Technical Discussions.

Representation of the Executive Committee at the XVII Pan American Sanitary Conference, XVIII Meeting of the Regional Committee of WHO for the Americas

The Executive Committee resolved to designate as its official representative at the XVII Pan American Sanitary Conference, Dr. Manoel José Ferreira, Chairman of the Executive Committee.

Emergency Revolving Fund

The Executive Committee took note of the report of the Director on the Emergency Revolving Fund; invited the Governments which receive assistance from the Fund to reimburse the amounts advanced as soon as possible; and recommended to the XVII Pan American Sanitary Conference that it increase the ceiling of the Fund to $100,000 and authorize the transfer of an amount of $25,000 from the Working Capital Fund.

Date of the XVII Pan American Sanitary Conference, XVIII Meeting of the Regional Committee of WHO for the Americas

The Executive Committee confirmed its approval of the date of 26 September 1966 fixed by the Director for the opening of the XVII Pan American Sanitary Conference, and agreed that it should run provisionally until 15 October. It also recommended to the Conference that it devote more time than in previous years to this year's Technical Discussions.

Provisional Agenda for the XVII Pan American Sanitary Conference, XVIII Meeting of the Regional Committee of WHO for the Americas

The Committee approved the provisional agenda prepared by the Director for the XVII Pan American Sanitary Conference, XVIII Meeting of the Regional Committee of WHO for the Americas, and authorized the Director to include in the provisional agenda such additional items as might be proposed in due time by the Governments and by those organizations entitled to propose agenda items.

Training of Auxiliary Personnel

The Committee took note of the report submitted by the Director, pursuant to Resolution XXIX of the XV Meeting of the Directing Council, which instructed the Director to prepare a study on the training of auxiliary personnel that might serve as a basis for discussion at a meeting of national authorities and international experts to be held for the purpose of formulating a policy on the training of auxiliary personnel. The Committee instructed the Director to transmit to the XVII Pan American Sanitary Conference the report prepared by the Study Group as well as a recommendation on the need for ministries of health to organize training for health auxiliaries in accordance with the guidelines recommended by the Group; it also recommended to the Governments that they envisage the assistance of the Pan American Sanitary Bureau in such aspects of their programs for the training and use of auxiliary personnel as they deemed necessary.

Relations of the Pan American Health Organization with Other Organs of the Inter-American System

The Committee, after a detailed examination of the report of the Director on the Fourth Annual Meetings of the Inter-American Economic and Social Council (IA-ECOSOC) at the Expert and the Ministerial Levels, acknowledged the commendable efforts the Director had made at all meetings of the IA-ECOSOC since the approval of the Act of Bogotá, which had brought about recognition of the importance of health in the social and economic well-being of the peoples of the Americas; noted with satisfaction and interest the report presented by the Director on the Fourth Annual Meetings of IA-ECOSOC (Buenos Aires, 15 March-1 April 1966), the Second Special Inter-American Conference (Rio de Janeiro, 17-30 November 1965), and the Meeting of the Special Committee for the Preparation of Draft Amendments to the Charter of the Organization of American States (Panama, 26 February-1 April 1966). The Committee resolved to transmit the report to the XVII Pan American Sanitary Conference, together with the Committee's resolution. It pointed out the importance assigned by the Fourth Annual Meetings of IA-ECOSOC to health in the context of economic and social development of the Americas, as shown in the resolutions approved at the Ministerial Level concerning health and development planning; population; permanent coordination of planning offices and improvement of planning techniques; improvement of statistics of the Latin American countries; social security within the framework of the Alliance for Progress; Statutes of the Inter-American Emergency Aid Fund; and study of the future financing of the Pan American Foot-and-Mouth Disease Center. Further, the Committee recommended to the Director that he continue to develop and strengthen the relationships of the Organization with IA-ECOSOC, the Inter-American Committee on the Alliance for Progress (CIAP), with a view to strengthening the incorporation of health activities into programs of economic and social development; it also instructed the Director to continue his efforts in the manner he considered most effective to ensure that items relating to the health of the peoples of the Western Hemisphere were included in the agenda of the meetings of the IA-ECOSOC, and that in the notices of the meetings sent to the Governments attention be drawn to the advisability that delegations of the countries include technicians from the health services who could bring their knowledge and experience to the examination of the above-mentioned items. Finally the Committee recommended to the Director that he continue to pay particular attention to the meetings in which amendments to the Charter of the OAS were dealt with, so as to ensure that health received proper recognition among the principles which inspired the action of the OAS and, so that, in any amendments which might be made to the Charter of the OAS, the rights which the Organization of American States had already granted to the Pan American Health Organization would be respected.

Pan American Foot-and-Mouth Disease Center

The Executive Committee recommended to the XVII Pan American Sanitary Conference that it approve a resolution emphasizing the importance of maintaining the activities of the Pan American Foot-and-Mouth Disease Center at a sufficient level to allow it to provide Governments with scientific cooperation and technical advice in the planning and execution of national foot-and-mouth disease control programs; expressing the concern of the Conference over the immediate financial

situation arising from the inadequate budget approved by the IA-ECOSOC, which would not even allow activities to be maintained at the present level, and instructing the Director to examine all possible means of securing greater financial support so as to avoid a reduction in present activities and obtain a gradual increase of that support according to the needs of the program; expressing further its satisfaction with the fact that as far as long-term needs were concerned, and in accordance with the provisions of the pertinent resolution of the IA-ECOSOC, the Director had begun a study in collaboration with the competent officials of the OAS in order to draw up a plan for the continuing and stable financing of the Center; and finally, instructing the Director to report to the Executive Committee at its 56th Meeting on the progress made in this regard.

Estimated Requirements for Smallpox Eradication in the Americas

The Executive Committee took note of the report of the Director on estimated requirements for smallpox eradication in the Americas, and recommended that both PAHO and WHO satisfy the requests for assistance submitted by the countries and include in their budgets the necessary allotments for the provision of advisory services to Governments in the field of smallpox eradication. Furthermore, the Committee recommended to the Director that he continue his efforts to complete the smallpox eradication plan, that he expand the report submitted to cover the measures taken in different countries of the Americas, and that he present the expanded report to the XVII Pan American Sanitary Conference. The Committee also expressed the hope that UNICEF would assist the countries in carrying out smallpox eradication programs; recommended to the Governments that they bring their influence to bear in international credit agencies with a view to their including in their credit policy the award of loans for national eradication programs; recommended that the Governments give one another reciprocal assistance, either directly or through PAHO/WHO, such as in the granting of loans or bilateral subsidies, technical assistance, operational personnel, vaccine, and supplies and equipment for smallpox eradication campaigns; recommended to the countries that they make as much use as possible of such human, technical, and material resources as are available, both national and international, to ensure the execution of smallpox eradication programs; and finally, recommended that the Governments solve their administrative, financial, and staffing problems so that smallpox eradication programs could be carried out as expeditiously as possible.

Supply of Textbooks for Medical Students

The Executive Committee examined the program for the supply of textbooks for students of schools of medicine in Latin America, and approved the important initiative of the Director and instructed him to continue his negotiations with the Inter-American Development Bank (IDB) and other agencies with a view to obtaining financial support for the program. Further, the Committee authorized the Director to negotiate with the IDB or other agencies the most favorable terms possible for the financing of the program; and recommended to the XVII Pan American Sanitary Conference that it authorize the Director to sign a contract for the loan with the IDB or other agencies, and to undertake such acts and negotiations as might be necessary for the initiation and operation of the program and to report on them from time to time to the Governing Bodies.

International Transportation of Human Remains

Pursuant to Resolution XXXVI (paragraph 3) of the XVI Meeting of the Directing Council, the Executive Committee considered the draft standards for the international transportation of human remains prepared by the Expert Committee and the revised text prepared by the working party appointed by the Committee to examine the observations submitted by Governments on the draft standards. The Committee resolved to transmit to the XVII Pan American Sanitary Conference the revised text of the draft standards for the international transportation of human remains prepared by the working party appointed for that purpose, together with the observations of the members of the Committee during the discussion of the matter. The Committee also recommended to the Conference that, bearing in mind the draft standards in question and the observations of the members of the Executive Committee in the discussion of that subject, it approve the standards on the international transportation of human re-

mains and transmit the standards to the Governments of the Organization so that they might incorporate them into their legislation in such a way as they might think fit.

In concluding this report, in which I have tried to set forth objectively and concisely the most important decisions taken at both meetings, I should like to thank the members of the Executive Committee for the confidence placed in me by electing me Chairman, and for the assistance received in the course of the meetings from the Vice-Chairman and from all the other representatives. I should also like to thank the Director and staff of the Pan American Sanitary Bureau for their efficient work in organizing and conducting the meetings.

Annex 2

XIV REPORT ON THE STATUS OF MALARIA ERADICATION IN THE AMERICAS [1]

Introduction

The Director of the Pan American Sanitary Bureau has the honor to present to the XVII Pan American Sanitary Conference the XIV Report on the status of malaria eradication in the Americas.

The report consists of five chapters. The first contains a brief history of the campaign during the decade 1956-1965 and gives the most important data taken from the annual status reports for these years and summarizes the present situation from the point of view of 10 years' experience. The remaining four chapters present information on the general status of the program, special technical problems, research currently in progress, and international cooperation.

I. A DECENNIUM OF PROGRESS

In 1950 in Ciudad Trujillo, Dominican Republic, the XIII Pan American Sanitary Conference [2] conceived eradication of a disease as a concept and authorized an operational eradication program with reference to smallpox and malaria. A coordinated campaign for the eradication of malaria from the Hemisphere was initiated in 1954 and was extended on a world-wide basis by the World Health Organization in 1955.[3] The United Nations Children's Fund (UNICEF) lent its support to this major venture and provided essential imported supplies and equipment; the U.S. International Cooperation Administration (ICA), now the Agency for International Development (AID), already involved in malaria control programs in a number of American countries, accepted the eradication goal and showed its support through annual contributions to the PAHO Special Malaria Fund.

Malaria remains the first and the most important of the eradication campaigns undertaken thus far, although the eradication of other diseases have also been set as targets. It may be of value to make a brief review of the campaign in the Americas from its inception, examining the various kinds of problems that have arisen, the solutions found and those proposed, the success achieved, and the battles yet to be met and won.

Beginnings

The first requirements for the new campaign naturally centered on organization. Some countries had had control programs, which could serve as the basis for a malaria eradication services. In others, the service had to be established without this foundation. A malaria eradication campaign requires detailed planning of numerous operations based on information collected from many sources, and the collection, analysis, and translation of such data into plans of operation sometimes required a year or more where information was scanty. In 1955 the Pan American Sanitary Bureau established an Office for the Coordination of Malaria Eradication Programs (COMEP) in Mexico, and the small staff of this office undertook to assist in the formulation of plans of operation for the various countries.

The emphasis of these early years, and the progress achieved by December 1956 in converting control programs to eradication programs and establishing new services where none existed, is shown in Figure 1,[4] which is a reproduction of a chart originally presented in 1957. Even the familiar terminology of malaria eradication had not yet come

[1] Document CSP17/4 (16 August 1966).

[2] Resolution XVIII. *PASB Publication* **257**, 17.

[3] Resolution WHA8.30. *Off. Rec. Wld Hlth Org.* **63**, 31–32.

[4] All the figures, maps, and tables mentioned in the text appear at the end of this annex. In these, the data for Guyana are still listed under British Guiana, since they were prepared prior to the change of status of that country. In the text, however, the proper name of the country has been used.

into use and the term "advanced" in the figure means that attack measures were well under way.

By way of comparison, Figure 2 shows the year-by-year history of each campaign, in terms of the percentage of the population of the malarious area in each phase of the program. It can thus be seen that many programs have progressed steadily through the various phases and some are now in the maintenance phase of eradication, while others have remained entirely or to a large extent in the attack phase; another is still (or rather again) in the preparatory phase.

Tables 1 and 2 present population data by country for the areas in the Americas in the various phases of the campaign (using current terminology) in 1956 and at the end of 1965. The number of persons who lived in areas from which malaria had been nearly or completely eliminated (consolidation and maintenance phases) constituted 39 per cent of those in originally malarious areas in 1956, and 67 per cent by December 1965. If the inhabitants of countries where malaria had been eliminated before 1955 are subtracted and a comparison made of populations by phase in countries which actually suffered from malaria at the beginning of the period, the percentage distribution is as follows:

Percentage of population of malarious areas

Phase	*1956*	*1965*
Preparatory	59	12
Attack	35	38
Consolidation	1	39
Maintenance	5	11

Early Operations

In the early years, great efforts were necessary to establish for the new services a proper organizational structure, appropriate placement within the ministry of health, and authorizing and supporting legislation. It was recognized from the beginning that in order to achieve eradication a National Malaria Eradication Service (NMES) had to be autonomous within the ministry and have a great deal of administrative flexibility in the handling of funds and the appointment and assignment of personnel, as well as priority in the receipt of funds. These were not easy to achieve; indeed, they are still lacking and their absence is a serious handicap in some services.

Training of personnel was a big problem, and it became necessary for PAHO to train its own personnel in new techniques, as qualified personnel, thoroughly versed in malariology, could not be recruited from government services, which were themselves undersupplied. Training centers were established in several places—Mexico, Jamaica, São Paulo—and those already existing in Maracay, Venezuela, were extensively used with very good results. More than 800 professional personnel and a large number of semi-professionals have been trained over the ten-year period in these centers, many of them PAHO/WHO staff and the others sent by national malaria eradication services.

Most of the national campaigns were originally planned on the basis of house spraying with dieldrin once a year. Although this method required protective clothing and considerable caution in application, the advantage expected from the prolonged residual action of dieldrin was a strong recommendation for its use. Drugs were used for presumptive treatment and radical cure treatment to be administered by local health services, including hospitals, was recommended. Then, as now, evaluation activities were based primarily on taking blood samples, but in the early years the NMES itself had to perform this work by detailing evaluators for surveys and for case detection in what is now termed "active evaluation." With time the idea took shape and developed into a network of "passive case-detection" posts, manned mostly by voluntary collaborators, and by 1958 over half the total bloodsmears made were obtained by the voluntary collaborators, which led to an improvement in the number and coverage of smears that the financial capabilities of the campaigns could not have afforded through active case-detection.

First Biological Problems

By 1958 tests on a regular basis were begun to determine the susceptibility of vector mosquitoes to insecticides, and in Central America, Mexico, and Jamaica they showed resistance to dieldrin. Change-overs were then made to spraying with DDT every six months, but this entailed much additional planning and increases in personnel costs. DDT had the advantage, however, of being easier to handle as it is less toxic to humans.

Other problems also began to be identified. Even where dieldrin was still deadly to the vector

species, annual spraying was sometimes insufficient to interrupt transmission; upon investigation it was found that the number of new houses built, the new walls, roofs, and lean-tos in existing houses, and the extent of washing and painting and other "aggressions" against sprayed surfaces in the course of a year were much higher than expected, which led to larger areas of unsprayed surfaces than could be permitted if a residual insecticide campaign was to be successful. This was thus another reason for changing over to spraying at six-month intervals.

PAHO was naturally interested in discovering the optimum timing and dosage of insecticide required, with a view to obtaining the best results at the least expenditure; an insecticide testing unit (now known as AMRO-0209) was established in 1959, which began by investigating the residual activity of DDT sprayed at different dosages and intervals.

By the following year, anopheline resistance to DDT was discovered in some areas, and in some small areas of Central America vectors were found to be resistant to both dieldrin and DDT. In January 1959 a committee of experts on insect genetics was convoked for the purpose of recommending the best course to take in research and the work of AMRO-0209 was broadened to include investigations of new insecticides. Laboratory tests were made on malathion and Bayer 2949.

Years of Expansion

Meanwhile, in 1958 and 1959, operations were also expanded in other parts of the Hemisphere. In Peru the last malarious area thus far uncovered by the program—the fluvial area of the upper Amazon basin—was brought under attack. In Brazil attack in the entire Brazilian Amazon was initiated by means of a chloroquinated-salt program. In Trinidad collective treatment with chloroquine-primaquine in monthly cycles was begun in an area of the interior where the vector bred in bromeliad plants and could not be reached with residual spraying alone, this being the last part of the island to have continuing transmission. The island of St. Lucia entered the consolidation phase.

As programs progressed, it became necessary to place greater emphasis on the evaluation of results, and a seminar was held in Brazil with a view to disseminating information and exchanging data on experience in this field.

The last two malarious countries of the Americas without an eradication program—Cuba and Haiti—began the preparatory phase in 1960-1961. The first area in the world to be certified as an area where malaria had been eradicated was delineated in Venezuela, after considerable study of the criteria that should be established as prerequisites to certification and an extensive evaluation of the situation and data obtained in Venezuela at that time.

By 1960, eradication programs in the Hemisphere could already be divided into three categories, which are still used (although some campaigns have shifted from one category to another at different periods): those with adequate financing and administration and no technical problems in which progress was steady and often rapid; those with technical problems that prevented success with the standard attack measures, in which progress was delayed pending new techniques and the provision of funds in order to apply them; and those without actual technical problems but in which inadequate financing, poor administration, and/or inefficient operations kept the impact of attack below the minimum level necessary to achieve eradication.

The roster of technical problems, which already included double resistance of vectors, increased in 1960 with the discovery of chloroquine-resistant cases of *Plasmodium falciparum* in the Magdalena Valley in Colombia and in the State of Táchira and Trujillo in Venezuela. As this did not occur in areas with vector resistance, the impact was not great in these programs.

To assist in overcoming difficulties in problem areas, PAHO established a new research unit (now known as AMRO-0210) to carry out studies on the reasons for the persistence of transmission in difficult areas. The unit began field operations in Costa Rica and moved to El Salvador in April 1961.

Financial difficulties became acute in some of the programs in 1961. In Paraguay attack operations had to be completely suspended, and in Argentina and Panama retrenchment was necessary. On the other hand, Ecuador re-initiated attack on a more complete scale, and the area in consolidation phase in various programs expanded satisfactorily.

In Guyana the first significant instance of reinvasion by malaria of a cleared area occurred along the Demerara River below Georgetown—an area in which malaria had been eradicated before 1955. Counter attack with spraying and collective treatment of foci was successful. A chloroquinated salt program was initiated in the interior of the country and despite cases of dermatitis in some persons, the program was continued successfully.

The medicated-salt program in the Brazilian Amazon basin was concluded at the end of the year, after evaluation of the results indicated that it was not sufficiently effective. Insufficient coverage, complicated by the existence of chloroquine-tolerant cases of *P. falciparum,* appeared to be the underlying factor in the failure of the attempt.

Methodological Advances

By this time (1961), it was clear that the simplistic approach to eradication, founded entirely on the intradomiciliary spraying of residual-action insecticides sprayed inside houses, was not sufficient to cover all situations and that the selective application of other attack methods was necessary in many areas.

Pilot studies of supplementary attack methods were being carried out in several places—larviciding was practiced in Mexico, Guatemala, and Nicaragua; collective treatment with antimalarial drugs was applied in El Salvador; medicated-salt was introduced for the interior of Guyana, and extensive radical cure of *P. vivax* cases was employed in foci in Costa Rica and Nicaragua and for the purpose of wiping out the remaining traces of transmission in Jamaica and British Honduras. AMRO-0209 began a study of the costs and effectiveness of larviciding under various field situations, and continued those related to alternative methods of utilizing DDT. It became clear that epidemiological as well as entomological evaluation of results was required in order to determine the usefulness of certain particular measures in interrupting transmission.

Larviciding continued to be investigated in 1962, which was utilized in several suitable areas with considerable success—the city of Guayaquil in Ecuador was protected in this manner, the shores of Lake Managua in Nicaragua were treated, and a focus in an area of double insecticide resistance in the Sanarate Valley in Guatemala was successfully eliminated.

Further experiments were also carried out with collective treatment in an area in Mexico, with PAHO financial support, and in Guatemala where an effort was made to stretch the funds available by developing a program in cooperation with the managements of cotton plantations and the United Fruit Company. The program in El Salvador continued to give excellent results in the area under treatment.

With reference to the attack on adult vectors through insecticides, an experiment was begun in Haiti, in conjunction with the U.S. Public Health Service, to gauge the effectiveness of the fumigant insecticide, DDVP. In Guatemala, a variation of DDT spraying was tried through an experiment in continuous spraying to maintain complete coverage with residual DDT in order to cope with the rapid building of new houses in an urbanized area. Spraying of a new insecticide, malathion, in areas where the vector was resistant to dieldrin and DDT was initiated in three sugar estates of high malaria incidence in Nicaragua as a field experiment, while laboratory studies of the activity of the compound were being made by AMRO-0209. The AMRO project also completed its studies of DDT, and one of the results, later to be of considerable value, was the conclusion that DDT deposits on certain hard surfaces retained their activity for considerably longer than had been believed, and were generally active so long as they were visible.

PAHO was also working on other aspects of insecticide coverage, testing a simple disc flow regulator for spray pumps to equalize the pressure with which the mixture was sprayed and therefore producing a more uniform deposit on the wall.

This device was developed by the H. D. Hudson Manufacturing Co., based on an idea which originated in the Technology Branch of the USPHS Communicable Disease Center.

AMRO-0210 completed 18 months of intensive study of two localities in El Salvador to isolate the factors responsible for the persistence of transmission, and initiated a given series of measurements of selected factors in a group of differing localities, for the purpose of perfecting methods for the more rapid identification of operative causes. A useful tool for the detection and quantification of the irritability and repellent action of an insecticide on mosquitoes was developed

by the unit and named the Excito-Repellency or E-R Box.

The need to obtain more precise information concerning chloroquine tolerance or resistance in *P. falciparum* strains was recognized in 1962 through the establishment of AMRO-0212, a center for the study of drug resistance in Ribeirão Preto, São Paulo, Brazil. Subinoculation of suspected resistant strains was begun in April 1963.

Poor administration problems continued to rank high as a cause of unsatisfactory progress, and much effort was devoted to convincing national authorities of the need for revamping inefficient methods and for assigning the necessary funds and flexibility to their eradication service. Poor administration and lack of funds continued to overshadow technical problems as obstacles to consistent progress in the Hemisphere, although as usual the more novel technical difficulties received more public attention.

The need for close coordination among the six eradication programs of the problem belt of Central America and Panama was recognized at a PAHO-sponsored meeting of the Ministers of Health of these countries, at which the establishment of a coordinated program for the region was discussed.

Years of Differential Progress 1963-1964

Explorations continued in many directions during this period; the good progress registered in some campaigns brought the Hemisphere nearer the goal, while the program was temporarily halted in other areas.

On the administrative front, great gains were made in the Dominican Republic, Colombia, and Brazil. The Dominican Republic requested PAHO to nominate a co-director for the program, Colombia re-organized its service and re-trained the entire NMES staff, while in Brazil a new plan of operations was worked out to substitute a true eradication program for the previous activities of mixed eradication and control work. An agreement was signed *ad referendum* in 1963 [5] by the Ministers of Health of Central America and Panama for the establishment of a coordinated campaign in the six countries, but the projected organization could not be formulated acceptably within the framework of the different legal systems and it was not possible to carry out a unified campaign during the period.

On the financial front, the problems became acute in Central America, Mexico, and Panama and conditions continued to be unsatisfactory in several programs in South America. Bolivia experienced a sharp crisis in 1963-1964, and so did Honduras.

Despite these difficulties, important advances were made. Population in areas in the consolidation phase increased by a third in 1963, and further increases occurred in numerous programs in 1964. Maintenance areas increased in Venezuela and Guadeloupe; some areas reached this phase in Peru; and the entire malarious areas of Jamaica and Trinidad and Tobago achieved maintenance at the end of 1964 and were certified the following year as areas with malaria eradicated.

As more programs approached final eradication, the need for procedures for transferring responsibility for surveillance activities to the general health services and for the timely provision of suitable coverage and training within those services became even more urgent. In an effort to spur activities toward this end, PAHO organized two Seminars on the Role of the General Health Services in Malaria Eradication, attended by the directors of the general health services and those of the malaria eradication services. The first was held in 1964 in Poços de Caldas, Minas Gerais, Brazil, and the second in Cuernavaca, Mexico, in 1965.[6]

The fight continued against technical problems—insecticide resistance, excito-repellency, outdoor biting and resting, drug resistance of malaria parasites—and against operational difficulties such as unusual degree of mobility in the human population, construction of new houses or alterations in old ones, openness of construction providing little surface for spraying, and outdoor sleeping habits.

The experiments with alternative insecticides to attack doubly-resistant species continued and expanded. Malathion spraying continued in Nicaragua and was initiated in the problem area of Honduras on the basis of quarterly cycles, although financial problems interfered with the regularity of those cycles. Some traces of malathion tolerance were noted in vectors during 1964. The DDVP trials

[5] Report, VIII Meeting of Ministers of Health of Central America and Panama, 1963 (mimeographed).

[6] The reports of these two Seminars have been published in Spanish in *Scientific Publication PAHO* **118.**

in Haiti were not particularly promising but were extended during 1963 to confirm the results; in 1964 they were stopped after it was concluded that the fumigant was unable to interrupt transmission under Haitian conditions. In Panama dieldrin was adopted in an area in which the excito-repellency of DDT appeared to be reducing the effectiveness of spraying and dieldrin resistance had never appeared. AMRO-0209 investigated the effects of various new candidate insecticides when sprayed over existing layers of DDT and found that non-irritating insecticides apparently neutralized the repellent effect of the DDT and had such a rapid knock-down effect that the irritability factor had no time to affect the mosquito. The unit also experimented with various substances as possible pre-treatments to reduce the rapid loss of activity of the new insecticides when applied to sorptive mud surfaces; no effective substance inexpensive enough to be feasible could be found.

Meanwhile attacks were made against insecticide problems in "difficult" areas without vector resistance, where human factors tended to interfere with complete coverage or vector habits reduced effectiveness. In Mexico experiments were made with four-monthly cycles of DDT at varying dosages; in Colombia inter-cyclic spraying by special brigades was instituted in an area bordering with Venezuela; in Ecuador intense spraying of additional surfaces scheduled at shorter intervals was tried in a limited area. These measures generally reduced transmission but without interrupting it completely.

Larviciding continued to be employed in Nicaragua, and the use of fenthion in the Sanarate Valley in Guatemala was successful and was therefore terminated in 1963 (the valley became reinfected with malaria in 1964 and was again placed under fenthion larviciding). The city of Guayaquil (Ecuador), which had been protected particularly through larviciding, successfully reached the consolidation phase.

Collective treatment programs were limited in 1963 by lack of funds—those in Guatemala and El Salvador could not be extended; the one in Mexico was suspended and the area later reinfected. In Nicaragua an area near Managua was placed under collective treatment when larviciding along the shores of Lake Managua proved insufficient to control transmission. During 1964 a pilot project of collective treatment was initiated in Petit Goâve in Haiti, using chloroquine-pyrimethamine in three-weekly cycles; the drug program was extended somewhat in El Salvador though with less success than in the first program because the preparations were less thorough; and in Nicaragua, programs begun in Madriz and Estelí were found inadequate to interrupt transmission because of poor acceptance on the part of the population. These various drug programs provided a considerable experience which served as a basis for determining the requirements for successful attack on transmission with this weapon: preliminary education of the population, appropriate workloads, suitable working methods, length of the program, optimum timing, surveillance required after termination, and many other aspects.

The basic conclusion reached during this biennium was that the combined use of various attack measures selected after study of a given local area was the most fruitful course to follow in problem and "difficult" areas. Insofar as financial limitations permitted, combined attacks were utilized—larviciding as a supplement to collective treatment in localities in Nicaragua; intensive case-finding and radical cure with supplementary spraying in Ecuador; focal spraying and rapid radical-cure treatment in Bolivia. Many of these trials demonstrated the effectiveness of the measures, but because it was impossible to apply them on the scale required with the budget provided, the malaria situation worsened in sections of the problem area and little progress was made in areas of refractory malaria elsewhere.

AMRO-0210 finished and published the results of the series of synoptic two-week studies to determine causes of persistent transmission, but its activities were interrupted during most of 1964 because of the untimely death of the team leader, Dr. René G. Rachou. The methodology was later employed in Mexico, where the unit itself was later reconstituted and undertook the study of persistence and of the effectiveness of certain attack measures.

The possibility of a long-acting antimalarial drug was not neglected during this period, but a projected trial of cycloguanil pamoate was postponed when it was found in experiments in other parts of the world that the dosages for children were inadequate and required adjustment.

Present Status

After 10 years of effort, the question could be asked how far have we travelled? In the Caribbean the task is well along toward completion and eradication has been certified in six programs; two others, which got off to late starts, are nearly ready for the consolidation phase; and the remaining one (Haiti), which encountered some technical difficulties, is making progress with its collective treatment program.

The record of blood smears examined and cases found in these programs provide excellent examples of the success achieved in some of the programs. The history of the Dominican Republic campaign (see Fig. 3), from the control period through several false starts to the present, is especially instructive. Very evident is the rapid rate of decline of positivity (indicated by the sharp divergence of the line showing cases found from that showing smears examined) after an adequate, efficient program was achieved at the beginning of 1963. Cuba presents an equally good picture (Fig. 4). The quick reduction in positivity in the six programs now in the maintenance phase is also shown in Figure 4; the levelling-out at around five cases per year after 1962 reflects importation of cases from other areas and the discovery of occasional cases of *P. malariae* discovered.

Venezuela, Guyana, Surinam, and French Guiana have some areas that have not responded well or where attack is extremely difficult because of access or the hostility of the population; drugs, as collective medication in Venezuela and in the form of medicated salt in Guyana and Surinam are primarily being used against these problems. Medicated salt has given excellent results in Guyana and has had promising beginnings in Surinam.

In Mexico, Central America, and Panama, the long struggle to determine the reasons why the classical residual-insecticide attack is unable to interrupt malaria transmission, and then to obtain the resources needed to adopt the attack methods found to be required has placed the eradication campaigns in a brighter position. Funds are being provided, in part through long-term loans from the AID, to finance adequate attack measures for the next three years in the programs of Central America and Panama. The knowledge and experience accumulated during many trials and limited-scale programs over the years when restricted budgets forced the programs to attack only the most difficult situations now provide a firm basis for scheduling and implementing attack on transmission at the most vulnerable points of each situation. A coordination machinery has been established for Central America and Panama. The next few years will be the crucial ones in this problem-plagued area. Figures 5 and 6 present examples of the results of technical problems combined with scarcity of funds (El Salvador), and of the latter without serious technical problems (Panama and Costa Rica).

In South America the most serious obstacle to be overcome is providing adequate funds. Several programs have "difficult" areas in which malaria does not cede to routine attack measures, but it is expected that the difficulty can be overcome through more frequent or through application of the familiar spraying techniques, and, wherever necessary an added push with inter-cyclic spraying, intensive radical-cure treatment, focal collective treatment, or perhaps larviciding, when funds become available to apply these in a consistent and timely manner. Eradication programs must maintain a certain rhythm, there is a minimum speed of operation, and the program that falls below this minimum runs the risk of losing the essential cooperation of the population and also of the government. The initial plans for eradication programs did not include the large sums necessary to maintain the gains made in the early years when funds were not quite adequate to see the attack through to completion in the remaining foci of transmission, and re-infection is continually threatening or occurring. Some of these programs are increasing the cost of eradication by continual under-financing. In Figure 7 it is very clear from the graph for Bolivia, for example, that the effect of the sharp reduction in activities caused by the budget cut in 1963 and 1964 turned the minor increase of positivity in 1962 into major outbreaks, and that subsequent control was established over this situation in 1965 when an adequate budget was again provided. The graph for Ecuador shows the braking effect on progress resulting from the continual insufficiency of funds required for complete attack.

The Brazilian program, which in itself covers half a continent, is moving forward with better momentum than ever. Because of the magnitude of the problem, this program is scheduled to be

implemented successively in different parts of the country, and here again an inadequate budget has reduced the speed with which the plan can be carried out. However, this campaign has seen great improvements, and good results can be expected if the gradual inclusion of the entire malarious area is not allowed to fall too far behind schedule. According to present plans, the last areas to come under attack will enter that phase in 1968.

Detailed projections of the expected duration of the individual campaigns and the budgets that will be required for their prosecution, both from national and from international sources are presented in Document CSP17/5.[7] The total of past expenditures and projected costs for all malaria eradication programs assisted by PAHO/WHO over the period 1956-1965 is presented graphically in Figure 8; the overshadowing role of local costs, provided almost entirely by national governments, is very apparent. The actual source of the funds expended to date is seen in Table 3. The increase of estimated costs in 1966, 1967, and 1968 over the present level reflects the improved position almost assured for the Central American Programs, and the increased level of expenditures necessary for a technically adequate program in a number of other countries. The sharp decrease each year projected from 1967 onwards depends, of course, upon the provision of adequate funds in prior years—the level could be much more nearly horizontal and the total cost, until eventual eradication is reached, could be much greater if *timely* provision of funds is not adhered to.

II. STATUS OF THE MALARIA ERADICATION PROGRAM

General Picture

Advances made during 1965 were primarily in the administrative and financial sector, for a long time considered the most troublesome "problem area." In the region comprised by Central America, Mexico, and Panama the stubborn fight to prevent deterioration in the malaria situation, while budget limitations blocked positive action, finally has an end in sight. Funds are assured for some of these programs, others are in the final stages of negotiation, and funds have been promised for the remainder. During the forthcoming triennium (funds are expected to become available at various dates in 1966) adequate attack measures will be put into operation in this area so beleaguered by technical problems. The long effort to provide a coordination machinery in the region has also been successful. That system was established in 1965 and is already functioning, for the purpose of ensuring that the effects of the importation of malaria from one program to another are minimized and that attack supports attack inside the group.

In Brazil, the federal program moved ahead with new impetus. A new two-year loan agreement was signed with AID (USA) to cover necessities for imported materials. A training section was established and it is being equipped and staffed to train personnel who will be needed for the expansion of operations taking place within the program. The first areas to be placed in the consolidation phase were reclassified from the attack phase, after reviewing surveillance operations to ensure that they met minimum requirements. Although the budget is not quite adequate in this program and some re-scheduling has therefore been necessary, which will extend the attack phase an additional year (the last area is now scheduled to begin attack in 1968), the campaign is progressing more satisfactorily than ever.

In some programs, which had no financial or administrative problems, or these were not serious, solid advances were made toward the eradication goal. This was the case in Cuba where the number of cases found fell from 624 in 1964 to 127 in 1965, while the number of blood smears examined rose from 276,500 to 424,000. The Dominican Republic likewise showed excellent progress, where cases fell from 321 among 121,000 smears in 1964 to 84 cases among 206,000 smears in 1965. Bolivia achieved a greatly lowered slide positivity rate compared to 1964, with a greater number of smears examined. In Guyana the situation improved considerably.

Although several other programs also show decreasing rates of positivity compared with 1964, this is due primarily to the fact that collective treatment programs are in progress, which produce a large number of blood smears with low average positivity, generally quite outbalancing the coverage of the rest of the malarious area. Collective treatment programs were under way during 1965 in Guatemala, El Salvador, Haiti, Honduras, and

[7] See Annex 3, pp. 476–511.

Nicaragua, although only in Haiti was the program fully developed to cover the entire programmed area.

The general situation of the various programs, by phase, can be compared in Maps 1 and 2 and the population figures and areas, also by phase, are summarized in Tables 4 and 5. Detailed population figures by country (Table 2) are repeated to make for easy reference, and details of areas in each phase, by country, are shown in Table 6.

Notable changes occurred during the year; the maintenance phase was increased by the addition of Jamaica and Trinidad and Tobago, as well as by other areas of Argentina and Venezuela. The consolidation phase expanded by the entry of areas with a population of almost a million and a half in the Brazilian federal program and a million in Colombia, the first areas of the Dominican Republic, and various other small increases. In the attack phase, population in those areas in the Brazilian federal program increased by 4.4 million as new areas were brought under complete coverage, while the total net change in attack in the remaining programs was negative, as was to be expected in more advanced programs. Preparatory phase populations were drastically reduced as the Brazilian program reclassified large areas that had been "under observation" for several years; some were definitely classified for future attack and some were found to be nonmalarious. The latter included a population of some 16 million persons.

This general review would not be complete, however, without pointing out that while satisfactory administrative and financial arrangements were being made for the problem areas of the Central American region, actual field operations were minimal and the spread of malaria could barely be contained; that lack of funds in Ecuador paralyzed operations in the latter part of the year; that Paraguay has still not been able to resume attack; and that Argentina and Colombia were forced to restrict operations because of an insufficient budget.

Current Extent of the Problem

In Mexico the situation remains essentially the same as at the end of 1964, although evaluation operations were insufficient to give a complete picture. Plans have been made for a greatly intensified attack in areas of persistent transmission, but funds have not been made available; however, they have been approved in principle by the Government, which is endeavoring to provide a much larger budget for the next six years. Several pilot projects using various combinations of supplementary attack methods are in progress (see section on Research, AMRO-02180, p. 351).

In Central America greater financial resources will be available at various intervals during 1966 for the new three-year attack programs in the different programs. The three-year attack originally planned for 1965-1967 is expected to extend from mid-1966 to mid-1969, with adjustments for seasonal factors, as a result of the delays inherent in the process of approval of external financial aid. Meanwhile, in 1965, El Salvador extended its collective treatment program to cover an additional 64,800 persons, although the operation suffered from insufficient preparation; Guatemala had a drug program for a population reaching 114,000 at its maximum, but it was not well administered; Honduras was able to initiate the scheduled collective treatment program for its problem area on a pilot scale only, in a population of 16,250 in the highest incidence area; this program was carefully planned and executed and obtained excellent results. Collective treatment was used in Nicaragua only in a few small localities of the problem area because of lack of funds; malathion is still being sprayed and will continue to be used in the expanded program in those areas where drugs alone cannot halt transmission completely.

The measures recommended to eliminate areas of persistent transmission in Costa Rica were not adopted during 1965, but action was taken to improve the direction and administration of this program in view of better financial prospects.

In April 1965 a Conference of the Ministers of Health of Central America and Panama was sponsored by PAHO in Washington, D.C., at which the need for efficient coordination among the six programs was recognized and a Coordination Working Group was established to perform this function.[8] The Group will meet at least twice a year and is composed of the Directors of the Malaria Eradication Services of the six programs, with PAHO's Chief Malaria Adviser for Zone III serving as secretary. The secretary also receives and distributes statistical and other data concerning the operation of the various programs on a monthly

[8] Published in Spanish in *Scientific Publication PAHO* **116**, 59-60.

and quarterly basis. The Working Group is subsidiary to the Superior Public Health Council of Central America and Panama.

British Honduras, which fortunately has escaped technical problems and has been entirely in the consolidation phase since mid-1962, nevertheless fell victim to the deterioration which has occurred in the region since 1963 and experienced a sizeable outbreak of *P. falciparum* malaria in its southernmost district, Toledo, evidently set off by imported cases. Spraying and collective treatment of the population involved brought it under apparent control by September, but the consolidation phase will be prolonged.

Progress has been excellent in the Caribbean. In addition to the above-mentioned programs that reached the maintenance phase and those of Cuba and the Dominican Republic that have advanced steadily in recent years and are nearing the consolidation phase (the Dominican Republic placed its first areas in consolidation in December), the remaining program, that of Haiti, launched a full-scale attack using collective treatment. DDT had proved to be inefficient in interrupting transmission of malaria in large and widespread areas of the country, and on the basis of a pilot drug project in Petit Goâve begun in 1964, a large drug program was initiated in the first half of 1965. As funds were not adequate to cover drug administration to over half a million persons scheduled, and at the same time to carry out the routine semi-annual DDT cycles in the whole attack area, spraying was suspended in about half the houses. Surveillance activities were tempered to the potentialities of transmission in the various areas, some of which were subjected to passive case detection only and others to active case detection as well. Acceptance was excellent in the drug program and results were good, but the rise in incidence in the remaining portions of the malarious area was greater than anticipated and new areas were progressively incorporated into the drug program. At the end of the year 1.25 million persons were being treated in three-week cycles of chloroquine-pyrimethamine. It is expected that the program can be terminated in these areas at varying times during 1966, and some additional areas will undoubtedly need to be added. An annual cycle of DDT spraying will also be made in all localities below 200 meters in altitude and in higher ones with recent transmission.

In Guyana, Surinam, and French Guiana different conditions prevailed in the various programs. Excellent results continued to be achieved in the interior regions of Guyana and the medicated-salt program was completed in two out of three districts. The former were placed in the consolidation phase; in the third, the Rupununi area, where chloroquine-resistant falciparum had motivated a DDT campaign to supplement medicated-salt, salt distribution and spraying continued and only 17 cases were found. Of these 16 were falciparum malaria and none were chloroquine-resistant. Efforts are being made to improve evaluation in all districts

Surinam experienced a considerable increase in the number of cases found in a decreased number of blood smears. This was related to the fact that the number of smears collected was doubled in the highly malarious portions of the interior (of which 85 per cent were taken by passive case-detection) and that there was a decrease to half the previous number of smears taken in the rest of the country. Since years of effort have been fruitless in trying to obtain the population's cooperation to carry out spraying along the upper Surinam and Tapanahony/Lawa river systems, a trial was begun of the use of chloroquinated salt, after studying the supply channels for salt in the interior. The first distribution of medicated salt was made by missionary doctors along the upper Surinam, and the salt was well received by the population. Expansion of the program on the river is under way.

French Guiana reported the reclassification of part of its attack area to the consolidation phase. Venezuela continued attack through collective treatment, spraying, and peridomiciliary fogging in its areas of persistent transmission.

Financial difficulties were widespread in the South American programs. The campaigns in Ecuador and Colombia both suffered, particularly the former. Efforts to eliminate two areas of continuing transmission in Ecuador were nevertheless successful in one of these areas. In Colombia supplementary attack was initiated through radical-cure treatment on a presumptive basis, which was administered to all febrile cases found at the time of the semi-annual spraying cycles in the most difficult areas of the country. The treatment used was an experimental regimen of chloroquine-pyrimethamine-primaquine given for three successive days; details of a controlled test of this treatment

used for *P. vivax* will be found under "Research" (p. 352).

Argentina expanded its spraying program somewhat during 1965 and continued geographic reconnaissance in Formosa. Paraguay pushed forward with geographic reconnaissance during the year and is trying to arrange financing to permit a resumption of spraying operations by the latter part of 1966.

Bolivia recovered from the blow to the program which had resulted from insufficient budget in 1964, reorganized some of its zones, and made good progress toward eradication. Small collective treatment programs were employed in some of the persistent foci in river basins, and one of the three such sectors was cleaned up and passed to the consolidation phase. The northern attack area, including the Bolivian Amazon region, showed very reduced positivity. If funds are provided to permit a higher level of evaluation, this program should continue to make rapid progress. An Institute for Infectious Diseases was established in 1965, which will assist in setting up local health unit coverage in areas approaching maintenance and take over malaria service staff and functions when this phase is achieved.

Peru had outbreaks in the consolidation area of the northwest, partly as a result of unusual rains that altered migration routes by opening new areas to cultivation, and partly because of deficient and slow case-detection and antifocal action. For this reason the transfer of some consolidation areas in this zone under the responsibility of the general health services was postponed.

The Brazilian federal program has been discussed above. In São Paulo, the level of cases, primarily imported from other Brazilian states, increased during the year and were found to be widely scattered throughout the State. This represents considerable danger to the program, which is almost entirely in the consolidation phase, but this is partly counterbalanced by spraying being carried out in connection with the control of Chagas' disease.

Details on problem areas are given in Table 7. Table 8 lists the collective treatment programs under way in the Hemisphere and provides information on the population under treatment, drugs used, and other data. The total under collective treatment is greatly increased by the expansion of the Haitian program; considerable expansion can also be anticipated in the Central American campaigns during 1966.

Statistics of Field Operations

The details concerning the categories of personnel employed in malaria eradication campaigns in the Americas are presented in Table 9, by category, and in Tables 10-13 by program.

Total personnel remained very stable as compared with the December 1964 level, but its distribution in the various types of activities carried out in malaria eradication operations shifted noticeably. The increasing use of collective treatment programs in the problem areas is shown clearly by the decreasing percentage of persons employed in spraying operations and by the increase in those working in epidemiological operations, a category that includes, under the title "evaluator," persons employed in administering collective treatment and the simultaneous search for cases. Slight decreases also occurred in the number employed in administration and transport, but these changes are within the range of normal annual variation.

If Table 10 (personnel in spraying operations) is compared with the equivalent table in the XIII Report[9] it can be seen that the decrease in this category occurred mainly in the programs of Brazil, Haiti, and Ecuador. In Haiti, while a considerable decrease in spraying personnel was made in order to expand the drug program, the very low level shown is merely the result of a seasonal spraying pattern that does not program routine spraying in December. The lack of personnel in El Salvador is also a result of seasonally-timed spraying.

The country-by-country data for personnel in epidemiological operations (Table 11) shows that the increase occurred primarily in the category of "evaluators." About 60 per cent of the rise is accounted for by the Haitian program and again reflects the magnitude of the collective treatment program under way there. The other campaigns with drug programs also show increases in this category but to a lesser degree, since these programs have not been fully developed nor is it anticipated that they will cover such a large population.

It is noticeable from this table that the only category showing an actual decline since the end of

[9] *Official Document PAHO* **69**, 241.

1964 is that of physicians. This occurred primarily in the programs of Mexico and Peru, although the need for this personnel has not decreased in either of the campaigns. The explanation for most of the decreases lies primarily in insufficient funds that prevent the payment of competitive salaries; therefore the posts are either scarce or many of those existing are vacant.

Table 12 (personnel in administration and other activities) shows no striking changes. Jamaica, which entered the maintenance phase, reduced its staff to one man.

Transport personnel are detailed in Table 13. A slight decrease occurred in the total staff in this sector, primarily in the federal Brazilian program and in Ecuador, but it was somewhat offset by increases in Colombia and some other programs.

Table 14 gives details of the various types of transportation facilities available in the campaigns. Noticeable changes occurred with regard to those used in the Brazilian program, which greatly increased the number of bicycles, boats (particularly those without motors), and saddle and pack animals. The emphasis on this nonmotorized equipment stems both from the terrain to cover and the fact that the program does not receive UNICEF aid and must provide imported items from its own resources; the AID loan to Brazil is destined to cover purchase of such items. The Colombian program also increased the number of animals in use, reflecting the emphasis on spraying and the administration of presumptive radical-cure treatment in areas of difficult access. In Mexico, on the other hand, the shift has been in the other direction, with a decrease in the number of animals and an increase in motorized vehicles. UNICEF continues to give essential support in both transport and insecticides,[10] providing vehicles promptly in the amounts and types recommended by PAHO.

Data on national budgets in 1964 and 1965, and commitments for 1966, are presented in Table 15. Expenditures were at a somewhat higher level in 1965 than in 1964. Commitments for 1966 show a much larger increase—25 per cent higher than the amount reported as spent in 1965. This is due primarily to the inclusion of sums expected to be available as proceeds from long-term loans to Governments from AID for malaria eradication operations; eight programs are negotiating such loans. In addition, commitments are at significantly higher levels in the programs of Brazil (federal), Mexico, and Colombia.

In Table 16 a summary is given of the gross number of smears examined and cases found annually since 1958. An increase occurred in the number of blood smears taken, principally as a result of the high blood-smear production that always accompanies collective treatment programs in which blood samples are generally taken from all newly arrived persons in the treatment area, persons refusing treatment, persons who have missed one or two treatments, and babies reaching six months of age, in addition to all fever cases. A significant increase was also registered in Brazil.

Table 17 presents a summary of the blood smears examined and the positives found in 1965, by type of case detection, for the individual programs. The greater efficiency of the passive case detection network continues to be very apparent.

The over-all slide positivity rate (per cent of blood smears that were positive for malaria) fell in 1965 in relation to 1964. Aggregate figures of this kind have no epidemiological significance, since the percentage of the population for which blood is examined differs greatly from area to area, and changes in the intensity of sampling from one period to another between highly malarious areas and less malarious areas will have a strong effect on the general rate of positivity. The increased sampling in areas under collective treatment programs, which represented most of the increase in smears examined during the year, also accounts in the main for the reduction in the percentage of positive slides found. However, reductions also occurred in many other programs, and indeed only two show a higher positivity rate—Colombia and Surinam. In both the increase is likely to have been the result of intensified operations in the more malarious areas.

III. SPECIAL TECHNICAL PROBLEMS

General

No new technical problems developed in 1965 and, except for drug resistance in Brazil, there were only minor changes in areas affected by those problems. Since the nature of these problems and their extent have been fully described in recent an-

[10] UNICEF also provides drugs for collective treatment programs of some campaigns.

nual reports, as well as the measures used to overcome them and the results achieved, this report deals only with the changes in the area or the attack method used.

As for the major problem areas—in Mexico and Central America—little or no progress was made because financial difficulties prevented the application of supplementary attack methods on the necessary scale. Retrogression was noted in several programs, which reduced the basic spraying operations in order to expand mass distribution of drugs to more of the problem areas. This was especially noticeable in El Salvador where spraying was suspended in 1965. Despite a late and scanty rainy season in the eastern part of the country during 1965, when spraying and drug distribution were suspended because of lack of funds, the incidence of malaria rose to the highest levels since the program began and the total for the country reached 34,070 cases.

Other programs with problem areas showed little change in incidence because the changes in problems and programs were minor or offset each other.

The Status of Specific Problems

1. *Physiological Resistance of Vectors*

The main area of DDT resistance—that infested by *A. albimanus* in the Pacific coastal region of Central America—remained essentially unchanged. The areas with recent development of DDT resistance in western Guatemala showed trends to higher levels of resistance. The neighboring area in the southwest corner of Chiapas, Mexico, did not spread or change appreciably. Susceptibility tests performed elsewhere in that country showed some survivors of the LC_{100} exposure to DDT in both *A. albimanus* and *A. pseudopunctipennis*, but in nearly every instance this was due to the fact that it was carried out at a high temperature. Tests repeated later in the year in the same localities usually showed susceptibility. However, early DDT resistance, as yet of little operational importance, was seen in a few localities in the States of Sinaloa and Guerrero in both species.

For the first time evidence of DDT resistance was discovered in *A. albimanus* in Cuba, which reached a survival rate of 50 per cent in the most resistant locality; however, this has not resulted in a problem area. The area of DDT-resistant *A. albimanus* in the Dominican Republic increased in size, but the involved area remained free of malaria cases.

High resistance to dieldrin appeared for the first time in Costa Rica in a small area near the Nicaraguan border. The strain remains susceptible to DDT. The prolonged use of DDT in house-spraying programs in Costa Rica (nine years) has not yet produced any recognized resistance in *A. albimanus*.

Dieldrin resistance has been discovered for the first time in Panama in the small dieldrin trial area on the north coast. As a result, further pursuit of this trial has become useless. Malaria incidence has been rising recently in the test area.

2. *Irritability*

There has been a wider use of the new excito-repellency test box, not only in the Americas but also in other regions where samples of the device have been sent for field trials. In western South America the tests show the major vectors to be slightly or not at all irritable. This accounts in large measure for the much better performance of DDT against *A. albimanus* and *A. pseudopunctipennis* in those areas than in Central America and Mexico, even in the absence of resistance to DDT.

Irritability has been seen to some extent in E-R tests of *A. punctimacula* in Colombia and Ecuador, but escape usually does not take place before a lethal contact with DDT has been made. The E-R tests indicate that this factor should not be a serious handicap in the case of this species, and it apparently is not an operational disadvantage.

Irritability remains a major problem in the Pacific Coast of Mexico and in Haiti, Costa Rica, and Panama, but is of secondary importance compared to resistance in Central America, where both factors are limited almost exclusively to the Pacific coastal region.

Among the resistant *A. albimanus* of Nicaragua, Honduras, and eastern El Salvador, a tendency for former high levels of irritability to diminish has been noted. In general, this change helps the mosquito survive after long contacts with sprayed walls.

3. *Resistance of P. falciparum Strains to Chloroquine*

Real or suspected resistance of *P. falciparum* to chloroquine has been reported increasingly from

localities in the Amazon valley of Brazil, and adjacent areas of Peru and Bolivia. It has also been confirmed in the State of Espírito Santo, Brazil. Resistance in Peru and Bolivia remains as yet unconfirmed, but in Bolivia especially, an improved DDT spraying program has brought an epidemic situation nearly under control. Four to 15 cases per month of *P. falciparum* remain in the northern district of Pando-Beni, compared to less than half this number of *P. vivax* cases. This ratio of *P. falciparum* to *P. vivax* is suggestive of the presence of *P. falciparum* resistance, since this species has disappeared entirely from the rest of the country.

The problem of resistant strains of *P. falciparum* in the Rupununi district of Guyana was overcome by well-controlled house spraying; the last cases found there were in July 1965.

Chloroquine-resistant strains of *P. falciparum* remain in Colombia in the Magdalena valley and elsewhere. This seems to be reflected in the shift in parasite predominance from *P. vivax* in 1959 and 1960 to *P. falciparum* in the succeeding years. This predominance has been increasing as can be seen in Table 18 and is now 65 per cent. Resistance was first discovered in 1960.

Reorganization of the Service in 1965 and better coverage of involved areas with DDT spraying should reverse this trend.

4. *Migration and Colonization*

Migration makes eradication of malaria more difficult and costly only where part of a country or region is about ready for or in consolidation, while another part remains malarious. If the areas located between those where migration occurs are equally advanced toward eradication, the effect of migration *per se* is usually slight. There is, however, the fact of precarious or inadequate housing for migrant laborers, many of whom sleep out of doors. In colonization areas, there are the additional elements of construction of many new houses or alterations of sprayed ones that remain unprotected by DDT until the next spraying cycle. These are additional causes for the persistence of transmission in several problem areas, and are among the major causes in Ecuador, Colombia, Venezuela, Brazil, and others, and caused a major outbreak in Paraguay.

Several methods have been tried for coping with this problem, the most direct being the use of supplementary spray squads to do fill-in spraying of new houses or altered surfaces. Most of the programs have not been able to obtain the extra funds needed to place this operation on a sound basis.

Methods for Solving Technical Problems

1. *Change to an Alternate Insecticide*

The use of malathion was discontinued in Honduras in March 1965 after the inadequate results obtained in 1963 and 1964 in the cotton-growing areas of the south. This suspension was dictated by the decision to use available funds to initiate a mass drug campaign in the highest transmission areas, and not because there was proof that malathion lacked effect. It is expected that a combination of drugs and malathion will eventually be needed in areas of high transmission due to high DDT-resistance and a large component of outdoor transmission. As of June 1966 funds were still not available for the expansion of attack in any form.

Malathion has been continued in use in Nicaragua in some of the sugar estates and in a barrier zone of the city of Estelí. Here, too, lack of funds has prevented implementing attack on an adequate scale.

Dieldrin was recommended instead of DDT for overcoming the irritability problem in Costa Rica, but the change was not applied until September 1965; however, owing to operational deficiencies, coverage was only fractional. No evaluation is yet possible.

As for the problem of irritability, a trial of BHC was recommended for part of the problem area in the State of Guerrero, Mexico, but no funds have as yet been made available for the evaluation, and application has not started.

Experimental hut trials and village-scale trials with OMS-33 (Baygon), a carbamate residual insecticide, were initiated in 1965 in El Salvador.

2. *Antilarval Measures*

Larviciding with fenthion was tried in the drainage ditches and rain pools of Puerto Barrios, Guatemala, the operation relied too heavily on the Civil Action group (military personnel) and it was not performed adequately. The broader plan for larviciding in upland valleys with resistant vectors was not begun because of lack of funds.

Larviciding with Paris green is still used along the southern shore of Lake Managua, Nicaragua, but this alone was insufficient to prevent re-infection of some of the "barrios" of Managua by imported cases. House spraying with malathion proved to be a very effective supplement in these foci.

A field trial with larviciding was carried out in selected river valleys of Sinaloa and Culiacán in northwest Mexico throughout an entire season and was shown to be effective and economically feasible in some situations. Operation standards and cost figures were developed, but the method is not being continued at present because of financial difficulties. On a smaller scale, reduction of breeding places by drainage was combined with the larviciding operation.

3. *Changes in DDT Cycles*

The initial plan of applying DDT in El Salvador during two cycles of three months each was not carried out in 1965. Spraying was stopped entirely when the available funds were applied to mass drug distribution. In any event, it has been shown that there are many local exceptions to the general mosquito-breeding pattern in every broad area. Lagoons and lakes in the coastal plain have produced their maximum mosquito density in the dry season and, conversely, some localities in the foothills and upland valleys are surrounded by enough flat terrain to have predominantly rainy-season transmission. This further complicates the attempt to schedule one or two spraying cycles so as to concentrate the most effective residual protection in the season of maximum transmission.

The application of 2 g/m^2 of DDT in three annual cycles was continued in an experimental area in the State of Oaxaca, Mexico, but after September 1965 active case-detection was expanded to all localities, as was radical treatment of all cases found. No further evaluation is possible of the benefits to be derived from the increase in spraying cycles alone.

The trial of four cycles with 1 g/m^2 of DDT each was terminated in Haiti in February 1965, when it became apparent that the reductions of malaria were not much greater than with the preceding schedule of two cycles per year, and the available funds were required for a mass drug-distribution program in all of the problem area. It should be noted that while DDT had not succeeded in halting transmission in many areas, suspension of its use in large areas in July 1964 for financial reasons had serious repercussions late in 1965 when many areas, which had been almost free of malaria for several years, began to experience outbreaks.

4. *Mass Drug Distribution*

Five Central American countries had mass drug-distribution campaigns during 1965, but for financial reasons not a single one was adequate in scope, and some lacked personnel, supervision, and transport as well. Attempts to economize have also led to loss of superior personnel and to the inability to recruit well-qualified personnel.

In El Salvador, a decision was made to increase drug coverage somewhat by foregoing DDT spraying. The effect of this suspension became evident not only in the eastern end of the problem areas that were left with no attack measures at all, but the cases of malaria increased in Zone I, which had previously experienced success in both treated and post-treatment vigilance areas. It is impossible to say how much of this was due directly or indirectly to an increase of imported cases from the untreated and unprotected eastern part of the coastal plain, but the deterioration in Zone I in 1965 as a result of no spraying was obvious, compared with 1964 when DDT was in use. Unfortunately funds for putting the program on an adequate basis are still not available as of mid-June 1966.

In Nicaragua shortage of funds prevented completion of any single program, as personnel were shifted from treated areas to others that suddenly became problem areas, without there being resources to maintain the necessary vigilance. Good results were generally seen while drugs were in use, but importation from untreated portions of the problem area soon reinfected any cleared area. In some of the persistent foci in the malathion-sprayed sugar estates, the addition of mass drug distribution was temporarily effective.

Mass drug distribution of chloroquine-pyrimethamine was recommended on a very large scale for Haiti (570,000 persons) by an evaluation team in February 1965, with the view that if complete attack could be carried out simultaneously in all problem areas, the reservoir could be reduced to a controllable size by the time the DDT applications, then being used, began to be exhausted. Reinfection by migration would also be controlled.

One full round of DDT at 2 g/m² was to be applied before the major transmission season in all areas of persistent transmission, even where it was low, and the rest of the annual budget would be applied to mass drug distribution and limited evaluation activities. There were several delays in initiating drug distribution in the various areas where it was obviously required because the large additional supplies of drugs needed were also delayed. As a result, more and more localities were found to be malarious again. These were programmed for mass drug distribution, but again were delayed in getting started because of insufficient supplies of drugs. By the year's end, 1,250,000 persons were under treatment and the number later rose to 1,650,000 as more and more formerly cleared areas were placed under mass drug distribution the moment there were indications of reinfection or re-establishment of transmission.

There were a number of small outbreaks during 1965 in areas where spraying had been carried out and after mid-year in areas where it had been suspended in June 1964. Since the migration pattern has not changed, this is now recognized as an indication that DDT had been preventing transmission prior to that time. Spraying was not resumed because the available funds for the year were totally committed, especially to the drug program. There was no balance at the end of the year, despite the fact that many drug programs were not started as soon as they were recognized as being necessary.

In Haiti drug programs have several advantages over those in other countries. A large source of well-educated but unemployed personnel exists, and new recruitment or quick replacement of unsatisfactory workers can be done easily. The country is very densely populated, which permits economical and thorough coverage (re-visits) by drug distributors travelling on foot. The people are inclined to cooperate and they do; a high percentage of acceptance thereby is achieved.

An evaluation is made of every locality that shows persistence of autochthonous cases; to date, operational failure has been found to be the usual cause. Occasional planning failure was also seen. Treatment areas were patterned after political divisions, with the result that some epidemiological units were only partially treated.

Supervised treatment has been given to cases that appeared despite regular medication. Operational failure or vomiting was found, but no evidence of drug resistance has been observed as yet.

IV. RESEARCH

Insecticide Testing Team—AMRO-0209

The future course of this team was discussed at a joint meeting between WHO and PAHO staff held on 24 March 1965. It was decided to incorporate the team fully into the WHO network of collaborating insecticide-testing laboratories and field stations and to make it the WHO unit for field trials of new insecticides in the Americas. A decision was also reached to concentrate on OMS-33 (Baygon) for the Stage IV, V, and VI trials. This is a relatively new carbamate insecticide and the most promising of those that passed the first three stages of the WHO screening scheme. A complete plan of operations was drawn up with WHO advice for the Stage IV trials (experimental hut) using resistant *A. albimanus*. Seven huts were built in June and July 1965 on the shore of Lake Jocotal in El Salvador; five were sprayed with OMS-33 on 25 July and resprayed on 2 December. Two were left unsprayed as controls. Four of the huts had mud walls and three were made of thin sticks of poles, the common types of construction in the area. All had straw-thatch roofs; window traps were placed on each of the four walls as well as louvers, so as to permit the natural entrance of mosquitoes. Two persons slept in each hut each night of the test to serve as bait.

One of the mud-walled huts was sprayed to a height of three meters, one to the peak of the roof (4½ meters), and in one the mud surface was left unsprayed to simulate conditions soon after spraying of sorptive mud walls. Only the roof, door, window frames, and cots were sprayed in this hut. The two large canvas cots were sprayed in each hut. Two pole huts were sprayed, one as far up as three meters and the other to the peak of the roof (4½ meters). Because mosquitoes escape easily through the walls of the pole huts, a new type of wall trap was designed to catch all those passing through the openings between the poles. This proved very effective and useful because many more mosquitoes left the huts through the walls than through the window traps.

The density of mosquitoes dropped markedly

when the level of the lake rose with the onset of the rains, so that the mosquitoes that entered naturally were often too scarce to give significant results. Release tests were performed during weeks when naturally-entering mosquitoes were too few, using unfed resistant *A. albimanus* from a colony or from wild sources, if these could be obtained. The results were very similar to those obtained with naturally-entering mosquitoes.

Although bioassays were made of the deposits in the experimental huts, the chief purpose of the huts was to check on the duration of effectiveness of OMS-33 on walls when the mosquitoes entered, fed naturally, and left the house whenever they wished to do so. A fairly close similarity was noted between the 30-minute bioassay test and the deaths occurring in the hut with the insecticide. In both cases it began to fail in about 13 weeks at the end of the rainy season, and in eight or nine weeks during the dry season.

This unit had previously discovered while making panel tests that if there was low relative humidity during the day preceding a bioassay test, the killing power of OMS-33 deposits was greatly reduced, but that the lethal effect of deposits was restored after a day of high relative humidity. This has been observed repeatedly in both bioassay tests and hut kills and in experimental hut and village-scale trials. A useful relative-humidity index has been developed to correlate the fluctuations in the lethal effect of the deposits.

After eight weeks of observations in the huts, OMS-33 was sprayed in three villages in a total of 320 houses. The feasibility of its use and the circumstances causing intoxication to spraymen and residents of the houses were observed, and experience was gained in the management of a few cases of mild intoxication that occurred. Carbamates in general, and Baygon in particular, act by inhibition of cholinesterase, but they differ in several ways from the organophosphorus insecticides, which also have that characteristic. The inhibition is rapidly reversible even without treatment. Warning symptoms appear early during the gradual exposure, long before serious levels of insecticide are absorbed. As a result, if contact is gradual, nausea, vomiting, sweating, headache, weakness, miosis, etc., give ample warning that absorption has taken place too quickly. Termination of exposure permits rapid and full recovery, without accumulation. Experience obtained in village-scale trials made possible the establishment of spraying procedures and led to the precautions that are necessary for safety.

The evaluation of the effectiveness of OMS-33 in the three villages was made by bioassay of deposits, continuous weekly measurements of mosquito density, and especially by searching in the morning for live *A. albimanus* on the walls and in the thatch, and dead ones on the floor. During the first few weeks large numbers of dead mosquitoes—often more than 100—could be found on the floors and none on the walls. Then numbers of dead mosquitoes began to decrease, and eventually more live ones could be found on the walls than dead ones on the floor. Many live ones of course escaped before the morning searches were made.

During the second cycle of village spraying in December, rapid methods for testing cholinesterase in blood obtained by finger puncture were perfected. These methods permitted extensive and repeated sampling of spraymen during the spraying of 3,200 houses in expanded village-scale trials in 1966.

Since the feasibility of spraying and the effectiveness of OMS-33 had been determined on a small scale by the end of the year, it was decided to carry out a large area trial in 1966 just before the rainy season.

The Insecticide Testing Team made many other incidental observations using bioassay methods and E-R tests. Three strains of *A. albimanus* were kept in colony. The unexpectedly rapid effect of relative humidity on the lethality of deposits of OMS-33 was worked out. Baseline data were obtained for the area, to be used for expanded village-scale trials in 1966.

Seasonal observations of mosquito density revealed tremendous pattern differences between localities in the same general area, depending on different breeding places, that is, the presence or absence of a lake or a tidal lagoon.

Malaria Eradication Epidemiology Team—AMRO-0210

This team was re-established and began its operations in Mexico in September 1964. The objective was to evaluate the operational effectiveness of the full-scale search for cases and the radical treatment of all cases found when these methods are used to supplement the careful application of DDT at the rate of 2 g/m^2 three times a

year. Between September 1964 and July 1965 the number of cases found was not greatly reduced from the level of previous years. However, the majority of cases were found in new localities that were being sampled for the first time. Those localities in which cases were known to have occurred previously, and whose known cases were all given radical treatment in the first few months of the program, tended to remain negative. Many localities that were positive in 1964 remained negative in 1965.

The gross number of cases began to rise in June 1965, but unlike prior years, dropped and remained low the rest of the transmission season, despite monthly active search for cases in all the localities. It is interesting that only very few of these accounted for the large majority of cases discovered in the transmission season.

A study was begun in January 1965 and continued until April 1966 in seven localities that seemed to have persistent transmission. Four of them cleared up with the routine methods employed. All were the subject of an intensive epidemiological-entomological study to determine the causes of persistence. As elsewhere, multiple and varied causes were found: new construction between cycles due to colonization, outdoor contact between people and vectors, incomplete housing, movement of migrants from other infected areas into or through an area of high anopheline density, etc. In one instance, a major source was a large planting area with temporary houses, used by many people for years and never sprayed because its existence was not known. Moderate to marked effects of irritability were found and partial resistance was suspected twice, once in a cotton-growing area, and once in the absence of cotton. Confirmation has not yet been made.

Mass radical treatment was tried in several localities with persistence of transmission. It was completely effective in some, but in others transmission was soon re-established as a result of importation of cases from untreated areas.

A detailed report is being prepared and will be published.

Study of Resistance of Malaria Plasmodia to Drugs—AMRO-0212

From January to the end of March 1965 this project was engaged in completing the study of the efficacy of a four-day treatment against *P. falciparum* resistant to 4-aminoquinolines. Using strains resistant to chloroquine, pyrimethamine, and other drugs, a combination of pyrimethamine (50 mg daily for 4 days) and a long-acting sulfonamide, sulfamethoxypyridozine (1 g, 0.5, 0.5, and 0.5 g, or a total of 2.5 g in 4 days), proved to be curative. Although the Center was closed on 31 March, case follow-ups were continued until 31 May to detect possible relapses.

As a result of earlier experiences wtih toxicity (leucopenia, anemia, reduction of platelets), this schedule was not approved for field trials or usage. Instead, a shorter schedule of field tests was started in October 1965 by the Malaria Eradication Campaign of Brazil, with the collaboration of PAHO advisers. A two-day schedule was used, which consisted of a total dose of 50 mg of pyrimethamine and 1.5 g of sulforthodimethoxine, a still longer-acting sulfonamide. In an area where 50 per cent or more of the cases that were followed-up had a relapse after 2,100 mg of chloroquine, less than 5 per cent of the cases have suffered recrudescences within an equal 30-day period following this schedule. It is not yet known whether this strain was sensitive or resistant to pyrimethamine alone. Further trials are planned.

Field Investigations of Mass Drug Treatment—AMRO-0217

During 1965 negotiations were entered into with the Gorgas Memorial Laboratory and the Government of Panama for a study of the usefulness and acceptability of a tablet of combined pyrimethamine and primaquine in mass drug treatment on a twice-weekly schedule, to be handled by those responsible for distributing drugs. Several years ago it was shown by the Gorgas Memorial Laboratory that 50 mg of pyrimethamine and 40 mg of primaquine on a weekly schedule had been effective in eradicating both *P. falciparum* and *P. vivax* from two Panamanian villages.

Preliminary studies resulted in the rejection of one site and selection of another. The contractual agreement was signed in April 1966 and work has begun.

Malaria Eradication in Problem Areas (Morelos Project)—Mexico-0201

Plans were drawn up during 1965 and an agreement signed with the Government of Mexico for

an operational study of the feasibility and effectiveness of a program calling for one employee to be assigned multiple functions in a limited area. This employee is to be responsible for all case-finding activities in his territory and perform fill-in spraying of any house surface where DDT deposits are not visible to the eye. He will travel on foot and his assignment will be such that he can cover his area once every month. For each five of these persons there will be one chief, who will be responsible for primary case investigations and radical treatment.

The program began operations in January 1966 and will run for two years.

Study of Drug Therapy on Malaria—Colombia-0201

During 1965 the Malaria Eradication Service of Colombia made a trial of a triple combination of antimalaria drugs for the rapid treatment of *P. vivax* infections, in the hope of obtaining a radical cure in much less time than the general recommended 14 days.

The three-day schedule (for adults) consists of the following: 750 mg of chloroquine, 100 mg of pyrimethamine, and 75 mg of primaquine. Children's dosages are reduced proportionately. The results of a pilot study and of the treatment carried out and followed-up in field operations in 1965 were so encouraging (less than 5 per cent combined relapses and re-infections), that a formal study plan for a controlled field trial was prepared. The efficacy of the three-day schedule will be compared with that of the 14-day standard primaquine therapy using a modified paired-sample plan. An agreement has been signed and work is beginning with PAHO advice and assistance to meet local costs.

V. INTERNATIONAL COOPERATION

The distribution of PAHO personnel assigned to malaria eradication projects in the past three years and to be assigned in 1966 is presented in Table 19, by program and by category of consultant. Expanding programs require some increases in technical advisory services in Brazil and Haiti.

In 1965 PAHO provided five fellowships for the study of malaria eradication techniques at the international training centers as well as seven grants for study travel as an additional means of strengthening technical expertise.

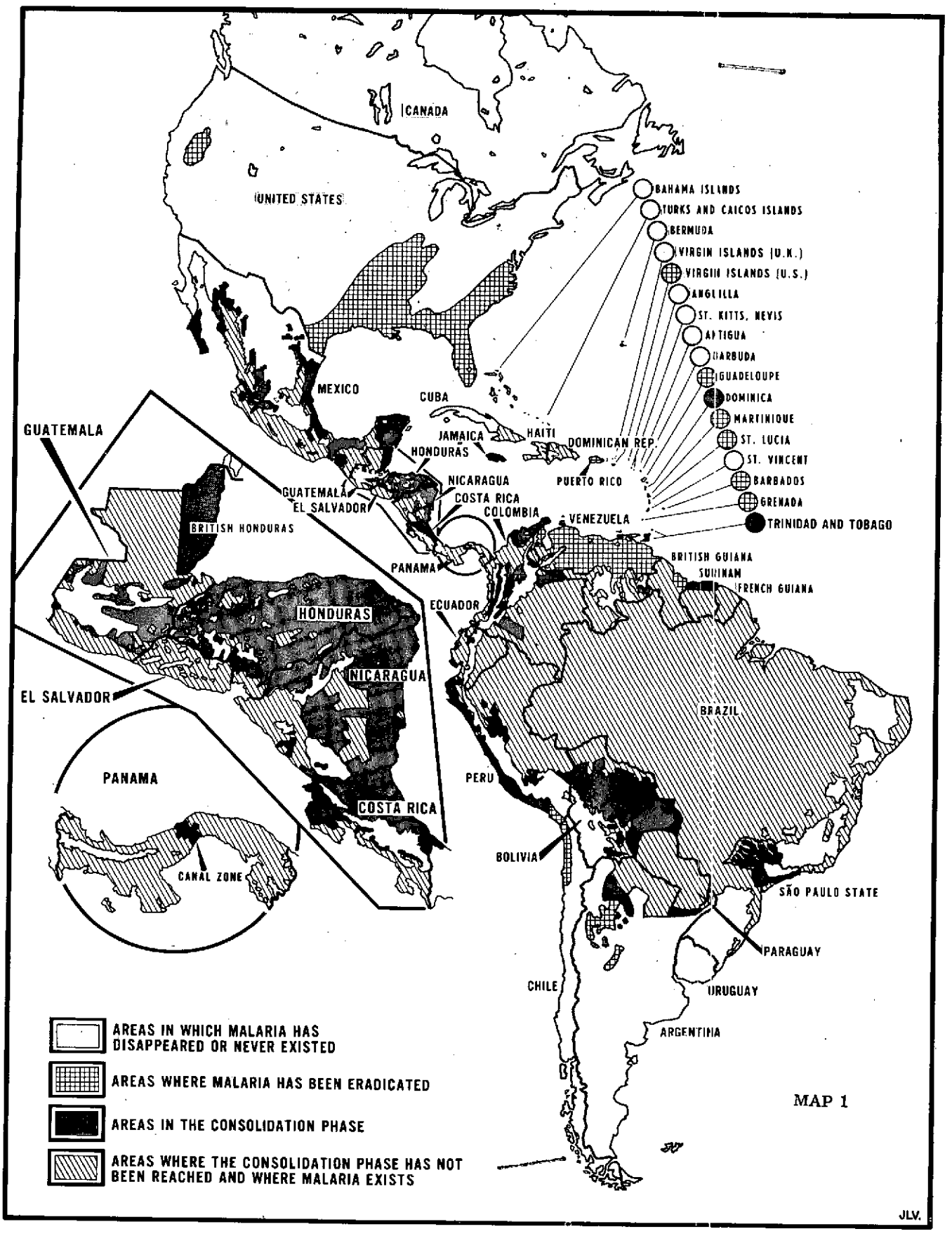
Table 20 includes information on supplies and equipment (except drugs) supplied by PAHO to the various national programs. These are essential items that cannot be obtained through UNICEF or from local sources.

The drugs provided are shown in Table 21. These are almost entirely for use in presumptive and radical-cure treatment. Medicines for collective treatment programs, when these are undertaken as a method of attack, are provided by UNICEF. When necessary, some programs have purchased drugs with their own funds.

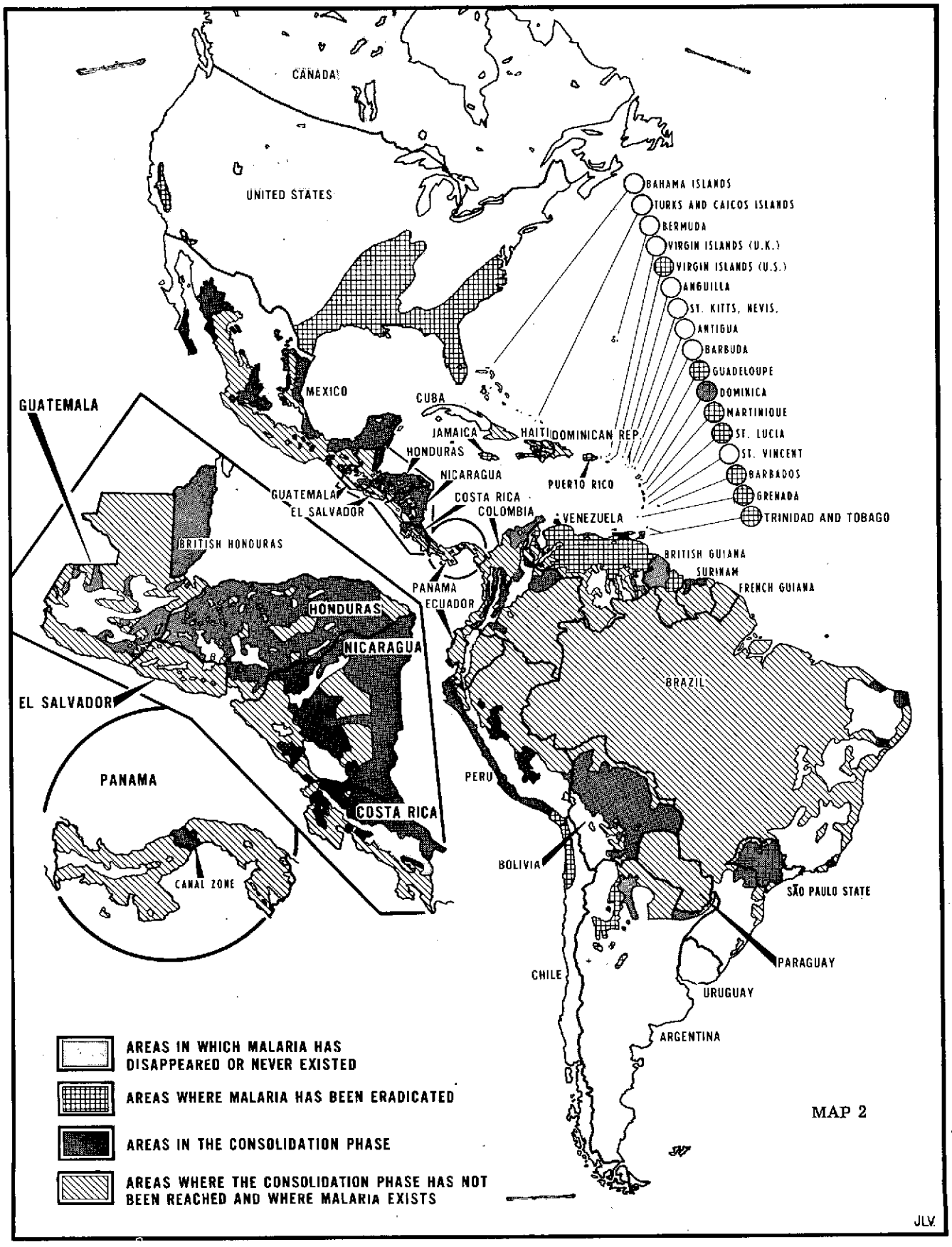
Table 22 presents the figures on international assistance provided by the four sources of international or bilateral funds to the individual programs and to research efforts in 1965 and the estimated amounts of such support for 1966. The expenditures in 1965 are compared with those anticipated for this period,[11] it is apparent that PAHO/WHO and AID expended less than was expected, while UNICEF expended somewhat more. Delays in implementing the expansion plans in some programs and lack of qualified personnel to fill posts were primarily responsible for the lower-than-anticipated level of PAHO expenditures. UNICEF increased its aid to several programs above their scheduled allocations, notably to the campaigns in Mexico, Ecuador, and Costa Rica and by smaller sums to several others. AID contributed $1,800,000 to the PAHO Special Malaria Fund in 1965, in addition to direct grants to programs. Grants by AID are being increasingly replaced by long-term loans, which are included in Table 15.

The dollars spent in international and bilateral aid are but a small proportion of total expenditures on malaria eradication, but their effectiveness is greatly multiplied. UNICEF, AID, and PAHO/WHO assistance represented by these contributions is essential to the progress and ultimate success of the eradication effort.

[11] See *Official Document PAHO* **69**, 335.



STATUS OF THE MALARIA ERADICATION PROGRAM IN THE AMERICAS, 31 DECEMBER 1964.



STATUS OF THE MALARIA ERADICATION PROGRAM IN THE AMERICAS, 31 DECEMBER 1965.

FIGURE I.

STATUS OF THE ANTIMALARIA CAMPAIGN, 31 DECEMBER 1956

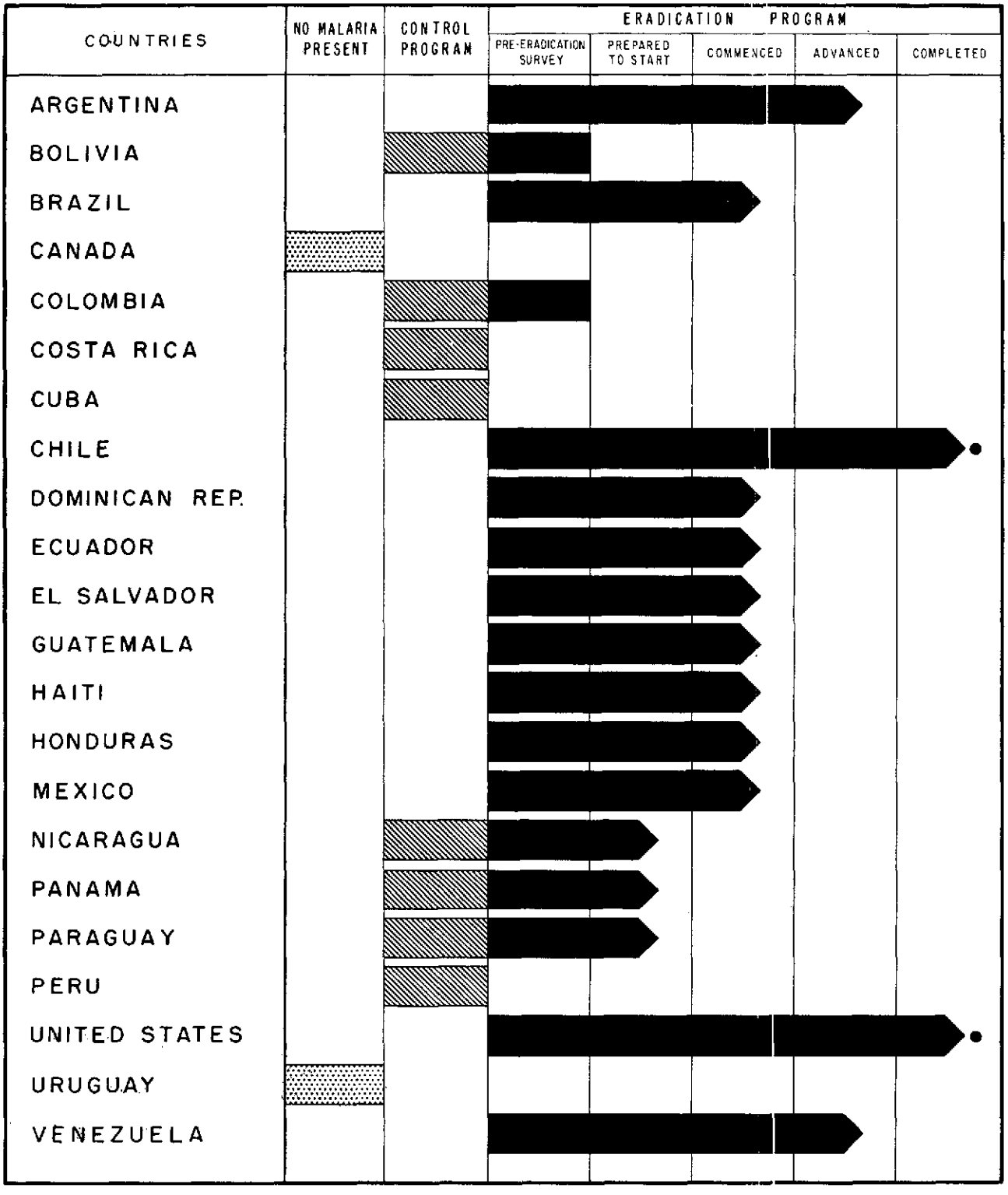


FIGURE I.

STATUS OF THE ANTIMALARIA CAMPAIGN, 31 DECEMBER 1956

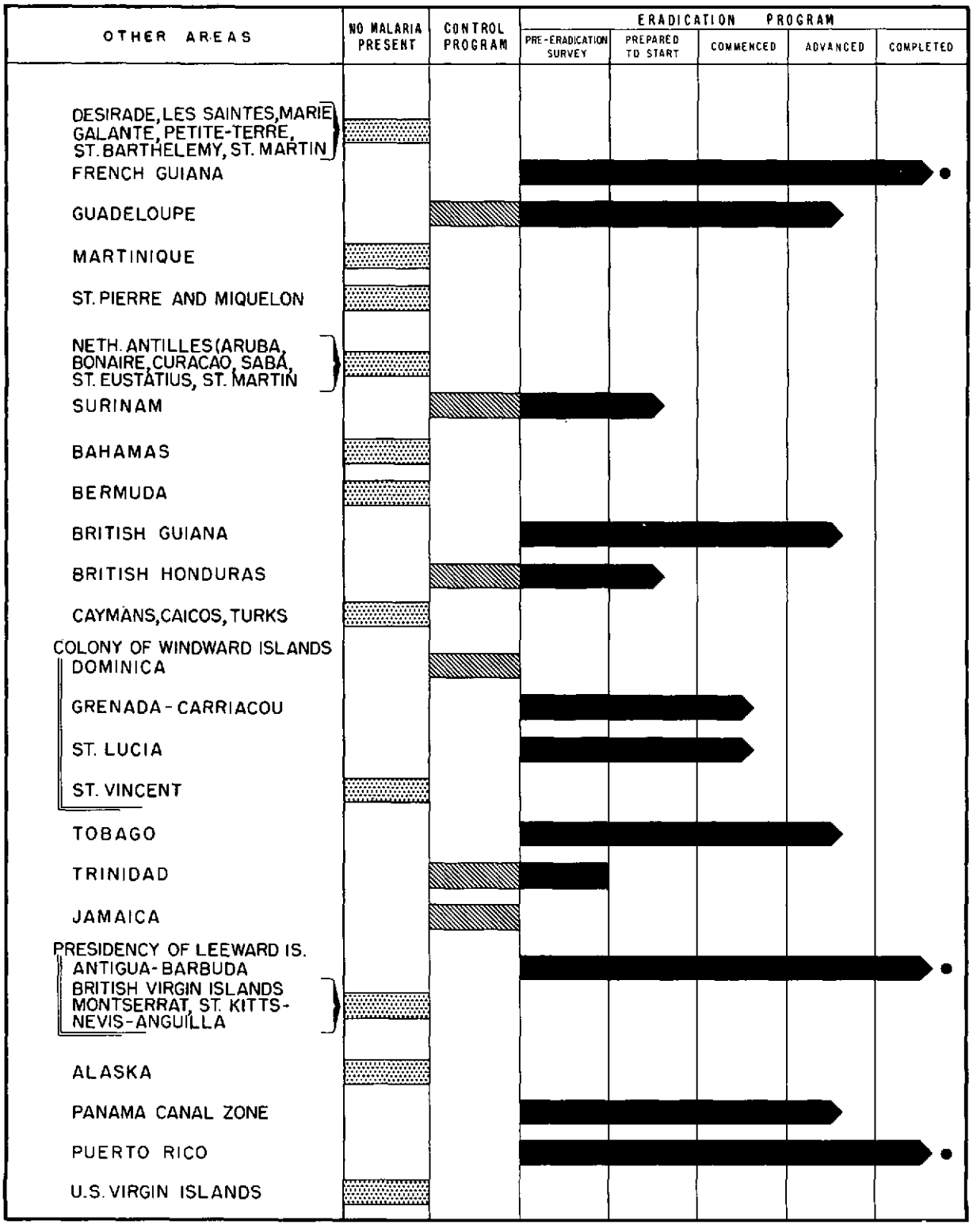
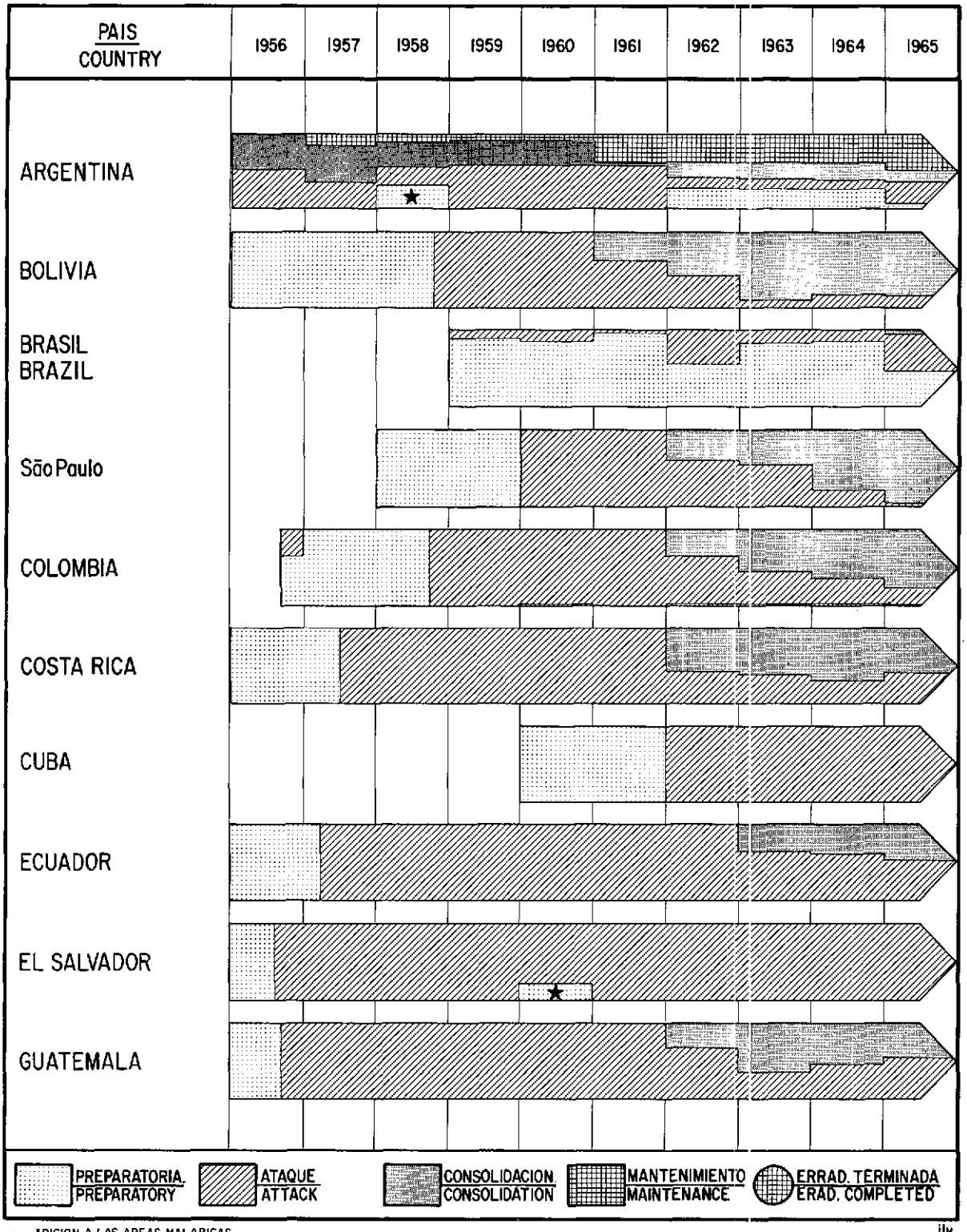


FIGURA 2.—FIGURE 2.

ESQUEMA HISTORICO DE LAS OPERACIONES DE ERRADICACION DE LA MALARIA, 1956-1965.
SCHEMATIC HISTORY OF MALARIA ERADICATION OPERATIONS, 1956-1965.
(% DE POBLACION DE LAS AREAS MALARICAS—% POPULATION OF MALARIOUS AREAS)



ESQUEMA HISTORICO DE LAS OPERACIONES DE ERRADICACION DE LA MALARIA, 1956-1965
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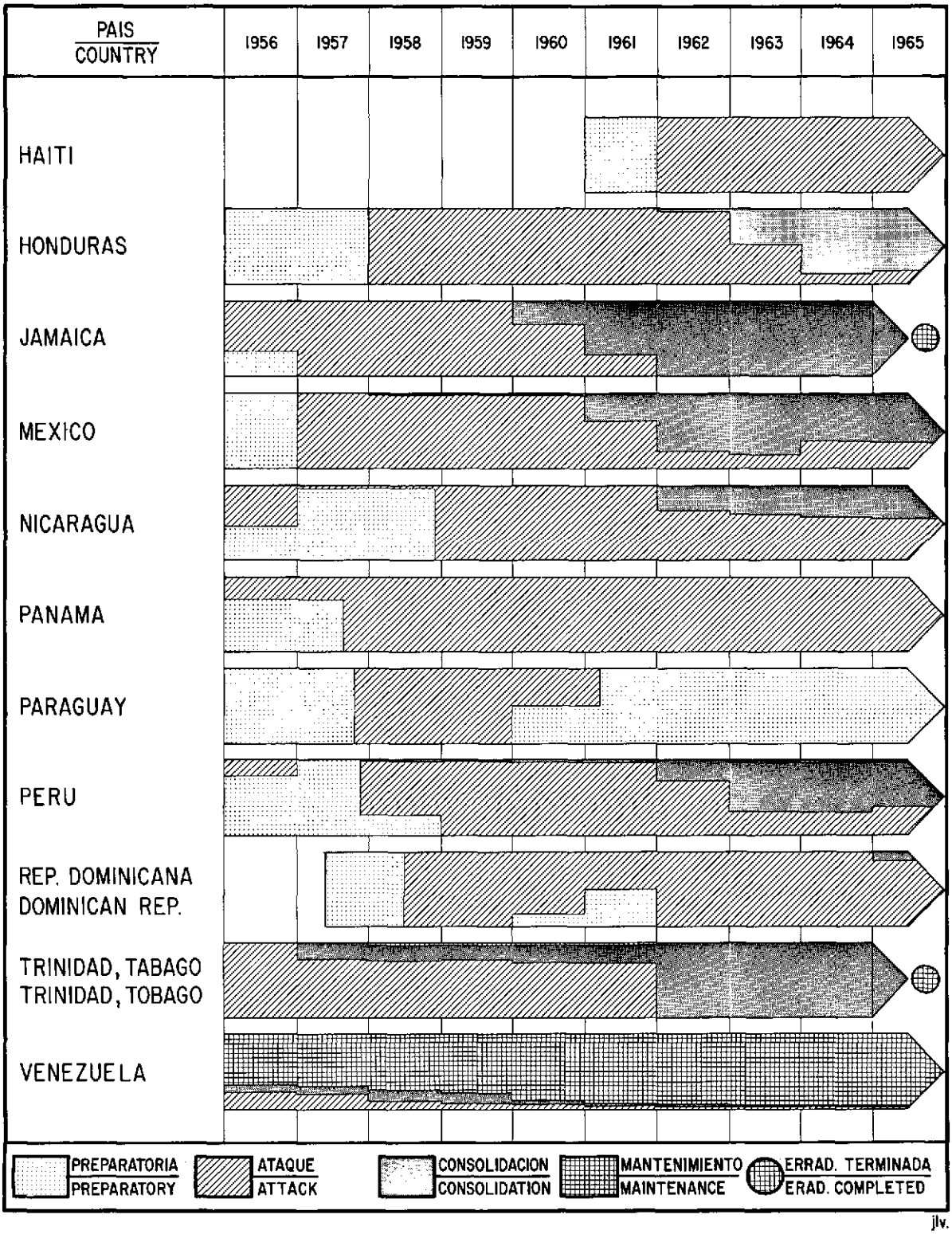
(% DE POBLACION DE LAS AREAS MALARICAS — % POPULATION OF MALARIOUS AREAS)



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ESQUEMA HISTORICO DE LAS OPERACIONES DE ERRADICACION DE LA MALARIA, 1956-1965
SCHEMATIC HISTORY OF MALARIA ERADICATION OPERATIONS, 1956-1965
(% DE POBLACION DE LAS AREAS MALARICAS — % POPULATION OF MALARIOUS AREAS)

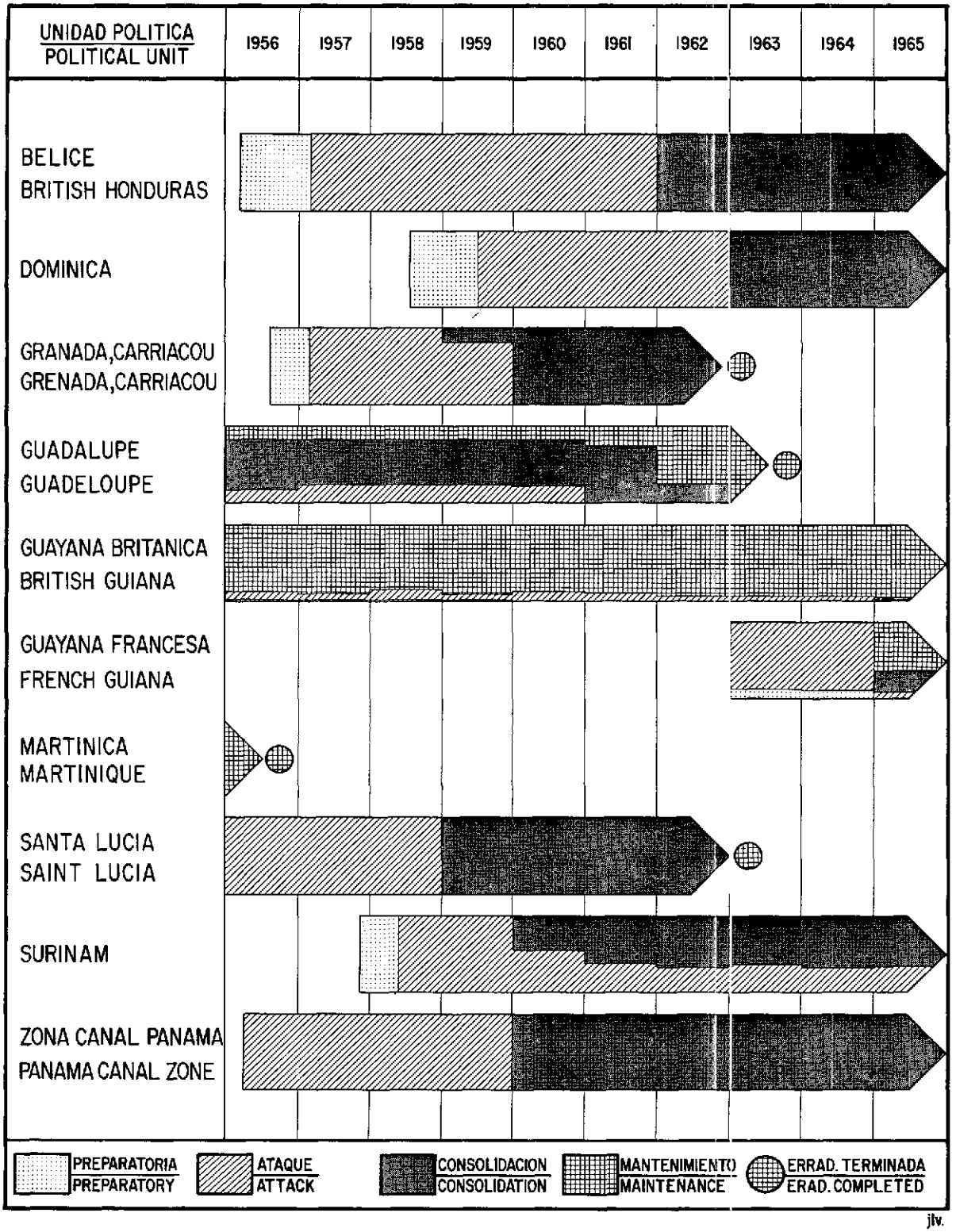

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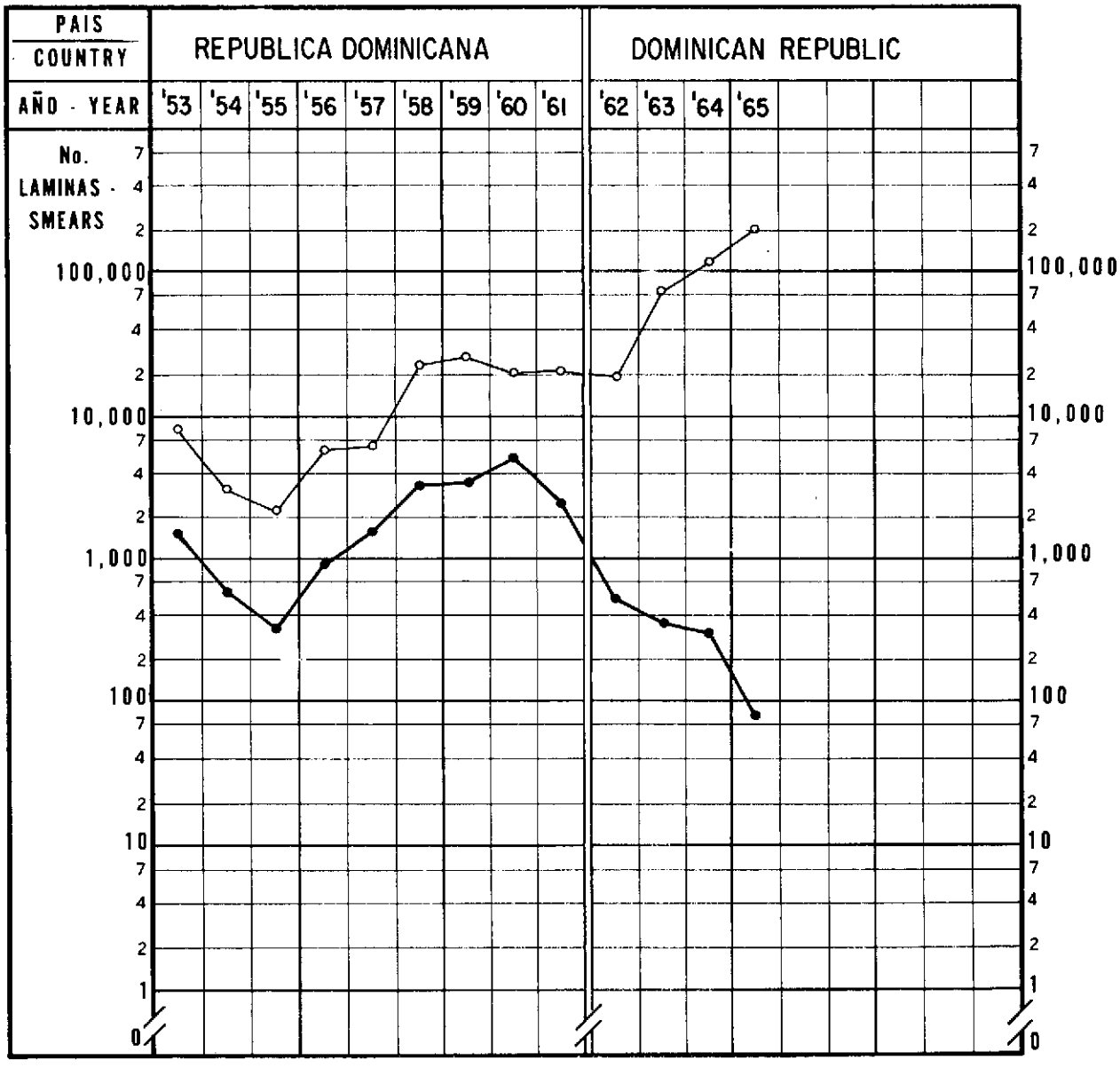
FIG. 3

INCIDENCIA PALUDICA ANUAL
ANNUAL MALARIA INCIDENCE



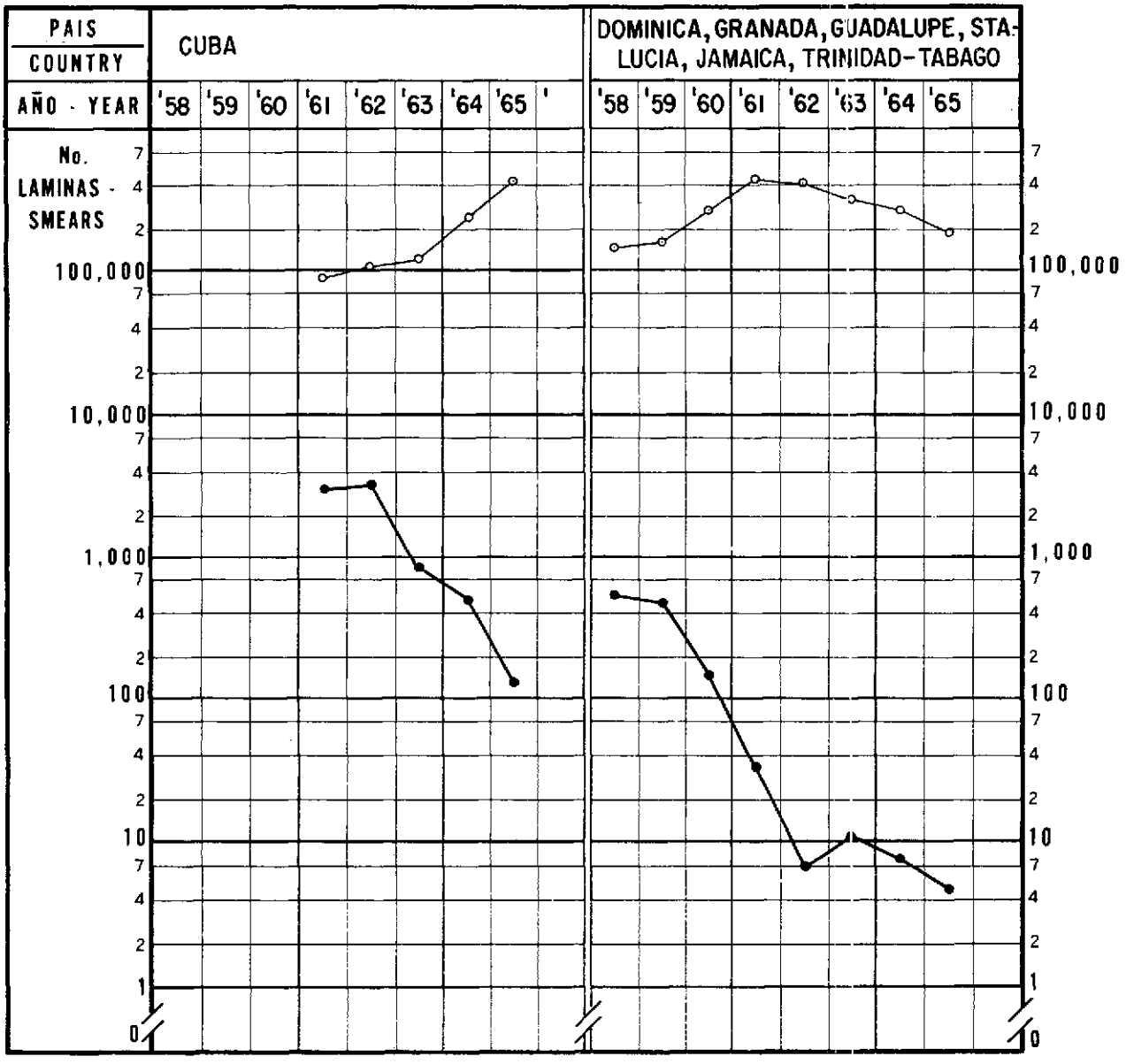
LEGEND:

○——○ No. de láminas examinadas (por mes de examen)
Total number of blood smears examined

●——● No. de láminas positivas
No. of smears positive

FIG.4

INCIDENCIA PALUDICA ANUAL
ANNUAL MALARIA INCIDENCE

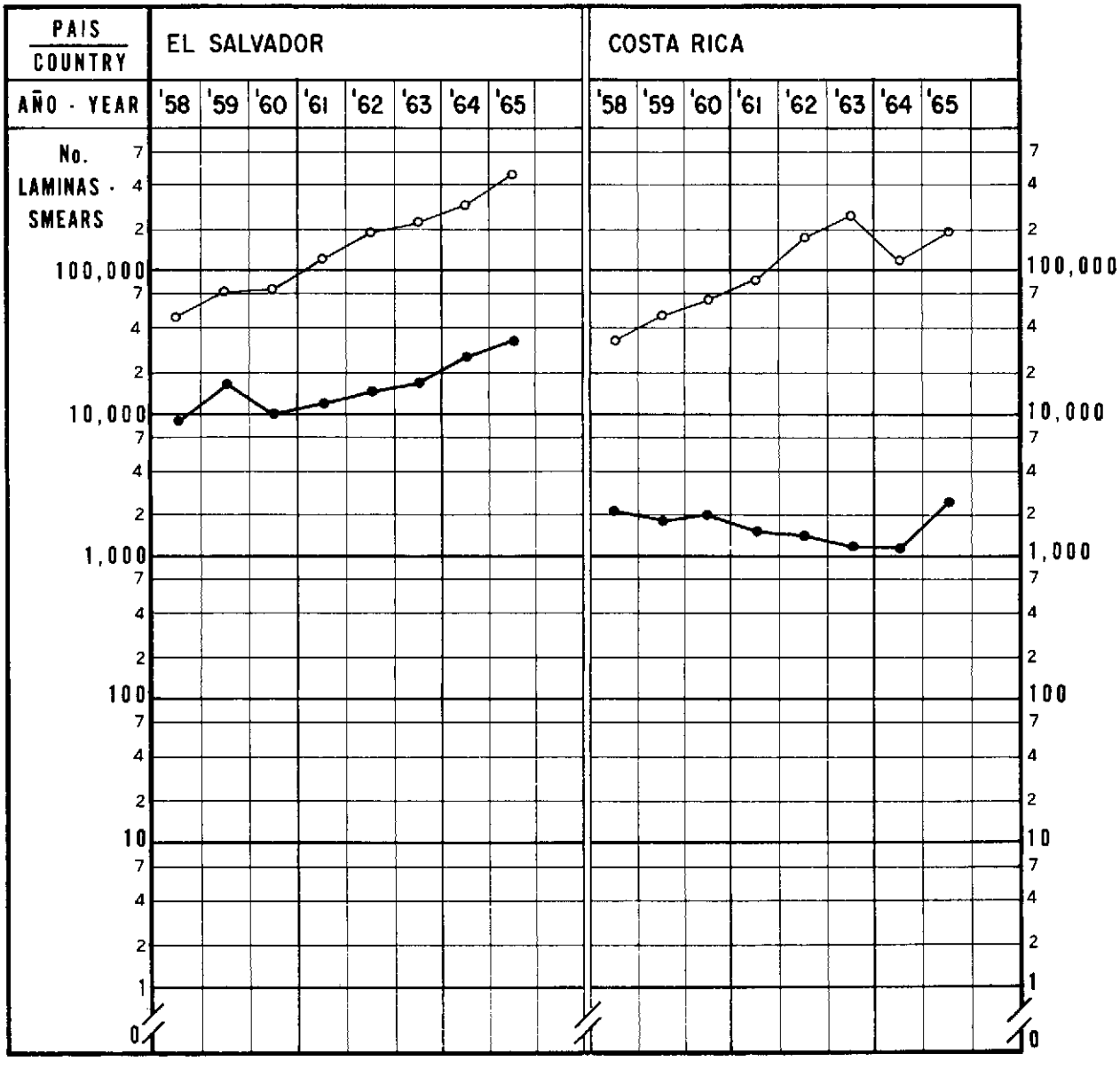


LEGEND:

○——○ No. de láminas examinadas (por mes de examen)
Total number of blood smears examined

●——● No. de láminas positivas
No. of smears positive

FIG.5
INCIDENCIA PALUDICA ANUAL
ANNUAL MALARIA INCIDENCE

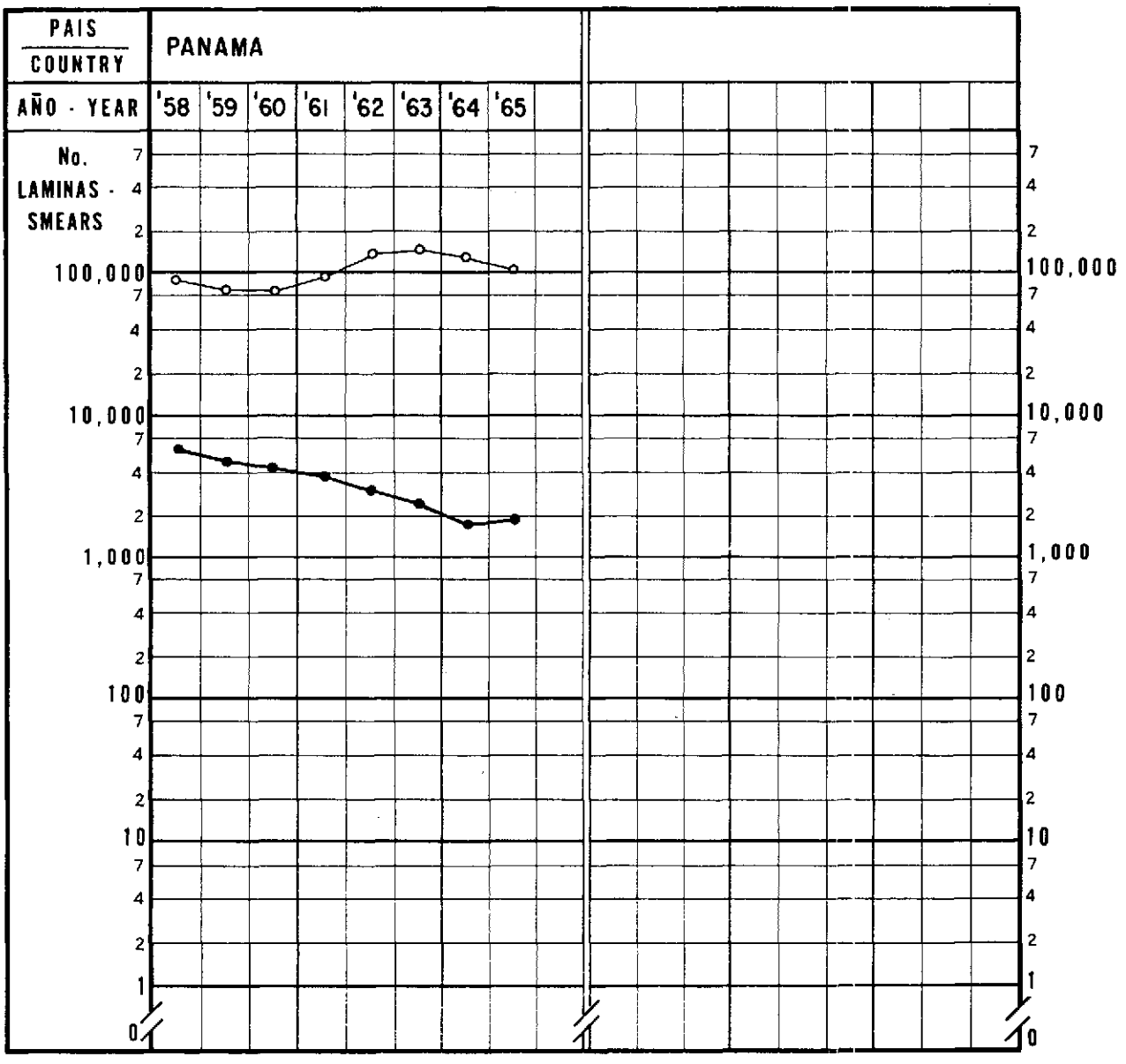


LEGEND:

○——○ No. de láminas examinadas (por mes de examen)
Total number of blood smears examined

●——● No. de láminas positivas
No. of smears positive

FIG.6
INCIDENCIA PALUDICA ANUAL
ANNUAL MALARIA INCIDENCE

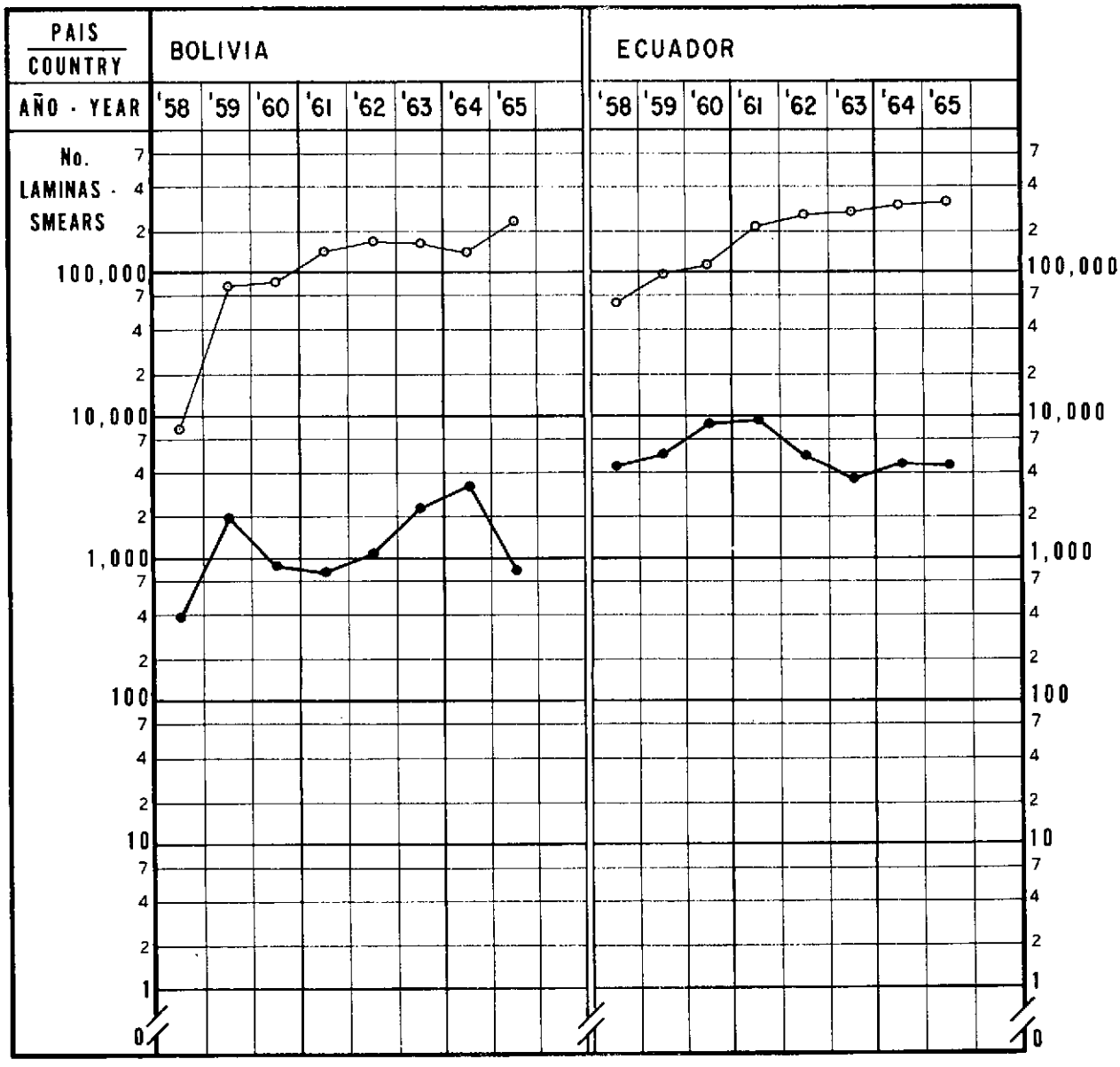


LEGEND:

○——○ No. de láminas examinadas (por mes de examen)
Total number of blood smears examined

●——● No. de láminas positivas
No. of smears positive

FIG. 7
INCIDENCIA PALUDICA ANUAL
ANNUAL MALARIA INCIDENCE



LEGEND:

○——○ No. de láminas examinadas (por mes de examen)
Total number of blood smears examined

●——● No. de láminas positivas
No. of smears positive

FIG. 8

MALARIA ERADICATION IN THE AMERICAS

EXPENDITURES, 1956-1965, AND COST ESTIMATIONS, 1966-1975.

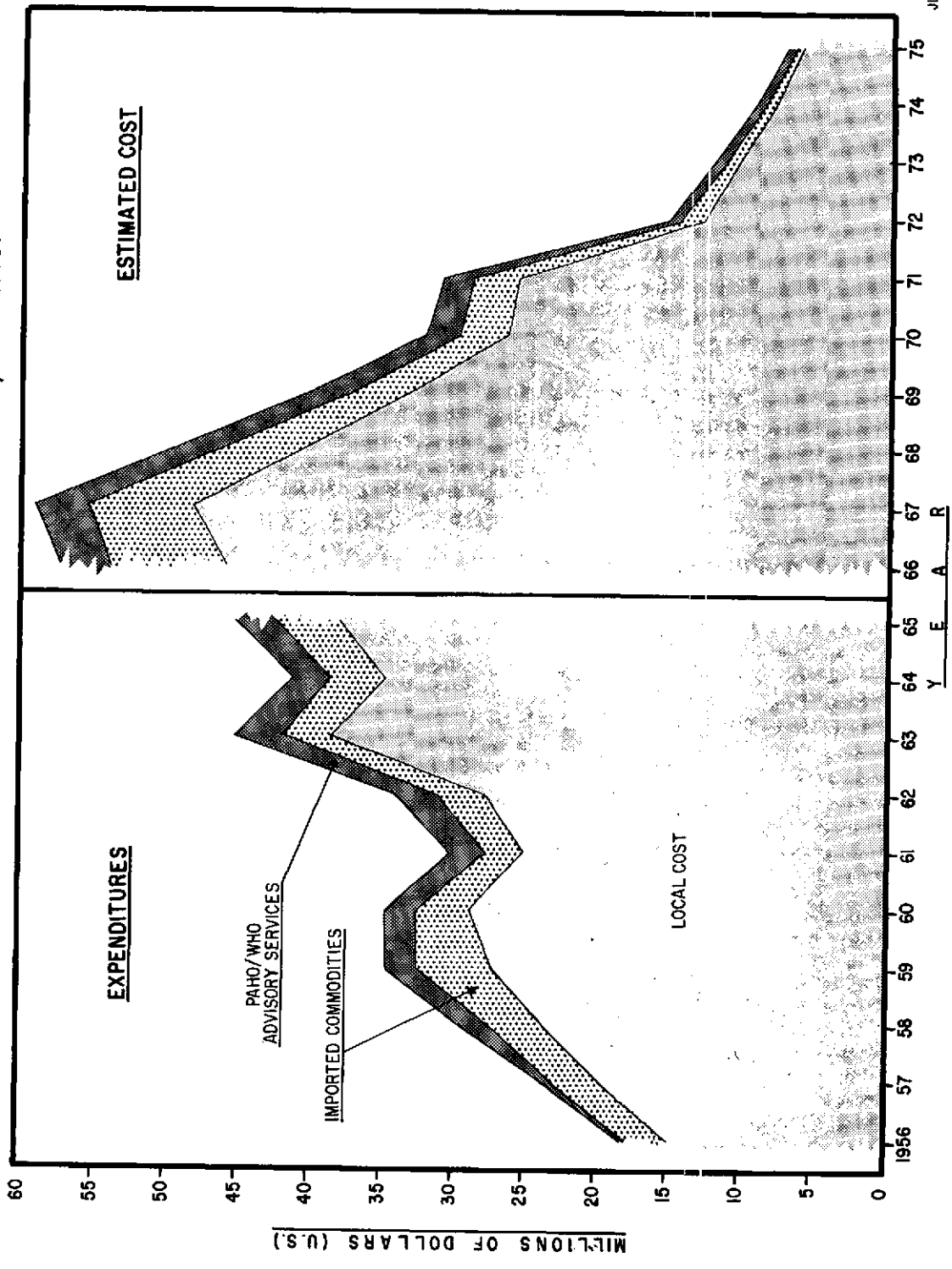


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Table 1

STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY POPULATION, 1956

(Population in thousands)

Country or other political unit	Total population	Population of originally malarious areas				
		Total	Malaria eradication claimed (maintenance phase)	Consolidation phase	Attack phase	Prep. phase or program not yet started
Argentina [a]	19 250	1 430	-	660	770	-
Bolivia	3 269	1 087	-	-	-	1 087
Brazil	61 981	29 495	638	-	19 921	8 936
Canada	16 123	-	-	-	-	-
Chile	6 962	112	112	-	-	-
Colombia	13 576	9 796	-	-	3 348	6 448
Costa Rica	988	329	-	-	-	329
Cuba	6 280	1 685	-	-	-	1 685
Dominican Republic	2 611	2 418	-	-	-	2 418
Ecuador	3 825	2 036	-	-	-	2 036
El Salvador	2 196	1 900	-	-	-	1 900
Guatemala	3 373	1 360	-	-	1 360	-
Haiti	3 814	2 455	-	-	-	2 455
Honduras	1 625	1 282	-	-	-	1 282
Jamaica	1 525	1 287	-	-	861	426
Mexico	30 942	16 995	-	-	-	16 995
Nicaragua	1 255	1 034	-	-	565	469
Panama	952	910	-	-	268	642
Paraguay	1 613	700	-	-	-	700
Peru	9 004	2 878	-	-	595	2 283
Trinidad and Tobago	743	702	-	-	702 [b]	-
United States of America	168 088	42 366	42 366	-	-	-
Uruguay	2 397	-	-	-	-	-
Venezuela	6 393	4 386	2 879	441	1 066	-
Antigua	51	-	-	-	-	-
Bahamas	110	-	-	-	-	-
Barbados	231	228	228	-	-	-
Bermuda	40	-	-	-	-	-
British Guiana	494	494	441	-	50	3
British Honduras	82	82	-	-	82	-
Dominica	56	10	-	-	-	10
Falkland Islands	2	-	-	-	-	-
French Guiana	28	28	-	-	28	-
Grenada and Carriacou	84	24	-	-	18	6
Guadeloupe	244	193	35	124	34	-
Martinique	253	45	45	-	-	-
Montserrat	13	-	-	-	-	-
Netherlands Antilles	182	-	-	-	-	-
Panama Canal Zone	40	40	-	-	40	-
Puerto Rico	2 299	2 263	2 263	-	-	-
St. Kitts-Nevis-Anguilla	54	-	-	-	-	-
St. Lucia	82	57	-	-	57	-
St. Pierre-Miquelon	5	-	-	-	-	-
St. Vincent	75	-	-	-	-	-
Surinam	251	250	124	-	97	29
Virgin Islands (U. K.)	7	-	-	-	-	-
Virgin Islands (U. S.)	28	28	28	-	-	-
Total	373 496	130 385	49 159	1 225	29 862	50 139

- None.

(a) Situation as of April 1957. (b) Since 1953, no autochthonous cases have been found in Tobago, (34,000 inhabitants); surveillance operations not yet started.

Table 2

STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY POPULATION, 1965

(Population in thousands)

Country or other political unit	Total population	Population of originally malarious areas				
		Total	Malaria eradication claimed (maintenance phase)	Consolidation phase	Attack phase	Prep. phase or program not yet started
Argentina	21 860	2 788	1 356	449	783	200
Bolivia	4 373	1 387	-	1 173	214	-
Brazil	80 932	25 397	-	5 205	10 270	9 922
Canada	19 571	-	-	-	-	-
Chile	8 656	101	101	-	-	-
Colombia	17 872	9 293	-	7 071	2 017	205 a)
Costa Rica	1 438	441	-	263	178	-
Cuba	7 390	2 296	-	-	2 296	-
Dominican Republic	3 573	2 930	-	346	2 584	-
Ecuador	4 957	2 692	-	1 288	1 404	-
El Salvador	2 918	2 451	-	-	2 451 b)	-
Guatemala	4 411	1 944	-	887	1 057	-
Haiti	4 500	3 500	-	-	3 500	-
Honduras	2 122	1 851	-	1 518	333	-
Jamaica	1 791	1 432	1 432	-	-	-
Mexico	40 707	20 485	-	12 995	7 490	-
Nicaragua	1 783	1 713	-	730	983 c)	-
Panama	1 244	1 194	-	-	1 194	-
Paraguay	2 144	1 781	-	-	-	1 781
Peru	11 107	3 879	46	2 334	1 499	-
Trinidad and Tobago	990	846	846	-	-	-
United States of America	194 300	47 100	47 100	-	-	-
Uruguay	2 715	-	-	-	-	-
Venezuela	8 579	6 402	6 028	132	242	-
Antigua	63	-	-	-	-	-
Bahamas	140	-	-	-	-	-
Barbados	245	241	241	-	-	-
Bermuda	49	-	-	-	-	-
British Guiana	638	638	602	26	10	-
British Honduras	105	105	-	105	-	-
Dominica	64	15	-	15	-	-
Falkland Islands	2	-	-	-	-	-
French Guiana	38	38	24	11	3	-
Grenada and Carriacou	95	32	32	-	-	-
Guadeloupe	300	267	267	-	-	-
Martinique	319	198	198	-	-	-
Montserrat	13	-	-	-	-	-
Netherland Antilles	210	-	-	-	-	-
Panama Canal Zone	50	50	-	49	1	-
Puerto Rico	2 626	2 572	2 572	-	-	-
St. Kitts-Nevis-Anguilla	63	-	-	-	-	-
St. Lucia	102	87	87	-	-	-
St. Pierre and Miquelon	5	-	-	-	-	-
St. Vincent	88	-	-	-	-	-
Surinam	328	200	-	134	66	-
Virgin Islands (U. K.)	8	-	-	-	-	-
Virgin Islands (U. S.)	43	43	43	-	-	-
Total	455 527	146 389	60 975	34 731	38 575	12 108

- None.

(a) Area in which the program is not yet started. (b) 199,500 inhabitants covered by mass drug program; 2,251,793 were living in areas in which spraying has been suspended due to financial difficulties, and from these, 1,545,258 are under epidemiological vigilance. (c) Includes inhabitants in areas in which spraying was suspended.

Table 3

SUMMARY OF MALARIA ERADICATION EXPENDITURES IN THE AMERICAS, BY SOURCE, 1956-1965

(thousands of U. S. dollars)

Year	Government	PAHO	WHO	UNICEF	AID	Total
1956	14 889.4	97.4	193.8	3 026.7	-	18 207.3
1957	19 828.3	510.6	169.9	3 307.3	-	23 816.1
1958	21 171.0	1 878.4	220.8	3 794.1	2 512.0	29 576.3
1959	22 947.0	2 041.8	214.4	5 269.8	4 233.0	34 706.0
1960	23 071.0	2 042.4	110.3	3 712.2	5 855.0	34 790.9
1961	22 256.0	2 312.5	120.0	2 675.6	2 853.0	30 217.1
1962	22 993.0	2 843.6	172.2	3 449.9	4 784.0	34 242.7
1963	31 248.0	2 910.4	185.1	3 409.4	7 419.0	45 171.9
1964	31 749.7	2 155.1	425.4	3 837.1	3 121.0	41 288.3
1965	36 878.0	1 897.2 [a]	915.7 [a]	3 013.0 [a]	2 575.0 [a]	45 278.9 [a]
Total	247 031.4	18 689.4	2 727.6	35 495.1	33 352.0	337 295.5

(a) Estimated.

Table 4

COMPARISON OF 1964 AND 1965 POPULATION AND AREA IN VARIOUS PHASES OF THE MALARIA ERADICATION PROGRAMS IN THE AMERICAS, AND PERCENTAGES OF CHANGE BY PHASE

Phase	1964	1965	Percentage change
A. Population in thousands:			
1. Malaria eradication claimed or registered ...	57 414	60 975	+ 6.2
2. Consolidation phase	32 277	34 731	+ 7.6
3. Attack phase	34 426	38 575	+ 12.1
4. Preparatory phase or not yet started	34 525	12 108	- 64.9
B. Area in Km^2:			
1. Malaria eradication claimed or registered ...	2 874 313	2 931 204	+ 2.0
2. Consolidation phase	2 109 589	2 443 811	+ 15.8
3. Attack phase	3 219 017	4 490 867	+ 39.5
4. Preparatory phase or not yet started	7 852 697	5 757 061	- 26.7

Table 5

Year	Population in thousands			
	Malaria eradication claimed or achieved	Consolidation phase	Annual % of increase	
			Malaria eradication claimed	Consolidation phase
1960	50 741	1 991	-	-
1961	53 357	13 879	5.2	597.1
1962	55 397	25 914	3.8	86.7
1963	56 546	33 901	2.1	30.8
1964	57 414	32 277	1.5	-4.8
1965	60 975	34 731	6.2	7.6

Table 6

STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY AREA, 1965

(Area in km^2)

Country or other political unit	Total area	Originally malarious areas				
		Total	Malaria eradication claimed (maintenance phase)	Consolidation phase	Attack phase	Prep. phase or program not yet started
Argentina	4 024 458	349 051	63 280	73 630	140 075	72 066
Bolivia	1 098 581	824 260	-	619 540	204 720	-
Brazil	8 513 861	7 047 154	-	226 102	1 922 543	4 898 509
Canada	9 974 375	-	-	-	-	-
Chile	741 767	55 287	55 287	-	-	-
Colombia	1 138 338	946 222	-	276 294	290 032	379 896
Costa Rica	51 011	31 526	-	19 996	11 530	-
Cuba	114 524	37 502	-	-	37 502	-
Dominican Republic	48 442	39 000	-	7 780	31 220	-
Ecuador	291 906	175 462	-	29 479	145 983	-
El Salvador	21 146	19 300	-	-	19 300	-
Guatemala	108 889	80 350	-	16 546	63 804	-
Haiti	27 750	19 100	-	-	19 100	-
Honduras	112 088	101 367	-	79 217	22 150	-
Jamaica	11 428	10 028	10 028	-	-	-
Mexico	1 969 367	1 054 775	-	595 500	459 275	-
Nicaragua	139 000	132 385	-	91 888	40 497 a)	-
Panama	75 650	69 840	-	-	69 840	-
Paraguay	406 752	406 590	-	-	-	406 590
Peru	1 381 800	943 200	31 000	268 200	644 000	-
Trinidad and Tobago	5 605	5 444	5 444	-	-	-
United States of America	9 339 900	2 255 890	2 255 890	-	-	-
Uruguay	186 926	-	-	-	-	-
Venezuela	912 050	600 000	469 714	7 896	122 390	-
Antigua	280	-	-	-	-	-
Bahamas	11 396	-	-	-	-	-
Barbados	431	430	430	-	-	-
Bermuda	53	-	-	-	-	-
British Guiana	214 970	187 334	28 515	77 467	81 352	-
British Honduras	22 696	22 696	-	22 696	-	-
Dominica	790	152	-	152	-	-
Falkland Islands	11 961	-	-	-	-	-
French Guiana	86 000	32 000	200	24 396	7 404	-
Grenada and Carriacou	344	230	230	-	-	-
Guadeloupe	1 779	1 136	1 136	-	-	-
Martinique	1 102	300	300	-	-	-
Montserrat	84	-	-	-	-	-
Netherlands Antilles	961	-	-	-	-	-
Panama Canal Zone	1 432	1 432	-	1 432	-	-
Puerto Rico	8 896	8 896	8 896	-	-	-
St. Kitts-Nevis-Anguilla	396	-	-	-	-	-
St. Lucia	603	510	510	-	-	-
St. Pierre-Miquelon	240	-	-	-	-	-
St. Vincent	389	-	-	-	-	-
Surinam	163 820	163 750	-	5 600	158 150	-
Virgin Islands (U. K.)	174	-	-	-	-	-
Virgin Islands (U. S.)	344	344	344	-	-	-
Total	41 224 755	15 622 943	2 931 204	2 443 811	4 490 867	5 757 061

- None

(a) Includes an area of 11,560 Km^2 in which the spraying is temporarily suspended.

Table 7

THE EXTENT AND NATURE OF PROBLEM AREAS AND REMEDIAL MEASURES TAKEN AND PLANNED, AS OF DECEMBER 1965

Country and name of area	Population	Area (km^2)	Insecticide		Vector	Causes of Problem	Remedial Measures		
			Kind	Years of coverage			In operation in 1965	Planned for 1966	Results
Costa Rica									
Jicaral-Puntarenas Matapalo-Aguirre Sámara-Nicoya	2 333 2 794 943	223 265 89	DDT and DLN	8	Known: A. albimanus A. punctimacula A. pseudopunct.	Excito-repellency to DDT; peri-domiciliary biting; open construction of houses; internal migration of population	None	Mass treatment	None
	6 070	577							
El Salvador									
Coastal strip 0 to 100 m. altitude	374 000	6 600	DLN DDT	2 8	Known: A. albimanus Suspected: A. pseudopunct.	Resistance and Excito-repellency to DDT; migration of population	Mass treatment and small-scale larviciding	Spraying	Good where acceptance by population good
French Guiana									
Alto Maroni	1 500	3 500	DDT	...	A. darlingi	Difficult spraying in border zones with Brazil and Surinam	DDT spraying and mass drug treatment	Improve DDT spraying and mass drug treatment	Insufficient
Oyapock	1 100	3 900	DDT Mal	...	"	"	"	"	"
Chantiers Fourgassié-Cacao	109	2	DDT	...	A. aquasalis	Nomadic habits of the population	...	...	...
Guatemala									
Pacific coast (western 2/3)	344 347	6 109	DLN DDT	2 8	A. albimanus A. pseudopunct.	Resistance to DDT and DLN; excito-repellency; migration; new houses	Mass drug treatment	Continue	Satisfactory where used, but coverage incomplete
Moyuta-Jutiapa	20 918	310	"	"	"	Excito-repellency; high migration; new houses	DDT; radical treatment; mass drug treatment	"	Good progress

General note: Unless otherwise noted, DDT and DLN sprayings are at standard doses and intervals.

Table 7 (Cont.)

THE EXTENT AND NATURE OF PROBLEM AREAS AND REMEDIAL MEASURES TAKEN AND PLANNED AS OF DECEMBER 1965

Country and name of area	Population	Area (km²)	Insecticide		Vector	Causes of Problem	Remedial Measures		
			Kind	Years of coverage			In operation in 1965	Planned for 1966	Results
Guatemala (Cont.)									
Jalapa	71 069	1 324	DLN DDT	2 8	A. albimanus A. pseudopunct.	Resistance to DDT and DLN; internal migration	Larviciding in Capital District	Larvicides	In evaluation
Baja Verapaz	13 714	675	"	"	"	"	Larvicides	"	"
Alta Verapaz	20 410	410	"	"	"	Internal migration; open construction of houses; resistance to DDT	"	"	"
	470 458	8 828							
Haiti	1 850 000	...	DDT	3	A. albimanus	Aggresions to spraying; habits of population	Mass treatment, Chloro-Pyrimethamine, 3 week schedule	Continue	Good
Honduras									
Southern area	158 263	3 583	DLN DDT Mal.	1 4 1 1/2	A. albimanus A. pseudopunct.	Resistance to DDT and DLN; migration, construction of new houses; sleeping habits of pop.	Malathion for 2 months; mass treatment in one county	Mass treatment; malathion in limited foci	Insufficient
Mexico									
Tapachula-Suchiate	42 897	1 204	DDT	9	A. albimanus	Resistance to DDT	DDT spraying twice a year; search for cases; radical cure treatment	Continue	Transmission persists
Basin middle Grijalva River	41 814	3 078	"	"	A. pseudopunct. A. albimanus	Population movements; temporary shelters	DDT spraying twice a year	"	"
North Slope, Chiapas mountains	245 282	10 495	"	"	"	"	"	"	"
Ravine, Miguel Alemán Dam	121 268	13 467	"	"	A. albimanus	Population movements	Prompt spraying; increase of search for cases; radical treatment	"	"

Table 7 (Cont.)

THE EXTENT AND NATURE OF PROBLEM AREAS AND REMEDIAL MEASURES TAKEN AND PLANNED AS OF DECEMBER 1965

Country and name of area	Population	Area (km^2)	Insecticide		Vector	Causes of Problem	Remedial Measures		
			Kind	Years of coverage			In operation in 1965	Planned for 1966	Results
Mexico (Cont.)									
Upper basin of Papaloapan River	19 311	1 757	DDT	9	A. pseudopunct.	Excito-repellency; new houses	Antilarval measures; DDT spraying twice a year	Continue	Transmission persists
Huastecas	596 406	12 307	"	"	A. albimanus	Aggresions to spraying; new houses	Spraying twice a year; radical treatment	"	Tending to become negative
Upper basin of Sta. Maria River	23 848	1 608	"	"	A. pseudopunct.	Aggresions to spraying because of bed-bugs	DDT spraying twice a year	"	"
Southern Pacific Coast:									
a) Pilot Project of Integrated Attack (PPIA)	218 735	13 640	"	"	A. pseudopunct. A. albimanus	Vigor tolerance; Excito-repellency; new houses; aggresions to spraying	(a)	"	Transmission has been interrupted in some localities
b) Program of Intensified Spraying	89 000	4 766	"	"	"	"	(b)	"	Transmission persists
c) Rest of Area	671 509	54 351	"	"	"	"	"	"	"
Basin of the Balsas River and tributaries	1 390 225	68 894	"	14	A. pseudopunct.	Aggresions to spraying	DDT spraying twice a year	"	"
Morelos Valley	211 714	2 853	"	9	"	New houses	"	"	"
Coast of Colima and Pihuamo	60 179	4 723	"	"	"	Population movements; new houses	"	"	"
Coast of Nayarit	97 475	6 130	"	"	"	"	"	"	"
Basin of the Santiago River and tributaries	99 837	19 810	"	"	"	"	"	"	"

(a) DDT spraying three times a year; monthly search for cases in 100% of localities; radical treatment and special follow-up of positive localities.
(b) Spraying during the first two quarters and search for cases and radical treatment in the 3rd and 4th quarters.

Table 7 (Cont.)

THE EXTENT AND NATURE OF PROBLEM AREAS AND REMEDIAL MEASURES TAKEN AND PLANNED, AS OF DECEMBER 1965

Country and name of area	Population	Area (km^2)	Insecticide		Vector	Causes of Problem	Remedial Measures		
			Kind	Years of coverage			In operation in 1965	Planned for 1966	Results
Mexico (Cont.)									
River basins and the northwest coast of the Pacific	226 765	40 108	DDT	9	A. pseudopunct. A. albimanus	Exophagy; vigor tolerance; new houses	DDT spraying twice a year	Continue	Transmission persists
Basins of Fuerte and Mayo Rivers	136 895	27 693	"	"	A. pseudopunct.	People sleep outdoor	Antilarval measures and spraying twice a year	"	"
	5 272 404	359 641							
Nicaragua									
Managua-1	255 462	46	Mal.	8 months	A. albimanus	Resistance to DDT and DLN	Larvicides and Malathion	Continue	Good
Managua-2	20 998	1 008	DDT Mal.	3	"	"	Malathion and mass drug treatment	"	"
Leon	16 195	2 031	"	1	Known: A. albimanus Suspected: A. pseudopunct.	"	Malathion	"	In observation
Chinandega-1	9 387	116	"	3	A. albimanus	"	Mass drug treatment	"	Good
Chinandega-2	9 216	105	"	"	"	"	"	"	"
Madriz	45 218	1 218	"	"	"	"	"	"	"
Estelf-1	55 068	1 683	"	"	Known: A. albimanus Suspected: A. pseudopunct.	" "	Mass drug treatment; malathion and larvicides	" "	" "
Estelf-2	2 703	3	"	"	"	"	"	"	"
	414 247	6 210							

Table 7 (Cont.)

THE EXTENT AND NATURE OF PROBLEM AREAS AND REMEDIAL MEASURES TAKEN AND PLANNED AS OF DECEMBER 1965

Country and name of area	Population	Area (km^2)	Insecticide		Vector	Causes of Problem	Remedial Measures		
			Kind	Years of coverage			In operation in 1965	Planned for 1966	Results
Surinam									
Upper Surinam	14 138 [a]	...	DLN	2 or 3	A. darlingi	Refusal to spraying	Health education; pilot project of medicated salt on Upper Surinam River (13 localities)	Expansion of medicated salt	Too soon
Marowijne	2 954	...	DDT	2					
Tapanahony	5 956	...							
Lawa	2 356	...							
	25 404								
Venezuela									
Western malarious area	232 158	17 654	DDT	18	A. nuñeztovari	Exophagy and exophily; importation of cases; intense population movements	DDT spraying quarterly; peridomiciliary fogging with lindane and DDT in limited sectors; mass drug treatment every two weeks, monthly or weekly in different areas, presumptive treatment	Extend the current methods to the entire area	Eradication where imported cases were few
Eastern malarious area	97 437	2 528	"	"	A. emilianus	Exophagy and exophily; intense population movements	DDT spraying 3 times a year; peridomiciliary fogging with DDT in limited sectors; mass drug treatment every week; clean-up of foci by 14-day primaquine treatments	Same measurements	Eradication obtained in 5,975 km^2; in the remaining area the annual rate of incidence per 1,000 inhabitants was (0) in 1965
	329 595	20 182							

(a) 1964 population

Table 8

MASS DRUG PROGRAMS IN THE AMERICAS, 1965

Country and name of area	Population	Area (km^2)	Drug used and additional measures	Drug cycle	No. of cycles to 31 Dec.	Summary of last four cycles available						Planned for 1966
						Population treated (percentage)	Slides examined	Positive cases				
								P. fal.	P. vivax	Number Invest.	Autochthonous	
British Guiana												
St. Victor and St. Vincent	1 185	...	Chloroquine-primaquine	14 days	15	85.0	475	0	1	1	1	Descontinuation probable
Bolivia												
Quebrada de Tomina	320	770	Chloroquine-primaquine DDT spraying	15 days	18	100.0	1 057	0	0	0	0	To be terminated
Costa Rica												
Colorado	1 281	360	Chloroquine-primaquine; DDT spraying	15 days	16	84.0	526	0	0	0	0	To be continued
El Salvador												
Area-1	53 500	...	Chloroquine-primaquine	14 days	16	87.2	10 316	3	182	185	99	To be continued
Area-2	71 200	...	"	14 days	17	76.6	11 811	19	117	122	59	"
Area-3	64 800	...	"	14 days	21	75.4	14 755	15	71	93	41	"
French Guiana	Short courses of collective treatment administered in some areas.											
Guatemala												
Pacific Coast	136 276	2 477	Chloroquine-primaquine; DDT spraying once a year	14 days	18	69.6 70.5 70.0 71.0	3 516 3 604 3 236 2 823	17 5 6 5	37 4 6 8	... ...	... ...	To be continued

Table 8 (Cont.)

MASS DRUG PROGRAMS IN THE AMERICAS, 1965

Country and name of area	Population	Area (km^2)	Drug used and additional measures	Drug cycle	No. of cycles to 31 Dec.	Summary of last four cycles available						Planned for 1966
						Population treated (percentage)	Slides examined	Positive cases				
								P. fal.	P. vivax	Number Invest.	Autochthonous	
Haiti	1 250 000	...	Chloroquine-primaquine	every three weeks	11	94.0	167 023	517	14	...	...	To be continued
Honduras												
Marcovia	15 627	364	Chloroquine-primaquine	15 days	14	95.2	4 423	1	4	5	1	To be continued
Nicaragua												
Mun. El Viejo	9 733	105	Chloroquine-primaquine	14 days	28	85.4	4 052	34	108	142	54	To be continued
Dept. Nueva Segovia, Matagalpa	38 374	1 979	Chloroquine (presumptive treatment)	2 months	12		2 599	2	42	44	9	In study
Dept. Estelf	55 654	2 000	Chloroquine-(presumptive treatment) larvicides	2 months 14 days	40		7 215	9	162	171	139	"
Dept. Madriz	45 218	1 218	"	"	"		10 351	16	228	244	190	"
Venezuela	Areas with 111 530 inhabitants under chemotherapy, but not as an attack measure											

Table 9

PERSONNEL EMPLOYED IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS
31 DECEMBER 1964 AND 1965 BY CATEGORY

(Part-time personnel in parentheses)

	Title	1964	1965
SPRAYING OPERATIONS	Engineers	117 (1)	101 (1)
	Spraying Chiefs (non-professionals)	208 (2)	176 (2)
	Sector Chiefs	662 (2)	686 (2)
	Squad Chiefs	2 082 (2)	1 918 (2)
	Spraymen	10 036 (20)	8 558 (20)
	Draftsmen	141	126
	SUB-TOTAL	13 246 (27)	11 565 (27)
EPIDEMIOLOGICAL OPERATIONS	Physicians	271 (13)	252 (14)
	Entomologists	21 (1)	26 (3)
	Entomologist Assistants	247 (12)	260 (14)
	Statisticians and Statistician Assistants	139	158 (3)
	Evaluation Inspectors	770 (5) [a]	780 (3) [a]
	Evaluators	4 188 (9) [a]	6 034 (43) [a]
	Microscopists	747 (15)	809 (25)
	SUB-TOTAL	6 383 (55)	8 319 (105)
ADMINISTRATION AND OTHERS	Administrators	347 (1)	358
	Administrative Assistants	1 123	934
	Accountants	38	36
	Disbursing Officers	50	47
	Storekeepers	106	80
	Assistant Storekeepers	93 (1)	91
	Secretaries	351 (1)	348
	Others	1 645 (32)	1 605
	SUB-TOTAL	3 753 (35)	3 499
TRANSPORT	Transport Chiefs, Mechanics and Assistant Mechanics	579	622
	Drivers	1 557 (2)	1 424 (2)
	Motorboat Operators	229 (2)	222 (2)
	Boatmen	28	32
	SUB-TOTAL	2 393 (4)	2 300 (4)
	GRAND TOTAL	25 775 (121)	25 683 (136)

(a) Includes personnel engaged in mass drug treatment and larviciding.

Table 10

PERSONNEL EMPLOYED IN SPRAYING OPERATIONS IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS - 31 DECEMBER 1965

(Part-time personnel in parentheses)

Country or other political unit	Total	Engineers	Sanitarians or Spraying Chiefs	Sector Chiefs	Squad Chiefs	Spraymen	Draftsmen
Argentina [a]	191	3	6	10	31	136	5
Bolivia [b]	60	-	7	4	26 [c]	23	-
Brazil (Excl. São Paulo)	4 498	29	83 [d]	219	697	3 433	37
Brazil (São Paulo)	641	9	-	33 [e]	130	451	18
Colombia	842	6	-	120	220 [f]	485	11
Costa Rica	77	1	1	7	20	47	1
Cuba [a]	548	1	4	15	78	448 [g]	2
Dominican Republic	441	-	2	12	62	363	2
Ecuador	204	4	-	6	37	153	4
El Salvador	3	1	-	-	-	-	2
Guatemala [h]	296	1	5	11	39	236	4
Haiti	49	4	-	22	3	15	5
Honduras [a]	64	-	-	3	10	51	-
Mexico	2 431	35	58	130	382	1 803	23
Nicaragua	92	1	4	14	14	57	2
Panama	272	-	5	10	47	209	1
Paraguay	23	2	-	2	6	9	4
Peru [i]	214	3	-	31	43	134	3
Trinidad and Tobago	17	-	-	3	2	12	-
Venezuela [b]	444	1	-	25	41	377	-
British Guiana	26	-	-	1	5	20	-
French Guiana [a]	29	-	-	2	6	21	-
Guadeloupe [j]	51	-	-	1	8	42	-
Panama Canal Zone	(27)	(1)	(2)	(2)	(2)	(20)	-
Surinam	52	-	1	5	11	33	2
Total	11 565 (27)	101 (1)	176 (2)	686 (2)	1 918 (2)	8 558 (20)	126

- None

(a) October. (b) September. (c) Includes District Inspectors. (d) Statistical aides for spraying operations. (e) Includes 13 of Chagas disease control program. (f) Includes 184 squad chiefs/spraymen. (g) Includes Sector chiefs' auxiliaries. (h) July. (i) November. (j) Includes personnel of desinsectisation services.

Table 11

PERSONNEL EMPLOYED IN EPIDEMIOLOGICAL EVALUATION IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS - 31 DECEMBER 1965

(Part-time personnel in parentheses)

Country or other political unit	Total	Physicians	Entomologists	Assistant Entomologists	Statisticians and Statisticians' Assistants	Evaluation Inspectors	Evaluators	Microscopists and Laboratory personnel
Argentina a)	183	8	1	3	1	24	118	28
Bolivia b)	107	7	1	4	8	-	71	16
Brazil (excl. São Paulo)	2 093	65	8	29	95	280	1 439	177
Brazil (São Paulo)	238	9	1	11	1	32	125	59
Colombia	461	22	-	4	3	35	355	42
Costa Rica	129	1	-	2	2	15	92 c)	17
Cuba a)	78	7	1	2	4	6	31	27
Dominican Republic	82	4	1	4	3	8	46	16
Ecuador	175	11	1	5	-	4	119	35
El Salvador	299	4	-	7	4	14	244 c)	26
Guatemala d)	307	3	1	12	3	48 c)	214 c)	26
Haiti	1 407	11	1	7	11	66 c)	1 237 c)	74
Honduras a)	168	2	-	-	2	17	118	29
Jamaica	88 (1)	1	(1)	12	-	14	49	12
Mexico	1 093	60	1	53	2	64	825 c)	88
Nicaragua	200	3	1	5	7	25	144 c)	15
Panama	45	2	1	3	5	-	24	10
Paraguay	57	5	-	4	...	9	29	10
Peru e)	148	6	3	-	5	-	108	26
Trinidad and Tobago	142	1	1	55	-	14	61	10
Venezuela b)	696 (8)	17	2	25	-	81 c)	522 c)	49 (8)
British Guiana	24 (4)	(1)	-	-	(3)	3	15	6
British Honduras	13	1	-	-	-	2	9	1
Dominica	6 (1)	(1)	-	-	-	1	4	1
French Guiana a)	4	1	-	1	-	-	-	2
Grenada	25 (2)	-	-	10	-	14	1	(2)
Guadeloupe	10 (44)	1 (1)	(1)	1	-	-	6 (40)	2 (2)
Panama Canal Zone	(42)	(10)	(1)	(14)	-	(2)	(3)	(12)
St. Lucia	3 (3)	(1)	-	-	-	(1)	3	(1)
Surinam	38	-	1	1	2	4	25	5
Total	8 319 (105)	252 (14)	26 (3)	260 (14)	158 (3)	780 (3)	6 034 (43)	809 (25)

- None

(a) October. (b) September. (c) Includes personnel with same category from the mass drug treatment and/or larviciding programs. (d) July. (e) November.

Table 12

PERSONNEL EMPLOYED IN ADMINISTRATIVE AND OTHER SERVICES IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS - 31 DECEMBER 1965

(Part-time personnel in parentheses)

Country or other political unit	Total	Administrators	Administrative Assistants	Accountants	Disbursing Officers	Storekeepers	Storekeepers' Assistants	Secretaries	Others
Argentina [a]	128	4	64	-	-	3	8	3	46
Bolivia [b]	31	7	4	4	-	1	-	7	8
Brazil (excl. São Paulo)	1 443	279	476	25	-	24	-	19	620
Brazil (São Paulo)	413	14	85	-	9	7	13	-	285 [c]
Colombia	231	11	7	-	14	13	6	55	125
Costa Rica	11	1	6	-	-	2	1	1	-
Cuba [a]	25	1	4	1	-	2	-	4	13
Dominican Republic	47	4	7	-	-	-	-	12	24
Ecuador	148	5	6	1	5	1	8	24	98
El Salvador	39	1	1	-	1	1	4	8	23
Guatemala [d]	17	-	-	-	-	2	2	7	6
Haiti	138	7	6	2	1	2	1	30	89
Honduras [a]	50	1	8	-	-	1	-	16	24
Jamaica	1	-	-	-	-	-	-	-	1
Mexico	511	16	215	-	16	13	25	137	89
Nicaragua	41	-	8	-	-	1	7	8	17
Panama	34	1	5	-	-	1	11	4	12
Paraguay	1	...	...	...	...	...	...	...	1
Peru [e]	118	3	30	3	-	3	2	5	72
Venezuela	...	...	...	...	...	...	...	...	...
British Guiana	29	-	-	-	-	1	1	1	26
British Honduras	5	1	-	-	-	-	-	2	2
Dominica	2	1	-	-	-	-	-	1	-
French Guiana [a]	3	-	-	-	-	-	-	1	2
Guadeloupe	3	-	-	-	-	-	-	-	3
Surinam	30	1	2	-	1	2	2	3	19
Total	3 499	358	934	36	47	80	91	348	1 605

- None
... No information
(a) October. (b) September. (c) Includes personnel of Chagas Disease Control program. (d) July. (e) November.

Table 13

PERSONNEL EMPLOYED IN TRANSPORT SERVICES IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS - 31 DECEMBER 1965

(Part-time personnel in parentheses)

Country or other political unit	Total	Transport Chiefs, Mechanics and Assistant Mechanics	Drivers	Motorboat operators	Boatmen
Argentina [a]	62	26	36	-	-
Bolivia [b]	51	10	27	14	-
Brazil (excl. São Paulo)	918	228	652 [c]	32	6
Brazil (São Paulo)	267	23	241	3	-
Colombia	272	68	82	99	23
Costa Rica	12	3	9	-	-
Cuba [a]	14	6	8	-	-
Dominican Republic	70	18	52	-	-
Ecuador	38	14	24	-	-
El Salvador	41	15	25	1	-
Guatemala [d]	27	2	25	-	-
Haiti	61	32	27	2	-
Honduras [a]	38	6	31	1	-
Mexico	169	130	27	12	-
Nicaragua	62	4	49	9	-
Panama	11	5	5	1	-
Paraguay	...	...	...	...	...
Peru [e]	49	13	13	23	-
Trinidad and Tobago	27	-	27	-	-
Venezuela	43	...	38 [f]	5	-
British Guiana	12	-	6	3	3
British Honduras	2	2	-	-	-
Dominica	-	-	-	-	-
French Guiana [a]	6	2	4	-	-
Guadeloupe	7	2	5	-	-
Panama Canal Zone	(4)	-	(2)	(2)	-
Surinam	41	13	11	17	-
Total	2 300 (4)	622	1 424 (2)	222 (2)	32

- None
... No information.
(a) October. (b) September. (c) Includes 3 airplane pilots. (d) July. (e) November. (f) 28 fogging machine operators.

Table 14

MEANS OF TRANSPORT IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS - 1965

Country or other political unit	Trucks (3 tons or more)	Trucks and "Pick-up" (less than 3 tons)	Jeeps	Automobiles and station wagons	Motorcycles	Bicycles	Motor boats	Boats without motor	Saddle and pack animals	Other
Argentina	11	119	25	12	1	77	1	-	2	-
Bolivia	-	21	47	-	30	56	37	-	100	-
Brazil (Excl. São Paulo)	53	335	806	34	-	600	163	115	1 130	2 a)
Brazil (São Paulo)	2	167	58	13	-	-	12	-	-	-
Colombia	16	148	121	41	2	67	162	30	1 018	-
Costa Rica	1	7	13	2	-	89	10	-	-	-
Cuba	-	20	73	-	-	-	-	-	222	-
Dominican Republic	1	72	2	3	4	13	-	-	6	-
Ecuador	4	50	58	12	30	9	47	19	381	-
El Salvador	2	53	14	8	48	1	1	-	-	-
Guatemala	1	25	8	8	35	38	10	-	(b)	-
Haiti	5	69	21	11	-	1	2	-	-	-
Honduras	2	35	30	9	20	50	3	-	157	-
Jamaica	2	13 c)	15	8	-	-	-	-	-	-
Mexico	19	460	397	22	-	-	12	-	1 993	-
Nicaragua	2	17	32	6	-	-	11	-	-	-
Panama	-	52	20	8	11	-	10	-	-	-
Paraguay	-	10	15	2	3	2	13	1	12	-
Peru	4	157	60	-	-	1	85	17	-	-
Trinidad and Tobago	9	9	9	2	-	-	1	-	-	-
Venezuela	3	133	81	31	12	319	124	-	563	43 d)
British Guiana	1	1	5	-	-	-	4	-	7	-
British Honduras	-	2	8	1	-	3	5	-	-	-
Dominica	-	-	1	1	4	-	-	-	-	-
French Guiana	-	2	2	3	2	-	1	7	-	-
Guadeloupe	5	-	6	-	-	-	-	-	-	-
Panama Canal Zone	-	2 e	-	-	-	-	2 e)	-	-	-
St. Lucia	-	-	-	-	3	-	-	-	-	-
Surinam	1	3	3	4	5	5	22	1	-	-

- None.
(a) Airplanes. (b) Rented as needed. (c) Two of them are used for the *Aëdes aegypti* program. (d) Fogging machines. (e) Part-time

Table 15

NATIONAL BUDGETS FOR MALARIA ERADICATION IN THE AMERICAS, 1964-1966

(in thousands of U. S. dollars)

Country or other political unit	National Budget 1964	National Budget 1965	National Commitments 1966
Argentina	788	905	1 057
Bolivia	83	133	236
Brazil (Excl. São Paulo)	8 280	10 266 a)	11 906
Brazil (São Paulo)	1 242	2 777	3 146
Colombia	2 333	2 778	2 056 b)
Costa Rica	274	287	538 c)
Cuba	1 565	1 861	1 867
Dominican Republic	1 135	1 204	1 284
Ecuador	777	935	1 595 c)
El Salvador	366	371	1 265 c)
Guatemala	738	946	1 696 c)
Haiti	50	50	50
Honduras	300	300	975 c)
Jamaica	259	280 d)	556 d)
Mexico	6 322	5 962	6 539
Nicaragua	453	432	1 509 c)
Panama	487	606	1 278 c)
Paraguay	258	255	556 c)
Peru	949	1 060	1 119
Trinidad and Tobago	470	468	535
Venezuela	3 947	4 296	5 199
British Guiana	58	61	...
British Honduras	17	24	44
Dominica	9	8	5
French Guiana	114	127	127
Grenada	1	1	1
Guadeloupe	186	132	102
Panama Canal Zone	50	50	50
St. Lucia	3	3	3
Surinam	235	298	260
Total	31 749	36 876	45 554

... No information

(a) Includes proceeds of a loan of $1,356,757, expended during 1964-1965. (b) Includes $666,667 requested as a supplementary budget but not as yet authorized. (c) Including loans which are under negotiation, as follows: Costa Rica, $225,258; Ecuador, $770,077; El Salvador, $664,729; Guatemala, $750,000; Honduras, $675,000; Nicaragua, $874,286; Panama, $584,350; Paraguay, $270,000. (d) Malaria and mosquito control.

Table 16

SUMMARY OF CASE DETECTION IN THE AMERICAS, 1958-1965

Year	Number of slides examined	Number of slides found positive	Per cent positive
1958	1 716 103	56 705	3.3
1959	2 749 117	75 612	2.8
1960	3 955 149	79 998	2.0
1961	5 341 004	99 539	1.9
1962	7 221 367	177 089	2.4
1963	7 903 156	227 026	2.9
1964	8 156 290	254 572	3.1
1965	9 069 950	241 462	2.7

Table 17

COMPARATIVE RESULTS OF ACTIVE AND PASSIVE CASE DETECTION IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS, 1965

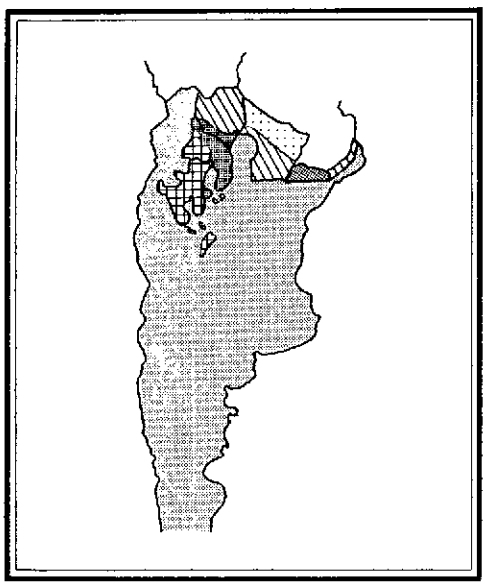
Country or other political unit	Active case detection					Passive case detection					
	Average number of evaluators	Blood slides			Average production per evaluator per month	Average number of notification posts	Average of notification post producing slides per month	Blood slides			Average of slides per month per productive notification post
		Number examined	Positive	Per cent				Number examined	Positive	Per cent	
Argentina	98	149 363	73	0.05	127.0	1 185	250	33 518	181	0.5	11.2
Bolivia[a]	85	149 508	491	0.3	158.0	2 586	524	37 787	239	0.6	6.5
Brazil (excl. São Paulo)	1 450	951 857	32 170	3.4	54.7	20 056	7 875	730 053	76 587	10.5	7.7
Brazil (São Paulo)	149	120 807	158	0.1	67.6	4 919	1 521	72 238	1 391	1.9	3.9
Colombia	357	259 549	6 474	2.5	60.6	8 548	4 586	231 459[b]	11 803[b]	5.1	4.2
Costa Rica	69	186 236	1 523	0.8	224.9	1 033	118	11 515	1 040	9.1	8.2
Cuba	20	80 968	23	0.03	337.3	565	358	342 822	108	0.03	79.8
Dominican Republic	36	146 541	35	0.02	370.0	2 198	608	59 295	49	0.08	8.2
Ecuador	107	87 306	305	0.3	68.0	5 079	2 617	252 821	3 874	1.5	8.1
El Salvador	60	191 338	3 596	1.9	265.8	2 200	1 902	315 104	30 474	9.7	13.8
Guatemala	223	226 662	6 379	2.8	84.7	2 415	1 265	153 900	8 093	5.3	10.2
Haiti	82	419 900	5 278	1.3	426.7	4 585	1 132	332 384	5 026	1.5	24.5
Honduras	69	121 507	1 324	1.1	146.8	2 390	1 469	188 794	5 628	3.0	10.7
Jamaica	49	24 596	1	0.004	41.8	711	102	53 701	2	0.003	43.9
Mexico	634	1 251 856	6 033	0.5	164.6	25 031	3 717	343 647	4 080	1.2	7.7
Nicaragua	65	148 804	4 793	3.2	190.8	1 767	856	87 727	5 482	6.2	8.5
Panama	19	45 398	400	0.9	199.1	1 547	291	57 571	1 529	2.7	16.5
Paraguay[c]	29	22 087	312	1.4	69.3	2 628	719	55 846	5 877	10.5	7.1
Peru	106	371 892	1 443	0.4	292.3	8 494	1 254	80 205	434	0.5	5.3
United States	...	...	...	...	...	...	...	...	106	...	...
Trinidad and Tobago[c]	75	58 808	0	0	71.3	82	82	114	2	1.8	0.13
Venezuela[c]	260	268 277	2 451	0.9	115.0	2 396	425	138 809	1 501	1.1	36.3
British Guiana	15	57 299	24	0.04	318.3	80	19	4 208	4	0.09	18.4
British Honduras	8	3 302	166	5.0	34.4	127	60	7 485	40	0.5	10.4
Dominica	5	5 644	0	0	94.0	26	14	4 250	0	0	25.3
French Guiana	2	4 662	5	0.1	194.3	18	10	762	17	2.2	6.3
Grenada	1	-	-	-	-	...	...	1 085	0	0	...
Guadeloupe	10	33 480	0	0	279.0	...	...	32	0	0	...
Panama Canal Zone	2	1 681	2	0.1	70.0	...	...	22 343	36	0.2	...
Puerto Rico	-	-	-	-	-	...	...	2	0	0	...
St. Lucia	3	11 201	0	0	311.2	-	-	-	-	-	-
Surinam	23	19 785	256	1.3	71.7	60	21	27 959	4 055	14.5	110.9

... No information.
\- None.
(a) January-September. (b) 2,500 blood-smears and 89 positive from non-malarious areas are not included. (c) January-November.

Country: ARGENTINA

Date attack phase began: 1 August 1959

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	21 860	4 024 458
Non malarious areas	19 072	3 675 407
Originally malarious areas		
Maintenance phase	1 356	63 280
Consolidation phase	449	73 630
Attack phase	783	140 075
Preparatory phase	200	72 066
Total originally malarious areas	2 788	349 051

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	3	188	191
Evaluation operations	9	174	183
Administrative and other	1	127	128
Transport	-	62	62
Total	13	551	564

TRANSPORT FACILITIES

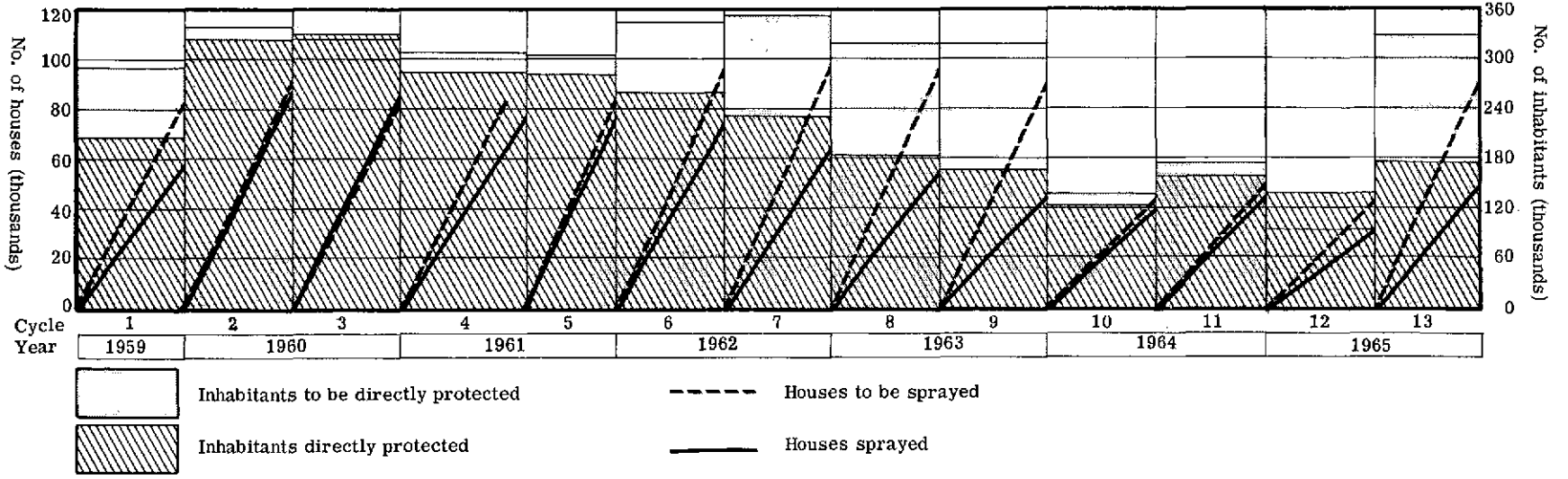
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	45	75	47	167
Two-wheel vehicles	2	67	9	78
Boats	1	-	-	1
Animals	-	-	2	2
Other	-	-	-	-
Total	48	142	58	248

ARGENTINA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Aug. 59-Jun. 60	1st 2nd	81 619 92 438	57 995 a) 88 079 a)	288 768 347 012	205 189 330 733	263 255	...
2nd	Jul. 60-Jul. 61	3rd 4th	84 011 84 077	84 929 a) 76 991 a)	323 610 308 142	327 209 282 178	305 334	...
3rd	Aug. 61-Jun. 62	5th 6th	81 906 96 249	75 734 a) 73 027	303 290 341 780	280 425 259 379	383 349	...
4th	Jul. 62-Jun. 63	7th 8th	97 908 95 552	63 967 54 742 a)	351 098 318 288	229 432 182 273	353 329	...
5th	Jul. 63-Jun. 64	9th 10th	90 333 43 572	46 627 39 430	317 972 135 574	164 420 122 685	320 324	...
6th	Jul. 64-Jun. 65	11th 12th	50 322 43 927	44 972 30 236	172 313 138 809	153 995 95 417	302 302	...
7th	Jul. 65-Dec. 65	13th	90 224	48 428	327 495	175 788	416	...

(a) Some houses were sprayed once a year.



ARGENTINA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1959[a]	12 377	1 043	8.4	-	1 043	-
1960	82 191	2 013	2.4	7	2 006	-
1961	93 464	4 524	4.8	4	4 520	-
1962	112 477	4 685	4.2	-	4 685	-
1963	96 668	834	0.9	-	834	-
1964	102 683	543	0.5	-	543	-
1965	57 872	213	0.4	-	211	2

CONSOLIDATION AND MAINTENANCE PHASE AREAS

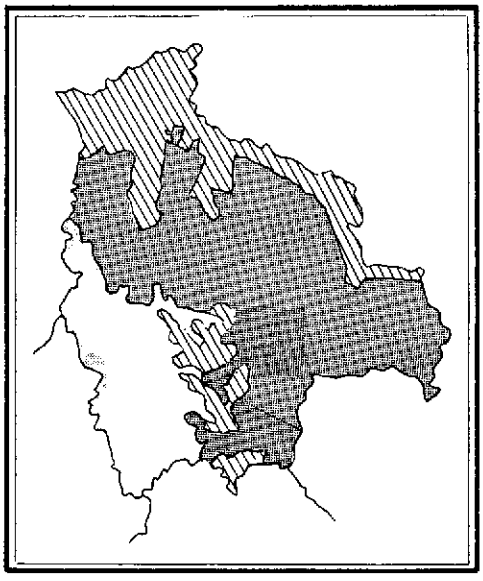
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1959[a]	1-4	911	9 491	1.0	51	-	-	-	32	-	19	-	-	51	-
1960	1-4	929	14 438	1.5	26	-	-	-	14	-	12	-	-	26	-
1961	1-4	1 278	44 395	3.5	17	-	2	-	5	-	10	-	-	17	-
1962	1-4	1 542	39 675	2.6	23	-	10	-	5	1	7	-	-	20	3
1963	1st	1 584	13 371	3.4	7	2	-	-	4	1	-	-	-	6	1
	2nd		17 759	4.5	2	-	-	-	1	1	-	-	-	1	1
	3rd		12 367	3.1	2	-	-	-	1	-	-	1	-	2	-
	4th		17 245	4.3	-	-	-	-	-	-	-	-	-	-	-
1964	1st	1 648	20 144	4.9	5	-	-	-	5	-	-	-	-	5	-
	2nd		21 782	5.3	5	1	-	-	2	-	2	-	-	5	-
	3rd		14 703	3.6	-	-	-	-	-	-	-	-	-	-	-
	4th		22 410	5.4	1	1	-	-	-	-	-	-	-	1	-
1965	1st	1 805	23 847	5.3	8	6	-	-	2	-	-	-	-	8	-
	2nd		34 557	7.7	10	3	-	-	1	1	5	-	-	9	1
	3rd		29 285	6.5	11	5	-	-	2	2	2	-	-	9	2
	4th		37 320	8.3	12	6	-	1	3	-	-	2	-	12	-

(a) August-December.

Country: BOLIVIA

Date attack phase began: 1 September 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	4 373	1 098 581
Non malarious areas	2 986	274 321
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	1 173	619 540
Attack phase	214	204 720
Preparatory phase	0	0
Total originally malarious areas	1 387	824 260

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	60	60
Evaluation operations	12	95	107
Administrative and other	2	29	31
Transport	-	51	51
Total	14	235	249

TRANSPORT FACILITIES

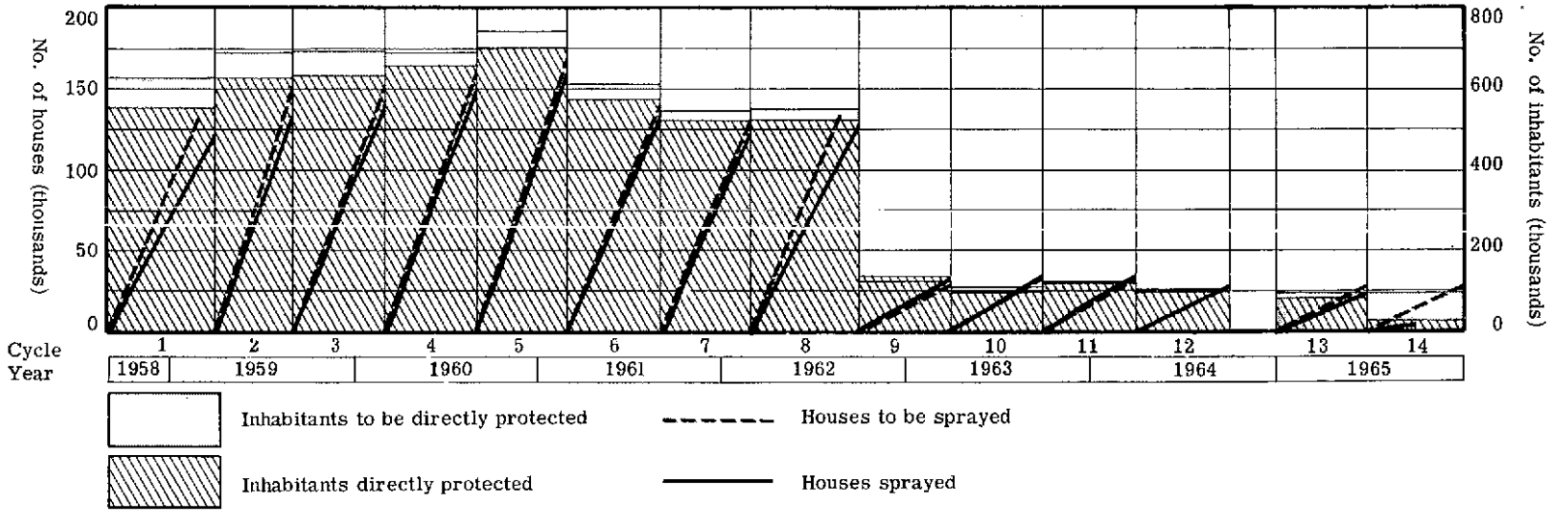
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	14	41	13	68
Two-wheel vehicles	-	54	32	86
Boats	12	22	3	37
Animals	48	52	-	100
Other	-	-	-	-
Total	74	169	48	291

BOLIVIA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Sep. 58-Aug. 59	1st 2nd	131 444 148 200	116 572 129 119	1st	6 365	10 910	627 362 691 820	556 190 627 210	362 331	115	8.3 7.0
2nd	Sep. 59-Aug. 60	3rd 4th	147 263 153 514	136 601 142 536	2nd	11 331	12 268	695 521 692 274	634 859 660 185	319 309	118	7.6 7.2
3rd	Sep. 60-Aug. 61	5th 6th	169 690 142 210	159 952 134 173	-	-	-	742 902 612 356	700 295 577 743	331 329	-	7.6 7.5
4th	Sep. 61-Sep. 62	7th 8th	129 600 135 474	124 623 128 898	-	-	-	546 005 551 785	524 986 525 005	353 359	-	7.9 8.6
5th	Oct. 62-Sep. 63	9th 10th	32 561 32 361	34 469 28 893	-	-	-	124 643 110 578	131 962 98 727	408 428	-	6.0 5.9
6th a)	Oct. 63-Sep. 64	11th 12th	32 361 28 536	32 160 27 509	-	-	-	123 923 101 503	123 152 97 855	533 547	-	5.3 5.6
7th	Jan. 65-Sep. 65	13th 14th b)	26 941 26 941	24 634 6 379	-	-	-	96 020 91 489	87 799 21 663	557 605	-	5.3 3.9

(a) Includes emergency spraying. (b) Cycle not yet finished.



BOLIVIA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958 a)	3 426	257	7.5	53	143	61
1959	83 762	1 970	2.4	243	1 419	308
1960	87 775	893	1.0	143	621	129
1961	141 033	782	0.6	58	711	13
1962	159 397	1 089	0.7	378	700	11
1963	117 432	2 241	1.9	906	1 335	-
1964	89 333	3 002	3.4	477	2 525	-
1965 b)	110 207	674	0.6	111	563	-

CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1961	1-4	461	11 975	2.6	14	1	1	5	7	-	-	-	-	14	-
1962	1-3	759	18 131	3.2	21	-	-	2	19	-	-	-	-	21	-
1963	1-3	1 179	58 587	7.4	104	18	1	-	73	-	2	10	4	100	-
1964	1st	1 141	18 702	6.6	64	36	5	3	10	-	-	10	1	63	-
	2nd		11 910	4.2	207	49	-	1	4	-	-	153	6	201	-
	3rd		16 509	5.9	140	40	-	-	5	-	-	95	11	129	-
	4th		19 086	6.7	41	29	2	1	2	-	-	7	2	37	2
1965	1st	1 173	20 529	7.0	14	5	-	3	6	-	-	-	-	13	1
	2nd		23 704	8.1	18	11	-	-	5	-	-	2	-	18	-
	3rd		32 855	11.2	24	15	-	5	-	-	-	4	1	22	1
	4th		42 866	14.6	40	19	-	-	11	-	-	10	1	39	-

(a) September-December. (b) January-September.

Country: BRAZIL (Excl. São Paulo) Date attack phase began: August 1959

STATUS OF MALARIA PROGRAM AT DECEMBER 1965

	Population (thousands)	Area km^2
TOTAL COUNTRY	65 332	8 266 622
Non malarious areas	43 871	1 447 483
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	1 439	26 087
Attack phase	10 100	1 894 543
Preparatory phase	9 922	4 898 509
Total originally malarious areas	21 461	6 819 139

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	29	4 469	4 498
Evaluation operations	74	2 019	2 093
Administrative and other	25	1 418	1 443
Transport	-	918	918
Total	128	8 824	8 952

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	727	366	135	1 228
Two-wheel vehicles	-	600	-	600
Boats	201	77	-	278
Animals	781	349	-	1 130
Other	-	-	2[a]	2
Total	1 709	1 392	137	3 238

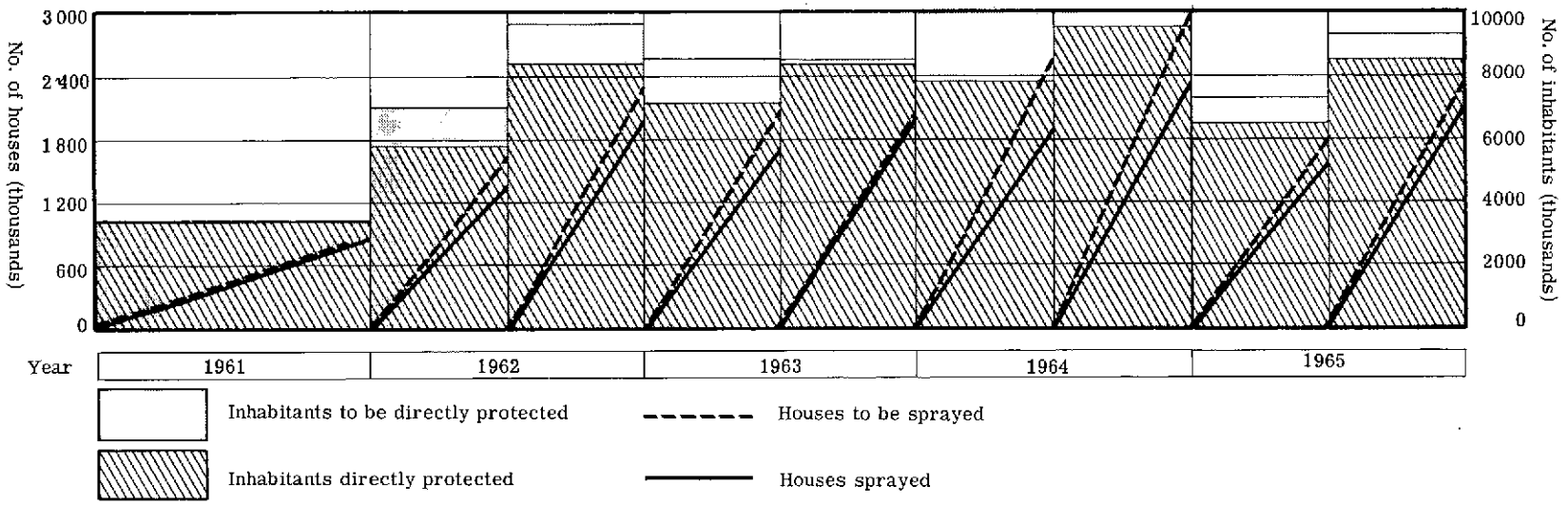
(a) Airplanes

BRAZIL (Excl. São Paulo) (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
(a)	Jan. 61-Nov. 61	(a)	820 095	814 475 b)	3 399 300 c)	3 380 000 c)	...	...
(a)	Jan. 62-Jun. 62	...	1 622 052	1 350 566	7 016 997	5 843 075	424	...
	Jul. 62-Dec. 62	...	2 292 000	1 960 358	9 724 956	8 317 433	420	...
(a)	Jan. 63-Jun. 63	...	2 062 265	1 726 289	8 574 898	7 178 751	407	...
	Jul. 63-Dec. 63	...	2 045 534	2 010 035	8 524 558	8 376 676	414	7.5
(a)	Jan. 64-Jun. 64	...	2 532 153	1 899 065	10 502 357	7 876 719	412	7.9
	Jul. 64-Dec. 64	...	2 993 954	2 350 055	12 310 241	9 662 834	419	7.7
(a)	Jan. 65-Jun. 65	...	1 799 354	1 588 479	7 361 157	6 498 567	414	7.7
	Jul. 65-Dec. 65	...	2 388 893	2 134 604	9 388 350	8 389 182	413	7.6

(a) Owing to different spray cycle timing in different regions, these data refer to the calendar year. (b) Sprayings. (c) Estimated.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK AND PREPARATORY PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1961	230 205	36 912[a]	16.03	3 620	32 285	2
1962	513 767	68 371	13.31	22 683	45 683	5
1963	860 681	109 210	12.69	37 502	71 610	98
1964	1 241 242	109 507	8.82	41 737	67 713	57
1965[b]	1 584 730	108 713	6.86	51 012	57 594	107

CONSOLIDATION PHASE AREAS

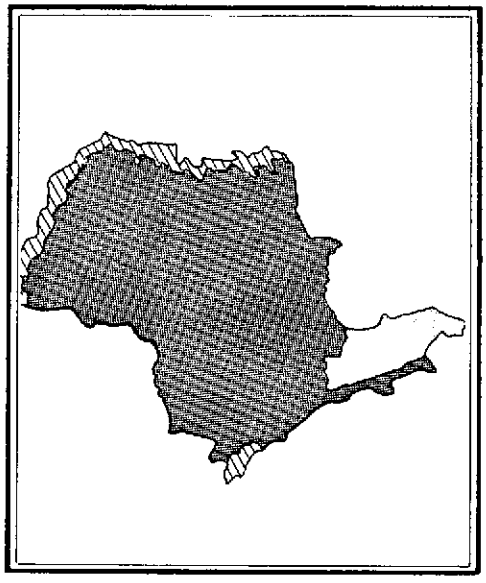
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1965	1-3	1 439	97 180	9.0	44	-	-	-	37	-	-	7	9	35	-

(a) Includes 1,005 undifferentiated mixed infections from Espiritu Santo Sector. (b) Includes 4th quarterly from areas in consolidation phase.

Country: BRAZIL (São Paulo)

Date attack phase began: 4 January 1960

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	15 600	247 239
Non malarious areas	11 664	19 224
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	3 766	200 015
Attack phase	170	28 000
Preparatory phase	0	0
Total originally malarious areas	3 936	228 015

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	9	632	641
Evaluation operations	11	227	238
Administrative and other	-	413	413
Transport	-	267	267
Total	20	1 539	1 559

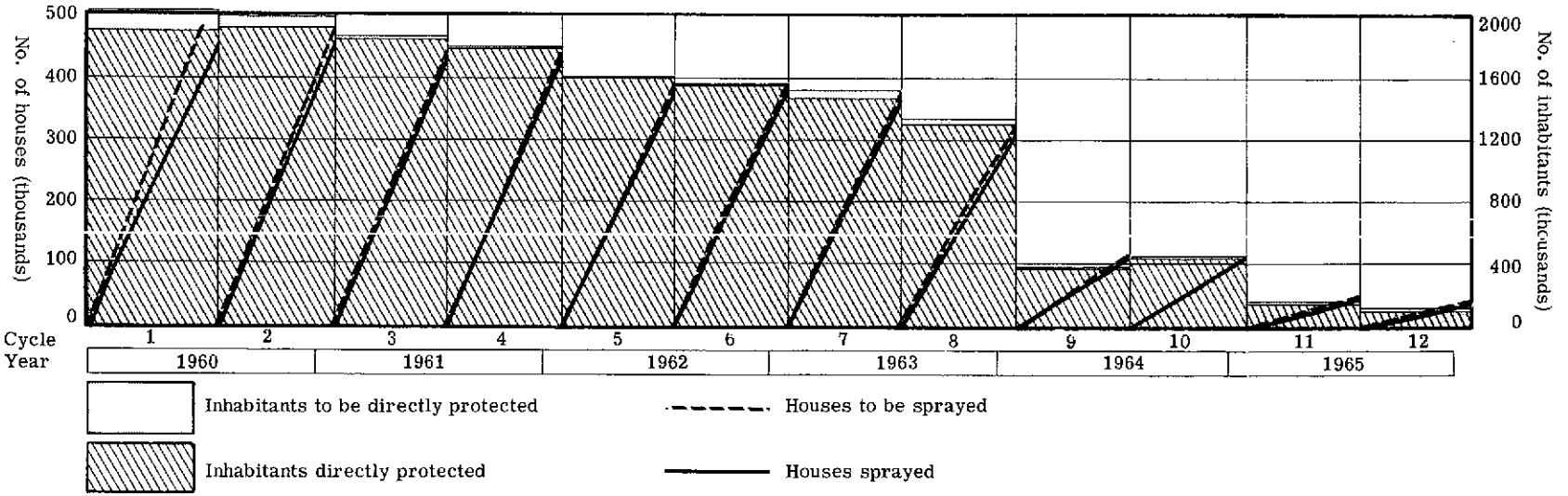
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	208	32	-	240
Two-wheel vehicles	-	-	-	-
Boats	4	8	-	12
Animals	-	-	-	-
Other	-	-	-	-
Total	212	40	-	252

BRAZIL (São Paulo) (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Jan. 60-Jan. 61	1st	481 533	455 219	2 002 214	1 892 679	433	8.4
		2nd	475 121	458 926	1 992 182	1 924 405	404	9.8
2nd	Feb. 61-Jan. 62	3rd	441 104	436 048	1 870 722	1 849 398	416	9.4
		4th	436 057	431 473	1 807 892	1 789 051	412	9.7
3rd	Feb. 62-Jan. 63	5th	381 254	380 623	1 605 079	1 602 444	419	9.7
		6th	385 555	383 717	1 558 413	1 550 975	420	9.8
4th	Feb. 63-Jan. 64	7th	378 922	366 817	1 525 540	1 477 021	424	9.7
		8th	324 556	316 221	1 346 907	1 312 405	433	9.5
5th	Feb. 64-Jan. 65	9th	113 293	110 114	379 362	368 721	444	8.1
		10th	113 257	109 480	449 981	434 974	440	8.3
6th	Feb. 65-Feb. 66	11th	43 711	43 313	171 413	169 855	436	8.3
		12th	36 050	33 884	129 816	122 021	415	8.3



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1960	114 622	8 297	7.2	66	8 230	1
1961	208 502	7 276	3.5	258	7 015	3
1962 a)	370 667	3 689	1.0	227	3 459	3
1963 a)	384 993	2 207	0.6	427	1 778	2
1964	227 608	1 295	0.6	235	1 060	-
1965	52 554	858	1.6	140	717	1

CONSOLIDATION PHASE AREAS

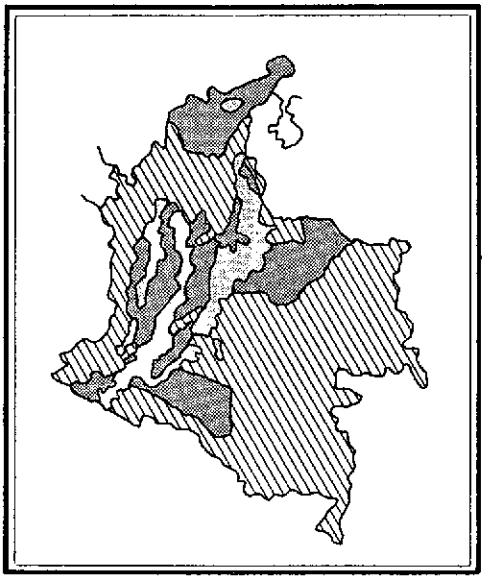
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1964	1st	2 183	64 686	11.9	115	-	5	-	101	-	5	4	17	98	-
	2nd		107 483	19.7	146	18	6	-	107	-	1	14	12	134	-
	3rd		75 501	13.8	95	2	4	-	79	-	2	8	23	72	-
	4th		59 344	10.9	120	1	-	-	115	-	1	3	17	103	-
1965	1st	3 766	32 433	3.4	187	15	-	-	163	6	-	3	30	157	-
	2nd		29 107	3.1	186	4	1	-	163	-	2	16	37	149	-
	3rd		24 721	2.6	156	8	-	-	128	-	-	20	25	131	-
	4th		54 230	5.8	162	2	2	-	145	-	8	5	20	142	-

(a) Data for entire State, not separated by attack or consolidation phase.

Country: COLOMBIA

Date attack phase began: 20 September 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	17 872	1 138 338
Non malarious areas	8 579	192 116
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	7 071	276 294
Attack phase	2 017	290 032
Preparatory phase	205	379 896
Total originally malarious areas	9 293	946 222

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	6	836	842
Evaluation operations	25	436	461
Administrative and other	2	229	231
Transport	-	272	272
Total	33	1 773	1 806

TRANSPORT FACILITIES

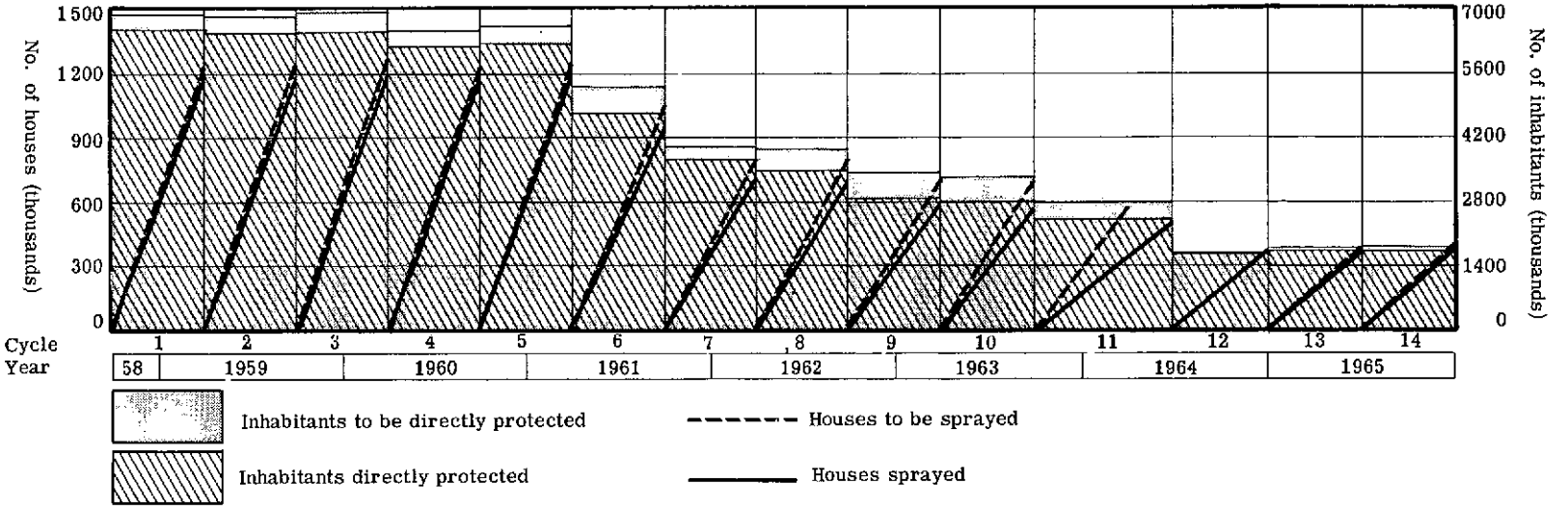
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	94	73	159	326
Two-wheel vehicles	-	68	1	69
Boats	121	63	8	192
Animals	594	424	-	1 018
Other	-	-	-	-
Total	809	628	168	1 605

COLOMBIA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Oct. 58-Sep. 59	1st	1 235 473	1 181 235	6 900 118	6 597 002	466	6.6
		2nd	1 240 810	1 176 392	6 848 030	6 492 119	425	8.9
2nd	Oct. 59-Sep. 60	3rd	1 273 295	1 196 930	6 915 265	6 500 325	409	9.4
		4th	1 228 550	1 162 059	6 556 771	6 201 358	309	8 7
3rd	Oct. 60-Sep. 61	5th	1 253 594	1 181 557	6 642 794	6 261 680	394	9.7
		6th	1 050 556	945 501 a)	5 320 016	4 788 305	402	9.3
4th	Oct. 61-Sep. 62	7th	796 056	738 459 a)	3 997 793	3 708 400	408	8.9
		8th	789 399	693 315 a)	3 928 049	3 449 630	421	8.8
5th	Oct. 62-Sep. 63	9th	701 762	586 740 b)	3 440 739	2 876 514	435	8.4
		10th	690 726	576 540 b)	3 363 145	2 806 950	459	7.9
6th	Oct. 63-Dec. 64	11th	582 580	508 501 b)	2 801 627	2 445 856	437	7.9
		12th	365 843	362 793	1 710 645	1 696 396	602	6.0
7th	Jan. 65-Dec. 65	13th	376 662	373 763	1 746 130	1 732 717	630	5.8
		14th	378 869	370 239	1 762 953	1 722 802	589	5.8

(a) Some houses were sprayed in annual cycles. (b) Some houses were sprayed in cycles of one, three and four times a year.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1959	329 288	4 172	1.3	1 195	2 942	35
1960	509 920	8 426	1.6	3 758	4 642	26
1961	570 160	16 974	3.0	10 235	6 694	45
1962	626 995	17 350	2.8	9 619	7 697	34
1963	456 592	17 448	3.8	9 113	8 311	24
1964	321 115	13 515	4.2	8 070	5 423	22
1965[a]	251 551	15 651	6.2	10 089	5 549	13

CONSOLIDATION PHASE AREAS

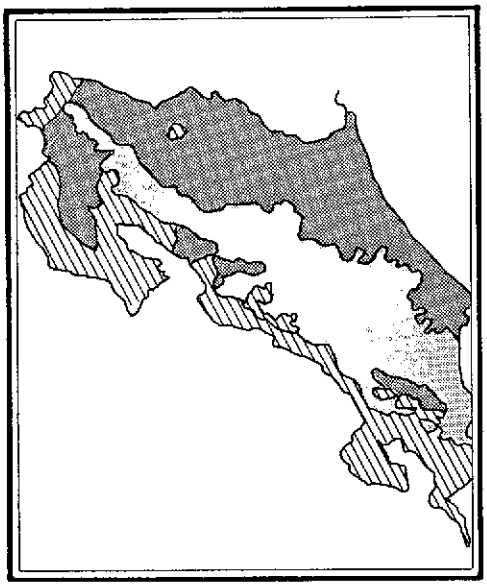
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	2nd	3 027	16 345	2.2	14	1	-	-	10	1	-	2	3	11	-
	3rd		17 636	2.3	36	1	2	-	29	-	-	4	21	15	-
	4th		36 269	4.8	97	40	2	-	33	4	-	12	75	22	-
1963	1st	3 874	28 193	2.9	129	26	-	-	61	1	6	35	82	47	-
	2nd		26 694	2.8	85	6	-	-	52	5	-	22	46	39	-
	3rd		24 844	2.6	89	4	-	-	78	-	-	7	46	43	-
	4th	5 305	41 083	3.1	147	47	1	-	88	1	1	9	88	59	-
1964	1st	6 053	41 501	2.7	257	30	-	1	197	-	5	24	111	146	-
	2nd		40 571	2.7	226	25	-	-	165	-	5	31	132	94	-
	3rd		50 135	3.3	356	39	-	-	240	-	9	68	170	186	-
	4th		46 201	3.0	375	130	-	-	172	-	8	65	165	209	1
1965	1st	7 071	76 300	4.3	641	149	1	-	301	1	1	188	323	315	3
	2nd		78 947	4.5	748	79	-	6	464	3	-	196	406	342	-
	3rd		83 910	4.7	1 237	159	1	-	783	2	-	292	775	462	-

(a) Data for last quarter, not separated by attack or consolidation phase.

Country: COSTA RICA

Date attack phase began: 15 July 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	1 438	51 011
Non malarious areas	997	19 485
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	263	19 996
Attack phase	178	11 530
Preparatory phase	0	0
Total originally malarious areas	441	31 526

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	76	77
Evaluation operations	1	128	129
Administrative and other	-	11	11
Transport	-	12	12
Total	2	227	229

TRANSPORT FACILITIES

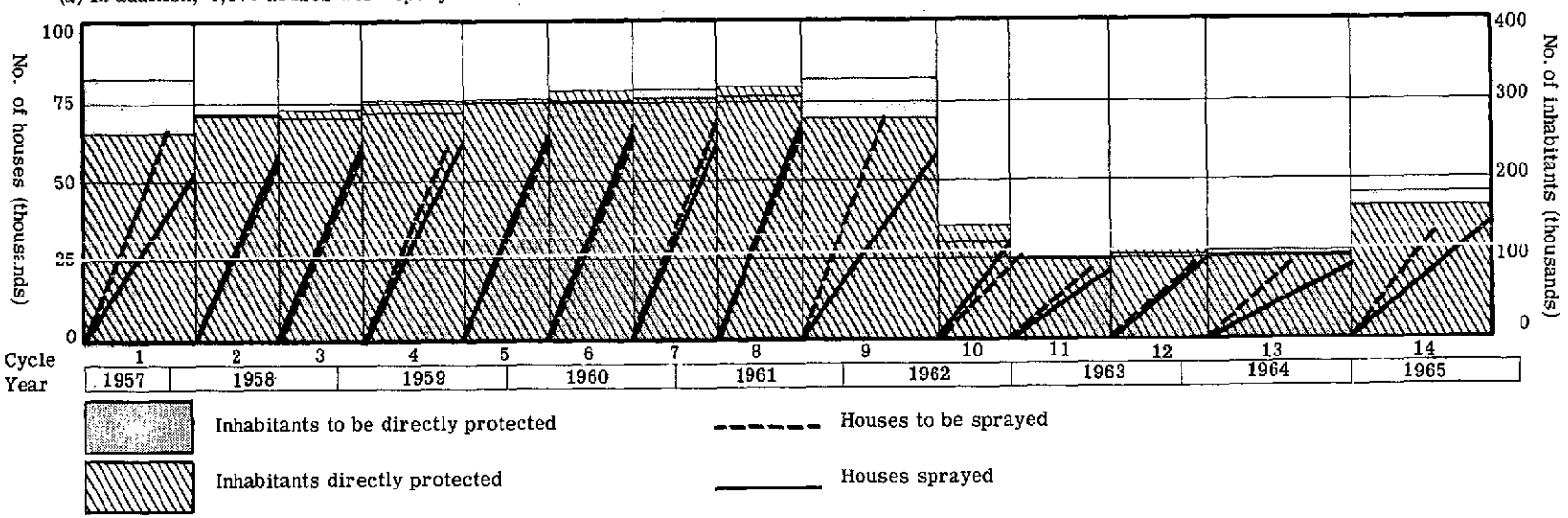
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	11	10	2	23
Two-wheel vehicles	-	89	-	89
Boats	4	6	-	10
Animals	-	-	-	-
Other	-	-	-	-
Total	15	105	2	122

COSTA RICA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Jul. 57-Aug. 58	1st 2nd	67 059 58 641	53 297 58 624	331 070 287 634	263 123 287 537	464 419	5.1 7.4
2nd	Sep. 58-Sep. 59	3rd 4th	58 858 60 413	60 800 63 063	282 930 290 405	292 856 303 151	465 531	6.9 7.1
3rd	Oct. 59-Sep. 60	5th 6th	63 259 64 057	63 884 66 961	302 568 302 926	305 586 316 629	512 475	8.6 9.3
4th	Oct. 60-Sep. 61	7th 8th	68 300 65 567	66 242 68 277	317 185 307 903	307 601 320 603	473 485	9.4 9.2
5th	Oct. 61-Dec. 62	9th 10th	69 643 26 075	58 910 30 684	332 545 120 753	281 295 142 102	492 508	8.8 9.6
6th	Jan. 63-Feb. 64	11th 12th	21 582 22 764	21 443 24 003	99 300 105 260	99 083 110 988	509 526	8.6 8.2
7th	Mar. 64-Oct. 65	13th 14th	23 046 32 623	22 098 29 827 a)	107 413 186 395	102 996 170 422	610 727	8.0 6.1

(a) In addition, 3,573 houses were sprayed with dieldrin.



COSTA RICA (Cont)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1957	18 136	1 153	6.4	98	1 037	18
1958	36 801	2 139	5.8	151	1 981	7
1959	52 536	1 899	3.6	121	1 775	3
1960	67 643	2 000	3.0	64	1 936	-
1961	87 893	1 673	1.9	18	1 655	-
1962	131 058	1 482	1.1	5	1 476	1
1963	124 475	857	0.7	7	850	-
1964	47 940	566	1.2	-	566	-
1965	95 027	1 846	1.9	1	1 845	-

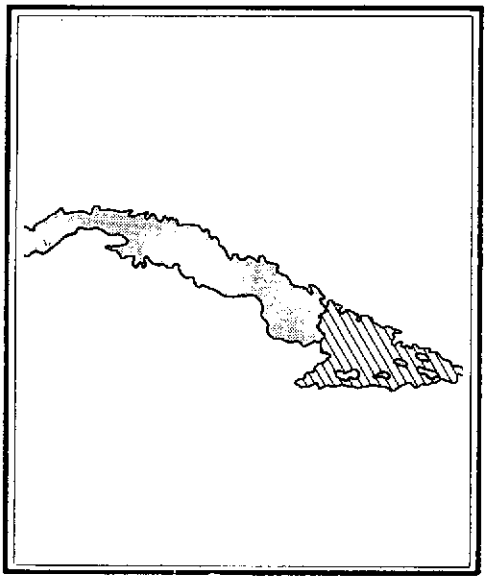
CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	3rd	230	22 765	39.6	37	-	6	2	9	-	17	3	-	37	-
	4th	230	29 829	51.9	64	-	9	2	3	-	34	16	-	64	-
1963	1st	255	35 311	55.4	62	33	13	-	-	-	8	8	-	62	-
	2nd	255	35 946	56.4	59	40	11	-	4	-	-	4	-	59	-
	3rd	255	26 885	42.1	135	101	11	-	3	-	-	20	-	135	-
	4th	262	35 233	53.8	115	70	10	-	-	-	2	33	-	115	-
1964	1st	263	23 761	36.1	93	41	7	-	4	-	-	41	-	93	-
	2nd	263	15 471	23.5	34	30	2	-	-	-	-	2	-	34	-
	3rd	283	19 262	27.2	192	116	10	2	12	-	1	51	4	188	-
	4th	294	16 851	22.9	327	164	-	-	-	-	-	163	6	321	-
1965	1st	263	17 378	26.4	71	33	-	-	-	-	2	36	-	71	-
	2nd		21 769	33.1	18	13	2	-	1	-	-	2	-	18	-
	3rd		31 468	47.9	284	111	-	-	-	-	-	173	3	281	-
	4th		32 109	48.8	344	39	1	-	3	-	-	301	-	344	-

Country: CUBA

Date attack phase began: 1 January 1962

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	7 390	114 524
Non malarious areas	5 094	77 022
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	0	0
Attack phase	2 296	37 502
Preparatory phase	0	0
Total originally malarious areas	2 296	37 502

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	547	548
Evaluation operations	9	69	78
Administrative and other	1	24	25
Transport	-	14	14
Total	11	654	665

TRANSPORT FACILITIES

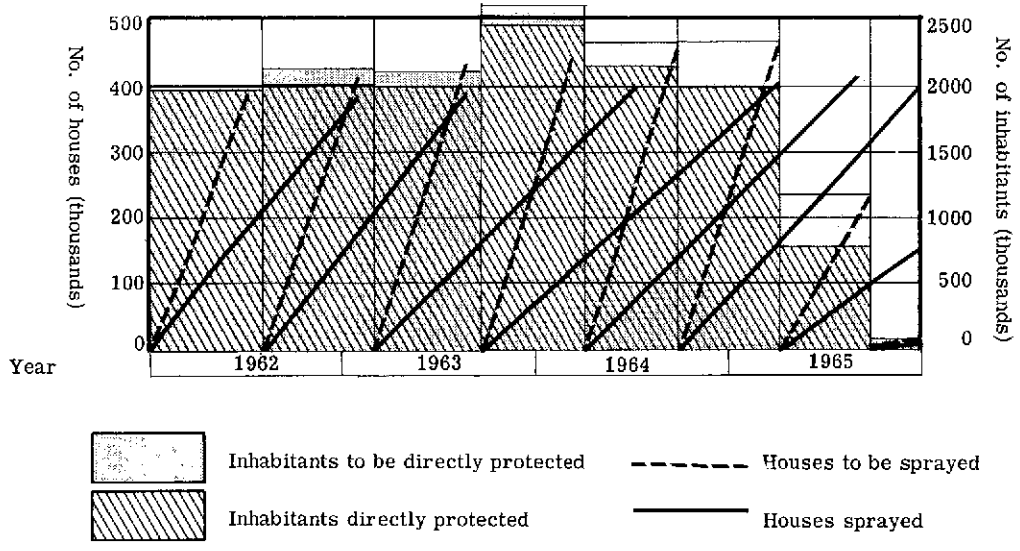
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	65	20	8	93
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	201	21	-	222
Other	-	-	-	-
Total	266	41	8	315

CUBA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Jan. 62-Jan. 63	1st	391 155	385 020	2 007 000	1 975 528	210	9.7
	Jul. 62-Aug. 63	2nd	411 773	389 914	2 125 572	2 012 831	209	10.0
2nd	Mar. 63-Jul. 64	3rd	432 891	398 940	2 110 456	1 944 936	222	9.1
	Oct. 63-Mar. 65	4th	440 285	407 546	2 641 710	2 445 886	271	8.5
3rd	Apr. 64-Sep. 65	5th	454 923	423 361	2 283 531	2 125 145	248	9.1
	Oct. 64-Dec. 65	6th a)	460 484	389 001	2 289 065	1 933 561	238	9.2
4th	Apr. 65-Dec. 65	7th a)	233 435	149 685	1 197 223	767 693	224	8.8
	Oct. 65-Dec. 65	8th a)	19 631	8 756	85 361	38 074	256	9.0

(a) Cycle not yet finished.



CUBA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

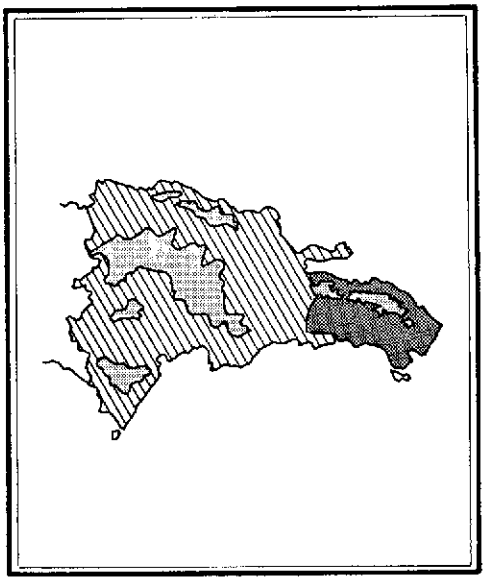
Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1960 [a]	28 791	1 325	4.6	197	1 128	-
1961 [a]	91 181	3 230	3.5	128	3 102	-
1962	100 247	3 515	3.5	31	3 484	-
1963	126 334	833	0.7	6	827	-
1964	276 470	624	0.2	-	623	1
1965	423 790	131	0.03	-	131	-

(a) Pre-eradication survey.

Country: DOMINICAN REPUBLIC

Date attack phase began: 16 June 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	3 573	48 442
Non malarious areas	643	9 442
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	346	7 780
Attack phase	2 584	31 220
Preparatory phase	0	0
Total originally malarious areas	2 930	39 000

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	441	441
Evaluation operations	5	77	82
Administrative and other	1	46	47
Transport	-	70	70
Total	6	634	640

TRANSPORT FACILITIES

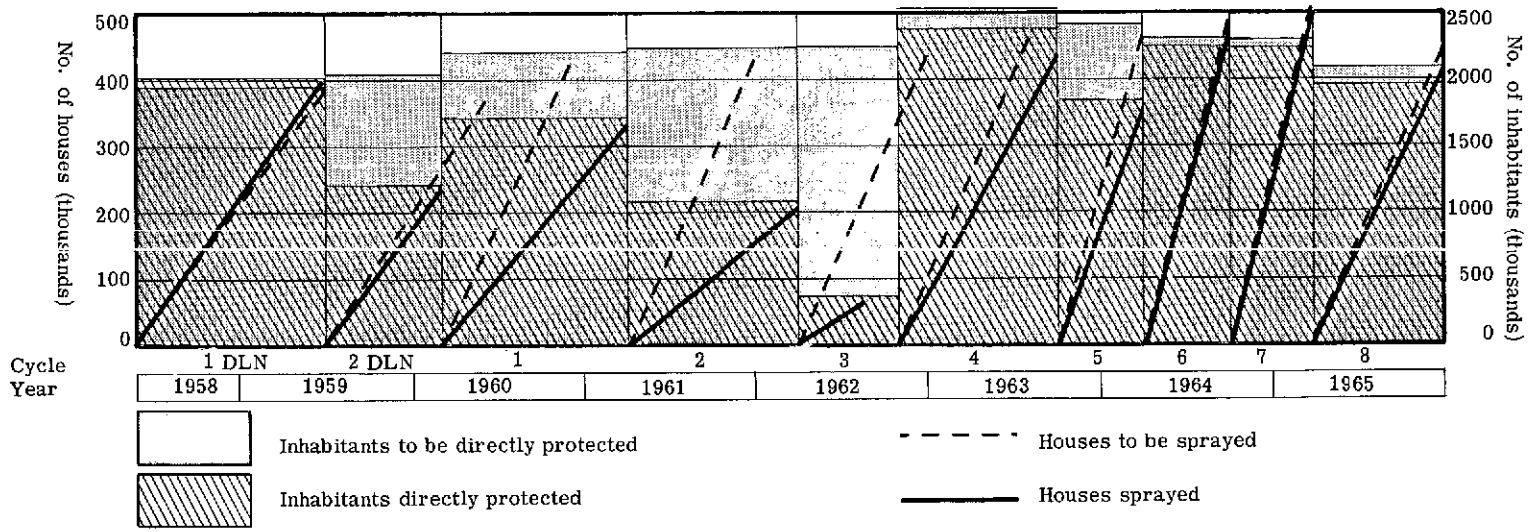
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	62	12	4	78
Two-wheel vehicles	-	17	-	17
Boats	-	-	-	-
Animals	-	6	-	6
Other	-	-	-	-
Total	62	35	4	101

DOMINICAN REPUBLIC (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Jun. 58-Jun. 59	-	-	-	1st	386 120	395 597	1 966 895	2 015 214	-	102	11.4
2nd	Jul. 59-Feb. 60	-	-	-	2nd[a)]	400 000	236 597	2 032 800	1 202 301	-	119	10.5
3rd	Mar. 60-Mar. 62	1st 2nd	428 615 428 615	332 944 204 531	-	-	-	2 206 080 2 241 656	1 713 612 1 083 459	495 472	-	9.0 8.4
(b)	Apr. 62-Oct. 62	3rd	428 615	72 499	-	-	-	2 241 656	368 201	424	-	8.4
4th	Nov. 62-Mar. 64	4th 5th	462 900 472 000	438 706 359 653	-	-	-	2 530 674 2 428 110	2 398 328 1 850 166	468 475	-	8.2 8.4
5th	Apr. 64-Mar. 65	6th 7th	490 000 510 575	480 537 500 343	-	-	-	2 316 181 2 315 764	2 271 494 2 269 357	449 355	-	9.8 10.5
6th	Apr. 65-Dec. 65	8th	450 215	411 193	-	-	-	2 104 080	1 921 727	357	-	10.0

(a) Cycle suspended due to shift of insecticide. (b) Cycle suspended.



DOMINICAN REPUBLIC (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

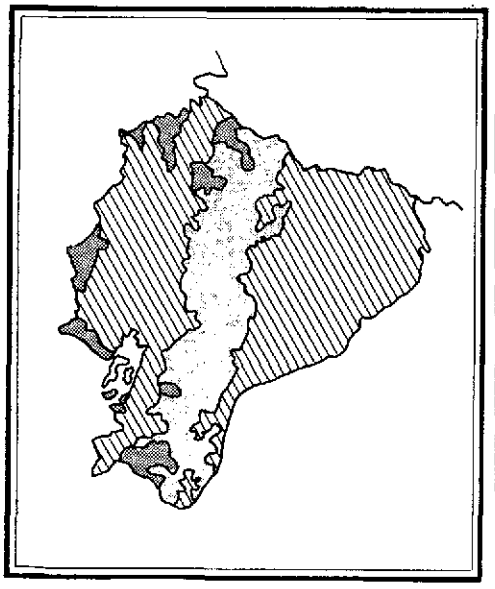
Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958 [a]	17 784	2 676	15.0	...	...	...
1959	28 721	3 743	13.0	1 968	1 767	8
1960	20 337	5 540	27.2	3 583	1 949	8
1961	21 946	2 523	11.5	1 164	1 358	1
1962	19 742	548	2.8	275	271	2
1963	73 352	386	0.5	129	256	1
1964	121 211	321	0.3	103	201	17
1965	205 836	84	0.04	38	41	5

(a) June-December.

Country: ECUADOR

Date attack phase began: 27 March 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	4 957	291 906
Non malarious areas	2 265	116 444
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	1 288	29 479
Attack phase	1 404	145 983
Preparatory phase	0	0
Total originally malarious areas	2 692	175 462

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	4	200	204
Evaluation operations	12	163	175
Administrative and other	4	144	148
Transport	-	38	38
Total	20	545	565

TRANSPORT FACILITIES

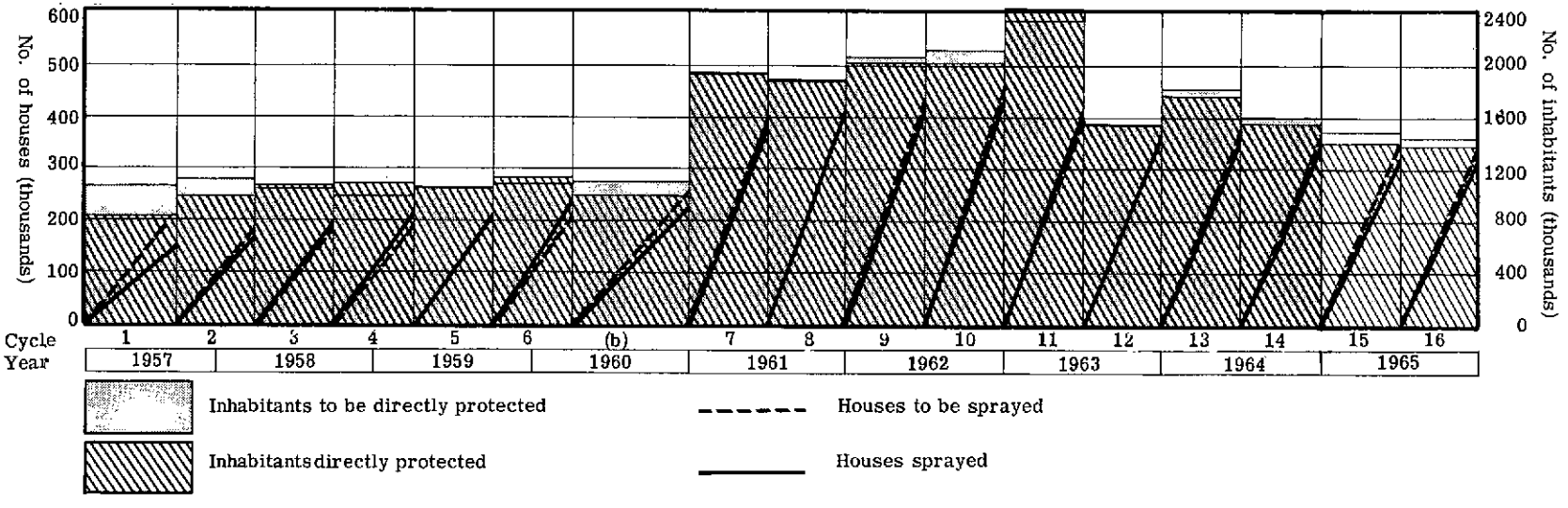
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	104	6	14	124
Two-wheel vehicles	-	39	-	39
Boats	66	-	-	66
Animals	381	-	-	381
Other	-	-	-	-
Total	551	45	14	610

ECUADOR (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Mar. 57-Mar. 58	1st + 2nd	42 418	63 284	1st	244 304	257 697	1 587 866	1 777 566	590	114	8.0
2nd	Apr. 58-Mar. 59	3rd 4th	48 104 48 391	50 089 83 018	2nd	280 832	144 069 127 348	1 047 229 980 474	1 078 629 1 092 450	490 436	123 169	6.9 8.5
3rd	Apr. 59-Mar. 60	5th 6th	76 577 76 577	72 370 97 790 a)	3rd a)	260 539	135 187 136 542 a	949 386 995 761	952 664 1 128 111	399 403	119 122	9.3 8.8
(b)	Apr. 60-Dec. 60	(b)	251 768	227 411	-	-	-	1 016 387	918 151	424	-	8.9
4th	Jan. 61-Dec. 61	7th 8th	403 989 413 951	394 246 412 008	-	-	-	1 954 095 1 897 137	1 907 065 1 888 183	446 502	-	8.4 8.5
5th	Jan. 62-Dec. 62	9th 10th	438 027 448 716	428 269 428 329	-	-	-	2 069 240 2 119 734	2 023 097 2 023 430 c)	529 557	-	8.4 8.2
6th	Jan. 63-Dec. 63	11th 12th	400 362 363 437	409 722 363 304	-	-	-	2 360 935 1 553 330	2 416 436 1 552 883	581 602	-	8.2 8.2
7th	Jan. 64-Dec. 64	13th 14th	374 284 367 377	362 930 357 206	-	-	-	1 829 500 1 606 760	1 774 020 1 562 305	620 630	-	7.8 7.9
8th	Jan. 65-Dec. 65	15th 16th	343 390 330 691	328 679 316 519	-	-	-	1 494 330 1 453 023	1 430 345 1 390 756	627 570	-	7.5 7.7

(a) Cycle suspended. (b) Emergency spraying. (c) Estimated.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1957	38 631	1 675	4.3	864	808	3
1958	65 521	4 421	6.7	2 411	2 006	4
1959	98 977	5 887	5.9	2 313	3 571	3
1960	119 562	9 084	7.6	3 158	5 906	20
1961	213 169	9 733	4.6	1 489	8 243	1
1962	269 004	5 531	2.1	658	4 868	5
1963	199 675	3 760	1.9	231	3 509	20
1964	174 203	4 246	2.4	251	3 994	1
1965 a)	180 374 a)	3 777 a)	2.1	181	3 596	-

CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1963	1st	625	17 734	11.3	6	-	-	-	6	-	-	-	-	5	1
	2nd	625	19 286	12.3	15	-	-	-	15	-	-	-	1	14	-
	3rd	806	25 488	12.6	29	-	-	-	29	-	-	-	1	28	-
	4th	927	24 270	9.6	47	-	-	-	39	-	-	8	4	43	-
1964	1st	927	23 820	10.3	51	-	-	-	20	-	-	31	4	47	-
	2nd	938	39 275	16.7	118	1	1	-	58	-	2	56	7	111	-
	3rd	1 016	41 398	16.3	129	32	2	-	65	-	7	23	1	128	-
	4th	1 053	36 004	13.7	84	3	-	-	55	-	-	26	1	83	-
1965	1-4 b)	1 288	159 753	13.5	402	69	28	6	244	-	11	44	22	380	-

(a) December includes figures of areas in consolidation phase. (b) January-November.

Country: EL SALVADOR

Date attack phase began: 1 July 1956

STATUS OF MALARIA PROGRAM AT DECEMBER 1965

	Population (thousands)	Area km^2
TOTAL COUNTRY	2 918	21 146
Non malarious areas	467	1 846
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	0	0
Attack phase	2 451[a]	19 300
Preparatory phase	0	0
Total originally malarious areas	2 451	19 300

(a) See table No. 2

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	2	3
Evaluation operations	4	295	299
Administrative and other	-	39	39
Transport	-	41	41
Total	5	377	382

TRANSPORT FACILITIES

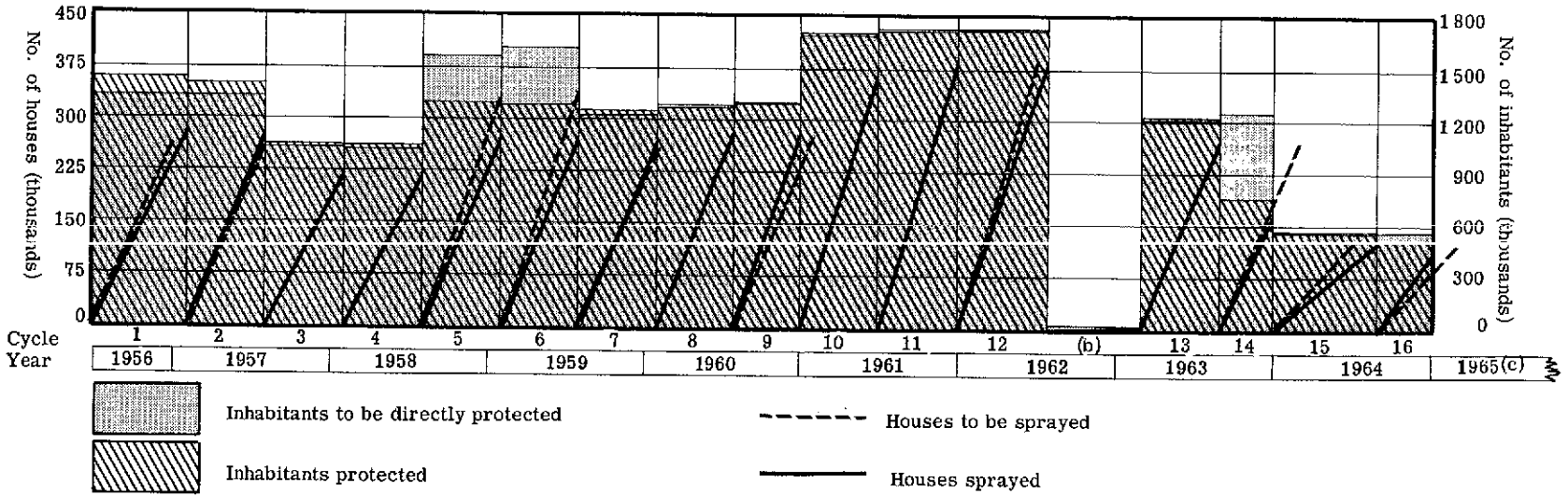
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	1	43	33	77
Two-wheel vehicles	-	48	1	49
Boats	-	1	-	1
Animals	-	-	-	-
Other	-	-	-	-
Total	1	92	34	127

EL SALVADOR (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
3rd	Aug. 58-Jul. 59[a]	5th 6th	331 975 341 277	273 788 270 719	1 575 885 1 620 050	1 299 671 1 285 197	493 527	8.6 8.9
4th	Aug. 59-Jul. 60	7th 8th	261 102 278 991	265 361 276 050	1 237 362 1 289 775	1 257 537 1 277 428	573 545	7.7 7.7
5th	Aug. 60-Jun. 61	9th 10th	281 430 368 841	279 481 371 715	1 360 400 1 700 000	1 297 262 1 713 252	528 526	7.6 8.9
6th	Jul. 61-Jul. 62	11th 12th	380 283 387 944	377 551 386 094	1 748 922 1 742 645	1 736 431 1 734 366	546 562	9.2 9.5
(b)	Aug. 62-Feb. 63	(b)	3 901	3 816	20 117	19 680	809	6.7
7th	Mar. 63-Dec. 63	13th 14th	267 239 273 344	270 703 165 666	1 206 851 1 255 742	1 222 430 761 151	559 506	9.3 9.3
8th	Jan. 64-Nov. 64	15th 16th	127 000 125 806	125 854 114 441	581 745 577 568	576 496 525 392	536 533	8.4 9.4
(c)	Dec. 64-Dec. 65	(c)	-	6 396	-	...	-	-

(a) Date in which DDT started to be used; prior to that DDT and dieldrin were used. (b) Spraying discontinued; only one locality was sprayed. (c) Emergency spraying.



EL SALVADOR (Cont.)

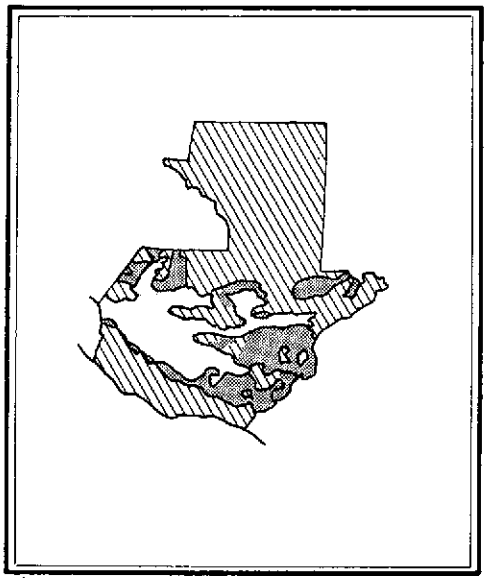
EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1957	29 171	6 661	22.8	3 001	3 655	5
1958	51 615	9 351	18.1	4 419	4 932	-
1959	71 295	17 521	24.6	4 051	13 470	-
1960	75 381	10 012	13.3	2 947	7 064	1
1961	127 293	12 563	9.9	2 965	9 594	4
1962	194 069	15 433	7.9	2 556	12 873	4
1963	238 791	17 846	7.5	1 879	15 962	5
1964	350 843	25 857	7.4	2 661	23 195	1
1965	506 442	34 070	6.7	2 186	31 884	-

Country: GUATEMALA

Date attack phase began: 1 August 1956

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	4 411	108 889
Non malarious areas	2 467	28 539
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	887	16 546
Attack phase	1 057	63 804
Preparatory phase	0	0
Total originally malarious areas	1 944	80 350

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	295	296
Evaluation operations	13	294	307
Administrative and other	-	17	17
Transport	-	27	27
Total	14	633	647

TRANSPORT FACILITIES

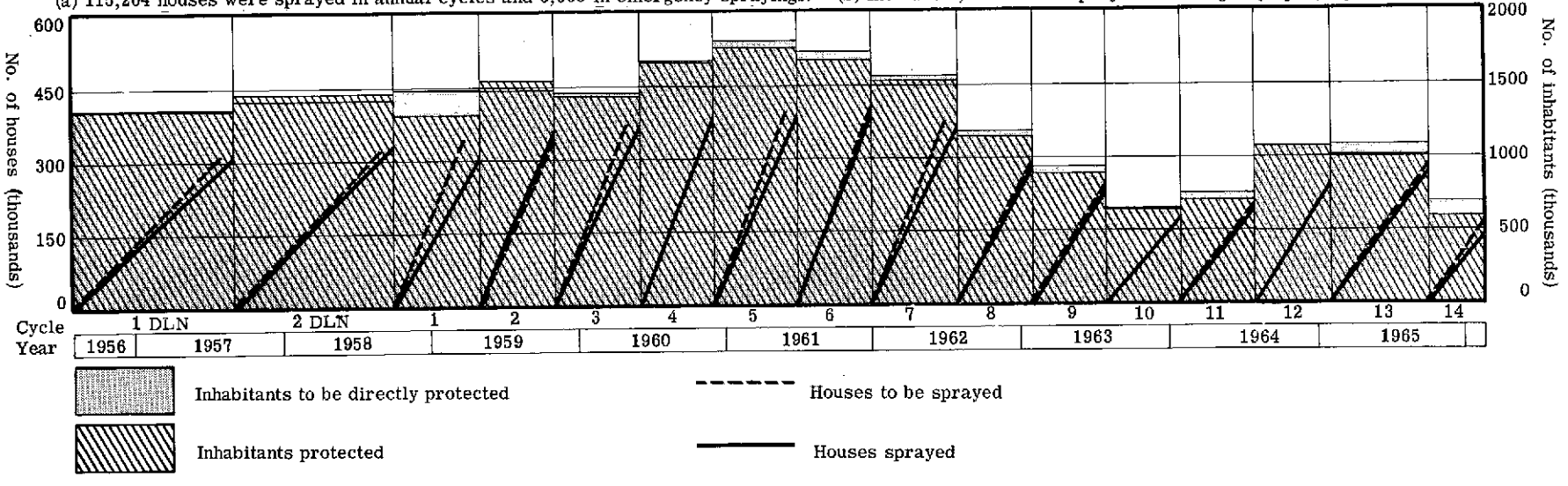
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	26	9	7	42
Two-wheel vehicles	-	25	48	73
Boats	5	4	1	10
Animals	-	-	-	-
Other	-	-	-	-
Total	31	38	56	125

GUATEMALA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Aug. 56-Aug. 57	-	-	-	1st	308 097	306 306	1 361 175	1 353 121	-	117	8.4
2nd	Sep. 57-Sep. 58	-	-	-	2nd	321 975	331 090	1 422 165	1 462 510	-	117	8.5
3rd	Oct. 58-Oct. 59	1st 2nd	341 000 342 586	301 329 357 104	-	-	-	1 482 670 1 481 342	1 310 317 1 544 144	427 542	-	8.8 7.5
4th	Nov. 59-Nov. 60	3rd 4th	373 641 377 381	368 269 378 636	-	-	-	1 460 936 1 654 816	1 439 781 1 660 207	541 560	-	7.1 8.1
5th	Dec. 60-Dec. 61	5th 6th	396 588 406 807	386 737 393 090	-	-	-	1 815 183 1 737 473	1 769 971 1 678 906	588 557	-	7.8 7.9
6th	Jan. 62-Jan. 63	7th 8th	375 000 291 490	368 135 280 687	-	-	-	1 562 625 1 185 781	1 534 089 1 141 867	553 589	-	7.5 7.5
7th	Feb. 63-Jan. 64	9th 10th	243 511 175 000	231 824 171 061	-	-	-	949 936 642 950	904 382 628 563	537 502	-	7.6 8.0
8th	Feb. 64-Jan. 65	11th 12th	205 686 239 819	193 780 239 859	-	-	-	748 945 1 060 576	705 594 1 060 758	510 508	-	8.1 8.0
9th	Feb. 65-Feb. 66	13th 14th	281 102 165 071	268 636a) 140 535b)	-	-	-	1 067 260 709 112	1 019 937 603 723	506 517	-	8.2 8.4

(a) 115,204 houses were sprayed in annual cycles and 3,908 in emergency sprayings. (b) Includes 5,297 houses sprayed in emergency sprayings.



GUATEMALA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1956 a)	8 030	2 111	26.3	538	1 573	-
1957	25 232	5 653	22.4	1 837	3 812	4
1958	62 119	12 829	20.6	5 043	7 786	-
1959	108 048	7 894	7.3	1 548	6 346	-
1960	129 741	3 387	2.6	417	2 969	1
1961	219 628	4 083	1.9	780	3 298	5
1962	275 003	5 783	2.1	1 539	4 224	20
1963	216 217	12 270	5.7	4 660	7 565	45
1964	167 261	17 241	10.3	4 293	12 914	34
1965	242 012	11 730	4.8	2 053	9 676	1

CONSOLIDATION PHASE AREAS

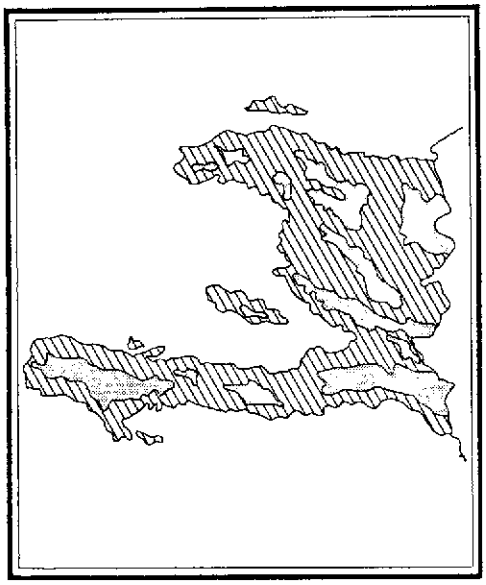
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	1st	175	2 399	5.5	2	-	-	-	2	-	-	-	1	1	-
	2nd	175	5 457	12.5	1	-	-	-	1	-	-	-	1	-	-
	3rd	498	20 655	16.6	93	1	-	-	26	-	-	66	18	75	-
	4th	581	19 859	13.7	117	1	-	-	71	-	-	45	42	75	-
1963	1st	890	20 834	9.4	297	-	2	-	144	-	-	151	68	229	-
	2nd	890	25 543	11.5	413	17	18	-	168	-	2	208	117	294	2
	3rd	1 234	40 400	13.1	1 082	89	64	-	169	-	-	760	359	723	-
	4th	1 234	45 372	14.7	1 054	72	58	-	73	-	-	851	353	699	2
1964	1st	1 009	26 989	10.7	454	64	122	-	134	-	-	134	67	385	2
	2nd	1 025	28 439	11.1	790	49	157	-	250	-	1	333	110	678	2
	3rd	1 025	30 529	11.9	941	-	-	-	-	-	-	941	180	759	2
	4th	1 057	35 840	13.6	975	41	56	-	127	-	-	751	353	622	-
1965	1st	1 057	36 831	13.9	656	58	142	-	38	-	-	418	58	598	-
	2nd	1 057	29 761	11.3	745	74	70	-	35	-	-	566	38	707	-
	3rd	887	31 344	14.1	676	36	24	-	17	-	-	599	76	599	1
	4th	887	40 614	18.3	665	128	36	-	21	-	-	480	88	577	-

(a) August-December

Country: HAITI

Date attack phase began: 1 January 1962

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	4 500	27 750
Non malarious areas	1 000	8 650
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	0	0
Attack phase	3 500	19 100
Preparatory phase	0	0
Total originally malarious areas	3 500	19 100

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	4	45	49
Evaluation operations	13	1 394	1 407
Administrative and other	1	137	138
Transport	-	61	61
Total	18	1 637	1 655

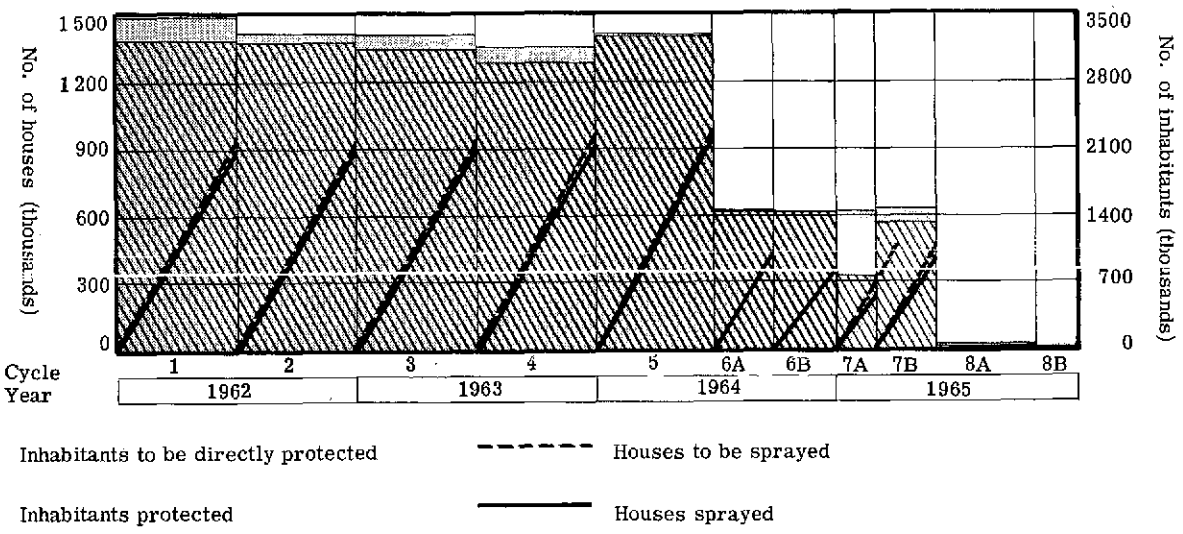
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	77	29	106
Two-wheel vehicles	-	-	1	1
Boats	-	2	-	2
Animals	-	-	-	-
Other	-	-	-	-
Total	-	79	30	109

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle DDT	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) DDT	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Jan. 62-Dec. 62	1st	952 301	885 549 a)	3 490 183	3 245 821	220	14.3
		2nd	929 415	906 846	3 311 505	3 231 438	196	16.6
2nd	Jan. 63-Dec. 63	3rd	940 397	902 687	3 297 032	3 165 209	217	15.4
		4th	964 942	914 340	3 186 238	3 019 259	235	16.2
3rd	Jan. 64-Dec. 64	5th	984 853	974 136	3 317 674	3 281 609	243	16.1
		6th A b)	457 066	454 029	1 459 549	1 449 893	127	16.8
		6th B b)	465 260	455 353	1 446 450	1 446 458	122	17.5
4th	Jan. 65-Dec. 65	7th A b)	465 907	246 414	1 447 900	765 795	119	18.3
		7th B c)	465 907	404 692	1 477 205	1 283 123	234	17.9
		8th A d)	5 657	5 418	21 175	20 280	487	9.9
		8th B d)	8 178	6 296	26 511	20 411	254	14.2

(a) 10,016 houses sprayed with dieldrin. (b) Quarterly cycles, using DDT 1 g/m^2. (c) Quarterly cycles, using DDT 2 g/m^2. (d) Annual cycles.



HAITI (Cont.)

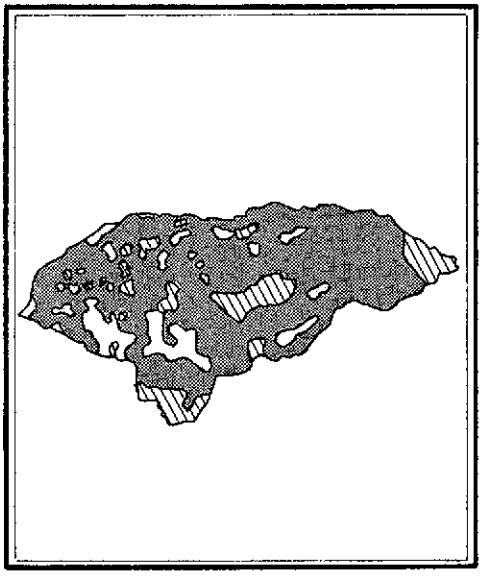
EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1962	111 142	4 033	3.6	3 441	20	572
1963	386 657	6 662	1.7	5 464	12	1 186
1964	473 297	19 170	4.1	18 422	24	724
1965	752 284	10 304	1.4	9 997	20	287

Country: HONDURAS

Date attack phase began: 15 July 1959

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	2 122	112 088
Non malarious areas	271	10 721
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	1 518	79 217
Attack phase	333	22 150
Preparatory phase	0	0
Total originally malarious areas	1 851	101 367

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	64	64
Evaluation operations	2	166	168
Administrative and other	-	50	50
Transport	-	38	38
Total	2	318	320

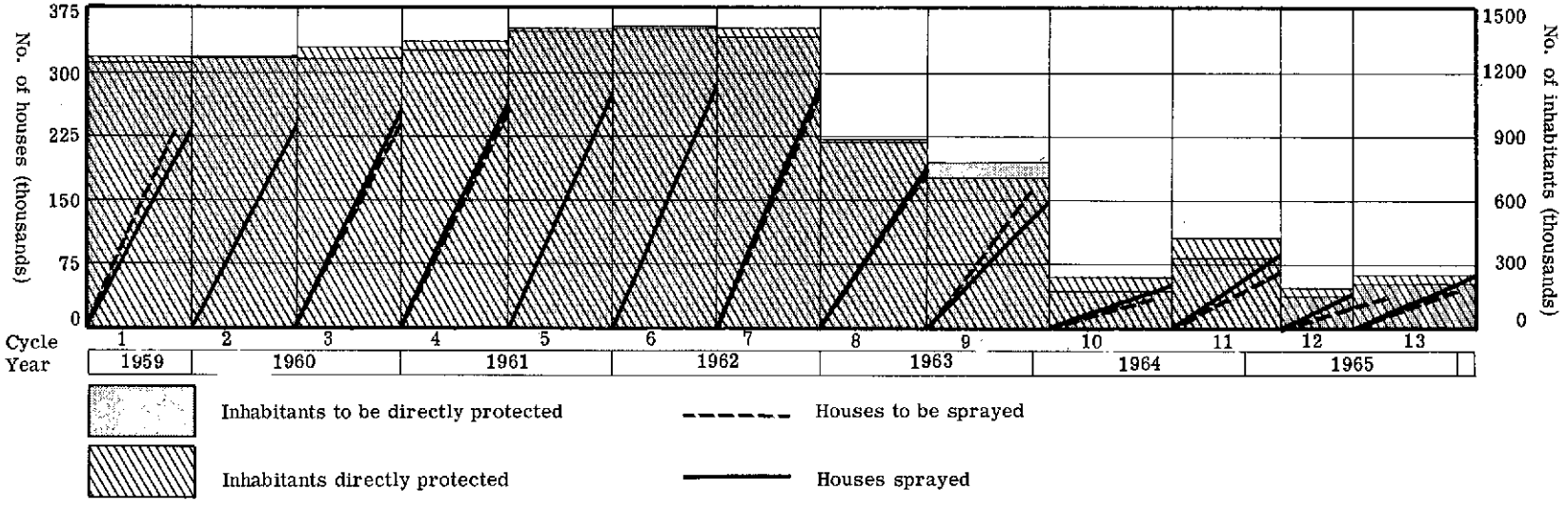
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	19	16	41	76
Two-wheel vehicles	-	70	-	70
Boats	-	-	3	3
Animals	-	117	40	157
Other	-	-	-	-
Total	19	203	84	306

HONDURAS (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Malathion							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Malathion	
1st	Jul. 59-Jun. 60	1st	232 771	236 963	-	-	-	1 252 773	1 275 237	406	-	9.8
		2nd	241 726	242 059				1 277 280	1 279 148	368		11.4
2nd	Jul. 60-Jun. 61	3rd	245 572	254 699	-	-	-	1 274 028	1 321 450	369	-	11.8
		4th	258 519	265 825				1 314 052	1 351 212	419		10.9
3rd	Jul. 61-Jun. 62	5th	276 458	277 941	-	-	-	1 401 919	1 409 325	360	-	11.1
		6th	287 516	285 394				1 421 192	1 410 773	262		11.3
4th	Jul. 62-Jun. 63	7th	282 186	290 056	-	-	-	1 376 785	1 415 286	373	-	11.1
		8th	187 905	191 321				877 892	893 861	377		11.0
5th	Jul. 63-Aug. 64	9th	126 499	110 612	1st	19 776	20 440	781 085	712 355	404	440	10.5
					2nd	17 471	18 286				343	
		10th	14 851	27 719	3rd	21 499	23 066	171 805	240 031	505	575	9.0
6th	Sep. 64-Jun. 65	11th	21 502	37 818	4th	23 274	23 614	328 950	425 513	567	550	8.4
					5th	22 039	24 997				411	
		12th	30 377	35 603	-	-	-	137 790	161 522	474	-	8.7
7th	Jul. 65-Jan. 66	13th	38 035	54 654	-	-	-	182 636	262 438	464	-	8.9



HONDURAS (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958 a)	14 183	906	6.4	339	567	-
1959	66 391	6 675	10.1	3 170	3 504	1
1960	109 677	5 517	5.0	1 737	3 780	-
1961	164 965	4 334	2.6	861	3 472	1
1962	229 666	5 747	2.5	597	5 150	-
1963	168 647	6 721	4.0	669	6 052	-
1964	75 286	5 392	7.2	604	4 788	-
1965	113 763	5 082	4.5	141	4 941	-

CONSOLIDATION PHASE AREAS

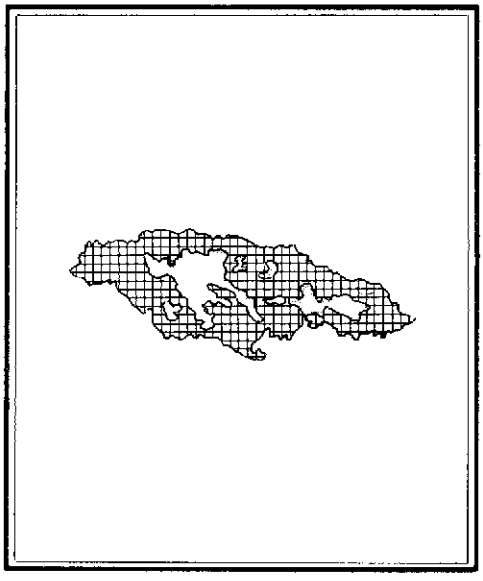
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	3rd	46	6 992	60.8	1	-	1	-	-	-	-	-	-	1	-
	4th		2 997	26.0	2	-	-	-	2	-	-	-	-	2	-
1963	1st	526	19 133	14.5	69	23	-	-	36	-	-	10	11	58	-
	2nd	526	19 790	15.0	41	12	6	-	21	-	-	2	3	38	-
	3rd	765	32 869	17.2	89	50	13	-	15	-	-	11	4	85	-
	4th	941	23 692	10.1	157	92	32	1	12	-	-	20	1	156	-
1964	1st	1 631	20 253	5.0	122	61	41	-	12	-	-	8	4	118	-
	2nd		29 169	7.2	161	84	49	-	18	-	-	10	-	161	-
	3rd		37 962	9.3	474	294	86	-	36	-	-	58	5	469	-
	4th		44 330	10.9	524	272	82	-	77	-	-	93	28	496	-
1965	1st	1 518	49 861	13.1	288	176	49	3	26	-	-	34	10	278	-
	2nd		45 502	12.0	333	191	49	12	31	-	-	50	4	329	-
	3rd		53 518	14.1	570	339	76	10	37	-	-	108	1	569	-
	4th		47 657	12.6	679	304	48	7	17	-	-	303	7	672	-

(a) Incomplete information.

Country: JAMAICA

Date attack phase began: 2 January 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	1 791	11 428
Non malarious areas	359	1 400
Originally malarious areas		
Maintenance phase	1 432	10 028
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	1 432	10 028

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	1 (1)	87	88 (1)
Administrative and other	1	-	1
Transport	-	-	-
Total	2 (1)	87	89 (1)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	32	6	38
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	32	6	38

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	56 266	205	0.4	199	-	6
1959	39 726	371	0.9	352	-	19
1960	136 123	133	0.1	122	-	11
1961	153 237	23	0.02	16	-	7

CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1960	3-4	313	48 411	30.9	2	-	2	-	-	-	-	-	-	-	2
1961	1-4	761	139 664	18.4	8	1	7	-	-	-	-	-	-	-	8
1962	1-4	1 282	246 592	19.2	2	-	-	1	-	1	-	-	-	1	1
1963	1-4	1 309	185 459	14.2	3	-	3	-	-	-	-	-	-	-	3
1964	1-4	1 365	134 824	9.9	1	-	1	-	-	-	-	-	-	-	1
1965	1st	1 432	24 443	6.8	1	-	1	-	-	-	-	-	-	-	1
MAINTENANCE PHASE AREAS															
1965	2-4	1 432	53 854	5.0	2	-	1	1	-	-	-	-	-	-	2

Country: MEXICO

Date attack phase began: 2 January 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965

	Population (thousands)	Area km^2
TOTAL COUNTRY	40 707	1 969 367
Non malarious areas	20 222	914 592
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	12 995	595 500
Attack phase	7 490	459 275
Preparatory phase	0	0
Total originally malarious areas	20 485	1 054 775

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	35	2 396	2 431
Evaluation operations	62	1 031	1 093
Administrative and other	22	489	511
Transport	-	169	169
Total	119	4 085	4 204

TRANSPORT FACILITIES

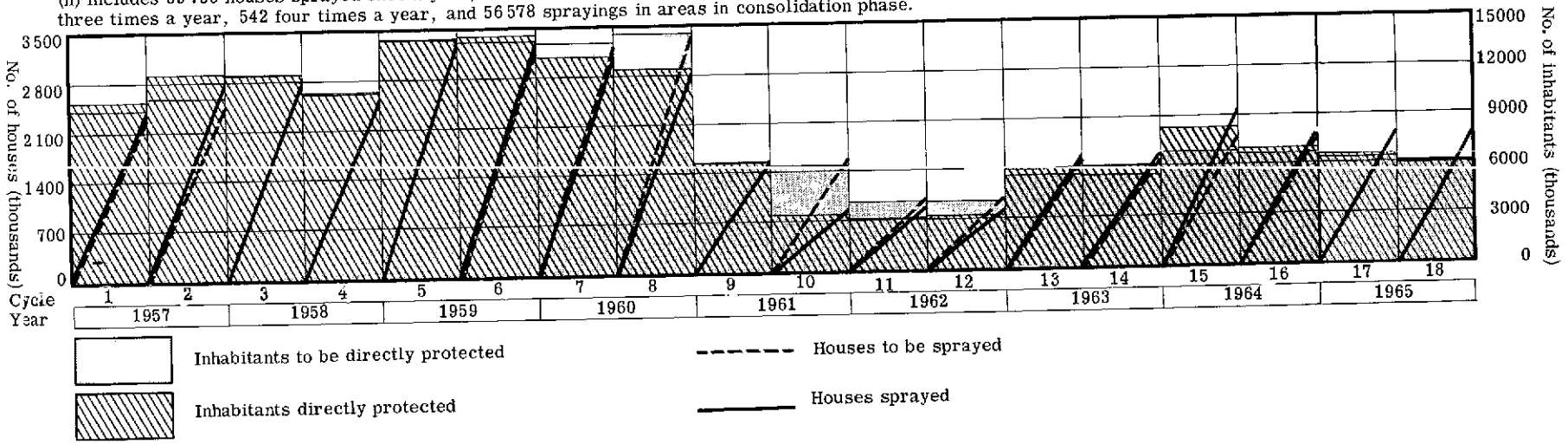
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	437	397	64	898
Two-wheel vehicles	-	-	-	-
Boats	10	2	-	12
Animals	1 829	164	-	1 993
Other	-	-	-	-
Total	2 276	563	64	2 903

MEXICO (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Jan. 57-Dec. 57	1st	2 292 841	2 143 023	1st	(a)	219 662	10 464 526	10 802 292	495	99	9.3
		2nd	2 434 486	2 298 952		(a)	459 064	11 113 428	12 597 171	417		9.9
2nd	Jan. 58-Dec. 58	3rd	2 060 985	2 103 570	2nd	731 872	685 814	12 545 513	12 531 599	402	110	10.3
		4th	1 869 911	1 971 557		666 929	531 742	11 362 506	11 212 496	424	113	10.5
3rd	Jan. 59-Dec. 59	5th	2 973 820	3 050 952	3rd	321 520	246 753	14 492 905	14 505 650	434	112	10.8
		6th	3 018 184	3 219 340		160 136	45 548	14 226 160	14 614 270	434	118	10.4
4th	Jan. 60-Dec. 60	7th	3 177 380	3 027 089	4th	68 977	21 390	14 163 856	13 301 924	369	94	10.9
		8th	3 376 695	2 869 083		(a)	1 000	14 681 870	12 481 041	247	83	11.1
5th	Jan. 61-Dec. 61	9th	1 575 106	1 582 503	-	-	-	6 571 342	6 602 052	356	-	11.2
		10th	1 575 106	852 287				6 409 106	3 468 283	414		10.5
6th	Jan. 62-Dec. 62	11th	1 036 386	783 060[b]	-	-	-	4 151 927	3 135 873	514	-	8.6
		12th	1 036 386	825 082				4 070 924	3 241 041	517		8.9
7th	Jan. 63-Dec. 63	13th	1 477 793	1 551 297[c]	-	-	-	5 686 547	5 969 938	512	-	8.6
		14th	1 477 793	1 606 125[d]				5 572 757	6 056 473	...		8.7
8th	Jan. 64-Dec. 64	15th	1 808 906	2 190 136[e]	-	-	-	6 869 682	8 317 653	486	199 g)	8.7
		16th	1 808 906	1 848 155[f]				6 770 916	6 917 988	476	249 g)	8.7
9th	Jan. 65-Dec. 65	17th	1 770 934	1 824 675[h]	-	-	-	6 278 670	6 469 365	423	-	9.4
		18th	1 770 934	1 812 043[i]				5 949 098	6 087 346	408		9.3

(a) Included in DDT column. (b) Includes 386 746 houses sprayed 3 times a year and 5 963 once a year. (c) Includes 160 295 houses sprayed 3 times a year, and 5 697 once a year. (d) Includes 128 743 houses sprayed 3 times a year, and 4 029 once a year. (e) Includes 11 457 houses sprayed once a year, 732 900 three times a year, and 51 423 four times a year. (f) Includes 3 907 houses sprayed once a year, 522 194 three times a year, and 42 692 four times a year. (g) DDT 1 g/m^2 (h) Includes 89 755 houses sprayed once a year, 172 789 three times a year, 34 831 four times a year. (i) Includes 34 698 houses sprayed once a year, 137 167 three times a year, 542 four times a year, and 56 578 sprayings in areas in consolidation phase.



MEXICO (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1957	175 080	4 387	2.51	514	3 856	17
1958	399 124	3 290	0.82	487	2 779	24
1959	815 038	3 202	0.39	443	2 705	54
1960	1 208 712	3 569	0.29	245	3 251	73
1961	828 360	8 735	1.05	337	8 283	115
1962	727 262	9 642	1.33	139	9 450	53
1963	710 448	12 906	1.82	279	12 581	46
1964	761 832	11 722	1.54	371	11 334	17
1965	793 271	8 699 a)	1.10	44	8 442	9

CONSOLIDATION PHASE AREAS

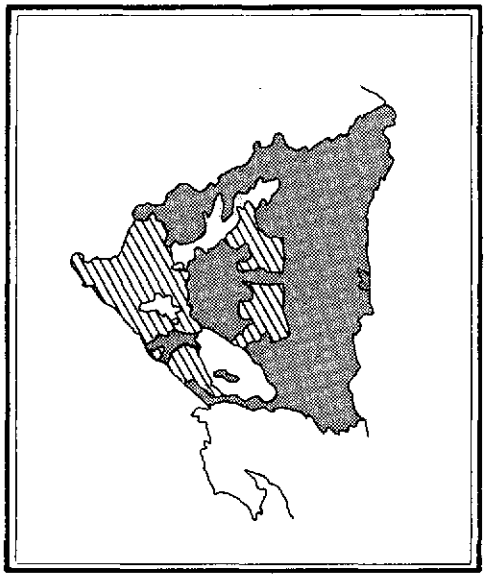
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1958	1-4	59	4 449	7.5	-	-	-	-	-	-	-	-	-	-	-
1959	1-4	59	6 560	11.1	-	-	-	-	-	-	-	-	-	-	-
1960	1-3	70	4 058	7.7	-	-	-	-	-	-	-	-	-	-	-
1961	1-4	11 721	745 907	6.4	3 114	1 248	446	387		12	90	931	91	3 004	19
1962	1-4	15 592	1 240 130	7.9	4 367	1 211	487	3	695	2	642	1 597	43	4 577	17
1963	1-4	16 830	1 122 103	6.7	3 835	1 514	73	1	494	5	390	1 358	183	3 634	18
1964	1-4	12 740	833 491	6.5	1 683	914	78	2	407	4	11	267	83	1 595	5
1965	1-4	12 995	802 232 b)	6.2	1 414 b)	609	28	3	396	-	21	318	30	1 343	2

(a) Includes 204 re-examined samples. (b) Includes 50 050 samples and 131 positives from non-malarious areas, and also 39 re-examined samples.

Country: NICARAGUA

Date attack phase began: 10 November 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	1 783	139 000
Non malarious areas	70	6 615
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	730	91 888
Attack phase	983[a]	40 497[a]
Preparatory phase	0	0
Total originally malarious areas	1 713	132 385

(a) Includes inhabitants in areas in recess from spraying

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	91	92
Evaluation operations	4	196	200
Administrative and other	2	39	41
Transport	-	62	62
Total	7	388	395

TRANSPORT FACILITIES

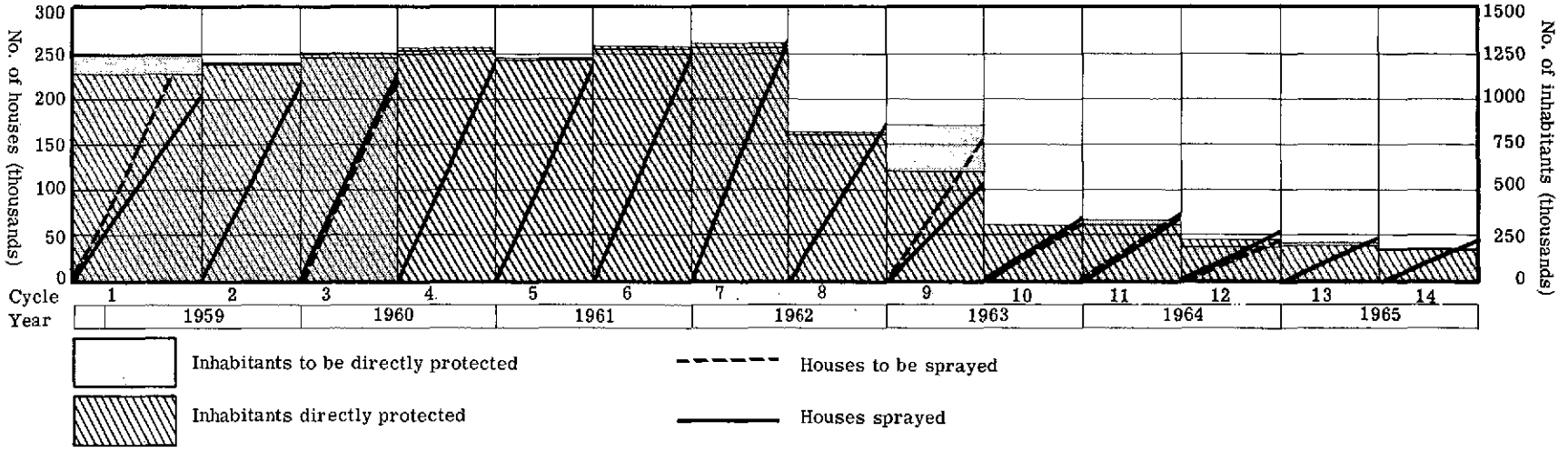
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	21	35	1	57
Two-wheel vehicles	-	-	-	-
Boats	11	-	-	11
Animals	-	-	-	-
Other	-	-	-	-
Total	32	35	1	68

NICARAGUA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Malathion							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Malathion	
1st	Nov. 58-Dec. 59	1st 2nd	223 220 218 312	205 930 218 645	-	-	-	1 244 452 1 202 244	1 148 052 1 204 139	401 325	-	9.2 10.3
2nd	Jan. 60-Dec. 60	3rd 4th	226 831 237 553	230 478 239 076	-	-	-	1 232 373 1 275 185	1 252 160 1 283 375	367 396	-	9.4 8.9
3rd	Jan. 61-Dec. 61	5th 6th	237 062 248 739	239 375 249 068	-	-	- 2 469	1 244 338 1 276 530	1 256 399 1 290 900	403 396	- 410	9.5 9.2
4th	Jan. 62-Dec. 62	7th 8th	259 760 163 746	259 743 164 623	(a)	... 5 372	5 079 5 710	1 289 708 821 913	1 314 866 827 823	409 440	309 399	9.6 9.3
5th	Jan. 63-Dec. 63	9th 10th	170 580 55 574	115 023 59 876	(a)	5 958 9 320	11 460 11 356	863 624 279 693	618 699 306 925	465 471	420 439	9.0 9.0
6th	Jan. 64-Dec. 64	11th 12th	65 151 34 068	55 884 37 139	(a)	9 445 11 375	12 098 16 925	337 690 187 480	307 741 223 046	491 493	473 409	8.3 7.7
7th	Jan. 65-Dec. 65	13th 14th	32 752 33 124	33 998 30 010	(a)	14 817 11 343	12 653 14 953	206 178 189 793	202 201 191 910	476 436	429 425	7.9 8.5

(a) The date of the cycles of malathion are in agreement with the cycles of DDT, although the malathion cycles are of four months.



NICARAGUA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	23 982	890	3.7	...	...	...
1959	38 966	1 875	4.8	619	1 256	-
1960	74 074	7 528	10.2	4 217	3 311	-
1961	109 293	8 722	8.0	3 001	5 721	-
1962	162 733	11 200	6.9	3 428	7 772	-
1963	152 339	10 593	6.9	2 742	7 851	-
1964	173 068	11 197	6.5	2 403	8 794	-
1965	167 589	8 670	5.2	883	7 787	-

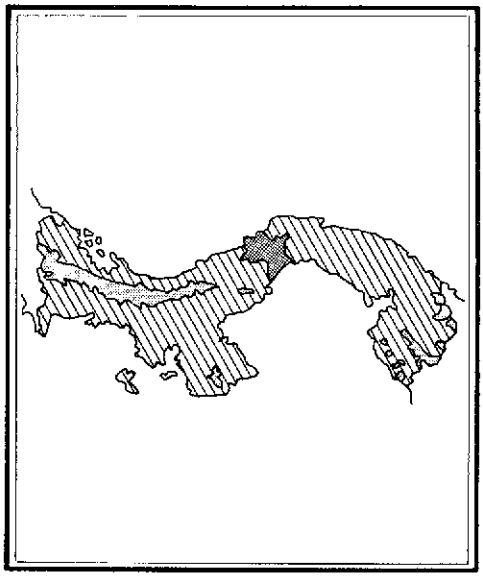
CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	3rd	515	9 463	7.3	41	8	6	-	20	-	1	6	10	30	1
	4th		9 531	7.4	118	49	7	-	30	-	-	32	16	102	-
1963	1st	533	8 974	6.7	52	7	1	-	28	-	2	14	9	43	-
	2nd		10 731	8.0	110	10	11	-	26	-	-	63	19	91	-
	3rd	668	21 869	13.1	385	169	15	-	78	1	-	122	278	107	-
	4th		20 937	12.5	419	308	12	-	98	-	1	-	172	247	-
1964	1st	695	17 564	10.1	343	200	33	-	45	-	-	65	169	174	-
	2nd		19 395	11.2	362	105	27	-	84	-	-	146	101	261	-
	3rd		21 520	12.4	527	143	42	-	86	1	-	255	87	440	-
	4th		16 064	9.2	587	206	38	-	149	-	1	193	149	438	-
1965	1st	730	18 122	9.9	422	268	25	-	108	-	5	16	75	347	-
	2nd		17 443	9.6	393	121	7	-	131	-	1	133	44	349	-
	3rd		15 067	8.3	347	79	94	-	140	-	-	34	18	329	-
	4th		18 310	10.0	443	100	95	-	79	-	-	169	17	426	-

Country: PANAMA

Date attack phase began: 19 August 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	1 244	75 650
Non malarious areas	50	5 810
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	0	0
Attack phase	1 194	69 840
Preparatory phase	0	0
Total originally malarious areas	1 194	69 840

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	272	272
Evaluation operations	3	42	45
Administrative and other	1	33	34
Transport	-	11	11
Total	4	358	362

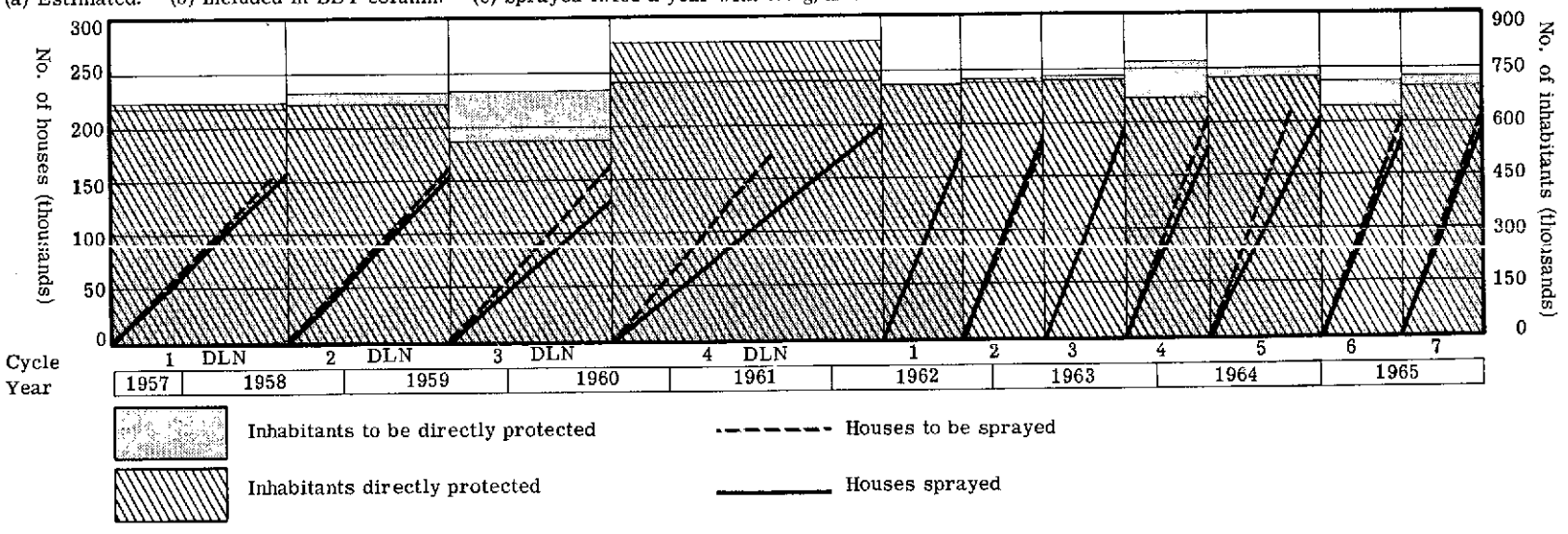
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	55	21	4	80
Two-wheel vehicles	-	11	-	11
Boats	9	1	-	10
Animals	-	-	-	-
Other	-	-	-	-
Total	64	33	4	101

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Aug. 57-Aug. 58	-	-	-	1st	152 957	155 963	659 856 a)	671 824 a)	-	119	6.5
2nd	Sep. 58-Aug. 59	-	-	-	2nd	161 700	154 638	697 574	667 095	-	145	6.9
3rd	Sep. 59-Aug. 60	-	-	-	3rd	165 102	131 270	707 462	562 514	-	129	7.3
4th	Sep. 60-Apr. 62	-	-	-	4th	172 121	199 265	722 392	836 229	-	138	6.8
5th	May 62-Apr. 63	1st 2nd	175 622 182 784	174 779 184 355	-	(b)	1 101 c) 1 192 c)	710 918 714 320	711 983 726 944	490 510	63 103	8.1 8.8
6th	May 63-Apr. 64	3rd 4th	197 379 205 165	193 960 176 912	-	(b)	1 024 c) 1 268 c)	733 060 771 827	724 166 670 310	477 455	77 71	8.9 9.3
7th	May 64-Jun. 65	5th 6th	209 126 206 495	201 976 183 650	-	(b) 1 332	1 078 c) 1 867 c)	750 420 724 990	728 633 647 164	440 421	77 77	9.0 9.0
8th	Jul. 65-Dec. 65	7th	205 050	196 902	-	1 105	1 133 c)	730 020	701 266	421	73	8.8

(a) Estimated. (b) Included in DDT column. (c) Sprayed twice a year with 0.3 g/m^2.



PANAMA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

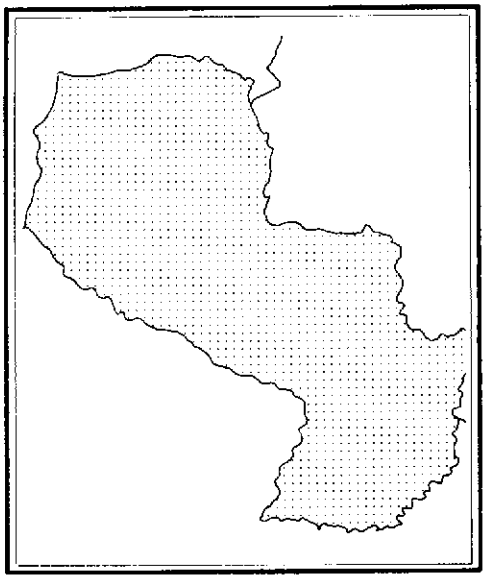
Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1957 a)	18 181	1 162	6.4	545	...	...
1958	91 933	6 067	6.6	1 461	4 537	69
1959	78 661	5 017	6.4	620	4 395	2
1960	77 099	4 463	5.8	670	3 792	1
1961	88 961	3 911	4.4	1 378	2 531	2
1962	145 012	3 249	2.2	631	2 618	-
1963	152 898	2 670	1.7	236	2 433	1
1964	131 887	1 804	1.4	101	1 703	-
1965	102 969	1 929	1.9	172	1 757	-

(a) August-December

Country: PARAGUAY

Date attack phase began: _____

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	2 144	406 752
Non malarious areas	363	162
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	1 781	406 590
Total originally malarious areas	1 781	406 590

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	21	23
Evaluation operations	5	52	57
Administrative and other	1	...	1
Transport	...	...	...
Total	8	73	81

TRANSPORT FACILITIES

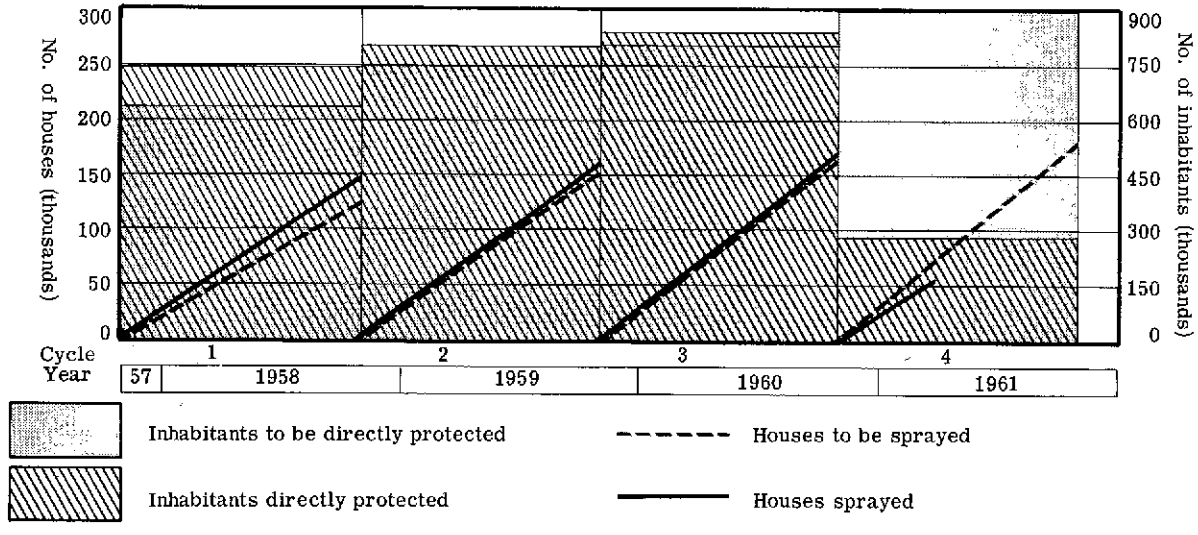
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	10	4	13	27
Two-wheel vehicles	3	-	2	5
Boats	2	2	10	14
Animals	10	2	-	12
Other	-	-	-	-
Total	25	8	25	58

PARAGUAY (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Cycle Dieldrin	Houses sprayed		Inhabitants directly protected		Insecticide used per house (g. technical) Dieldrin	Average houses sprayed per spray-man/day
			Planned	Sprayed	Planned	Protected		
1st	Nov. 57-Oct. 58	1st	126 902	148 626	638 190	747 541	105	10.9
2nd	Nov. 58-Oct. 59	2nd	150 033	161 261	749 115	805 232	111	14.3
3rd	Nov. 59-Oct. 60	3rd	163 586	171 086	807 460	844 515	118	11.7
4th [a]	Nov. 60-Mar. 61	4th [a]	181 097	56 656	898 060	280 982	138	8.1
(b)	Jan. 65-May 65	-	-	5 631	-	27 213	129	6.6

(a) Program suspended, new program being planned. (b) Emergency spraying.



PARAGUAY (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

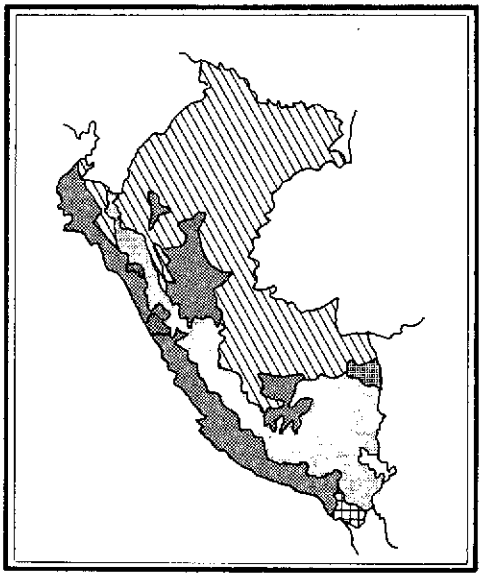
Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1958	14 359	526	3.7	...	...	...
1959	11 379	641	5.6	1	640	-
1960	47 045	1 165	2.4	5	1 159	1
1961	27 995	1 528	5.5	9	1 519	-
1962	48 184	5 756	11.9	313	5 443	-
1963	92 806	3 443	3.7	313	3 130	-
1964	103 169	8 851	8.6	961	7 889	1
1965 a)	77 933	6 189	7.9	114	6 074	1

(a) January-November.

Country: PERU

Date attack phase began: 17 November 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	11 107	1 381 800
Non malarious areas	7 228	438 600
Originally malarious areas		
Maintenance phase	46	31 000
Consolidation phase	2 334	268 200
Attack phase	1 499	644 000
Preparatory phase	0	0
Total originally malarious areas	3 879	943 200

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	3	211	214
Evaluation operations	9	139	148
Administrative and other	3	115	118
Transport	-	49	49
Total	15	514	529

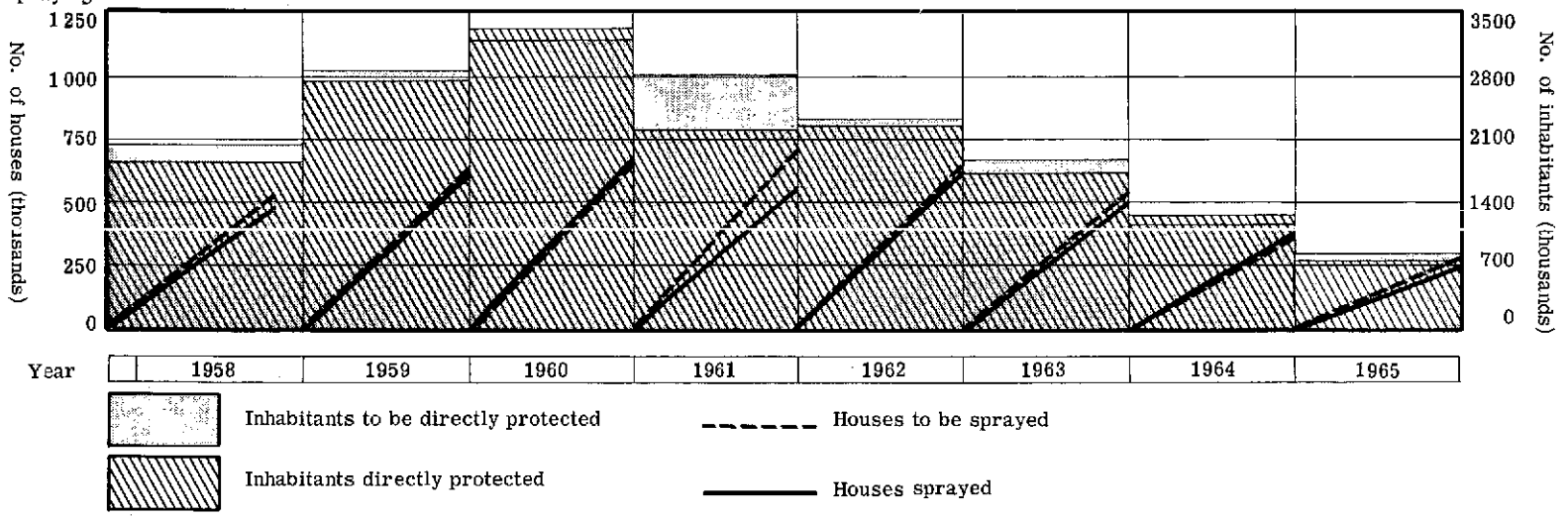
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	49	68	104	221
Two-wheel vehicles	-	-	1	1
Boats	102	-	-	102
Animals	-	-	-	-
Other	-	-	-	-
Total	151	68	105	324

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	Nov. 57-Oct. 58	1st + 2nd	527 081	286 764[a)] 79 266[b)]	1st	(c)	122 120	2 054 035	1 867 208	426	115	7.8
2nd	Jan. 59-Dec. 59	(d)	637 241	271 065[e)]	2nd	(c)	341 804	2 886 064	2 775 694	424	118	8.4
3rd	Jan. 60-Dec. 60	(d)	654 825	447 848[e)]	3rd	(c)	234 643	3 209 952	3 345 726	468	95	8.4
4th	Jan. 61-Dec. 61	(d)	714 740	534 037[e)]	4th	(c)	25 005	2 826 797	2 210 988	410	109	7.9
5th	Jan. 62-Dec. 62	(d)	646 992	627 527[e)]	-	-	-	2 354 405	2 283 960	465	-	8.7
6th	Jan. 63-Dec. 63	(d)	537 112	500 218[e)]	-	-	-	1 885 800	1 756 286	459	-	8.1
7th	Jan. 64-Dec. 64	(d)	357 805	379 184[e)]	-	-	-	1 182 617	1 253 290	473	-	7.9
8th	Jan. 65-Dec. 65	(d)	264 319	240 003[e)]	-	-	-	860 017	780 901	507	-	7.2

(a) Sprayed once a year. (b) Sprayed twice a year. (c) Owing to different spray cycle timing in different regions, these data refer to the calendar year.
(e) Sprayings.



PERU (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958 a)	...	649 b)	...	77	526	27
1959	148 413	4 658 b)	3.1	302	4 265	51
1960	342 503	3 901	1.1	256	3 559	86
1961	403 748	3 055	0.8	185	2 804	66
1962	399 309	2 196	0.6	81	2 035	80
1963	313 649	1 630	0.5	101	1 389	140
1964	308 283	1 613	0.5	301	1 222	90
1965	280 449	1 508	0.5	113	1 315	80

CONSOLIDATION PHASE AREAS

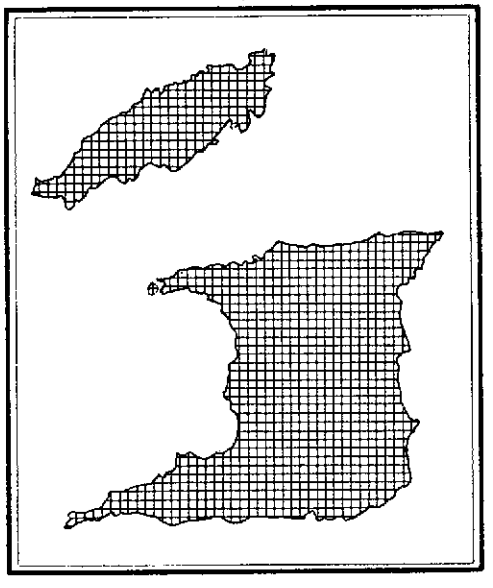
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1959	1-4	14	1 378	9.8	-	-	-	-	-	-	-	-	-	-	-
1960	1-4	15	7 277	48.5	5	-	-	1	-	4	-	-	-	1	4
1961	1-4	47	13 780	29.3	1	-	-	-	1	-	-	-	-	-	-
1962	1-4	864	71 330	8.3	20	2	1	1	12	4	-	-	1	16	3
1963	1-4	2 199	168 727	7.7	87	13	6	5	51	3	-	9	-	83	4
1964	1-4	2 204	186 205	8.4	321	209	45	-	25	2	3	37	1	316	4
1965	1-4	2 334	165 388	7.1	367	209	50	1	6	1	-	100	13	349	5
MAINTENANCE PHASE AREAS															
1963	1-4	43	8 581	20.0	4	-	-	1	1	2	-	-	-	2	2
1964	1-4	43	8 256	19.2	-	-	-	-	-	-	-	-	-	-	-
1965	1-4	46	6 260	13.6	2	-	-	-	-	2	-	-	-	-	2

(a) November 1957-October 1958. (b) Includes undifferentiated mixed infections.

Country: TRINIDAD AND TOBAGO

Date attack phase began: 2 January 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	990	5 605
Non malarious areas	144	161
Originally malarious areas		
Maintenance phase	846	5 444
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	846	5 444

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	17	17
Evaluation operations	2	140	142
Administrative and other	-	-	-
Transport	-	27	27
Total	2	184	186

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	3	11	15	29
Two-wheel vehicles	-	-	-	-
Boats	-	-	1	1
Animals	-	-	-	-
Other	-	-	-	-
Total	3	11	16	30

TRINIDAD AND TOBAGO (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	51 159	374	0.7	316	58	-
1959	101 039	92	0.1	63	28	1
1960	91 388	11	0.01	9	2	-
1961	89 569	-	-	-	-	-

CONSOLIDATION PHASE AREAS

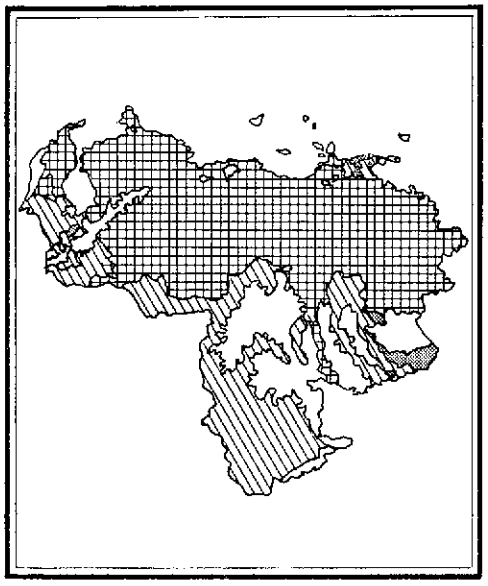
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1958	1-4	160	21 279	13.2	2	-	-	2	-	-	-	-	2	-	-
1959	1-4	160	361	0.2	5	-	-	5	-	-	-	-	4	1	-
1960	1-4	185	17 612	9.5	2	-	-	2	-	-	-	-	1	1	-
1961	1-4	197	11 602	5.9	1	-	-	1	-	-	-	-	1	-	-
1962	1-4	877	120 967	13.8	1	-	-	1	-	-	-	-	-	1	-
1963	1-4	828	108 388	13.1	-	-	-	-	-	-	-	-	-	-	-
1964	1-4	822	82 038	10.0	3	-	1	2	-	-	-	-	-	1	2
MAINTENANCE PHASE AREAS															
1965[a]	1-4	846	58 922	7.6	2	-	-	2	-	-	-	-	2	-	-

(a) January-November.

Country: VENEZUELA

Date attack phase began: 1945

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	8 579	912 050
Non malarious areas	2 177	312 050
Originally malarious areas		
Maintenance phase	6 028	469 714
Consolidation phase	132	7 896
Attack phase	242	122 390
Preparatory phase	0	0
Total originally malarious areas	6 402	600 000

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	443	444
Evaluation operations	19	677 (8)	696 (8)
Administrative and other	...	...	...
Transport	-	43	43
Total	20	1 163 (8)	1 183 (8)

TRANSPORT FACILITIES

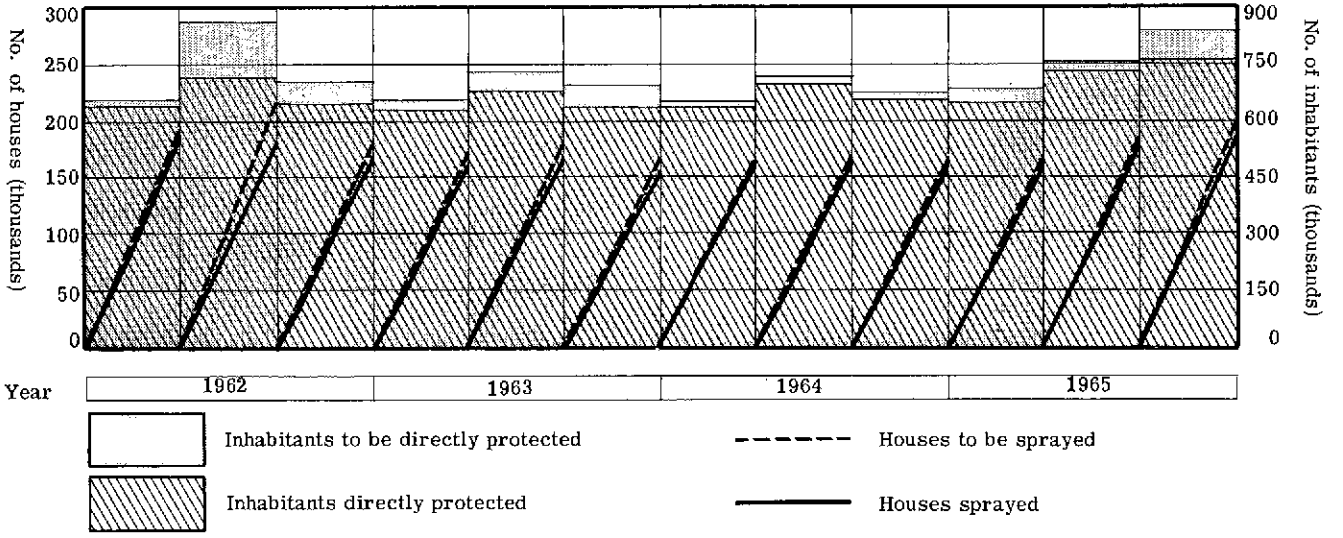
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	106	100	42	248
Two-wheel vehicles	16	315	-	331
Boats	36	77	11	124
Animals	228	335	-	563
Other	43	-	-	43
Total	429	827	53	1 309

VENEZUELA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
...	Jan. 62-Dec. 62	...	189 083	170 848	...	(a)	3 381 13 125 b)	712 276	643 634	422	198 173 b)	6.3
		...	220 919	175 962	...	(a)	1 100 5 704 b)	877 711	726 147	340	210 148 b)	6.5
		...	185 755	163 477	...	(a)	1 595 4 877 b)	715 343	654 399	332	247 126 b)	7.0
...	Jan. 63-Dec. 63	...	177 294	158 263	...	(a)	789 151 b)	712 190	639 525	359	198 182 b)	7.0
		...	179 385	163 952	...	(a)	870 1 161 b)	739 963	684 615	376	322 187 b)	7.0
		...	169 947	153 538	...	(a)	773 368 b)	703 241	640 057	370	303 163 b)	7.0
...	Jan. 64-Dec. 64	...	165 656	160 867 c)	...	(a)	(a)	659 840 d)	640 780	373	...	7.4
		...	174 388	169 599 c)	...	(a)	(a)	727 564 d)	707 599	391	...	7.5
		...	165 206	160 418 c)	...	(a)	(a)	681 949 d)	662 186	389	...	7.0
...	Jan. 65-Dec. 65	...	167 200 d)	159 854 c)	...	-	-	685 352 d)	655 241	394	-	7.0
		...	185 950 d)	177 758 c)	...	-	-	762 209 d)	728 630			
		...	200 068	185 004 c)	...	-	-	832 202	769 558	449.5	-	7.0

(a) Included in DDT column. (b) BHC. (c) Includes some houses sprayed with BHC or lindane. (d) Estimated.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	269 448	975 a)	0.4	60	901	4
1959	232 710	765 a)	0.3	92	646	14
1960	247 429	1 346 a)	0.5	165	1 163	6
1961	230 336	1 175 a)	0.5	68	1 075	21
1962	172 280	883 b)	0.5	53	812	14
1963	153 406	2 194 b)	1.4	80	2 083	20
1964	141 977	3 948 b)	2.8	451	3 486	4
1965 c)	129 271	2 057	1.6	82	1 973	2

CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1958	1-4	469	69 614	14.8	50	-	-	27		-	23	-	2	46	2
1959	1-4	685	101 878	14.9	45	-	-	37		1	7	-	2	43	-
1960	1-4	291	93 047	32.0	112 a)	-	2	31	45	1	33	-	-	108	2
1961	1-4	174	64 923	37.3	57	-	4	15	9	-	29	-	-	57	-
1962	1-4	150	93 646	62.4	74 a)	-	1	29	7	-	37	-	22	51	-
1963	1-4	102	61 724	60.5	89 a)	-	-	32	7	-	50	-	26	62	-
1964	1-4	99	58 605	59.2	74	-	-	15	9	-	50	-	-	74	-
1965	1-3	132	41 227	41.6	20	-	-	11	3	-	6	-	10	10	-

(a) Includes undifferentiated mixed infections. (b) Includes undifferentiated mixed infections and unclassified species of parasites.
(c) January-September.

VENEZUELA (Cont.)

MAINTENANCE AND NON-MALARIOUS AREAS

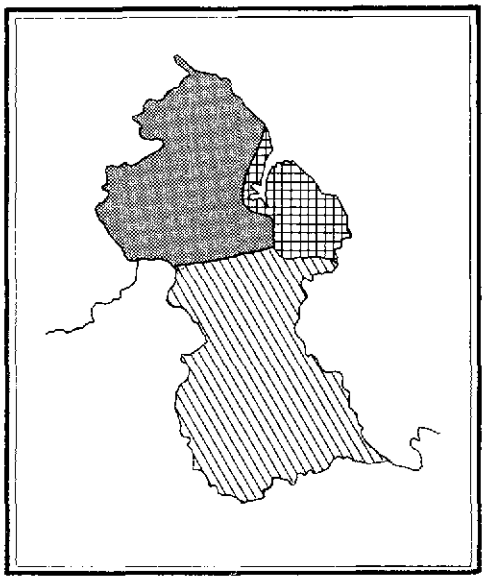
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1958	1-4	4 720	145 654	3.1	113 a)	-	-	79		5	28	1	6	100	6
1959	1-4	5 097	169 189	3.3	101 a)	-	-	87		6	7	1	14	73	9
1960	1-4	6 092	224 193	3.7	216 a)	-	6	44	92	4	70	-	14	197	4
1961	1-4	7 111	305 252	4.3	522 a)	-	11	52	122	4	333	-	13	498	5
1962	1-4	7 410	282 314	3.8	253 a)	-	5	52	84	2	110	-	5	244	3
1963	1-4	7 701	284 814	3.7	570	-	-	79	286	3	202	-	6	562	2
1964	1-4	7 973	317 731	4.0	1 862 a)	(b)	1 b)	180 b)	1 076 b)	1 b)	339 b)	-	12	1 846	2
1965	1-3	8 205	236 588	3.8	1 875	-	-	81	805	5	984	-	70	1 780	25

(a) Includes undifferentiated mixed infections. (b) Maintenance phase only.

Country: BRITISH GUIANA

Date attack phase began: April 1946

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	638	214 970
Non malarious areas	0	27 636 a)
Originally malarious areas		
Maintenance phase	602	28 515
Consolidation phase	26	77 467
Attack phase	10	81 352
Preparatory phase	0	0
Total originally malarious areas	638	187 334

a) Uninhabited area.

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	26	26
Evaluation operations	(1)	24 (3)	24 (4)
Administrative and other	-	29	29
Transport	-	12	12
Total	(1)	91 (3)	91 (4)

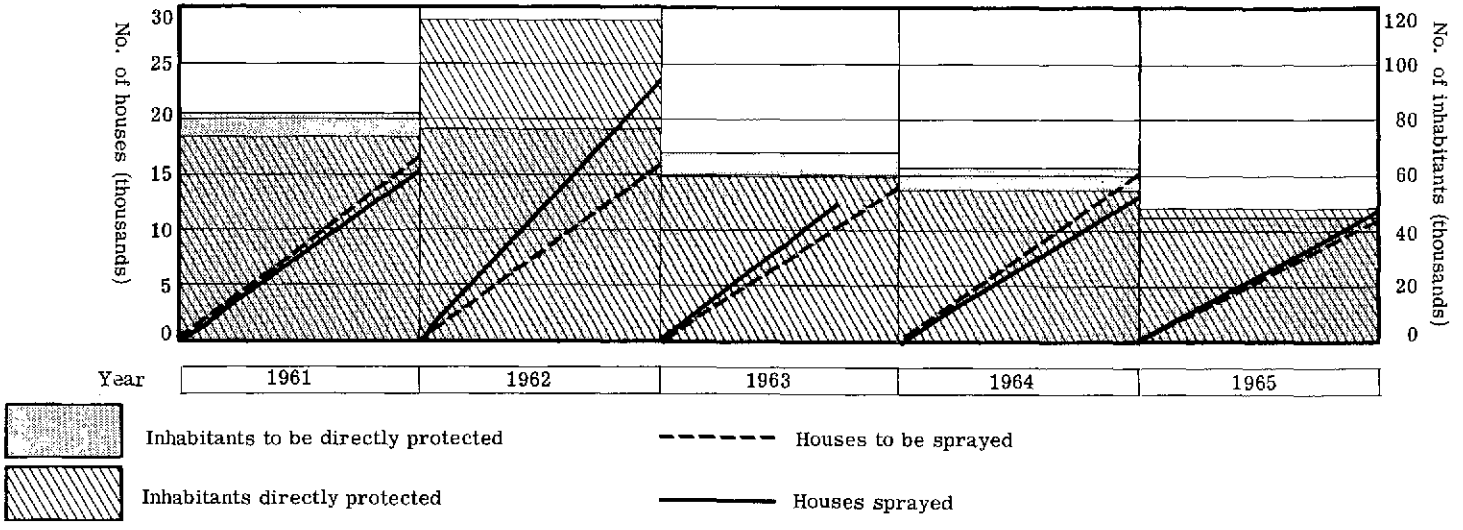
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	2	4	1	7
Two-wheel vehicles	-	-	-	-
Boats	1	3	-	4
Animals	7	-	-	7
Other	-	-	-	-
Total	10	7	1	18

BRITISH GUIANA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed with DDT						Inhabitants directly protected		Insecticide used per house (g. technical)	Average houses sprayed per spray-man/day
		Once a year			Twice a year						
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	
...	Jan. 61-Dec. 61	...	16 538	15 107	-	-	-	82 062	74 964	195	4.6
...	Jan. 62-Dec. 62	...	9 542	10 273	...	6 131	13 535	76 563	116 305	183	8.3
...	Jan. 63-Sep. 63	...	6 726	4 270	...	7 218	7 961	68 123	59 542	346	7.3
...	Jan. 64-Dec. 64	...	6 563	5 408	...	4 236 4 236	5 280 2 384	63 243	54 986	295	4.3
...	Jan. 65-Dec. 65	...	6 358	4 631	...	2 341 2 341	2 759 4 001	46 000	47 467	227	4.6



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	1 520	51	3.34	23	8	20
1959	3 754	176 a)	4.68	53	100	13
1960	3 674	263	7.16	175	67	12
1961	15 515	218	1.40	57	156	5
1962	14 358	425	2.96	266	159	-
1963	16 780	473 a)	2.81	414	56	-
1964	35 091	223	0.64	190	33	-
1965	22 950	25	0.11	24	1	-

CONSOLIDATION PHASE AREAS

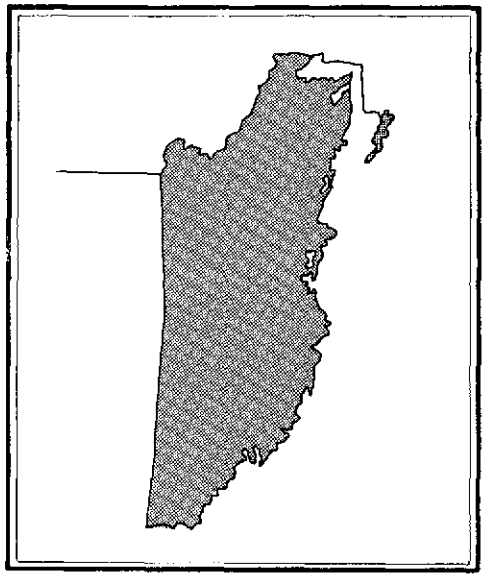
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1965	1-4	26	15 500	59.6	1	1	-	-	-	-	-	-	-	1	-
MAINTENANCE PHASE AREAS															
1958	1-4	430	1	0.0	-	-	-	-	-	-	-	-	-	-	-
1959	1-4	460	-	0	-	-	-	-	-	-	-	-	-	-	-
1960	1-4	494	-	0	-	-	-	-	-	-	-	-	-	-	-
1961	1-4	515	1 374	0.3	13	-	-	1	12	-	-	-	1	12	-
1962	1-4	556	21 088	3.8	21	17	3	-	1	-	-	-	-	21	-
1963	1-4	572	15 475	2.7	3	-	2	1	-	-	-	-	1	2	-
1964	1-4	589	20 094	3.4	2	-	-	2	-	-	-	-	2	-	-
1965	1-4	602	23 057	3.8	2	-	-	1	-	-	1	-	2	-	-

(a) Includes undifferentiated mixed infections.

Country: BRITISH HONDURAS

Date attack phase began: 4 February 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	105	22 696
Non malarious areas	0	0
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	105	22 696
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	105	22 696

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	1	12	13
Administrative and other	-	5	5
Transport	-	2	2
Total	1	19	20

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	2	8	1	11
Two-wheel vehicles	-	3	-	3
Boats	1	4	-	5
Animals	-	-	-	-
Other	-	-	-	-
Total	3	15	1	19

BRITISH HONDURAS (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1957	1 950	234	12.0	137	52	45
1958	4 374	288	6.6	117	147	24
1959	11 307	1 019	9.0	712	211	96
1960	13 307	196	1.5	55	138	3
1961	12 355	23	0.2	1	22	-
1962	7 895	2	0.03	-	2	-

CONSOLIDATION PHASE AREAS

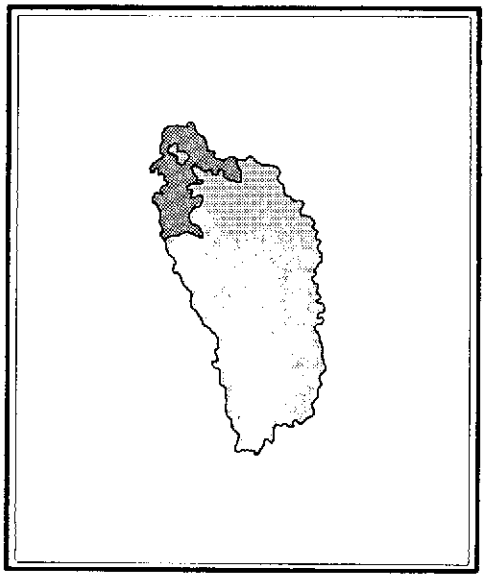
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	3rd[a]	100	3 004	18.0	14	6	7	1	-	-	-	-	-	14	-
	4th		3 657	14.6	4	4	-	-	-	-	-	-	-	4	-
1963	1st	100	3 284	13.1	2	2	-	-	-	-	-	-	-	2	-
	2nd		2 622	10.5	2	2	-	-	-	-	-	-	-	2	-
	3rd		3 114	12.5	-	-	-	-	-	-	-	-	-	-	-
	4th		4 065	16.3	13	13	-	-	-	-	-	-	-	13	-
1964	1st	104	3 439	13.2	7	7	-	-	-	-	-	-	-	7	-
	2nd		2 706	10.4	2	2	-	-	-	-	-	-	-	2	-
	3rd		3 173	12.2	18	16	1	1	-	-	-	-	-	18	-
	4th		2 508	9.6	8	7	1	-	-	-	-	-	-	8	-
1965	1st	105	2 298	8.8	1	1	-	-	-	-	-	-	-	1	-
	2nd		1 672	6.4	17	14	-	1	-	-	-	2	14	3	-
	3rd		3 430	13.1	155	154	-	1	-	-	-	-	149	6	-
	4th		3 387	12.9	33	31	-	2	-	-	-	-	25	8	-

(a) August-September.

Country: DOMINICA

Date attack phase began: 8 June 1959

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	64	790
Non malarious areas	49	638
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	15	152
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	15	152

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	(1)	6	6 (1)
Administrative and other	-	2	2
Transport	-	-	-
Total	(1)	8	8 (1)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	2	-	2
Two-wheel vehicles	-	4	-	4
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	6	-	6

DOMINICA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1959 a)	2 801	46	1.6	46	-	-
1960	6 151	6	0.1	6	-	-
1961	10 113	3	0.0	1	-	2
1962	13 373	-	-	-	-	-

CONSOLIDATION PHASE AREAS

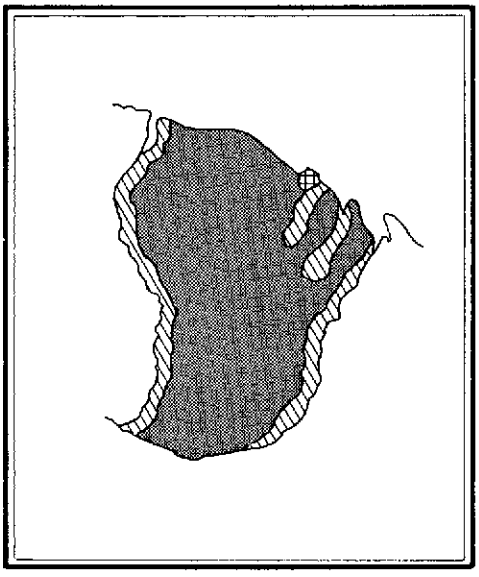
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1963	1st	14	4 093	116.9	-	-	-	-	-	-	-	-	-	-	-
	2nd		4 441	126.9	-	-	-	-	-	-	-	-	-	-	-
	3rd		3 648	104.2	-	-	-	-	-	-	-	-	-	-	-
	4th		4 593	131.2	-	-	-	-	-	-	-	-	-	-	-
1964	1st	14	4 663	133.2	-	-	-	-	-	-	-	-	-	-	-
	2nd		4 057	115.9	-	-	-	-	-	-	-	-	-	-	-
	3rd		3 506	100.2	-	-	-	-	-	-	-	-	-	-	-
	4th		3 928	112.2	-	-	-	-	-	-	-	-	-	-	-
1965	1st	15	918	24.5	-	-	-	-	-	-	-	-	-	-	-
	2nd		3 491	93.1	-	-	-	-	-	-	-	-	-	-	-
	3rd		2 147	57.2	-	-	-	-	-	-	-	-	-	-	-
	4th		3 338	89.0	-	-	-	-	-	-	-	-	-	-	-

(a) June-December.

Country: FRENCH GUIANA

Date attack phase began: May 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	38	86 000
Non malarious areas	0	54 000
Originally malarious areas		
Maintenance phase	24	200
Consolidation phase	11	24 396
Attack phase	3	7 404
Preparatory phase	0	0
Total originally malarious areas	38	32 000

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	29	29
Evaluation operations	1	3	4
Administrative and other	-	3	3
Transport	-	6	6
Total	1	41	42

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	7	-	-	7
Two-wheel vehicles	2	-	-	2
Boats	8	-	-	8
Animals	-	-	-	-
Other	-	-	-	-
Total	17	-	-	17

FRENCH GUIANA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
...	Jan. 64-Dec. 64	...	2 137	1 972	...	8 912	2 326 a)	37 915	14 762	330	...	...
...	Jan. 65-Dec. 65	...	2 127	1 246	...	8 912	7 318 a)	...	...	253	...	...

(a) Includes houses sprayed with DDT once a year, malathion and actidrine.

FRENCH GUIANA (Cont.)

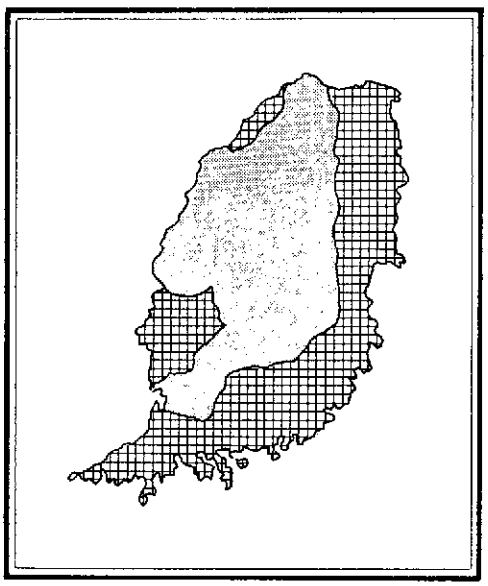
EPIDEMIOLOGICAL EVALUATION OPERATIONS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	*P. falciparum*	*P. vivax*	*P. malariae*
1960	3 343	37	1.1	30	6	1
1961	1 197	33	2.8	33	-	-
1962	2 183	70	3.2	60	10	-
1963	2 648	70	2.6	61	9	-
1964	3 025	48	1.6	16	32	-
1965	5 424	22	0.4	15	7	-

Country: GRENADA AND CARRIACOU

Date attack phase began: 12 February 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



(Island of Carriacou in Maintenance phase not shown in the Map)

	Population (thousands)	Area km^2
TOTAL COUNTRY	93	344
Non malarious areas	61	114
Originally malarious areas		
Maintenance phase	32	230
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	32	230

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	-	25 (2)	25 (2)
Administrative and other	-	-	-
Transport	-	-	-
Total	-	25 (2)	25 (2)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	-	-
Two-wheel vehicles	-	1	-	1
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	1	-	1

GRENADA AND CARRIACOU (Cont.)

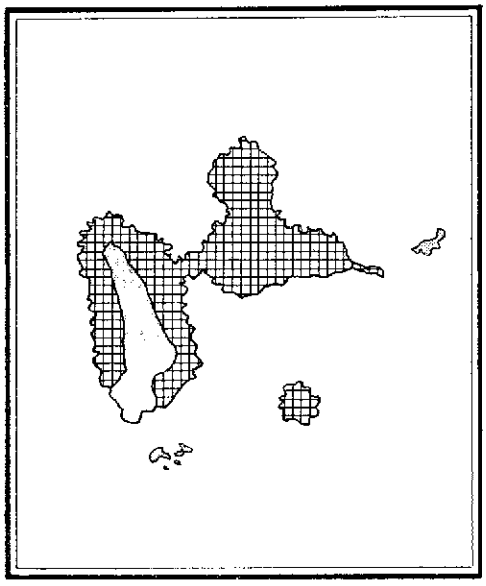
EPIDEMIOLOGICAL EVALUATION OPERATIONS, MAINTENANCE PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	1 - 4	37	1 996	5.4	-	-	-	-	-	-	-	-	-	-	-
1963	1 - 3	37	56	0.2	-	-	-	-	-	-	-	-	-	-	-
1964	1 - 4	39	517	1.3	-	-	-	-	-	-	-	-	-	-	-
1965	1 - 4	32	1 085	3.4	-	-	-	-	-	-	-	-	-	-	-

Country: GUADELOUPE

Date attack phase began: July 1956

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	300	1 779
Non malarious areas	33	643
Originally malarious areas		
Maintenance phase	267	1 136
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	267	1 136

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	51	51
Evaluation operations	1 (2)	9 (42)	10 (44)
Administrative and other	-	3	3
Transport	-	7	7
Total	1 (2)	70 (42)	71 (44)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	5	5	1	11
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	5	5	1	11

GUADELOUPE (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958	1 150	3	0.26	-	-	3
1959	3 903	-	0	-	-	-
1960 a)	4 450	2	0.04	...	...	...

CONSOLIDATION PHASE AREAS

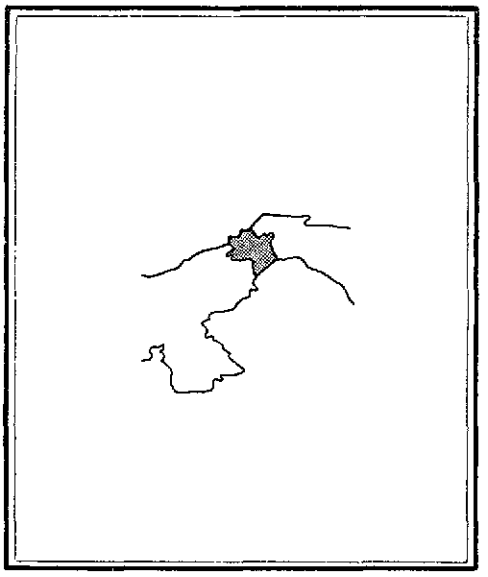
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1958	1-4	129	4 887	3.8	-	-	-	-	-	-	-	-	-	-	-
1959	1-4	133	3 691	4.8	-	-	-	-	-	-	-	-	-	-	-
1960	1-3	145	7 080	4.9	-	-	-	-	-	-	-	-	-	-	-
1961	1-4	186	11 857	6.4	-	-	-	-	-	-	-	-	-	-	-
1962	1-4	66	11 196	17.0	-	-	-	-	-	-	-	-	-	-	-
MAINTENANCE PHASE AREAS															
1961	1-4	58	2 407	4.1	-	-	-	-	-	-	-	-	-	-	-
1962	1-4	187	5 239	2.8	-	-	-	-	-	-	-	-	-	-	-
1963	1-3	260	17 170	8.8	1	-	-	1	-	-	-	-	-	-	-
1964	1-4	298 b)	21 831 c)	7.3	-	-	-	-	-	-	-	-	-	-	-
1965	1-4	300 b)	33 512 c)	11.2	-	-	-	-	-	-	-	-	-	-	-

(a) January-September. (b) Includes population of areas originally non-malarious. (c) Includes slides taken in non-malarious areas.

Country: PANAMA CANAL ZONE

Date attack phase began: 1957

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	50	1 432
Non malarious areas	0	0
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	49	1 432
Attack phase	1	0
Preparatory phase	0	0
Total originally malarious areas	50	1 432

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	(1)	(26)	(27)
Evaluation operations	(11)	(31)	(42)
Administrative and other	-	-	-
Transport	-	(4)	(4)
Total	(12)	(61)	(73)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	2 [a]	-	-	2 [a]
Two-wheel vehicles	-	-	-	-
Boats	2 [a]	-	-	2 [a]
Animals	-	-	-	-
Other	-	-	-	-
Total	4	-	-	4

(a) Part-time

PANAMA CANAL ZONE (Cont.)

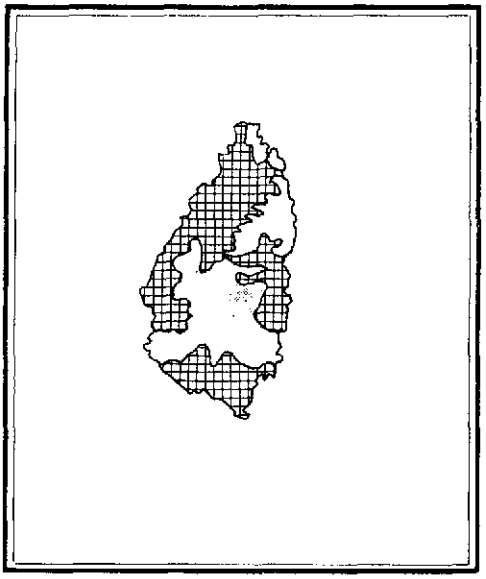
EPIDEMIOLOGICAL EVALUATION OPERATIONS, CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1960	1 - 4	41	2 656	6.5	27	27	-	-	-	-	-	-	3	24	-
1961	1 - 4	41	5 984	14.6	25	25	-	-	-	-	-	-	2	23	-
1962	1 - 4	44	677	1.5	18	18	-	-	-	-	-	-	-	18	-
1963	1 - 4	47	21 008	44.7	22	-	1	16	-	-	-	5	2	20	-
1964	1 - 4	50	26 228	52.5	21	7	3	1	10	-	-	-	-	21	-
1965	1-4	50	24 024	48.0	38	1	7	29	-	-	1	-	6	32	-

Country: ST. LUCIA

Date attack phase began: 16 January 1956

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	102	603
Non malarious areas	15	93
Originally malarious areas		
Maintenance phase	87	510
Consolidation phase	0	0
Attack phase	0	0
Preparatory phase	0	0
Total originally malarious areas	87	510

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	(1)	3 (2)	3(3)
Administrative and other	-	-	-
Transport	-	-	-
Total	(1)	3 (2)	3 (3)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	-	-
Two-wheel vehicles	-	3	-	3
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	3	-	3

ST. LUCIA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, MAINTENANCE PHASE AREAS

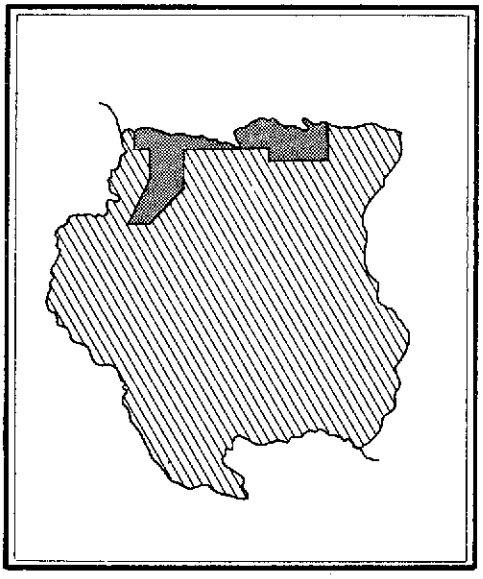
Date		Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1962	4th	82	5 059	24.7	-	-	-	-	-	-	-	-	-	-	-
1963	1-4	82	15 136	18.5	7	2	2	-	-	-	-	3 a)	-	-	7
1964	1-4	84	13 368	15.9	4	-	4	-	-	-	-	-	-	-	4
1965	1-4	87	11 201	12.9	-	-	-	-	-	-	-	-	-	-	-

(a) Uncertain origin.

Country: SURINAM

Date attack phase began: 5 May 1958

STATUS OF MALARIA PROGRAM AT DECEMBER 1965



	Population (thousands)	Area km^2
TOTAL COUNTRY	328	163 820
Non malarious areas	128	70
Originally malarious areas		
Maintenance phase	0	0
Consolidation phase	134	5 600
Attack phase	66	158 150
Preparatory phase	0	0
Total originally malarious areas	200	163 750

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	52	52
Evaluation operations	1	37	38
Administrative and other	-	30	30
Transport	-	41	41
Total	1	160	161

TRANSPORT FACILITIES

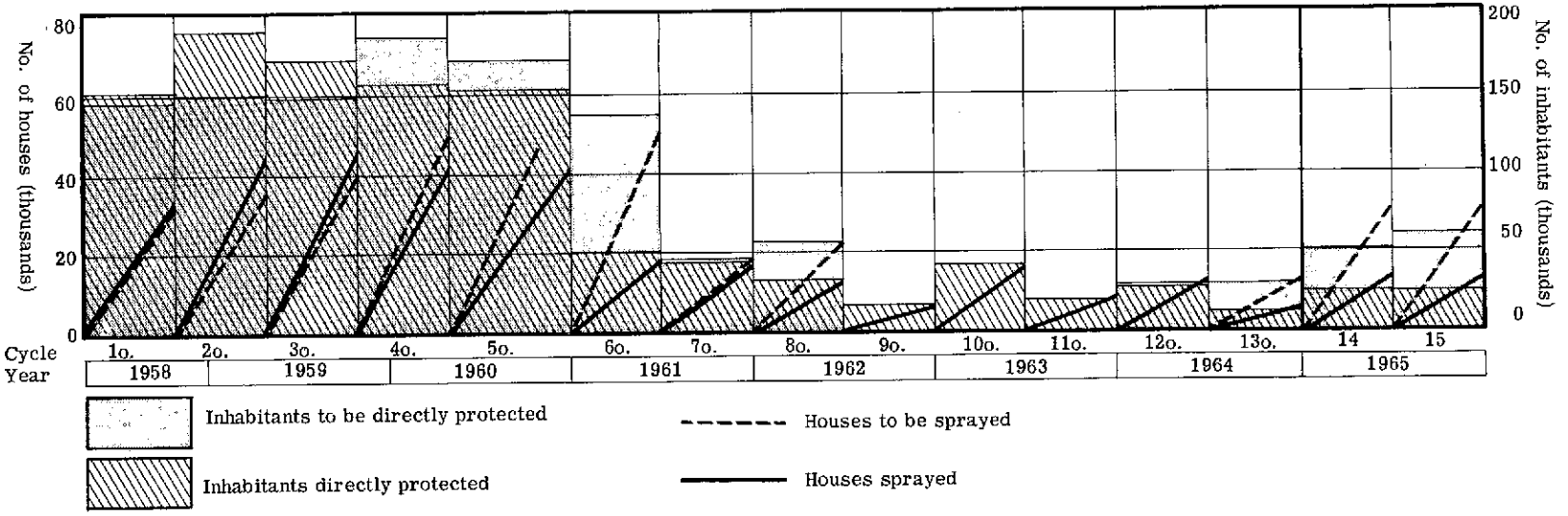
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	6	1	4	11
Two-wheel vehicles	-	10	-	10
Boats	15	5	3	23
Animals	-	-	-	-
Other	-	-	-	-
Total	21	16	7	44

SURINAM (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per spray-man/day
		DDT			Dieldrin							
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Planned	Protected	DDT	Dieldrin	
1st	May 58-Apr. 59	1st	32 722	31 299	1st	(a)	2 554	147 314	152 422	310	58	5.8
		2nd	35 540	40 211		(a)	4 930	150 334	190 951	318	60	6.9
2nd	May 59-Apr. 60	3rd	39 683	37 563	2nd	(a)	8 342	149 287	172 694	274	58	8.0
		4th	50 024	37 445		(a)	4 713	187 640	158 143	250	57	7.8
3rd	May 60-Jun. 61	5th	46 537	36 861	3rd	(a)	4 571	172 233	153 687	263	65	6.2
		6th	50 652	16 298		(a)	2 187	138 229	50 462	211	56	6.0
4th	Jul. 61-Jun. 62	7th	18 485	15 533	-	-	1 320	47 746	43 526	211	54	5.7
		8th	22 351	12 984			-	57 732[b]	33 537[b]	-	-	...
5th	Jul. 62-Jun. 63	9th	...	6 397	-	-	-	...	16 523[b]	-	-	...
		10th	...	16 681				...	42 558			
6th	Jul. 63-Jun. 64	11th	...	8 458	-	-	-	...	19 164	-	-	...
		12th	12 824	5 603	1st	(a)	6 605	29 300	27 893	175	61	6.5
7th	Jul. 64-Jun. 65	13th	12 824	682	2nd	(a)	4 708	28 693	12 060	217	62	6.3
		14th	25 648	1 813	3rd	(a)	10 969	52 873	26 350	191	66	7.8
8th	Jul. 65-Dec. 65	15th	25 648	11 550	4th	(a)	(a)	58 279	25 260	...	...	...

(a) Included in DDT column. (b) Estimated.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive				
		Number	Percentage	P. falciparum	P. vivax	P. malariae
1958 a)	23 137	2 288	9.9	2 220	48	20
1959	46 687	2 703	5.8	2 343	30	330
1960	45 396	997	2.2	912	3	82
1961	21 530	620	2.9	573	-	47
1962	18 794	694	3.7	676	-	18
1963	28 835	1 849	6.4	1 817	7	25
1964	23 186	1 643	7.1	1 615	4	24
1965	27 378	4 237	15.5	4 213	7	17

CONSOLIDATION PHASE AREAS

Date		Estimated population in the area (thousands) (b)	No. of slides examined (c)	% of population sampled (annual rate)	Total No. of positive cases (c)	Origin of infections							Species of parasite		
								Imported							
Year	Quarter					Autochthonous	Relapsing	from abroad	from areas within country	Induced	Introduced	Unclassified	P. falciparum	P. vivax	P. malariae
1961	1-4	225	14 894	6.6	26	-	-	-	26	-	-	-	23	-	3
1962	1-4	240	19 025	7.9	22	-	1	-	21	-	-	-	17	-	5
1963	1st	240	8 899	14.8	9	-	-	-	9	-	-	-	9	-	-
	2nd		11 054	18.4	4	-	-	-	4	-	-	-	3	-	1
	3rd		9 012	15.0	13	-	-	-	13	-	-	-	12	1	-
	4th		9 896	16.5	7	-	-	-	7	-	-	-	4	2	1
1964	1st	253	11 207	17.7	3	-	-	-	3	-	-	-	3	-	-
	2nd		13 444	21.3	6	-	-	-	6	-	-	-	5	-	1
	3rd		12 227	19.3	10	-	-	-	10	-	-	-	8	1	1
	4th		16 491	26.1	19	-	-	-	19	-	-	-	19	-	-
1965	1st	262	6 400	9.8	40	-	-	-	40	-	-	-	39	-	1
	2nd		2 841	4.3	16	-	-	-	16	-	-	-	15	-	1
	3rd		4 219	6.4	12	-	-	-	12	-	-	-	12	-	-
	4th		6 906	10.5	6	-	-	-	6	-	-	-	3	-	3

(a) May-December. (b) Includes the population of the city of Paramaribo, originally non-malarious area. (c) Includes slides taken and positives found in Paramaribo, originally non-malarious area.

Table 18

MALARIA CASES DIAGNOSED IN COLOMBIA, BY SPECIES AND YEAR

Year	*P. falciparum*	*P. vivax*	Sum	Percentage *P. falciparum*
1959	1 195	2 942	4 137	28.8
1960	3 758	4 642	8 400	44.7
1961	10 235	6 694	16 929	60.4
1962	9 619	7 697	17 316	55.5
1963	9 113	8 311	17 424	52.3
1964	8 070	5 423	13 493	59.8
1965	10 087	5 549	15 636	64.5

Reorganization of the Service in 1965 and better coverage of involved areas with DDT spray-

Table 19

PAHO/WHO FULL-TIME PROFESSIONAL AND TECHNICAL STAFF ASSIGNED TO COUNTRY, INTER-COUNTRY AND INTER-ZONE MALARIA ERADICATION PROJECTS IN THE AMERICAS, FROM 1963 TO MAY 1966

Country or other political unit	Medical Officers				Sanitary Engineers				Sanitary Inspectors				Entomologists				Other			
	1963	1964	1965	1966	1963	1964	1965	1966	1963	1964	1965	1966	1963	1964	1965	1966	1963	1964	1965	1966
Argentina	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bolivia	1	1	-	1	1	-	-	-	2	2	2	2	-	-	-	-	-	-	-	-
Brazil (Excl. São Paulo)	2	2	1	3	3	3	2	2	2	2	3	3	-	-	-	-	1a)	2b)	2b)	4c)
Brazil (São Paulo)	-	-	-	-	1	1	-	-	2	1	-	-	-	-	-	-	-	-	-	-
Colombia	2	1	1	1	1	2	2	2	4	6	5	5	-	1	2	2	1d)	1e)	-	-
Costa Rica	-	-	1	1	-	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-
Cuba	1	1	1	1	1	-	-	-	1	2	2	2	-	-	-	-	-	-	-	-
Dominican Republic	1	2	1	1	1	1	1	1	3	2	2	2	-	-	1	1	-	2af)	1a)	1a)
Ecuador	1	2	2	2	1	1	1	1	4	3	2	2	1	-	-	-	-	-	-	-
El Salvador	2	2	2	2	1	1	-	-	1	2	2	2	1	-	-	-	1e)	1e)	1e)	-
Guatemala	2	1	1	1	1	1	1	1	3	3	3	3	-	1	1	1	-	-	-	-
Haiti	1	2	1	2	1	1	1	2	3	3	3	2	-	-	-	-	1e)	-	-	-
Honduras	1	1	1	1	1	-	-	-	2	2	2	2	1	1	-	-	-	-	-	-
Jamaica	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Mexico	2	3	3	3	1	1	1	1	1	1	1	1	1	-	-	-	2f)	-	-	-
Nicaragua	2	2	1	1	1	1	1	1	2	2	3	3	1	1	-	-	1e)	-	-	-
Panama	1	1	1	1	1	1	1	1	3	3	3	3	-	-	1	1	-	-	-	-
Paraguay	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-
Peru	1	1	1	1	1	1	1	1	5	4	4	4	-	-	-	-	-	-	-	-
British Guiana	-	-	-	-	-	-	-	-	2	1	1	1	-	-	-	-	-	-	-	-
British Honduras	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surinam	1	1	1	1	-	-	-	-	3	3	3	3	1	1	1	1	1f)	1f)	1f)	2fg)
Windward Islands	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Inter-zone or inter-country projects	8	7	8	10	2	1	1	1	-	-	-	-	4	2	2	2	14h)	8i)	9j)	5k)
Total	32	31	27	33	19	16	14	14	49	46	45	44	11	7	6	6	22	15	14	12

- None.

(a) Administrative officer. (b) Administrative officer and assistant engineer. (c) Three administrative officers and one assistant engineer. (d) Malaria statistician. (e) Entomological aide. (f) Health educator. (g) Health educator and laboratory technician. (h) Six administrative officers, one laboratory technician, three entomological aides, one entomological assistant, one operations analyst, one parasitologist assistant and one translator. (i) Three administrative officers, one entomological assistant, one program officer, one operations analyst, one laboratory technician, and one health educator. (j) Three administrative officers, one entomological assistant, one entomological aide, one program officer, one operations analyst, one laboratory technician and one health educator. (k) One administrative officer, one entomological assistant, one entomological aide, one operations analyst, and one health educator.

Table 20

EQUIPMENT AND SUPPLIES, EXCLUDING DRUGS, CONTRIBUTED BY PAHO TO MALARIA ERADICATION PROGRAMS IN THE AMERICAS, 1958 TO DECEMBER 1965

Country or other political unit	Protective equipment						Laboratory supplies						Others				
	Helmets	Bands	Visors	Gloves	Ponchos	Life-jackets	Mailing tubes	"Surgi-tube" (rolls)	Plastic tubes	Micro-scopes	Micro-scope acceso-ries	Slides (gross)	Vehicles and motors (a)	Insecti-cides (lbs.)	Kardex files	Test kits adults	Test kits larvae
Argentina	-	-	-	-	-	-	9 000	10	20	1	22	-	-	-	-	1	-
Bolivia b)	50	180	160	40	80	135	10 000	21	70	1	-	-	3	-	-	5	-
Brazil c)	-	-	-	-	-	936	288 000	32	40	90	17	-	3	-	-	51	8
Colombia d)	-	-	-	-	-	450	100 000	10	20	3	2	-	-	-	-	23	2
Costa Rica	-	-	-	-	24	35	500	40	52	-	-	-	-	-	40	2	-
Cuba	-	-	-	-	-	-	15 000	30	20	10	1	-	-	-	-	1	3
Dominican Rep. e)	366	332	664	166	166	-	17 000	28	20	3	-	-	3	-	-	3	2
Ecuador	431	412	824	206	206	151	50 000	30	20	2	15	-	2	-	-	4	-
El Salvador	230	476	952	238	238	55	23 000	190	56	4	6	-	3	2 900	66	4	1
Guatemala	541	500	1 000	250	255	24	43 000	40	52	4	2	1 340	2	-	7	2	1
Haiti	341	682	1 364	341	341	40	17 000	11	-	1	8	-	6	-	-	1	2
Honduras	165	330	660	165	165	10	20 000	60	52	1	2	70	-	-	1	2	-
Jamaica f)	25	200	400	194	209	-	22 500	10	20	-	-	-	1	-	-	8	12
Mexico g)	-	-	-	-	-	75	555 040	143	15	-	-	-	1	-	-	38	1
Nicaragua	117	234	468	117	117	-	28 000	100	64	3	4	157	1	-	77	4	1
Panama	137	274	548	137	137	75	22 000	62	52	4	2	35	1	-	66	3	-
Paraguay	174	808	408	102	773	122	43 000	18	20	1	-	-	2	-	-	6	1
Peru	618	1 236	3 672	368	668	372	5 000	10	20	2	1	-	(1) 1	46 410	24	3	-
Trinidad and Tobago	-	-	-	-	-	-	1 150	10	20	-	-	-	-	-	-	-	1
British Guiana	36	72	144	96	36	-	2 000	-	-	-	3	-	-	-	-	-	-
British Honduras	61	38	76	19	19	10	1 900	10	20	-	1	-	2	-	-	1	-
Dominica	-	-	-	-	-	-	630	-	-	-	-	-	1 h)	-	-	-	-
French Guiana i)	-	-	-	-	-	-	-	-	-	1	-	-	(3) 5 j)	-	-	2	1
Grenada	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-
St. Lucia	-	-	-	-	-	-	110	10	20	-	-	-	3 k)	-	-	-	-
Surinam l)	55	10	20	5	5	-	2 550	26	20	2	2	-	(4) 1	-	-	2	1
Total m)	3 347	5 784	11 360	2 444	3 439	2 490	1 276 500	901	693	133	88	1 602	(8) 41	49 310	281	165	37

- None

(a) Station wagons unless otherwise indicated; marine motors in parentheses. (b) Plus $750.00 for the local purchase of tires. (c) Plus $3,707.00 in miscellaneous items. (d) Plus $542.50 in miscellaneous items. (e) Plus $400.00 in miscellaneous items. (f) 210,000 imperial gallons of kerosene also provided. (g) Plus 8,500 lancets for taking blood samples and $539.80 in miscellaneous items. (h) Motorcycles. (i) Plus $1,194.00 in miscellaneous items. (j) Two motorcycles. (k) One station wagon and two motorcycles. (l) Plus $4,763.72 in miscellaneous items. (m) Plus $13,131.95 in miscellaneous items for inter-zone projects.

Table 21

DRUGS PROVIDED BY PAHO TO MALARIA ERADICATION PROGRAMS IN THE AMERICAS, 1958-1965

(In thousands of tablets)

Country or other political unit	1958-1964[a]					1965[b]					Total				
	Chloroquine 150 mg.	Primaquine		Pyrimethamine 25 mg.	Chloroquine Primaquine combined	Chloroquine 150 mg.	Primaquine		Pyrimethamine 25 mg.	Chloroquine Primaquine combined	Chloroquine 150 mg.	Primaquine		Pyrimethamine 25 mg.	Chloroquine Primaquine combined
		15 mg.	5 mg.				15 mg.	5 mg.				15 mg.	5 mg.		
Argentina	1 144	65	35	297	-	(161)	10	-	-	-	983	75	35	297	-
Bolivia	3 465	90	40	21	10	(814)	-	10	-	-	2 651	90	50	21	10
Brazil (excl. São Paulo)	49 613	658.5	294	-	200	4 660	450	70	100	-	54 273	1 108.5	364	100	200
Brazil (São Paulo)	2 143	117.5	26	184	-	(1 500)	-	-	(100)	-	643	117.5	26	84	-
Colombia	12 376	374.5	119.5	664	-	4 020	666	451	600	-	16 396	1 040.5	570.5	1 264	-
Costa Rica	1 124	147	26	213	1 385	1 380	68	1	-	-	2 504	215	27	213	1 385
Cuba	1 330	30	24	80	-	520	-	-	-	-	1 850	30	24	80	-
Dominican Republic	3 194	19	168	10	-	600[c]	5	6	-	-	3 794	24	174	10	-
Ecuador	4 890	265.5	190	195	-	405	5	-	-	-	5 295	270.5	190	195	-
El Salvador	4 090	157.5	240	128	2 070	2 145	162	210	-	-	6 235	319.5	450	128	2 070
Guatemala	5 369	596	59	27	8 049	1 500	(19) 24	-	-	-	6 869	601	59	27	8 049
Haiti	5 620	82.5	-	280	-	500	-	-	-	4 750[d]	6 120	82.5	-	280	4 750[d]
Honduras	4 694	436.6	379	88	1 290	1 080	200	(2)100	-	-	5 774	636.6	477	88	1 290
Jamaica	879	18	-	288	50	-	-	-	-	-	879	18	-	288	50
Mexico	14 511	2 172	2 151	5 250	4 092	12 465	1 000	-	2 250	-	26 976	3 172	2 151	7 500	4 092
Nicaragua	4 399	212.5	162	6	6 933	(96) 700	200	170	-	-	5 003	412.5	332	6	6 933
Panama	2 272	202.5	28	146	-	(149) 300	(29) 120	(1)	-	-	2 423	293.5	27	146	-
Paraguay	2 830	25	7	48	-	550	3	7	-	-	3 380	28	14	48	-
Peru	7 956	619.5	188	196	-	1 500	200	70	-	-	9 456	819.5	258	196	-
Trinidad and Tobago	965	940.5	859	180	-	(150)	(0.5)	(439.5)	(59)	-	815	940	419.5	121	-
British Guiana	286	181.5	73	267	-	(50)	-	-	-	-	236	181.5	73	267	-
British Honduras	200	14	13	6	22	-	8	2	-	-	200	22	15	6	22
Dominica	90	1	1	45	-	-	-	-	-	-	90	1	1	45	-
French Guiana	30	1	-	-	32	-	-	-	-	-	30	1	-	-	32
Grenada	43	0.5	-	45	-	-	-	-	-	-	43	0.5	-	45	-
St. Lucia	68	1	-	70	-	-	0.5	0.5	-	-	68	1.5	0.5	70	-
Surinam	1 043	11	11	497	200	94	-	2	-	-	1 137	11	13	497	200
Total	134 624	7 439.6	5 093.5	9 231	24 333	29 499	3 073	657	2 791	4 750[d]	164 123	10 512.6	5 750.5	12 022	29 083

- None

(a) Plus 278,500 aspirin tablets, 400,000 camoprin tablets, 56,120 lbs. chloroquine diphosphate, 3,510 lbs. of tricalcium phosphate, 20 tons of calcium arsenate, 411,000 aspirin-caffeine tablets, 25,000 tablets of quinine sulphate, and 2 Kg. chloroquine silicate powder. (b) Besides there were provided 800 lbs. of chloroquine diphosphate, 300 lbs. of tricalcium phosphate, 10 Kg. of camoquine powder, 8,000 quinine tablets 5 gr., 1 000lbs. amodiaquine powder. (c) In addition, 500,000 tablets were provided to replace those lost during political disturbances. (d) Chloroquine 200 mg./Pyrimethamine 15 mg.

Note: The figures in parentheses represent transfers to other programs.

Table 22

INTERNATIONAL CONTRIBUTIONS TO MALARIA ERADICATION PROGRAMS IN THE AMERICAS
1965 AND ESTIMATED 1966

(U. S. dollars)

Country or other political unit	Date of initiation of total coverage	1965				1966 (estimated)			
		PAHO/SMF	WHO and WHO/TA	UNICEF[a]	AID(USA) (fiscal year)[b]	PAHO/SMF	WHO and WHO/TA	UNICEF[c]	AID(USA) (fiscal year)
Argentina	Aug. 1959	237	-	137 700	-	36 155	-	90 000	-
Bolivia	Sep. 1958	44 614	-	45 700	300 000[d]	71 744	-	9 000	100 000[d]
Brazil (excl. São Paulo)	Aug. 1959[e]	206 111	11 573	-	126 000	293 241[f]	70 278	-	119 000
Brazil (São Paulo)	Jan. 1960	6 906[g]	-	-		18 384	-	-	
Colombia	Sep. 1958	199 646	-	336 200	-	204 500	-	350 000	-
Costa Rica	Jul. 1957	32 491	34 780	45 600	-	35 178	38 607	65 000	483 000
Cuba	1962	-	57 610	69 300	-	-	65 844	6 000	-
Dominican Republic	Jun. 1958	135 440	-	81 500	-	102 219	-	85 000	-
Ecuador	Mar. 1957	82 080	20 355	276 100	250 000	96 722	19 500	225 000	-
El Salvador	Jul. 1956	26 214	76 772	5 700	100 000	49 795	94 182	300 000	50 000
Guatemala	Aug. 1956	50 979	57 853	130 900	-	64 683	80 889	500 000	-
Haiti	Jan. 1962	127 439	-	294 700	1 400 000	134 733	-	135 000	1 400 000
Honduras	Jul. 1959	24 039	35 644	12 500	150 000	23 588	39 610	150 000	-
Jamaica	Jan. 1958	-	-	4 000	-	-	-	-	-
Mexico	Jan. 1957	85 101	170 851	1 317 300	-	72 518	216 600	1 655 000	-
Nicaragua	Nov. 1958	55 266	73 752	106 600	220 000	54 340	76 780	180 000	-
Panama	Aug. 1957	32 068	70 203	125 300	-	39 768	81 377	175 000	-
Paraguay	Oct. 1957	22 285	-	-	-	77 768	-	-	-
Peru	Nov. 1957	111 531	-	171 200	-	122 422	-	160 000	-
Trinidad and Tobago	Jan. 1958	-	-	-	-	-	-	-	-
British Guiana	Jan. 1947	18 862	-	4 800	-	17 332	-	3 000	-
British Honduras	Feb. 1957	14	-	700	-	500	-	1 000	-
Dominica	Jun. 1959	4	-	-	-	-	-	-	-
French Guiana	Sep. 1963[h]	781	-	-	-	2 000	-	-	-
St. Lucia	Jan. 1956	-	-	-	-	-	-	-	-
Surinam	May 1958	92 014	-	11 100	-	133 720	-	15 000	-
Inter-country Projects and general services		223 344[i]	232 054[i]	-	-	515 615[j]	442 029[j]	-	-
Total		1 577 466	841 447	3 176 900	2 546 000	2 166 925	1 225 696	4 104 000	2 152 000

- None.

(a) Rounded to the nearest hundred; shipping not included. (b) Provisional. (c) Rounded to the nearest thousand; shipping not included. (d) Counterpart fund. (e) Program developed by states, date of first area shown. (f) Includes $25,000 for the Training Center in Rio de Janeiro (Brazil-0202) (g) Includes $2,752 for the Training Center in São Paulo (Brazil-0202). (h) Date of signature of agreement between PAHO/French Guiana Prefecture. (i) Not included PAHO and WHO Regular Fund for the Washington Office. (j) Included PAHO and WHO Regular Fund for the Washington Office.

Annex 3

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS [1]

Pursuant to Resolution XXVI [2] adopted by the XIII Meeting of the Directing Council, the Fifth Revision of the Estimated Requirements for the PAHO Special Malaria Fund is presented herewith to the XVII Pan American Sanitary Conference for consideration.

This document includes the total estimated requirements for each year from 1966 through 1970 for individual country programs as well as for Zone and regional projects and Headquarters. The requirements take into account not only the funds from the Special Malaria Fund but other sources of funding as well, and indicate the expected level of each. Therefore, information is included on financing from the PAHO regular budget, the WHO regular budget, the WHO Malaria Eradication Special Account and the budget of the Expanded Program of Technical Assistance. The tables show separate estimated requirements of the Organization with regard to personnel, supplies and equipments, fellowships, grants, and other expenses for each program in which the Organization participates. Standard PAHO/WHO budgeting methods have been used and all amounts are shown in U.S. dollars.

Individual project tables are also presented showing a breakdown of personnel by type as well as a short description of the status of the program and the Organization's plans for the future. The collaboration of the United Nations Children's Fund (UNICEF) and the Agency for International Development (AID), of the United States of America, is indicated where applicable.

The requirements of the programs in which the Organization does not participate directly are not shown nor are they included in the summary table.

Estimates of the amounts shown were made in 1966 and were based on information available at that time on the progress of the campaigns and their probable duration. The estimated requirements include provision for salary increases for international personnel as well as for additional research projects recommended by the Malaria Advisory Committee in 1965.

Experience has shown that frequent evaluation of programs is necessary, which also requires frequent revision of expected requirements, particularly for programs that encounter technical problems. The delays in securing adequate funding in some countries will undoubtedly prolong the duration of the programs and increase the costs. Therefore, the estimates presented in this document should be considered as the minimum expected.

Progress was made during 1965 with respect to problems of administration, personnel, and finances in a number of the programs and no new technical problems of consequence arose during the year. However, the difficulties in Central America have continued and resources are still insufficient to meet the needs. On the other hand, it has been difficult to maintain previous gains, and incidence has increased in some areas. Efforts are being made to arrange for suitable financing which will permit the continuance of full-scale eradication activities but, as previously stated, the eradication process has been lengthened and is being made more difficult by the deterioration that has occurred in some countries.

[1] Document CSP17/5 (28 June 1966).
[2] *Official Document PAHO* **41**, 29.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Summary

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	57,690,432	59,406,705	50,052,260	40,341,450	32,328,350	239,817,197
GOVT. AND OTHER SOURCES 1/	54,214,000	55,668,000	46,504,000	37,417,000	29,934,000	223,737,000
PAHO/WHO PORTION						
Personnel costs and travel	2,725,839	2,867,697	2,954,360	2,498,000	2,113,000	13,158,896
Supplies and equipment	369,143	373,150	342,250	296,400	219,800	1,600,743
Fellowships	58,900	58,100	58,100	24,500	8,400	208,000
Grants and others	322,550	439,758	193,550	103,550	53,150	1,112,558
SUB-TOTAL PAHO/WHO	3,476,432	3,738,705	3,548,260	2,922,450	2,394,350	16,080,197

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	76,838	280,878	489,180	695,000	900,000	2,441,896
PAHO-SMF	2,037,223	2,152,865	1,886,092	1,669,200	940,100	8,685,480
WHO-Reg.	455,000	477,000	477,000	500,200	500,000	2,409,200
WHO-MESA	813,116	724,762	596,288	-	-	2,134,166
WHO-TA	94,255	103,200	99,700	58,050	54,250	409,455
TOTAL	3,476,432	3,738,705	3,548,260	2,922,450	2,394,350	16,080,197

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	44	43	42	41	38
Sanitary Engineer	17	16	16	11	8
Entomologist	11	11	11	9	4
Health Educator	2	2	2	2	2
Sanitary Inspector	56	57	56	44	36
Entomologist Assistant or Entomology Aide	6	7	7	6	2
Others	22	22	22	21	20
TOTAL	158	158	156	134	110

OBSERVATIONS

1/ Estimated costs for Jamaica, Trinidad and Tobago, Venezuela and West Indies not included.

Estimates including field projects, Zone Offices supporting services, and Malaria Eradication Branch.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Argentina

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,231,979	1,233,756	1,238,388	884,400	622,000	5,210,523
GOVT. AND OTHER SOURCES	1,200,000	1,200,000	1,200,000	850,000	620,000	5,070,000
PAHO/WHO PORTION						
Personnel costs and travel	26,179	27,956	32,588	30,000	-	116,723
Supplies and equipment	3,000	3,000	3,000	3,000	2,000	14,000
Fellowships	2,800	2,800	2,800	1,400	-	9,800
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	31,979	33,756	38,388	34,400	2,000	140,523

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	38,388	34,400	2,000	74,788
PAHO-SMF	31,979	33,756	-	-	-	65,735
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	31,979	33,756	38,388	34,400	2,000	140,523

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	1	1	1	1	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	1	1	1	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	2	2	2	2	-

OBSERVATIONS

UNICEF collaborates in this program.

Attack phase was begun in 1959, except in the provinces of El Chaco, in which it was begun (but not extended over the entire area) in 1966, and Formosa, where it is expected to begin in 1967.

PAHO will provide the services of a sanitary engineer, a sanitarian, and anti-malarial drugs for presumptive treatment of fever cases and for radical cure treatment of confirmed cases of malaria.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Bolivia

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	513,614	604,458	445,583	276,000	265,000	2,104,655
GOVT. AND OTHER SOURCES	440,000	530,000	368,000	215,000	215,000	1,768,000
PAHO/WHO PORTION						
Personnel costs and travel	66,614	67,458	70,583	57,000	48,000	309,655
Supplies and equipment	7,000	7,000	7,000	4,000	2,000	27,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	73,614	74,458	77,583	61,000	50,000	336,655

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	74,458	77,583	61,000	50,000	263,041
PAHO-SMF	73,614	-	-	-	-	73,614
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	73,614	74,458	77,583	61,000	50,000	336,655

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	4	4	4	3	2

OBSERVATIONS

UNICEF and AID cooperate in this program.

The set-back experienced in 1963 and 1964 has been overcome and the program is advancing well. Attack phase continued in the northern frontier area and in smaller areas of persistent transmission in river valleys in the south. Response to spraying has been excellent in the north and supplementary measures are being introduced in foci in the south.

In addition to consultants' services, PAHO provides anti-malarial drugs for radical-cure treatment of cases and for radical-cure or collective treatment in foci.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Brazil (Excluding São Paulo) 0200

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	12,158,979	14,649,229	17,885,509	17,659,200	17,669,200	80,022,117
GOVT. AND OTHER SOURCES	11,800,000	14,228,000	17,442,000	17,200,000	17,200,000	77,870,000
PAHO/WHO PORTION						
Personnel costs and travel	255,216	315,679	337,959	345,000	355,000	1,608,854
Supplies and equipment	99,563	101,350	101,350	110,000	110,000	522,263
Fellowships	4,200	4,200	4,200	4,200	4,200	21,000
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	358,979	421,229	443,509	459,200	469,200	2,152,117

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	397,700	397,700
PAHO-SMF	259,416	389,575	431,145	447,000	60,000	1,587,136
WHO-Reg.	99,563	31,654	12,364	12,200	11,500	167,281
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	358,979	421,229	443,509	459,200	469,200	2,152,117

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	5	5	5	5	5
Sanitary Engineer	3	3	3	3	3
Entomologist	-	1	1	1	1
Health Educator	-	-	-	-	-
Sanitary Inspector	4	4	4	4	4
Entomologist Assistant or Entomology Aide	-	2	2	2	2
Others	4	4	4	4	4
TOTAL	16	19	19	19	19

OBSERVATIONS

AID participates in this program.

The gradual extension of the program to cover, eventually, the entire malarious area, is progressing. Some areas were placed in consolidation during 1965, and others are undergoing evaluation toward this end.

PAHO provides the services of consultants, anti-malarial drugs for presumptive and radical-cure treatment and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Brazil (São Paulo)

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,066,595	867,987	710,000	710,000	-	3,354,582
GOVT. AND OTHER SOURCES	1,050,000	850,000	710,000	710,000	-	3,320,000
PAHO/WHO PORTION						
Personnel costs and travel	16,195	17,587	-	-	-	33,782
Supplies and equipment	400	400	-	-	-	800
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	16,595	17,987	-	-	-	34,582

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	16,595	17,987	-	-	-	34,582
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	16,595	17,987	-	-	-	34,582

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	-	-	-

OBSERVATIONS

AID participates in this program.

It is expected that consolidation phase will be prolonged in this program until the rest of the country enters consolidation phase. Imported cases from other states of Brazil are very numerous and great care must be exercised against re-initiation of transmission. The organization built up for the malaria eradication campaign is being shifted gradually into activities to control Chagas disease, as malaria work decreases.

PAHO provides the services of a consultant and drugs for radical-cure treatment of cases and for use in the elimination of foci.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
BRAZIL-0202
Training Center for Malaria Eradication, Rio de Janeiro

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	25,000	91,495	62,887	65,000	64,000	308,382
GOVT. AND OTHER SOURCES a)	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	-	26,495	27,887	30,000	29,000	113,382
Supplies and equipment	25,000	40,000	10,000	10,000	10,000	95,000
Fellowships	-	-	-	-	-	-
Grants and others	-	25,000	25,000	25,000	25,000	100,000
SUB-TOTAL PAHO/WHO	25,000	91,495	62,887	65,000	64,000	308,382

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	25,000	25,000	25,000	25,000	100,000
PAHO-SMF	25,000	66,495	37,887	40,000	39,000	208,382
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	25,000	91,495	62,887	65,000	64,000	308,382

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	1	1	1	1

OBSERVATIONS

a) Government Financing included in Brazil 0200.

A new training center is being established in Rio de Janeiro within the Training Division of the CEM. This center will have access to areas with field operations of various types in progress, a necessity for adequate training in malaria eradication techniques. National personnel first and later PAHO fellows will receive training.

A consultant's services, some supplies and equipment and a grant to provide some local costs of personnel will be supplied by the Organization.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Colombia

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	2,558,282	2,578,349	2,586,190	2,441,800	1,987,400	12,152,021
GOVT. AND OTHER SOURCES	2,346,000	2,346,000	2,346,000	2,200,000	1,850,000	11,088,000
PAHO/WHO PORTION						
Personnel costs and travel	188,682	208,749	216,590	225,000	125,000	964,021
Supplies and equipment	18,000	18,000	18,000	14,000	11,000	79,000
Fellowships	5,600	5,600	5,600	2,800	1,400	21,000
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	212,282	232,349	240,190	241,800	137,400	1,064,021

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	75,831	240,190	241,800	137,400	695,221
PAHO-SMF	212,282	156,518	-	-	-	368,800
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	212,282	232,349	240,190	241,800	137,400	1,064,021

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	2
Sanitary Engineer	2	2	2	2	1
Entomologist	1	1	1	1	-
Health Educator	-	-	-	-	-
Sanitary Inspector	6	6	6	6	4
Entomologist Assistant or Entomology Aide	2	2	2	2	-
Others	-	-	-	-	-
TOTAL	13	13	13	13	7

OBSERVATIONS

UNICEF participates in this program.

A great part of this program has already achieved consolidation phase, but the areas still in attack are subject to persistent transmission. This is being attacked by intensive methods of DDT-spraying and supplementary attack through radical-cure treatment on a presumptive basis.

PAHO provides consultants' services, anti-malarial drugs, and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Costa Rica

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	648,925	644,752	624,975	331,000	331,000	2,580,652
GOVT. AND OTHER SOURCES	570,000	570,000	546,000	290,000	290,000	2,266,000
PAHO/WHO PORTION						
Personnel costs and travel	70,925	66,752	70,975	35,000	37,000	280,652
Supplies and equipment	8,000	8,000	8,000	6,000	4,000	34,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	78,925	74,752	78,975	41,000	41,000	314,652

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	36,072	36,560	37,048	-	-	109,680
WHO-Reg.	-	38,192	41,927	41,000	41,000	162,119
WHO-MESA	42,853	-	-	-	-	42,853
WHO-TA	-	-	-	-	-	-
TOTAL	78,925	74,752	78,975	41,000	41,000	314,652

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	1	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	4	4	4	2	2

OBSERVATIONS

UNICEF participates in this program.

Efforts are continuing to strengthen the administrative and technical staffing of this program. Financial difficulties held back progress during 1965 but prospects are excellent for adequate funds for 1966-68. Technical problems are not serious and the importation of cases is likely to be considerably reduced by improvements in the campaigns of neighboring countries.

PAHO provides the services of consultants and drugs for treatment of cases and elimination of foci.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Cuba

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,266,857	816,981	466,889	445,000	-	2,995,727
GOVT. AND OTHER SOURCES	1,200,000	750,000	400,000	400,000	-	2,750,000
PAHO/WHO PORTION						
Personnel costs and travel	51,557	52,481	52,389	40,000	-	196,427
Supplies and equipment	10,000	10,000	10,000	5,000	-	35,000
Fellowships	4,300	3,500	3,500	-	-	11,300
Grants and others	1,000	1,000	1,000	-	-	3,000
SUB-TOTAL PAHO/WHO	66,857	66,981	66,889	45,000	-	245,727

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	66,857	66,981	66,889	45,000	-	245,727
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	66,857	66,981	66,889	45,000	-	245,727

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	1	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	3	3	3	2	-

OBSERVATIONS

Attack phase began in this program in 1962 and has been carried out with excellent results. Only one or two small foci in areas of difficult access continue to have transmission, and it is expected that the campaign will enter consolidation phase in 1967.

WHO provides the services of consultants, anti-malarial drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Dominican Republic

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,520,081	1,206,738	758,259	717,000	-	4,202,078
GOVT. AND OTHER SOURCES	1,400,000	1,100,000	650,000	650,000	-	3,800,000
PAHO/WHO PORTION						
Personnel costs and travel	112,881	99,538	101,059	65,000	-	378,478
Supplies and equipment	3,000	3,000	3,000	2,000	-	11,000
Fellowships	4,200	4,200	4,200	-	-	12,600
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	120,081	106,738	108,259	67,000	-	402,078

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	120,081	106,738	108,259	67,000	-	402,078
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	120,081	106,738	108,259	67,000	-	402,078

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	-
Sanitary Engineer	1	1	1	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	-
Entomologist Assistant or Entomology Aide	1	-	-	-	-
Others	1	1	1	-	-
TOTAL	6	5	5	3	-

OBSERVATIONS

UNICEF participates in this program.

Very satisfactory progress has been made in this program since its reorganization and resumption of DDT-spraying in November 1962. Some areas were placed in consolidation in spring of 1965, and in others spraying has been terminated and a period of observation instituted before placing them definitevely in consolidation phase. One or two foci of transmission remain and these, together with areas of high potential transmission, continue under spraying.

PAHO/WHO provides consultants' services (the chief consultant functions also as co-director of the program), anti-malarial drugs and fellowships. WHO/TA funds cover the services of a medical officer.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Ecuador

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,946,911	1,792,209	1,654,174	797,400	662,000	6,852,694
GOVT. AND OTHER SOURCES	1,834,000	1,665,000	1,524,000	685,000	606,000	6,314,000
PAHO/WHO PORTION						
Personnel costs and travel	100,111	114,409	117,374	103,000	52,000	486,894
Supplies and equipment	10,000	10,000	10,000	8,000	4,000	42,000
Fellowships	2,800	2,800	2,800	1,400	-	9,800
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	112,911	127,209	130,174	112,400	56,000	538,694

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	90,000	33,000	123,000
PAHO-SMF	92,956	105,209	108,674	-	-	306,839
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	19,955	22,000	21,500	22,400	23,000	108,855
TOTAL	112,911	127,209	130,174	112,400	56,000	538,694

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	1
Sanitary Engineer	1	1	1	1	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	4	4	3	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	6	3

OBSERVATIONS

UNICEF and AID participate in this program.

Financial and administrative difficulties have hindered this program. No technical problems have arisen and relatively low-level transmission persists in limited areas because of open housing and rapid colonization with consequent continuous new construction. Supplementary measures have been instituted but their application has been interrupted by budgetary problems.

PAHO provides the services of consultants, anti-malarial drugs and fellowships. WHO/TA funds provide the services of a medical officer. The program enjoys the services of an AID co-director.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

El Salvador

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,652,302	1,552,197	1,397,019	687,800	686,000	5,975,318
GOVT. AND OTHER SOURCES	1,515,000	1,418,000	1,253,000	580,000	580,000	5,346,000
PAHO/WHO PORTION						
Personnel costs and travel	123,802	120,697	130,519	97,000	100,000	572,018
Supplies and equipment	10,000	10,000	10,000	8,000	6,000	44,000
Fellowships	3,500	3,500	3,500	2,800	-	13,300
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	137,302	134,197	144,019	107,800	106,000	629,318

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	44,161	43,351	46,472	67,800	66,500	268,284
WHO-Reg.	93,141	90,846	97,547	40,000	39,500	361,034
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	137,302	134,197	144,019	107,800	106,000	629,318

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	1	1	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	4	4	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	5	5

OBSERVATIONS

UNICEF and AID participate in this program.

Technical problems of a serious nature require extensive supplementary attack measures other than DDT spraying, and financial difficulties have prevented their application to all of the area requiring them. Funds are expected to be forthcoming for 1966-1968 to finance an adequate attack program, primarily based on an extension of the collective treatment programs now in existence, in which results have been good.

PAHO/WHO provides consultants' services, drugs for treatment of cases and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Guatemala

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	2,184,071	2,228,486	1,756,260	1,167,400	1,065,000	8,401,217
GOVT. AND OTHER SOURCES	2,032,000	2,070,000	1,595,000	1,100,000	1,000,000	7,797,000
PAHO/WHO PORTION						
Personnel costs and travel	135,671	142,086	144,860	54,000	57,000	533,617
Supplies and equipment	15,000	15,000	15,000	12,000	8,000	65,000
Fellowships	1,400	1,400	1,400	1,400	-	5,600
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	152,071	158,486	161,260	67,400	65,000	604,217

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	65,974	66,722	67,470	67,400	65,000	332,566
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	86,097	91,764	93,790	-	-	271,651
WHO-TA	-	-	-	-	-	-
TOTAL	152,071	158,486	161,260	67,400	65,000	604,217

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	1	1
Sanitary Engineer	1	1	1	-	-
Entomologist	1	1	1	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	3	3

OBSERVATIONS

UNICEF and AID participate in this program.

Serious technical problems have precipitated financial difficulties in this program. The malaria situation worsened in 1964 and improved somewhat in 1965. Colective treatment programs are utilized as a main attack measure, but could not be extended to the entire population programmed. Funds are expected to be forthcoming to finance an adequate program.

In addition to consultants' services, PAHO/WHO provides drugs for the treatment of cases and fellowships for the training of national personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Haiti

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	2,774,236	2,259,314	1,562,708	1,211,000	989,000	8,796,258
GOVT. AND OTHER SOURCES	2,650,000	2,150,000	1,450,000	1,100,000	900,000	8,250,000
PAHO/WHO PORTION						
Personnel costs and travel	109,236	94,314	97,708	100,000	85,000	486,258
Supplies and equipment	15,000	15,000	15,000	11,000	4,000	60,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	124,236	109,314	112,708	111,000	89,000	546,258

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	124,236	109,314	112,708	111,000	89,000	546,258
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	124,236	109,314	112,708	111,000	89,000	546,258

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	-	-	-	-
Entomologist	1	1	1	1	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	6	6	6	5

OBSERVATIONS

UNICEF and AID participate in this program.

During 1965 the pilot collective treatment program was expanded to become the largest in the hemisphere, with 1.5 million people treated in three-week cycles by the end of the year. Results were good but the number of foci appearing in areas not included in the original drug program was greater than anticipated. The program will be continued during 1966, with intensified vigilance in untreated areas and those in which the program may be terminated.

PAHO provides the services of consultants, of which one functions also as co-director and part of the anti-malarial drugs for treatment of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Honduras

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,224,305	875,799	725,516	490,000	489,000	3,804,620
GOVT. AND OTHER SOURCES	1,155,000	808,000	658,000	425,000	425,000	3,471,000
PAHO/WHO PORTION						
Personnel costs and travel	59,305	57,799	57,516	59,000	61,000	294,620
Supplies and equipment	10,000	10,000	10,000	6,000	3,000	39,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	69,305	67,799	67,516	65,000	64,000	333,620

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	24,486	24,730	24,974	25,000	24,000	123,190
WHO-Reg.	-	43,069	42,542	40,000	40,000	165,611
WHO-MESA	44,819	-	-	-	-	44,819
WHO-TA	-	-	-	-	-	-
TOTAL	69,305	67,799	67,516	65,000	64,000	333,620

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	3	3	3	3	3

OBSERVATIONS

UNICEF and AID participate in this program.

The greater part of the malarious area is in consolidation phase, but an small area with double-resistance of the vector exists in the south. A program of collective treatment was initiated on a pilot scale in this area during 1965, and will be extended to the whole problem area during 1966. Adequate funding for this intensified attack has been assured for 1966-1968.

PAHO/WHO provides the services of consultants and anti-malarial drugs for treatment of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Mexico

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	19,048,543	19,956,205	11,755,478	7,455,650	3,905,250	62,121,126
GOVT. AND OTHER SOURCES	18,900,000	19,800,000	11,600,000	7,300,000	3,754,000	61,354,000
PAHO/WHO PORTION						
Personnel costs and travel	107,893	115,555	114,828	122,000	124,000	584,276
Supplies and equipment	37,000	37,000	37,000	30,000	25,000	166,000
Fellowships	2,800	2,800	2,800	2,800	1,400	12,600
Grants and others	850	850	850	850	850	4,250
SUB-TOTAL PAHO/WHO	148,543	156,205	155,478	155,650	151,250	767,126

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	74,243	75,005	77,278	120,000	120,000	466,526
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	74,300	81,200	78,200	35,650	31,250	300,600
TOTAL	148,543	156,205	155,478	155,650	151,250	767,126

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	3	3	3	3	3
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	6	6	6	6

OBSERVATIONS

UNICEF participates in this program.

A problem of low-level persistent transmission in extensive areas exists in this program, although the major portion of the malarious areas have been in consolidation for some years. A program envisaging DDT-spraying plus highly intensive methods of case-detection and radical cure has been elaborated but awaits the provision of adequate funding, which the government is trying to arrange. PAHO/WHO supports experiments with various attack methods (see following pages, Mexico-0201 and AMRO-0210).

PAHO provides the services of consultants and anti-malarial drugs, and WHO/TA underwrites the services of medical officers.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Mexico - 0201

Malaria Eradication in Problem Areas

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	400,000	400,000	250,000	-	-	1,050,000
GOVT. AND OTHER SOURCES	250,000	250,000	250,000	-	-	750,000
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	150,000	150,000	-	-	-	300,000
SUB-TOTAL PAHO/WHO	150,000	150,000	-	-	-	300,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	150,000	150,000	-	-	-	300,000
WHO-TA	-	-	-	-	-	-
TOTAL	150,000	150,000	-	-	-	300,000

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

This project supports several pilot projects of experimental measures for attacking the persistent but usually low-level transmission in Mexican problem areas. One method, of which trial was begun in 1964, is the Pilot Plan of Integrated Attack which consists of 4-monthly cycles of DDT spraying and intensive monthly case-finding with immediate radical-cure treatment of all cases and suspects, together with additional measures when necessary. A second method (PRIAL) is being tried in another area, beginnin January 1966, in which the area is divided into individual sectors each under the personal responsibility of one sprayman-evaluator. A third method, for which the trial is yet to be initiated, is planned to combine routine spraying with collective treatment with pyrimethamine-primaquine, in an area with moderate DDT-resistance.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Nicaragua

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,906,930	1,924,190	1,526,913	1,298,400	776,000	7,432,433
GOVT. AND OTHER SOURCES	1,780,000	1,780,000	1,380,000	1,150,000	650,000	6,740,000
PAHO/WHO PORTION						
Personnel costs and travel	114,530	131,790	134,513	136,000	120,000	636,833
Supplies and equipment	11,000	11,000	11,000	11,000	6,000	50,000
Fellowships	1,400	1,400	1,400	1,400	-	5,600
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	126,930	144,190	146,913	148,400	126,000	692,433

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	59,032	59,788	60,544	60,400	50,000	289,764
WHO-Reg.	67,898	84,402	86,369	88,000	76,000	402,669
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	126,930	144,190	146,913	148,400	126,000	692,433

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	1	1	1	1
Entomologist	1	1	1	1	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	7	6

OBSERVATIONS

UNICEF and AID participate in this program.

Grave problems of double-resistance of vectors to insecticides which have arisen in this program have made necessary the use of various attack measures as alternatives to standard sprayings. Malathion has been used in some areas, larviciding in others, and limited collective treatment programs in some localities. Insufficient funds have prevented wide-spread application of adequate attack measures. Funds have now been assured for 1966-1968 and a satisfactory level of attack has been carefully planned.

PAHO/WHO provides the services of consultants, anti-malarial drugs to treat cases and for the elimination of foci, and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Panama

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,549,029	1,408,534	1,082,831	714,400	592,000	5,346,794
GOVT. AND OTHER SOURCES	1,430,000	1,284,000	956,000	650,000	530,000	4,850,000
PAHO/WHO PORTION						
Personnel costs and travel	109,629	115,134	117,431	56,000	58,000	456,194
Supplies and equipment	8,000	8,000	8,000	7,000	4,000	35,000
Fellowships	1,400	1,400	1,400	1,400	-	5,600
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	119,029	124,534	126,831	64,400	62,000	496,794

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	36,972	37,460	37,948	64,400	62,000	238,780
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	82,057	87,074	88,883	-	-	258,014
WHO-TA	-	-	-	-	-	-
TOTAL	119,029	124,534	126,831	64,400	62,000	496,794

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	1	-	-
Entomologist	1	1	1	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	1	1	1	-	-
TOTAL	7	7	7	3	3

OBSERVATIONS

UNICEF participates in this program.

Attack measures have met with success in most parts of the country but a number of small areas of persistent transmission continue, primarily because of excito-repellency effects of DDT on the vector and open housing and colonization. Poor administration and operation have obtained in the past; some improvement was made in this respect in 1965, but financial difficulties continued to hamper the program. Adequate budgets for 1966-1968 are in process of provision.

PAHO/WHO provides the services of consultants, anti-malarial drugs for treatment of cases, and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Paraguay

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	885,502	1,139,108	1,170,624	1,205,900	889,500	5,290,634
GOVT. AND OTHER SOURCES	819,000	1,062,000	1,084,000	1,127,000	804,000	4,896,000
PAHO/WHO PORTION						
Personnel costs and travel	61,602	72,208	81,724	74,000	83,000	372,534
Supplies and equipment	3,500	3,500	3,500	3,500	2,500	16,500
Fellowships	1,400	1,400	1,400	1,400	-	5,600
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	66,502	77,108	86,624	78,900	85,500	394,634

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	73,400	85,500	158,900
PAHO-SMF	66,502	77,108	86,624	5,500	-	235,734
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	66,502	77,108	86,624	78,900	85,500	394,634

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	5	5	5	5	5

OBSERVATIONS

This program, which was suspended in 1961, has not yet been able to re-initiate attack measures. Geographical reconnaissance has been energetically carried out during 1965. The beginning of attack phase, programmed for late 1966, is dependent upon obtention of an adequate budget; the Government is studying methods for providing this.

PAHO will provide the services of consultants, anti-malarial drugs and fellowships. UNICEF will participate if attack phase is satisfactorily begun.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Perú

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	1,465,982	1,467,662	769,342	607,400	383,400	4,693,786
GOVT. AND OTHER SOURCES	1,350,000	1,350,000	650,000	550,000	330,000	4,230,000
PAHO/WHO PORTION Personnel costs and travel	96,082	97,762	99,442	46,000	48,000	387,286
Supplies and equipment	15,000	15,000	15,000	10,000	4,000	59,000
Fellowships	4,900	4,900	4,900	1,400	1,400	17,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	115,982	117,662	119,342	57,400	53,400	463,786

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	57,400	53,400	110,800
PAHO-SMF	115,982	117,662	119,342	-	-	352,986
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	115,982	117,662	119,342	57,400	53,400	463,786

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	1	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	4	4	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	6	6	3	3

OBSERVATIONS

UNICEF participates in this campaign.

Apart from some outbreaks in consolidation areas in 1965, the principal problems of this campaign stem from the operational difficulties of mounting a thorough and effective spraying campaign in the fluvial area of the Amazon basin with its dispersed and primitive population. No technical problems have arisen.

In addition to the services of consultants, PAHO provides anti-malarial drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

British Guiana

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	68,544	74,580	75,217	-	-	218,341
GOVT. AND OTHER SOURCES	50,000	47,000	47,000	-	-	144,000
PAHO/WHO PORTION						
Personnel costs and travel	18,044	27,080	27,717	-	-	72,841
Supplies and equipment	500	500	500	-	-	1,500
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	18,544	27,580	28,217	-	-	74,341

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	18,544	27,580	28,217	-	-	74,341
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	18,544	27,580	28,217	-	-	74,341

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	2	2	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	2	2	-	-

OBSERVATIONS

UNICEF participates in this program.

Two-thirds of the remaining interior areas still in attack were placed in consolidation phase during 1965, and the chloroquinated salt program was terminated in the entire country. Spraying is still being carried out in the Rupununi area, with excellent results. It is expected that this area will be placed in consolidation in 1967.

PAHO provides the services of one or two sanitary inspectors and drugs for radical cure treatment.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

British Honduras

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	45,884	46,769	35,000	-	-	127,653
GOVT. AND OTHER SOURCES	35,000	35,000	35,000	-	-	105,000
PAHO/WHO PORTION						
Personnel costs and travel	10,384	11,269	-	-	-	21,653
Supplies and equipment	500	500	-	-	-	1,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	10,884	11,769	-	-	-	22,653

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	10,884	11,769	-	-	-	22,653
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	10,884	11,769	-	-	-	22,653

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	1	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	-	-	-

OBSERVATIONS

UNICEF participates in this program.

A serious outbreak in mid-1965 in the southern Toledo district, sparked by imported cases from a neighboring country made extension of consolidation phase through 1968 necessary. The outbreak has been controlled, but wide-spread seeding of P. falciparum occurred in the area. The small focus in the Orange Walk district has been submitted to collective treatment.

PAHO will provide the services of a sanitary inspector and drugs for radical-cure and collective treatment.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

French Guiana

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	97,000	61,000	46,000	31,000	26,000	261,000
GOVT. AND OTHER SOURCES	96,000	60,000	45,000	30,000	25,000	256,000
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	1,000	1,000	1,000	1,000	1,000	5,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	1,000	1,000	1,000	1,000	1,000	5,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	1,000	1,000	1,000	1,000	1,000	5,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	1,000	1,000	1,000	1,000	1,000	5,000

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

Attack measures continue in this program particularly in border areas.

PAHO provides drugs for treatment of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Surinam

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	467,772	458,321	460,065	321,800	248,700	1,956,658
GOVT. AND OTHER SOURCES	312,000	315,000	315,000	205,000	155,000	1,302,000
PAHO/WHO PORTION						
Personnel costs and travel	125,872	113,421	115,165	100,000	85,000	539,458
Supplies and equipment	25,000	25,000	25,000	14,000	8,000	97,000
Fellowships	4,200	4,200	4,200	2,100	-	14,700
Grants and others	700	700	700	700	700	3,500
SUB-TOTAL PAHO/WHO	155,772	143,321	145,065	116,800	93,700	654,658

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	155,772	143,321	145,065	116,800	93,700	654,658
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	155,772	143,321	145,065	116,800	93,700	654,658

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	1	-	-	-	-
Health Educator	1	1	1	1	1
Sanitary Inspector	2	2	2	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	2	2	2	1	-
TOTAL	7	6	6	5	4

OBSERVATIONS

UNICEF participates in this campaign.

In the difficult interior area, in which refusals to permit spraying have prevented successful attack, a pilot project of chloroquinated salt distribution has been started. Distribution methods have been adapted to the necessities of the region and the salt has achieved good acceptance. Cautious extension of the program is scheduled, and if successful on the Upper Surinam River area where is now being tried, it will be extended also to the other rivers where attack with insecticide has been only partially possible.

PAHO provides the services of consultants, one of whom functions as director of the service, and also anti-malarial drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO -0200
Malaria Technical Advisory Team

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	163,642	167,006	176,370	157,300	161,300	825,618
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	136,342	139,706	149,070	130,000	134,000	689,118
Supplies and equipment	1,000	1,000	1,000	1,000	1,000	5,000
Fellowships	-	-	-	-	-	-
Grants and others	26,300	26,300	26,300	26,300	26,300	131,500
SUB-TOTAL PAHO/WHO	163,642	167,006	176,370	157,300	161,300	825,618

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	139,100	145,053	151,031	157,300	161,300	753,784
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	24,542	21,953	25,339	-	-	71,834
WHO-TA	-	-	-	-	-	-
TOTAL	163,642	167,006	176,370	157,300	161,300	825,618

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	4	4	4	3	3
Sanitary Engineer	-	-	-	-	-
Entomologist	1	1	1	1	1
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	1	1	1	1	1
TOTAL	6	6	6	5	5

OBSERVATIONS

This project is designed to provide consultation and technical advice to the Governments with reference to aspects of their eradication programs which do not require long-term consultants and to provide supervision of the activities of international personnel assigned to the country programs. During 1965, a meeting of the PAHO Advisory Committee on Malaria Eradication was held in Washington to evaluate activities in the Region.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO -0203

Malaria Technical Advisory Services (Zone III)

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	121,987	122,997	124,635	127,000	129,000	625,619
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	118,207	120,997	122,635	125,000	127,000	613,839
Supplies and equipment	3,780	2,000	2,000	2,000	2,000	11,780
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	121,987	122,997	124,635	127,000	129,000	625,619

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	53,000	-	53,000
WHO-Reg.	-	-	-	74,000	129,000	203,000
WHO-MESA	121,987	122,997	124,635	-	-	369,619
WHO-TA	-	-	-	-	-	-
TOTAL	121,987	122,997	124,635	127,000	129,000	625,619

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	2	2	2	2	2
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	1	1	1	1	1
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	2	2	2	2	2
TOTAL	5	5	5	5	5

OBSERVATIONS

This project complements the technical assistance provided to the individual country programs of Zone III. In addition to guiding the activities of country project malaria personnel, the chief of the project functions as secretary to the Working Group on Coordination established by the Ministers of Health of Central America and Panama to coordinate the campaigns of the six countries.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO -0204
Malaria Technical Advisory Services (Zone IV)

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	24,834	24,711	25,588	27,000	28,000	130,133
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	24,834	24,711	25,588	27,000	28,000	130,133
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	24,834	24,711	25,588	27,000	28,000	130,133

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	24,711	25,588	27,000	28,000	105,299
PAHO-SMF	24,834	-	-	-	-	24,834
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	24,834	24,711	25,588	27,000	28,000	130,133

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	1	1	1

OBSERVATIONS

The medical officer of this project supplies technical guidance to the country programs and their consultants in Zone IV. He also acts as chief consultant to the Malaria Eradication Program of Colombia.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO -0209
Insecticide Testing Team

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	163,320	168,243	175,700	161,000	-	668,263
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	86,320	102,243	109,700	95,000	-	393,263
Supplies and equipment	26,600	15,600	15,600	15,600	-	73,400
Fellowships	-	-	-	-	-	-
Grants and others	50,400	50,400	50,400	50,400	-	201,600
SUB-TOTAL PAHO/WHO	163,320	168,243	175,700	161,000	-	668,263

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	161,000	-	161,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	163,320	168,243	175,700	-	-	507,263
WHO-TA	-	-	-	-	-	-
TOTAL	163,320	168,243	175,700	161,000	-	668,263

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	2	2	2	2	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	3	3	3	2	-
Others	-	-	-	-	-
TOTAL	5	5	5	4	-

OBSERVATIONS

The aim of this project is the testing of new candidate insecticides and larvicides. During 1965 village-scale trials of OMS-33, a carbamate insecticide previously lab-tested, have been carried out in order to investigate the work-load that can be carried by spraymen without danger of toxic effects, the effectiveness of protective measures, and the possible effects on villagers.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO -0210
Malaria Eradication Epidemiology Team

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	97,441	82,731	87,941	89,600	91,600	449,313
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	94,841	80,131	85,341	87,000	89,000	436,313
Supplies and equipment	2,300	2,300	2,300	2,300	2,300	11,500
Fellowships	-	-	-	-	-	-
Grants and others	300	300	300	300	300	1,500
SUB-TOTAL PAHO/WHO	97,441	82,731	87,941	89,600	91,600	449,313

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	89,600	91,600	181,200
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	97,441	82,731	87,941	-	-	268,113
WHO-TA	-	-	-	-	-	-
TOTAL	97,441	82,731	87,941	89,600.	91,600	449,313

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	4	2	2	2	2
Sanitary Engineer	-	-	-	-	-
Entomologist	2	2	2	2	2
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	4	4	4	4

OBSERVATIONS

This project is providing technical guidance and evaluation of the Pilot Project of Integrated Attack, which is supported under Mexico-0201. The Epidemiology Team will continue with the evaluation of other non-routine attack measures when evaluation of this project is complete.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO-0211

Seminar on the Role of Local Health Services in the Malaria Eradication Programs

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	-	96,208	-	-	-	96,208
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	-	96,208	-	-	-	96,208
SUB-TOTAL PAHO/WHO	-	96,208	-	-	-	96,208

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	96,208	-	-	-	96,208
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	-	96,208	-	-	-	96,208

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

In 1964 and 1965 seminars were held to determine the role of local health services in malaria eradication. In 1967 the results of these seminars will be reviewed and the possibility of expansion of rural health services to cover the areas in final stages of consolidation will be discussed. Participants will be from the General Health Services and the Malaria Eradication Services, as in the previous seminars.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO -0214
Advance Course in Malaria Epidemiology

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	24,000	20,000	20,000	-	-	64,000
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	-	-	-	-	-	-
Fellowships	14,000	14,000	14,000	-	-	42,000
Grants and others	10,000	6,000	6,000	-	-	22,000
SUB-TOTAL PAHO/WHO	24,000	20,000	20,000	-	-	64,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	24,000	20,000	20,000	-	-	64,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	24,000	20,000	20,000	-	-	64,000

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

As a sequel to the Advanced Course on the Epidemiology of Malaria Eradication given in 1965 for malariologist advisers of the American Region to bring them up to date on the complex problems of late attack and consolidation phases, annual courses on similar problems are to be given for national program epidemiologists. An average of ten fellowships will be given per course.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO -0216

Research in Epidemiology of Malaria Eradication in Problem Areas

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	108,000	108,000	108,000	-	-	324,000
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	68,000	68,000	68,000	-	-	204,000
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	40,000	40,000	40,000	-	-	120,000
SUB-TOTAL PAHO/WHO	108,000	108,000	108,000	-	-	324,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	108,000	108,000	108,000	-	-	324,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	108,000	108,000	108,000	-	-	324,000

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

This project is designed to provide short-term consultants and contractual services for the testing and evaluation of non-routine methods of attack which can be used in areas where routine house-spraying cannot interrupt transmission. Study of the epidemiology and possible expansion of strains of P. falciparum resistant to chloroquine will also be studied and field tests made of methods for the radical cure of strains resistant to chloroquine and to other synthetic anti-malarial drugs. These studies are expected to be carried out in association with AID funds for malaria research.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO -0217
Field Investigations of Mass Drug Treatment

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	60,000	60,000	60,000	-	-	180,000
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	17,000	17,000	17,000	-	-	51,000
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	43,000	43,000	43,000	-	-	129,000
SUB-TOTAL PAHO/WHO	60,000	60,000	60,000	-	-	180,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	60,000	60,000	60,000	-	-	180,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	60,000	60,000	60,000	-	-	180,000

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

Field investigations of the feasibility of collective treatment programs with drug combinations other than chloroquine-primaquine which is in wide use and chloroquine-pyrimethamine which is used in Haiti will be carried out in pilot areas under this project. A trial with primaquine-pyrimethamine is being carried out in cooperation with the Gorgas Memorial Laboratory in Panama beginning in 1966.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Malaria Eradication Branch

	1966	1967	1968	1969	1970	TOTAL
TOTAL COST	219,885	218,690	228,199	260,000	268,000	1,194,774
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	219,885	218,690	228,199	260,000	268,000	1,194,774
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	219,885	218,690	228,199	260,000	268,000	1,194,774

SOURCES OF PAHO/WHO FUNDING

SOURCE	1966	1967	1968	1969	1970	TOTAL
PAHO-Reg.	76,838	80,878	82,431	85,000	88,000	413,147
PAHO-SMF	15,506	15,956	16,406	15,000	17,000	79,868
WHO-Reg.	127,541	121,856	129,362	160,000	163,000	701,759
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	219,885	218,690	228,199	260,000	268,000	1,194,774

PAHO/WHO PERSONNEL

CATEGORY	1966	1967	1968	1969	1970
Medical Officer	3	3	3	4	4
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	11	11	11	13	13
TOTAL	15	15	15	18	18

OBSERVATIONS

Coordination of the program throughout the hemisphere is made by the Headquarters ME staff, which also directs, advises and supervises international field personnel. Headquarters personnel participate in the evaluation of progress in country campaigns, give advice on specialized problems and provide technical guidance for operational research projects.

Annex 4

INTERNATIONAL TRANSPORTATION OF HUMAN REMAINS [1]

At its 54th Meeting, the Executive Committee considered the draft standards for the international transportation of human remains, prepared by an Expert Committee which had met in Washington, D. C., from 13-15 December 1965.

The standards were submitted to a working party of the Executive Committee composed of the Representatives of Jamaica, Mexico, and Venezuela, which prepared a revised draft of the standards. For its part, the Executive Committee, at its eighth plenary session, made a detailed examination of the working party's report and approved Resolution XVIII,[2] to the effect that the revised standards should be submitted to the XVII Pan American Sanitary Conference, together with a report on the observations made by the members of the Committee in the course of the discussion of the item. In accordance with the above-mentioned resolution, Document CE54/17 (see Appendix) and the corresponding part of Document CE54/27 are submitted to the Conference (minutes of the eighth plenary session, 54th Executive Committee[3]).

A summary of several points brought up during the consideration of the revised standards is given below.

First, the Representative of Guatemala pointed out that, according to Article 6, where death is due to a quarantinable disease, proper embalming is required, whereas Article 2 appears to exclude transportation between frontier districts from that requirement.

The Representative of Panama was of the opinion that Article 4-a would be incomplete if it did not specify that the official certificate of cause of death should be a medical certificate issued by a medical practitioner. This view was supported by the Representative of Ecuador, who requested the inclusion of a further requirement, namely, that the documents should be countersigned and a duly certified certificate of death should be obtained from the consulate of the country in which the remains were to be buried.

The Observer from Chile expressed two reservations in the name of the Ministry of Health: the first concerned the suppression of the special certificate for the international transportation of human remains, had already been taken into account in the final draft; and the second was related to the elimination of paragraph A of Article 5, to the effect that prior to transportation, human remains should always be embalmed, no matter how simply.

Finally, the Observer from Peru asked whether the regulations on the international transportation of human remains were to apply solely to the Americas, or if they were to be submitted to the World Health Organization so that they could be examined by that world body.

The requirement that the death certificate should be issued by a medical practitioner raises insoluble problems in countries that accept certificates issued by persons without medical qualifications. The term used in the draft standards "Official Certificate of Cause of Death" is meant to take into account the various national viewpoints. The same approach was followed as regards the findings of an autopsy, which the national legislation of some countries may require to be entered in the certificate of death; it is not believed that it should be made a requirement for the international transportation of human remains.

As to the role of consulates, the requirements of the draft standards appear to be the minimum necessary to ensure adequate protection of both the exit country and the receiving country.

It is likewise thought advisable to leave the definition and delimitation of frontier districts to the countries concerned. If death is due to a quarantinable or communicable disease, the case might be covered by the addition of the following clause

[1] Document CSP17/6 (24 August 1966).
[2] *Official Document PAHO* **71**, 42-43.
[3] See *Official Document PAHO* **73**, 142-146.

to Article 2: "Except where the cause of death was a quarantinable disease." However, it is felt that there is no need to incorporate it into the revised standards.

Resolution XVIII also recommends to the Pan American Sanitary Conference that it approve the draft standards on the international transportation of human remains and transmit them to the Governments of the Organization so that they may incorporate them into their legislation in such way as they think fit. When considering the proposed revised standards the Conference should take into account the report of the working party and the points summarized above which were raised in plenary session at the Executive Committee meeting.

If the Conference endorses the recommendation of the Executive Committee and approves the standards for the international transportation of human remains, the Governments can then translate them into standards to be applied in whichever way they think most appropriate, that is to say, by enacting a special law or simply including them in their Sanitary Code or issuing regulations or amending the regulations in force, or issuing special instructions or orders concerning the international transportation of human remains.

While it is desirable for the standards governing the international transportation of human remains to be uniform, they need not have the same legal form. What is important, and this was clearly brought out both by the Expert Committee and the Executive Committee, is that the standards in force in the countries of the Americas should be the same but that each Government should be free to enact them in whichever way is most appropriate to their legal system.

Appendix

REPORT OF THE WORKING PARTY ON THE INTERNATIONAL TRANSPORTATION OF HUMAN REMAINS [1]

The working party composed of the Representatives of Jamaica (Dr. Charles C. Wedderburn), Mexico (Dr. Manuel B. Márquez Escobedo), and Venezuela (Dr. Daniel Orellana), to which the Executive Committee at its third plenary session held on 19 April 1966 had entrusted the examination of the draft standards for the international transportation of human remains and the observations Governments had submitted thereon, met on 20 April 1966 at 12:30 p.m. Dr. John C. Cutler, Deputy Director of PASB, also attended the meeting.

The working party made a detailed examination of the draft standards prepared by the Expert Committee [2] and the observations submitted by various Governments.[3] During the examination other observations were made and, finally, it was agreed to prepare a revised text that would embody all the observations accepted. This new text, which is given below, is submitted to the consideration of the Executive Committee. Should it be accepted by the Committee, it could be forwarded to the XVII Pan American Sanitary Conference for consideration and approval.

DRAFT STANDARDS

Declaration

The greater ease of communications today and the considerable increase in tourism make the international transportation of human remains a matter of practical interest that justifies the establishment of uniform standards.

The international transportation of human remains should be simplified so as not to increase the problems of the families with complicated and unnecessary procedures that appear to overlook the moral and social considerations involved in such cases.

It is possible to simplify the administrative procedures involved in obtaining authorization for the international transportation of human remains if it is borne in mind that, contrary to a deep-rooted opinion, a corpse does not constitute a health risk even when death was due to a quarantinable or communicable disease, since its power to infect disappears when it is suitably embalmed.

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[1] Document CE54/17 (20 April 1966).
[2] See Document CE54/6 (mimeographed), Annex 1.
[3] *Ibid.*, Annex 2.

Embalming might become the general practice in the countries of the Americas since it is the most appropriate method of preserving human remains; however, this in no way implies that other, simpler, and equally effective methods, cannot also be used.

Definitions

Article 1. International transportation of human remains is understood to be the shipment of the body from the country where the death occurred to the country of its final destination after either death or disinterment.

Article 2. The transportation of bodies between frontier districts within 48 hours after death shall not be subject to these standards.

Article 3. For the purpose of these standards an impervious coffin shall be any container or box, of whatever material, which can be hermetically sealed and so maintained by plastic or rubber gasket or by metal or similar material which has been soldered or welded. The body may also be encased in a plastic container which has been sealed by heat or by adhesive materials prior to being placed in a non-impervious coffin.

Documentation

Article 4. For international transportation of human remains, the following documents shall be required:

a. An official certificate of cause of death issued by the local registrar of death, or similar authority;

b. A statement by the person authorized to prepare the remains, certified by an appropriate authority, indicating the manner and method in which the body was prepared and indicating that the coffin contains only the body in question and necessary clothing and packing;

c. A transit permit stating the surname, first name, and age of the deceased person, issued by the competent authority for the place of death, or the place of burial in the case of exhumed human remains, and

d. Copies of the documentation required under subparagraphs a, b, and c shall accompany the shipment of remains. The outside of the coffin should bear an immovable plaque or other appropriate marking, in a conspicuous place, indicating name, age, sex, and place of final destination of the body.

Health Measures

Article 5. The human remains shall be subject to the following measures:

a. Thorough washing with an effective disinfectant; disinfection of all orifices; packing of all orifices with cotton saturated with an effective disinfectant; wrapping in a sheet saturated with an effective disinfectant; and placing in an impervious coffin; or

b. Proper embalming (arterial and cavity) and placement in an impervious coffin.

Shipment Requirements

Article 6. Human remains prepared for international shipment must be placed in an impervious coffin. Where the cause of death was a quarantinable disease, as defined in the International Sanitary Regulations, the human remains must be embalmed (arterial and cavity) and placed in an impervious coffin.

The impervious coffin must thereupon be hermetically sealed and may be shipped without any other covering (except in the case of shipment by sea), or for protective purposes may be fitted in a wooden box, or one made of other material, so as to prevent movement; or may be wrapped in a specially designed fabric.

Transportation by Land, Air and Sea

Article 7. The following regulations shall apply to the transportation by rail:

a. The impervious coffin may be transported in the baggage compartment of a passenger car.

b. Each country shall be responsible for fixing the time limit within which the body must be removed at its final destination.

In case of transportation by road the impervious coffin must be conveyed preferably on a closed hearse or, failing such, in an ordinary closed van (truck) or automobile, placed in such a way as to prevent movement.

The impervious coffin may be conveyed also in the baggage compartment of a passenger aircraft or in a cargo aircraft and may be equipped with a vent or safety valve provided that precautions are taken to prevent the escape of liquids or nauseous gases.

In case of transportation by sea the impervious coffin, in order to preclude movement, must be packed in an ordinary wooden case, or one made of other material, or may be placed in a specially designed fabric container.

Common Provision

Article 8. Regardless of the mode of transportation, wreaths, flowers, and other similar funeral articles may be sent with the coffin only when it is permitted by the provisions in force in the country to which it is being sent.

Final Provisions

Article 9. The above formalities may be reduced either through bilateral agreements or by joint decision in particular cases.

Article 10. The transportation of remains exhumed after the period established in the local provisions in force have elapsed, and the transportation of ashes, shall not be subject to health or other special measures.

Annex 5

TRAINING OF AUXILIARY PERSONNEL [1]

The shortage of auxiliary personnel is increasing as the countries of Latin America continue to expand their health programs. This development was discussed at the 50th Meeting of the Executive Committee [2] and at the XV Meeting of the Directing Council.[3] At these two meetings it was emphasized that the Pan American Health Organization should expand its assistance to the countries in the field of training and it was pointed out that the more advanced countries make large-scale use of auxiliary personnel under the supervision of professional personnel. In the resolution adopted by the Directing Council at its XV Meeting, the Council instructed the Director to prepare a study on the training of auxiliary workers that might serve as the basis for discussion at a meeting of national authorities experienced or interested in the question, with the collaboration of international experts, for the purpose of presenting, for consideration by the Organization, a policy for the training of auxiliary workers based on the needs of the countries of the Americas.

The Director appointed Dr. Branko Kesić, Dean of the "Andrija Stampar" School of Public Health, Zagreb, Yugoslavia, who was to examine the background information on this matter supplied by the official agencies of the various countries, visit several of them (Brazil, El Salvador, Mexico, Peru, and Venezuela), and prepare a document to serve as the basis for discussion at the meeting recommended in the resolution.

That meeting was convened by the Organization and the Study Group met in Mexico City, Mexico, from 28 March to 1 April 1966.

In addition to considering the report of Dr. Kesić, entitled "Training and Utilization of Auxiliary Public Health Personnel in Latin America," [4] the above-mentioned Group made a detailed study of the Third and Ninth Reports of the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel.[5] The report of the Study Group is therefore submitted to the Conference (see the Appendix).

[1] Document CSP17/8 (20 July 1966).
[2] Resolution X. *Official Document PAHO* **57**, 25–26.
[3] Resolution XXIX. *Official Document PAHO* **58**, 81–82.
[4] Mimeographed document.
[5] *Wld. Hlth. Org. Tech. Rep. Ser.* **109** (1956) and **212** (1961).

Appendix

FINAL REPORT OF THE STUDY GROUP ON THE TRAINING OF AUXILIARY PERSONNEL IN PUBLIC HEALTH

The meeting of the Study Group on the Training of Auxiliary Personnel in Public Health was held in Mexico City, Mexico, from 27 March to 1 April 1966. It was convoked by the Pan American Health Organization pursuant to Resolution XXIX of the XV Meeting of the PAHO Directing Council (Mexico City, Mexico, August-September 1964).

The members of the Study Group were as follows: Dr. Agustín Díaz Esparza (*Chairman*), Director of Professional Education in Public Health, Ministry of Health and Welfare of Mexico; Dr. José Ignacio Baldó (*General Rapporteur*), Supervisor, Chronic Diseases Department, Ministry of Health and Social Welfare of Venezuela; Mrs. Ermengarda de Faría Alvím, Chief, Nursing Sector,

Special Public Health Service Foundation, Brazil; Dr. Guillermo Raúl Jáuregui, Director General of Welfare Services and Promotion of Public Health, Argentina; Dr. Miguel Kourany, Chief, Public Health Laboratory Service, Panama; Dr. Mario León Ugarte, Director, School of Public Health of Peru; and Dr. Conrado Ristori Costaldi, Chief, Technical Department, National Health Service of Chile. The meeting was also attended by the two PAHO Consultants, Dr. Branko Kesić, Director, School of Public Health, University of Zagreb, Yugoslavia, and Mr. Edison Rivera Castaing, Chief-Coordinator, Office of Health Planning, Ministry of Public Health of Costa Rica. The Organization was represented by Dr. Carlos Díaz-Coller, Chief, Professional Education Branch, Mrs. Agnes W. Chagas, Regional Adviser on Nursing Education, and Dr. Ramiro Martínez Silva, Regional Adviser on Public Health Laboratories.

GENERAL INFORMATION ON THE PROBLEM

It was considered useful to first present some general information on the problem, which concerns the great need for auxiliary personnel both in urban areas and in the vast rural expanses of Latin America which at the present time enjoy little or no health care of any kind.

Population

In 1962, in the Latin American countries—comprising a vast area of 20,537,000 Km²—there were about 215 million inhabitants (about 10 per Km²), whereas in 1950 there were only about 162 million. This explosive population increase, amounting to about 2.8 per cent a year, is due to a very high birth rate (in most countries over 40 per 1,000 inhabitants) and the comparatively low crude death rate (about 10 in most countries). However, in spite of this rapid increase in population, the countries in Latin America are still sparsely populated.

The peoples of Latin America are very young populations, with approximately 45 per cent of the total inhabitants in the age group 0–14 years and only 2 to 4 per cent in the age group 65 years and above.

In all Latin American countries a rapid migration of the rural population to the cities is in progress. This rapid urbanization brings in its train serious social, educational, and health problems. Furthermore, the rural population lives in small settlements, scattered over very wide areas with very poor roads which deteriorate during the long wet and dry seasons.

Socioeconomic Factors

The high degree of illiteracy (in some countries exceeding 50 per cent) constitutes not only a serious educational problem but also a major health problem. Among the most important social problems mention should be made of that of abandoned children, a problem that is doubtless due to the enormous number of illegitimate births, which in some areas exceed 50 per cent. Another serious problem is that of alcoholism.

The situation reflected in the very low level of national income, ranging from US$117 to US$585 per capita, is further aggravated by the unequal distribution of national wealth. In spite of accelerated industrial development in some areas, the national economies are not in a position to provide enough new jobs to satisfy the needs of the rapidly growing population.

Health

Because of poor environmental conditions in the rural areas, infectious and parasitic diseases of the gastrointestinal tract and all forms of dysentery, as well as most tropical diseases, prevail there. Infant mortality and tuberculosis, although on the decline, continue to be serious problems. There are also serious health problems connected with rapid urbanization, as in developed countries, such as cardiovascular diseases, cancer, diabetes, and accidents.

Services

One vitally important positive factor in dealing with the above-mentioned problems is the fact that Latin American Governments act on the principle of the full responsibility of the State for the people's health.

In all Latin American countries the health services are under the authority of ministries of public health and there is a pronounced tendency toward the centralization of health administration. On the other hand, in some countries attempts are being made at the state, departmental, and even district level to decentralize the health administration and transfer responsibility to the local services. Major difficulties occur when any attempt is made to unite the various agencies that provide medical and health care into a single health service.

In 1962 there were some 10,473 health centers in 17 Latin American countries. A characteristic common to them all was the relatively small number of hospital beds available, ranging from 1.8 to 6 per 1,000 population.

Health Workers

There is a shortage of fully trained health workers of all kinds in all fields; in some the shortage is so pronounced that it prevents any expansion of services. In many health services of almost all the Latin American countries there is a high percentage of auxiliary health workers without any training whatsoever, which hampers the recent attempts in certain countries to implement sound national health plans.

Another problem of major significance is the distribution of personnel. One example is that of physicians, professionals under whose supervision a considerable number of auxiliary personnel work. Although there are approximately 134,000 physicians in Latin America, or about one per 1,800 inhabitants, their distribution is very uneven, which creates an extremely unfavorable situation. Indeed, more than half of these physicians (54 per cent) are resident in the large cities, so that the remainder (46 per cent) have to look after 79 per cent of the population.[1]

[1] "Health: Problems, Accomplishments, and Prospects." Document presented by PAHO to the Fourth Annual Meetings of the Inter-American Economic and Social Council (Buenos Aires, Argentina, 15 March-1 April 1966).

It is quite clear that the training of auxiliary personnel is a *major priority* which must be taken into account in the health plans of most of the Latin American countries.

DEFINITION

An auxiliary worker is a paid member of the health team with less than full professional qualifications who has been specially trained to assume defined responsibilities under the direction and supervision of the professional worker in the same field.

Insofar as it introduces the idea of special training, this definition is considered to be more appropriate than that of the United Nations Administrative Committee on Coordination, which reads as follows:[2] "The term auxiliary worker is used . . . to designate a paid worker in a particular technical field with less than full professional qualifications in that field who assists and is supervised by a professional worker."

FUNDAMENTALS

The Study Group considered it essential to clearly set forth its point of view about the work of auxiliary personnel in the health field.

Basic Criteria

1. The essential framework for the use of auxiliary personnel is an *organized health service* which provides continuing opportunities for training, supervision, and a system for referral of cases.

The Study Group was convinced that it was advisable to have this doctrinal principle firmly laid down, since in recent years there has been a tendency, due to the extremely serious situation in the medical care field in many Latin American countries to assume that auxiliary personnel can work independently or as substitutes. On the contrary, auxiliary personnel are part of the health team and not substitutes for other members of the team.

2. In view of the foregoing, it is clear that every professional health worker should be in a position to use so necessary and important a working resource. It will allow him to extend his field of action and to economize and make better use of his energies, which should be aimed at a higher level of performance. To achieve this aim the training of professional health workers beginning at the undergraduate level should include the basic components of public health subjects, in particular, health administration, epidemiology, statistics, environmental sanitation, and social sciences.

To overcome the defects of the training in these aspects received up to now by professional health workers, it would be necessary to organize in Latin America well-planned short courses covering basic knowledge of administration and also the public health aspects of such other subjects as will be needed.

3. The service to be given by auxiliary workers in the health field should be permanent and comprehensive; consequently, it should comprise both preventive and curative activities.

In the case of medical care, auxiliary workers should be trained in procedures used in the treatment of easily recognized and prevalent diseases for which therapeutic measures may be used without risk until the arrival of a physician or the referral of the case to him where necessary.

4. When speaking of auxiliary health personnel the Study Group includes the auxiliary personnel of professional workers that concern themselves with health, other than physicians, such as dentists, nurses, pharmacists, veterinarians, statisticians, and engineers, as well as auxiliary personnel of certain medical specialities which have become differentiated, such as various types of laboratory workers and various types of rehabilitation workers.

Because of the importance of social sciences for health, mention should also be made of the auxiliary workers of various professions in this field that take part in the solution of health problems, as well as those carrying out administrative functions.

As will be seen, no mention is made of the type of health worker known as "medical assistant" which in some countries substitutes for professional health workers, since the Study Group considers that there is no place for this type of worker in Latin America.

5. Even if the number of professional health workers is increased, it must be understood that the training of auxiliary personnel is a continuing task and that an increasing number of auxiliary health workers will be needed, as is shown by the experience in the developed countries.

6. Any health program which is carried out through auxiliary personnel should include a minimum program of social action aimed at community development, and for that reason the work should be coordinated with that of the personnel of other institutions such as community development workers, home educators in rural areas, school teachers, etc., and of private agencies.

In that way efforts can be made to arouse the community and its leaders and induce them to take the necessary measures to improve their own economic and social conditions.

7. It should be borne in mind that the smaller the difference in the cultural patterns of auxiliary health workers and the population they serve, the greater will be the effectiveness of those workers.

Comments

Reference will be made only to those points which call for further treatment.

Since an *organized health service* is the *sine qua non* for the employment of auxiliary personnel, the most advisable scheme should be described.

In this regard, Dr. Branko Kesić, in the working docu-

[2] World Health Organization. *Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel. Third Report.* Technical Reports Series **109**, 1956.

ment prepared for the meeting, states:[3] "The health center, with its health subcenters and stations, represents, from the standpoint of health administration, the only health unit responsible for the total health of the people of a certain region. The activities of such a health center, its subcenters and stations should be based on the principles of integrated medicine. The center should approach all health problems, no matter whether they relate to the individual, the family, or the community as a whole, from the curative, preventive, and social points of view." Later on he points out the main features of these three levels, i.e., health center, health subcenter, and health station, with regard to their staff, their interrelations, and the functions of auxiliary personnel.

In the health center there will be both general and specialized professional health workers and auxiliary health workers as assistants within the working team.

In the health subcenter, which is subsidiary to the health center, there will be only general professional health workers, i.e., general practitioners and nurses, and there auxiliary personnel will make it possible to expand activities in various fields.

In the health stations, at the lower or peripheral level, there will be only auxiliary health workers with defined responsibilities for basic health care.

Dr. Kesić adds: "Such a system of health organization makes possible a continuous supervision of the work of auxiliaries and referral of cases from the lower to the higher level."

This organizational scheme has been tried out in some Latin American countries. To emphasize the interrelationship between these three levels in supervision and referral, they have been designated as primary, secondary, and tertiary networks.

General practitioners are given four months' postgraduate training, which includes basic public health subjects and the clinical subjects most needed. In this way, the needs of the intermediate level, which is a health unit staffed by one or more physicians, nurses, and health auxiliaries working as a team, will be met. It goes without saying that as departments of preventive and social medicine in medical schools in Latin America become better developed, general practitioners will be better equipped to supervise auxiliary health personnel at all levels.

TRAINING

Responsible Agency

The Study Group considered it advisable for the supervision of the training of auxiliary personnel to be the responsibility of the ministry of public health in particular, through a coordinating agency representing all the public and private institutions training auxiliary personnel. This coordinating agency would be responsible for establishing standards for the functions of each type of auxiliary, admission requirements, curriculum, and duration of the training course. The ministry of public health would be responsible for awarding certificates and for maintaining a register of auxiliary health personnel.

Schools of public health, where they exist, should be responsible for preparing the teaching staff of these courses, in collaboration with local educational institutions. The organization of training courses for auxiliaries by schools of public health and other higher educational institutions is not recommended.

Characteristics of the Courses

The length of the training course will depend upon the nature of the service to which the auxiliary is to be assigned and the educational qualifications required of him. It is recommended that the educational requirements for the admission to training should be not less than completion of a primary school or elementary school education.

Regardless of the length of the training course, major emphasis should be placed on the coordination of theoretical and practical instruction in the first phase of the course. Knowledge and skills must be imparted on the principle of "learning by doing" and technical instruction must at all times be kept at the level of comprehension to be expected of persons with the required educational background.

Most of the training should be given at the place of work: hospital wards, health centers, laboratories, outpatient departments, or in the field. Classrooms and demonstrations should only be used to initiate the student into a new technique or procedure, for seminars, group discussions, and other forms of transmitting the teacher's live word to the trainee. An intensive period of field training generally follows the theoretical and practical instruction; it consists of organized practical work carried out in the various services under the constant guidance and supervision of competent professors and instructors.

Each course should be under the direction of a professional.

The number of students in each course should not be too large. Moreover, it is recommended that the course be subdivided into small groups for demonstrations, practical work, etc., so that individual attention may be given to each student.

The courses may be given by teams of instructors who go wherever personnel is needed, or by professional health workers in charge of health services after they have received proper orientation on teaching methods.

An important aspect of training is the provision of manuals and other written material. All written material should conform to the teaching programs and be prepared in such a way as to conform to the educational level of the students and be of use to auxiliary health workers as permanent guides in their future work.

Whenever possible, auxiliaries in different fields should be trained together in subjects common to their respective programs so as to promote the team spirit.

Furthermore, whenever various kinds of activities within the same discipline are being carried out by different types of auxiliary personnel, every effort should

[3] Kesić, Branko. "Training and Utilization of Health Workers in Latin America" (mimeographed document, with annexes).

be made to give them a common basic training, followed by special training as required. However, if the level of basic training is very low, then training in totally separate courses for each activity is justified.

Place of Training

It is advisable for auxiliaries to be trained at a place in the area in which they will work, provided that the place in question has the necessary human and material resources and the number of auxiliaries to be trained justifies it.

Another alternative is for the training to be given in a suitable urban center nearby. In the capital cities and in the larger towns it may be advisable to organize permanent courses so that auxiliaries may be trained for all the health services. If this is done, then consideration should be given to training in a single center, the practical part of the training being carried out in the various health services of the city in need of personnel.

As for accommodations, during the courses students may be accommodated in different ways, depending on the local conditions in the country. In some cases experience has shown that it is better to allow the student to find his own accommodations and to give him the necessary funds with which to pay for them.

Refresher Courses

In addition to basic training courses, provision should be made for refresher courses to enable health personnel to keep their knowledge up to date and to learn new techniques.

SELECTION OF PERSONNEL

If it is to be successful, a national health plan must be supported by a broad training program, and in that program the selection of personnel is a basic consideration. Owing to the widely varying conditions in the countries of the Americas, it is clear that the problem cannot be approached on the basis of a universal formula applicable to all countries. Nevertheless, certain essential basic aspects must be taken into account.

Teaching Staff

In selecting teaching staff the following factors need to be taken into consideration:

1. Academic qualifications of the instructor. Professional qualifications.
2. Technical competence in the subjects he teaches.
3. Aptitude for teaching and educational training.
4. Knowledge of the local conditions under which the student will discharge his functions.
5. For the higher-level posts, willingness to accept full-time employment.

The person teaching auxiliaries should have advanced academic qualifications in the subject he teaches. Efforts should be made to obtain the collaboration of personnel with technical qualifications in allied fields for the purpose of supplementing the training of auxiliaries.

Certain auxiliary health personnel whose experience could be put to good use in the practical training of students may be designated to assist in the teaching.

The director of the school or the coordinator of the course should be a professional with academic qualifications and practical field experience, and should be a full-time employee.

Certain functions may be assigned to personnel at different levels and from different fields if it is necessary for the better conduct of the course.

For the most part, teaching should be entrusted to professionals specialized in the field being taught. The teaching staff should consist, for the most part, of full-time professionals, although there may be some part-time or occasional assistants.

The teacher should have an adequate knowledge of health conditions in the communities in which the auxiliaries will work so as to be able to orient the teaching toward the solution of the problems they are likely to meet.

There should be a sufficient number of professors for the course, but the professor-student ratio will depend upon the resources available.

Student Body

As for the student body, it is not possible to lay down any general rules for the countries of the Americas. However, certain factors should be taken into consideration in selecting trainees, such as the following:

New trainees. The educational requirements will vary according to conditions existing in each country. The minimum requirement should be completion of the course of primary education, whereas the maximum should not exceed two or three years of secondary education. Other requirements should include: good health and physical aptitude as confirmed by the pertinent examinations, suitable personality, social consciousness, vocation, interest in the work, and sense of responsibility.

The age of the student should be within the upper and lower limits which will be established according to such factors as the type of work, subsequent occupation, etc.

Other factors which may usefully be taken into account in selecting students are educational background, results of psychotechnical examinations, references, and personal interview. If possible, the student should come from the place where he will subsequently work.

Personnel already in service. In selecting candidates for the courses priority should be given to untrained or partly trained personnel already in service who have the necessary background. The age requirement will be waived.

NUMBER OF PERSONNEL NEEDED AND UTILIZATION OF PERSONNEL

The Study Group wishes to report that it was unable to agree about the number of auxiliary personnel needed in various fields. It acknowledges that it is not advisable to try to apply ratios for professional personnel, auxiliary personnel, and population served, as has been done in developed countries in the health field. The variables which enter into the establishment of such calculations are too numerous and too complicated. To

mention only a few, there is the gravity of the health problems, the degree of development of the health organization, economic and social conditions, cultural levels, distances, means of communications, etc.

Number

Although it did not prove possible to establish approximate indication of the number of auxiliary personnel, the Study Group agreed that:

1. It should be recognized that trained auxiliaries have acquired a definite and permanent position in the health team.
2. It is necessary that the countries establish the specific functions for each type of auxiliary in the health field.
3. An appropriate quantitative relationship should be established between the number of auxiliary personnel in a service or program and the number of professional personnel who can supervise them in those services or programs.
4. Although there is a close relationship between the number of auxiliaries needed and the population to be served, this factor—the number of inhabitants—should not be the only term of reference. The cultural patterns and the economic level of the communities and groups should be taken into account when determining the number of each type of trained auxiliaries required.
5. In determining the number of auxiliary personnel to be trained in any one country, it is essential to make a census of the human resources available in the health field in order to ascertain the existing shortage.
6. In the final analysis, the funds and the programs included in the national health plan in which the personnel are to be used, will determine the number and type of auxiliaries to be trained.

Personnel without Training

At the present time most or all of the countries utilize a certain number of untrained personnel, some of whom meet the necessary requirements for admission to regular training courses. In selecting persons for formal training these persons should be given priority.

It is recommended that, for the benefit of auxiliary health personnel at present employed who do not meet the requirements for formal training, the institutions employing them should organize in-service training courses.

The Study Group recognized that there were advantages in giving an auxiliary general training in his field of activity, as opposed to specialized training in a particular sector of that field. The latter type of training is only acceptable in the case of very specific short-term programs.

Administrative Aspects

Legal and administrative regulations should be sufficiently flexible to allow the establishment of all types of auxiliary personnel needed for the conduct of existing programs.

Manuals should be prepared in which the functions of the auxiliary concerned should be clearly defined and delimited. These manuals should define the limits within which the auxiliary health worker will discharge his functions and should describe procedures and techniques.

Each country should determine the type of document which will certify the training received by an auxiliary health worker, as well as the procedures for the registration of such health workers.

The training received by the auxiliary health worker should be recognized by an adequate rank in the post classification plan of the service in which he will work.

SUPERVISION AND EVALUATION

The Study Group attributed the utmost importance to supervision and evaluation in the training of auxiliary personnel.

Supervision

Supervision entails not only ascertaining, examining, and assessing the quality of a job, but also suggesting such changes or adjustments as may be necessary. It is an educational, active, and continuous process, one of constructive interrelationships. It entails guidance, orientation, and readjustment for the purpose of achieving certain objectives or fulfilling a specific purpose. It involves three elements:

1. The health institution, which has a policy aimed at achieving its objective.
2. The immediate superior officer, who has the direct authority and responsibility over all or part of the structure of the institution.
3. The auxiliary, who has a specific function to fulfill.

Supervision should be exercised by every individual who has a specific authority. It stimulates the technical progress of the institution, it directly links the superior to his subordinates, and it strengthens the line of authority as well as unity of purpose.

Supervision should be exercised at all levels. The essential part of the process is repeated at every level; what changes is the content represented by the application of supervision at that level. Any one level of a structure always exercises supervision over the immediately lower level.

The lower the level of the personnel, the more frequent and more meticulous supervision must be. In the case of auxiliary health workers, it must be periodic and as frequent as possible, according to existing conditions.

It is recommended that Governments provide such material and human resources as are necessary to ensure effective supervision.

Evaluation

Evaluation is an assessment of capacity and efficiency based on the observation of the work of the supervised auxiliary. For that purpose, systems or patterns which make an objective analysis possible must be available.

In the evaluation of formal training programs for auxiliaries it is important for members of the team responsible for the courses to make periodic visits to the trained personnel at their place of work. This will enable them to adjust the courses to actual needs.

Interviews with the superior officers of the new auxiliary are also useful, as are surveys which may provide useful information for evaluating the training and orienting and improving future teaching plans.

Evaluation carried out by supervisors should serve as a basis for individual orientation as well as the development of in-service educational programs.

With a view to improving the quality of the work of auxiliaries, it is recommended that the countries establish incentives by offering good auxiliaries with the necessary educational qualifications an opportunity to pursue studies enabling them to become professionals.

SUMMARY AND CONCLUSIONS

The Study Group arrived at the following conclusions:

1. In view of the existing demographic, socioeconomic, and health conditions in Latin America, and the status of medical care services and personnel, the training of health auxiliaries is a *major priority* that should be given continuing consideration in health plans.

2. A structure of organized health services affording continuous possibilities for training and supervision of personnel and for referral of cases is essential for the utilization of auxiliaries.

3. Efforts should be made to ensure that all types of professional workers collaborating in health services receive suitable training to enable them to work with auxiliary personnel.

4. The teaching should be entrusted to professionals competent in their specific field who have had training in public health and preparation for teaching. A professional should be in charge of the course. Schools of Public Health, where they exist, should be responsible for training teaching staff for the courses.

5. Regardless of the duration of courses, emphasis should be placed on in-service practice and field work, and great care should be taken to ensure that theoretical instruction is within the comprehension of the students. Training should be given in conditions as similar as possible to those in which the auxiliary is going to work, and this requirement applies both to new personnel and to untrained members of the present staff.

6. The functions of auxiliaries should be clearly defined. For this purpose manuals for use in teaching, which also delimit the sphere of action of each of its levels of training established in each field, should be prepared.

7. The selection of students is vitally important. Students should preferably come from the places in which they are going to work, and preference should be given to those with the best qualifications and a keen sense of responsibility.

8. Irrespective of the factors involved, the educational requirement for training should not be less than completion of primary schooling.

9. For the reasons given, it was not possible to reach conclusions about the number of auxiliary personnel needed.

10. The system cannot function unless there is suitable supervision, which is also necessary for evaluation.

11. Special stress is laid on the need for sufficient funds not only for training but also to cover the expenses involved in supervision and to ensure the utilization of auxiliary personnel.

12. The Study Group concluded that, in order to achieve uniform standards, all matters relating to the planning and training of auxiliary personnel should be the responsibility of the Ministry of Health, through a coordinating agency representing the various public and private institutions which train this type of personnel. The Ministry should also be responsible for the award of certificates and the registration of such personnel.

Annex 6

STATUS OF AEDES AEGYPTI ERADICATION IN THE AMERICAS [1]

In compliance with the instructions of the I Meeting of the Directing Council in 1947,[2] the Pan American Sanitary Bureau has been promoting and coordinating the eradication of *Aedes aegypti* in the Americas for the last 18 years.

During that period the Bureau has encouraged the infested countries and territories to begin or intensify their campaigns against this vector, and within its budgetary limits, has also collaborated with those that have requested it by providing them with advisory services, as well as supplies and equipment.

[1] Document CSP17/14, Rev. 1 (15 September 1966).
[2] *PAHO Publication* **247**, 3.

The Governing Bodies of the Organization have repeatedly emphasized the need for countries and territories still infested to complete their eradication programs at the earliest possible date so as to reduce the duration of the continental *A. aegypti* eradication campaign and thus the growing danger of reinfestation of areas already free of the vector.

To date the following countries and territories have completed their eradication campaigns and have been declared free of *A. aegypti:* Argentina, Bolivia, Brazil, British Honduras, Chile, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and the Canal Zone. Two additional countries, which had already achieved eradication—El Salvador and Mexico—were found to be reinfested in 1965.

In Mexico reinfestation was limited to a small area in the city of Nuevo Laredo, on the border with the United States of America, and was promptly eliminated. The reinfestation in El Salvador, on the other hand, was much more extensive, as indicated in another part of this document, and the Government consequently had to resume the eradication campaign.

In addition to this reinfestation in Central America, the problem of *A. aegypti* still persists in the northern part of South America, in the United States of America, and in the Caribbean area.

In the northern part of South America the campaign is in the final phase in Colombia, where in 1965 and 1966 the mosquito was found only in the city of Cúcuta. However, Venezuela, Guyana, Surinam, and French Guiana continue to be extensively infested.

The United States of America, whose campaign includes Puerto Rico and the U. S. Virgin Islands, began eradication activities in 1964, but results to date have been limited.

In the Caribbean area the campaign is in the final phase in Trinidad and continues to make progress in Cuba, but it is still suspended in Jamaica, the Dominican Republic, British Virgin Islands, Guadeloupe, and Dominica. In the remainder of this area the campaign is either halted or is progressing slowly, and results have not been satisfactory.

One of the main obstacles to the campaigns in the Caribbean and northern South America is the resistance of *A. aegypti* to chlorinated insecticides. However, resistance is only part of the problem. Its occurrence is clearly due in some measure to the fact that for one reason or another many of the campaigns were prolonged for several years without the vector being eradicated, despite the fact that the mosquito was still highly susceptible to DDT when they were begun.

The Organization established a small laboratory in Kingston, in cooperation with the Government of Jamaica and the University of the West Indies, for the purpose of solving the problem of vector resistance. Since its inception in 1962, the laboratory has studied the susceptibility to various insecticides of several *A. aegypti* strains from the Caribbean and northern South America, and also tested new products for possible use instead of chlorinated insecticides.

To date the laboratory has tested the susceptibility to chlorinated insecticides of *A. aegypti* from 66 localities in 18 countries and territories of the above areas. The results of these tests, together with the data already collected by various investigators, indicated that, but for rare exceptions, the mosquito strains in those areas are resistant to DDT or dieldrin, or to both.

The laboratory simultaneously tested the susceptibility of several of these mosquito strains to other insecticides that might possibly replace chlorinated insecticides; it also tested the residual action of some of the insecticides in the various types of receptacles in which *A. aegypti* commonly breed in the Caribbean area and in South America.

Of the new insecticides studied, one in particular proved effective against mosquito strains resistant to chlorinated insecticides. It is a phosphorus compound of low toxicity for mammals, and has prolonged residual action. The product is already available commercially under the name of Abate, and is currently being subjected to more extensive field tests in both Jamaica and Venezuela. Should the results of these tests prove satisfactory, it is probable that large-scale use of the insecticide against *A. aegypti* will be begun within a few months.

Two more phosphorus insecticides—malathion and fenthion—should be mentioned. For some time now both have been used in eradicating the mosquito in Puerto Rico, Venezuela, and Barbados, with what might be considered satisfactory results. These products have a shorter residual action than either DDT or dieldrin, but the results obtained in the areas mentioned indicate that

wherever the vector is resistant to chlorinated insecticides it can be eradicated with these two insecticides.

Nevertheless it is evident that the solution of the resistance problem alone will not succeed in solving the eradication problem in either the Caribbean area or northern part of South America. If campaigns in these areas are to be successful, other difficulties encountered in most of the countries and territories still infested will have to be surmounted. Among these difficulties the following may be mentioned:

1. Insufficient budgetary allocations to permit appropriate coverage of infested areas.
2. Deficient campaign organization and administration.
3. Personnel problems which lessen the quality of field work required in this kind of campaign.
4. Deficient surveillance against the reintroduction of the mosquito into areas already free of it.
5. Absence of, or noncompliance with, the legislation necessary to support the campaign.

The status of the *A. aegypti* campaign in each country or territory still infested is summarized below.

Colombia. In 1961 the mosquito was eradicated in this country, but in September of that year the city of Cúcuta, on the Venezuela border, was found to be reinfested. In the following year, the city of San Luis, situated 1 km from Cúcuta on the highway to Venezuela, was also found to be reinfested.

These two foci of reinfestation were eliminated in 1963, but that same year a small *A. aegypti* breeding place was found in the port of Santa Marta on the north coast of the country. That breeding place and another one found in the same port the following year both originated from mosquitoes introduced by vessels coming from Caribbean ports; both foci were promptly eliminated, and by early 1965 the entire territory of Colombia was considered free from the vector.

Nevertheless, the city of Cúcuta was again found to be reinfested in late 1965, despite the fact that between January 1964 and July 1965 it had been inspected seven times and the results had been negative. In view of the reinfestation, eradication work was resumed in November 1965, but by April 1966 reinfestation had not been eliminated.

According to the last inspection made by the vigilance service, the entire country, except for Cúcuta, is considered free of the mosquito. In 1965 the service inspected San Luis twice and Santa Marta three times, without finding *A. aegypti*. In addition to these two localities, during the year the service also inspected the ports of Barranquilla, Buenaventura, Cartagena, and Las Flores, and the international airports of Barranquilla and Cali, as well as 27 localities in the Departments of Bolívar and Santander del Norte, the Intendencias of La Guajira, San Andrés, and Providencia, and all inspections were negative.

Cuba. Eradication activities on the island are still almost exclusively limited to the Provinces of La Habana, Matanzas, and Pinar del Rio. Aside from those areas, campaign activities were confined to a few surveys and to treatment in some localities in the Provinces of Las Villas, Camaguey, and Oriente. The results of the past four years have been more limited than was expected, owing mainly to the repeated reinfestations of work areas into which used tires are introduced from other still infested areas of the country which the campaign has not yet covered.

Reinfestation reached alarming proportions during the period 1962–1963, because large numbers of used tires containing *A. aegypti* reached Greater Havana and neighboring localities. However, beginning in 1964, there was a considerable reduction in the importation of such tires, and the measures taken to control the existing stocks of tires improved the situation. The problem has not yet been completely solved.

In Cuba, the originally infested area measures approximately 100,000 km^2, of which 30,000 (or 30 per cent) is being covered by the campaign. In the initial survey the number of localities inspected up to May 1966 was 1,047, of which 805 were found infested with *A. aegypti*; 802 of the initially positive localities were treated, after which 783 of them were inspected. At last inspection, 83 of the verified localities continued positive, and 700 were already negative.

Dominican Republic. The eradication work in this country was suspended in 1962, and has not yet been resumed.

El Salvador. The *A. aegypti* eradication campaign was completed in 1957. The special verification of the country, conducted from May 1958

to November 1959 with the assistance of PAHO, confirmed the eradication. In 1960, at the XII Meeting of the Directing Council, El Salvador was declared free of *A. aegypti*.[3]

On completion of the special verification, a vigilance service was organized. From 1960 to 1964 the service made a yearly inspection of all localities most exposed to reinfestation, including the capital, San Salvador; all the inspections were negative.

However, during a further inspection made in San Salvador in June 1965, the capital city was found reinfested. It was at first believed that reinfestation was limited to certain areas of the city, and the Government promptly resumed eradication activities there. But once campaign activities were resumed, the situation became better known, and current data show that the problem is far more serious than was at first believed, and that a considerable intensification of the campaign will be necessary.

In December 1965, a complete inspection of the capital indicated that infestation had spread over the entire city, in which there are about 80,000 houses. A survey of a 12-kilometer radius around the capital showed that of the 28 localities inspected, 24 were also infested by the mosquito.

Although it is known that ecological conditions in the remainder of the country are favorable to the mosquito, the situation there is not yet known. However, considering the population density and means of communication, other areas are presumably reinfested by now.

Guyana. After being free of the mosquito for several years, this country became extensively reinfested in 1962, but the Government could not resume the eradication campaign until 1965. To date, activities have been limited to Georgetown, but despite repeated treatment of the city, results have not been satisfactory owing to both technical and administrative difficulties since resumption of the campaign. They include low susceptibility of the mosquito to chlorinated insecticides, the problem of breeding places in inaccessible water deposits, and deficient field work.

Haiti. In this country the campaign was suspended in 1958, and has not yet been resumed.

Jamaica. The *A. aegypti* campaign continued to be limited to control measures at international airports and the port area of Kingston and Montego Bay. The eradication campaign was suspended in 1961, and the Government decided not to resume it because the mosquito is resistant to chlorinated insecticides.

Trinidad and Tobago. The campaign is in the final phase in Trinidad, and except for Port-of-Spain, the island is considered free of *A. aegypti*. The mosquito continues to be found in the port area of Port-of-Spain and in small vessels coming from still infested Caribbean ports. The repeated infestations in the capital in the past three years have been attributed to these vessels. During that time, attempts were made to institute measures to prevent these vessels from continuing to bring in the mosquito, but the problem has not yet been solved.

Tobago continues free of the vector.

United States of America. The campaign in this country was begun in May 1964, but to date work is being done only in part of the presumably infested areas, and the results are still limited.

The area presumably infested by *A. aegypti* measures approximately 1,550,000 km^2, and includes part or all of nine states in the southeastern part of the country, as well as Puerto Rico and the U.S. Virgin Islands. Up to March 1966, 649 counties on the mainland, 56 in Puerto Rico, and 3 in the Virgin Islands were inspected in initial survey. All counties inspected in Puerto Rico and the Virgin Islands, and 248 of those inspected on the mainland, were positive.

Of the initially positive counties, 30 on the mainland, 36 in Puerto Rico, and 3 in the Virgin Islands were treated. After treatment, all were inspected at least once, and at the last inspection all continued to be positive.

Venezuela. Campaign progress in the past four years was hampered by serious administrative and technical difficulties, and the results have been limited. Among the difficulties encountered were:

1. Insufficient funds to permit appropriate coverage of infested areas.
2. Field personnel problems.
3. Reinfestation of localities previously considered negative, by *A. aegypti* imported from other still infested localities, or from the Caribbean area.
4. Almost country-wide mosquito resistance to chlorinated insecticides, which necessitated the use

[3] Resolution IV. *Official Document PAHO* **36,** 15–16.

of more expensive insecticides of shorter residual action than either DDT or dieldrin.

To ensure success the Government is making a complete review of the campaign, and studying the possibility of increasing the budget and adopting additional measures in order to accomplish country-wide *A. aegypti* eradication within six years.

France

French Guiana. A survey made by the Government in 1964 revealed that reinfestation of the capital of that Department in 1963 had covered the city of Cayenne and environs and several localities in the interior of the country. Eradication work, however, has not been resumed to date.

Guadeloupe. The campaign was suspended in 1962, and has not been resumed as yet. The *A. aegypti* campaign continues to be limited to certain control measures at the international airport and island ports.

Martinique. No specific *A. aegypti* eradication campaign has as yet been begun on this island. The Government has been conducting a general insect control program for several years, but as far as *A. aegypti* is concerned the results are limited.

St. Martin. The French part of this island is still negative, but no recent information is available.

Kingdom of the Netherlands

Aruba and Bonaire. Aruba is still negative, but the island of Bonaire, which was reinfested in 1965, is positive.

Curaçao. The island is still extensively infested. Activities against *A. aegypti* continue to be limited to the Willemstad port area, where results are not satisfactory.

Saba and St. Eustace. These two islands continue to be negative, but no recent information on their situation is available.

St. Maarten. The Dutch part of this island continues to be infested, and no work against *A. aegypti* is being done.

Surinam. Eradication work was begun in 1963, but the results obtained up to March 1966 have been very limited. Paramaribo, where most efforts were concentrated, was treated and inspected many times during that period, but the infestation index remained high, owing to the development of mosquito strains resistant to chlorinated insecticides, and also to administrative problems.

In addition to Paramaribo, the international airport of Surinam, the border localities of Albina and Nickerie, and nine small localities near the capital were repeatedly inspected and treated, but in all of them the results were as limited as those in Paramaribo.

Because of mosquito resistance to chlorinated insecticides, fenthion began to be used in May 1966.

United Kingdom

Antigua and Barbuda. The campaign has not yet been resumed in Antigua despite the intensive infestation found in the island in 1964. The Government decided not to resume eradication work until a new insecticide with prolonged residual action became available to replace the chlorinated ones to which the mosquito is resistant.

The island of Barbuda continues to be considered negative.

Barbados. In the last four years only limited progress has been made in eradication work on this island. In 1962 the campaign personnel available was insufficient to maintain the work cycle, and results were therefore not satisfactory. The following year the campaign staff was augmented and their salaries increased, and it was then possible not only to shorten the work cycle but also improve the supervision of field personnel and the quality of work. Nevertheless, the results obtained that year, and those in 1964, were not satisfactory because strains of the mosquito developed resistance to chlorinated insecticides.

The results obtained in the first half of 1965 were better, apparently owing to the change from chlorinated insecticide to fenthion.

The new insecticide began to be used in Bridgetown at the beginning of 1965, and in the rest of the island from April onwards. In December 1964 a total of 1,435 *A. aegypti* infested houses, distributed in 54 positive localities had been found in the island as a whole; in July 1965 the number of positive localities had fallen to 24 and the number of infested houses to 120.

However, from September of that year onward the number of positive localities increased, as did also the number of houses infested with *A. aegypti.* This increased infestation, after the ini-

tial success with the new insecticide, is attributed to shortcomings in field work such as: a considerable number of houses not inspected or treated because they were closed; incomplete or inadequate treatment of many potential breeding places; non-observance of the legislation supporting the campaign approved by the Government; and insufficient funds which deprived the program of sufficient staff to maintain an appropriate work cycle.

Dominica. The campaign in this island is still suspended.

Grenada. This island continues to be negative, but no recent information about the situation there is available.

Grenadines. In this group, Carraicou, Petite Martinique, Bequia, and Union are still infested, and no *A. aegypti* eradication work is being carried out.

Bahamas. The campaign in these islands is still bogged down because of lack of funds and low susceptibility of the mosquito to chlorinated insecticides.

Cayman, Turk and Caicos Islands. The campaign has not yet been initiated in any of these islands.

Montserrat. This island became reinfested in 1964, and despite efforts of the campaign the reinfestation has not been eliminated.

St. Kitts, Nevis, and Anguilla. Nevis continues to be negative, but St. Kitts, which was reinfested in 1964, is still positive and eradication work has not been resumed. Anguilla is also infested, and does not have an appropriate eradication campaign.

St. Lucia. This island is extensively infested, yet campaign activities continue to be limited to Castries, the capital, and to Vigie, the site of St. Lucia's international airport. Owing to mosquito resistance to chlorinated insecticides, and to administrative difficulties, the results have been limited.

St. Vincent. This island was reinfested in 1965 and, according to the latest information available, reinfestation has not yet been eliminated.

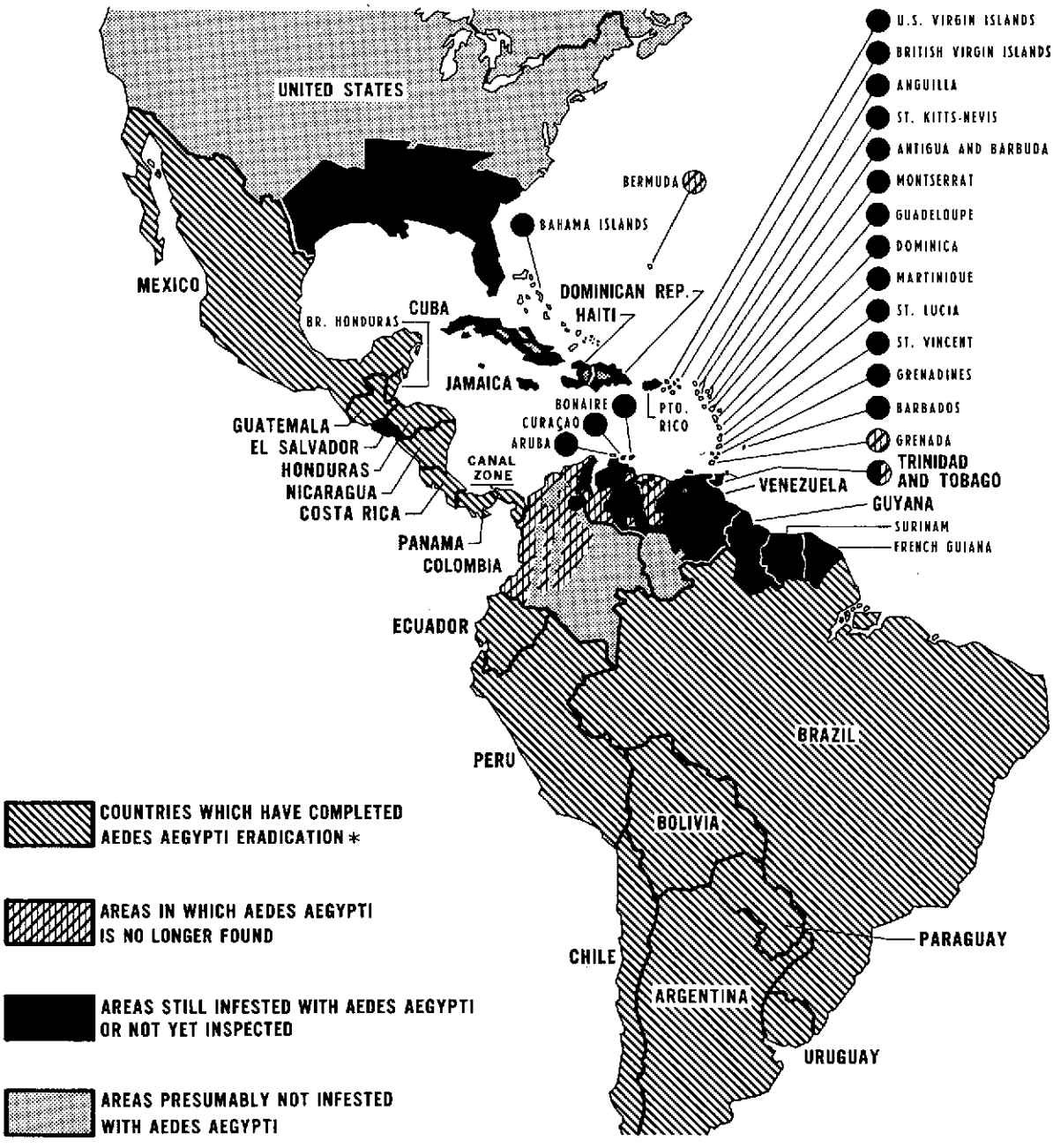
Virgin Islands. The campaign in this territory was suspended in 1963, and has not been resumed to date.

Report on Aedes aegypti eradication campaigns in the Americas, March 1966

Country	Date		Initial presumably infested area		Localities or other units inspected since inception of the campaign					Present status *
						Initially positive				
							Treated			
								Verified		
	Beginning	Last inspection	Total km²	Inspected (%)	Number	Total	Total	Total	Still positive	
Argentina	June 53	Oct. 65	1,000,000	100.0	3,741	165	165	165	—	EV
Bolivia	June 32	Feb. 55	100,000	100.0	282	65	65	65	—	E
Brazil	Jan. 31	Dec. 65	5,358,822	100.0	268,576	36,119	36,119	36,119	—	EV
Chile	June 45	Dec. 65	104,373	100.0	301	48	48	48	—	EV
Colombia	Nov. 50	Mar. 66	280,000	100.0	3,801	355	353	353	1	PA
Costa Rica	Apr. 49	May 55	20,000	100.0	1,342	104	104	104	—	E
Cuba	Mar. 54	Mar. 66	100,000	30.2	1,041	800	792	769	88	PA
Dominican Republic	Oct. 52	Aug 62	42,020	80.4	1,420	351	351	319	15	P
Ecuador	June 46	Dec. 65	69,454	100.0	2,824	337	337	337	—	EV
El Salvador	Apr. 49	Mar. 66	18,675	100.0	r 935	r 208	190	190	r 3	PA
Guatemala	Jan. 49	Mar. 66	36,423	100.0	2,485	138	138	138	—	EV
Guyana	Mar. 46	Mar. 66	4,662	100.0	93	21	21	21	3	PA
Haiti	Oct. 53	Sept. 58	27,750	49.4	2,379	605	602	435	27	P
Honduras	Sept. 49	Mar. 66	69,929	100.0	600	53	53	53	—	EV
Jamaica	Feb. 50	June 65	11,424	100.0	14	12	2	2	2	P
Mexico	Jan. 51	Mar. 66	1,000,000	100.0	4,272	600	600	600	—	EV
Nicaragua	Jan. 50	June 59	65,263	100.0	3,126	18	18	18	—	E
Panama	Feb. 49	June 60	56,246	100.0	2,853	44	44	44	—	E
Paraguay	Jan. 48	Mar. 66	200,000	100.0	1,561	98	98	98	—	EV
Peru	Jan. 40	Dec. 64	638,000	100.0	4,320	191	191	191	—	EV
Trinidad and Tobago	Jan. 51	Mar. 66	3,108	100.0	128	122	122	122	1	PA
United States of America	May 64	Mar. 66	1,536,819	71.0	649	248	30	30	30	PA
Uruguay	Oct. 48	Mar. 66	187,000	100.0	1,020	133	133	133	—	EV
Venezuela	June 48	Mar. 66	710,000	71.8	6,061	694	672	647	77	PA
Anguilla	Apr. 53	June 65	88	100.0	19	19	19	19	18	P
Antigua	Aug. 54	Feb. 64	283	100.0	50	47	47	47	25	P
Aruba	Mar. 52	June 64	174	100.0	9	9	9	9	—	N
Bahamas	June 54	Mar. 66	11,396	1.3	13	10	10	10	10	PA
Barbados	Mar. 54	Mar. 66	171	100.0	99	98	98	98	34	PA
Bermuda	Jan. 51	1963	53	100.0	9	9	9	9	—	N
Bonaire	Sept. 52	Mar. 66	246	100.0	6	6	6	6	1	PA
British Honduras	Oct. 50	July 59	22,965	100.0	84	2	2	2	—	E
Caiman Island	—	—	259	—	—	—	—	—	—	P
Canal Zone	1948	Feb. 66	1,432	100.0	21	2	2	2	—	EV
Curaçao	Oct. 51	Mar. 66	448	100.0	5	5	5	5	5	PA
Dominica	Feb. 51	June 65	789	50.0	136	66	66	66	16	P
Grenada	Nov. 52	July 59	311	100.0	8	8	8	8	—	N
Grenadines	Nov. 52	June 62	65	100.0	7	5	5	5	4	P
Guadeloupe	Jan. 57	Oct. 61	1,619	4.9	53	38	38	27	20	P
French Guiana	May 49	Mar. 64	91,000	100.0	222	55	55	55	3	P
Martinique	Nov. 53	Mar. 66	1,000	100.0	34	21	19	19	18	PA
Montserrat	May 56	Feb. 66	83	100.0	33	16	16	16	3	PA
Puerto Rico	Sept. 64	Mar. 66	8,896	73.6	56	56	36	36	36	PA
Saba, St. Eustace	July 58	Aug. 59	31	100.0	16	15	15	15	—	N
St. Kitts-Nevis	Apr. 53	June 65	308	100.0	43	43	43	43	7	P
St. Lucia	May 53	Mar. 66	259	100.0	50	50	50	50	37	P
St. Martin	Dec. 58	Mar. 64	34	100.0	18	15	15	15	15	P
St. Vincent	Mar. 53	Feb. 65	332	100.0	8	8	8	8	...	P
Surinam	Dec. 62	Mar. 66	48,000	31.0	30	29	24	24	24	PA
Turks and Caicos Islands	—	—	430	—	—	—	—	—	—	P
Virgin Islands (UK)	Mar. 60	Feb. 63	174	74.6	23	23	23	23	8	P
Virgin Islands (US)	Aug. 64	Mar. 66	344	100.0	3	3	3	3	3	PA

*A = Program in operation; E = *A. aegypti* declared eradicated; N = Negative; P = Positive; V = Under vigilance; r = revised data; — = Nil or no change ... = No data available.

STATUS OF THE AEDES AEGYPTI ERADICATION CAMPAIGN
MARCH 1967



* ERADICATION CARRIED OUT ACCORDING TO THE STANDARDS ESTABLISHED BY THE PAN AMERICAN HEALTH ORGANIZATION

Annex 7

MENTAL HEALTH PROGRAM [1]

Mental health—regarded as a state of intrapsychic balance and of harmonious interpersonal relations and social adjustment—is an essential component of total health and its loss, resulting in mental illness and personality maladjustment, constitutes a serious public health problem. Mental conditions have a direct bearing on general morbidity and mortality rates, and an indirect bearing on other sectors which, though not immediately related to collective health are nevertheless closely linked with it, such as economic development and social welfare.

In the United States of America various epidemiological studies have been made on the prevalence of mental disease, and have revealed that between 0.4 and 0.8 per cent of the adult population suffer from psychoses, and between 1.6 and 30 per cent from neuroses. In 1958, a survey made of a population sample in Santiago, Chile, showed that the morbidity rate for psychoses was 1.4 per cent, and for neuroses, 30 per cent. In 1960, in Mexico, the first national survey of neurologic and psychiatric patients indicated a prevalence of neurologic and psychiatric diseases of 4.33 per cent among the total population, while in Mendocita, a suburb of Lima, Peru, the prevalence rate of psychoses was 3.27 per cent.

Specific problems such as alcoholism and epilepsy have aroused the interest of several researchers in Latin America. The previously mentioned survey in Chile disclosed a 2 per cent prevalence of epilepsy among the general population, and the study made in Mendocita revealed a similar rate.

In regard to alcoholism, the following prevalence figures were found in random sample studies of the adult population: Santiago, Chile, 5 per cent (1954, 1956, and 1958); Mendocita, Lima, Peru, 8.8 per cent (1958); Riberão Prêto, 6.4 per cent; Mexico City, 1.2 per cent (1964); and in a suburb of Santiago, Chile, 15 per cent.

Homicide mortality rates were over 20 per 100,000 population in several countries of Latin America, an alarmingly high figure.

Although the data given are not comparable because of differences in method and the fact that the samples were selective in some cases, nevertheless a certain uniformity can be noted in these findings, particularly with regard to global rates for psychoses and neuroses, and these at least give a rough indication of the seriousness of the situation.

However, mental health problems exist throughout the world and the World Health Organization has recognized this ever since its foundation, as evidenced by its interest in solving such problems. The WHO Expert Committee on Mental Health has held 13 meetings since 1948, and has produced a series of important documents which deal with the most varied mental health topics, ranging from guidelines for drawing up mental health programs, to training in psychiatry and mental health, and studies of the role of the general practitioner and the public health physician in this field. In addition, the Organization has participated in joint committees and study groups with the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the International Labour Organisation (ILA), to discuss such specific subjects as the mental health aspects of adoption and of the peaceful uses of atomic energy, juvenile epilepsy, and others. In addition to the above-mentioned Expert Committee, the Organization also has an Expert Committee on Alcoholism and an Expert Committee on Dependence-Producing Drugs.

In the field of research, WHO has begun a program that includes the promotion of epidemiological studies, as well as certain aspects of social psychiatry and of biological psychiatry.

The Pan American Health Organization has convened three seminars [2] at which the main mental

[1] Document CSP17/15 (16 August 1966).

[2] Published in Spanish in *Scientific Publications PAHO* **81** and **99.**

health problems in the Region were examined, and at which a preliminary inventory of resources available in this field was made. The various aspects of research and of personnel training were also discussed. All three seminars emphasized the need for integrating public health activities with mental health programs.

In 1964 the Organization convened a Study Group on the Epidemiology of Mental Diseases in Latin America, which met in Washington, D.C. The Group recommended investigations of this nature at the international level, especially in regard to epilepsy.

In 1960 a Latin American Seminar on Alcoholism was held in Viña del Mar, Chile, under PAHO auspices, and in June 1966 a Study Group on the Epidemiology of Alcoholism in Latin America met in San José, Costa Rica. During the latter meeting, general guidelines were formulated for an international study on the frequency of alcoholism, alcoholic beverage consumption habits, attitude of the public toward alcoholism, and the economic and health effects of the disease.

The Organization has given direct assistance to several countries of the Region in the form of short-term consultants, and in cooperation with other agencies has supported special investigations in this field in two countries.

A review of data collected throughout the Hemisphere has made it clear that one of the most pressing problems is the lack of qualified personnel. The shortage concerns not only psychiatrists, but also psychiatric nurses, clinical psychologists, psychiatric social workers, and occupational therapists. In countries where the shortage is not so severe, specialists tend to concentrate in large cities to the detriment of smaller cities or rural areas. Very few centers are equipped to train personnel, and students must therefore frequently be sent abroad. This has the obvious drawbacks of uprooting the student, changing his cultural environment, and requiring him to use a foreign language.

In most countries of the Region mental patients are cared for almost exclusively in psychiatric hospitals, which are usually of a custodial nature and offer little opportunity for active treatment and rehabilitation. Even so, this kind of care covers only a fraction of the population. Almost no country in the Region attains the minimum figure of one psychiatric bed per 1,000 population. Psychiatric services in general hospitals and the other activities included in so-called social psychiatry or mental health community services are in a very early stage of development or simply nonexistent, except for two countries. The same may be said of preventive activities and child psychiatry services.

Yet it is precisely such integrated community services that could carry on suitable preventive work by giving prompt assistance and performing effective rehabilitation. Preference should therefore be given to the establishment of such services over the building of psychiatric hospitals, as is the traditional practice. Mental health prophylaxis is capable of producing significant results, particularly when applied in childhood through the family and the school. Many mental disorders in adults could be prevented by appropriate handling of environmental situations or prompt treatment of the relatively simple pathogenic conditions which may occur in childhood.

In the field of research there are many opportunities for studies, some of which could be begun immediately with the resources now available. Epidemiological studies could be made, among others, with the aim not only of defining the frequency and distribution of mental diseases, but also of checking theories concerning their etiology. Studies of the psychological effects of serious malnutrition, of the effects on mental health of living in slum areas, of genetic influences, public attitudes, and other factors of this kind could be the subject of serious research, some even of an international nature.

The development of a national mental health program and the attainment of a rational utilization of resources require the establishment of an order of priorities. In view of the present situation in most countries, the following order of priorities is proposed, bearing in mind that local conditions in a given country may render certain modifications necessary:

1. *Personnel Training*

Training of psychiatrists by three-year residency program, not to be limited to clinical experience in hospitals, but to include also work in general hospitals, community psychiatric services, and child psychiatry services.

Training of graduate nurses in psychiatry and mental health, with practice in the network of community psychiatric services.

Specialization of general psychologists in clinical

psychology, school psychology, and industrial psychology.

Training of psychiatric social workers.

Training of occupational therapy technicians.

Training in mental health of general practitioners, and of public health physicians and nurses.

2. *Establishment of Preventive and Treatment Services*

Community mental health centers, psychiatric dispensaries, behavioural clinics, day hospitals, special centers for alcoholics, epileptics, etc.

Psychiatric wards in general hospitals.

Psychiatric hospitals.

3. *Research*

General epidemiological research.

Studies on such special problems as the epidemiology of alcoholism, epilepsy, accidents, homicides, etc.

Studies on the living conditions of the inhabitants of slum districts and their influence on mental health.

Studies on the attitude of the general public toward mental illness, psychiatric institutions, drinking of alcoholic beverages, etc.

Influence of malnutrition on mental health.

Genetic studies.

Therapeutic measures.

Research on cerebral function.

Other studies (hallucinogenic drugs, communication, old age problems, population growth and mental health, etc.).

The implementation of a program of this kind at the national level requires the cooperation of both official and private sectors, as well as of universities and specialized schools. A coordinating body will be needed to integrate these programs with national health plans. Approximately one half of the countries of the Region now have mental health sections, departments, or divisions within their ministries of health which are fulfilling these functions either in part or in whole.

Annex 8

ASPECTS OF HEALTH RELATED TO POPULATION DYNAMICS [1]

The health aspects of population dynamics have emerged in recent years as important elements of decision-making on the planned development of human and material resources.

The responsibilities of PAHO/WHO in these matters were defined in the resolutions of the Eighteenth and Nineteenth World Health Assemblies [2] and the XVI Meeting of the PAHO Directing Council.[3]

The Inter-American Economic and Social Council adopted policy positions on population at its Third Annual Meeting at the Ministerial Level (Lima, Peru, 1964) and stated its concern at the Fourth Annual Meeting (Buenos Aires, 1966), through the adoption of a resolution on the matter.[4]

All these resolutions provide specific guidelines for PAHO and WHO in population matters. They establish the Organization's role of providing advisory assistance to Governments, and state "that it is not the responsibility of WHO to endorse or promote any particular population policy," and "that it is a matter for national administrations to decide whether and to what extent they should support the provision of information and services to their people on the health aspects of human reproduction."

In compliance with the resolutions of the PAHO/WHO Governing Bodies a program of education of

[1] Document CSP17/16 (25 July 1966).

[2] Resolution WHA18.49. *Off. Rec. Wld Hlth Org.* **143,** 35, and Resolution WHA19.43. *Off. Rec. Wld Hlth Org.* **151,** 20-21.

[3] Resolution IX. *Official Document PAHO* **66,** 62-63.

[4] Resolution 11-M/66. *OAS Official Records,* OEA/Ser. H/XII.11 (Eng.), p. 24.

professionals from the various disciplines and of research is being developed. Fertility has emerged as a new dimension in social, economic, and health planning and program development. The priorities in research programs in this field would seem to be in the area of population dynamics and related health concerns.

Based on these considerations, the program of PAHO, in health and population dynamics has been established. It deals with three major areas: education and training with a multidisciplinary approach; research; and advisory services.

The education and research training program was developed in 1965 in collaboration with the School of Public Health of the University of Chile, the Department of Applied Statistics of the School of Hygiene and Public Health of the University of São Paulo, and the Latin American Demographic Center (CELADE).

The first pilot course on health and population dynamics will be given at the University of Chile from 1 August-30 November 1966, and is entitled: "Programa de investigación y docencia en salud y dinámica de la población." The visiting faculty include professors from the Universities of North Carolina, Harvard, and Princeton (USA), and São Paulo, Brazil. The Milbank Memorial Fund will make available for consultant services a senior member of its staff. This course is primarily for faculty of medical schools. During this course it is hoped that guidelines for the teaching of demographic statistics in medical schools will be developed. Fifteen-month courses in the School of Public Health will provide for specialization in health and population, research, or demography. In São Paulo the instruction will be given for university graduates wishing to specialize in population who will qualify as teachers and research workers in demography and population in universities, institutions, or government departments.

Agreements have been signed in Chile and São Paulo for the initiation of these programs in 1966. Supplementary grant assistance has been provided by the Agency for International Development of the United States of America. The purpose of these programs is to provide advanced education and research training in health aspects of population dynamics for teachers and public health officers throughout Latin America. It is expected that additional centers may be required to meet national and regional manpower training requirements.

RESEARCH

The second field in which the Organization is developing its program is in research. PAHO and WHO are combining their resources and are supporting research projects to be initiated in 1966 in Peru and São Paulo. Epidemiological studies of populations and especially of women of the childbearing age will be undertaken to obtain data through current observation as well as from histories. Records regarding pregnancies, menstrual periods, dates and termination of pregnancy, breast feeding, abortions and fetal deaths, live births, and deaths in these families will be obtained currently.

In addition to extending education on health and population dynamics to the medical profession, another objective of the above-mentioned education and training programs is to promote research in this field through medical schools and other medical institutions in Latin America. As a result of instruction, observation, and participation in research through these programs, it is expected that research projects will be undertaken in many communities.

It is of interest to record that the content and scope of research policy and program on population for the Organization was first suggested at the Third Meeting of the PAHO Advisory Committee on Medical Research (June 1964), as follows:

> The Committee advised that the immense importance of the problems of the growth of human populations called for studies of the highest quality and should include studies of human reproduction, hereditary and environmental factors in sterility and fertility, preventable malformations; demographic studies of live births, abortions, fetal and maternal deaths, and studies of family size and constitution in relation to socio-economic factors in urban and rural communities. It would also necessitate training in epidemiology and demography in relation to socio-economic development in schools of medicine and public health, and a search for improved methodology in the analysis of demographic data. The Committee concluded that the investigation should be related to epidemiological studies of the problems of immediate importance, such as the improvement in maternal and child development, urbanization, natural resources, etc.

To secure the counsel of population experts and to exchange information on research, training, and advisory activities in population of foundations, universities, U.S. Government agencies and international agencies, including the Organization of American States and the Inter-American Committee on the Alliance for Progress (CIAP), among others, the Organization convened two conferences on 7 January 1965 and 3 January 1966. The report

of the second conference recommended that PASB establish a permanent center for the exchange of information on population and health as a needed service to all interested agencies thus facilitating cooperative interinstitutional and intercountry programs.

In compliance with resolutions adopted by the Directing Council and World Health Assemblies, the Organization has established an Office of Health and Population Dynamics. The Office is responsible for liaison with other official and voluntary agencies working in this field, and for coordination of all population activities of the Organization.

Plans are now under way, with support of an AID grant to develop a Population Information Center, adapting its programs from the experience of the PAHO Medical Education Information Center (MEIC) which has functioned for 14 years, providing liaison and coordinating services to foundations, universities, government, international, and other agencies. Its annual reports on fellowship awards and visiting professorship and research grants provide inventories of international cooperation with and assistance to medical schools in the Americas. The Population Information Center will offer similar services in the population field.

In summary, the Pan American Sanitary Bureau, in accordance with policy resolutions of the Directing Council and the World Health Assembly, has organized a program of education, training, and research services on the health aspects of population dynamics.

Annex 9

RESEARCH POLICY AND PROGRAM OF THE PAN AMERICAN HEALTH ORGANIZATION [1]

The past four years have witnessed the expansion and intensification of the research program of the Pan American Health Organization, which began with the establishment of the Office of Research Coordination at the end of 1961, and the appointment of a 15-member PAHO Advisory Committee on Medical Research (PAHO/ACMR). The role of the Office, which was initially supported by a planning grant from the National Institutes of Health of the United States Public Health Service, was recognized as being fundamental to the promotion of research. Steps were therefore taken in 1964 to ensure its continuity by including its financing in the PAHO regular budget.

The main thrust of the program has been the stimulation given those fields of biomedical research and research training that are related to the objectives of the Organization. Within the guidelines provided on a periodic basis by the Advisory Committee and the recommendations of consultants, the Office of Research Coordination has implemented the Organization's policy: (a) by identifying research problems and opportunities, with particular emphasis on projects susceptible to multicountry collaborative effort; and (b) by exploring the possibilities of obtaining financial support for research projects meeting the standards prescribed by granting agencies.

These efforts have resulted in the stimulation of a series of research projects in such broad fields as nutrition, communicable diseases, zoonoses, environmental health, and scientific communication, and in specific areas such as endemic goiter, nutritional anemias, epidemic typhus, plague, schistosomiasis, arboviruses, Chagas' disease, population genetics, dental health, radiation hazards, and, recently, in public health research policy at the national level.

To accelerate those research programs that call for the standardization of methodology, reagents, techniques, and the training of research personnel, the Organization has established four reference

[1] Document CSP17/17 (29 July 1966).

laboratories and training centers. Research in immunology, nutritional anemias, endemic goiter, and Chagas' disease has been considerably aided by the facilities provided by the PAHO/WHO Immunology Research and Training Center (São Paulo, Brazil); the PAHO/WHO Reference Laboratory and Training Center for Applied Research in Nutritional Anemias (Caracas, Venezuela); the PAHO Reference Laboratory and Training Center for Iodine Determinations in Endemic Goiter Research (Santiago, Chile); and the Center for the Production and Control of Antigens for the Laboratory Diagnosis of Chagas' Disease (also in Santiago).

At each of the annual meetings of the PAHO/ACMR, beginning with the second, a special session has been devoted to the discussion of a topic selected by the Committee because of its particular relevance to existing and emerging health problems that need to be explored. A full day is set aside for the evaluation of a single field of scientific endeavor by an especially selected international panel of experts, whose conclusions and recommendations will facilitate future action in public health. Four areas of inquiry were analytically and critically reviewed: In 1963, in appraising the research needs in tuberculosis, the Committee found that "whereas knowledge concerning the epidemiology, immunology and chemotherapy of the disease is so precise that highly effective methods of prevention and treatment can be devised, there are a number of difficulties in the way of the practical application of these methods that limit their usefulness, especially in population groups of low economic status." This evaluative review identified three areas that offer opportunities for research, namely, chemotherapy, vaccination, and nutrition, and indicated study problems in each of them.

The following year, the special session focused on the issues posed by the development of "shanty towns," on the difficulties of providing their inhabitants with even minimal living standards, and on the problems of the adaptation of rural populations to urban environment or, perhaps, of adapting that environment to communities of rural origin; and defined the ecological, social, organizational and economic factors influencing the success or failure of efforts to improve conditions. The proceedings of this session were published under the title *Environmental Determinants of Community Well-Being.*[2]

In 1965, those factors in deprivation which are known or likely to influence mental development and intellectual functions were discussed by a distinguished group of scientists and by the Committee in the context of newer concepts of the molecular and neuro-cellular processes of coding and information storage. Although opportunities for studying deprivation problems at the molecular-cellular level are available everywhere, the Committee indicated that "there exist in Latin America circumstances deriving from special social and cultural conditions which are unique and which make possible studies of the effect of these factors on psychobiological development in man. These include mass cultural studies to delineate crucial dimensions of deprivation and critical ages at which these can occur; ways in which deprivation is or is not associated with maternal or parental care; and policies and methodologies of nutrition as these relate to health and child care." The papers and discussions of this special session have been recorded in *Deprivation in Psychobiological Development.*[3]

The most recent special session, which was held on 15 June 1966 with Dr. Alberto Hurtado as Moderator, dealt with "Life at High Altitudes," a subject of considerable scientific interest, particularly for Latin America, where several million people live at elevations of over 3,000 meters. Under such environmental conditions man is known to develop adaptive mechanisms whose patterns are markedly different from those found at sea level. In addition to the state of chronic hypoxia induced by the low partial pressures of oxygen in the inspired air, the populations of these areas are characterized by marked differences in incidence and manifestations of certain diseases which are of clinical and public health importance. The Committee examined these aspects in the light of recently acquired knowledge and pinpointed the areas for further research and the opportunities for additional studies in Latin America. The working documents of this session have been published in *Life at High Altitudes.*[4]

For the meeting in 1967 the PAHO/ACMR requested that the special session be held on the subject of "Immunological Aspects of Parasitic Infections" to review current status of research, and to explore those aspects of the subject about which more knowledge is needed. The session will be

[2] *Scientific Publication PAHO* **123.**

[3] *Scientific Publication PAHO* **134.**

[4] *Scientific Publication PAHO* **140.**

centered around two of the diseases of priority importance in the Western Hemisphere, namely, Chagas' disease and schistosomiasis. In addition, the Committee selected the subject of drug resistance in malaria to be presented *in extenso* at the same meeting, with specific reference to the urgent need for further research in Latin America.

At the recommendation of the Committee, a Study Group was convened in 1964 to examine national policies for biomedical research in the Americas. The purpose of the inquiry—as outlined in the study design—"was not to examine the state of research itself—that is, the areas of investigation, the relative strengths of various fields, and so forth—but rather to study the general conditions under which research is conducted, the factors in various countries that tend to promote or retard research or to influence the field of investigations, the formal organizations for research, and the attitudes of governments toward research. The inquiry was directed toward biomedical research, but the nature of science is such that it was not possible or desirable to confine it to that field alone." The report of the Study Group has now been published and distributed as *Science Policy in Latin America: Substance, Structure, and Processes.*[5]

In 1965 the Committee considered the desirability of analyzing the factors involved in the international migration of scientists, in particular the problems faced by many Latin American countries as a consequence of manpower losses through migration of trained health personnel. Of special significance are the qualitative aspects of this movement where losses of scientific leaders occur whose potentialities for developing fields of biomedical science in Latin America have not been fully realized. A Subcommittee on Migration was constituted late in 1965 to study the factors involved in this migration and to make pertinent recommendations. The preliminary report of the Subcommittee was presented by a group of consultants to the Fifth Meeting of the PAHO/ACMR on 13 June 1966. In its report to the Director (see Appendix) the Committee agreed that it was not desirable to reduce migration by increasing the restrictions already existing but that a most rewarding approach may lie in improving the working conditions for biomedical scientists in Latin America. A number of specific recommendations were given designed to moderate the heavy drainage of trained manpower from Latin America.

In order to obtain a panoramic view of the Organization's research program, it was deemed desirable to prepare for the PAHO/ACMR detailed summary reports of each of the 90 research projects stimulated, coordinated or financially assisted by PAHO since 1961. Such a compilation has been issued in Document RES 5/8.[6]

At the end of a four year period of operation, it would appear that it might be timely to consider an examination of the stability, equilibrium and direction of the PAHO research program and to consider methods by which increased support of research projects of critical importance to the health of the Americas might be financed in accordance with priorities as indicated by the health needs of the Americas.

[5] *Scientific Publication PAHO* **119.**

[6] *PAHO Research Activities, 1961–1966—A Summary,* 188 pp., 1966.

Appendix

PAHO ADVISORY COMMITTEE ON MEDICAL RESEARCH

Report to the Director, 1966 [1]

The Director opened the Fifth Meeting of the Pan American Health Organization Advisory Committee on Medical Research, welcomed the Committee to the new PAHO headquarters building, and introduced the newly appointed members, Drs. Otto Bier and James V. Neel. He then commented briefly on the agenda and noted that, on the occasion of this Meeting, the Secretariat had issued a five-year summary report of PAHO research activities.

Dr. René Dubos was appointed Chairman, Dr. Marcel Roche, Vice-Chairman, and Drs. John C. Waterlow and Roberto Caldeyro-Barcia, Rapporteurs.

PAHO RESEARCH ACTIVITIES: 1961–1966

The Committee heard the review presentation of the PAHO research program for the years 1961–1966.

The main thrust of the program has been the stimulation of those fields of biomedical research and research training that are related to the objectives of the Organization. Within the guidelines provided on a periodic basis by the PAHO/ACMR and the recommendations of consultants, the Office of Research Coordination has implemented the Organization's policy by identifying research problems and opportunities, particular emphasis being placed on projects susceptible to multicountry collaborative effort; and by exploring the possibilities of obtaining financial support for research projects meeting the standards prescribed by granting agencies.

These efforts have resulted in the stimulation of a series of research projects in such broad fields as nutrition, communicable diseases, zoonoses, environmental health, and scientific communication, and in specific areas such as endemic goiter, nutritional anemias, epidemic typhus, plague, schistosomiasis, arboviruses, Chagas' disease, genetics of primitive populations, dental health, radiation hazards, and, recently, in public health research policy at the national level.

To accelerate those research programs which call for the standardization of methodology, reagents, techniques, and the training of research personnel, the Organization has established four reference laboratories and training centers. Research in immunology, in nutritional anemias, in endemic goiter, and in Chagas' disease has been considerably aided by the facilities provided by the PAHO/WHO Immunology Research and Training Center (São Paulo, Brazil); by the PAHO/WHO Reference Laboratory and Training Center for Applied Research in Nutritional Anemias (Caracas, Venezuela); by the PAHO Reference Laboratory and Training Center for Iodine Determinations in Endemic Goiter Research (Santiago, Chile); and by the Center for the Production and Control of Antigens for the Laboratory Diagnosis of Chagas' Disease (also in Santiago).

At each of the annual meetings of the Committee, beginning with the second, a special session has been devoted to the discussion of a topic selected by the Committee because of its particular relevance to existing and emerging health problems that need to be explored. A full day is set aside for the evaluation of a single field of scientific endeavor by a specially selected international panel of experts, whose conclusions and recommendations will facilitate future action in public health. Three areas of inquiry have thus been analytically and critically reviewed: tuberculosis, environmental determinants of community well-being, and deprivation in psychobiological development.

The Committee expressed its appreciation for the excellent research program developed by PAHO and for the clear, concise, and very informative document issued by the Office of Research Coordination. It suggested that a list of publications resulting from that research be compiled and distributed and that a similar policy be followed in future reports presented to the Committee.

MIGRATION OF HEALTH PERSONNEL, SCIENTISTS, AND ENGINEERS FROM LATIN AMERICA

The very well documented reports on the migration of scientists prepared for the PAHO Subcommittee on Migration by its Executive Secretary and by Consultants were welcomed by the Committee.

The migration of skilled persons from Latin America to the United States of America represents a permanent loss of trained manpower. The Committee recognized that an equally heavy damage occurs in other countries, particularly those of Western Europe. Special significance was attached to the migration of scientific leaders with potentialities for developing areas of biomedical research which in Latin America are still in the embryonic stage.

The Committee agreed that it was not desirable to reduce migration by increasing the restrictions already existing in the United States but emphasized that the most rewarding approach is to improve the working conditions for biomedical scientists in Latin America. To this end, the following steps—some of which should be jointly sup-

[1] Document RES 5/19 (8 July 1966).

ported by responsible authorities and agencies of the United States and Latin America—are recommended:

Strengthening of Centers for Research and Advanced Training Already Existing in Latin America

The recommended bases for selecting the centers [2] to be supported are: accomplishments in research and training in the biomedical sciences, potential for development, and fulfillment of basic conditions of organization, such as those stipulated by the Latin American Association of Physiological Sciences (ALACF) or by the Pan American Federation of Associations of Medical Schools (FEPAFEM). It is advised that PAHO support the organization of new centers in places where well-trained scientists are available and willing to go into full-time research and advanced training.

In order to augment the links between the existing centers in Latin America and to implement an international system which will be the substrate for a "scientific common market" for Latin America, it is recommended that PAHO:

1. Provide staff assistance and funds to develop this international network of centers.
2. Coordinate the efforts of the centers to better serve the needs of biomedical research and research training in Latin America.
3. Provide research and training fellowships enabling Latin American candidates to be trained in these centers.
4. Promote the free exchange of teaching and research staff among the collaborating centers.

With respect to the above, it is suggested that advice be obtained from Latin American scientific associations (such as ALACF) that could act as consultants to the program. The FEPAFEM could cooperate in the operation of such projects.

The Committee also recommends that PAHO support efforts currently being made in Latin America towards establishing a system for awarding Ph.D. degrees in the biomedical sciences. Such degrees should be recognized by all the cooperating centers and eventually by all Latin American universities.

Maintenance of U.S. Support of Science in Latin America

The agencies of the Government of the United States of America support research in Latin America to attain limited objectives, namely, the furtherance of the defined research goals of those agencies. However, an unintended but significant consequence of this support, from the viewpoint of the Latin American countries, is to sustain the vitality of many of their most outstanding research institutions. The most important measures taken by the United States to forestall migration of scientists and to repatriate scientists have been the support of scientific research in Latin America. Withdrawal of this support would in turn result in the collapse of many laboratories and in the migration to the United States of a substantial part of the scientific talent of Latin America.

To the extent that the policy of the United States of America includes the strengthening of science and of universities in Latin America, the trend of research support should be viewed in a wider context than the specific, limited objectives of the separate agencies of the United States Government.

The Committee recommends that PAHO address these agencies to emphasize how vitally important to the future of the Western Hemisphere is the maintenance of support from the United States of America to biomedical research in Latin America.

Visiting Professors to Latin America

It is recommended that PAHO support a program of visiting professors providing they stay for periods long enough to enable a core of Latin American investigators to continue the work by themselves. This has already proven to be a most rewarding procedure for raising scientific standards in Latin America. In addition, it creates further links for reciprocal understanding between established scientific communities of other areas of the world and emerging ones in Latin America.

The success of this program is best assured if it is addressed to a selected group of postgraduate students.

Support of Existing Latin American Scientific Journals

It is recomended that PAHO support those scientific periodical publications which are Latin American in scope (not local or national journals) and which meet acceptable levels of editorial standards and scientific quality (such as the *Acta Neurológica Latinoamericana*, and the *Acta Physiologica Latino-Americana*). The suggested approach is the purchase through PAHO for a two- to three-year period of a sufficient number of subscriptions for their distribution among universities and libraries in the United States of America, Europe, and Latin America in order to make the scientists in those areas aware of the research accomplishments of Latin America.

The procedure may lead to the continuation of subscriptions by the libraries themselves if the quality of the journals is such as to arouse the interest of the local scientists.

Survey of Biomedical Research in Latin America

It is recommended that PAHO sponsor a survey of research and teaching in the basic medical sciences in Latin America. A similar survey was done by PAHO in 1957-1958 at the request of ALACF. The Association is willing to cooperate in a second survey since it is highly desirable to learn the changes that have occurred after a ten-year period.

[2] These centers can be departments, institutes, faculties, or research groups having a strong educational component and preferably associated with universities, although the latter requisite should not be indispensable. The basic budget of these centers should be provided by local funds; however, supplemental funds from U.S.A. agencies and private organizations are indispensable for the successful operation of such centers, particularly for purchase of permanent equipment and consumable supplies (usually U.S. manufactured) but also for salaries of scientific personnel and technicians. The U.S. funds may be provided as research grants, training grants, etc.

Information Center on Migration of Trained Scientific Personnel

It is recommended that PAHO establish a center for drawing together and analyzing all existing statistics and studies relating to the movement of health personnel to and from Latin America, and for stimulating the production and publication of improved statistics and of additional relevant studies. This information is of utmost importance to monitor trends of migration and evaluate the efficiency of the procedures recommended for strengthening biomedical sciences in Latin America as well as to prevent excessive drain of Latin American scientists.

PUBLIC HEALTH RESEARCH IN ARGENTINA

At the time of the Fourth Meeting of the PAHO/ACMR, plans for a public health research program in Argentina were in their initial stages. The Committee noted the progress that has occurred since then.

The program is based on the fundamental principle that, although it is the responsibilty of ministries of health to decide the general research policy and to provide the funds, the administration and execution of the program should be in the hands of a scientific body—in this case the Argentine National Council for Scientific and Technical Research (CNICT). In the past the CNICT has been concerned mainly with the basic medical sciences and, in order to assume responsibility for research in public health, its structure will have to be enlarged.

The Committee discussed this program in relation to the general question of the organization of science in the community. It was unanimously agreed that it represents an excellent example of the way in which government and scientific bodies should collaborate. It also exemplifies the marriage of basic and applied science, with benefits likely to ensue to both parties.

The Committee hoped that programs organized on the same basic principles would be developed in other Latin American countries.

NUTRITIONAL ANEMIAS

The study of nutritional anemias in Latin America is part of the world-wide WHO program and serves as a pattern for collaborative studies in other areas of the world. Active collaborators have been enlisted in Colombia, Guatemala, Mexico, Trinidad and Tobago, and Venezuela, and future ones have been identified in Argentina, Brazil, Chile, Paraguay and Peru.

The first step has been the establishment of a reference laboratory in Caracas for the standardization of methods and for training. As new collaborators become available, it will be possible for the investigator and a senior technician to learn the techniques in Caracas. It is hoped that one outcome of this study will be that each country will have its own central laboratory capable of doing the necessary assays and hematological examinations.

The general plan of the program was outlined by the consultants. It is known or suspected that nutritional anemia is prevalent in many countries of Latin America. The first objective is to define the status of the population in respect to those nutrients—iron, folic acid, and vitamin B_{12}—the lack of which is associated with anemia. The study will be concentrated on the most vulnerable groups: pregnant women and infants. Information will also be obtained about tissue iron stores by measurements on samples obtained at autopsy of accidental deaths. At a later stage attention will be given to questions of etiology, and to possible causal factors such as hookworm infection, poor absorbability of iron in local foodstuffs, destruction of folic acid by cooking, failure of absorption through intestinal lesions, etc. It is hoped that as the study progresses and the collaborators become more experienced, they will begin to investigate in depth those aspects which are of most importance in their own countries.

The Committee endorsed this program, with the following recommendations:

1. From the beginning as much attention as possible should be paid to the selection of population samples, so that valid estimates of prevalence can be made.
2. As far as facilities allow, causal or concomitant features such as hookworm load and nutritional status should be included as part of the study.
3. If iron deficiency is disclosed as an important cause of anemia in the region, PAHO will have to examine the question of the fortification of commonly used foodstuffs with iron in a readily usable form.
4. An important aspect for future study is the effect of anemia on working efficiency and productivity. The physiological studies being conducted at INCAP are relevant to this problem.
5. A meeting of the collaborating investigators should be convened to explore the further lines of work that will be needed on the basis of the results obtained in the first stage of the study.
6. Since this is a long-term program, it is important that continuing financial support be made available.

ENDEMIC GOITER

The endemic goiter research program is now in its fifth year. At the beginning the major problems relating to this disease were identified. These included the need for more survey information, the application of newer methods of study, and the relationship existing between endemic goiter and cretinism, short stature, deaf-mutism, and mental retardation. Participating scientists from Brazil, Chile, Ecuador, Mexico, and Venezuela were brought into a broad program of investigation. These scientists, together with consultants, met in Caracas in 1963 for a pooling of accumulated experience and projection of research activities. At the Caracas meeting the recommendation was made that an iodine reference laboratory be established. This has now been done in Santiago, Chile, through a grant from the Williams-Waterman Fund.

The study group met for a second time in Cuernavaca, Mexico, in 1965. Again the scientific accomplishments of the participating groups were reviewed. Particular emphasis was placed on the definition of cretinism, uni-

formity of standards of measurement, and the need for a broadened scope of the educational activities of the participants. Experimental prophylaxis programs with iodinated oil were proposed. The first of these took place in Ecuador in March 1966. At that time iodinated oil was given to approximately 800 subjects in an isolated community. Information from this group and from a control group was obtained on growth and development, mental status, and the presence of thyroid disease. Further observations from this study will provide knowledge regarding the effects of iodine deficiency, particularly on the growth and development of the children born in this area. A similar study is about to start in Peru as a collaborative program undertaken jointly by PAHO, the Ministry of Public Health and Welfare, and the Cayetano Heredia School of Medicine.

In June 1965, as a further result of the recommendations of the Caracas meeting, a conference on the iodization of salt was held in Salta, Argentina: Up to that time only 3 out of 17 Latin American countries had adopted a program of salt iodization. At the Salta meeting representatives of the salt-producing industry in many countries met with technical and public health workers to discuss the commercial and legislative problems which were hampering the prophylaxis program. Iodinated oil was regarded by the Committee as an adjunct to the main program. It is likely to be particularly useful in remote rural areas where salt is not distributed commercially.

The Committee strongly endorsed the whole research program on endemic goiter. It considered it as an excellent example not only of the integrated application of science to a particular problem but also as a vehicle for stimulating research and for training workers of many centers on the application of the scientific method.

SELECTED RESEARCH ACTIVITIES OF INCAP

The report presented to the Committee covered three topics: the use of cotton-seed meal in animal feeding; studies of the intestinal flora of children with diarrhea, in relation to nutritional state and the effect of diarrhea on growth; and investigation of the role of protein deficiency as a cause of anemia in malnourished children.

The discussion centered around the second topic, which presents problems of practical and theoretical interest. The Committee concluded that it is artificial to attempt to separate the two factors, and to try to determine whether malnutrition causes diarrhea or vice versa. Under the conditions of life in developing rural communities, all children have some degree of intestinal infection with both bacteria and viruses. The nature of the food, and hence of the culture medium in the intestine, influences the nature of the flora, and the nutritional state influences the resistance of the host, and the balance of the host-parasite relationship.

The Committee strongly endorsed the value of these studies.

OPPORTUNITIES FOR EPIDEMIOLOGICAL STUDIES IN MENTAL HEALTH

In the past four years a number of PAHO/WHO scientific group meetings have discussed the problems of mental health and mental disease in Latin America and have recommended measures to promote research and training. A major difficulty which impedes the development of a collaborative research program is the lack of standardized terminology and diagnostic criteria. There is no general solution to this difficulty: it can only be tackled in a concrete context—that is, in the investigation of a specific disease entity.

The type of investigation which is most suitable for a collaborative program is that of the prevalence or incidence of a disease. Such studies are valuable for two reasons: they indicate to public health authorities the magnitude of the problem, and the measures which must be taken to deal with it; and they may provide valuable clues to etiology. Studies on the incidence of epilepsy have already begun in some countries.

Another subject of particular importance is alcoholism, which is thought to be common in many countries of Latin America. Here the problem of definition presents relatively little difficulty, because the criteria can be defined operationally.

The Committee approved this general approach. It suggested that attention should also be paid to two other types of mental damage which, in part at least, are preventable:

1. Mental retardation caused by birth injuries, the incidence of which is increasing. In part this results from bad obstetrical practice, which in turn depends upon social factors that need to be investigated.
2. Mental damage caused by phenylketonuria and other inborn metabolic errors. The effects can be minimized if the conditions are recognized early enough. This requires an effective system of surveillance.

These problems, although involving only a small element of research, cannot be neglected in any study of mental health in the Region. The Committee recommended that PAHO should organize a course in social obstetrics and neonatal pediatrics as a first step in an attack on these forms of preventable mental disorder.

OPPORTUNITIES FOR EPIDEMIOLOGICAL STUDIES IN HUMAN RADIOBIOLOGY

The study of radiobiology has at least two purposes: (a) the development of standards for protection against radiation; and (b) the possibility of obtaining information about carcinogenesis and genetic mutagenesis in general.

Both purposes are relevant throughout the range of technological development found in the Americas. The need to develop radiation protection standards may be considerably greater in Central and South America than it is in North America because of lower standards of protection in medical practice, and the age and poor condition of much of the X-ray equipment.

At the WHO Meeting on Epidemiological Studies in

Human Radiobiology (1965), it was noted that heavily exposed populations are relatively rare, so that every opportunity must be taken to study groups with unusual radiation experience. It is not always possible to predict what features will prove most informative.

The specific recommendations of the WHO Conference are listed in the report RES 5/17.[3] Most of the exposed groups in the United States of America that seem worthy of study are in fact being studied. Such is not the case in South and Central America. Among possible problems that could be examined are:

1. The widespread use of fluoroscopy, resulting in the exposure of large populations to substantial doses of X-rays. This information would be relevant to studies of leukemia and breast cancer.
2. Radiologists who, because of inadequate technique and equipment, probably receive as a group extremely high cumulative doses of radiation.
3. The large populations of hard-rock miners in Bolivia, Chile, and Peru. These could give important information on the dose-response curve in lung cancer.
4. The possible sequelae, such as mental retardation, in children epilated with X-rays for the treatment of *tinea capitis*.
5. The high incidence of cancer of the cervix and frequent use of radium in its treatment. The negative finding of leukemia reported at the WHO meeting must be re-examined in this context.
6. Investigation of the effects on the fetus of treatment of carcinoma of the cervix during pregnancy.

There are practical difficulties in the study of any of these groups, such as inadequate medical standards of diagnosis and poor vital statistics. The challenge is to identify geographic areas where the conditions exist and the practical problems are soluble. Furthermore, as technological advances will probably eliminate some of these groups as time goes on, it is important to begin soon some of these radiobiological studies with the available epidemiological procedures.

OPPORTUNITIES FOR PAHO PARTICIPATION IN THE INTERNATIONAL BIOLOGICAL PROGRAM

A short description was given to the Committee of the international biological program projected for 1968–1972.

A Special Committee of the International Council of Scientific Unions has formulated a general set of recommendations which are now being reviewed by national governments and adapted to local circumstances. In general, the program will be two-pronged, on the one hand dealing with problems relating to increasing the productivity of the land, ocean, and fresh water, on the other hand concerned with problems relating to human adaptability. It was suggested that under the second heading, the surviving groups of relatively unacculturated Indians in Latin America were example of outstanding interest. Such groups present the opportunity for multidisciplinary cooperative studies aimed at elucidating their breeding structure, nutritional status, disease patterns, and genetic markers. An ultimate objective of such studies is the acquisition of broader insight into the action of natural selection in man. There is an element of urgency in these studies, since the populations in question are being rapidly disrupted.

The Committee expressed its support of and interest in the international biological program. Clearly, any projects coming forward at this time, which fall within the scope of this program, should receive special consideration by PAHO. As an initial practical contribution, it was suggested that PAHO might allow equipment to be used for an approved IBP project in Latin America to be shipped from one country to another under its auspices, in order to reduce customs formalities.

MODIFIED LIVE VIRUS VACCINE IN THE PREVENTION OF FOOT-AND-MOUTH DISEASE

Results were presented on the use of various types of live virus vaccine in Brazil, Chile, Colombia, Ecuador, and Guyana. The vaccine confers a high degree of protection in cattle, but seems to be ineffective in swine. The problem is one of great economic importance in many countries, and the Committee noted with satisfaction the good results that are being achieved.

There are, however, a number of aspects on which further research is needed. Little, for example, appears to be known about the persistence or activity of live virus in the tissues and ganglia of vaccinated animals. Until this problem has been solved, vaccination with live virus cannot be widely applied in countries in which the cattle industry has been developed for export, since not all importing countries will accept meat from vaccinated animals.

SANITARY ENGINEERING RESEARCH POTENTIAL

The report presented summarized the facilities which exist for research in sanitary engineering in Latin America; outlined status of present research; listed the great extent to which training centers in the subject have expanded over the past three years; and pointed out some of the problems on which research is needed.

The Committee recognized that, in Latin America, research in this field is quite limited. Reasonably adequate physical facilities for practical applied research exist at a number of universities and related centers; the major problem seems to be a lack of trained research manpower and an established system of institutionalized research, particularly in engineering schools. The Committee was impressed with the progress being made in developing a network of training centers at engineering schools and endorsed, in principle, the philosophy of a similar approach in stimulating applied research at such institutions. However, at this stage, the major emphasis must be on people, not on projects; and every effort should be made to identify, encourage, and support men who are qualified and prepared to devote themselves to applied research in this field. Productive research cannot be accomplished unless there are available men with the training, and above all with the interest to carry out research.

[3] Mimeographed document.

CHRONIC MANGANESE POISONING

As part of the collaborative study between the Catholic University of Chile, in Santiago, and the Brookhaven National Laboratory in Upton, New York, there were investigated over the last three years approximately 20 healthy Chilean miners, 20 patients with chronic manganese poisoning, and 12 healthy Chilean non-miners.

Exposure to the manganese ores induces a high tissue concentration of manganese. Some of the exposed miners develop a psychiatric syndrome ("locura mangánica") followed by a neurological picture which often resembles Parkinsonism. Whereas the psychiatric disease is self-limiting, the neurological one appears to be irreversible. Studies with radioactive manganese have shown that in the Chilean miners there is a rapid turnover of manganese, and that the bulk of the excess metal can be quickly cleared from the body once exposure ceases. Nevertheless, the neurological symptoms remain.

In addition to the investigations in Chile, some interesting and relevant observations on manganese metabolism in disease states have been made at Brookhaven.

1. It was found that treatment of Parkinsonian patients with the chelating agent dihydroxyphenylalanine is often accompanied by a diminution in blood manganese. It is proposed to use this agent during the "locura mangánica" phase for prevention of the neurological manifestations of chronic manganese poisoning.

2. Patients with rheumatoid arthritis studied at Brookhaven have shown a high tissue concentration of manganese, like the Chilean miners, but a slow turnover of the metal, unlike the Chilean miners. It is proposed to study the healthy Chilean miners with regard to their propensity to develop arthritis or other autoimmune diseases.

The Committee expressed great interest in this work, and congratulated the investigators on having overcome the technical and analytical problems which were reported in 1965. This is another example of how work on what at first sight appears to be a limited practical problem may open up lines of inquiry of very great general interest.

POPULATION DYNAMICS

A report was given of the Second PAHO/WHO Conference on Population Dynamics, convened on 3 January 1966.

During the year between the two Conferences the changes and developments had been striking. Of great importance was the pronouncement of the Eighteenth World Health Assembly[4] of WHO which established policies and program guides. Foundations and agencies of the Government of the United States of America have extended their activities and supported research, teaching, and services by universities and Governments of the Hemisphere. Universities and agencies provided reports of their activities which were distributed to participants. There was general agreement that the Pan American Health Organization should establish a permanent clearinghouse for exchange of information on population and health.

The policy of the World Health Organization and the resolution[5] approved at the Nineteenth World Health Assembly were described. In addition to its present program of research on the physiology of human reproduction, the Organization will now carry out research on fertility, sterility, and abortion. It will also promote demographic studies as well as teaching in these fields. The resolution confirms that the role of the Organization is to give its Members technical advice, upon request, on the development of activities in family planning as part of an organized health service.

During the past year the efforts of PAHO in this area have been directed primarily to a program of research training. Agreements for research training centers have been signed with the School of Public Health at the University of Chile and the School of Hygiene and Public Health of the University of São Paulo, Brazil.

In Chile, the program is an expansion of an existing inter-American program of education and training in biostatistics and includes greater emphasis on population dynamics. A four-month course on health and population dynamics is to be given in 1966 in Chile for professors of preventive medicine and other members of medical school faculties. Support is also being given to the Center for Population Dynamics of the University of São Paulo for interdisciplinary research and training. Research projects for population studies in Peru and São Paulo are receiving the support of WHO and PAHO, and plans are under way for new studies of abortion and of mortality in childhood.

The Committee was informed that, in addition to the work supported by PAHO, a course on many aspects of population dynamics was being organized jointly by interested bodies in Argentina, Chile, and Uruguay, with financial assistance from the Ford Foundation. Fifty doctors will receive training for a period of two years, and will then be equipped to undertake research on population dynamics and human reproduction. This represents an encouraging example of international cooperation, and of the operation of the Latin American "intellectual common market."

The Committee noted that in the past two years a great change has occurred in attitudes on this subject in Latin America on the part of the Governments, scientific bodies, and individuals. The climate is, therefore, much more favorable for the development of research and training programs in this field, and the Committee welcomed the significant contributions which are being made by PAHO.

The view was expressed that in many countries the problem of abortion is very serious and requires intensive study. A request was also made for support of training in population dynamics in the Caribbean area which presents problems rather different from those of Latin America.

[4] Resolution WHA18.49. *Off. Rec. Wld Hlth Org.* **143**, 35.

[5] Resolution WHA19.43. *Off. Rec. Wld Hlth Org.* **151**, 20–21.

TEXTBOOKS FOR MEDICAL STUDENTS

The Committee studied the proposal for making textbooks available to students of medicine in Latin America. It recognized its importance in the training of future physicians and its feasibility in the form proposed. It endorsed the important initiative of the Director and advised continued negotiations for financing the program.

The Committee strongly urged that the students be encouraged to utilize, in addition to the recommended texts, other sources of information.

SPECIAL SESSION ON LIFE AT HIGH ALTITUDES [6]

High altitude research has characteristics common to all types of research with very few, if any, exceptions. Significant contributions have been made by numerous investigators in many countries and considerable knowledge has been gained of some of the processes responsible for tolerance and for acclimatization to the hypoxia of such environments. Something is also known about the factors that play a role in the appearance of symptoms during early exposure, or that determine the loss of acclimatization after a prolonged residence or even after having been born and raised under the constant influence of low ambient pressure. We still lack complete understanding, however, of many aspects and phenomena, and some of the data reported has given rise to questions that await answers. During this session an attempt has been made to single out the main gaps in knowledge and to indicate the most urgent or interesting problems for investigation.

Hypoxia, or oxygen deficiency, has been considered the most important factor in high altitude environments. But there are other factors whose influence on type and quality of body responses has not been adequately investigated. Some of these are hypocapnia, low temperatures, low air density, decreased humidity and, perhaps, increased radioactivity even at the level of the more populated areas.

A great deal is known about the symptomatology observed in newcomers to high altitudes but little or nothing is known to help explain the tremendous variability among individuals in their early response and in the degree and nature of the changes frequently seen or why the same individual may be asymptomatic during a given exposure and show severe disturbances during a later one. It is worth mentioning, in this regard, that it is difficult to predict whether a healthy subject will respond well or poorly when taken suddenly to low ambient pressures. Many observations have been made on young people before ascent, but no studies with well-defined criteria have been conducted. General impressions have been reported, such as a greater incidence of acute mountain sickness among people of nervous and unstable temperaments as compared to phlegmatic individuals, but here too, there are conflicting reports.

It may be correct to assume that men born and raised in a high altitude environment exhibit the highest degree of acclimatization to the medium in which they live. Some of these characteristics have been discussed during this session and important adaptive mechanisms have been described. In most cases, bases exist for understanding the reasons why these mechanisms are thought to be compensatory in nature and for comprehending the manner in which they tend to counteract the harmful consequences of hypoxia. But, frequently, there is no corresponding knowledge on how they originate. For example, it is well known that hyperventilation is present at rest and during physical activity in most, if not all, residents of high altitudes. There is some evidence of change in the sensitivity of the respiratory center to the chemical stimulus of blood carbon dioxide, but there is a lack of understanding of the importance of the participation in this process of some other factors, such as acid-base balance, the role of chemistry of the cerebrospinal fluid, the possible participation of modified nervous impulses and reflexes, and the contribution of hypoxia. The mechanical aspects of the breathing process at high altitudes still await investigation. The lower density of the air, the greater volume of the blood and its higher viscosity due to the elevated hematocrit, the changes in the anatomical structure of the vascular tree, the dilatation of the alveoli and the thickening of their walls, the low position of the diaphragm, and the changes in the rhythm and volume of respiration are all of special interest to respiratory physiology from the point of view of its mechanics. It would be also of value to investigate the interrelationship of factors which influence the diffusion of gases through the alveolar membrane.

It is now a well-known fact that people living at high altitudes show a constant degree of moderate pulmonary hypertension. It is also known that anatomical changes in the pulmonary vascular tree play an important role in the pathogenesis of this condition. There are, nevertheless, unknowns in the significance of the additional contribution of functional factors. It is worth mentioning that the study of high altitude pulmonary hypertension may contribute to the better understanding of this condition in cases observed at sea level.

Although known since the last century, the polycythemia of high altitudes still presents interesting aspects for study. The relation of hypoxia to erythropoiesis in the increased production of red cells and hemoglobin under a variety of circumstances, the exact level of hypoxia at which a depressing rather than a stimulating action is exerted, the observation that a high altitude resident man develops a moderate degree of anemia after being brought down to sea level, the fact that a definite polycythemia is only evident sometime after birth, and the increased tendency for bleeding after surgical operations are only a few of the many important problems which deserve additional investigation.

Significant work has been already done on endocrine activity at high altitudes, some aspects of which have been discussed in this session. There is little doubt that more such studies will be valuable. Thyroid function, steroid metabolism, sexual regulation, the possible contribution of the adrenal to early tolerance, and carbo-

[6] Prepared by Dr. Alberto Hurtado, Moderator of the Special Session on Life at High Altitudes, under the heading of "Needs for Further Research."

hydrate metabolism are, among many others, excellent areas for further research.

Special emphasis should be given to the possibilities opened by the chemical and enzymatic investigations at the tissue level in chronic hypoxic conditions. The demonstration, years ago, that during the stress of severe physical activity, the high altitude native releases into the blood an amount of lactate much lower than that observed at sea level under a similar increased metabolic demand raises very interesting and fundamental questions. This repeatedly confirmed observation indicates that, in high altitude environments, actively working muscles have, paradoxically, a greater amount of oxygen supply or a better way to utilize this gas, or both. Contraction follows a more aerobic than anaerobic pathway. In recent years, fundamental studies have been carried out indicating the existence of qualitative and quantitative changes in the chemical and morphological characteristics of pathways and energy production. There are some fundamental and exciting possibilities in the field of tissue chemistry and metabolism concerned with the effectiveness of the tolerance developed in the face of a constant difficulty with oxygen supply and utilization. It is likely that here may be found an effective answer to the intriguing question of how to explain the evident differences which exist between natural and acquired acclimatization. It is well known that, more and more, biological research is approaching the cellular and molecular level. High altitude problems are no exceptions to this trend.

Before leaving the subject of natural acclimatization, the complete lack of genetic investigations in this field is worth mentioning. Some years ago in the high Andean regions of Peru, human skeletons were discovered which, on the basis of radioactive carbon studies, were estimated to be about 9,000 years old. This finding gave an indication of the many numbers of successive generations that have been subjected to these same environmental influences. Genetic factors must play a role in the development of the high degree of acclimatization shown by permanent dwellers, but these aspects still need investigation. Although some interesting observations have already been made on fetal physiology, there is, in this regard, an attractive and important field for research.

Up to a relatively short time ago, all high altitude research was oriented towards the better understanding of acclimatization and its physiological background. But there is an awareness now that there are also pathological and physio-pathological problems directly related to the factors operating in such a medium. Acclimatization, natural or acquired, may be lost and the affected person may have to be transferred to sea level. This syndrome, characterized by a symptomatology chiefly neural in nature, is called chronic mountain sickness, or Monge's disease, in honor of the investigator who originally described it. There is evidence that this disturbance is fundamentally a hypoventilation process with changes in the sensitivity of the respiratory center to chemical stimulation, although the responsible factor or factors are unknown. Further investigation is needed. Circulatory or chemical variables, or both, may be involved in the pathogenesis of this interesting clinical condition.

In recent years numerous cases of pulmonary edema, occurring upon arrival to high altitudes or shortly thereafter, have been described. The original report appeared in 1937. Symptoms usually develop in otherwise healthy natives of high altitudes, who have spent a short time at sea level, and who have returned to the elevated zones while they still had a moderate pulmonary hypertension and some degree of polycythemia. Oxygen administration usually relieves the symptoms. Although many clinical and some anatomical studies exist, a clear concept of the pathogenetic mechanisms which are immediately responsible for the occurrence of the edema is unavailable. The study of these cases may throw some light on a condition which, even at seal level, is still obscure.

Although systematic clinical studies at high altitudes have not been conducted so far, the incidence and evolution of certain diseases may have patterns not found at sea level. Hospital statistics reveal that certain types of cardiovascular pathology are much less frequent in high localities. Systemic hypertension and coronary episodes, such as thrombosis and infarct, are only occasionally observed at high elevations. It will be of great interest to have detailed studies on the anatomical characteristics of the vascular tree and on the frequency of sclerotic lesions associated with age and senile degeneration. Fortunately, an active program of investigation by a group of pathologists is now under way in Peru.

The epidemiology of cancer at high altitudes offers also attractive problems for study. Apparently there are no differences from sea level on the incidence of certain types of this disease but, on the other hand, it seems that leukemia in man is rather rare in a high environment and there are some interesting supporting data in experimental animals.

Except for very few and isolated observations, the field of infectious diseases and immunology has not been studied yet. It is not known whether defense mechanisms against pathogenic bacteria and viruses are modified by the hypoxic condition, and what are the changes, if any, in the incidence, evolution and prognosis of certain infectious diseases.

The high altitude areas of Peru include many mining localities. Apparently, some occupational diseases, such as pneumoconiosis, develop quite frequently and very rapidly. It would be important to study the role of hyperventilation in this condition—where in a given time more dust particles are inhaled—and other factors such as lung congestion and less air density. It appears possible that the safety limits for the concentration of dust particles in the inhaled air at high altitudes is not the same as at sea level.

The above has been an attempt to convey the need for and interest in further research at high altitudes. There are many physiological, clinical, and health aspects whose study will be significant, not only in relation to the environmental factor of high altitudes, but also from the viewpoint of a better interpretation of problems that have not been entirely solved at sea level. It is satisfying to know that, at present, there are laboratories and able investigators in many parts of the world engaged in this type of research. Research is no longer a matter of isolated personal work and dedication. To be fruitful and

productive it requires collective efforts which know no international boundaries.

CLOSING SESSION

The Committee discussed the methods of presentation of topics at future meetings and the choice of subjects for its agenda.

1. The Committee requested that no oral presentation last more than 15 minutes, in order that more time be available for discussion.

2. The Committee decided that at future meetings it should attempt to examine research needs in selected fields, and in this way to keep under continuous review the research program of the Organization.

A number of subjects were mentioned which, it was suggested, should receive attention. These included: alcoholism, schistosomiasis, echinococcosis, arboviruses, and drug resistance in malaria. It was agreed that at next year's meeting some time should be set aside for a discussion of drug resistance in malaria and of the need for further research on this subject in Latin America. The Secretariat was requested to organize the presentation of this topic in consultation with Dr. W. McDermott.

The Committee discussed at some length the relationship between medical education and research in Latin America. It is not sufficiently recognized in Latin America that effective teaching can only be done by those who are also engaged in research. From a somewhat different point of view, the techniques of medical education themselves offer a fruitful field for research. The Committee requested that at the next meeting some time should be set aside for discussion of these two aspects of medical education.

3. The following topics were proposed for the special session of the Sixth PAHO/ACMR Meeting:

Participation of PAHO in the international biological program.

Medical teaching in relation to preventive medicine and public health.

The genetics of human populations, and the relevance of genetic knowledge to the formulation of population control programs.

Immunological aspects of parasitic diseases, with special emphasis on host-parasite relationships.

Chemotherapy and drug resistance.

Iron metabolism and iron deficiency anemia.

After discussion it was agreed that the subject of the next special session should be "Immunological Aspects of Parasitic Diseases." The Committee requested Dr. O. Bier, in collaboration with the Secretariat, to undertake the organization of the program for the Special Session of the 6th Meeting of the PAHO/ACMR.[7]

4. The Committee expressed its thanks to Dr. A. Hurtado and to the Secretariat for the manifest excellence of the special session on Life at High Altitudes.

[7] The Sixth Meeting of the PAHO/ACMR has been scheduled for 12–16 June 1967.

Annex 10

PLANNING OF HOSPITALS AND HEALTH FACILITIES [1]

In compliance with paragraph 4 of Resolution XVI [2] of the 52nd Meeting of the Executive Committee, the Director of the Bureau has the honor to submit to the Conference for consideration the present report on "the progress made in the planning of medical care services incorporated into the general health services or coordinated with them."

The XV Meeting of the PAHO Directing Council adopted Resolutions XXV and XL,[3] which refer, respectively, to Planning of Hospitals and Health Facilities, and to the Study of the Relationship between Social Security Medical Programs and those of Ministries of Health or Other Official Health Agencies. In those resolutions the Council recommended that the Director convene both an Advisory Committee to study the first subject and a Study Group to present to the Organization a report containing its views regarding the promotion of better coordination of the various medical care programs. The Director convened the Study Group in July 1965, and the resulting documents, reports, and resolutions were submitted to the XVI Meeting of the Directing Council, which took note of them in

[1] Document CSP17/19 (19 August 1966).
[2] *Official Document PAHO* **62,** 38–39.
[3] *Official Document PAHO* **58,** 78–79 and 90–91.

Resolutions XXXVII and XIX.[4] Subsequently, the reports of the Advisory Committee and the Study Group were published under the title *Administration of Medical Care Services.*[5]

Following a policy of broad collaboration with other agencies of the Inter-American System, the Director requested and obtained the fullest and most generous support of the Inter-American Development Bank (IDB) for studies on hospital planning and of the Organization of American States (OAS) for studies on the coordination of medical care in Latin America. The Director wishes to draw attention to the spirit of understanding shown by these two agencies of the Inter-American System in sending their representatives to work with PASB advisers, and even in financing part of the cost involved in this undertaking.

On the basis of these studies, the Directing Council recommended that the Director strengthen the advisory services to the countries on administration of medical care services, including planning of hospitals and coordination of medical care. To comply with this mandate, the Director established an Office of Medical Care Administration.

Experience has shown that studies on the planning of hospitals and the coordination of medical care are closely related, since a national hospital construction plan can be formulated only when existing resources have been coordinated and maximum use has been made of them. A realistic estimate of hospital needs can then be made, and such an estimate is the basis of any community hospital construction program.

Survey on Coordination of Medical Care in Latin America

In Resolution XXIX,[6] the XVI Meeting of the Directing Council selected as the topic for the Technical Discussions during the XVII Pan American Sanitary Conference "Means for Promoting and Making Effective the Coordination between the Services and Programs of Ministries of Health, Social Security Institutes, and Other Institutions that Conduct Activities related to Health." Resolution XIX[7] of the same meeting pointed out that social security institutions should participate in planning the health sector, and that an essential prior step is a survey of the medical care services of both ministries of health and social security institutions in the various countries. In order to provide the participants in the Technical Discussions with objective information as a basis for analyzing the problem, PAHO conducted a survey during the current year, in cooperation with OAS, in 10 Latin American countries which volunteered for the purpose, as follows: Brazil, Chile, Costa Rica, Colombia, El Salvador, Honduras, Mexico, Panama, Peru, and Venezuela.

This survey was the first attempt to compile statistical data on hospitals and other medical care services. After this initial experiment and once the questionnaires have been improved as a result of the practical experience gained therefrom, it is considered extremely important that a routine reporting system be established whereby all countries would regularly communicate to the Bureau statistical data on the availability and use made of medical care services and on the personnel employed in such work, not only by health ministries but also by social security agencies and other public institutions providing medical care. This information would be of the greatest importance for the appropriate planning and coordination of similar services, which are now acting independently and where very frequently there is a duplication of effort.

The results of the above-mentioned survey are presented in the documents that will serve as the basis for the Technical Discussions during the XVII Pan American Sanitary Conference.

Medical Care Policy

The document entitled "Policy Guides for the Planning of PAHO/WHO Programs,"[8] which serves as a guide for experts and advisers of the Organization in developing programs, was revised to include a chapter defining the bases for formulating a medical care policy in the Hemisphere. Taking as a basis the concept expressed in the Constitution of the World Health Organization that "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition," and bearing in mind that a total health plan must necessarily include health promotion, protection, and

[4] *Official Document PAHO* **66,** 71–72 and 87–89.
[5] *Scientific Publication PAHO* **129.**
[6] *Official Document PAHO* **66,** 80–81.
[7] *Ibid.,* p. 70–71.
[8] Mimeographed document.

restoration activities if the members of the community are effectively to enjoy that right, PAHO has formulated the aims of its medical care program policy in the following terms:

(a) Promotion of the recognition that every citizen, without discrimination is entitled to the services which will ensure his complete health care.

(b) Promotion of the greatest possible gradual coordination of preventive, curative, and social actions aimed at attaining the highest possible degree of health by the members of the community.

(c) Promotion of the incorporation of every public, autonomous, semi-autonomous, and private agency devoted to health protection, promotion, or recovery, into the plans of the health sector.

(d) Assistance to the countries in developing and improving their hospital systems as one of the basic services of an integrated health program, by giving them a regionalized and sectoral organization.

In accordance with this policy, the Organization has been carrying out a program aimed at attaining the following main objectives:

(a) Promotion of the concept of coordination of services in the bodies representing the parties interested in medical care problems, namely, government authorities, social security institutions, and the organized medical profession.

(b) Mobilization of national financial resources and funds from international lending agencies to put into effect in the countries of the Region programs for construction of hospitals and other health establishments, particularly those connected with the training of professional and auxiliary personnel for the medical services.

(c) Exchange of information between the countries of the Americas on legislation, new regulations, or field experiments, through a Reference Center which the Organization has begun to establish. Good results will be obtained from the Center in the near future if the countries cooperate by providing the required information.

(d) Promotion of the training of personnel for medical services administration regarded from both the technical and the purely administrative viewpoint. To this end, conversations were held with professors of hospital administration and heads of public health schools with a view to standardizing, expanding, and strengthening the teaching of medical service administration as part of the training of the specialist in public health or of those taking the Master of Public Health degree. The Organization is planning to hold a symposium on the teaching of medical service administration for the purpose of comparing the views of field personnel in charge of medical services with those of professors of hospital administration, in order to arrive at conclusions serving to establish a policy on admission requirements, curriculum content, length of studies, need for administrative residence, level of the degree or certificate, and the various kinds of personnel that will have to be trained at public health schools.

(e) Advisory services to the countries in hospital planning and coordination of medical services.

International Agreements

The Meeting of the Task Force on Health at the Ministerial Level,[9] held in Washington, D. C., from 15 to 20 April 1963, in pointing out the measures needed for improving health services, recognized the inter-dependence of individual and collective medicine. The Meeting considered that national health authorities should pay special attention to the manner in which health restoration services are being provided at present in hospitals and other establishments, and that the yield of these could be increased if their programs were modified to provide individuals and families with preventive and social care simultaneously. The statement made by the Ministers reads as follows:[10] "The ministries of health should take steps to secure the legal and institutional instruments required for the effective coordination of the planning and executive elements responsible for preventive and curative services of the State, as well as coordination between these and private, semiautonomous, and autonomous organizations providing health services of any type. The aim is to incorporate medical care activities of those institutions, including hospitalization, into the basic health services at all levels—local, intermediate, or national—with the final objective of attaining a progressive integration of these activities. Preventive and curative services are but parts of an integrated whole."

The Organization has been represented at all meetings of the Inter-American System at which it was possible to make known this policy formulated

[9] *Official Document PAHO* **51.**
[10] *Ibid.*, p. 37.

by the Task Force on Health and to obtain resolutions tended to promote integrated national health planning with the participation of all public, semi-autonomous, and private services engaged in maintaining or financing health services.

The Fourth Annual Meeting of the Inter-American Economic and Social Council (IA-ECOSOC) at the Ministerial Level (Buenos Aires, Argentina, 25 March-1 April 1966) adopted Resolutions 12-M/66, "Social Security within the Framework of the Alliance for Progress," and 13-M/66, "Health and Development Planning,"[11] In essence, these resolutions considered "the over-all planning of the health sector as the most suitable instrument as regards attainment of the specific sectoral objectives" and it was recommended that the Governments "incorporate activities relating to the prevention and cure of diseases into the development efforts, particularly in land settlement, city planning, and industrial development programs." It was further recommended to Governments that "the social security plans and programs for medical services be improved and coordinated with development plans, and particularly with the health plans in each country."

In April 1966, the Social Security Fund of Panama convened a medico-social meeting for the purpose of exchanging opinions on certain aspects of social security in the Americas. The meeting was attended by representatives from 14 Latin American countries, and by delegates from the International Labour Organization, the International Social Security Association, the OAS, the Inter-American Conference on Social Security, PAHO, and the Ibero-American Social Security Organization. When the topic of the relationship between social security institutions and other medical care agencies was discussed, it was agreed that in order to improve and expand services and avoid duplications, the coordination and planning of social security medical services with those of other health agencies which provide medical care was becoming increasingly essential. It was further stated that, to this end, coordinated hospital planning among all agencies working in health care was needed. Finally, it was agreed that any coordinated program but into practice should aim at achieving a balance between the demand for services and the ability to provide them in a suitable manner. The Delegation of Panama presented the conclusions of this medico-social meeting to the XII Meeting of the Inter-American Social Security Committee, held in San José, Costa Rica, where the importance of this subject was recognized.

The IX Medico-Social Congress of the Pan American Medical Confederation was held in Lima, Peru, between 25 and 30 April 1966. This assembly of representatives of the organized medical profession throughout the Americas acknowledged that the responsibility for plans aimed at raising living standards must be assumed by the State, as the guarantor of social security and the right to health. And in the social spirit which has always characterized the medical profession in Latin America, the Congress pointed out the need for expansion of social security benefits and health services so as to cover the majority of the population in want in the countries of Latin America. Finally from the technical standpoint it was agreed that health programs must be planned in gradual and progressive stages, so as to coordinate all technical, financial, and manpower resources in order to provide the most efficient health activities possible covering all the inhabitants of a country in the four fields of health protection, promotion, recovery, and rehabilitation, with the active participation of the community and the co-participation of the medical associations at the executive level of health services. The Congress pointed out that such a measure would require good coordination of the social security medical services and the state health services, within the framework of the national health plans.

The importance of these international agreements lies in the fact that they establish a uniform policy, accepted by all groups concerned, to the effect that the medical services of social security institutions should be fully incorporated into the over-all health planning of the countries, as the only way for establishing a firm foundation for the possible coordination, planning, and efficient administration of medical services in the future.

Hospital Construction Program

A number of Latin American countries have already formulated their national health plans, generally as an integral part of their national plan of economic and social development. It is known that the practical application of these plans has been hampered somewhat because of insufficient numbers of professional personnel and the deficien-

[11] *OAS Official Records* OEA, Ser. H/XII.11 (Eng.), pp. 25–29.

cies of the buildings and installations available to the health services. It is therefore understandable that the countries should consider it urgently necessary to commence a program for the construction of hospitals and other health establishments, these being the physical facilities essential for beginning the activities that will translate the national health plan into a reality.

A hospital construction program represents a large financial investment for the countries, in regard both to the buildings proper, and also the provision of suitable installations. The necessary funds are not always available in the national economy, and to obtain them, health service institutions must compete with the other economic and social sectors such as education, public works, highways, and others which are constantly demanding part of the national budget to construct the works and buildings essential for progress.

With regard to hospital construction, the Organization considers that the planning of hospitals and other health services must be coordinated between all the agencies which provide health care services, and especially between the health ministries and the social security institutions. Such coordination of planning should include financial cooperation, so as to make the best possible use of the funds available for the benefit of the entire community. This coordinated financial effort should ensure that the maximum possible to the national economy has been achieved, and only that part of the construction program which is absolutely essential to the success of the national health plan and cannot be financed with national resources should be reserved for international financing.

A program for the construction and installation of hospitals and other health services should also be realistic. In other words, only those establishments should be built for which the appropriate professional and auxiliary personnel will be available in good time and for which the necessary operating funds will be available.

In compliance with Resolution VIII [12] of the 54th Meeting of the Executive Committee, the Director has continued his negotiations with the Inter-American Development Bank to obtain financial support for programs for the building of hospitals and other health facilities, within the framework of national health planning, as part of economic and social development. Joint committees composed of high-ranking officials of both the Organization and the IDB have been examining the general principles on which a credit policy should be based, as well as the criteria and procedures to be applied.

Advisory Services to the Countries

During the past year the Organization provided various countries in the Region, with specialized advisory services both on coordination of the medical services of health ministries and those of social security institutions, and on hospital planning, building, and administration.

The Government of Brazil requested advice on the administrative reorganization of the Clinical Hospital of the School of Medicine of the University of Minas Gerais, in Belo Horizonte. A study was made by the Organization and the report was submitted to the Government. In addition, the post of permanent adviser on medical service administration was established at Zone Office V, in Rio de Janeiro.

The Ministry of Public Health of Costa Rica requested the services of a consultant for planning the coordination of certain preventive services coming under the Ministry and the new peripheral outpatient clinics set up by the Costa Rican Social Security Fund. Space had been set aside in the modern biuldings of the latter for some of the services of the Ministry, especially those connected with health education, maternal and child care, vaccination, and tuberculosis control.

The Government of El Salvador received the advisory assistance of a committee composed of a medical planning officer, a medical hospital administrator, and a hospital architect in connection with the analysis of the hospital building program of the School of Medicine of the University of El Salvador, and particularly the possible construction of a university hospital which will provide health care services for a sector of the city and at the same time offer opportunities for clinical training in medicine and related professions.

The Republic of Honduras received advisory assistance in two areas relating to medical service administration. Firstly, a study was made of social security medical care, and it was recommended that these services be coordinated with those of the Ministry of Public Health. Secondly, an IDB/PAHO mission studied the hospital building program which the Government had included in its

[12] *Official Document PAHO* **71**, 32–33.

national health plan and considered the feasibility of the program in relation to the development of the human resources (physicians and other professional staff) required to satisfy the medical care demands of the population.

The Government of the West Indies requested advice from the Bureau on the administration of the new Queen Elizabeth Hospital in Barbados.

Nicaragua received consultant services on the coordination of the social security medical care services and those of the Ministry of Public Health.

In Venezuela, a preliminary study on the hospital situation in Caracas was completed, and negotiations are under way for the appointment of a permanent consultant to advise on the development of a coordinated program of hospital construction and administration in the country.

Trinidad and Tobago are carrying on a broad program of hospital planning for the entire island, and the Organization has appointed a consultant in connection with this program.

A medical care consultant continued to give his services in Argentina during the past year.

The University of Chile, under Government auspices, requested advisory assistance for organizing intensive treatment services at the J. J. Aguirre Clinical Hospital and other hospitals in the city of Santiago. In compliance with the request, a team was sent to the country, consisting of one medical officer and one nurse specialized in this field.

Annex 11

STATUS OF SMALLPOX ERADICATION IN THE AMERICAS AND THE ESTIMATED REQUIREMENTS FOR ACHIEVING IT [1]

INTRODUCTION

Because of its epidemiological characteristics smallpox is one of the infectious diseases which best lends itself to eradication. It is a specific human disease which is transmitted directly, without intermediate agents. The only known reservoir of smallpox virus is man.

Furthermore, a highly effective vaccine is available, which gives protection against the disease. Finally, with the advent of freeze-dried vaccine, the various problems involved in the use of glycerinated vaccine have been solved.

The existence of new mechanical instruments make it possible to administer the vaccine in the uniform manner and with great efficiency. It is thus possible to shorten the period required for, and the operational costs of, smallpox vaccination programs.

Nevertheless, between 1948 and 1965 the countries and territories of the Americas reported 171,140 cases of smallpox to the Pan American Sanitary Bureau. The disease attacked all age groups indiscriminately, and without distinction as to sex or race. In some countries the disease encountered favorable conditions and became endemic; in others, national smallpox vaccination programs led to its disappearance; and in a third group, where the disease had disappeared, it was subsequently reintroduced.

Canada last reported an imported case of smallpox in 1962; the United States of America reported two cases in 1955 and one in 1957. Smallpox disappeared from Mexico in 1952.

Except for Guatemala, where one smallpox case was notified in 1953; Panama, where there were cases in 1947 and 1958; and British Honduras which reported cases in 1948, the countries of Middle America have been free of the disease.

In the Caribbean area, cases occurred in Martinique in 1951; in the Netherland Antilles in 1951; and in Trindad and Tobago in 1948.

In South America smallpox disappeared from

[1] Document CSP17/20, Rev. 1 (23 September 1966).

Bolivia in 1961; however, five cases were reported in 1964, but none in 1965. In Chile smallpox disappeared in 1954, but in 1959 a secondary case was reported resulting from an imported case; since then the country has been free of the disease. No new case of smallpox has been reported in Ecuador since 1964. Uruguay reported 1 case in 1965. Venezuela has not reported a case since 1957, except in 1962 when it reported 11 cases.

In 1965 smallpox was still present in Argentina, Brazil, Colombia, Paraguay, Peru, and Uruguay (see Table 1).

PRESENT STATUS OF SMALLPOX ERADICATION PROGRAMS IN THE AMERICAS

Smallpox was eradicated in Paraguay (1961) and Peru (1955) as a result of national vaccination programs. Subsequently, the disease was reintroduced into both countries.

In Colombia a national vaccination program, begun in 1955 and completed in 1961, did not succeed in eradicating smallpox, since cases of the disease have been reported continuously since 1957. In 1948, there were 7,356 cases in Colombia, whereas in 1965 there were only 149. Incidence of the disease in the country was less in 1963 when there were five cases, but from that year onward it has been increasing again.

Smallpox has disappeared from Bolivia, Chile, Ecuador, Mexico, and Venezuela, thanks to intensive vaccination programs carried out in short periods of time with good quality vaccine and covering more than 80 per cent of the population in each of the various geographical sectors of these countries.

Smallpox still persists in Argentina, Brazil, Colombia, Paraguay, Peru, and Uruguay, owing to premature interruption of the programs, or their incomplete execution.

The Pan American Sanitary Bureau cooperated in smallpox vaccination programs in Bolivia, Colombia, Ecuador, Paraguay, and Peru. A vaccination program is under way in Bolivia, and an agreement has been concluded with Brazil to begin a national program for which the Organization is furnishing equipment for the transportation of personnel, as well as jet injectors. Equipment for three laboratories producing freeze-dried smallpox vaccine had been previously provided.

Generally speaking, vaccination programs have

Table 1—*Reported Cases of Smallpox in the Americas, 1955–1965*

Country	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 [a]
Argentina	55	86	335	27	36	65	6	2[b]	—	13[c]	15[b]
Bolivia	372	499	1,310	183	7	1	—	—	—	5	—
Brazil	2,580[d]	2,385[d]	1,411[d]	1,544[d]	2,958[d]	3,010[d]	8,473	9,450	6,211	2,673[e]	3,152
Canada	—	—	—	—	—	—	—	1[b]	—	—	—
Chile	—	—	—	—	1	—	—	—	—	—	—
Colombia	3,404	2,572	2,145	2,009	950	209	16	41	4[f]	21[f]	149
Ecuador	1,831	669	913	863	1,140	2,185	496	204	45	42[g]	—
Panama	—	—	—	8[h]	—	—	—	—	—	—	—
Paraguay	57	132	103	21	—	35	—	—	—	7	32
Peru	—	—	—	—	—	—	—	—	865	454	18
United States of America	2[i]	—	1[i]	—	—	—	—	—	—	—	—
Uruguay	45	42	2	—	—	19[j]	1[j]	10[j]	1[b]	3[b]	1[k]
Venezuela	2	4[l]	—	—	—	—	—	11	—	—	—
Total	8,348	6,389	6,220	4,655	5,092	5,524	8,992	9,719	7,126	3,218	3,367

[a] Information based on data received up to 20 June 1966.
[b] Includes imported cases.
[c] Includes 10 imported cases.
[d] Incomplete data: Guanabara State and capitals of other states, 1954–60 (and Rio Grande do Sul State, 1958–1960).
[e] Data for all states.
[f] Confirmed cases only.
[g] Hospital data, cases not confirmed.
[h] Includes 4 imported cases.
[i] Cases did not present all symptoms required for smallpox diagnosis.
[j] Includes 2 imported cases.
[k] Imported.
[l] Clinical diagnosis not supported by epidemiological evidence.

not been followed by maintenance or consolidation programs. Nor have epidemiological surveillance services been organized.

The Governing Bodies of the Pan American Health Organization have repeatedly expressed their concern regarding smallpox in the Americas and their desire to see the disease eradicated, as is shown by successive resolutions [2] adopted by the Executive Committee, the Directing Council, and the Pan American Sanitary Conference.

Furthermore, the World Health Assemblies, as far back as the Third,[3] have been drawing attention to the smallpox problem throughout the world and inviting and urging countries to eradicate the disease.

WORK DONE BY PAHO/WHO

Pursuant to the instructions of the Governing Bodies, the assistance given by PAHO/WHO to the countries may be summarized as follows:

(a) Organization of laboratories for the production of freeze-dried smallpox vaccine; training of local personnel in techniques of large-scale freeze-dried smallpox vaccine production, provision of laboratory equipment in varying amounts, according to the countries' needs. As a result, Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Peru, Uruguay, and Venezuela now have suitably equipped laboratories staffed by technicians trained in the production of glycerinated and dried smallpox vaccine in sufficient amounts to meet the internal needs of each country as well as to supply vaccine to non-producing countries that require it. In addition, the reference services of the Serum Institute in Copenhagen, Denmark, were made available to national laboratories for testing the purity and potency of the vaccines they produce.

(b) Advisory services for the study of the smallpox problem and the organization, implementation, and evaluation of vaccination programs. These have been both short- and long-term services. Physicians and health inspectors have worked together with national experts to ensure the success of these programs.

(c) Cooperation in the form of supplies and equipment has been given through the United Nations Expanded Program of Technical Assistance.

(d) Advances have been made in the study of the use of jet injectors for the administration of smallpox vaccine, in both urban and rural areas. A study of this kind was made by short-term consultants in Brazil in 1965. The experience gained there will make it possible to use this method in future programs.

(e) In accordance with the request of the XV Pan American Sanitary Conference,[4] the Pan American Sanitary Bureau prepared and submitted to the XIII Meeting of the PAHO Directing Council, a set of criteria [5] for the eradication of smallpox, which were unanimously approved.[6]

(f) With a view to determining the kind and amount of international assistance needed by the countries in order to eradicate smallpox from the Western Hemisphere, and in accordance with the request of the XVI Directing Council,[7] a survey was undertaken in the countries of the Region of the Americas in the first three months of 1966.

Table 2 contains a summary of the kind of technical assistance the countries are requesting from PAHO/WHO for the study, organization, conduct, and evaluation of smallpox eradication programs, national smallpox vaccination programs, consolidation programs, and programs for the organization of epidemiological surveillance services.

SMALLPOX VACCINATION PROGRAMS

GENERAL CHARACTERISTICS

Smallpox vaccination programs should be carried out in the following three stages: preparation, implementation, maintenance and epidemiological surveillance.

1. *Preparatory stage.* This stage comprises collection of data on the smallpox problem, the study of working techniques (effectiveness, cost, yield, and acceptability to the public), as well as a study of available resources. Consideration of these various aspects should lead to the establishment of program objectives and the preparation of a corresponding plan of operations.

Experience has shown how useful it is for the preparation of the smallpox eradication program to be carried out jointly by the authorities responsible for the program and the permanent health service authorities at the central, intermediate, and local levels.

[2] *Official Document PAHO* **60,** 293–294.
[3] Resolution WHA3.18. *Off. Rec. Wld Hlth Org.* **28,** 21.
[4] Resolution VI. *Official Document PAHO* **27,** 26–27.
[5] *Official Document PAHO* **41,** 352–353.
[6] Resolution XXXII. *Ibid.,* pp. 32–33.
[7] Resolution XXX. *Official Document PAHO* **66,** 81–82.

Table 2—*Type of Assistance Requested by Countries for Smallpox Eradication Programs, National Vaccination Programs, or Maintenance Programs*

Country	Technical assistance						Health education material	Dried smallpox-vaccine	Jet injectors	Jeeps	Boats	Field equipment	Smallpox vaccine, freeze drying equipment	Salaries and per diem, national personnel
	Organization, execution, and evaluation	Training of vaccination personnel	Vaccine production and/or control	Laboratory diagnosis of smallpox	Clinical diagnosis, treatment, visolation	Statistics								
Argentina	Yes	Yes	—	—	—	Yes	Yes	—	Yes	Yes	Yes	Yes	—	—
Bolivia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	—	—	—	Yes	—	—
Brazil	Yes	Yes	—	Yes	—	Yes	—	—	Yes	Yes	Yes	Yes	—	Yes
British Honduras	—	—	—	Yes	Yes	Yes	Yes	Yes	—	Yes	—	Yes	—	—
Chile	—	—	Yes	—	—	—	Yes	—	Yes	Yes	—	Yes	Yes	—
Colombia	—	—	—	—	—	—	—	—	—	—	—	—	—	Yes
Costa Rica	—	—	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	—	Yes	—	—
Cuba	—	—	—	Yes	Yes	—	—	Yes	Yes	—	—	—	—	—
Dominican Republic	—	—	—	—	—	—	Yes	Yes	Yes	Yes	—	—	—	—
Ecuador	Yes	—	—	—	—	Yes	Yes	—	Yes	Yes	Yes	Yes	—	—
El Salvador	—	—	Yes	Yes	—	—	—	Yes	—	Yes	—	—	—	—
Guatemala	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	—	—
Haiti	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	—	Yes	—	—
Honduras	Yes	Yes	—	—	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	—	—
Mexico	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nicaragua	Yes	—	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	—	Yes	—	—
Panama	Yes	—	—	—	—	—	Yes	Yes	Yes	Yes	—	Yes	—	—
Paraguay	Yes	—	—	—	—	—	Yes	Yes	—	Yes	—	Yes	—	—
Peru	—	—	—	Yes	Yes	—	Yes	—	Yes	Yes	—	Yes	—	—
Uruguay	Yes	Yes	—	Yes	—	Yes	Yes	—	—	Yes	—	—	—	—
Venezuela	—	—	—	—	—	—	Yes	—	Yes	Yes	—	—	—	—

The program itself should be carried out through, or with the participation of, the regular health services, where they exist. Where they do not exist, an independent or vertical service will be responsible for the program. In any event efforts should be made to ensure that these services become the foundation stone of the organization of permanent health services.

Although the objective of the programs is to vaccinate the entire population of a country in the intensive phase of the program, it should be borne in mind that, no matter how efficient the program is, there will always be a percentage of the population that will not be vaccinated. The vaccination of not less than 80% of the population of each of the various geographic sectors of the country, and of each of the various age groups, very probably prevents the transmission of the disease.

In view of the transmission characteristics of smallpox, from person to person, the most densely populated areas are those most exposed to the disease, and those where it is likely to be on a major scale, since the spread of the disease is easy and rapid. Hence, without depreciating the value of the mass vaccination of not less than 80 per cent of the population, it is recommended that special emphasis be put on urban communities, and that efforts be made to increase the percentage of the population protected to the highest possible figure so as to reduce the possibilities of transmission to a minimum. Although it is recognized that, generally speaking, the cost per vaccinated person rises rapidly as vaccination level reaches 100 per cent of the population in urban areas, because of the very density of the inhabitants, and their spontaneous attendance at vaccination centers, it is possible to reach 90 per cent of the population without an appreciable increase in the cost per person vaccinated. The same holds true of the school population, and of concentrated population centers such as military installations.

Ordinarily, three methods are used in mass vaccination programs to reach the population to be vaccinated against smallpox. One is the house-to-house method; another is the multiple small group method; and the third tackles large population groups.

The house-to-house method covers a high percentage of a population as well as certain age groups such as preschool age children that are otherwise difficult to reach. The method is an expensive one.

The multiple small group method gives higher returns and is relatively inexpensive. The method consists in convening 30 or 40 persons, in other words, the inhabitants of six or eight houses, to attend at a given place. It is very useful in rural areas, since the inhabitants need not travel long distances to the place of vaccination, which is chosen so as to be half-way between the houses that are farthest apart.

Once they are brought together, 30 persons can be vaccinated in a very short time, for example in half an hour, by one vaccinator assisted by one volunteer from among the local residents. However, it is preferable if vaccinators travel in pairs, since this ensures that vaccination will be rapidly performed. For reasons of economy it may be advisable to utilize volunteers to assist the vaccinator in various minor tasks.

One team chief, who also drives his own vehicle, could carry three pairs of vaccinators, drop them in three different places where groups of people are attending, and later pick them up again and take them to still other places. This ensures high performance in terms of the number of persons vaccinated per vaccinator-day.

Occasionally it may be necessary in rural areas to combine the house-to-house method with the multiple small group method.

The large population group method is applicable almost exclusively to urban areas where a considerable number of persons can be readily assembled in one place without their having to travel long distances. This makes it possible to vaccinate large numbers of persons per vaccinator-day at low cost. Experience has shown that in cities there always remain some persons who are not vaccinated because they fail to report to the appointed place and it is necessary to seek them out at home. It is therefore necessary to use the house-to-house method as a supplementary measure. In addition, this method makes it possible to vaccinate many children who have failed to go to the place of vaccination because of fear or for some other reason.

In administering smallpox vaccine, the scarification and the multiple pressure methods have been used without distinction. Both give good results when carried out correctly.

Jet injectors have now been in use for some time for the innoculation of reconstituted freeze-dried smallpox vaccine. By means of a special adapter the vaccine is injected intradermally in $\frac{1}{10}$ ml amounts. Trials of this method have given a high proportion of "takes" in primovaccination. The use of this instrument ensures a standard vaccination procedure, and makes postvaccinal supervision of vaccinees unnecessary.

Jet injectors are high performance instruments, but their costs are also high. The number of vaccinations that can be given in a day, under normal working conditions, varies according to the type of instrument used. With a jet injector worked by a foot pump, a figure of between 2,500 and 3,000 vaccinations can be obtained. A jet injector worked by a hand pump will give between 200 and 250 vaccinations per working day.

Because of their high cost, jet injectors should be used at their full capacity, without falling below a given limit under which the cost per person vaccinated will cease to be economical.

Clear, precise, and timely public information, combined with community organization, should make it possible for the methods of work selected to yield maximum results at minimum cost without sacrificing quality. This is especially true when jet injectors are used since, as mentioned above, they require a steady flow of persons to be vaccinated.

Therefore, the preparation of a work schedule is a project in itself. This fact should be borne in mind in smallpox vaccination plans if it is desired to effect savings by the use of jet injectors when that use is well-planned and permits a reduction in time for the execution of the program.

The plan of operations or timetable is nothing more than the arrangement of program activities in chronological order, up to their completion, in order to ensure that the work has been carried out according to selected methods and techniques.

2. *Implementation.* This is the stage in which the established plan of operations is carried out.

Since the plan of operations gives the number of activities to be performed per time unit, a continuous evaluation of program performance is necessary so that appropriate changes may be introduced when the conditions call for it in order that the objectives may be attained within the established time-limit.

The evaluation of a vaccination program is therefore a continuous process performed at the different stages of the program, but it can be made without the prior organization of a data-recording system.

Finally, it should be remembered that evaluation is both quantitative and qualitative.

3. *Maintenance and epidemiological surveillance.* The purpose of the maintenance phase is to maintain the population protected against smallpox in the years to come.

Important as it is to protect a high percentage of the population against smallpox, it is just as important to subsequently maintain that percentage. The maintenance phase is frequently an aspect to which insufficient attention is given. Because of this, the disease has been reintroduced and subsequently spread in areas from which it has been eliminated after great efforts. This phase should commence as soon as the vaccination program is completed in each geographic area of a given country or territory and it should continue until smallpox has been eradicated in all countries where it exists, and at least three years have elapsed since the last smallpox case was notified in the Hemisphere.

In the maintenance program the following should be vaccinated annually: all newborn infants and immigrants not previously vaccinated; and approximately 20 per cent of the population of each of the various age groups and of each of the various sectors of the country should be revaccinated, in addition to those immigrants who cannot produce evidence of effective vaccination within the past three years.

Special attention should be paid to the maintenance program in areas bordering on countries where smallpox still exists, and in particular the frontier zone should be given preferential treatment. Equal care should be given to densely populated urban areas and to concentrations, such as school children and soldiers among whom the disease can spread rapidly if they are not adequately protected.

There are some groups of persons who will require special attention because they are more exposed to the risk of contracting the disease than the remainder of the population. Such groups include physicians, nurses, auxiliary medical personnel, personnel working in the laundries of hospitals and medical services, and those working in pathological departments, laboratories, etc. The same holds true of immigration and customs officials in ports of entry and to the crews of ships, aircraft, trains, buses, etc., engaged in international travel. It also applies to persons travelling to areas infected, or suspected of being infected with smallpox. All such groups should be periodically vaccinated at intervals not exceeding five years.

Systematic application of the provisions of the International Sanitary Regulations is also recommended.

An epidemiological surveillance service has the following functions, among others: (a) detection and prompt notification of every suspect case of smallpox; (b) definitive diagnosis by means of clinical, epidemiological, and laboratory tests; (c) adoption and implementation of all measures necessary to prevent the spread of the disease should one or more cases occur; and (d) investigation of the reasons why smallpox cases are occurring, particularly in areas whose population is protected by vaccination.

The epidemiological surveillance service should begin to function in each geographic area of the country as and when the smallpox vaccination programs are completed there.

The organization of an epidemiological surveillance service calls for the existence of a suitable data-recording system for smallpox.

As smallpox incidence decreases, the clinical experience of physicians in diagnosing the disease will also diminish. The problem becomes further aggravated when attenuated forms of smallpox occur, which may be confused with other diseases. In the future, therefore, any diagnosis of a case or suspect case of smallpox should be made on the basis of a combination of clinical examination, laboratory tests, and epidemiological investigation. In 1966, PAHO/WHO will organize a course on the laboratory diagnosis of smallpox, and two courses in both 1967 and 1968.

Responsibility for the maintenance program and the epidemiological surveillance service rests with the permanent health services. Where no such services have been established, it will be necessary to adopt the necessary measures to ensure that the activities of the maintenance and epidemiological surveillance program will be regularly carried out.

CONTINENTAL SMALLPOX ERADICATION PROGRAM

Natural conditions, although they are adverse in some countries, should not be allowed to prevent the carrying out of a smallpox eradication program. A combination of the various means of transportation available will ensure access to most of the places where the vaccine should be employed. The information and communications media existing in the countries will make it possible to give health

education and orientation to the population. The network of health and medical care establishments, if properly utilized, should assist considerably in implementing the program where these are located, shortening the period required, and reducing operating costs. Moreover, the countries are in a position to produce all the vaccine necessary for a continent-wide smallpox eradication program

Everything seems to indicate, therefore, that it is possible to eradicate smallpox in the Americas by immunizing the population at risk, within a relatively short time, once the Governments provide all the resources necessary and solve the administrative problems that might hamper the program. Once this is done, international assistance will become more valuable and can take the form of technical advice or basic working equipment, which is not produced in the country and which is less expensive to import.

Apparently, although good coordination of all health services can be achieved for the smallpox eradication program or national smallpox vaccination programs, the same cannot be said of maintenance programs. This underlines the need to carry out smallpox vaccination programs simultaneously in as short a time as possible. If this is done and smallpox disappears, and good epidemiological surveillance services are established, then the intervals between revaccinations may be gradually increased, and it will be easier to observe them. Costs would also be substantially reduced and the money thus saved can be spent on other health activities. The work of epidemiological surveillance services will also be facilitated.

Technical and financial considerations lead PAHO/WHO to propose the following plan of action for eradicating smallpox from the Americas:

1. In countries where smallpox exists, the population should be vaccinated against smallpox. Argentina, Brazil, Colombia, Paraguay, and Peru fall into this group. Bolivia has a vaccination program under way. Uruguay is also included in this group on the grounds that it had smallpox cases in 1964 and lies between two countries where smallpox is endemic.

2. In countries where smallpox has been eradicated as the result of well-conducted vaccination programs, but which border on others where the disease exists, maintenance programs and epidemiological surveillance programs should be established or continued as the case may be. Chile, Ecuador, and Venezuela constitute this group.

3. In countries where smallpox does not exist, but which do not fall into the preceding group, the necessary safety measures should be adopted to prevent the introduction and spread of the disease, should the population become exposed to the risk of infection. This group of countries should make an effort to raise the level of immunity of the population against smallpox, preferably through the national health services, and as part of wider immunization programs.

In order of priorities, international assistance should first be concentrated on countries where smallpox still exists (group 1), and next on countries which at present are, or should be, conducting maintenance and epidemiological surveillance programs, and which have the characteristics indicated for group 2 above.

Smallpox eradication programs should be carried out simultaneously over periods not exceeding four years, at the end of which the disease should have been eliminated, while the maintenance and epidemiological surveillance programs should be fully developed and should cover the entire territory of the countries concerned. It is of great importance that the execution of programs in the different countries be synchronized, and also that they should all terminate simultaneously.

In accordance with priorities indicated in paragraphs 1 and 2 above, an estimate has been made of the cost of international assistance and this is shown in Tables 3, 4, 5, and 6. In these tables the countries where smallpox exists and where eradication programs should be carried out, have been separated from the countries where the disease has been eradicated, and maintenance and epidemiological surveillance programs are called for. The total amount of international contributions to programs in these two groups of countries, plus the cost of intercountry programs, comes to a total of US$2,470,284 spread over a four-year period as follows: first year, $1,556,280; second year, $446,940; third year, $310,940; and fourth year, $156,124.

Table 7 shows the amount each country proposes to spend on smallpox eradication and on subsequent maintenance and epidemiological surveillance programs. The table also indicates the international contribution to country programs and intercountry projects. The total cost of these programs comes to US$16,081,121, of which 84.65 per cent ($13,610,841) would be contributed by the countries, while the international contribution would amount to 15.35 per cent ($2,470,284).

Table 3—*Distribution of International Staff for Smallpox Eradication Programs and Maintenance and Epidemiological Surveillance Programs*

Program	Epidemiologists				Statisticians				Total cost	Distribution of costs per project
	Duration of post	Salary	Travel and per diem	Total	Duration of post	Salary	Travel and per diem	Total		
Argentina	36 months (1 expert)	60,912	21,750	82,662	36 months (1 expert)	60,912	13,650	74,562	157,224	52,408
Paraguay										52,408
Uruguay										52,408
Brazil	144 months (3 experts 4 years ea.)	243,648	63,000	306,648	48 months (1 expert)	81,216	18,200	99,416	406,064	406,064
Bolivia	36 months (1 expert)	60,912	21,750	82,662	36 months (1 expert)	60,912	13,650	74,562	157,224	52,408
Peru										52,408
Ecuador										52,408
Intercountry	48 months (1 expert)	81,216	28,000	109,216	48 months (1 expert)	81,216	28,000	109,216	218,432	218,432
Total									938,944	938,944

Table 4—*Distribution and Cost of International Staff, by Year, for Smallpox Eradication Programs and for Maintenance and Epidemiological Surveillance Programs*

Program	Number of consultant months								Cost of international staff (salaries, travel and per diem)								Total cost
	1st year		2nd year		3rd year		4th year		1st year		2nd year		3rd year		4th year		
	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	Epid.	Stat.	
Argentina																	
Paraguay	12	12	12	12	12	12			27,554	24,854	27,554	24,854	27,554	24,854			157,224
Uruguay																	
Brazil	36	12	36	12	36	12	36	12	76,662	24,854	76,662	24,854	76,662	24,854	76,662	24,854	406,064
Bolivia																	
Peru	12	12	12	12	12	12			27,554	24,854	27,554	24,854	27,554	24,854			157,224
Ecuador																	
Intercountry	12	12	12	12	12	12	12	12	27,304	27,304	27,304	27,304	27,304	27,304	27,304	27,304	218,432
Subtotal	72	48	72	48	72	48	48	24	159,074	101,866	159,074	101,866	159,074	101,866	103,966	52,158	
Total	120		120		120		72		260,940		260,940		260,940		156,124		938,944

Epid. = Epidemiologists; Stat. = Statisticians.

Table 5 —*Estimated Cost of International Assistance to Smallpox Eradication Programs and to Maintenance and Epidemiological Surveillance Programs, by Country and Item*

Program	Jet injectors					Transportation						
	Foot type	Hand type	Foot type US$	Hand type US$	Total cost	Jeeps	Launches	Motors	Jeeps US$	Launches US$	Motors US$	Total cost
Argentina	20	45	14,600	7,200	21,800	40	—	—	152,000	—	—	152,000
Bolivia	3	15	2,190	2,400	4,590	—	—	—	—	—	—	—
Brazil	40	154	29,200	24,640	53,840	25	13	20	95,000	130,000	40,000	265,000
Colombia	18	45	13,140	7,200	20,340	17	4	—	64,600	40,000	—	104,600
Paraguay	3	9	2,190	1,440	3,630	5	—	—	19,000	—	—	19,000
Peru	15	39	10,950	6,240	17,190	20	4		76,000	32,000	—	108,000
Uruguay	5	8	3,650	1,280	4,930	9	—	—	34,200			34,200
Subtotal	104	315	75,920	50,400	126,320	116	21	20	440,800	202,000	40,000	682,800
Chile	12	24	8,760	3,840	12,600	5	2	—	19,000	20,000	—	39,000
Ecuador	3	24	2,190	3,840	6,030	10	3	—	38,000	24,000	—	62,000
Venezuela	15	24	10,950	3,840	14,790	16	—	—	60,800	—		60,800
Subtotal	30	72	21,900	11,520	33,420	31	5	—	117,800	44,000	—	161,800
Intercountry												
Total	134	387	97,820	61,920	159,740	147	26	20	558,600	246,000	40,000	844,600

Program	Field equipment	Health education	Freeze-drying equipment	Vaccine	Lab. diagnosis (4 courses)	Statistics (Team)	Training of administrative personnel (2 courses)	Contingencies	International staff	Total cost	Overall total	
Argentina	10,000	10,000							52,408	246,208		Eradication programs
Bolivia	3,000	3,000		2,000					52,408	64,998		
Brazil	30,000	20,000							406,064	774,904		
Colombia	—	—							—	124,940		
Paraguay	5,000	3,000		2,000					52,408	85,038		
Peru	10,000	5,000							52,408	192,598		
Uruguay	5,000	4,000							52,408	100,538		
Subtotal	63,000	45,000		4,000					668,104	1,589,224	1,589,224	
Chile	5,000	3,000	15,000						—	74,600		Maintenance and epidemiological surveillance programs
Ecuador	5,000	3,000							52,408	128,438		
Venezuela	10,000	5,000	15,000						—	105,590		
Subtotal	20,000	11,000	30,000						52,408	308,628	308,628	
Intercountry					64,000	60,000	80,000	150,000	218,432	572,432	572,432	
Total	83,000	56,000	30,000	4,000	64,000	60,000	80,000	150,000	938,944	2,470,284	2,470,284	

Table 6—*Estimated Cost of International Assistance to Smallpox Eradication Programs and to Maintenance and Epidemiological Surveillance Programs, by Country, Item, and Year of Work*

Program	First year										
	Jet injectors	Transport vehicles	Field equipment	Health education	Freeze-drying equipment	Vaccine	Lab. diagnosis (2 courses)	Training (1 course)	Statistics	Contingencies	International staff
Argentina	21,800	152,000	10,000	10,000		1,000					
Bolivia	4,590		3,000	3,000							
Brazil	53,840	265,000	30,000	10,000							
Colombia	20,340	104,600									
Paraguay	3,630	19,000	5,000	3,000		1,000					
Peru	17,190	108,000	10,000	2,500							
Uruguay	4,930	34,200	5,000	2,000							
	126,320	682,800	63,000	30,500		2,000					
Subtotal	904,620										
Chile	12,600	39,000	5,000	3,000	15,000						
Ecuador	6,030	62,000	5,000	3,000							
Venezuela	14,790	60,800	10,000	2,500							
	33,420	161,800	20,000	8,500	15,000						
Subtotal	238,720										
Intercountry							32,000	40,000	30,000	50,000	260,940
							32,000	40,000	30,000	50,000	260,940
Subtotal	412,940										
Total	1,556,280										

Program	Second year								Third year		Fourth year	Overall total	
	Health education	Freeze-drying equipment	Vaccine	Lab. diagnosis (2 courses)	Training of directors (1 course)	Statistics	Contingencies	International staff	Contingencies	International staff	International staff		
Argentina			1,000										Eradication programs
Bolivia													
Brazil	10,000												
Colombia													
Paraguay			1,000										
Peru	2,500												
Uruguay	2,000												
	14,500		2,000										
Subtotal	16,500											921,120	
Chile													Maintenance and epidemiological surveillance programs
Ecuador													
Venezuela	2,500	15,000											
	2,500	15,000											
Subtotal	17,500											256,220	
Intercountry				32,000	40,000	30,000	50,000	260,940	50,000	260,940	156,124		
				32,000	40,000	30,000	50,000	260,940	50,000	260,940	156,124		
Subtotal	412,940								310,940		156,124	1,292,944	
Total	446,940								310,940		156,124	2,470,284	

Table 7—*Total Cost of Smallpox Eradication and of Maintenance and Epidemiological Surveillance Programs*

Project	Length of program (years)	Cost of program (Country investments)		International contribution US$	Total cost of program US$†	Over-all total US$
		National currency	US$*			
Argentina	3	$119,844,000	599,200	246,208	845,408	
Bolivia	2	$2,201,194	184,975	64,998	249,973	
Brazil	3	Cr. 16,902,950,000	7,767,899	774,904	8,542,803	
Colombia	3	$9,187,660	510,426	124,940	635,366	
Paraguay	3	G$6,912,440	164,580	85,038	249,618	
Perú	3	$S79,794,825	2,978,000	192,598	3,170,598	
Uruguay	2	$4,087,200	58,390	100,538	158,928	
Subtotal			12,263,470	1,589,224	13,852,694	13,852,694
Chile				74,600	74,600	
Ecuador	3	Suc.13,050,000	686,840	128,438	815,278	
Venezuela	5	Bs.2,972,390	660,531	105,590	766,121	
Subtotal			1,347,371	308,628	1,655,999	1,655,999
Intercountry				572,432	572,432	
Subtotal				572,432	572,432	572,432
Total			13,610,841	2,470,284	16,081,121	16,081,121
Percentage			84.65	15.35	100	100

*Conversion into US$ according to UN Exchange Table.
†Sum of columns 3 and 4.

Appendix

SURVEY OF LOCAL CONDITIONS, CHARACTERISTICS, AND RESOURCES FOR CONDUCTING NATIONAL SMALLPOX VACCINATION CAMPAIGNS, ERADICATING SMALLPOX, OR PROTECTING THE POPULATION AGAINST RISK OF THE DISEASE [1]

It has been stated on more than one occasion that if the countries are to eradicate smallpox they will require increased foreign aid. In order to determine the kind and amount of international assistance the countries would require to eradicate smallpox in the Western Hemisphere, and pursuant to a resolution [2] of the XVI Meeting of the Directing Council, the Pan American Sanitary Bureau

[1] Document CSP17/20, Rev. 1, Addendum (26 September 1966).

[1] Document CSP17/20, Rev. 1, Addendum (26 September

conducted a survey in the countries of the Region during the first three months of 1966.

A preliminary report, containing the findings of the survey, was submitted to the 54th Meeting of the Executive Committee.[3]

DEMOGRAPHIC CHARACTERISTICS

Table 1 contains a summary of some of the demographic characteristics of the countries surveyed. For the purposes of this table areas with a population of 2,000 or over are classified as urban.

The definition of an urban area is not uniform throughout the Hemisphere. In some countries these are areas with a population of 1,000 or over; in others, with a population of 2,000 or over; while still in others these are termed urban regardless of the number of inhabitants and only because the corresponding political and administrative authorities are located there. In such cases, the zones under the jurisdiction of those authorities are also defined as urban. Regardless of the definition, an urban area represents a concentration of population. According to the data collected, in 10 out of the 24 countries appearing in Table 1 the urban population fluctuates between 40 and 80.2 per cent of the countries' total population, a ratio which should be borne in mind when planning national smallpox vaccination programs. The population density per km^2 ranges between the extremes of 2 inhabitants in Canada and 190 in Trinidad and Tobago.

MEANS OF COMMUNICATION

Taking means of communication as a whole, it would appear that it is possible to reach most of the regions into which the countries are divided.

CULTURAL CHARACTERISTICS

Table 2 shows that illiteracy in the over 15 age group varies considerably. An information program using the newspapers, radio, and television stations in the different countries should reach a high percentage of the population. The use of battery-powered transistor sets enables persons living in the most remote areas to keep up to date with the news.

The languages spoken in North, Middle, and South America, and the Caribbean area are Spanish, French, Portuguese, and English. Dialects are also spoken in some countries, which are mixed with the official language. In three countries only the local dialect is spoken by a large proportion of the population. Language differences within a country should be no obstacle to a good understanding of health programs, since the health departments include personnel who can serve or who act as interpreters during working hours. Furthermore, in the great majority of countries, the population gladly accepts health services. It is a well-known fact that if a population has been properly informed it will not reject the health services offered, and the antismallpox campaign is no exception.

SYSTEMS OF GOVERNMENT

The systems of government in the countries in the surveyed area are unitary and federal. The health services come under the ministries of health, the national health services, states or departments, municipalities, and private organizations.

COMPULSORY SMALLPOX VACCINATION

Smallpox vaccination is compulsory in 20 of the countries listed in Table 3. It is not compulsory in four of these countries, and one furnished no information. Revaccination against smallpox is also compulsory in 16 countries, not compulsory in four, and three countries gave no information on the subject. The practice of issuing a certificate after vaccination is observed in 19 countries, as seen in the table. Two of the countries issue certificates only to persons travelling abroad; three countries do not issue a certificate; and one provided no information.

HEALTH SERVICES

Details of the number of hospitals and the number of beds, by type of hospital, appear in Tables 4 and 5, while Table 6 gives figures for health centers and outpatient clinics. The influence of these services in the areas they serve should be utilized to ensure the smooth operation of national smallpox vaccination programs. They can also be used as vaccinating centers.

The number of physicians, nurses, and auxiliary personnel, by country, is indicated in Tables 7 and 8.

There is no uniform coordination between the official, semiofficial, private, and other health services in the countries, but it can be obtained for smallpox eradication programs or for merely smallpox vaccination programs, since these would be well received everywhere. It would be advisable to have representatives of the various health institutions participate in the planning stage of the programs at the national and local levels, or at least to keep them informed of what is intended and how it will be done.

DATA-RECORDING SYSTEM

All the countries of the Americas have a statistical service, but these vary in degree of development and do not always cover the entire country. It is not possible to make any general statement on the reporting or notification of smallpox cases. Whereas in some countries notifications are made within a reasonable period, others delay considerably or do not report at all.

Before notification can take place, a diagnosis must first be made when smallpox is suspected or known. The case can then be notified and recorded. However, since in many countries the disease has long disappeared,

[3] Document CE54/3 (mimeographed).

Table 1— *Population Density per Km² and Urban and Rural Distribution of the Population in the Americas, 1965*

Country	Area in km²	Population (in thousands) 1965	Density 1965	Distribution	
				Rural (%)	Urban (%)
Argentina	2,776,656	22,352	8	33.6[a]	66.4
Bolivia	1,098,581	3,697	3	65.0[b]	35.0
Brazil	8,511,965	81,301	10	...	...
Canada	9,976,177	19,604	2	54.9	45.1
Chile	741,767	8,567	12	33.5	66.5
Colombia	1,138,338	17,787	16	63.7[b]	36.3
Costa Rica	50,700	1,433	28	65.5	34.5
Cuba	114,524	7,631	67	...	...
Dominican Republic	48,734	3,619	74	69.5	30.5
Ecuador	270,670	5,084	19	64.7	35.3
El Salvador	21,393	2,928	137	61.5	38.5
Guatemala	108,889	4,435	41	66.4	33.4
Haiti	27,750	4,660	168	87.7[b]	12.2
Honduras	112,088	2,163	19	69.5	30.5
Jamaica	10,962	1,773	162	68.0	32.0
Mexico	1,972,546	40,913	21	49.3	50.7
Nicaragua	130,000	1,655	11	58.9	41.1
Panama	75,650	1,246	16	58.5	41.5
Paraguay	406,752	2,030	5	64.6	35.4
Peru	1,285,215	11,650	9	52.6	47.4
Trinidad and Tobago	5,128	976	190	...	...
United States of America	9,363,389	193,818	21	30.5	69.5
Uruguay	186,926	2,715	15	17.8	82.2
Venezuela	912,050	8,722	10	37.5	62.5
Antigua	442	61	138		
Bahamas Islands	11,396	148	13		
Barbados	431	245	568		
Bermudas	53	48	906		
British Honduras	22,966	106	5		
Caicos-Turks Islands	430	6	14		
Caiman Islands	259	9	35		
Dominica	789	65	82		
Falkland Islands	11,961	2	0		
French Guiana	91,000	37	0		
Grenada	344	94	273		
Guadaloupe	1,779	316	178		
Guyana	214,970	647	3		
Martinique	1,102	318	289		
Montserrat	83	14	169		
Netherlands Antilles	961	209	217		
Puerto Rico	8,897	2,633	296		
St. Kitts, Nevis and Anguilla	396	59[c]	149[c]		
St. Lucia	616	92[c]	149[c]		
St. Pierre-Miquelon	240	5	21		
St. Vincent	389	87	224		
Surinam	142,822	342	2		
Virgin Islands (U.K.)	153	9	59		
Virgin Islands (US)	344	43	125		

[a] Estimate.
[b] 1950 or 1951 Census.
[c] Data for 1964.

Table 2—*Data on Languages Spoken in the Americas*

Country	Illiterates over 15 years of age (%)	Language spoken (%)		
		Official	Other	Dialect
Argentina	13.6	100.0	—	—
Bolivia	63.6	36.0	0.4	63.6
Brazil	55.0	100.0	—	—
British Honduras	10.4	82.0	8.0	10.0
Canada	3.0[a]		—	—
Chile	16.4	100.0	—	—
Colombia	37.3	97.5	—	2.5
Costa Rica	14.6	100.0	—	—
Cuba	3.9	100.0	—	—
Dominican Republic	55.0	99.0	1.0	—
Ecuador	29.8	99.0	1.0	—
El Salvador	52.0	100.0	—	—
Guatemala	71.9	66.0	—	34.0
Haiti	80.0	20.0	—	80.0
Honduras	52.7	98.0	—	2.0
Jamaica	17.1	100.0	—	—
Mexico[b]	34.6	95.7	0.5	3.8
Nicaragua	49.2	100.0	—	—
Panama	21.7	—	—	—
Paraguay[c]	31.8	53.8	40.1	1.4
Peru	38.9	60.0	37.4	2.6
Trinidad Tobago	6.2	100.0	—	—
United States of America	2.8		—	—
Uruguay	9.5	100.0	—	—
Venezuela	36.3	100.0		—

[a] Data for 1950.
[b] Over 14 years of age.
[c] Over 10 years of age.

Table 3—*Application of Smallpox Vaccination*

Country	Smallpox vaccination			
	Compulsory	Carried out	Periodicity of revaccination	Certificate issued
Argentina	Yes	Yes	3 years	Yes
Bolivia	Yes	Yes	Yes	Yes
Brazil	Yes	No	3 years	Yes
British Honduras	Yes	Yes	7 years	Yes
Canada	Yes			Yes[a]
Chile	Yes	Yes	5 years	Yes
Colombia	Yes	No	3 years	Yes
Costa Rica	Yes	No	3 years	Yes
Cuba	No	No		Yes
Dominican Republic	Yes	No		Yes
Ecuador	Yes	Yes		Yes
El Salvador	Yes		5 years	No
Guatemala	Yes	Yes	5 years	Yes
Haiti	No		No	No
Honduras	Yes	Yes	5 years	Yes
Jamaica	Yes	Yes		Yes
Mexico	Yes	Yes	5 years	Yes
Nicaragua	No	No	No	Yes
Panama	No	No	Yes	Yes
Paraguay	Yes	No	No	No
Peru	Yes	No	Yes	Yes
Trinidad and Tobago			Yes	Yes
United States of America	Yes[b]		Yes	Yes[a]
Uruguay	Yes	No	No	Yes
Venezuela	Yes		7 years	Yes

[a] For international travel only.
[b] Smallpox vaccination is compulsory in some states and cities and not in others; this depends on the local legislation.

physicians have lost their skill in diagnosing it; indeed, physicians in some countries have never had an opportunity of seeing a case of smallpox. To this should be added that the predominating clinical form of smallpox is the benign variety; this can be confused with other clinical entities with similar characteristics and a diagnosis of smallpox is not always immediately reached. This represents one of the many reasons for the delay in reporting cases. As smallpox continues to disappear from the Hemisphere, the ability of physicians to diagnose the disease clinically will also decrease. In the future, therefore, every suspect case of smallpox should be confirmed in the laboratory. Many countries are not yet able to assume this responsibility. The survey indicates a lack of establishments with suitable facilities and trained personnel to perform smallpox diagnosis tests.

Although smallpox data are being collected, it is evident that only a few countries have complete data-recording systems. A data-recording system includes notification, registration, tabulation, analysis, interpretation, and finally publication of the information collected. This is of the utmost importance when the objective is eradication of the disease. It explains in part the different values given to the same phenomenon, in the same period of time, when the information is collected at different dates or by different persons. Smallpox is an example of this.

POPULATION VACCINATED AGAINST SMALLPOX, BY AGE GROUPS

It was not possible to obtain the necessary information to give a complete picture of the percentage of population, by age group, vaccinated against smallpox in the Americas.

EPIDEMIOLOGICAL SURVEILLANCE SERVICES

As a result of effective national vaccination programs, carried out in short periods of time, a group of countries that formerly had smallpox succeeded in eliminating it. In others, smallpox continues to exist because the programs were suspended or terminated prematurely. In a third group of countries the disease was reintroduced after years of absence because of the lack of maintenance programs.

In another group, the combination of partial vaccination programs, plus the efficient operation of an epidemio-

Table 4—*Number of Hospitals by Type in the Americas, by Countries, 1964*

Country	Year	Total	General hospitals					Other hospitals				
			Total	General	Maternity	Pediatrics	Other	Total	Tuberculosis	Leprosy	Mental diseases	Other
Argentina	1962	2,253	2,055	1,852	115	85	3	198	76	9	59	54
Bolivia	1962	107	99	91	6	1	1	8	4	2	1	1
Brazil[a]	1962	2,806	2,428	2,167	217	44	—	378	107	55	138	78
Canada[b]	1965	1,381	1,085	1,067	15	—	3	296	45	—	103	148
Chile	1964	347	336	328	—	8	—	11	6	—	4	1
Colombia	1964	628	583	...	...	...	...	45	24	—	21	—
Costa Rica	1964	49	45	42	2	1	—	4	2	1	1	—
Cuba[c]	1965	159	113	...	...	...	...	46	...	...	...	...
Dominican Republic	1964	103	96	78	16	2	—	7	2	1	1	3
Ecuador	1964	161	143	133	5	5	—	18	11	3	3	1
El Salvador	1963	51	44	39	4	1	—	7	4	—	2	1
Guatemala	1964	46	37	27	4	4	2	9	5	1	1	2
Haiti[d]	1965	36	27	26	1	—	—	9	4		2	3
Honduras	1964	32	29	29	—	—	—	3	2	—	1	—
Jamaica	1964	27	24	22	1	1	—	3	1	1	1	—
Mexico	1962	1,925	1,862	1,419	415	28	—	63	32[e]	...	31	...
Nicaragua[d]	1965	39	36	36	—	—	—	3	1	1	1	—
Panama	1964	28	26	25	—	1	—	2	1	—	1	—
Paraguay	1964	143	137	124	12	1	—	6	1	2	1	2
Peru[f]	1964	256	...	...	...	...	...	...	...	...	...	...
Trinidad and Tobago	1962	27	24	24	—	—	—	3	1	1	1	—
United States of America[g]	1964	7,127	6,101	5,949	57	60	35	1,026	194	3	531	298
Uruguay[d]	1963	78	72	67	2	2	1	6	4	—	2	—
Venezuela	1964	314	281	262	12	7	—	33	16	2	9	6
Antigua	1964	3	1	1	—	—	—	2	—	1	1	—
Bahama Islands	1964	4	1	1	—	—	—	3	—	1	1	1
Barbados	1964	10	8	5	2	—	1	2	—	1	1	—
Bermuda	1964	3	1	1	—	—	—	2	—	—	1	1
British Guiana	1964	28	25	25	—	—	—	3	1	1	1	—
British Honduras	1963	10	7	7	—	—	—	3	1	—	1	1
Canal Zone	1963	4	2	2	—	—	—	2	—	1	1	—
Cayman Islands	1964	1	1	1	—	—	—	—	—	—	—	—
Dominica	1963	7	5	4	—	1	—	2	—	1	1	—
Falkland Islands	1962	1	1	1	—	—	—	—	—	—	—	—
French Guiana	1964	4	3	3	—	—	—	1	—	1	—	—
Grenada	1964	8	4	3	—	—	1	4	1	—	1	2
Guadeloupe	1964	19	17	16	1	—	—	2	—	1	1	—
Martinique	1962	17	15	9	6	—	—	2	1	—	1	—
Montserrat	1964	1	1	1	—	—	—	—	—	—	—	—
Netherlands Antilles	1964	10	8	8	—	—	—	2	—	1	1	—
Puerto Rico	1963	139	125	124	—	—	1	14	6	1	4	3
St. Kitts-Nevis and Anguilla	1963	4	4	4	—	—	—	—	—	—	—	—
St. Lucia	1963	5	4	4	—	—	—	1	—	—	1	—
St. Pierre and Miquelon	1962	3	2	1	1	—	—	1	1	—	—	—
St. Vincent	1957	6	2	1	1	—	—	4	1	1	1	1
Surinam	1965	15	13	13	—	—	—	2	—	1	1	—
Turks and Caicos Islands	1964	4	4	2	2	—	—	—	—	—	—	—
Virgin Islands (UK)	1962	1	1	1	—	—	—	—	—	—	—	—
Virgin Islands (US)	1963	3	3	3	—	—	—	—	—	—	—	—

[a] *Anuario Estatistico do Brasil*, 1965.
[b] List of Canadian Hospitals, 1965.
[c] *Salud Pública en Cifras*, Ministerio de Salud Pública, La Habana, 1965.
[d] Information from smallpox survey; distribution of special hospitals maintained as in previous reports.
[e] Infectious diseases including tuberculosis.
[f] *Plan Nacional de Salud, 1966–1970.*
[g] American Hospital Association.
... Data not available.
— None.

Table 5—*Number of Hospital Beds by Type of Hospital with Rates per 1,000 Population by Countries, 1964*

Country	Year	Total		General hospitals						Other hospitals				
		Number	Rate	Total		General	Maternity	Pediatrics	Other	Total	Tuberculosis	Leprosy	Mental diseases	Other
				Number	Rate									
Argentina	1962	129,435	6.1	92,990	4.4	84,297	2,621	5,451	621	36,445	9,112	1,992	21,454	3,887
Bolivia	1962	7,371	2.1	...		...	...	...	...	...	...	...	...	...
Brazil[a]	1962	236,930	3.2	142,648	1.9	105,951	21,591	15,106	—	94,282	22,412	16,404	41,845	13,621
Canada[b]	1965	206,087	10.5	116,346	5.9	115,035	799	—	512	89,721	6,829	—	68,323	14,569
Chile	1964	36,290	4.3	30,882	3.7	29,135	—	1,747	—	5,408	1,487	—	3,816	105
Colombia	1964	46,507	2.7	37,008	2.1	...	...	...	...	9,499	2,852	—	6,647	—
Costa Rica	1964	6,186	4.5	4,393	3.2	3,802	130	461	—	1,793	535	177	1,081	—
Cuba[c]	1965	42,162	5.5	31,245	4.1	...	...	...	...	10,917	...	...	...	...
Dominican Republic	1964	9,283	2.7	6,736	1.9	5,468	718	550	—	2,547	936	181	700	730
Ecuador	1964	11,199	2.3	8,368	1.7	7,173	590	605	—	2,831	1,507	224	1,072	28
El Salvador	1963	6,375	2.3	4,803	1.8	4,226	322	255	—	1,572	966	—	496	110
Guatemala	1964	11,053	2.6	8,355	1.9	7,477	307	452	119	2,698	1,041	50	1,172	435
Haiti[d]	1965	3,035	0.7	2,704	0.6	2,618	86	...	...	331	312		19	...
Honduras	1964	4,155	2.0	3,343	1.6	3,343	—	—	—	812	622	—	190	—
Jamaica	1964	6,907	4.0	3,385	2.0	3,021	164	200	—	3,522	222	185	3,115	—
Mexico	1963	84,680	2.2	...		...	...	...	...	...	...	...	...	...
Nicaragua[d]	1965	3,753	2.3	3,085	1.9	3,085	—	—	—	668	300	68	300	—
Panama	1964	3,804	3.2	2,513	2.1	2,301	—	212	—	1,291	320	—	971	—
Paraguay	1964	4,297	2.2	3,289	1.7	3,289	...	...	...	1,008	366	320	294	28
Peru[e]	1964	28,113	2.5	...		...	...	...	...	...	...	...	...	...
Trinidad and Tobago	1962	4,712	5.3	2,692	3.0	2,692	—	—	—	2,020	473		1,547	—
United States of America[f]	1964	1,696,039	8.9	833,536	4.4	821,981	2,420	7,300	1,835	862,503	41,385	819	758,401	61,898
Uruguay[d]	1963	16,935	6.4	11,867	4.5	10,738	258	741	130	5,068	2,084	—	2,984	—
Venezuela	1964	27,873	3.3	19,606	2.3	17,801	979	826	—	8,267	2,961	900	3,823	583
Antigua	1964	420	7.0	180	3.0	180	—	—	—	240	—	40	200	—
Bahama Islands	1964	782	5.5	450	3.2	450	—	—	—	332	—	20	200	112
Barbados	1964	1,393	5.8	567	2.3	507	40	—	20	826	—	25	801	—
Bermuda	1964	428	8.9	162	3.4	162	—	—	—	266	—	—	230	36
British Guiana	1964	3,424	5.4	1,990	3.2	1,990	—	—	—	1,434	246	354	834	—
British Honduras	1963	493	4.9	261	2.6	261	—	—	—	232	52	—	122	58
Canal Zone	1963	985	19.7	565	11.3	565	—	—	—	420	—	120	300	—
Cayman Islands	1964	34	3.8	34	3.8	34	—	—	—	—	—	—	—	—
Dominica	1963	309	4.9	257	4.1	232	—	25	—	52	—	22	30	—
Falkland Islands	1962	32	16.0	32	16.0	32	—	—	—	—	—	—	—	—
French Guiana	1964	626	17.4	506	14.1	506	—	—	—	120	—	120	—	—
Grenada	1964	731	7.9	320	3.4	300	—	—	20	411	60	—	200	151
Guadeloupe	1960	2,406	8.8	1,783	6.5	1,778	8	—	—	620	—	120	500	—
Martinique	1964	4,150	13.4	3,500	11.3	...	...	...	...	650	250	—	400	—
Montserrat	1964	69	5.3	69	5.3	69	—	—	—	—	—	—	—	—
Netherlands Antilles	1964	1,821	8.9	1,391	6.8	1,391	—	—	—	430	—	30	400	—
Puerto Rico	1963	12,411	4.9	7,533	3.0	7,466	—	—	67	4,878	2,000	100	2,567	211
St. Kitts-Nevis and Anguilla	1963	205	3.4	205	3.4	205	—	—	—	—	—	—	—	—
St. Lucia	1963	445	4.7	300	3.2	300	—	—	—	145	—	—	145	—
St. Pierre and Miquelon	1962	70	14.0	46	9.2	37	9	—	—	24	—	—	24	—
St. Vincent	1957	435	5.7	150	2.0	134	16	—	—	285	40	20	100	125
Surinam	1965	1,790	5.2	1,275	3.7	1,275	—	—	—	515	—	150	365	—
Turks and Caicos Islands	1964	32	5.3	32	5.3	28	4	—	—	—	—	—	—	—
Virgin Islands (UK)	1962	34	4.2	34	4.2	34	—	—	—	—	—	—	—	—
Virgin Islands (US)	1963	189	4.7	189	4.7	189	—	—	—	—	—	—	—	—

[a] *Anuario Estatistico do Brasil*, 1965.
[b] List of Canadian Hospitals, 1965.
[c] *Salud Pública en Cifras*, Ministerio de Salud Pública, La Habana, 1965.
[d] Information from smallpox survey; distribution of special hospitals maintained as in previous reports.
[e] *Plan Nacional de Salud, 1966–1970.*
[f] American Hospital Association.
... Data not available.
— None.

Table 6—*Health Establishments with Outpatient Services, by Country, 1964*

Country	Total	Health centers and posts	Clinics and dispensaries	Other
Argentina[a]	250	109	127	14
Bolivia	155	140	13	2
Brazil[b]	...	3,588	...	...
Canada[c]	1,231	391	840	—
Chile	763	478[d]	285	—
Colombia	1,473	1,002	414	57
Costa Rica	94	87	—	7
Cuba	462	—	391	71
Dominican Republic[e]	186	125	60	1
Ecuador[f]	266	34	232	—
El Salvador	92	70	12	10
Guatemala[c]	81	47	24	10
Haiti[e]	171	14	157	—
Honduras	85	64	11	10
Jamaica[c]	164	79	85	—
Mexico	...	2,592	...	...
Nicaragua[c]	174	117	50	7
Panama	52	30	22	—
Paraguay	292	260	32	—
Peru[c]	1,126	545	564	17
Trinidad and Tobago	110	5	105	—
United States of America[c]	9,454	2,065	5,937	1,452
Venezuela	590	486	104	—
Barbados	21	9	12	—
British Guiana[e]	71	37	24	10
British Honduras	34	26	8	—
Puerto Rico	143	44	99	—
Surinam	84	2	82	—

[a] Ministry of Public Health and Social Welfare only.
[b] Data from Report of 1964 Malaria Seminar.
[c] 1963.
[d] Medical posts in rural areas.
[e] 1962.
[f] Information from Smallpox Survey 1965.
... Data not available.
— None.

logical surveillance service, has prevented the occurrence of smallpox or has made it possible to promptly identify suspect cases whenever they appeared, and to adopt the necessary measures to prevent the spread of the disease.

There are no epidemiological surveillance services as such in the countries of Middle America, the Caribbean area, and South America. This is a need that calls for urgent attention.

SMALLPOX VACCINES: TYPE, USE, AND COMPLICATIONS

The smallpox vaccination programs carried out by the countries of North, Middle, and South America and the Caribbean area used both dried and glycerinated smallpox vaccines, which had been prepared in various countries of the Region. PAHO/WHO assisted in the formation and operation of 11 laboratories producing freeze-dried smallpox vaccine. It has also helped to train personnel in the large-scale preparation of freeze-dried smallpox vaccine. Table 9 gives details of smallpox vaccine production in 1965, and the number of vaccinations performed that year.

Each type of smallpox vaccine has its own specific indications. Glycerinated vaccine has been used in areas where it can be kept refrigerated; freeze-dried vaccines are used in those areas where these facilities are lacking or environmental conditions are unfavorable. Both the scarification and multipressure methods were used, but the latter was given preference. When the health authorities of the surveyed countries were consulted, they replied that smallpox vaccination produced no effects other than those to be expected from the vaccine. Some countries, however, reported complications such as postvaccinal encephalitis, generalized vaccinia, and gas gangrene. Postvaccinal encephalitis is described as such, but the case histories do not always permit the confirmation or rejection of this diagnosis. This fact should be taken into account in the future and should receive appropriate attention.

Glycerinated and dried vaccines produced in national laboratories have been subject to control by those laboratories as well as those established by the legal provisions of each country; in addition, they are occasionally subjected to field tests. A stricter criterion regarding vaccine control, tests—whether for purity or potency—will have to be adopted in the future. Also, the services of the Serum Institute of Copenhagen, Denmark, should be used more widely. By agreement with PAHO/WHO, samples of the different vaccine lots prepared in national laboratories may be sent to the Institute for purity and potency tests.

In the smallpox vaccination programs carried out, the percentage of "takes" among primovaccinees was high, ranging from 95 to 100 per cent.

INTERNATIONAL COOPERATION

Of the 25 countries included in the survey, three are in a position to provide both technical assistance and vaccine to the other countries of the Americas, and nine are able to furnish vaccine only.

Of those same countries, 22 are prepared to extend the international agreements entered into with other countries so as to include smallpox eradication or to conclude new agreements with other countries for the same purpose.

GENERAL CONSIDERATIONS

Natural conditions, although they are adverse in some countries, should not be an obstacle to the carrying out of a smallpox eradication program. A combination of the various means of transportation available will ensure access to most of the places where the vaccine should be employed. The information and communications media existing in the countries will permit health education and

Table 7—*Number of Physicians with Ratios per 10,000 Population, 1964, and Number of Medical Schools and Graduates, by Country*

Country	Year	Physicians		Medical Schools	
		Number	Ratio	Number of schools	Annual number of graduates [a]
Argentina	1962	31,831	14.9	9	1,871
Bolivia	1963	1,032	2.9	3	104
Brazil	1962	29,840	4.0	36	1,334
Canada	1962	21,411	11.5	12	817[b]
Chile	1964	4,842	5.8	4	247
Colombia	1963	7,453	4.4	7	391
Costa Rica	1963	634	4.7	1	—
Cuba	1965	6,815	8.9	2	334
Dominican Republic	1964	2,153	6.2	1	85
Ecuador	1965	1,698	3.3	3	69
El Salvador	1964	625	2.2	1	40
Guatemala	1964	1,066	2.5	1	89
Haiti	1965	311[c]	0.7	1	41
Honduras	1965	341	1.6	1	13
Jamaica	1964	854	4.9	1	36
Mexico	1965	21,165	5.2	23	1,079
Nicaragua	1965	698	4.2	1	22
Panama	1964	628	5.3	1	20
Paraguay	1964	1,180	6.0	1	97
Peru	1964	5,262	4.7	6	359
Trinidad and Tobago	1962	350	3.9	—	—
United States	1964	295,296	15.4	87	7,265[d]
Uruguay	1964	3,051	11.4	1	91
Venezuela	1964	6,584	7.8	6	364
Antigua	1964	16	2.7	—	—
Bahama Islands	1964	101	7.2	—	—
Barbados	1964	94	3.9	—	—
Bermuda	1964	50	10.4	—	—
British Guiana	1963	290	4.7	—	—
British Honduras	1963	27	2.7	—	—
Canal Zone	1964	92	17.0	—	—
Cayman Islands	1962	2	2.2	—	—
Dominica	1963	11	1.7	—	—
Falkland Islands	1962	4	20.0	—	—
French Guiana	1964	27	7.5	—	—
Grenada	1962	24	2.6	—	—
Guadeloupe	1964	134	4.4	—	—
Martinique	1962	122	4.1	—	—
Montserrat	1964	4	3.1	—	—
Netherlands Antilles	1964	141	6.9	—	—
Puerto Rico	1964	1,965	7.6	1	43[d]
St. Kitts-Nevis and Anguilla	1963	9	1.5	—	—
St. Lucia	1963	14	1.5	—	—
St. Pierre and Miquelon	1962	4	8.0	—	—
St. Vincent	1962	10	1.2	—	—
Surinam	1964	154	4.7	1	6
Turks and Caicos Islands	1962	2	3.3	—	—
Virgin Islands (UK)	1962	2	2.5	—	—
Virgin Islands (US)	1964	46	11.2	—	—
Northern America		316,761	15.1	99	8,082
Middle America		38,456	5.0	35	1,802
South America		93,248	6.0	77	4,933

[a] Most recent data available; year varies for schools.
[b] 1962.
[c] Estimate.
[d] 1963.

Source: For Medical Schools in Latin America, PAHO Medical Education Information Center, *Directory of Schools of Medicine in Latin America, 1966.*

Table 8—*Number of Graduate Nurses and Nursing Auxiliaries with Ratios per 10,000 Population, by Country*

Country	Year	Graduate nurses		Nursing auxiliaries		Ratio of nursing auxiliaries to nurses
		Number	Ratio	Number	Ratio	
Argentina	1964	22,903[a]	10.4	7,429	3.4	0.3
Bolivia	1964	411	1.1	1,148	3.1	2.8
Brazil	1963	6,684	0.8	55,664	7.3	8.3
Canada	1961	61,699	33.8	62,553	34.2	1.0
Chile	1963	1,656	2.0	13,260[b]	15.5	8.0
Colombia	1965	1,259	0.7	10,818	6.1	8.6
Costa Rica	1965	616	4.3	2,000	14.0	3.2
Cuba	1965	3,917	5.1	4,544	6.0	1.2
Dominican Republic[b]	1965	146	0.4	1,792	5.0	12.3
Ecuador	1965	364	0.7	1,849	3.6	5.1
El Salvador	1965	715	2.4	1,680	5.7	2.3
Guatemala	1965	491	1.1	2,289	5.2	4.7
Haiti	1965	315[c]	0.7	553	1.2	1.8
Honduras	1965	179	0.8	1,253	5.8	7.0
Jamaica	1964	3,779	22.0	611	3.5	0.2
Mexico	1965	8,252	2.0	40,000	9.8	4.8
Nicaragua	1965	353	2.1	1,047	6.3	3.0
Panama	1965	808	6.5	1,113	8.9	1.4
Paraguay	1965	134	0.7	1,471	7.2	11.0
Peru	1965	3,600	3.1	5,783	5.1	1.6
Trinidad and Tobago	1965	1,227	12.6	356	3.6	0.3
United States	1962	550,000	29.6	638,900	34.4	1.2
Uruguay	1964	496	1.8	3,756	14.0	7.6
Venezuela	1963	3,498	4.3	12,088	14.8	3.5
Antigua	1964	131	21.8	—	—	—
Bahama Islands	1964	144	10.2	190	13.5	1.3
Barbados	1964	393	16.2	420[c]	17.4	1.1
Bermuda	1964	165	34.4	49	10.2	0.3
British Guiana	1963	353	5.8	217	3.5	0.6
British Honduras	1963	162	16.2	22	2.2	0.1
Canal Zone	1963	200	40.0	344	68.8	1.7
Cayman Islands	1965	7	7.8	—	—	—
Dominica	1963	58	9.2	—	—	—
Falkland Islands	1962	4	20.0	5	25.0	1.2
French Guiana	1964	61	16.9	81	22.5	1.3
Grenada	1965	126	13.4	76	8.1	.06
Guadeloupe	1964	297	9.7	...	...	...
Martinique	1965	273	8.6	108	3.4	0.4
Montserrat	1964	13	10.0	—	—	—
Netherlands Antilles	1964	96	4.7	60	2.9	0.6
Puerto Rico	1964	5,658	21.9	5,117	19.8	0.9
St. Kitts-Nevis and Anguilla	1963	68	11.1	—	—	—
St. Lucia	1963	66	7.0	—	—	—
St. Pierre and Miquelon	1962	3	6.0	15	30.0	5.0
St. Vincent	1957	74	9.7	32	4.2	0.4
Surinam	1963	207	6.6	419	13.3	2.0
Turks and Caicos Islands	1963	23	38.3	15	25.0	0.7
Virgin Islands (UK)	1965	5	5.6	11	12.2	2.2
Virgin Islands (US)	1963	86	21.5	116	29.0	1.3
Northern America		611,867	30.0	701,517	34.4	1.1
Middle America		28,698	3.7	63,749	8.2	2.2
South America		41,630	2.6	113,988	7.2	2.7

[a] Distribution of nursing personnel by graduate nurses and auxiliaries differs from preceding reports.
[b] 1965.
[c] Government only.

Table 9—*Smallpox Vaccine Production, 1964 and 1965*

Country	Doses			
	Glycerinated 1964	Freeze-dried 1964	Glycerinated 1965	Freeze-dried 1965
Argentina	5,190,000[a]	—	13,310,000	—
Bolivia	—	813,700	—	986,000
Brazil	—	27,040,878	500,000	27,000,000
Chile	3,075,000[b]	582,500	3,000,000	400,000
Colombia	—	2,882,500	—	4,633,000
Cuba	666,600	—	555,850	—
Ecuador	—	715,004	1,512,280	—
El Salvador	—	—	180,000	—
Guatemala	1,417,165	—	379,500	—
Mexico	10,754,400	—	10,447,409	—
Peru	2,864,000[c]	3,517,100[c]	—	—
Uruguay	2,100,000[c]	—	2,583,200	—
Venezuela	2,634,000	750,000	1,741,200	3,443,000
Total	28,801,165	36,301,682	34,209,439	36,462,000

[a] January-July.
[b] January-October.
[c] January-August.

orientation of the population for smallpox eradication purposes or for national smalpox vaccination or maintenance programs. The network of health and medical care establishments, if properly utilized, should assist considerably in implementing the program, shortening the period required, and reducing operating costs. Moreover, the countries are in a position to produce all the glycerinated or dried vaccine necessary for a continent-wide smallpox eradication program. In addition to this, it may be possible to use the services of part of health personnel indicated in Table 10.

Everything seems to indicate, therefore, that it is possible to eradicate smallpox in the Americas by immunizing the population at risk within a relatively short period of time, once the Governments provide all the resources necessary and solve the administrative problems that might hamper the program. Once this is done, international assistance will become more valuable, and can take the form of technical advice, and the provision of basic requirements which are not produced in the countries, or which it would be more economical to import.

Apparently, although good coordination of all health services can be achieved for a smallpox eradication program or national vaccination programs, the same cannot be said as concerns maintenance programs. This fact underlines the need to carry out smallpox vaccination

Table 10—*Staff of Health Services in the Americas*

Country	Physicians					Nurses			Auxiliaries	Communities with health office	
	Total	Per 10,000 inhabitants	No. in public health service: Part time	No. in public health service: Full time	Responsible for vaccination	With public health training	Without public health training	Per 10,000 inhabitants		Urban	Rural
Total	94,842	—	8,537	6,508	3,973	—	13,709	—	41,113	1,441	455
Argentina	12,555	5.6	2,175	81	—	—	—	—	10,702	649	818
British Honduras	26	2.45	6	—	1	—	75	7.0	23	—	—
Bolivia	1,032	2.19	319	11	1	—	488	1.0	254	—	—
Brazil	31,003	3.8	2,557	200	12	—	—	—	—	—	—
Chile	4,842	5.7	—	—	—	—	1,188	1.4	11,044	—	—
Colombia	7,453	4.0	10	105	575	112	1,086	—	3,012	709	224
Costa Rica	637	4.7	150	—	2	76	496	3.8	310	110	—
Cuba	6,815	9.2	2,900	2,442	—	—	3,561	—	4,125	126	—
Dominican Republic	1,744	4.8	—	626	65	104	—	0.2	123	—	—
Ecuador	1,698	3.7	41	1	1	311	3	0.7	106	98	—
El Salvador	664	2.3	561	176	74	203	347	1.8	1,452	123	—
Guatemala	790	2.0	91	—	91	491	—	1.1	236	—	—
Haiti	400	1.0	8	—	2	44	270	0.8	—	—	—
Honduras	351	1.5	102	28	94	14	5	0.1	192	—	—
Mexico	20,590	5.9	642	770	2,671	146	1,360	0.3	7,011	—	—
Nicaragua	698	4.1	115	10	56	62	250	1.9	199	47	91
Panama	534	4.6	—	—	—	—	790	6.4	980	—	—
Paraguay	933	4.7	230	32	59	—	49	0.2	757	73	—
Peru	5,061	4.5	815	877	106	142	711	0.7	4,619	—	—
Uruguay	3,051	11.8	507	—	161	15	750	2.9	993	155	—
Venezuela	7,244	8.3	—	1,230	2	2,280	—	2.4	6,766	—	—

programs simultaneously, in as short time as possible. If this is done and smallpox disappears, and good epidemiological surveillance services are established, then the intervals between revaccination may be gradually increased and it will be easier to observe them. Costs will also be substantially reduced and the funds thus saved can be spent on other health activities. Finally, the work of epidemiological surveillance services will also be facilitated.

COOPERATION REQUESTED BY COUNTRIES, TYPE AND AMOUNT OF INTERNATIONAL ASSISTANCE

Table 2 (p. 551), shows the type of technical assistance requested by countries from PAHO/WHO for the study, organization, execution, and evaluation of smallpox eradication programs, for national smallpox vaccination programs, consolidation programs, and for organizing epidemiological surveillance services.

In addition, two countries requested financial assistance for the salaries and per diem of national personnel working in smallpox eradication programs. The contributions requested amount to a total of $3,449,200.

Courses for the training of personnel in techniques of preparing freeze-dried smallpox vaccine, methods and techniques of vaccine testing, and the laboratory diagnosis of smallpox, which is another type of technical assistance requested by the countries, should be attended by the professional staff appointed by the interested countries.

Annex 12

RELATIONSHIP OF THE PAN AMERICAN HEALTH ORGANIZATION WITH OTHER ORGANS OF THE INTER-AMERICAN SYSTEM [1]

Pursuant to Resolution XIV [2] adopted by the Executive Committee at its 54th Meeting, the Director has the honor to transmit to the Conference Document CE54/4, Rev. 1 on this subject, presented to the Executive Committee at that meeting (see Appendix).

Also submitted to the Conference for consideration and approval is the draft resolution on the Pan American Foot-and-Mouth Disease Center, proposed in Resolution XV [3] of the 54th Meeting of the Executive Committee, which examined that item together with that on the relations of PAHO with other organs of the Inter-American System, and in which reference is made to an IA-ECOSOC resolution on the future financing of the Center.

[1] Document CSP17/22 (23 August 1966).
[2] *Official Document PAHO* 71, 37-38.
[3] *Ibid.*, pp., 38–40.

Appendix

RELATIONSHIP OF THE PAN AMERICAN HEALTH ORGANIZATION WITH OTHER ORGANS OF THE INTER-AMERICAN SYSTEM [1]

Fourth Annual Meetings of the Inter-American Economic and Social Council

From 15 to 23 March 1966 and from 25 March to 1 April 1966 the Fourth Meetings of the Inter-American Economic and Social Council (IA-ECOSOC) at the Expert and the Ministerial Levels were held in Buenos Aires, Argentina.

The agenda of the meeting contained two items relating to health: "Examination of the First Five-Years of the Alliance for Progress—Economic, Social, and Information Aspects" and "Rural Development—Economic and Social Aspects."[2]

As in previous years the Organization was represented at the meeting by a group of observers. PAHO submitted a document entitled *Facts on Progress—Health Goals in the Charter of Punta del Este* [3] which analyzes the results obtained during the first five years and future prospects with regard to the health goals of the Ten-Year Public Health Program contained in Resolution A.2, of the Charter of Punta del Este, bearing in mind the present rate of investments and the expected return from human and material resources; and a report "Health—Problems, Achievements, and Prospects," [4] which contained comments on certain widespread health problems in Latin America, the resources and instruments being used to solve them, the progress achieved, and prospects for development. A report prepared in cooperation with the Department of Social Affairs of the Pan American Union analyzed the relationship between the medical programs of social security institutions and those of ministries of health.

In accordance with Resolution XV [5] of the XVI Meeting of the Directing Council, the Director informed the ministers of health about the Fourth Annual Meetings of IA-ECOSOC, and asked them to include in their Government's delegation a technical official of the ministry of health. The Governments of Argentina, Colombia, Nicaragua, and Peru followed that suggestion.

Chapter IX of the Final Report of the IA-ECOSOC Meeting at the Expert Level (CIES/966) dealt with human resources, health, and education.[6] The part concerning health summarizes the information presented by the Bureau in the above-mentioned documents, in particular on life expectancy, childhood mortality, communicable diseases and eradication programs, water supply and sewage disposal, nutrition, and health resources.

Two groups of resolutions emanating from the Meeting at the Ministerial Level are worthy of attention. The first group includes resolutions directly concerning health and the second those that are of particular interest with respect to functions also being carried out by PAHO.

In the first group mention should be made of a resolution on "Health and Development Planning," [7] the basis of which was the data supplied by the Organization in the two documents submitted to the meeting.

Particular attention was paid to the need for including the health sector in planning and carrying out programs of urban and rural development, to the importance of better coordination of all the available health services, and to the need for funds for applied research on the administration of health programs. In addition there are several resolutions on population [8] which clear the way for further studies on that subject; that on social security within the framework of the Alliance for Progress [9] recommends to the Governments that they make use of the technical assistance of the OAS, PAHO, and the International Labour Organisation (ILO) and a resolution on a study for the future financing of the Pan American Foot-and-Mouth Disease Center.[10] Finally, there is a resolution on the Program and Budget of the Special Development Assistance Fund for the period 1 April 1966 to 30 June 1967 [11] which includes the authorization for the Pan American Foot-and-Mouth Disease Center. This budget amounts to US$9,336,820.

The Program of Technical Cooperation of the OAS was originally established to give short-term support to programs which were expected to be financed by other methods of financing once they had become established. For special reasons, the source of financing of the Pan American Foot-and-Mouth Disease Center has continued to be the Program of Technical Cooperation. In recent years a change in the system of financing this institution has been under discussion. The Government of Brazil contributes the land, buildings, and pays some local costs of the Center; sometimes this institution receives assistance for special purposes, i.e., research, from sources such as the United States of America, but most of the costs are borne by the Organization of American States.

In recent years the demand for services from the Governments has been increasing and consequently the cost of operating it has been greater, as has been the case with the whole Program of Technical Cooperation.

[1] Document CE54/4, Rev. 1 (14 April 1966).
[2] *OAS Official Records OEA*, Ser. H/XII.11 (Eng.) p. 5.
[3] *Miscellaneous Publication PAHO* **81**.
[4] Document CIES/863 (mimeographed).
[5] *Official Document PAHO* **66**, 67.
[6] *OAS Official Records OEA*, Ser. H.XII.11 (Eng), p. 153.
[7] *OAS Official Records OEA* Ser. H/XII.11 (Eng.), pp. 28–29.
[8] *Ibid.* p. 24.
[9] *Ibid.* pp. 25–27.
[10] *Ibid.* pp. 70–71.
[11] *Ibid.*, pp. 63–67.

During the same period the rate of increase of contributions from the Member Governments to the Program of Technical Cooperation has been very slow. Bearing in mind the pressure of increasing costs and the greater demand for program activities in relation to limited resources, the Inter-American Economic and Social Council approved a budget for a 15-month period from 1 April 1966 to 30 June 1967, and reduced the planned level for all 1966 projects of the Program of Technical Cooperation, including the Pan American Foot-and-Mouth Disease Center, by 25 per cent.

Consequently it is essential to meet immediate financial needs while at the same time planning for long-term operation.

The IA-ECOSOC resolution on the future financing of the Center constitutes acknowledgment of the importance of the program and of the need to establish a firm and adequate financial basis.

The resolution recommends that a study be made of the present status of the foot-and-mouth disease problem and of the control campaigns under way and being prepared. It also recommends the Organization of American States and the Pan American Health Organization to draw up proposals for stable, long-term financing of the Center and to submit them to the Inter-American Committee on the Alliance for Progress (CIAP).

The above-mentioned study on the foot-and-mouth disease problem and foot-and-mouth disease control programs is already under way, and the Director has begun to plan the financial study with the Secretary General of the OAS. Both Organizations are undertaking negotiations with a view to obtaining a short-term and long-term financing of the Center at a level which will allow it to meet the needs of the Americas.

The Fourth Meetings approved the Statutes of the Inter-American Emergency Aid Fund[12] which was established by the Second Special Inter-American Conference of Rio de Janeiro (Resolution VIII) at the proposal of the Government of Mexico. The Fund is dedicated to providing without considerations of a political nature aid in the form of food, medical equipment, and medicines or other types of economic and technical assistance to any country which is threatened by or suffering from or is in an emergency situation of whatever origin. The Fund is made up of voluntary contributions from the Governments, which may be made by a simple notification that certain goods or services or amounts of money are at the disposal of the Fund. The Fund provides aid upon the request of the country affected and will establish cooperative relations with the World Food Program, FAO, PAHO, International Red Cross, CARE, and other national and international institutions whose activities and experience might be useful in achieving its purposes. The Fund will carry out its functions under the authority of the IA-ECOSOC. The Fund will be operated by a Committee consisting of the Secretary General of the OAS, the Chairman of CIAP, and the Executive Secretary of IA-ECOSOC.

[12] *Ibid.*, p. 57.

It is to be noted that at present PAHO/WHO provides Governments with assistance in meeting emergencies. Standard operating procedures are in existence and the Emergency Revolving Fund has been used to a large extent by Governments in such situations.

The second group includes a resolution concerning the improvement of statistics of Latin American countries,[13] which instructs CIAP to undertake an immediate action program and recommends to the Governments that they undertake a long-term action program; in addition there is a resolution on the standing coordination of planning offices and improvement of planning techniques.[14]

Once again, the Fourth Annual Meetings of IA-ECOSOC recognized the importance of the health sector in economic and social development, which has been one of the leading principles of the Organization in recent years.

Second Special Inter-American Conference

The Second Special Inter-American Conference was held in Rio de Janeiro, Brazil, from 17 to 30 November 1965. Delegations of all the American republics, except Cuba and Venezuela, attended and were headed by Ministers of Foreign Affairs. Observers representing the specialized organizations of the Inter-American System and specialized agencies of the United Nations were also present. The main purpose of the meeting was to review the operation of and to strengthen the Inter-American System.

Because of their general interest mention is made of the following resolutions: "The Act of Rio de Janeiro" which refers to the amendments to the Charter of Bogotá at present in force and the "Economic and Social Act of Rio de Janeiro" which emphasizes the economic and social principles underpinning the Inter-American System.

At the meeting it was decided to establish the Inter-American Emergency Aid Fund already referred to.

The Rio meeting also approved a resolution on the "Coordination of the Activities of International and Inter-American Organizations." In implementation of this resolution the Council of the OAS instructed the Committee on Inter-American Organizations to prepare a general report on the subject

The Committee on Inter-American Organizations presented its report to the Council of the OAS which approved it and sent it on to the Special Committee charged with the preparation of draft amendment to the Charter of the Organization of American States.

Meeting of the Special Committee to Prepare Draft Amendments to the Charter of the Organization of American States

The amendments proposed by the Special Committee to the Charter of Bogotá, which regulates the Specialized

[13] *Ibid.*, pp. 19–21.
[14] *Ibid.*, p. 18.

Organizations, do not change the present situation. They deal merely with adaptations to the new structure of the OAS with a view to giving the General Assembly the functions at present held by the Council.

Although Article 101 of the Charter concerning geographic location of the Specialized Organizations is retained, the Special Committee added a new phrase reading as follows: "and the advisability of the Headquarters of those organizations being chosen in such a way as to ensure the most equitable geographic distribution possible."

Some of the economic standards suggested by the Special Committee relate to health. They are as follows:

"Defense of human potential through the extension and application of modern knowledge of medical science;"

"Appropriate nutrition particularly through the acceleration of national efforts to increase the production and availability of foodstuffs;"

"Suitable housing for all sectors of the population;" and

"Urban conditions favorable to a healthy, productive, and full life."

Finally, according to Article 53 of the Charter it is the duty of the Council:

(a) To draw up and submit to the Governments and the Inter-American Conference proposals for the creation of new specialized organizations or for the combination, adaptation, or elimination of existing ones, including matters relating to the financing and support thereof;

(b) To draw up recommendations to the Governments, the Inter-American Conference, the Specialized Conferences or the Specialized Organizations, for the coordination of the activities and programs of such Organizations, after consultation with them;

(c) To conclude agreements with the Inter-American Specialized Organizations to determine the relations that shall exist between the respective agency and the Organization.

In the Preliminary Draft Amendments these functions have been transferred to the General Assembly and are defined as follows:

(i) To draft proposals for the coordination of the activities of the organs, organizations, or agencies of the Organization and of their activities with those of the remainder of the Inter-American System.

(ii) To strengthen and harmonize cooperation with the United Nations and its specialized agencies.

(iii) To promote collaboration, especially in the economic, social, and cultural fields, with international organizations whose purposes are similar to those of the Organization of American States.

(iv) To examine the annual and special reports which the organs, organizations, and agencies of the system are required to submit to it.

The Preliminary Draft of the Amendments to the Charter of the OAS prepared by the Special Committee will have to be submitted to the Third Special Inter-American Conference in July 1966 at Buenos Aires, pursuant to the Act of Rio de Janeiro.

Annex 13

STATUS OF THE PROBLEM OF VENEREAL DISEASES AND OF VENEREAL DISEASE CONTROL PROGRAMS IN THE AMERICAS [1]

The increase in the venereal diseases observed in countries where there are well developed data registration systems seems to be a world-wide phenomenon. The seriousness of this situation led the Pan American Sanitary Bureau to submit to the XV Meeting of the Directing Council (Mexico City, 1964), a study on the problem of the venereal diseases in the Americas and on the corresponding control programs (Document CD15/30).[2] Information received subsequent to 1964 appears in Tables 1, 2, 3, and 4.[3] Table 1 gives the number of cases and deaths due to syphilis, with rates per 100,000 population, by country, for the period 1961–1964. Table 2 gives the number of cases, and rates per 100,000 population, by country, of early syphilis during the period 1957–1964. Table 3 shows the

[1] Document CSP17/25 (2 September 1966).

[2] *Official Document PAHO* **60,** 295-300.

[3] The data for Guyana are still listed under British Guiana since the tables were prepared prior to the change of status of that country. Similarly, Barbados is listed under other political units.

number of cases of early syphilis and of all forms of syphilis for selected countries in 1964. Finally, Table 4 gives the number of cases of gonococcal infection and the rates per 100,000 population, by country, for 1964.

The knowledge of venereal disease cases is limited because of a series of factors. In many cases the patients prefer self-medication, "amateur doctors," or professional workers other than physicians, who do not report the cases known to them. Furthermore, medical practitioners only inform the health authorities of some of the cases found among their patients.

To all this is added the fact that, in the case of syphilis, the various methods of classifying the disease differ, even in one and in the same country. For example, it is not always possible to compare cases of early syphilis reported by one country with those reported by others for the reasons stated.

As a result of the regression of the venereal diseases after the discovery of penicillin, physicians and medical students witnessed the gradual disappearance of these diseases and at the same time their clinical skill in diagnosis decreased. At present, when a recrudescence of the venereal diseases must be faced, the problem of diagnosis is a contributory factor in the failure to detect cases.

In every respect, the venereal diseases should be regarded as communicable diseases, which they are in actual fact, and should not be artificially separated from the others by giving them special characteristics. Epidemiological investigation, especially in syphilis, is the method of choice in the search for sources of infection and the prevention of new cases. Special techniques are used for this purpose—the investigation of contacts being particularly important—and, in view of the nature of the problem involved, call for specially trained personnel.

The venereal diseases should be diagnosed by means of clinical examination, backed up by laboratory tests and epidemiological investigation. Laboratory techniques for venereal disease diagnosis have been simplified and improved in regard to both sensitivity and specificity. Their correct application would greatly contribute to the discovery of new cases, their treatment and the prevention of the disease.

Health education, which has intentionally been left until last, is fundamental for permanent activities in venereal disease control programs.

The XV Meeting of the Directing Council[4] requested the Director "to undertake a special study of the current situation of the venereal disease problem in the countries of the Americas, for the purpose of preparing a proposal for a continental program to control these diseases, and to report thereon to a future meeting of the Directing Council." For reasons of an economic nature, and because of prior commitments, it has not been possible to make the study which the Directing Council requested. Nevertheless, it is hoped to undertake it in the near future, and report to the Directing Council at the appropriate meeting.

The Pan American Sanitary Bureau carried on various activities in connection with the venereal disease problem in 1965 and 1966. In 1965 a Pan American Seminar on Venereal Diseases was held.[5] This Seminar was sponsored by the Government of the United States of America and the Bureau, and took place at PAHO Headquarters, in Washington, D. C. The Seminar dealt with four items, namely:

1. The Importance and Epidemiologic Characteristics of Venereal Disease.
2. The Importance of Case-Finding in Venereal Disease Control.
3. Clinical and Laboratory Diagnosis of Venereal Disease.
4. Professional Education and Training.

The presentation of each item was followed by a commentary given by a specially qualified expert. The discussions resulted in the preparation of a final report containing valuable recommendations.

In 1965 the translation into Spanish was completed of the *Serologic Tests for Syphilis*[6] (1964 edition), prepared by the Venereal Diseases Branch, Communicable Disease Center, Atlanta, Georgia, of the United States Public Health Service. It is hoped to distribute the Spanish version of this manual in the course of the present year. Special laboratory techniques for venereal disease diagnosis not included in this Manual, and which were presented at the Seminar on Venereal Diseases in 1965 were translated into Spanish and appear in the printed report on the Seminar.

In 1965, with the collaboration of the Venereal Diseases Branch (Communicable Disease Center, U.S. Public Health Service), the Pan American

[4] Resolution XXXV. *Official Document PAHO* **58,** 86.

[5] The final report and working papers were published in Spanish in *Scientific Publication PAHO* **137.**

[6] *Scientific Publication PAHO* **144.**

Table 1—*Syphilis, Reported Cases and Deaths with Rates per 100,000 Population, by Country, 1961–1964*

Country or other political unit	Cases								Deaths							
	Number				Rate				Number				Rate			
	1961	1962	1963	1964	1961	1962	1963	1964	1961	1962	1963	1964	1961	1962	1963	1964
Argentina	4,397	5,149	6,149	6,195	20.9	24.1	28.4	28.1	...	302[a]	...	...	...	1.6	...	...
Bolivia	133[b]	80	90	124[b]	3.8	2.3	2.5	3.4	...	...	...	...	...	...	...	...
Brazil[c]	...	...	...	...	...	...	...	...	362	335	281	...	2.7	2.5	2.0	...
Canada	2,311	2,432	2,785	2,771	12.6	13.1	14.7	14.4	160	129	117	91	0.9	0.7	0.6	0.5
Chile	3,705*	3,106*	3,046*	3,502*	...	...	...	...	195	153	125	149	2.5	1.9	1.5	1.8
Colombia	10,166[d]	12,232[d]	9,789[d,e]	14,992[e]	73.9	89.6	69.2	85.8	210	195	190	199	1.3	1.2	1.1	1.1
Costa Rica	597	1,200	1,287	1,170	48.7	94.2	95.8	84.4	15	8	12	18	1.2	0.6	0.9	1.3
Cuba	482	805	1,691	1,863	6.9	11.4	23.4	25.1	134	113	114	118†	1.9	1.6	1.6	1.6
Dominican Republic	12.040	10,494	7.113	12.639	382.8	322.4	210.9	361.7	121	62	59	39	3.8	1.9	1.7	1.1
Ecuador	...	...	...	228[f]	...	...	...	...	45	48	50	31	1.0	1.0	1.1	0.6
El Salvador	5,984[d]	6,552[d]	7,797	8,349	406.2	432.8	286.5	295.6	88	90	22	...	3.5	3.4	0.8	...
Guatemala	906	816	801	1,186	23.1	20.1	19.2	27.5	9	4	4	...	0.2	0.1	0.1	...
Haiti	4,944	5,201	3,405†	3,172†	116.4	119.7	76.6	69.7	1[f]	—[f]	...	...	...	...	...	...
Honduras	2,285	2,345[d]	1,619[d]	1,981[d]	120.5	246.3	161.9	159.0	5	6	8	5	0.3	0.3	0.4	0.2
Jamaica	9,748	2,776	2,298	1,774	596.2	169.1	136.2	102.7	135	...	102	100	8.3	...	6.0	5.8
Mexico	19,254	18,219	20,066	17,697	53.3	48.9	52.2	44.6	525	497	442	487	1.5	1.3	1.2	1.2
Nicaragua	1,514	1,537	3,100	1,029	104.2	102.7	201.2	64.4	9	1	4	—	0.1	—	0.3	—
Panama	151	370	200	239	13.8	33.0	17.3	20.2	21	7	11	15	1.9	0.6	1.0	1.3
Paraguay[d,g]	1,722	1,835	1,616	2,008	144.7	150.4	146.9	182.5	28	23	31	...	3.1	2.5	3.2	...
Peru[d,h]	3,475	3,872	3,679	3,320	71.3	75.1	76.4	61.5	39	52	52	40	1.0	1.2	1.1	0.8
Trinidad and Tobago	...	327	385	371[e]*	...	36.6	41.8	...	43	41	40	35†	5.0	4.6	4.3	3.7
United States of America	124,658	126,245	124,137	114,314	68.1	67.9	65.8	59.7	2,850	2,811	2,666	2,619	1.6	1.5	1.4	1.4
Uruguay	234	203	161	273†	9.1	7.8	6.1	10.2	95	...	71	...	3.7	...	2.7	...
Venezuela[d]	9,920	9,127	9,480	9,533	196.5	172.9	171.6	165.7	154	180	150	136	2.0	2.3	1.8	1.6
Antigua	256	...	188	104	457.1	...	318.6	173.3	18	17	17	9	32.1	29.3	28.8	15.0
Bahama Islands	19	14	30	92	15.6	10.9	22.4	65.2	...	1	...	6	...	0.8	...	4.3
Barbados	*	*	*	*	*	*	*	*	28	29	27	24	12.0	12.3	11.3	9.9
Bermuda	10	5	23†	12	22.2	10.9	48.9	25.0	1	1	...	2	2.2	2.2	...	4.2
British Guiana	334*	415*	800*	236*	...	...	...	...	—	—	1	...	—	—	0.2	...
British Honduras	659	648	...	790	701.1	668.0	...	767.0	—	—	1	2	—	—	1.0	1.9
Canal Zone	24	17	10	69	55.8	37.8	20.0	127.8	—	—	—	2	—	—	—	3.7
Cayman Islands	1	3	1	—†	(11.1)	(33.3)	(11.1)	—	...	—	...	...	...	—	...	...
Dominica	...	55	114	77†	...	90.2	181.0	120.3	...	4	6	...	...	6.6	9.5	...
Falkland Islands	—	—	...	...	—	—	...	...	—	—	—	—	—	—	—	—
French Guiana	84	98	48	54	247.1	288.2	137.1	150.0	...	...	...	—	...	...	...	—
Grenada	687	...	529	...	763.3	...	575.0	...	7	2	5	...	7.8	2.2	5.4	...
Guadeloupe	644	530	...	460	229.2	183.4	...	150.3	51	1	...	2	18.1	0.3	...	0.7
Martinique	26	9	—	357[i]†	9.0	3.1	—	115.2	—	—	...	...	—	—	...	...
Montserrat	24	—	...	11	184.6	—	...	84.6	1	—	...	—	7.7		...	—
Netherlands Antilles	*	*	*	*	*	*	*	*	4	...	...	...	2.1	...	...	...
Puerto Rico	1,180	1,056	1,401	1,581	49.0	42.9	55.6	61.3	49	36	34	38	2.0	1.5	1.3	1.5
St. Kitts—Nevis and Anguilla	28	22	12	5†	47.5	36.7	19.7	8.5	2	1	—	...	3.4	1.7	—	...
St. Lucia	391	668	149	196†	439.3	726.1	158.5	213.0	4	3	5	...	4.5	3.3	5.3	...
St. Pierre and Miquelon	—	—	...	—†	—	—	...	—	—	—	—	—	—	—	—	—
St. Vincent	...	...	12	...	...	...	14.3	...	2	5	—	...	2.4	6.1	—	...
Surinam[h]	...	*	374*	259[d]	...	*	...	87.8	11	6	6	10	3.8	2.0	1.9	3.1
Turks and Caicos Is.	4	1	3	—†	(66.7)	(16.7)	(50.0)	—	...	...	—	...	...	...	—	...
Virgin Islands (UK)	—	—	...	...	—	—	...	...	—	...	...	...	—	...	...	...
Virgin Islands (US)	175	481	284	454	514.7	1,374.3	710.0	1,107.3	—	1	3	—	—	2.9	7.5	—
Northern America	126,979	128,682	126,945	117,097	63.1	62.9	61.1	55.6	3,011	2,941	2,783	2,712	1.5	1.4	1.3	1.3
Middle America[j]	62,018	54,142	52,491	55,295	93.0	79.1	73.4	75.5	1,263	928	916	900	1.9	1.4	1.3	1.4
South America[k]	30,131	32,596	31,012	36,499	58.0	61.7	57.9	62.8	777	657	676	565	1.8	1.5	1.4	1.3

[a] Excluding Córdoba Province.
[b] Early syphilis.
[c] Death data refer to São Paulo State.
[d] Reporting area, for case data.
[e] Congenital and early syphilis.
[f] Hospital data.
[g] Area of information, for death data.
[h] Districts with medical certification, for death data.
[i] Including cases of yaws.
[j] Excluding Haiti from death data.
[k] Excluding Brazil, Chile, Ecuador, British Guiana and Surinam from case data; Argentina, Bolivia and Brazil from death data.
*Disease not notifiable.
† Provisional data.
( ) Rate based on less than 10 cases in a population of less than 20,000.

Table 2—*Reported Cases of Early Syphilis, with Rates per 100,000 Population by Country, 1957–1964*

Country	Number								Rate							
	1957	1958	1959	1960	1961	1962	1963	1964	1957	1958	1959	1960	1961	1962	1963	1964
Argentina	1,984	1,596	1,975	4,606	1,501	...	1,572	1,315	10.1	8.0	9.7	22.3	7.1	...	7.2	6.0
Canada	192	205	389	461	591	783	845	817	1.2	1.2	2.2	2.6	3.2	4.2	4.5	4.2
Colombia[a]	3,667	4,794	5,227	4,629	5,324	6,356[b]	9,789[b]	14,992	30.5	39.5	41.5	34.3	38.7	46.6	69.2	85.8
Costa Rica	...	...	...	...	249	473	391	382	...	...	...	...	20.3	37.1	29.1	27.5
Dominican Republic	...	...	...	...	...	...	3,573	...	...	...	...	...	...	...	106.0	...
El Salvador[c]	3,171	2,869	2,436	2,699	800	1,522	2,058	5,346	276.7	227.3	185.0	184.1	54.3	100.5	75.6	189.3
Jamaica	...	...	...	...	...	639	679	206	...	...	...	...	...	38.9	40.2	11.9
Mexico	3,203	2,345	2,269	1,835	1,971	...	...	...	10.0	7.1	6.7	5.2	5.5	...	...	...
Peru[b,d]	...	...	...	1,690	2,068	2,388	2,427	2,434	...	...	...	30.2	42.4	46.3	50.4	45.1
Trinidad and Tobago	140	227	158	68	...	43	42	...	18.3	28.8	19.3	8.1	...	4.8	4.6	...
United States of America[e]	6,576	7,177	9,799	16,145	19,851	21,067	22,251	22,968	3.8	4.1	5.5	9.0	10.8	11.3	11.8	12.0
Puerto Rico	...	67	86	94	248	395	674	849	...	2.9	3.7	4.0	10.3	16.1	26.7	32.9

[a] Reporting area, except in 1964.
[b] Including congenital syphilis.
[c] Reporting area, except in 1963 and 1964.
[d] Reporting area.
[e] Civilian cases.

Sanitary Bureau held two courses in Chile on laboratory techniques for the diagnosis of venereal diseases. Two similar courses were held in Argentina in 1966, again with the collaboration of the Communicable Disease Center.

Studies have been commenced for the preparation of a uniform system for data registration and for reporting on venereal disease control programs. A glossary of terms is also in preparation. It is hoped that as a result of future discussions with experts from the countries of the Region it will be possible to agree on the use of a single clinical classification of syphilis so as to enable comparative studies of the problem to be made.

The planning, programming, and evaluation of venereal disease control programs calls for administrators in order to direct the programs in an effective, economic, and rapid manner. PAHO/WHO is in a position to give countries the necessary technical assistance for the training of such personnel.

Fellowships awarded by PAHO have helped to train personnel in various aspects of the venereal diseases and their control. In coming years, the Organization hopes to extend this technical assistance program.

Table 3—*Reported Cases of Syphilis by Sex in Selected Countries, 1964*

Country	Early syphilis			Syphilis, all forms		
	Male	Female	Ratio M/F	Male	Female	Ratio M/F
Bolivia	51	73	0.7	...	...	...
Canada[a]	571	238	2.4	1,681	1,036	1.6
Colombia[b]	7,674	7,318	1.0	...	...	...
Cuba	...	...	...	1,087	776	1.4
Jamaica	131	75	1.7	999	775	1.3
Panama[c]	...	...	...	112	88	1.3
Trinidad and Tobago[c]	25	17	1.5	209	176	1.2
United States of America	14,305	8,663	1.7	63,356	50,958	1.2
Uruguay[c]	...	...	...	95	65	1.5

[a] Excluding cases not known by sex: 8 from early syphilis, 54 from syphilis, all forms.
[b] Including congenital syphilis.
[c] Data for 1963.

Table 4.—*Reported Cases of Certain Notifiable Diseases with Rates per 100,000 Population in the Americas, 1964*

Country or other political unit	Gonococcal infection (030–035)			
	1959–63 Medial	1963 Number	1964	
			Number	Rate
Argentina	9,389	10,310	11,051	50.2
Bolivia	92	62	78	2.1
Brazil	...	...	...	...
Canada	16,460	19,411	20,628	107.2
Chile	*	1,392*	902*	...
Colombia	47,229[a]	46,285[a, b]	41,972[b]	240.4
Costa Rica	2,237	2,227	1,828	131.8
Cuba	372	787	866	11.6
Dominican Republic	...	14,028	17,347	502.5
Ecuador	...	...	71[c]	...
El Salvador	3,222[a]	4,354	2,909	103.0
Guatemala	3,226	3,848	3,274	76.1
Haiti	4,736	3,849†	3,491†	76.7
Honduras	4,618	3,463[a]	357[a]	28.7
Jamaica	27,516	34,228	28,220	1,633.1
Mexico	18,882	18,784	18,367	46.3
Nicaragua	766	629	1,942	121.6
Panama	603	649	625	51.7
Paraguay[a]	473	473	396	36.0
Peru[a]	6,852	8,086	7,978	150.5
Trinidad and Tobago	4,494	7,978	3,574*	...
United States of America	263,708	278,289	300,667	157.1
Uruguay	227	227	81†	3.0
Venezuela[a]	18,800	18,910	20,652	359.0
Antigua	156	117	105	169.4
Bahama Islands	329	17	236	176.1
Barbados	*	*	*	*
Bermuda	102	138†	217	452.1
British Guiana	2,382*	5,910*	2,114*	...
British Honduras	328	*	*	*
Canal Zone	67	94	280	518.5
Cayman Islands	4	4	37†	411.1
Dominica	...	225	281†	432.3
Falkland Islands	10	...	...	...
French Guiana	166	129	82	227.8
Grenada	781	1,014	...	...
Guadeloupe	2	—†	6	2.0
Martinique	—	—	5†	1.6
Montserrat	...	...	13	100.0
Netherlands Antilles	*	*	*	*
Puerto Rico	2,719	2,570	2,840	109.9
St. Kitts-Nevis and Anguilla	419	223	87†	140.3
St. Lucia	1,635	716	1,093†	1,188.0
St. Pierre and Miquelon	...	...	4†	(80.0)
St. Vincent	...	...	...	...
Surinam[a]	...	...	2,017	683.7
Turks and Caicos Islands	64	95	23†	383.3
Virgin Islands (UK)	...	...	...	...
Virgin Islands (USA)	95	193†	263	641.5

* Disease not notifiable.
† Provisional data.
[a] Reporting area.
[b] Excluding blennorrhagic ophthalmia of newborn (033 pt.).
[c] Hospital data.

Annex 14

QUALITY CONTROL OF PHARMACEUTICAL PREPARATIONS [1]

The control of the quality of pharmaceutical preparations presents difficulties in many countries, particularly with the increasing number of products and specialties now in international commerce and of pharmaceutical products made locally in the different countries for the internal market. This issue was discussed at the Thirty-third Meeting of the WHO Executive Board and a resolution [2] was passed calling attention to the need to subject all pharmaceutical preparations, whether produced within a country for national consumption or for export, or whether imported, to an adequate control. At the Seventeenth World Health Assembly a resolution [3] was approved in which Member States were invited to study the possibility of ensuring that pharmaceutical preparations that are exported from a country will "comply with the same drug control requirements as applied to drugs for its domestic use." This resolution also invited the Member States which export drugs to consider whether testing facilities could be made available by arrangement with an importing country which has no such facilities.

A study of the quality control of pharmaceutical preparations was prepared by the Secretariat of WHO and reviewed by the Expert Committee on Specifications for Pharmaceutical Preparations.[4] The Committee emphasized the importance of the subject and the necessity for action. It was agreed by the Committee that the establishment of any facility, or the extension of existing facilities for the training at all levels of personnel for the analysis and quality control of pharmaceutical preparations was of primary importance in the interests of public health. Stress was also laid on the need to give Member Governments, on request, assistance in establishing laboratories for pharmaceutical quality control, adequately staffed and equipped, with special reference to countries depending largely on imported pharmaceutical preparations.

At the Eighteenth World Health Assembly a report on the control of pharmaceutical preparations was presented by the Director-General, pointing out the unsatisfactory situation that exists in regard to the quality control of pharmaceutical preparations moving in international commerce. It was emphasized that a large part of the world population that makes use of these pharmaceutical preparations did not have adequate facilities for quality control. A recommendation [5] that the Member Governments should take the necessary measures to subject pharmaceutical preparations imported or locally produced to adequate control was made by the Assembly, and the Organization was requested to continue to assist Member Governments to develop their own laboratory facilities or to secure access to such facilities elsewhere.

In view of these resolutions of the World Health Assembly and the great interest expressed by the Governments of the Hemisphere on the importance of having adequate control of drugs and pharmaceutical preparations, the Pan American Sanitary Bureau has taken several steps. Firstly, through WHO, discussions have been opened with the United Nations Development Program regarding the possibilities of financing such a center or centers. Secondly, the Organization has made a study of the possibility of establishing an international pharmaceutical control and reference laboratory that could serve a number of South American countries as follows: (1) as a training facility for scientists and technicians who may need additional instruction and experience; (2) to provide scientific advice and information to national drug control centers; (3) as a center of communication of scientific informa-

[1] Document CSP17/26 (14 September 1967).

[2] Resolution EB33.R28 *Off. Rec. Wld Hlth Org.* **132**, 17–18.

[3] Resolution WHA17.41. *Off. Rec. Wld Hlth Org.* **135**, 18.

[4] *Wld. Hlth. Org. Tech. Rep. Ser.* **307**, 20–26.

[5] Resolution WHA18.36. *Off. Rec. Wld Hlth Org.* **143**, 22–23.

tion in this field, as well as reporting the results of investigations carried out in the international control laboratory itself; (4) to furnish assistance as a reference laboratory in the quality control of pharmaceutical preparations.

A report of the need for, and potential value of such an international quality control laboratory was presented at the XVI Meeting of the Directing Council of the Pan American Health Organization. The organization and functions this laboratory could have were examined, as were space requirements, location, personnel, and equipment. The XVI Meeting of the PAHO Directing Council, bearing in mind this report and the recommendation [6] of the Task Force on Health at the Ministerial Level (Washington, D.C., 15–20 April 1963), adopted a resolution [7] on Quality Control of Pharmaceutical Preparations; it recommended that the Bureau continue studies on the possibilities of establishing international laboratories for the analysis of pharmaceutical products which might serve as reference centers, and that the Director study the possibility of the Organization providing more extensive assistance in the development of projects of this type.

Following this, a team of two special consultants visited Uruguay, Brazil, Venezuela, and Panama during June and July of 1966 in order to continue studies of the possibility of establishing an international center of this type and its possible location.[8] The consultants considered a number of factors with respect to the establishment of such a center. These included: (1) patterns of communication and distance between the capital cities, chief industrial cities and ports of entry of the countries served; (2) the availability and cost of land; (3) proximity to good universities; (4) the climate, amenities and cost of living in the site to be chosen; (5) transportation facilities between the site and the chief cities or port of the countries to be served; (6) the likelihood of recruitment of a competent staff within a reasonable length of time; and (7) the interest of the countries in having the laboratory located in their territory.

In seeking the answers to these and other related questions, interviews were held with informed persons both in the public and private sector in each of the above-mentioned countries. The consultants were permitted to observe the operation of the teaching programs as well as the equipment and instrumentation of the various branches of the universities located in the cities visited (Montevideo, São Paulo, Rio de Janeiro, Caracas, and Panama City). Special attention was given to the regulatory units for control of drugs and pharmaceutical preparations in the respective ministries of health. Several pharmaceutical houses manufacturing a wide variety of drugs were listed. Interviews with scientists in these various institutions were carried out to evaluate the level of their educational experience and ability in the light of the significance of modern techniques in pharmacology, analytical chemistry, biological chemistry, and physical chemistry in the establishment of such a center.

It is the assumption of the consultants that the superior quality of the analytical services which may be performed in a center or centers of the type proposed, and the caliber of the technical advice available from such center(s), will progressively lead most, if not all, of the countries of South America to participate in a project or projects of this kind.

In all the countries visited there was land available that was generously offered by the Governments for the establishment of an international center. Health authorities, universities, and private industry showed great interest in the possibility of future development of a program of this type. In each country studies of manpower availability were made and existing drug control laboratories were inspected. In view of the limited experience found in the drug control field, it is envisaged that the senior staff of a drug control center such as contemplated will have to be recruited from many areas of the Hemisphere.

Although the Governments of each of these four countries expressed interest in the establishment of such a center, Uruguay has taken official action to offer facilities for its organization. It is the feeling of the consultants that in the beginning a center of this type should serve on a national basis with the necessary provisions for expansion that will permit it to be rapidly made a regional international reference center.

In order to continue towards implementation of this project, the Organization has made provisions in the Proposed Program and Budget for 1967–

[6] Recommendation VII.C2. *Official Document PAHO* **51**, 40–41.

[7] Resolution XII. *Official Document PAHO* **66**, 64–65.

[8] The report, entitled "Location of an International Control Laboratory" was presented to PAHO by Dr. George P. Larrick and Dr. Solón N. Suárez (mimeographed document).

1968,[9] through a specific project, AMRO-4709, Center for Control of Drugs.

In addition to this specific project, it is worth noting that the Organization has been cooperating since 1964 with the Government of Panama in the establishment and operation of a food and drug control laboratory to serve the needs of Central America and Panama, following the recommendations of the VIII and IX Meetings of the Ministers of Health of the region. This is explained in greater detail under AMRO-4703, Food and Drug Control, (Zone III). Further activities of the Organization in this field in support of national programs, through consultant services to Argentina and Chile, and a seminar on food and drug control in Guatemala, are described in detail in the Annual Report of the Director for 1965.[10]

[9] *Official Document PAHO* **67.**

[10] *Official Document PAHO* **70,** 55-56.

Annex 15

SUPPLY OF TEXTBOOKS FOR MEDICAL STUDENTS [1]

Pursuant to Resolution XVII [2] of the 54th Meeting of the Executive Committee, the Director has the honor to transmit to the Conference Document CE54/14 on the subject (see Appendix 1), submitted to the Committee for consideration.

[1] Document CSP17/27 (19 September 1966).

[2] *Official Document PAHO* **71,** 41-42.

Appendix 1

SUPPLY OF TEXTBOOKS FOR MEDICAL STUDENTS [1]

The Director proposes for consideration of the Executive Committee a program for the improvement of the quality of teaching of medicine through the provision of textbooks, principally in Spanish and Portuguese. These textbooks would cover the basic sciences in the medical school curriculum for students of Latin America. Difficulty of access to textbooks and often inadequate quality of those available are most important problems today in the teaching of medicine. As part of the policy of the Organization particular attention has been given to a solution of these problems. A plan has now been devised which derives from a study undertaken by two experts who visited 36 schools of Latin America and interviewed more than 100 deans and professors of medicine. To these surveys has been added information originating from other institutions and persons with experience in the problem.

In essence the plan provides for the Pan American Health Organization to sponsor the publication of 22 textbooks covering the basic sciences in the medical school curriculum in Latin America. This would be done through a revolving fund for medical textbooks, which would allow for the initial selection, translation, and publication of these books for subsequent sale or rental at cost to the students of Latin America.

Although it may need to be up-dated in some cases,

[1] Document CE54 (19 September 1966).

the situation in Latin America with respect to the number of schools of medicine, students admitted, students graduated, and total students is as follows: Number of schools of medicine: 110; total students: 83,568; admission to first year: 14,896; graduates: 6,196; percentage: 41.5. This information applies to the academic year 1963 except in a few cases where it is based in 1960 figures.

First year admissions can be broken down as follows: 97 schools admit an average of 70 students (total: 6,790 students); 13 schools admit more than 200 students (total: 8,196 students). Of these 13 schools, 6 admit between 200 and 400 students; the remaining 7 schools each admit more than 400 students, one of them admitting as many as 2,000 students.

The Organization proposes a publications program which takes into account the needs and objectives of the medical education program in Latin America. Further, it proposes that textbooks be provided for 22 subjects in the medical curriculum and that these be published in groupings beginning with requirements for the first year in medical schools.

PLAN OF OPERATIONS

Medical schools in the program will be supplied with a total of the "starting edition" of about 10,000 copies on the basis of an agreement to be negotiated between the Organization and the Government concerned. These agreements will ensure the continuity of the program through a system which provides for recovering the cost of the books supplied.

Each medical school participating in the program will be invited to nominate candidates to an expert committee which will be responsible for selecting or preparing the textbook that is to be published. Since the instructors will have taken part in selecting the committee concerned, it is expected that the books selected will be readily acceptable.

The expert committees will meet according to subject groups, consideration being given first to basic sciences and introduction to scientific method; then the application of these to the healthy man, and finally, to man in search of cure of disease. Textbooks will be reviewed periodically by the expert committees in order to keep them up to date.

COST ESTIMATES

A detailed review has been made of cost elements. Printing costs have included estimates for royalties, translation into Spanish and Portuguese, revisions and corrections, printing, binding, and distribution. Estimates also have been made for the cost of expert committees for selection of books and for administration of the program including consultants. The foregoing cost estimates, based on 20,000 copies of each book result in a per book cost of $4.96.

The cost by calendar year over a five-year period is shown below. Since each book is expected to last three years, it will be noted that the figures in the years 1970 and 1971 include reprinting of the books produced in 1967 and 1968 respectively.

Year	*Subjects*	*Copies*	*Cost*
1967	5	100,000	$496,000
1968	5	100,000	496,000
1969	4	80,000	396,800
1970	9	180,000	892,800
1971	9	180,000	892,800
	22 *	640,000	$3,174,400

* Excludes repeat of five subjects in 1970 and 1971.

FINANCIAL IMPLICATIONS FOR PAHO

The foregoing cost figures represent the gross requirements for the first five years. It is expected that during the same period repayments derived from sale or rental of books will amount to $1.7 million, leaving a net capital investment of $1.5 million at the end of five years. From that point the system would be fully self-financing, and in addition may reasonably be expected to repay a substantial portion of the capital investment.

Preliminary discussions have been held with the Inter-American Development Bank with a view to obtaining a line of credit up to $3.2 million to assure financing of the gross cost, and to provide a revolving fund for future operation of the system. It is expected that long-term financing over a period of 20 years can be obtained at a low rate of interest, with an initial grace period of five or six years before starting repayment.

Under the financing arrangement outlined above, the Organization would undertake a commitment to start amortization payments in 1971 or 1972. At maximum this would require $100,000 per year over a 20-year period. Should the system be able, as planned, to repay a substantial portion of the investment, the financial cost to PAHO would be reduced a corresponding amount.

It is believed that the enormous benefits which will accrue to medical education in the Americas justifies the proposed investment by the Pan American Health Organization.

Appendix 2

REPORT ON THE VISIT TO MEDICAL SCHOOLS IN LATIN AMERICA FOR THE TEXTBOOKS PROGRAM [1, 2]

INTRODUCTION

Last August, the Director of the Pan American Sanitary Bureau invited us to participate in a Hemispheric-level study of the actual needs of Latin American medical schools with regard to the supply of textbooks for medical students.

There was evidence that indicated that medical students felt that their education was being impeded because of the lack of adequate supplies of textbooks. It was considered desirable to determine more precisely the actual situation with a view to finding a solution to the problem. Such a solution could consist of adequate financing of the publication of textbooks in the appropriate language, which could be supplied to all medical students under conditions appropriate to their financial capacity, while seeking a formula which would permit the indefinite continuation of such a program.

Replying immediately to the invitation of the Director, we travelled to Washington, D.C., and on 28 and 29 August 1965 met with the Director and other officers of PAHO.

PRESENTATION OF THE PROGRAM

The Director explained at length his purposes in requesting our cooperation in the program, and gave us an opportunity to converse and exchange ideas which enabled us to understand the true scope of its objectives.

The task of the advisory service would be to visit several Latin American countries in order to study a significant number of medical schools; to determine the present situation regarding the existence of a need for textbooks for students; and to explore, with persons to be interviewed, solutions to the problem that may exist. After the problem entrusted to us had been defined, we reached agreement on the very broad implications of the proposed project, which would have a direct bearing on the teaching of medicine as a factor of unquestionable importance in a general health program. Consequently, the program was designed to improve the level of that teaching and to provide facilities for the students, while adapting the methodology of teaching to the present-day needs of those who impart it and those who receive it.

We were also entrusted with the preparation of a work plan, and once it had been prepared in the form of a questionnaire and approved by the officers of the Bureau, it was decided that both consultants should go to Venezuela on 4 September. The Bureau assumed responsibility for transmitting communications related to their visit to the appropriate Zone Offices for local organization of the visits and interviews with persons, such as deans or directors of medical schools, who would be concerned with the teaching of medicine.

The need to make such visits within a short period of time of approximately six weeks limited the visits to only a few of the medical schools. Nevertheless, it is believed that the sampling obtained is significant and demonstrates the present status of the problem in Latin America.

INTERVIEWS

Eleven countries were visited (Argentina, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Panama, Peru, Uruguay, and Venezuela) and 102 personal interviews were held with university officials representing 32 schools of medicine in Latin America, not to mention the visits made in Brazil by a group under the direction of Dr. Ernani Braga.

In the majority of cases the personal interviews followed a similar general pattern. In addition to the general information which was designed to clarify the principal aspects of the program of the Bureau, we discussed the basic idea with the person or persons interviewed. In other words, we sought to determine to what extent they understood the purpose pursued by the Bureau in conducting the survey.

At all times, particular care was taken to point out that the basic purpose of the first visit of the consultants was to become familiar with the existent situation in the schools of medicine. In brief, to obtain precise information through personal contact with directors of schools; to find out whether a shortage of textbooks existed; to determine whether adequate publishing facilities were available; to see how they handled such problems, if existent; and to determine what financial resources were available, etc.

If the lack of textbooks was an important problem, we conversed with the persons visited, encouraging a dialogue designed to establish their true personal opinions with regard to procedures which could be utilized in order to remedy a situation which the Bureau had defined as a probable problem.

We stressed insistently that, with regard to the lack of textbooks, considered as a university problem, the Bureau did not have a definitive program. It was not formulating exclusive solutions but simply feeling out the thinking of the persons interviewed in order to have an accurate

[1] Document CSP17/27, Annex 3 (24 September 1966). Annex and detailed questionnaire from original report not included.

[2] By Dr. Hugo Trucco and Dr. Alejandro Jiménez Arango, PAHO/WHO Consultants.

idea, after hearing their opinions, which would enable it to try to find one or several solutions to the problem.

We always insisted upon a full exchange of views, and only after such an exchange we discussed, in a more or less orderly manner, the work outline-questionnaire in order to obtain the same information from all the persons who were interviewed. It was indicated that several aspects discussed required subsequent study or consultation between the respective deans or directors and their staff and, consequently, a copy of the outline-questionnaire was left with them. Those interviewed assured us that they would send additional information to Washington.

The aforementioned interviews and personal talks provided realistic information on the existent situation that could be summarized objectively. In order to facilitate a better chronological presentation, in this summary we will adhere to the numerals of the outline-questionnaire which were utilized in the interviews.

A. *Present Situation*

2.1. With regard to the availability of textbooks, there was unanimous agreement that the schools are in a very difficult situation. We did not find a single one that had a sufficient number of textbooks in its library and, on the contrary, most of them consider the problem to be most acute, inasmuch as the demand of the students for textbooks exceeds the existent supply by far. The situation varied all the way from places where there were practically no usable textbooks in the libraries to schools where enormous, albeit insufficient, efforts are being made to maintain a large number of textbooks.

Very few universities have bookshops that can satisfy their needs. Even where such bookshops exist, they do not meet the demand of the students, neither with regard to costs nor to their size.

Generally speaking, in most of the cities visited there are commercial bookshops that have a good supply of textbooks. In some countries, however, there are difficulties which result from the foreign exchange situation or other difficulties with regard to imports of textbooks. The cost of these has increased over the years, and their purchase has become increasingly difficult.

2.2. In view of this situation, the students and faculty seek to establish substitute systems of learning or teaching. In a considerable number of schools, there are mimeographed guides or manuals, prepared by the students or the professor and frequently revised by the latter.

It was unanimously agreed that this is not good teaching material and that note-taking is a defect the elimination of which should be sought by all possible means. Despite this assurance, in many schools it is recognized that the student turns to that method simply because he has no other way to cope with his need to study, either because he does not find adequate material in the library or because the prices of textbooks are too high for him.

2.3. Generally speaking, publishing activity in the universities is very scarce. The following cases may be cited as exceptions: at Los Andes University (Mérida, Venezuela), the Dean of the School of Medicine indicated that they have very good publication facilities and a good printshop, although he stressed the fact that there is no definite policy with regard to publications. At any rate, he offered those facilities in order to cooperate with the Bureau's program.

In Buenos Aires, the *"Editorial Universitaria de Buenos Aires"* (EUDEBA) carries out very important activities in the publications field, and one of its lines of activity is the publication of textbooks. The capital of EUDEBA comes from various sources, and the University of Buenos Aires contributes 99 per cent of it. It operates like a commercial company, without any type of priviledges or subsidies. Its purpose is to disseminate culture, not only at the university level but also among the general public. It has its own system of distribution of publications and exports a large part of its production. It is interested in the publication of original or translated texts, has published some medical works, and promotes the preparation of university textbooks. It works exclusively as a publishing firm, on the basis of contracts with local printers. At present, it publishes 15 works per month and pays royalties which fluctuate between 5 and 10 per cent of the sales price.

In Chile there is *"Editorial Andrés Bello,"* which is a branch of *"Editorial Jurídica"* of the University of Chile; its financing is provided for in national legislation. It operates as a commercial enterprise and it is estimated that, in order to be profitable, each edition which it produces must exceed 5,000 copies.

In Mexico, the *"Editorial Universitaria"* has a capital which amounts to US$400,000 and considerable capacity for publication. Nevertheless, Dr. Donato Alarcón, Dean of the School of Medicine, stressed the fact that its capacity is curtailed because of excessive work, particularly in other branches of knowledge. Furthermore, there are other publishing firms which are very active in the production of translations of medical textbooks, such as *"Interamericana,"* which is a purely commercial enterprise.

2.4. All those interviewed stressed that the prices of textbooks are excessive in relation to the economic capacity of the students. This becomes ever more evident, as the prices have increased progressively while an ever greater number of students from economically weak social sectors obtain access to universities. Frequently, the cost of a textbook is equal to the living costs of a student for a whole month. The percentage of students who have sufficient means to purchase textbooks is very small. The same holds true for universities, when they try to solve the problem with their own resources. In reality, notwithstanding the efforts made by some, we did not find a single university which was in a financial position to defray the cost of textbooks for its own students.

Another difficult factor is language, since most of the suitable textbooks are published in languages other than Spanish—generally English—and a considerable proportion of the students do not have a sufficient command of that language. This is true despite the fact that, in many schools, English is a required subject. On the other hand,

in some countries the use of English language textbooks, or of textbooks published in a language other than Spanish, does not seem advisable.

We heard frequent reference to the non-existence of a textbook which would be adequate for teaching needs. Specifically, some professors reiterated the fact that the usual textbooks deal haphazardly or inadequately with certain problems which are of great importance for the Latin American countries in our times. For these and other reasons, in many departments the use of a list of textbooks rather than specific textbooks is recommended.

2.5. Generally speaking, the library budgets of the schools visited were insufficient and, in certain instances, there is no such budget. With their limited funds, the schools must spend significant percentages of the budget in the purchase of textbooks, to the detriment of the purchase of other works, such as reference materials, reviews, and purely consultative works.

The few university bookshops which exist sell textbooks to the students at cost price, which sometimes is not low enough, and provide certain payment facilities. They are not subsidized by the universities, although not infrequently certain administrative deficiencies imply, in practice, the existence of fairly considerable expenditures for university entities.

For the reason just noted above, universities sometimes find that the publication of textbooks is onerous, although such activities may have been planned on the basis of their constituting profitable enterprises.

B. *Selection of Textbooks*

3.1. With a view to indicating the precise priorities of the subjects which should be favored in the textbooks program, additional time was requested by the deans or directors in order to permit them to consult their own staff. Nevertheless, the great majority of them expressed their personal opinions, and there was a remarkable degree of agreement in favor of priority for the basic medical or pre-clinical sciences. There was also a consensus to the effect that, in order to change the outlook of the student and to change teaching methods it is essential to initiate this program or a similar one for the initial years of study and in accordance with the subjects taught in those years.

3.2. With regard to the alternative provided for publishing a textbook, it was felt that this was the Gordian knot of the entire problem.

The mere reading of the outline-questionnaire did not always lead to a correct conclusion. There were rather frequent errors of interpretation of that material. Some schools considered the project which was submitted to them for study as a possible "imposition" of a specific textbook. Not infrequently we found some conceptual confusion with regard to the significance of a given textbook which some professors identified with the course itself or considered as a rigid guideline for the professor.

Others felt that it would be extremely difficult or impossible to select the ideal committee of experts for choosing the textbooks.

It was necessary to be very careful in explaining the objectives of the program in the broadest terms and in stressing that ours was merely an exploratory visit. Furthermore, we reiterated that the Bureau desired the active participation of all schools in the preparation of the program which was outlined in our initial visit, in the form of suggestions and dialogues.

We made it clear that the idea was to offer assistance in the teaching of medicine in the Hemisphere with a view to raising that teaching to the highest level, albeit with all existent local or regional variations and completely respecting the independence of the universities as well as the free play of national as well as local characteristics.

The extensive dialogues described above always led to a final voluntary, unanimous, and harmonious response which may be summarized as follows:

The ideal system would consist of a good selection of a committee of experts—by subject—which would be determined after the schools send their respective candidates to participate in such committees. It was clearly understood that each school, after consulting its own professors, would submit a list of four or five candidates by subject, and that from such lists each school would select those who, in the opinion of their experts, would be ideal members of the selections committee. It was hoped that, in obtaining all the proposed names, there would be a considerable degree of agreement with regard to four or five of the names, inasmuch as each school would, in turn, select them from among Latin American experts in each subject. The names would not be limited to members of the faculty of the school, nor to those of the country itself, but would be sought throughout the Hemisphere. In this manner the appropriate committee would be selected by the Latin American professors of the subject in question, from their own ranks.

It was felt that, after the committee had been selected, certain textbooks should be sufficiently flexible as to be adapted to regional needs, and that it was necessary to keep them current.

3.3. In accordance with the above concept, it was unanimously agreed that the list of candidates should be sent at a future date. Some schools believe that their particular choice of candidates for membership in the expert committees should be effected after the Bureau has finally decided with regard to the program under consideration.

3.4. There was a consensus in favor of stating that there was no objection to accepting the textbooks chosen, as outlined above, by committees in the selection of the membership of which the professors had participated.

3.5. With regard to royalties and copyright, where applicable, it is felt that this aspect should be considered subsequently and directly with the authors concerned.

C. *Distribution of Textbooks and Continuity of the Program*

4.1. There also was a consensus to the effect that the ideal situation would be one in which each student would have his own textbook and that, consequently, a program designed to meet the needs of 100 per cent of the students or, at least, 50 per cent of them. should be envisaged.

4.2. It was felt that the program should be initiated with an initial contribution by the Organization of a quantity of textbooks, and that, subsequently, the program should be implemented by means of a system similar to that of the Revolving Fund (Kellogg Foundation) which is utilized at the University of Valle, in Cali, Colombia.

4.3. All the school officials interviewed offered to take over local administration of the program subsequently, and some expressed the opinion that they could take over transportation costs.

It was unanimously agreed that it was the duty of the schools and universities to establish the *modus operandi* jointly with the Bureau so as to assure that a program similar to that proposed would be continued and maintained indefinitely.

4.4. It was considered that the alternatives proposed were not exclusive and that it would be more advisable to combine the systems in order that—in the final analysis—the student would be enabled to accumulate his own library. Therefore, the system which would most probably turn out to be successful would be that of selling the textbooks on the installment plan, with possibilities of resale at lower prices after use. Consequently, this system entailed the recovery of the capital in order to maintain the teaching materials current and renewing them.

In very brief summary it may be stated that:

(a) There is an evident lack of medical textbooks.

(b) The adequate solution of this problem is an urgent necessity.

(c) Several alternatives may be accepted throughout the Hemisphere.

(d) The mere fact of sending two consultants of the Bureau on an exploratory mission had a general impact and resulted in an immediate reaction which was very favorable to the idea championed by the Bureau.

Therefore, on the basis of our exploratory visit and the reactions which we perceived, we now submit our recommendations.

RECOMMENDATIONS

The idea of considering the possibility of providing textbooks for Latin America medical students responds to an urgent need, and the medical schools of that area not only approve the idea but applaud it.

With a view to achieving that objective, we venture to recommend the following phases of work:

(1) From the very outset, the program should be provided with an administrative structure under the programs of medical education of the Pan American Sanitary Bureau. Consequently, it should have the following personnel:

(a) *A Program Director*, on a full-time basis;

(b) *An Advisory Committee*, which will meet at least once a year in order to receive progress reports, to approve the activities carried out or to issue new directives and, generally speaking, to maintain contact with the implementation of the program, analyzing it critically, and formulating the suggestions which it considers necessary.

(c) *Short-Term Consultants*, whose principal task is to advise medical schools on specific problems that may arise in the implementation of the program. For example, let us envisage the possibility of sending the technical administrator of the Revolving Fund (Kellogg Foundation) from Cali to a given school of medicine for the purpose of organizing this or a similar system related to the sale or re-sale of textbooks.

(2) After the appropriate Department has been organized, its first task will be to inform each of the medical schools of Latin America in full detail of the objectives pursued in the program which may be summarized as: (a) assistance in the improvement of the teaching of medicine; and (b) the supply of textbooks, on a gratis basis, to all medical schools and departments of Latin America.

(3) The next task would be to request of each school a list of candidates for membership on the various committees of experts which would be established, by subject or groups of subjects, in order to carry out the missions which will be described in detail subsequently. It is expected that, if each school sends a list of four to five names of persons qualified as the most suitable one for membership on the respective committees of experts, there will be a remarkable degree of agreement on the first four names which, because of that fact alone, would be selected as members of the appropriate committee. In brief, the schools themselves would select the committees of experts which would act in their behalf.

(4) Furthermore, it would be requested that each school should indicate the priority which it attributes to the disciplines that will be strengthened by the program. It is essential to know such priorities in order to determine the relative importance to be assigned to the various disciplines or subjects in implementing the project.

(5) The next step would be to select the candidates proposed by the schools as members of the expert committees, whose various tasks are detailed as follows: (a) the candidates should meet at the Bureau in Washington, D.C., in order to consider whether, at present, there exists a textbook capable of meeting present-day needs in the teaching of the appropriate subject. These committees will be convoked in accordance with the priorities attributed to their respective subjects or disciplines; (b) if an adequate and useful textbook is available at the continental level it would be published, if written in the Spanish or Portuguese languages, or, if written in another language, it would be translated; (c) if, on the other hand, there is no adequate textbook, the committee would recommend the mechanisms for preparation of an appropriate text; and (d) after the textbook is selected, the committee would be responsible for maintaining it current. In this manner, the committee of experts on a given subject, and those who are responsible for all the other subjects, would maintain permanent contact with the program and would constitute a useful supplement for maintaining the program on a dynamic and current basis.

(6) It is possible that an adequate textbook will not be available for all subjects. Therefore, we recommend that, in certain cases, the appropriate committee of experts consider the possibility of gradually preparing the ideal textbook by means of a loose-leaf book with replaceable pages. This would provide the following advantages, among others: (a) the textbook could be kept current by merely replacing material in the chapters which need to be brought up-to-date; (b) it would be possible to stress aspects of regional interest, adapting the textbook to the region and its characteristics; (c) from the economic standpoint, although the first edition may be more costly, in subsequent editions the cost of bringing the textbook up-to-date will be only partial, inasmuch as it is assumed that, in any textbook, there will be a larger or smaller nucleus of material which is not subject to frequent changes, and would not require revision or re-publication; (d) it would enable the professor to include his own particular viewpoints as annexed pages; and (e) in those subjects regarding which there are more than one "school of thought" it would be possible to present all the various "schools of thought" so that the student will receive all information on the subject simultaneously, thereby affording an opportunity for him to exercise his individual critical faculty and to reach his own reasoned conclusion.

(7) The program should begin with the subject or disciplines of the first years of study, in such a way as to induce a change in the thinking of the student from that of his early university studies while promoting a change in the methods of instruction which, obviously, should be initiated as of the first step in university life.

(8) The program for the supply of textbooks should begin with an initial contribution of the selected books. Nevertheless, it is essential to establish an organizational system which would render this initiative both permanent and indefinite. Therefore, we recommend that the medical schools establish a system similar to that of the Revolving Fund which exists at the University of Valle in Cali, or a system for the sale and resale of textbooks, in which case the amounts that are obtained for recovery of the textbooks, should be estimated in such a manner that they would increase the initial capital slightly in order to cope with the ever greater demands for textbooks which will result from increased enrollment of students, growing publication costs, and the reduced purchasing power of the currency of the country concerned.

(9) In view of the fact that the program should be permanent and indefinite, we recommend most emphatically that, instead of initiating it partially, sufficient resources be obtained for its total and complete implementation. In our opinion, if it is not possible to implement the program totally and completely, it would be preferable that the Pan American Sanitary Bureau not initiate the program.

(10) The agreements which the Pan American Sanitary Bureau would conclude with the schools of medicine of the respective universities should envisage the commitments to be established in such agreements with regard to the local organization, auditing, and continuity of the program.

(11) Coordination of the program with the plans that are being studied with a view to establishing a Regional Medical Library, as well as the audio-visual aids program of the Pan American Sanitary Bureau and similar programs organized by other agencies, should also be taken into account.

(12) It is desirable that the program be carried out jointly with the Pan American Federation of Associations of Medical Schools. In countries in which the National Associations have manifested an interest in the program and where the necessary resources are available, the aforesaid Federation may play an important role in administration of the program.

When the final decision in favor of establishing the program is taken it will be necessary to urge the Associations to participate actively in precise evaluation of the problem, and in creating a favorable climate for it. Finally, the Associations can assume responsibility for coordination of activities of the Bureau and of the medical schools. It is of fundamental importance that the program be maintained in dynamic and permanent fashion, both vigorous and current. It is in this subsequent aspect that the Associations can play an important role.

(13) In view of its cost, in order to finance the program it is advisable that the Pan American Sanitary Bureau explore the possibilities of public or private, national or international institutions cooperating in defraying costs of the program. It would appear that the Inter-American Development Bank (IDB) would be the most appropriate organization for financing the program. If the necessary climate and interest are created, it will be feasible to find a system which would enable the Bank to finance the program. If there is a favorable policy, the Bank is in a position to show to its Member States that the countries themselves feel that the development of medical education is a channel for national development which really deserves priority consideration.

On the other hand, it would be possible to show the countries which are represented in their respective medical schools that they are the ones who are utilizing their contributions to the Bank in one of the fields in which they desire and need assistance urgently.

(14) The program can be financed in phases. In other words, it will be necessary to establish a period for the start of the initial financing and another for its termination. We are convinced that the aforementioned period should start as soon as possible and that it should be completed within a period equivalent to two years of teaching, or, in other words, six years. Therefore, the initial contribution would be relatively large, but not in excess of 20 per cent of the total. This will serve to launch the activities of the program, and a small group of texts will probably be selected to demonstrate the objectives and the philosophy of the proposed project. Subsequently, progress toward total achievement of the objectives of the program can be stressed gradually.

(15) In order to launch the program, it is necessary to understand thoroughly the multiple difficulties which must be overcome before success can be achieved. Suffice it to refer to the individualistic attitude which is pre-

eminent in some professors; the "personal interest" factor which may be present in the most devoted authors who do not wish to see their respective textbooks replaced, or in authors who have produced textbooks from which it may be desired to select some chapters while they may feel that the entire textbook is good and, consequently, may not be willing to sub-divide it; or the activities of publishing houses which may see their current commercial interests threatened.

This program of the Bureau will be faced with many and various difficulties. In our opinion, they can all be overcome, but, in order to achieve this, in deciding to initiate the program, the Bureau must organize an adequate section or department from the very outset, with endowed suitable personnel and sufficient resources. This section or department must understand the objectives of the Bureau very clearly, as well as the scope of such objectives.

(16) We should like to stress the fact that the projections of this program are not limited to the field of medical education, where the experiment will be initiated, but that the experience which it will provide may be utilized in other fields of education.

Finally, the consultants wish to state for the record that the opportunity to participate in the initial phase of a program which may be of enormous importance to Latin America, and to have visited many institutions in various countries, has been a pleasant and profoundly interesting experience. Everywhere we were received in a friendly and cordial spirit, and we had the privilege of engaging in a far-ranging exchange of ideas and concepts with the most distinguished medical educators in Latin America. The ideas and suggestions which they contributed enabled us to work out an ever more clear definition of the objectives, projections, and implementation of the proposed program. The material and the conclusions contained in this report are the fruit of our interviews, and in this paper we have merely sought to express the practically unanimous concepts which we heard expressed in the institutions that we visited in connection with the project which was the object of our work.

Appendix 3

BACKGROUND DATA FOR THE PROGRAM OF SUPPLY OF TEXTBOOKS FOR MEDICAL STUDENTS [1]

INTRODUCTION

The social and economic development efforts in which the countries of the Hemisphere are engaged and all the complex changes that they imply, in industrialization, agrarian, fiscal, and administrative reforms, are essentially directed to the achievement of a better society. This social improvement is focused on man and requires him to improve his own capabilities as well. Hence the fundamental importance of education—which is a way of making a person more capable—for social development.

The need to reform educational systems and give them the content required for more rapid development finds specific expression in the need to produce a better university product. There is need for physicians, physicists, chemists, agronomists, and other skills, whose training is in line with modern science and technology. This superior professional quality cannot be obtained if the means that ensure it are not available to instructors and students alike. The best will in the world is of no avail if essential elements for teaching and learning are lacking. One of these elements is a first-rate textbook to be used by the student under the guidance and with the explanations of the instructor.

BACKGROUND

The interest of the Pan American Health Organization in the supply of textbooks for medical school arises from its responsibility to promote the education of health personnel. Governments have increasingly requested the cooperation of the Organization in developing their medical schools. In the last few years PAHO staff and consultants have analyzed the situation of medical education in the Region, the problems affecting its development, and the mechanisms through which the Organization, as an intergovernmental agency in the health field, could further cooperate toward the better training of health personnel, including medical doctors.

In some areas, such as the advanced training of faculty members, the Organization has been cooperating with the Governments. There are other areas, however, that present special problems and no solution can be foreseen on the basis of the resources available to local agencies or governments. One of these problem areas is the shortage of textbooks in the medical schools.

[1] Document CSP17/27, Annex 4 (24 September 1966).

The interest of the Organization in this field is not new: for many years it has published a number of manuals that have been widely accepted as teaching material for the various health professions. These books have been provided free or at low prices through regular PAHO channels. However, the problem of textbooks for medical students is not amenable to the same treatment because of the large amount of money involved and the special requirement of universal acceptance of each text in order to achieve the economics of large-scale publishing.

A study of the problem was made for the Organization by experts from the Schools of Medicine of the University of Concepción (Chile), and the National University of Colombia, who visited 36 medical schools in 12 Spanish-speaking Latin American countries. In Brazil 10 medical schools were studied in collaboration with the Pan American Federation of Associations of Medical Schools and the Brazilian Association of Medical Schools.

The studies were based on interviews with officers, professors, and students, and resulted in the following findings:

(a) The lack of textbooks for the teaching of medicine was pronounced; none of the medical schools had sufficient texts in their libraries to permit the student body to complete their reading assignments without having to purchase their own books.

(b) The sales price of the few existing textbooks was excessive relative to the financial situation of the students and the budgetary possibilities of the universities.

(c) Most existing textbooks were published in English and while many students were able to read some English only a minority could pursue their studies in a language other than Spanish or Portuguese.

(d) According to students and instructors, many of the existing textbooks were obsolete, or inadequate.

(e) In two of the schools visited (University of Valle and Zulia University) it was found that in the University of Valle the problem was being partially solved, on a permanent basis, through a "book bank" or revolving fund established, with an initial grant of $10,000 from the W. K. Kellogg Foundation. Similar programs were being established in other universities. The functioning of these funds was very satisfactory, but they were not large enough to solve the problem completely.

(f) The officers, faculty members, and students interviewed in all of the other medical schools, showed an interest in developing similar programs and offered not only their strong support, but also their assistance in the development of the program (see Appendix 2).

For these reasons, PAHO is considering the possibility of developing a program to make modern textbooks of high scientific quality available to medical students of Latin America in their own languages. The textbooks would be sold or rented to the students on terms and conditions suitable to their economic condition.

To be effective, such a program would have to be continuous. For that, a revolving fund, already proved satisfactory at local level could be established.

To reduce editorial expenses, each edition should have a substantial number of copies. This would be needed, in any case, to provide each student with textbooks. For maximum savings, it would be necessary, as far as possible, to have uniform textbooks. These would be accepted more readily if the professors of all medical schools could participate in their selection in some way.

To reduce distribution costs, all the PAHO channels and those that have been offered to it should be utilized: Zone Chiefs and PAHO/WHO Country Representatives, Pan American Federation of Associations of Medical Schools, National Associations of Medical Faculties, universities, and medical schools.

In order to produce real benefits in the teaching process, the program, from the beginning, should be of adequate size. It is therefore proposed to publish each year the complete set of textbooks for one year of medical school.

The expenditure of a relatively large amount of money in a rather short period of time makes it necessary to look for a method of financing that would permit amortization over a longer period of time.

This proposal was first presented to the Executive Committee of PAHO during its 54th Meeting. The Committee, after a thorough analysis of the matter, resolved to authorize the Director to negotiate the financing of the program with the Inter American Development Bank or other agencies. It also recommended[2] to the XVII Pan American Sanitary Conference that it authorize the Director to enter into a loan contract as well as to negotiate agreements necessary for implementation of the program.

PROPOSED PROGRAM

Number of books needed. The present situation in Latin America with respect to the number of schools of medicine, students admitted, students graduated, and total students is as follows:

*No. of schools of medicine**	*Total students*	*Admissions to first year*
110	83,568	14,896

* This information applies to the academic year 1963 except in a few cases where it is based on 1960 figures.

First year admissions can be broken down as follows:

97 schools admit an average of: 70 students
13 schools admit more than: 200 students

Of these 13 schools, 6 admit between 200 and 400 students, the remaining 7 schools each admit more than 400 students, one of them admitting as many as 2,000 students.

The Pan American Health Organization proposes to advance to 97 schools all the textbooks they need: 6,790 textbooks in each of 22 medical subjects, and up to 200 copies per school to the remaining 13 schools which admit 200 or more students per year, for a total of 2,600 textbooks, making a grand total for 110 schools of 9,390 textbooks per subject for the first year. In round numbers, 20,000 copies of each text would have to be pub-

[2] Resolution XVIII. *Official Document PAHO* **71**, 41–42.

lished to meet needs over a three-year period, taking re-use into account.

	1st year	2nd year	3rd year	Total
Sold	5,000	5,000	5,000	15,000
Sold and resold	2,500	2,500*	2,500*	2,500
Rented	2,500	2,500*	2,500*	2,500
Total new books required	10,000	5,000	5,000	20,000

* Not included in total since they remain available from previous year.

The sequence of subjects for the production of the textbooks will follow the suggestions of the medical schools. It has been considered advantageous to begin with those textbooks required for the first years of the medical career. Tentatively consideration is being given to publishing 22 titles of the most important subjects in medical teaching. Five titles would be produced on each one of the first two years and four on each one of the three following years.

A sufficient number of books will be published the first year to supply the demand for textbooks on subjects in the group in question over a three-year period. As each edition will last three years—a reasonable period of usefulness for a textbook both as to its physical durability as to its timeliness—the editions will begin to overlap only from the fourth year onwards as will be seen from Table 1, which covers a period of 10 years.

Selection of textbooks. The success of the program will depend in large measure on the acceptance of the textbooks both by instructors and by students. It is proposed that, after consultation with its faculty members as to any special national or local features of medicine, each medical school submit a list of four or five candidates to form an expert committee on each subject. The persons nominated will be those best qualified to select the books to be published. The expert committees can be appropriately appointed from these lists. This procedure was considered acceptable by the deans and instructors interviewed, and ensures that the members of each expert committee will be leaders in their field.

The expert committees will be responsible for selecting or preparing the textbooks, and the faculty of all participating institutions will be expected to use the texts, since they will have taken part in selecting the committees.

The expert committees will meet according to subject groups, consideration being given first to the basic sciences and introduction to scientific method, then to the application of these to the well man, and finally, to man in search of health. The program will begin with the subjects of the first three years of the curriculum and therefore will help to bring about a change in the mentality of the student on entry into university life.

If the expert committee decides that a suitable and useful textbook in a particular subject is already available, it will be translated and published. If no such textbook exists, the committee may assign the responsibility to various experts to select suitable chapters from various textbooks and give them the necessary coherence, or to write the chapters needed to make the book suitable and useful.

The textbooks will be published in Spanish and Portuguese and, where English or French is needed, the Organization will take steps to provide medical schools with suitable textbooks already in print in those languages.

Finally, the Organization will maintain a continuing active program to keep the textbooks up to date. In addition, continuous evaluation of the program will be built in to assure continued usefulness and service.

It will be recognized that a key feature of the entire program is the selection of textbooks for use in all schools, allowing large-scale publication at low unit cost. This will permit achievement of the objective to provide books at prices within the limited financial means of medical students.

Publication and distribution. A number of interviews and discussions have been held with officers of national and international agencies and private and official institutions interested in medical education in Latin America, and with experience in the international production of textbooks. The matter has also been discussed with representatives of the publishing industry. The conclusions reached with this latter group are in general that this program would be of great benefit to medical education

Table 1—*Publication Timetable for Medical Schools in Latin America, 1967-1976*

Year of publication	Original editions	Years of use	Reprints	Years of use
1967	Group "A"—5 subjects	1967–1969		
1968	Group "B"—5 subjects	1968–1970		
1969	Group "C"—4 subjects	1969–1971		
1970	Group "D"—4 subjects	1970–1972	Group "A"	1970–1972
1971	Group "E"—4 subjects	1971–1973	Group "B"	1971–1973
1972			Group "C"	1972–1974
1973			Group "A" and "D"	
1974			Group "B" and "E"	
1975			Group "C"	
1976			Group "A" and "D"	

and that it would not duplicate, overlap, or replace existing publication activities since medical textbooks now available in Spanish and Portuguese are insufficient in quantity to meet existing needs.

The proposed system, through mass production and resulting lower costs, would enter a new market. For developing this program PAHO plans to utilize existing publishing facilities. PAHO does not plan to become a textbook printing enterprise. All printing and related activities in this field will be carried out through existing commercial channels. It is estimated that about 80 per cent of the total investment will go to the already established printing and publishing industry. It is also expected that making books available to students at prices within their financial possibilities will further stimulate their interest in reading, consulting, and purchasing more publications besides those that would be provided through the proposed PAHO programs. Plans are being made to establish coordination with related textbook programs carried out by national and international public and private agencies if the program is approved.

Administration of the program by the schools. Medical schools will participate in the program on the basis of an agreement signed by the Government of each country involved and the Pan American Health Organization. The Organization already has 17 agreements dealing with medical education in 11 countries, and this proposal could be introduced as an extension of such agreements. The idea of the agreements between the universities and PAHO has been discussed favorably with approximately one third of the medical schools of Latin America. The long experience of PAHO in negotiating tripartite agreement arrangements with governmental and educational institutions has been satisfactory and productive.

The proposal has been endorsed by the associations of medical schools of Latin America and by the Pan American Federation of Associations of Medical Schools. The result of the PAHO survey and the endorsment of the Association of Medical Schools demonstrates not only the interest of the medical faculties, but also the willingness of the universities to participate with financial and administrative resources of their own.

The participating medical schools will be supplied with the "starting edition." The schools will use income from selling or rental of the books to pay for the advanced books and to order additional basic books as new contingents of students are admitted.

Budget—Financing—Revolving Fund. Table 2 shows the details of the budget for the production of 640,000 textbooks in 22 subjects, the number indicated for the five-year period 1967-1971. The estimates shown in Item A are based on extensive discussions with individuals, non-profit organizations, and commercial firms experienced in international textbook programs.

In addition to distribution and related administrative and technical costs included in item A, there is provision for permanent staff and short term consultants specifically assigned to this program. Additional staff may be required, especially for administrative and financial services, but the number would not have significant influence on the unit cost.

Table 2—*Cost of Production of Textbooks* [a]

A. Selection, translation, editing, printing and distribution		
1 Text (average 500 pages) *20,000 copies:*		
Royalties	$ 3,000	
Translation into Spanish	5,000	
Translation into Portuguese	6,000[b]	
Revision	2,000	
Corrections	2,000	
Printing, binding, plates, distribution, etc.	60,000	
1 committee of 3 experts	2,850	
Cost per 20,000 copies of one textbook	80,850	
Cost for one year (*5 textbooks*)		$404,250
B. Administration		
Chief of Program		
Chief of Production		
Administrative Officers (2)		
Secretaries (2)	68,000	
Consultants, travel, and miscellaneous	24,000	92,000
C. Total cost per 100,000 copies		$496,250
Cost for 1 textbook		4.96

D. Cost per calendar year

Year	*Subjects*	*Copies*	*Cost*
1967	5	100,000	$496,000
1968	5	100,000	496,000
1969	4	80,000	396,000
1970	9	180,000	692,000
1971	9	180,000	892,000
	22[c]	640,000	$3,174,000

[a] These estimates are subject to revision as costs may change. The unit cost also will rise or fall in relation to the yearly change in volume of copies produce.

[b] The availability of books already translated will bring down the cost per unit of textbook.

[c] Excludes repeat of five subjects in 1970 and 1971.

It is recognized that the Organization will also make a substantial contribution to the program through its regular staff and facilities. The Office of the Director, the Medical Education Branch, the Administrative Branches, the Zone Offices and Country Representative all will contribute some portion of their energies to this activity. It is not practical to attempt to place a figure on this contribution, since there are not substantial potential budgetary implications.

Table 3 shows the estimates for the operation by groups of subjects, the gross cost of production of the textbooks, the net income from the operation of the Revolving Fund, and finally, the net expenditure on the textbooks.

The annual budget is shown year by year and by groups of textbooks and the unit cost has been rounded to $5.00 (estimated cost $4.96) so as to facilitate partial and total calculations.

An analysis of this table, which covers the nine-year

Table 3—*Budget for a Textbook Program on the Basis of a Revolving Fund.*[a]

No of copies		1967	1968	1969	1970	1971	Totals	1972	1973	1974	1975
100,000 A. (Texts 1 to 5)	Gross expenditure	500	...	...	500	...	1,000	...	500	...	...
	(Income)	...	(166.6)	(166.6)	(166.6)	(166.6)	(666.6)	(166.6)	(166.6)	(166.6)	(166.6)
	Net expenditure	500	(166.6)	(166.6)	333.3	(166.6)	333.3	(166.6)	333.3	(166.6)	(166.6)
100,000 B. (Texts 6 to 10)	Gross expenditure	...	500	...	...	500	1,000	...	...	500	...
	(Income)	...	...	(166.6)	(166.6)	(166.6)	(500)	(166.6)	(166.6)	(166.6)	(166.6)
	Net expenditure	...	500	(166.6)	(166.6)	333.3	500	(166.6)	(166.6)	333.3	(166.6)
80,000 C. (Texts 11 to 14)	Gross expenditure	...	...	400	...	...	400	400	...	...	400
	(Income)	...	...	...	(133.3)	(133.3)	(266.6)	(133.3)	(133.3)	(133.3)	(133.3)
	Net expenditure	...	...	400	(133.3)	(133.3)	133.3	266.6	(113.3)	(133.3)	266.6
80,000 D. (Texts 15 to 18)	Gross expenditure	...	...	...	400	...	400	...	400	...	...
	(Income)	...	...	...	...	(133.3)	(133.3)	(133.3)	(133.3)	(133.3)	(133.3)
	Net expenditure	...	...	...	400	(133.3)	266.6	(133.3)	266.6	(133.3)	(133.3)
80,000 E. (Texts 19 to 22)	Gross expenditure	...	...	...	...	400	400	...	...	400	...
	(Income)	...	...	...	...	...	...	(133.3)	(133.3)	(133.3)	(133.3)
	Net expenditure	...	...	...	...	400	400	(133.3)	(133.3)	266.6	(133.3)
	Gross expenditure	500	500	400	900	900	3,200	400	900	900	400
	(Income)	...	(166.6)	(333.3)	(466.6)	(600)	(1,566.6)	(733.3)	(733.3)	(733.3)	(733.3)
	Net expenditure	500	333.3	66.6	433.3	300	1,633.3	(333.3)	166.6	166.6	(333.3)
	Adjustments, incidental expenses						366.6				
	Total						2,000				

[a] In thousands of dollars.

period 1967-1975 instead of 1967-1971 permits an appraisal of future prospects and shows the following:

The first income from sale or rental of books will be received in the Revolving Fund to help finance the second year of the program, and the production of textbooks is expected to be self-financing after the fifth year of operation. That is to say, if the Fund begins to operate in 1967, its accumulated income through 1972 will be sufficient to cover the cost of the heavy printing scheduled for 1973, 1974, and so on.

As shown in Table 3, the gross expenditure of the program over the first five-year period is 3.2 millions. However, in view of the expected income, the net requirement to establish and maintain the Revolving Fund would be only $2 million.

The financing of a new activity such as this, involving a relatively large capital investment over a period of five years, may perhaps best be approached through borrowing, since it is not practicable to increase the annual budget in such amounts. Through borrowing, the repayment can be budgeted in more modest amounts over a longer period. It should be recognized that the full amount borrowed will continue to be an asset of the Organization, through the Revolving Fund which will be established.

PAHO proposes to repay the loan out of its regular budget over a period of 20 years after a five-year period of grace. If the loan is made, a predictable long-term obligation for the regular budget of the Organization will be created, so that the loan will not generate any unknown or unexpected burdens on the Governments. The annual payments on the loan would approximate $130,000 per year, representing only about 1.4 per cent of the PAHO regular budget for 1967.

The Financial Regulations of the Organization provide in Article VI, paragraph 6.9 as follows: "The Director with the prior and written approval of a majority of the members of the Executive Committee shall have the power to borrow funds."

The power to enter into a loan agreement, assumes that any loan will make provisions for repayment, consequently the power to repay is implicit in paragraph 6.9.

In view of the increasing interest of the IDB in cooperating in programs of manpower training, one of the possible sources of financing for this project was considered to be through a loan by the IDB. For this purpose a proposal was presented to the President of the IDB for preliminary discussions. The proposal is currently being studied by the Bank.

FINAL COMMENTS

The pace at which the countries are approaching the solution of their health problems demands an aggressive approach to health manpower training. The preparation of physicians is of the utmost importance in these efforts, and in the training of this personnel the textbook is a key element in introducing required changes for improvement in the whole educational process.

Annex 16

REPORT ON BUILDINGS AND INSTALLATIONS [1]

The Director has the honor to report on the progress made in connection with the building and installations of the Organization since the report made to the 54th Executive Committee (see Appendix).

The Director is pleased to report that the headquarters building continues to receive high commendation, both for its esthetic appeal and for its functional utility. It is almost a year since the Organization moved to the headquarters building and the first appreciations are being confirmed after a year of experience. Work has continued through this year in the floor-by-floor check of the finished building, in order to correct and adjust any inadequacies in the structure. This process, it is assumed, will be completed by the end of August 1966 and will include: (1) revising the air conditioning distribution system to provide for a four-zone temperature and humidity control capability throughout the building; (2) relocating control instruments affecting individual room temperature control to provide a more efficient operation; (3) providing adequate entrance vestibules in the main lobby; (4) furnishing adequate floor finish for the garage area to maintain a high level of cleanliness throughout the building; (5) replacing defective items of hardware and floor tile; (6) replacing defective items of mechanical equipment discovered during the first year of operation; (7) repairing or replacing those items affecting the finished appearance of the building which were damaged during the construction.

Since the report to the 54th Meeting of the Executive Committee, works of art were received from the Governments of Barbados, Costa Rica, and Trinidad and Tobago.

The Executive Committee, after studying the report approved a resolution [2] on the item.

[1] Document CSP17/18 (22 July 1966).

[2] *Official Document PAHO* **71**, 30-31.

Appendix

REPORT ON BUILDINGS AND INSTALLATIONS [1]

The Director has the honor to report to the 54th Executive Committee on the buildings and installations of the Organization.

HEADQUARTERS BUILDING

The secretariat has now occupied the new headquarters building for almost eight months. The Director is happy to report that the furnishing of the new building is virtually complete and that the actual requirements have been in keeping with the estimates of furniture and equipment made prior to occupancy of the building.

During these eight months, as is the case for the first year in all new structures, work has gone forward in meeting needs for adjustments, alterations, and changes in construction and equipment. This has meant a continuing effort in bringing to best results the painting, electrical, glass doors, telephone, and especially the air conditioning and heating equipment in order to give fully effective service.

Since the inauguration of the building, a chandelier described as a "Sculpture in Light," which graces the ceiling of the circular Council Chamber, has been completed. This artistic fixture is 20 feet in diameter, weighs 16,000 pounds and consists of 3,000 individual pieces of

[1] Document CE54/7, Rev. 1 (16 April 1966).

crystal clear acrylic plastic which hangs from an aluminum base and is lighted from above by spotlights. This is the only one of its kind in the world and is made from the design of Architect Román Fresnedo Siri.

OTHER PROPERTIES

In Buenos Aires, the office space has been inadequate for a number of years and in order to house appropriately the staff necessary to serve the Zone, the Organization purchased additional office space (87 square meters) in the same building and on the same floor at a cost of $20,000.

In Lima, the Zone Office has been occupying a rented house having 635 ms^2, which can no longer accommodate the staff. With the growth in the number of Zone advisers in specialized subjects, as well as the stationing of several regional consultants in Lima because of its central location, it has been necessary to seek more space.

A search was undertaken and various alternatives have been considered. The most favorable solution to the problem appears to be to purchase, at a price of approximately $79,000, a house located within ten minutes' drive from the Ministry of Public Health and Social Welfare, which has 1,100 ms^2 of building space, requiring little or no remodelling and having ample grounds (1,500 ms^2). A professional evaluation indicates that the price is fair and that the value of the property may reasonably be expected to increase. Since alternate rental space would cost $9,600 per year, which in slightly less than eight years would equal the above-mentioned purchase price, the Director plans to purchase the required space in the same manner as previous Zone Office space purchases.

GIFTS

Pursuant to the Director's request in the Circular Letter of 7 June 1965, the Organization has received fourteen works of art. There follows a list of these gifts by country:

Argentina—Sculpture: "Tierra Argentina," by Pablo Curatella Manes.

Brazil—Painting: "Nascimiento de Venus," by Manabu Mabe.

Canada—Painting: Abstract by Jean McEwen.

Guatemala—Painting: "Ruins of the Church of Santa Cruz," by Teok Carrasco.

Honduras—Painting: "Composición," by Mario Castillo; Painting: "Policromía de Copán," by Lópes Rodríguez; Painting: "Nocturno en la Ciudad," by Arturo Luna; Painting: "Retrato," by Max Aucedo.

Mexico—Painting: "Guanajuato," by José Chávez.

Spain—Sculpture: Bust of Francisco Hernández, by Victorio Macho.

Surinam—Sculpture: Carved wood panel of human figures representing the "sufferings and helplessness of human beings unknown to us," by Stuart Robles de Medina.

Venezuela—Painting: Kinnetic composition with eight red and 16 black squares, by Jesús Soto.

Private Gifts by:

Pharmaceutical Manufacturers' Association—Painting: "Blue Rays," by Nemesio Antúnez.

Mrs. Carlota M. de Inurria (Argentina)—Sculpture: "Mi discurso de mármol," by Mateo Inurria.

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