

XVIII PAN AMERICAN SANITARY CONFERENCE

XXII Meeting Regional Committee of the WHO for the Americas

Washington, D. C.

28 September - 8 October 1970

MINUTES OF PLENARY SESSIONS AND OF COMMITTEES ANNEXES



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

1971

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. 109: Annual Report of the Director of the Pan American Sanitary Bureau for 1970.

INDEXED

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for the Americas**

Washington, D. C.

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AND OF COMMITTEES
ANNEXES**

Official Document No. 108

June 1971

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

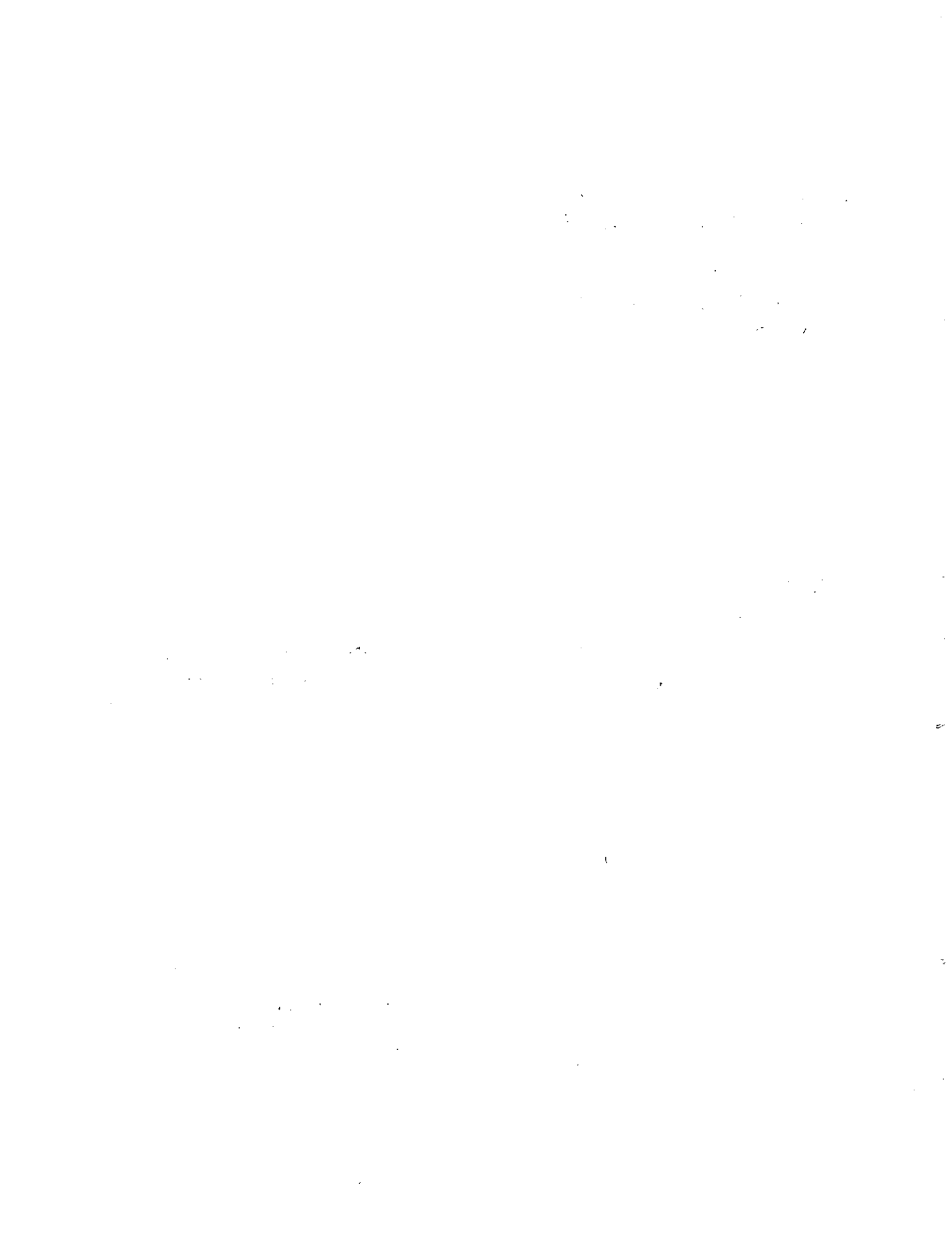


TABLE OF CONTENTS

1. ORGANIZATION OF THE CONFERENCE

	<i>Page</i>
Convocation of the Conference	2
Delegations and Other Participants	3
Governments	3
Executive Committee of PAHO	7
World Health Organization	7
Pan American Sanitary Bureau	7
United Nations and Intergovernmental Organizations	8
Nongovernmental Organizations	8
Officers of the Conference and Membership of its Committees	10
Agenda	12

2. VERBATIM MINUTES OF PLENARY SESSIONS

INAUGURAL SESSION *(Monday, 28 September 1970, at 10:30 a.m.)*

Address by Dr. Sylvia E. Talbot, Provisional President of the Conference, Minister of Health of Guyana	15
Address by Mr. Galo Plaza, Secretary General of the Organization of American States	16
Address by Dr. Jesse L. Steinfeld, Surgeon General, United States Public Health Service	17
Address by Dr. M. G. Candau, Director-General of the World Health Organization	17
Address by Mr. Felipe Herrera, President of the Inter-American Development Bank	19
Address by Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau	23

FIRST PLENARY SESSION *(Monday, 28 September 1970, at 12:05 p.m.)*

Item 3: Election of President and Two Vice-Presidents	25
Item 2: Establishment of the Committee on Credentials	26
Application of Article 6-B of the PAHO Constitution	27
Item 4: Adoption of the Agenda	27

SECOND PLENARY SESSION *(Monday, 28 September 1970, at 3:15 p.m.)*

Item 5: Amendments to the Rules of Procedure of the Pan American Sanitary Conference	28
Election of the Rapporteur	30
Item 6: Establishment of the Main Committees	30
First Report of the Committee on Credentials	31
First Report of the General Committee	31
Item 8: Annual Report of the Chairman of the Executive Committee	31

THIRD PLENARY SESSION *(Tuesday, 29 September 1970, at 9:15 a.m.)*

Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1966-1969	32
Item 10: Annual Report of the Director of the Pan American Sanitary Bureau, 1969	32

FOURTH PLENARY SESSION (Tuesday, 29 September 1970, at 3:00 p.m.)

Second Report of the General Committee	50
Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences	50
Report of the Delegation of Chile	51
Report of the Delegation of the United States of America	53
Report of the Delegation of Argentina	54
Report of the Delegation of Paraguay	56
Report of the Delegation of Venezuela	58
Report of the Delegation of Jamaica	60
Report of the Delegation of Cuba	61
Report of the Delegation of Mexico	64
Report of the Delegation of Uruguay	67
Report of the Delegation of Honduras	69
Report of the Delegation of Guatemala	71

FIFTH PLENARY SESSION (Wednesday, 30 September 1970, at 9:15 a.m.)

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences (<i>continuation</i>)	74
Report of the Delegation of Trinidad and Tobago	74
Report of the Delegation of Brazil	75
Report of the Delegation of Guyana	77
Report of the Delegation of the Kingdom of the Netherlands	78
Report of the Delegation of Costa Rica	80
Report of the Delegation of El Salvador	81
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	82

SIXTH PLENARY SESSION (Wednesday, 30 September 1970, at 3:05 p.m.)

Third Report of the General Committee	87
Item 37: Cholera	87
Item 13: Election of Three Member Governments to the Executive Committee on the Termination of the Periods of Office of Nicaragua, Trinidad and Tobago, and Uruguay	93
Item 16: Technical Discussions: Venereal Diseases as a National and International Health Problem	95
Election of Moderator and Rapporteur	95
Application of Article 6-B of the Constitution of PAHO (<i>conclusion</i>)	95
Item 8: Annual Report of the Chairman of the Executive Committee (<i>conclusion</i>)	95
Item 11: Report of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences (<i>continuation</i>)	95
Report of the Delegation of Colombia	96
Report of the Delegation of Panama	98
Report of the Delegation of the Dominican Republic	99
Report of the Delegation of Bolivia	100
Report of the Delegation of Barbados	102

SEVENTH PLENARY SESSION (Thursday, 1 October 1970, at 9:05 a.m.)

Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences (<i>continuation</i>)	104
--	-----

Table of Contents

v

	<i>Page</i>
Report of the Delegation of Nicaragua	104
Report of the Delegation of France	106
Report of the Delegation of Peru	107
Report of the Delegation of the United Kingdom	109
Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1966-1969 (conclusion)	111
Item 10: Annual Report of the Director of the Pan American Sanitary Bureau for 1969 (conclusion)	111
 EIGHTH PLENARY SESSION (Tuesday, 6 October 1970, at 5:10 p.m.)	
Second Report of the Committee on Credentials	112
Participation of Canada in the Pan American Health Organization	112
Item 13: Election of Three Member Governments to the Executive Committee on the Termination of the Periods of Office of Nicaragua, Trinidad and Tobago, and Uruguay (conclusion)	113
Health Conditions in the Americas (conclusion)	113
Item 37: Cholera (conclusion)	113
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)	113
Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences (continuation)	114
Item 20: Smallpox Eradication	114
 NINTH PLENARY SESSION (Wednesday, 7 October 1970, at 5:15 p.m.)	
Item 35: General Program of Work of the Pan American Health Organization/World Health Organization, Covering the Period 1973-1977	116
Item 17: Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas	123
 TENTH PLENARY SESSION (Thursday, 8 October 1970, at 9:20 a.m.)	
Item 11: Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII Pan American Sanitary Conferences (conclusion)	126
Item 35: General Program of Work of the Pan American Health Organization/World Health Organization, covering the Period 1973-1977 (conclusion)	126
Item 17: Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas (conclusion)	127
Consideration of Draft Resolutions from Committee I	127
Item 14: Report on the Collection of Quota Contributions	127
Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau	127
Item 34: PAHO Award for Administration	128
Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970	128
Item 32: III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control	128
Nursing	129
Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971	130
Assessments of the Member Governments and Participating Governments of the PAHO	130
Item 28-a: WHO Regular Budget for the Region of the Americas for 1971	131
Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972	131

	<i>Page</i>
Regional Projects to be Implemented in 1971-1972 with Funds of the United Nations Development Program	131
Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972	133
Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973	133
Item 36: Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation	133
Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country	134
Consideration of Draft Resolutions from Committee II	134
Item 18: Report on the Status of Malaria Eradication in the Americas	134
Item 19: <i>Aedes aegypti</i>	135
Item 24: Multinational Centers	137
Item 25: Man-Environment Relationships	137
Item 21: Resolutions of the Twenty-Third World Health Assembly of Interest to the Regional Committee	138
Item 22: Control of Cigarette Smoking	138
Item 16: Technical Discussions: Venereal Diseases as a National and International Health Problem	139
Report of the Rapporteur	139
Consideration of Draft Resolutions from Committee I (<i>conclusion</i>)	139
Item 15: Financial Report of the Director and Report of the External Auditor for 1969	139
Item 33-a: Long-Term Planning and Evaluation	140
Item 33-b: Long-Term Financial Indicators	140
Item 26: Health Legislation	141
Item 38: Other Matters	141
Inter-American Development Bank	141
Place of the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas	142
Consideration of Draft Resolutions from Committee II (<i>conclusion</i>)	143
Item 19: <i>Aedes aegypti</i> (<i>conclusion</i>)	143
 CLOSING SESSION (<i>Thursday, 8 October 1970, at 6:50 p.m.</i>)	
Reading, Approval, and Signing of the Final Report	151

3. PRECIS MINUTES OF THE COMMITTEES

Committee I

FIRST SESSION (*Thursday, 1 October 1970, at 10:30 a.m.*)

Election of Vice-Chairman and Rapporteur	155
Item 14: Report on the Collection of Quota Contributions	155
Item 15: Financial Report of the Director and Report of the External Auditor for 1969	157
Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau	159

SECOND SESSION (*Thursday, 1 October 1970, at 3:05 p.m.*)

Fourth Report of the General Committee	160
Item 30: Organization of Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country	160
Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970	164
Item 34: PAHO Award for Administration	165

	<i>Page</i>
THIRD SESSION (Monday, 5 October 1970, at 9:15 a.m.)	
Item 32: III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control	165
Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971	168
Item 28-a: WHO Regular Budget for the Region of the Americas for 1971	168
Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972	168
Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973	168
Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972	168
FOURTH SESSION (Monday, 5 October 1970, at 3:10 p.m.)	
Fifth Report of the General Committee	179
Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971 (<i>continuation</i>)	179
Item 28-a: WHO Regular Budget for the Region of the Americas for 1971 (<i>conclusion</i>)	179
Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972 (<i>continuation</i>)	179
Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973 (<i>continuation</i>)	179
Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 (<i>continuation</i>)	179
FIFTH SESSION (Tuesday, 6 October 1970, at 9:15 a.m.)	
Item 14: Report on the Collection of Quota Contributions (<i>conclusion</i>)	186
Item 15: Financial Report of the Director and Report of the External Auditor for 1969 (<i>conclusion</i>)	187
Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau (<i>conclusion</i>)	187
Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country (<i>continuation</i>)	188
Item 34: PAHO Award for Administration (<i>conclusion</i>)	189
Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970 (<i>conclusion</i>)	189
Item 26: Health Legislation	189
Item 33-a: Long-Term Planning and Evaluation	193
Item 33-b: Long-Term Financial Indicators	196
SIXTH SESSION (Tuesday, 6 October 1970, at 3:15 p.m.)	
Sixth Report of the General Committee	198
Item 36: Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation	198
Nursing	200
Draft Resolution Presented by the Delegation of the United States of America	200
Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971 (<i>conclusion</i>)	201
Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972 (<i>conclusion</i>)	202
Regional Projects to be Implemented in 1971-1972 with Funds of the United Nations Development Program	203
Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 (<i>conclusion</i>)	203

	<i>Page</i>
Item 28-c: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973 (<i>conclusion</i>)	203
Assessments of the Member Governments and Participating Governments of the Pan American Health Organization	204
 SEVENTH SESSION (<i>Wednesday, 7 October 1970, at 4:05 p.m.</i>)	
Seventh Report of the General Committee	204
Item 26: Health Legislation (<i>conclusion</i>)	204
Item 33-a: Long-Term Planning and Evaluation (<i>conclusion</i>)	205
Item 33-b: Long-Term Financial Indicators (<i>conclusion</i>)	205
Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country (<i>conclusion</i>)	206
 Committee II	
 FIRST SESSION (<i>Thursday, 1 October 1970, at 10:35 a.m.</i>)	
Election of Vice-Chairman and Rapporteur	209
Item 18: Report on the Status of Malaria Eradication in the Americas	209
 SECOND SESSION (<i>Thursday, 1 October 1970, at 3:00 p.m.</i>)	
Item 18: Report on the Status of Malaria Eradication in the Americas (<i>continuation</i>)	216
Item 20: Smallpox Eradication	220
 THIRD SESSION (<i>Tuesday, 6 October 1970, at 9:30 a.m.</i>)	
Item 18: Report on the Status of Malaria Eradication in the Americas (<i>continuation</i>)	223
Item 20: Smallpox Eradication (<i>conclusion</i>)	224
Item 21: Resolutions of the World Health Assembly of Interest to the Regional Committee	225
Item 22: Control of Cigarette Smoking	225
Item 24: Multinational Centers	229
 FOURTH SESSION (<i>Tuesday, 6 October 1970, at 3:10 p.m.</i>)	
Item 18: Report on the Status of Malaria Eradication in the Americas (<i>conclusion</i>)	231
Item 25: Man-Environment Relationships	231
 FIFTH SESSION (<i>Wednesday, 7 October 1970, at 9:15 a.m.</i>)	
Item 19: <i>Aedes aegypti</i>	235
 SIXTH SESSION (<i>Wednesday, 7 October 1970, at 3:00 p.m.</i>)	
Item 21: Resolutions of the World Health Assembly of Interest to the Regional Committee (<i>conclusion</i>)	243
Item 22: Control of Cigarette Smoking (<i>conclusion</i>)	243
Item 25: Man-Environment Relationships (<i>conclusion</i>)	243
Item 24: Multinational Centers (<i>conclusion</i>)	244
Item 19: <i>Aedes aegypti</i> (<i>continuation</i>)	245

4. ANNEXES

1. Annual Report of the Chairman of the Executive Committee	249
2. XVIII Report on the Status of Malaria Eradication in the Americas	253
3. <i>Aedes aegypti</i>	380
4. Smallpox Eradication	385
5. Control of Cigarette Smoking	393
6. Long-Term Planning and Evaluation	396
Appendix	397
7. PAHO Award for Administration	401
Appendix 1	402
Appendix 2	402
8. General Program of Work of the Pan American Health Organization/World Health Organization for the Period 1973-1977	403
9. Financing of the Textbook Program—Pan American Health and Education Foundation	419
10. Multinational Centers	424
Pan American Foot-and-Mouth Disease Center	424
Pan American Zoonoses Center	432
Institute of Nutrition of Central America and Panama	438
Caribbean Food and Nutrition Institute	446
Pan American Health Planning Program	451
11. Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970	453
12. Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country	460
Index	465

1. ORGANIZATION OF THE CONFERENCE

CONVOCATION OF THE CONFERENCE

Washington, D. C.
29 May 1970

Sir:

In accordance with 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 XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization for the Americas, which will meet from 28 September to 9 October 1970. In accordance with Article 7, paragraph A, of the Constitution, the Conference meets every four years at the Headquarters of the Organization in Washington, D. C.

Pursuant to the provisions in force, it is the duty of the Executive Committee, at its next meeting in June, to approve the provisional agenda of the Conference. As soon as this is done, I shall be very pleased to send you a copy and, in due course, the corresponding working documents.

One of the agenda items concerns the reports of the Governments of the Organization on public health conditions and on the progress made in the period 1966 to 1969. In this connection, the XVII Pan American Sanitary Conference (October 1966), in Resolution XXXIX, invited the Governments to transmit their reports to the Director of the Bureau not later than four months prior to the XVIII Pan American Sanitary Conference, so that he could make a comparative study of them and select those aspects he considered to be of the foremost importance for health in the Americas. That resolution also instructed the Director to inform the Governments of the selection he had made and to invite them to make special reference to them when they make their oral presentations at the next Conference. I should therefore be grateful if you would transmit your country's report as soon as possible.

As you know, the Conference is the supreme governing authority of the Organization. In view of its importance, the presence of the most senior representatives of the Ministries of Health of the Americas would contribute to the achievement of the purposes set forth in the Constitution. I therefore request that the Minister of Health of your country attend the meeting in person, so that he can make a valuable and direct contribution to its deliberations.

I have the honor to be, Sir,

*Yours respectfully,
(signed)*

*Dr. Abraham Horwitz
Director, Pan American
Sanitary Bureau*

DELEGATIONS AND OTHER PARTICIPANTS

Governments

BRAZIL

ARGENTINA

Delegates:

Dr. Horacio Rodríguez Castells, Secretary of State for Public Health, Secretariat of State for Public Health, Buenos Aires (*Chief of Delegation*)

Dr. Victorio V. Olguín, Chief, International Health Affairs, Secretariat of State for Public Health, Buenos Aires

Adviser:

Dr. Alfredo Rabinovich, Director, National Medical and Health Standardization, Secretariat of State for Public Health, Buenos Aires

BARBADOS

Delegates:

Hon. Cuthbert Edwy Talma, Minister of Health and Social Welfare, Bridgetown (*Chief of Delegation*)

Mr. Carlisle Archibald Burton, Permanent Secretary, Ministry of Health and Social Welfare, Bridgetown

Dr. A. Vaughan Wells, Chief Medical Officer, Ministry of Health and Social Welfare, Bridgetown

BOLIVIA

Delegates:

Dr. Javier Ossio Quezada, Minister of Social Welfare and Public Health, La Paz (*Chief of Delegation*)

Mr. Julio Sanjines, Ambassador of Bolivia, Washington, D. C.

Dr. Antonio Céspedes, Minister Counsellor, Embassy of Bolivia, Washington, D. C.

Mr. Jorge Omiste, First Secretary, Embassy of Bolivia, Washington, D. C.

Mr. Carlos Ormaechea, Representative a.i. to the Organization of American States, Washington, D. C.

Delegates:

Dr. Alfredo N. Bica, Minister of Public Health, Ministry of Health, Rio de Janeiro (*Chief of Delegation*)

Dr. Nilo Chaves de Brito Bastos, Director, National Department of Prophylaxis and Disease Control, Ministry of Health, Rio de Janeiro

Dr. Mathias Joaquim da Gama e Silva, Executive Director, Commission on International Affairs, Ministry of Health, Rio de Janeiro

Adviser:

Mr. Genaro A. Mucciolo, Second Secretary, Delegation of Brazil to the Organization of American States, Washington, D. C.

CHILE

Delegates:

Dr. Ramón Valdivieso, Minister of Public Health, Santiago (*Chief of Delegation*)

Dr. Bogoslav Juricic, Secretary, National Public Health Advisory Council, Ministry of Public Health, Santiago

Dr. Patricio Silva, Director General of Health, Ministry of Public Health, Santiago

Mr. Jorge Bustos, Secretary, Embassy of Chile, Washington, D. C.

COLOMBIA

Delegates:

Dr. José Ignacio Díaz-Granados, Minister of Public Health, Ministry of Public Health, Bogotá (*Chief of Delegation*)

Dr. Bernardo Moreno Mejía, Director General, Colombian Institute of Family Welfare, Ministry of Public Health, Bogotá

Delegations and Other Participants

Dr. Gabriel Velázquez Palau, Professor of Social Medicine, University of Valle, Cali

Dr. Antonio Yepes Parra, Chief, Division of Medical Care, Ministry of Public Health, Bogotá

Dr. Carlos A. Ferro-Vargas, Chief, Division of Direct Campaigns, Ministry of Public Health, Bogotá

Adviser:

Dr. Consuelo H. Sarria Olcos, Chief, Legal Office, Ministry of Public Health, Bogotá

COSTA RICA*Delegates:*

Dr. José Luis Orlich, Minister of Public Health, San José (*Chief of Delegation*)

Adviser:

Dr. Edgar Mohs Villalta, Vice-Minister of Public Health, San José

CUBA*Delegates:*

Dr. Heliodoro Martínez Junco, Minister of Public Health, Havana (*Chief of Delegation*)

Dr. Jorge Aldereguía Valdés-Brito, Vice-Minister of Public Health, Ministry of Public Health, Havana

Dr. Roberto Pereda Chávez, Director, Department of International Affairs, Ministry of Public Health, Havana

Dr. Bartolomé Sagaró Delgado, Chief, National Group on Dermatology and Venereology, Vice-Minister of Hygiene and Epidemiology, Ministry of Public Health, Havana

Mr. José Francisco García Madrigal, Official, Department of International Organizations and Conferences, Ministry of Foreign Affairs, Havana

Dr. Ramón Martínez Rodríguez, National Director of Epidemiology, Ministry of Public Health, Havana

Mr. Rogelio Rodríguez López, Adviser, Permanent Mission of Cuba to the United Nations, New York

DOMINICAN REPUBLIC*Delegate:*

Dr. Francisco Manuel Tezanos Da'Costa, Secretary of State for Public Health and Social Welfare, Santo Domingo

ECUADOR*Delegates:*

Dr. Francisco Parra-Gil, Minister of Public Health, Quito (*Chief of Delegation*)

Dr. Hernán Veintimilla, Alternate Representative, Delegation of Ecuador to the Organization of American States, Washington, D. C.

EL SALVADOR*Delegates:*

Dr. Víctor Manuel Esquivel, Minister of Public Health and Social Welfare, San Salvador (*Chief of Delegation*)

Dr. José Mario Díaz Nuila, Director General of Health, Ministry of Public Health and Social Welfare, San Salvador

Dr. Alberto Aguilar Rivas, Coordinating Secretary, Department of Health Planning, Ministry of Public Health and Social Welfare, San Salvador

Dr. Juan Allwood Paredes, Director, Department of Health, Organization of Central American States, San Salvador

FRANCE*Delegates:*

Dr. Raymond G. Hyronimus, Honorary Inspector General of Public Health, Ministry of Public Health and Social Security, Paris (*Chief of Delegation*)

Dr. Jeanne Broyelle, Assistant Inspector General of Health, Ministry of Public Health and Social Security, Paris

Dr. André Chiarini, Regional Medical Inspector for the Antilles and French Guiana, Fort-de-France

GUATEMALA*Delegates:*

Dr. José Trinidad Uclés, Minister of Public Health and Social Welfare, Guatemala (*Chief of Delegation*)

Dr. Julio César Mérida de León, Director General of Health Services, Ministry of Public Health and Social Welfare, Guatemala

GUYANA

Delegates:

- Dr. Sylvia E. Talbot, Minister of Health, Georgetown
(*Chief of Delegation*)
- Dr. Robert L. S. Baird, Acting Chief Medical Officer,
Ministry of Health, Georgetown

HAITI

Delegates:

- Mr. Arthur Bonhomme, Ambassador of Haiti,
Washington, D. C. (*Chief of Delegation*)
- Mr. Fritz I. Fougy, Second Secretary and Cultural
Attaché, Embassy of Haiti, Washington, D. C.

HONDURAS

Delegate:

- Dr. Carlos A. Pineda, Chief, Planning Unit, Ministry
of Public Health and Social Welfare, Tegucigalpa

JAMAICA

Delegates:

- Dr. Edward J. Valentine, Principal Medical Officer,
Ministry of Health, Kingston (*Chief of Delegation*)
- Mr. Erwin R. Angus, Counsellor, Delegation of
Jamaica to the Organization of American States,
Washington, D. C.

Adviser:

- Mr. Neville K. McLaren, Administrative Officer,
Embassy of Jamaica, Washington, D. C.

KINGDOM OF THE NETHERLANDS

Delegates:

- Dr. J. Th. M. Gielen, Director, Department of Public
Health, Netherlands Antilles, Willemstad (*Chief of
Delegation*)
- Dr. J. I. S. Chang Sing Pang, Deputy Director of
Public Health of Surinam, Paramaribo
- Dr. Hans E. Th. E. Mathon, First Secretary, Embassy
of the Kingdom of the Netherlands, Washington,
D. C.
- Dr. F. W. Kist, Second Secretary, Embassy of the
Kingdom of the Netherlands, Washington, D. C.

MEXICO

Delegates:

- Dr. Ramón Alvarez Gutiérrez, Director General of
Coordinated Public Health Services in States and
Territories, Ministry of Health and Welfare,
Mexico, D. F. (*Chief of Delegation*)
- Dr. Antonio Campos Salas, Director General of
Health in the Federal District, Ministry of Health
and Welfare, Mexico, D. F.
- Dr. Gregorio Martínez Narváez, Adviser, Department
of Coordinated Public Health Services in States
and Territories, Ministry of Health and Welfare,
Mexico, D. F.

NICARAGUA

Delegates:

- Dr. Francisco Urcuyo Maliaño, Vice-President of the
Republic and Minister of Public Health, Managua
(*Chief of Delegation*)
- Dr. Orontes Avilés, Director, Health Planning,
Ministry of Public Health, Managua
- Dr. Carlos H. Canales, Director General of Public
Health, Ministry of Public Health, Managua

Adviser:

- Dr. Alejandro Robleto Pérez, Director, National
Malaria Eradication Service, Ministry of Public
Health, Managua

PANAMA

Delegates:

- Dr. José Renán Esquivel, Minister of Health, Panama
(*Chief of Delegation*)
- Dr. Everardo González Gálvez, Assistant Director
General of Health, Ministry of Health, Panama

PARAGUAY

Delegates:

- Dr. Adán Godoy Jiménez, Minister of Public Health
and Social Welfare, Asunción (*Chief of
Delegation*)
- Dr. Ramón P. Delmás, Director General of Health,
Ministry of Public Health and Social Welfare,
Asunción

Dr. Alcides Almada López, Director, National Malaria Eradication Service, Ministry of Public Health and Social Welfare, Asunción

Dr. Víctor Alejo Ramírez, Director, Surgical Services, Ministry of Public Health and Social Welfare, Asunción

Adviser:

Dr. Marcos Martínez, First Secretary, Embassy of Paraguay, Washington, D. C.

PERU

Delegates:

Dr. Luis Marchand Stens, Minister Counsellor, Embassy of Peru, Washington, D. C. (*Chief of Delegation*)

Mr. Jorge del Campo Vidal, Counsellor, Delegation of Peru to the Organization of American States, Washington, D. C.

Mr. Carlos Chichizola Guimet, Second Secretary, Embassy of Peru, Washington, D. C.

TRINIDAD AND TOBAGO

Delegates:

Dr. Mervyn U. Henry, Chief Medical Officer, Ministry of Health, Port-of-Spain (*Chief of Delegation*)

Mr. Solomon S. Lutchman, Minister-Counsellor, Embassy of Trinidad and Tobago, Washington, D. C.

Mr. R. Kenneth Ablack, Information Attaché, Embassy of Trinidad and Tobago, Washington, D. C.

UNITED KINGDOM

Delegate:

Dr. Simon M. Frazer, Chief Medical Officer, Department of Health and Welfare, Bermuda

UNITED STATES OF AMERICA

Delegates:

Dr. Jesse L. Steinfeld, Surgeon General, Public Health Service, Department of Health, Education, and Welfare, Washington, D. C. (*Chief of Delegation*)

Dr. S. Paul Ehrlich, Jr., Director, Office of International Health, Department of Health, Education, and Welfare, Washington, D. C.

Dr. Robert de Caires, Associate Director for Planning and Evaluation, Office of International Health, Department of Health, Education, and Welfare, Washington, D. C.

Advisers:

Mr. Robert B. Allen, Office of International Administration, Bureau of International Organization Affairs, Department of State, Washington, D. C.

Mr. Edward B. Rosenthal, Office of Economic and Social Affairs, Bureau of International Organization Affairs, Department of State, Washington, D. C.

Dr. Lee M. Howard, Director, Health Services and Technical Assistance, Agency for International Development, Washington, D. C.

Mr. Simon N. Wilson, Inter-American Organizations Adviser, Bureau of Inter-American Affairs, Department of State, Washington, D. C.

URUGUAY

Delegates:

Dr. Angel César Ronco, Under-Secretary of State, Ministry of Public Health, Montevideo (*Chief of Delegation*)

Dr. Oscar Rodríguez López, Director General of Health, Ministry of Public Health, Montevideo

Dr. Abelardo Sáenz Sanguinetti, President, Office of International Affairs, Ministry of Public Health, Montevideo

VENEZUELA

Delegates:

Dr. José de Jesús Mayz Lyon, Minister of Health and Social Welfare, Caracas (*Chief of Delegation*)

Dr. Rogelio Valladares, Director General, Ministry of Health and Social Welfare, Caracas

Dr. Daniel Orellana, Chief, Office of International Public Health, Ministry of Health and Social Welfare, Caracas

Dr. Alfonso A. Rísquez Cotton, Official of the Department of Malariology and Environmental Sanitation, Ministry of Health and Social Welfare, Caracas

Dr. Pedro Guédez Lima, Chief, Division of Medical Care Services, Ministry of Health and Social Welfare, Caracas

CANADA

Official Observers:

- Dr. Basil D. B. Layton, Principal Medical Officer, International Health, Department of National Health and Welfare, Ottawa
- Dr. S. E. Acres, Medical Consultant, Communicable Diseases and Accidents, Epidemiology Division, Department of National Health and Welfare, Ottawa
- Mr. R. M. Middleton, Counsellor for Inter-American Affairs, Canadian Embassy, Washington, D. C.

Executive Committee of PAHO

Representative:

- Dr. Victorio V. Olguín, Chairman

World Health Organization

- Dr. M. G. Candau, Director General
- Mr. Milton P. Siegel, Assistant Director-General
- Mr. F. Gutteridge, Chief, Legal Office
- Mrs. Y. Warner, Assistant to the Director-General

Pan American Sanitary Bureau

- Dr. Abraham Horwitz, Director, Secretary ex officio of the Conference
- Dr. Charles L. Williams, Jr., Deputy Director
- Dr. Alfredo Arreaza Guzmán, Assistant Director
- Mr. E. R. Lannon, Chief of Administration
- Dr. Pedro N. Acha, Chief, Department of Human and Animal Health
- Dr. Juan José Barrenechea, Chief, Planning Section
- Dr. Alfredo L. Bravo, Chief, Department of Medical Care Administration
- Mr. Earl D. Brooks, Chief, Department of Management and Personnel
- Dr. Héctor A. Coll, Chief, Liaison and Public Relations Office
- Dr. Carlos Díaz-Coller, Chief, Department of Scientific and Public Communications
- Dr. Abraham Drobny, Chief, Department of Health Services

Dr. José Luis García Gutiérrez, Chief, Department of Special Technical Services

Dr. Guzmán García Martín, Chief, Department of Malaria Eradication

Dr. Mark D. Hollis, Chief, Department of Environmental Sciences and Engineering

Dr. Mauricio Martins da Silva, Chief, Department of Research Development and Coordination

Mr. Clarence H. Moore, Chief, Department of Budget and Finance

Dr. Richard A. Prindle, Chief, Department of Health and Population Dynamics

Dr. Ruth R. Puffer, Chief, Department of Health Statistics

Dr. Carlota Ríos, Consultant

Dr. Bichat de A. Rodrigues, Acting Chief, Department of Communicable Diseases

Dr. Raúl Vera, Chief, Department of Evaluation

Dr. Ramón Villarreal, Chief, Department of Human Resources Development

Chief, Secretariat Services

Mr. Luis Larrea Alba, Jr., Chief, Personnel and Conference Section

Observers

ORGANIZATION OF AMERICAN STATES

- Mr. Galo Plaza, Secretary General
- Dr. Jesse Dean Perkinson, Director, Department of Scientific Affairs
- Mr. Theo R. Crevenna, Director, Department of Social Affairs
- Mrs. Alzora H. Eldridge, Liaison Officer, Executive Office of the Secretary General
- Mr. O. Howard Salzman, Deputy Administrator, Technical Cooperation Administration

INTER-AMERICAN DEVELOPMENT BANK

- Mr. Felipe Herrera, President
- Mr. Humberto Olivero, Chief, Sanitary Engineering Section
- Mr. Stacey Widdicombe, Specialist in Education, Education, Science, and Technology Section

UNITED NATIONS AND INTERGOVERNMENTAL ORGANIZATIONS

Mr. Marcial Tamayo, Director, U. N. Information Center, Washington, D. C.

Mr. Walter Hayes, U. N. Information Center, Washington, D. C.

United Nations Development Program

Mr. Marcial Tamayo, Director U. N. Information Center, Washington, D. C.

Economic Commission for Latin America

Mr. Ernesto Cuesta, Acting Chief, Washington Office, Washington, D. C.

Miss Barbara Norwood, Assistant Chief, Washington Office, Washington, D. C.

United Nations Children's Fund (UNICEF)

Mr. Roberto Esguerra-Barry, Regional Director for the Americas, Santiago, Chile

Mr. José Ignacio Zañartu, Program Officer for the Americas, New York, N.Y.

Food and Agriculture Organization of the United Nations (FAO)

Mr. Amable Ortiz, Assistant to the Regional Representative for North American and Latin American Affairs, Rome

NONGOVERNMENTAL ORGANIZATIONS

International Confederation of Midwives

Miss Lucille Woodville, President, Assistant Chief, Maternal and Child Health Branch, Indian Health Service, Department of Health, Education, and Welfare, Rockville, Maryland

International Council on Alcohol and Addictions

Mr. Charles P. Frazier, Educational Director, The Christopher D. Smithers Foundation Inc., New York, N.Y.

Mr. Augustus H. Hewlett, Executive Secretary, North American Association of Alcoholism Programs, Washington, D. C.

Dr. Frank Seixas, Medical Director, National Council on Alcoholism, New York, N. Y.

International Council of Nurses

Miss Dorothy Sutherland, Nurse Adviser, Office of International Health, Department of Health, Education, and Welfare, Washington, D. C.

International Dental Federation

Dr. Nelson W. Rupp, Research Division, American Dental Association, Washington, D. C.

International Federation of Gynecology and Obstetrics

Dr. John Louis Parks, Professor of Obstetrics and Gynecology, Dean of the School of Medicine, The George Washington University, Washington, D. C.

International Fertility Association

Dr. David H. Kushner, Principal Investigator, Population Council, Senior Consultant, Columbia Hospital, Washington, D. C.

International Hospital Federation

Dr. Leo J. Gehrig, Director, Pan American Office, Washington, D. C.

Dr. José González, Secretary, Pan American Office of the National Hospital Federation, Washington, D. C.

International Planned Parenthood Federation

Dr. Luz Cortez Jefferson, Gynecologist-Obstetrician, Ministry of Public Health, Lima, Peru

International Union for Health Education

Dr. L. P. Aujoulat, Secretary General, Paris, France

International Union against the Venereal Diseases and the Treponematoses

Dr. James S. McKenzie-Pollock, Regional Director for the Americas, New York, N. Y.

League of Red Cross Societies

Dr. Alan Chrisman, Deputy Director of the Blood Program, The American National Red Cross, National Headquarters, Washington, D. C.

Milbank Memorial Fund

Dr. L. E. Burney, Executive Director, New York, N. Y.

World Federation of Occupational Therapists

Miss Marjorie Fish, Consultant, Division of Training,
Social and Rehabilitation Services, Department of
Health, Education, and Welfare, Washington, D. C.

Mrs. I. R. Achter, Coordinator, Department of
Physical Medicine and Rehabilitation, District of

Columbia General Hospital, Washington, D. C.

World Medical Association

Dr. Eugene V. Jobe, Assistant Director, Department
of Governmental Relations, American Medical
Association, Washington, D. C.

OFFICERS OF THE CONFERENCE AND MEMBERSHIP OF ITS COMMITTEES

Officers

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

President:

Dr. José Renán Esquivel, Panama

Vice-Presidents:

Dr. Adán Godoy Jiménez, Paraguay
Dr. José de Jesús Mayz Lyon, Venezuela

Rapporteur:

Dr. Ramón Alvarez Gutiérrez, Mexico

Secretary ex officio:

Dr. Abraham Horwitz, Director, Pan American Sanitary Bureau

Vice-Chairmen:

Dr. Adán Godoy Jiménez, Paraguay
Dr. José de Jesús Mayz Lyon, Venezuela

Rapporteur:

Dr. Ramón Alvarez Gutiérrez, Mexico

Chairman of Committee I:

Dr. S. Paul Ehrlich, Jr., United States of America

Chairman of Committee II:

Dr. Horacio Rodríguez Castells, Argentina

Delegate:

Dr. Alfredo N. Bica, Brazil

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 Rule 26 of the Rules of Procedure:

Chairman:

Dr. Francisco Parra-Gil, Ecuador

Rapporteur:

Dr. Mervyn U. Henry, Trinidad and Tobago

Member:

Dr. Orontes Avilés, Nicaragua

General Committee

Upon the election of the Delegate of Brazil, in accordance with Rule 27 of the Rules of Procedure, the General Committee was composed of the following members:

Chairman:

Dr. José Renán Esquivel, Panama

Committee I

The election of officers of Committee I took place pursuant to Rule 29 of the Rules of Procedure. The officers were:

Chairman:

Dr. S. Paul Ehrlich, Jr., United States of America

Vice-Chairman:

Dr. José Luis Orlich, Costa Rica

Rapporteur:

Dr. Carlos A. Pineda, Honduras

Committee II

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

Chairman:

Dr. Horacio Rodríguez Castells, Argentina

Vice-Chairman:

Dr. Alcides Almada, Paraguay

Rapporteur:

Dr. Edgar Mohs Villalta, Costa Rica

Working Party

One working party was established. It was responsible for examining topics for the Technical Discussions to be held during the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas. It was composed of the Delegates of Argentina, the Dominican Republic, and Jamaica.

Technical Discussions

During the Technical Discussions of the Conference, which were held on 2 October, the topic "Venereal Diseases as a National and International Health Problem," was discussed. The officers of the Technical Discussions were as follows:

*General Session**Moderator:*

Dr. Alfredo N. Bica, Minister of Public Health, Ministry of Health, Brazil

Rapporteur:

Dr. Mervyn U. Henry, Chief Medical Officer, Ministry of Health, Trinidad and Tobago

Technical Secretary:

Dr. Alvaro Llopis, Department of Communicable Diseases, PASB

Panel Members:

Dr. Carlos J. Alarcón
Dr. William J. Brown
Dr. Arthur E. Callin
Dr. Juan César García
Dr. Thorstein Guthe
Dr. Antonio Campos Salas

Two working parties were established, composed as follows:

*Working Party I**Moderator:*

Dr. Robert de Caires, Associate Director for Planning and Evaluation, Office of International Health, Department of Health, Education, and Welfare, United States of America

Rapporteur:

Dr. Pedro Guédez Lima, Chief, Division of Medical Care Services, Ministry of Health and Social Welfare, Caracas

Technical Secretary:

Dr. Alvaro Llopis, Department of Communicable Diseases, PASB

*Working Party II**Moderator:*

Dr. Bogoslav Juricic, Secretary, National Public Health Advisory Council, Ministry of Public Health, Chile

Rapporteur:

Dr. Alfredo Rabinovich, Director, National Medical and Health Standardization, Secretariat of State for Public Health, Argentina

Technical Secretary:

Dr. Merlin Brubaker, Department of Communicable Diseases, PASB

The following served as consultants to the Pan American Sanitary Bureau: Dr. Carlos J. Alarcón (Venezuela), Dr. William J. Brown (United States of America), Dr. Arthur E. Callin (United States of America), and Dr. Antonio Campos Salas (Mexico).

The Final Report of the Technical Discussions¹ was presented at the tenth plenary session and the Conference approved the corresponding resolution.

¹Published in the *Boletín de la Oficina Sanitaria Panamericana* Vol. LXX, No. 1 January 1971.

AGENDA

1. Opening of the Conference
2. Establishment of the Committee on Credentials
3. Election of President and Two Vice-Presidents
4. Adoption of the Agenda
5. Amendments to the Rules of Procedure of the Pan American Sanitary Conference
6. Establishment of the Main Committees
7. Establishment of the General Committee
8. Annual Report of the Chairman of the Executive Committee
9. Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1966-1969
10. Annual Report of the Director of the Pan American Sanitary Bureau for 1969
11. Reports of the Governments of the Organization on Public Health Conditions and Progress Achieved during the Period between the XVII and XVIII 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. Election of Three Member Governments to the Executive Committee on the Termination of the Periods of Office of Nicaragua, Trinidad and Tobago, and Uruguay
14. Report on the Collection of Quota Contributions
15. Financial Report of the Director and Report of the External Auditor for 1969
16. Technical Discussions: Venereal Diseases as a National and International Health Problem
17. Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas
18. Report on the Status of Malaria Eradication
19. *Aedes aegypti*
20. Smallpox Eradication
21. Resolutions of the World Health Assembly of Interest to the Regional Committee
22. Control of Cigarette Smoking
23. Amendments to the Staff Rules of the Pan American Sanitary Bureau
24. Multinational Centers
25. Man-Environment Relationships
26. Health Legislation
27. Proposed Program and Budget Estimates of the Pan American Health Organization for 1971
- 28-a WHO Regular Budget for the Region of the Americas for 1971
- 28-b Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972
- 28-c Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973
29. Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972
30. Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country
31. Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970
32. III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control
- 33-a Long-Term Planning and Evaluation
- 33-b Long-Term Financial Indicators
34. PAHO Award for Administration
35. General Program of Work of the Pan American Health Organization—World Health Organization, Covering the Period 1973-1977
36. Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation
37. Cholera *
38. Other Matters

*Item added at the fourth plenary session.

2. VERBATIM MINUTES OF PLENARY SESSIONS

VERBATIM MINUTES OF PLENARY SESSIONS*

INAUGURAL SESSION

Monday, 28 September 1970, at 10:30 a.m.

Honorary Officers

Dr. Sylvia E. Talbot, Provisional President of the XVIII Pan American Sanitary Conference,
and Minister of Health of Guyana
Mr. Galo Plaza, Secretary General of the Organization of American States
Mr. Felipe Herrera, President of the Inter-American Development Bank
Dr. Jesse L. Steinfeld, Surgeon General of the United States Public Health Service
Dr. M. G. Candau, Director-General of the World Health Organization
Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau

Address by Dr. Sylvia E. Talbot, Provisional President of the Conference, Minister of Health of Guyana

Dr. Talbot: I hereby declare open the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization for the Americas. Your Excellencies, distinguished guests, delegates, ladies and gentlemen, there is at least one reason for not following the program this morning, and that is because, as a person, I am very unorthodox. I see here that I am supposed to make formal remarks, but my remarks will be very informal. I am told that that is the prerogative of a chairman.

We have assembled again to decide on some of the very crucial issues in hemispheric health. We have with us what I will describe as a galaxy of stars and they will, because of their experience and background, provide for us information about health in this Hemisphere. I shall give them as much time as I can to tell us about the things we are interested in. However, as we proceed this morning, and indeed throughout this Conference, I hope that we will be conscious of two things. One is the need

for us to continue to evaluate the work of the Pan American Health Organization and perhaps in many ways to rethink its role in our countries. We know what the traditional work and activities of the Organization have been, but because of our experiences we may have other ideas about what would be useful to us and indeed each of us may have his own idea of this. We need here to meld these ideas so that we can redefine direction for the work of the Organization. We do, in fact, have many problems that have proved intractable in many instances and we need to determine how this Organization can best help us to solve some of them. We also need to think of the assistance, especially the financial assistance, we receive both through the Organization and from other countries, because the financial assistance that comes to us often comes for programs and activities that do not have priority in our countries. I think that to reorder the priorities or the goals in a country is unhealthy. I believe that, with the professional training that people have in the countries represented here this morning, there is enough technical know-how to make our countries responsible for determining their own goals and priorities. Therefore, it is not necessary, and it is certainly unhelpful, for external influences to be brought to bear on countries to reorder these priorities.

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

We need not look far to see what has happened in the case of family planning. We need here to discuss these issues frankly and openly, and to determine what are the best approaches, and what strategy we should use for the Second Development Decade.

Address by Mr. Galo Plaza, Secretary General of the Organization of American States

Mr. Plaza:* I have great pleasure in coming to this meeting of the supreme authority of the Pan American Health Organization and in congratulating you on your vigorous and fruitful efforts to promote the welfare of the peoples of the Americas. Your important programs, geared to direct action in the Member Countries, have helped, *inter alia*, to lengthen the life-span of Latin Americans born during the past decade by an average of over two years.

I should like to avail myself of this opportunity to offer my special congratulations to Dr. Abraham Horwitz and to the staff of the Pan American Sanitary Bureau, which works in constant and close collaboration with the General Secretariat of the OAS. Cases in point include the consultations held on the selection of candidates for the award of fellowships, and the joint projects and meetings undertaken on matters of common interest, such as housing, social security, environmental sciences, and population. The cooperation maintained through the Inter-American Emergency Aid Fund deserves special mention. The Pan American Sanitary Bureau lent generous and timely assistance to the Emergency Fund on the occasion of the disaster in Peru last May, and more recently in the case of an outbreak of measles in Bolivia.

The fact that the Pan American Health Organization is at one and the same time an inter-American specialized organization, under the terms of the Charter of the OAS, and a Regional Office of the World Health Organization, makes for more effective coordination between the Inter-American System and the world system, not only at the level of policy formulation, but also in the technical and administrative aspects of project execution.

At the present moment, the Organization of American States is passing through a period of transition, inasmuch as it is being brought into line with the reformed Charter that came into force on 27 February of the current year. The General Assembly, which is the supreme authority of the OAS under the new regime, held its first special session last July. On that occasion, the Governments approved the statutes of the three Councils of the Organization, and adopted several other

decisions for the purpose of putting its new structure into operation.

The reformed Charter of the OAS contains certain changes in the provisions concerning the inter-American specialized organizations. Relations between these agencies and the Organization itself, which used to be governed by agreements with the Council of the OAS, will now be determined under agreements with the Secretary General, subject to the authorization of the General Assembly. The specialized organizations formerly enjoyed the fullest technical autonomy, but had to take into account the recommendations of the Council of the OAS. Their technical autonomy will still be as complete as ever, but they will have to take into account the recommendations of the General Assembly and the three Councils—the Permanent Council, the Inter-American Economic and Social Council, and the Inter-American Council for Education, Science and Culture. The annual reports, budgets, and accounts which the specialized organizations used to submit to the Council of the OAS will now be submitted to the General Assembly.

At the request of the General Assembly, the Permanent Council has started work on the formulation of draft standards for the application and coordination of those provisions of the Charter that relate to the inter-American specialized organizations. This draft will be prepared in close collaboration with the other Councils of the Organization, with the advisory assistance of the General Secretariat, and with the participation of the inter-American specialized organizations themselves. It will be presented at the first regular session of the General Assembly, which is to be held in April 1971. It goes without saying that the experience of PAHO will be of valuable assistance in the work of formulating the new norms.

I cannot refer to the changes that are taking place in the OAS without underlining the importance attached by the General Secretariat to the intention of the Government of Canada to strengthen its bond with the Inter-American System by joining several of the inter-American specialized organizations, among them the Pan American Health Organization. This institution in turn will be strengthened by the accession of the new Member in question, and will have the honor of being the first regional body in which every part of the Hemisphere will be represented.

The countries of the Americas are standing on the threshold of a new development decade, during which they will step up national efforts to solve the problems obstructing the betterment of man's living conditions. They will strive to relieve unemployment, to modernize

and expand educational systems, to reduce the housing shortage, to eradicate or control diseases, to counteract environmental pollution, to put an end to malnutrition, and to incorporate marginal populations in national life, giving them a chance to enjoy the benefits of modern technology, consistently with the demands of human self-respect.

It is incumbent upon the international organizations to give unconditional support to these national efforts, and to make sure that programs are fully in line with the countries' needs and are implemented in such a way as to guarantee the maximum yield from the resources available.

The General Secretariat of the Organization of American States takes the present opportunity of reaffirming its dedication to this task, and its desire to collaborate closely in the Pan American Health Organization's work on behalf of our peoples.

Address by Dr. Jesse L. Steinfeld, Surgeon General, United States Public Health Service

Dr. Steinfeld: I am happy to welcome you to the United States of America, and I hope your visit with us will be very pleasant.

Those of you who have attended the Directing Council in past years are well acquainted with Washington, D. C. We, in turn, are pleased to be the home of the Pan American Health Organization Headquarters and its fine staff and their families. The beauty of this building has made it a landmark of the city. We feel fortunate to have it here as a constant reminder of the important work of the Organization and the principles for which it stands.

On behalf of the United States Delegation, may I say that it is a great privilege to join with so many distinguished health leaders of the Americas at this Conference. On a personal note, it is a pleasure to see so many colleagues with whom I worked at the Twenty-Third World Health Assembly in May. The spirit of cooperation engendered through these meetings bodes well for this Conference as we work together in a common effort.

This new decade of the 1970's presents important opportunities and challenges in health. The technological achievements of the past decade have stirred the imagination and hopes of people everywhere. And with these expectations has come a recognition that health is not merely a privilege, but a *right* for everyone. All of us share this common goal.

Over the next several days we will hear reports on the health situation in the Americas and of our efforts

to bring to all 500 million Americans, north and south, the benefits of our knowledge and resources. I am confident that most of these reports will recount significant progress, much of which will have been brought about through the action programs to which our Organization has devoted its attention over the years.

One of the paradoxes of modern society, however, is that many of the technological innovations that have given us a more comfortable and convenient existence can also be a threat to that very existence. I am referring, of course, to the problems of human environment. What we have now is an addition to the infectious diseases, the neoplastic diseases, and the metabolic diseases; this new addition is a result of our advancing technology, and I think we can coin a new term "technogenic diseases" to account for these. As President Nixon very recently said: "We should set ourselves a higher goal than merely remedying the damage wrought in decades past. We should strive for an environment that not only sustains life, but enriches it."

In this task, PAHO has a major role to play. Health is an essential ingredient in the quality of life. The strength, vigor, and vitality of any nation rests fundamentally upon the health of its people. Ambitions for economic and social progress can never be fully realized in a country whose people are ravaged by disease and malnutrition.

I am convinced that we are taking the important steps toward solving these problems which deeply concern all of us. The progress PAHO has made to date is impressive; the future is one of challenge and hope. I look forward to working with you on the problems before us at this Conference, but I hope our busy schedule will still provide an opportunity for you to enjoy your visit to our national capital.

My best wishes for a most successful meeting.

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

Dr. Candau: * I am very happy to have been able to attend this XVIII Pan American Sanitary Conference. Personally and professionally, I derive a deep feeling of satisfaction from these meetings, not only because they give me a very welcome opportunity to renew old ties with friends and colleagues and establish new ones, but because the debates and resolutions have a decisive impact on the minds of all those who have the absorbing responsibility of planning and constantly struggling for the health and welfare of millions.

I am sure that the discussions at this Conference will,

as in the past, have a profound effect on the health conditions of the less privileged peoples of the Americas. Thanks to its admirable and deeply-rooted traditions, which go back to the beginning of the present century, and its courageous and farsighted action over the last 20 years, the Pan American Sanitary Bureau has played a highly important role in the regional structure of the World Health Organization.

I should now like to comment very briefly on three things that are of capital importance for public health at both the national and the international level: the teaching of medicine, environmental sanitation, and health planning.

If the experience of WHO has taught us anything, it is undoubtedly that neither national nor international efforts to achieve a substantial and lasting improvement of the world's health will be successful until the countries possess a minimum of properly established and efficiently organized health services. Throughout the world it is becoming increasingly clear that the training of health personnel at all levels is an essential element in the over-all development which, as we all know, is an indispensable condition for economic and social progress. This fundamental principle, laid down in the Charter of Punta del Este and reaffirmed in the Declaration of the Presidents of the Americas, has been perfectly well understood in this Region, where the name "Development of Human Resources"—a name that speaks for itself—has been given to the PASB department that deals with all activities to solve the problem of the shortage of health personnel and of deficiencies in their training.

You have had the welcome good sense to devote more attention in the last few years to the establishment of teaching and training institutions that not only give their students a sound grounding in the technical aspects of the different professions and specialities but set an excellent example of good teaching and good organization of research, selecting whichever methods are the most suitable in each particular case. Parallel with these activities, extremely useful work is being done in assisting countries to give a sufficient number of auxiliary and intermediate-level personnel a training that is consonant with local requirements. All these activities are aimed at making the training system as flexible as it must be if the training of personnel is to be carried out on the basis of a planned occupational structure, bearing in mind the function to be fulfilled and the degree of responsibility required, depending on the needs of the community.

Another wise decision on the part of PASB in connection with the teaching of medicine and the other

health sciences has been its adoption of an interdisciplinary approach, leading to the formation of "health teams" of which the main feature is the organization of practical work in training and service in such a way as to provide an opportunity for students in different professional fields to get to know each other, to work together, and to learn what to expect from each other. There is no doubt that this approach, which has its logical outcome in the establishment of what have been called the "faculties of health sciences," i.e., integrated multiprofessional training centers, opens up tremendous possibilities of coordinated training of human resources for health work and is conducive to better use of the material resources.

The developments I have mentioned are only a selection of the many ideas that have originated in the Americas for dealing with the critical shortage of health personnel that is such a clog in the wheels of social progress.

As in other regions, in the Americas the success of communicable disease control will depend to a considerable extent on the efforts to improve environmental conditions, which are sadly substandard nearly everywhere in this Continent. Thanks to the credit policy of the Inter-American Development Bank, great strides have been made toward attaining the minimum objectives defined in the Charter of Punta del Este in 1961: water supply for 70 per cent of the urban population (already achieved, if not surpassed, in 21 countries) and for 50 per cent of the rural population (reached or surpassed also in five countries). These results, which have been achieved in the face of great difficulties, are a good omen for the success of the many projects to reduce the environmental hazards that are the concomitants of the unplanned growth of cities, industrialization and migration, the side-effects of scientific and technological progress, and other economic and social characteristics of our times. Needless to say, the ultimate aim of all these efforts is to help establish a satisfactory ecological balance between man and his environment, which are always changing.

There is another thing that you have borne constantly in mind—the fact that lack of planning is one of the most serious obstacles to improvement in public health. I am very glad to see that in this field too the Pan American Sanitary Bureau has left its mark by establishing methods for national planning. Suffice it to mention the Pan American Health Planning Program and the organization of training courses in health planning for the staff of health departments of many countries. The pioneering of PASB has produced results of great practical interest to the other regions, since it has

identified the problems that must be overcome if suitable and realistic systems of health planning are to be established. I am thinking, for instance, of the difficulties we are encountering in quantifying the relationship between health and economic and social development and therefore in measuring accurately the contribution of the health sector to over-all development. There are other obstacles also: the lack of properly planned information systems covering health statistics, and the reluctance of some of the older institutions to introduce scientific and technological changes that would make for a better use of the available resources.

There is still a long way to go before rational bases for the planning process are well and truly laid. In the meantime, we have crucial needs to meet out of our exiguous resources, which means that we can no longer postpone the urgent task of finding much more precise criteria for determining what priority projects will have the most profound and measurable effects on health conditions. Thanks to the system of quadrennial projections, which has had such good effects on programming, PASB is beginning to make the best use of all possible external aid, at the national and the regional levels.

I sincerely hope that the Region of the Americas, and the whole Organization, will mobilize all their resources to promote integrated health planning, for this is the best guarantee of the most effective use of the available resources in our health services and of the most fruitful dialogue with the economists and planners responsible for economic and social development. It is by closely cooperating with the specialists in these disciplines that the professionals—doctors and health specialists—will best serve the cause of social and economic progress, in the countries and throughout the world.

Address by Mr. Felipe Herrera, President of the Inter-American Development Bank

Mr. Herrera:* I am deeply gratified to have the opportunity to appear before you on the occasion of the opening of the XVIII Pan American Sanitary Conference. This Conference, occurring as it does in the year 1970, coincides with two other significant events. This year marks the completion of the First Development Decade of the United Nations, and the first 10 years of life of the Inter-American Development Bank.

These are not isolated coincidences; they are events that are significantly interrelated. I need only recall that it was during this decade that social development

acquired recognition as an indispensable corollary of economic development, that our institution, the Inter-American Development Bank, opened the path for investment in critical social fields and “legitimized” the role of an investment bank in these fields, and during which the Pan American Health Organization, under the inspired and imaginative direction of Dr. Abraham Horwitz, provided us with the technical “backstopping” and professional support we so urgently needed.

Just a casual glance at your agenda for this Conference reveals the tangible relationship between our two institutions: foot-and-mouth disease, health planning, financing of medical textbooks, health progress in the Region, and the relation between man and his environment. For both of us, these are more than items on a conference agenda; they are components of our work program—items in which we share a vital concern.

The past decade has witnessed the acceptance of a development goal consisting of interrelated objectives—economic and social progress. This principle, enunciated first in the Act of Bogotá in 1960, was reinforced and spelled out in definite goals in the Charter of Punta del Este in 1961, and given force and reality through ever-increasing financial investments by the inter-American community. And it was the leadership of the inter-American community, in giving vitality to the principle of the interrelationship between economic and social progress, that led to its world-wide acceptance.

It is within the context of these interrelated objectives that health assumes its importance in the evolution of a strategy for growth. This is the result of the acknowledgment that health, as an investment in people, leads to the improvement of people as one of three elements of the tripod of growth: human resources, natural resources, and capital. The foresight of the architects of the Act of Bogotá, the Inter-American Development Bank, and the Charter of Punta del Este, in elevating the role of investment in the social fields, including health, has been confirmed in the recent Pearson and Tinbergen reports on development assistance, and by the fact that other multilateral development institutions are now forming investment programs in fields that are well established within the portfolio of the Inter-American Development Bank.

I hope I shall be forgiven for illustrating the role of a development bank in promoting the health of our Region by citing the work of the institution over which I have the honor to preside. I have already noted that from its very beginning the Bank has been conscious of its role as an agent for social progress. Those who designed the Agreement establishing the Bank built into its charter the provisions that subsequently enabled it to

use not only its own funds, but also those entrusted to it for administration, for investment in broad social goals. The Bank's first loan, amounting to \$3.9 million, was granted in 1961 to the city of Arequipa, Peru, for potable water supply. Since then a total of \$962 million, or 25 per cent of the total portfolio of the Bank of \$3.8 billion, has been invested in strictly social fields, such as water and sewerage, housing, and education. In addition, a considerable amount of the \$1 billion lent to agriculture has been directed to social ends. I interpret social fields to mean those that contribute to the development of human capabilities and the improvement of the quality of life, such as health, nutrition, education, and the environment in which man lives.

The initial priority for Bank investments in health was given to potable water and sewerage. In 1961, when the first loan was made, approximately 60 per cent of the urban population had access to potable water systems, and 32 per cent had sewerage services. Only 7 per cent of the rural population was served by water supply systems, and sewerage services were virtually nonexistent. By 1969 the proportion of the urban population served by water systems had increased to 68 per cent despite the tremendously rapid expansion of the Latin American cities in that period. In effect, the urban population increased from 69 to 107 million, or an increase of 38 million. Progress in the rural areas has been less impressive. By the end of 1969, only 16 per cent of the rural sector had water services, but it should be remembered that during this period the rural population increased from 142 to 176 million.

Progress in sewerage services for urban systems has been slower, although it has nonetheless been significant. By 1969 the urban population with access to sewerage services had increased to 36 per cent. Unfortunately, the rural areas that were most inadequately served in 1961 showed little improvement in the period referred to.

What the Bank has done in this field can be clearly appreciated if its participation is measured as a percentage of the total contributions made by the international credit agencies. About 70 per cent of those funds were provided by the Bank. However, its contribution cannot be measured solely in terms of numbers and amounts. Technical assistance programs have helped create new institutions and improve existing organizations, and training programs for professionals and technicians are yielding and will yield immeasurable benefits in the years to come.

It is important to note that although the Charter goal of providing water and sewerage facilities to at least 70 per cent of the urban population was within reach by

the end of the decade, there was a significant "shortfall" in achieving the rural goal of 50 per cent; and it is in this area that we must make renewed efforts in the near future. It should be noted also that this combined effort has reduced significantly the incidence of water-borne disease, thereby contributing to the increase in life expectancy at birth.

The Bank has also invested in other programs designed to improve the physical environment in which Latin Americans live. The urban development program of the Bank totals \$351 million for the improvement of the housing conditions for low-income families and for related community facilities; the Bank is the largest of the external investors in this field. These operations have been accompanied by technical assistance in strengthening the capacity of cities to undertake the planning required for their future growth, as well as the improvement of the administration of urban areas.

The phenomenal growth of Latin America's cities in the past decade promises to continue in the next 10 or 20 years. So, too, will continue the shortages in housing, in educational and health facilities, and inadequacy of economic infrastructure. The causes of the problem are extremely complex. Ultimate solutions, even of heroic proportions, are not yet visible. The Bank, along with other external aid agencies, must continue the search for catalytic investments that hopefully will help the cities reach a state of equilibrium.

There are other aspects of the Bank's investment strategy in the health field that deserve to be noted. Among them are contributions to the improvement of medical and public health education, basic medical research, and the improvement of nutrition.

As an international and regional development institution, the Bank has pioneered in higher education. This early concern of the Bank was based on the belief that, with limited financial resources, a priority should be placed on investment in institutions that provide teacher-training and foster the development of applied research. To date the Bank has invested \$143 million in this field. A substantial portion of this investment has been allotted to basic and applied research, including research in the medical sciences.

Forming part of this program are the loans for two centers for medical and public health training: \$3.8 million for the teaching hospital of the School of Medicine of the University of Buenos Aires, and \$1.25 million for the graduate program in public health of the University of Chile. In addition, assistance has been provided for the improvement of medical education in Haiti. It should be noted that the Bank's effort to improve university-level teaching in the basic sciences

and mathematics will inevitably improve the capacity of students entering all science-oriented programs—medicine as well as engineering and agriculture.

I wish at this juncture to refer to a loan now being considered by our Board of Executive Directors, one that is not large by Bank standards but which has great potential consequences for the improvement of medical education in the Region. It is a \$2 million loan for the establishment of a revolving fund to be administered by the newly created Pan American Health and Education Foundation. This fund will make possible the publication within five years of 740,000 textbooks on basic medical subjects to be made available to students at one-half their commercial price. It is expected that in its first phase this program will benefit 100,000 students in 147 medical schools in the Region. The program promises to be completely self-financing. This is the "brain-child" of the Director of the Pan American Sanitary Bureau, and we are proud to serve as the instrument through which such a laudable objective can be attained.

The problem of feeding the rapidly growing population of Latin America is both quantitative and qualitative. It is necessary to ensure that each individual has foods with a sufficient caloric level and that his diet includes certain essential components. You know better than I that malnutrition increases morbidity and mortality rates, with especially disastrous effects on infants and young children. We know also that Latin America has not yet resolved these important nutritional problems. The persistence of these problems can be attributed not only to public health factors, but also to a complex of socioeconomic factors.

What are we in the Bank doing about the problem of food for a Region where population growth is parallel with economic development? From our studies, we know that by and large food production has been keeping pace with population growth, but that this balance had been maintained largely through extensive agriculture, that is, by opening up new land while productivity increased at a slow rate. We anticipate that for the coming years productivity must be increased through improved farming practices, institutional reforms, and technological innovations. Agriculture is at present the major field of investment for the Bank. In fact, we are the number one external investor. Of our total portfolio, \$1 billion, or 27 per cent, is devoted to agriculture.

Most of this, directly or indirectly, will contribute to increased food production for consumption within the Region. But we must be assured that imbalances in the distribution of food are corrected, so that there will not

be large pockets of hunger in the midst of growing supplies. And we must also make sure that qualitative deficiencies are corrected. Here are some of the important actions of the Bank designed to help in finding remedies to these problems.

- We have allotted 13 per cent of our educational loans to research and teaching in the agricultural sciences.
- We have recently initiated collaborative programs between member countries of the Bank in which accelerated food production efforts are planned; we have contributed to some international research centers in the Region in which intensive training is given in improving productivity, especially of foods that are important for a balanced diet.
- We have supported a major pilot effort to improve communications between sources of knowledge of new agricultural techniques and producers.
- We will carry out in the near future a study of national agricultural research centers to identify those that are, or can become, leaders in innovative agricultural research.

But the program of which I am especially proud, and which is the product of close collaboration between the Bank and the Pan American Health Organization, is the foot-and-mouth disease campaign. Four years ago the Bank adopted as part of its agricultural development program a policy for investment in the improvement of animal health, which began with foot-and-mouth disease control. I shall not go into a description of the economic gains to be accrued from bringing this disease under control; what is of interest is the fact that its control will make available at a lower cost a major source of animal protein.

The Bank's foot-and-mouth disease control policy was designed with the indispensable cooperation of PAHO experts, as were the criteria and guidelines for loan applications. From 1968 to date, loans have been granted to Paraguay, Argentina, Brazil, and Chile, amounting to \$30 million, matched by \$108 million by the countries themselves. Technical assistance both to the Bank and the borrowers has been provided by the Pan American Foot-and-Mouth Disease Center in Brazil. In addition, the Ministers of Agriculture of the "southern cone" countries have organized themselves so effectively that the program should be considered as an integrated subregional effort rather than as a series of country projects.

It is estimated that the present foot-and-mouth disease loans will produce a net benefit of \$700 million over a 15-year period. We are looking forward to similar efforts in the near future in Bolivia, Peru, Ecuador, Colombia, and Venezuela. I should note that we are currently in the preliminary stages of preparing, jointly with PAHO and the countries, a project for a reinforced

training program at the Center in Brazil, in response to a request from the Ministers of Agriculture.

Another contribution we hope to make to improved nutritional levels in the Region is through our recently developed fisheries policy. It is hoped that Bank investment will contribute to development of this field and thus provide wide access to low-cost protein supplies from ocean sources.

It is with some satisfaction that I describe what the Bank has done to advance the cause of health of the Latin American peoples. We are, I believe, the only development institution in the world that has devoted so much of its energy and resources to this objective. It is with deep concern, however, that I view the problems still unresolved, especially those that could have disastrous consequences in the future.

As you well know, despite the evidence of improvement of health levels in the Region, the general health conditions prevailing today are unsatisfactory. Mortality and morbidity rates for diseases that can be eradicated or reduced are much higher than those of developed countries; life expectancy remains substantially below that of developed countries. The high indices of poor health reflect deficiencies and an uneven distribution of health personnel, training, and treatment facilities. Corrective measures will require substantial efforts over and beyond those already being invested in health, and additional or external investments will be required for application to strategic areas. Above all, improved planning and increased efficiency in the use of financial and human resources allocated to the field of health will be needed.

The Bank is prepared to respond to this challenge. Despite the regrettable decrease of financial resources devoted by the industrialized countries to the developing regions, the increased reliance on the multilateral agencies, including our Bank, means that we can look forward to increased capacity with which to implement and broaden our programs.

In responding to the health challenge, we have had to update our health policies, and this we have done with the assistance of Dr. Horwitz and his colleagues. According to this policy, the Bank will consider proposals in the health field that show promise of yielding the greatest health benefits by reducing the more serious health problems of the Region. Such projects should emphasize preventive health measures, should form a part of an acceptable national health plan, and should conform generally with the Bank's financial criteria.

There are, therefore, financing opportunities for proposals received from countries in which health

conditions are generally lower than the regional average. Assistance to those countries whose health conditions are more favorable will be directed to projects that produce benefits of regional significance, or are related to the hazards created by the industrialization process itself.

Within these limitations, we can entertain proposals that deal with the health aspects of rural development and the construction, expansion, and modernization of hospitals, but only if they are major elements in an integrated health plan, are not of a prestige nature, and are used as supporting facilities for training health personnel. We are prepared to give first priority to those aspects of a national health plan that emphasize the training of medical and paramedical professional personnel.

We propose not only to continue but even to reinforce our water supply and sewerage programs, in both urban and rural areas. We would like, however, for urban projects to comprise more and more components of integrated urban development plans, and that increased emphasis be placed on rural programs designed to improve the quality of rural life. Above all, we are prepared to work with the Pan American Health Organization in extending technical assistance to those countries in which a serious effort to improve health conditions is contemplated. We shall, of course, continue to emphasize those "health-related" activities in other fields, which I described to you earlier.

But there are other perhaps broader problems that are already beginning to affect Latin America and to multiply with devastating rapidity. Can we seriously propose to improve health conditions in the countries when these are confronted with massive urban unemployment and rural underemployment? Are we really prepared to cope with the investment demands for health, educational, and job-creating facilities for a population that threatens to grow from today's 280 million to 500 million by 1990? Are we prepared with existing instruments to face the problems of burgeoning cities, which are the outward manifestation of the "push-pull" forces, that is, the hope for a better life which pulls the rural dwellers to our cities in droves, and the push created by the miseries of rural life.

Are we prepared to accept the undesirable consequences of our industrial society, and remedy them—consequences reflected in the systematic destruction of our natural environment? Consider that Mexico City, São Paulo, Buenos Aires, and Lima-Callao are today threatening to compete with the cities of the developed regions in polluting the environment. I am concerned that no development agency, national or international,

is currently planning and executing its projects with serious concern for ecological factors. We know for a fact that some of these ecological tragedies are occurring in our Region.

What we are in fact observing is a "systems" problem—an array of economic, social, and political forces whose interaction results in the phenomena we are now observing, and which threaten our very existence.

The emphasis on solutions must take into account the complexity of interrelationships. And the approach to solutions must be a "systems" approach.

As for us, we propose to pursue the major aspects of the dynamic growth process: the improvement of the Region's social and economic infrastructure; a search for ways and means of improving the quality of urban and rural life, and a persistent concern that we do not miss an opportunity to try new ways to solve Latin America's long-standing problems, as well as those ills brought about by progress itself.

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

Dr. Horwitz:* For each generation its own historic period is unique. The events and circumstances that characterize it, the advances that are recorded, and the conflicts that cloud it, all give it that singularity that makes it different from every other period before. And this is not surprising for, as it has been said so well, history is not the mere narration of facts; rather, it is the study of human reality, that is to say, the reflection of the lives of those who build it, impel it forward, and transform it.

Today we are in search of a "science of man," as Dubos has phrased it, or a new humanism. It is clear that the unrelenting process of technology in the last 30 years is generating unexpected effects. In addition to changing our customs and attitudes, it has stimulated our aspirations and, at the same time, pointed up the inability of societies throughout most of the world to meet them. Moreover, unplanned industrialization and mechanization have grown without regard for their deleterious effects on human beings, at the same time disrupting the balance of the species and distorting nature. Although it may be extreme, the image of man, victim of his overgreat ambition to conquer and to dominate, underestimating his own physical and mental health, is depressing indeed. What many of us want is to restore his primacy in all phases of development; to make it true that he is the protagonist and beneficiary thereof; and to reiterate that social peace and a

healthful life together are the basis of our commitment. This is an old postulate that calls for new approaches, for there are more of us, we live longer, and we aspire to that which only very few are able to achieve.

This is our concept of health, which we try to carry out in an interdependent world whose problems are of such magnitude that they call for efforts which are multifunctional and hence multidisciplinary.

Some may think—particularly the skeptics—that these are philosophic disquisitions or the expression of principles far removed from reality and the pressing situations of the moment. We believe, on the contrary, that precisely what we lack is a reaffirmation of the values that should guide our generation. Dubos points it out with even greater clarity when he says that "the continued growth of technological civilization, indeed its very survival, requires an enlargement of our understanding of man's nature. Man can function well only when his external environment is in tune with the needs he has inherited from his evolutionary, experiential, and social past, and with his aspirations for the future. Because they are concerned with all the various aspects of man's humanness, the biomedical sciences in their highest form are potentially the richest expression of science."¹

In this approach, we do not in any way underestimate the value of a rational pragmatism for dealing with questions that are essentially spiritual, as long as they have to do with life from the time of its creation, with illness, and with death. The history WHO and of PAHO is replete with examples in which an effort has been made to harmonize the higher purposes that inspire them—all of them based on the total equality of human beings and on their inalienable rights—with the application of technology for the practical solution of specific problems. In all their tasks, they act on the basis of the decisions of Governments, in the spheres of action that the latter determine. What is fundamental is that in this process of joint labor a true communion of efforts—and of objectives that derive from the same ideals—has resulted.

The agenda of this XVIII Pan American Sanitary Conference is renewed testimony of the cooperation that distinguishes the exercise of our responsibilities. What is going to be analyzed here is the consequence of political pronouncements at the highest level in the Hemisphere; it is related to programs of truly broad social significance; and it calls for your determination to guide our work. The resolutions that you adopt are

¹René Dubos. *Man, Medicine, and Environment*, New York: Mentor Book, The New American Library, pp. 150-151, 1969.

going to affect the destiny of millions of people in the Americas during the decade that began this year and in those that will come.

We have worked concertedly with the various agencies of the Inter-American System and that of the United Nations, with foundations, and with other institutions of public welfare, to all of which we wish to express our gratitude. In particular, we should like to call attention to the kind support given to all our initiatives by the Secretary General of the Organization of American States, Mr. Galo Plaza, and by the Director-General of the World Health Organization, Dr. M. G. Candau. We could not proceed in any other way, given the interdependence of the factors that govern social events and the increasing complexity of the methods available for preventing and curing disease as well as for promoting health.

Let us cite the significant role that has been played by external capital in hastening the solution of certain problems whose urgency is revealed by the demand of societies and by their vital nature. The unique contribution of the Inter-American Development Bank, widely recognized on the occasion of the tenth anniversary of its founding, is worthy of special mention. Its credit policy in matters of health symbolizes a humanitarian concept that is unparalleled among the institutions of its kind in the world. Through it, profound aspirations have been satisfied and many other possibilities that seemed unattainable have been opened.

The assistance of the Agency for International Development in specific fields such as malaria eradication and maternal and child care, including family planning, has had important measurable effects on the well-being of our peoples.

Thus, while an economic theory of health is still being defined—one to be built on the basis of separate cases scientifically programmed and analyzed—the supplementing of national resources with external funds shows in a definite way the mutual dependence of the economy, of productivity, and of health.

Let us be inspired by Dr. Rieux, the character of Camus's *The Plague*, who, on observing human behavior

in the bitter moment of such great tragedy, exclaimed, "There are more things to admire in men than to deplore."²

Provisional President: On this note of optimism, we come to the end of our inaugural session. In Guyana there is a tradition that at the end of every program, a vote of thanks is given. This could be very deceptive because most people believe that the vote of thanks is for the quality of the contribution, but in Guyana the vote of thanks is merely for the fact that a contribution is made. However, this morning we can be sure that we are not being deceived when we thank all of the participants for their contributions. I think that, in the final analysis, what we are all concerned about is improving the quality of life of all our people, and we are pleased that the presence and participation, especially of Mr. Galo Plaza and Mr. Herrera, are an indication that even people outside the health field are interested in improving the quality of life and are actively participating in the programs that are designed to that end. We thank, too, Dr. Steinfeld for his welcome. I think that from what I have seen of the agenda, we may not have much time to enjoy Washington, but I believe most of us do when we are allowed a few minutes. And before I close, I would also like to pay tribute to the able and creative leadership of both Dr. Candau and Dr. Horwitz. We are all going to be engaged for the next two weeks in very important discussion; we are all seriously concerned for the problems of our countries, and I hope that this Conference will be fruitful and useful in providing us with ideas and information that will help us when we return home to execute our jobs so that, as I said before, we can improve the quality of life of our people. I now declare the inaugural session of the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas, closed.

The session rose at 11:30 a.m.

²Cited by Will and Ariel Durant in *Interpretations of Life: A Survey of Contemporary Literature*, Chapter XIII: Albert Camus. New York, Simon and Schuster, 1970, p. 213.

FIRST PLENARY SESSION

Monday, 28 September 1970, at 12:05 p.m.

Provisional President: Dr. Sylvia E. Talbot (Guyana)

President: Dr. José Renán Esquivel (Panama)

Item 3: Election of President and Two Vice-Presidents

Provisional President: Since there is a quorum, I have pleasure in declaring open the first session of the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization. The first item of business is, of course, the election of a President. As you know, elections normally must be held by secret ballot unless the number of candidates does not exceed the number of offices. The floor is now open for nomination of the President.

Dr. Parra-Gil (Ecuador):* Ecuador nominates Dr. José Renán Esquivel, Minister of Health of Panama, for President.

Dr. Alvarez Gutiérrez (Mexico):* The Delegation of Mexico seconds the nomination made by the Delegate of Ecuador.

Dr. Pineda (Honduras):* The Delegation of my country also supports the nomination of Dr. Esquivel of Panama for President.

Dr. Godoy Jiménez (Paraguay):* The Delegation of Paraguay is completely in accord with the nomination made.

Dr. Bica (Brazil):* The Delegation of my country also supports the nomination of Dr. Esquivel for President of this Conference.

Dr. Rodríguez Castells (Argentina):* My Delegation supports the nomination of the Minister of Health of Panama.

Dr. Valdivieso (Chile):* The Delegation of Chile likewise adheres to the proposal made the Minister of Health of Ecuador.

Mr. Sanjines (Bolivia):* The Delegation of my country also supports the nomination made.

Dr. Esquivel (El Salvador):* The Delegation of El Salvador adheres to the proposal made by Ecuador.

Dr. Marchand (Peru):* The Delegation of Peru also supports the nomination of Dr. Esquivel for President.

Dr. Uclés (Guatemala):* The Delegation of my country also supports the nomination made.

Dr. Baird (Guyana): Guyana supports the nomination of the Minister of Health of Panama.

Dr. Robleto (Nicaragua):* The Delegation of my country supports the nomination of the Minister of Health of Panama.

Dr. Talma (Barbados): The Delegation of Barbados strongly supports the nomination of the Minister of Health of Panama as President of this Conference.

Dr. Ronco (Uruguay):* The Delegation of Uruguay supports the nomination made by Ecuador.

Dr. Valentine (Jamaica): We support the nomination of Dr. Esquivel of Panama.

Dr. Gielen (Kingdom of the Netherlands): We support the proposal of Ecuador.

Dr. Mayz Lyon (Venezuela):* The Delegation of my country supports the proposal of Ecuador.

Dr. Henry (Trinidad and Tobago): The Delegation of Trinidad and Tobago supports the nomination of the Minister of Health of Panama.

Dr. de Caires (United States of America): The Delegation of the United States of America supports the proposal that the Delegate of Panama be elected President of the Conference.

Dr. Tezanos (Dominican Republic):* The Delegation of my country also agrees with the proposal made.

Provisional President: Since there is no other nomination and most countries have supported the nomination of Dr. Esquivel of Panama, I declare Dr. Esquivel elected by acclamation and invite him to mount the podium and assume the Presidency.

Dr. Esquivel (Panama) then took the Chair.

President:* It is a great honor for me to preside over this Conference to whose deliberations my country attributes the greatest importance.

I am a country pediatrician and have accepted the post of Minister of Health of my country in response to a challenge to help in the solution of problems common to Latin America, and to contribute to the development of our communities.

We are wont to speak of friendly countries, of sister nations, but unfortunately this is a concept that is not always reflected in positive accomplishments; therefore, one of the concerns of this Organization should lie in helping to bring these friendly relations into effective fruition.

When we regard the children of the poor, their families and the poor communities, we cannot fail to observe that the problems afflicting them in our specific field of activity have no regard for borders or nationalities.

It is our obligation, therefore, to see to it that technically sound health programs will bring the maximum well-being to our people, and in electing me to preside you have indeed paid high tribute to myself and to my country. I shall do everything in my power so that our discussions will go forward as smoothly as possible for all concerned; all that I ask of you is a little tolerance and understanding, since this is the first time I have participated in a meeting of this kind.

Thank you very much for the honor you have paid me.

We shall now proceed to the nomination of candidates for the two Vice-Presidencies of the Conference. The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* The Delegation of my country nominates Dr. Adán Godoy Jiménez, Minister of Public Health and Social Welfare of Paraguay, and Dr. José de Jesús Mayz Lyon, of Venezuela, for Vice-Presidents.

Dr. Valdivieso (Chile):* The Delegation of my country supports the proposal just made.

Dr. Rodríguez Castells (Argentina):* Our Delegation also supports the candidacies presented.

Dr. Díaz-Granados (Colombia):* The Delegation of Colombia supports the proposal of Brazil.

Mr. Sanjines (Bolivia):* The Delegation of my country also adheres to the proposal made.

Dr. Tezanos (Dominican Republic):* The Dominican Republic is completely in agreement with the proposal of the Delegate of Brazil.

Dr. Parra-Gil (Ecuador):* Our Delegation also supports the nomination of the chiefs of the Paraguayan and Venezuelan Delegations.

Dr. Esquivel (El Salvador):* Our Delegation also supports the proposal.

Dr. Alvarez Gutiérrez (Mexico):* Mexico adheres to the nomination made by the Delegate of Brazil.

Dr. Pineda (Honduras):* Honduras also supports the proposal.

Dr. González Gálvez (Panama):* The Delegation of my country supports the proposal.

Dr. Uclés (Guatemala):* Our Delegation approves the proposal made by Brazil.

Dr. Talbot (Guyana): Guyana too supports with pleasure the proposal made by the Delegate of Brazil.

Dr. Gielen (Kingdom of the Netherlands): We also support the proposal made by Brazil.

Dr. Marchand (Peru):* We also adhere to the proposal of the Delegation of Brazil.

Dr. Valentine (Jamaica): We support the proposal of the Delegate of Brazil.

Dr. Ronco (Uruguay):* The Delegation of my country also agrees with the proposal made by Brazil.

President:* Dr. Adán Godoy Jiménez, of Paraguay, and Dr. José de Jesús Mayz Lyon, of Venezuela, are hereby declared elected Vice-Presidents of the Conference.

Item 2: Establishment of the Committee on Credentials

President:* The next item of business is the establishment of the Committee on Credentials. The Secretary will read the relevant article of the Rules of Procedure.

Dr. Arreaza Guzmán (Assistant Director, PASB):* Rule 25 of the Rules of Procedure of the Conference reads as follows:

A Committee on Credentials consisting of three delegates of as many Governments shall be appointed by the Conference at the beginning of the first plenary session. This Committee shall examine the credentials of delegates and observers and report to the Conference thereon without delay.

President:* The Chair proposes that the Committee on Credentials consist of Dr. Francisco Parra-Gil of

Ecuador, Dr. Mervyn U. Henry of Trinidad and Tobago, and Dr. Orontes Avilés of Nicaragua.

Is there any objection? Since there apparently is none, the Delegates I have mentioned are appointed to compose the Committee on Credentials.

Dr. Arreaza Guzmán (Assistant Director, PASB):* May I point out to the members just chosen that they should meet immediately after the close of this session to examine the credentials so that they can submit the relevant report to the Conference at the start of this afternoon's session.

Application of Article 6-B of the PAHO Constitution

Dr. Arreaza Guzmán (Assistant Director, PASB):* We should like to remind you of a very important point that concerns the application of Article 6-B of the Constitution of PAHO. This article 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.

Dr. Alvarez Gutiérrez (Mexico):* The provision just read by the Secretary is very important, and a decision on the matter should be adopted at once, since a vote will have to be taken on the next item of the agenda and we have, in fact, already been voting. I do not know whether it is necessary or if the Rules require that a committee be appointed to prepare a specific suggestion or whether we, as delegates, can make a concrete proposal; if the latter is true, the Delegation of Mexico moves that all Member Countries be allowed to vote regardless of whether or not they are up to date in the payment of their quotas. If the Rules so require, a committee should be appointed; if not, the motion made should be taken as an official proposal of the Government of Mexico.

President:* The proposal of the Delegate of Mexico is submitted for consideration.

Dr. Parra-Gil (Ecuador):* Our Delegation seconds the proposal of Mexico. In view of the importance of this Conference, we believe it essential that all the delegates present have the right to vote, whatever their country's position with respect to the payment of their quotas to PAHO.

Dr. Delmás (Paraguay):* We support the proposal of Mexico that all delegations present at this Conference have the right to vote.

Dr. Avilés (Nicaragua):* I should like to point out that Article 6-B, which has just been read, includes a provision that a Member in arrears in the payment of quotas may be permitted to vote if the Conference is satisfied that the failure of the Government to pay is due to conditions beyond its control.

I therefore request the delegates to vote for the proposal of Mexico. I do not consider it necessary to establish a committee, because what the committee would do would be to mention the names of the countries that are in arrears, and this information already appears in the documents submitted to us.

Dr. Marchand (Peru):* I adhere to the proposal of Mexico.

Dr. Dfáz-Granados (Colombia):* The Government of Colombia considers the proposal of the Delegate of Mexico to be proper and in order.

Dr. Rodríguez Castells (Argentina):* Our Delegation considers it unnecessary to establish a committee and supports the proposal of Mexico.

Mr. Sanjines (Bolivia):* We support the proposal made by Mexico.

Dr. Pineda (Honduras):* The Delegation of my country wholeheartedly supports the proposal of Mexico.

President:* Since there are no objections, we consider the proposal of the Delegate of Mexico approved. A draft resolution will be presented at a later session.

*It was so agreed.*¹

Item 4: Adoption of the Agenda

President:* We shall now examine the agenda.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The provisional agenda prepared for this Conference is in Document CSP18/1, Rev. 3, and consists of 37 items.

President:* Rule 10 of the Rules of Procedure reads as follows:

Supplementary items may be added to the agenda after its adoption, if two thirds of the delegations present and voting approve.

¹See sixth plenary session, p. 95.

If there are no objections we shall consider the agenda adopted.

Decision: The provisional agenda appearing in Document CSP18/1, Rev. 3, was unanimously approved.²

²See p. 12.

President:* The session is adjourned. We shall meet again this afternoon at 3:00 p.m.

The session rose at 12:30 p.m.

SECOND PLENARY SESSION

Monday, 28 September 1970, at 3:15 p.m.

President: Dr. José Renán Esquivel (Panama)

President:* The session is called to order. The Secretary will please determine whether a quorum is present.

Dr. Arreaza Guzmán (Assistant Director, PASB):* We do have a quorum, Mr. President.

Item 5: Amendments to the Rules of Procedure of the Pan American Sanitary Conference

Dr. Williams (Deputy Director, PASB): Document CSP18/6¹ on this item will be found in the collection of documents that each of the delegates has in front of him. These changes in the Rules of Procedure, already adopted by the Executive Committee and by the Directing Council, date back to the XVIII Meeting of the Council (October 1968),² at which the membership of the Executive Committee was increased to nine and it was recognized that certain changes would accordingly be required in the Rules of the Directing Council itself, of the Conference, and of the Executive Committee. That meeting of the Council thus adopted a resolution³ asking the Director to study the matter and suggest changes that might be made in the pertinent Rules. The findings of this study were submitted to the 61st Meeting of the Executive Committee (June 1969), which adopted⁴ changes in its own Rules of Procedure and recommended certain modifications to those of the Council and the Conference. The XIX Meeting of the

Council (September-October 1969) adopted⁵ the changes suggested as well as some other modifications. The 64th Meeting of the Executive Committee (June-July 1970) studied the matter again and recommended⁶ further changes for the approval of the Conference. The proposed changes in the Rules of the Conference are those recommended by the Directing Council, with the exception of Rules 32 and 33, which were suggested to the Conference by the Executive Committee, and also Rule 34, which the Director is proposing as a technical change in order to avoid a conflict with Rule 39. I would suggest that the delegates turn to the annex of the working document, which in the left-hand column shows the rule number and the present text as stated in *Official Document 88*. The proposed new text is in the center column, and the third column gives a brief explanation as to why the change appears desirable.

In Rule 1, the length of time between transmittal of the convocation notices and the opening of the Conference has been changed from three months to 60 days. It has occurred on occasions that the meeting of the Executive Committee, which together with the Director sets the date of the Conference, has been held less than three months before the anticipated date of the Conference, so that the period of 60 days appears to be more appropriate.

The proposed change in Rule 15 takes account of the increased number of countries that are now Members of the Organization.

Rule 18 provides for the appointment of a new

¹Mimeographed document.

²Resolution II. *Official Document PAHO 93*, 41.

³Resolution XV. *Ibid.*, p.53

⁴Resolution I. *Official Document PAHO 96*, 7.

⁵Resolution I. *Official Document PAHO 99*, 53.

⁶Resolution II. *Official Document PAHO 103*, 50.

officer of the Conference, a Rapporteur. This change has already been adopted by the Directing Council and the Executive Committee. The proposed new Rule 24 specifies the duties of the Rapporteur as an officer of the Conference. The following rules have been renumbered as necessary. Rule 27, which is old Rule 26, reduces by one the number of Government delegates to be elected to constitute the General Committee, in view of the creation of the new office of Rapporteur. The number of members of the General Committee would remain fixed at seven. Rules 27 to 30 are renumbered 28 to 31.

Rule 32, under Part VI of the Rules, specifies that the Executive Committee shall be represented at the Conference by such person serving on the Committee as the Committee may determine. In effect, this leaves the Committee free to designate its Chairman, its Vice-Chairman, or any other of its members to represent it at meetings of the Conference. A similar rule has not yet been adopted by the Directing Council but has already been recommended by the 64th Meeting of the Executive Committee and will be presented to the Council for consideration when it meets in 1971. Rule 33, also new, specifies that the representative of the Executive Committee to the Conference has the right to attend plenary sessions and sessions of the main committees and may participate in the deliberations of these bodies but without vote. Again, this provision has not yet been adopted by the Council but has been recommended by the Executive Committee and will be presented to the Council in 1971.

Rule 34 incorporates the technical amendment that I made reference to a few moments ago. It is designed to provide adequate time for the delegates to study proposed resolutions before they are put to vote. The wording would be changed to read "no later than the preceding session" instead of "at least 24 hours in advance," in order to bring it into line with the provisions of Rule 39 (old Rule 36). Rules 34 and 39 together provide that proposals may not ordinarily be submitted to the vote unless they have been distributed to all delegates at the session preceding that at which they are to be considered by the Conference. It also provides that the President may waive this rule under certain circumstances of special urgency.

Former Rules 37 to 48 have been renumbered 40 to 51; no changes are proposed.

Rule 52 (old Rule 49) deals in the last sentence with the case of an election where two or more elective places are to be filled at one time under the same circumstances. The final sentence reads: "If the number of candidates obtaining such majority is greater than the

number of elective places to be filled, those candidates obtaining the largest number of votes shall be deemed to have been elected."

Rules 50 to 55 have been renumbered 53 to 58; no changes are proposed in the text.

Rule 59 (old Rule 56) merely specifies that the Rapporteur, with the assistance of the Secretariat, shall prepare the draft of the Final Report.

This is a brief summary of the proposed amendments to the Rules. They correspond substantially with the changes in the Rules already adopted by the Directing Council. The Executive Committee has reviewed them and has made further proposals that will bring the Rules of the Council into line with these proposed Rules for the Conference. There appears on page 3 of Document CSP18/6 a proposed resolution which the Conference, if it is in agreement with the proposed changes, may wish to adopt.

President:* The document presented by Dr. Williams is submitted for consideration by the Conference.

Dr. Alvarez Gutiérrez (Mexico):* We have listened carefully to Dr. Williams' reading of the proposed changes in the Rules of Procedure. Since these changes have been thoroughly studied and considered and are simply intended to adapt the Rules to present conditions, the Delegation of Mexico proposes to the Chair that they be accepted, and we, of course, intend to vote in favor of their adoption *in toto* as read.

Dr. Bica (Brazil):* The Delegation of Brazil also favors the adoption of the proposed changes, which will facilitate the work of the Conference and are in line with the practice followed in other Governing Bodies of the Organization. Consequently, we support the proposal of the Delegate of Mexico.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The draft resolution appearing in the working document reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the report of the Director (Document CSP18/6);

Bearing in mind the recommendations included in Resolution I of the XVIII Meeting of the Directing Council and Resolution II of the 64th Meeting of the Executive Committee;

Taking into consideration that similar changes have already been introduced into the Rules of Procedure of the Directing Council and the Executive Committee; and

Bearing in mind the provisions of Rule 61 of the Rules of Procedure of the Conference,

Resolves:

1. To approve the changes in the Rules of Procedure of the Conference as they appear in Document CSP18/6.

2. To request the XX Meeting of the Directing Council to consider the recommendations included in Resolution II of the 64th Meeting of the Executive Committee, defining the role of the Representative of the Executive Committee at meetings of the Directing Council.

Dr. Alvarez Gutiérrez (México):* In view of the fact that there is a specific draft resolution, the Delegation of Mexico proposes its adoption.

President:* The floor is open for discussion of the draft resolution. If there are no observations it will be considered approved.

Decision: The draft resolution was approved.⁷

Election of the Rapporteur

Dr. Arreaza Guzmán (Assistant Director, PASB):* According to the amendments just adopted, a Rapporteur should be elected, since Rule 18 now provides: "The Conference shall elect a President, two Vice-Presidents, and a Rapporteur who shall hold office until their successors are elected."

Dr. Avilés (Nicaragua):* The Delegation of Nicaragua nominates the Delegate of Mexico for Rapporteur.

Dr. Rodríguez Castells (Argentina):* I second the nomination of the Delegate of Mexico.

Dr. Talma (Barbados): The Delegation of Barbados would also like to support this nomination.

Dr. Bica (Brazil):* Our Delegation also supports the candidacy of the Delegate of Mexico.

Dr. González Gálvez (Panamá):* My country supports the proposal.

Dr. Marchand (Peru):* We too support the nomination of the Delegate of Mexico.

Decision: Dr. Alvarez Gutiérrez (Mexico) was unanimously elected Rapporteur.

Item 6: Establishment of the Main Committees

Dr. Arreaza Guzmán (Assistant Director, PASB):* Mr. President, Rule 27 of the Rules of Procedure as amended reads as follows:

The Conference shall establish a General Committee consisting of the President of the Conference, the two Vice-Presidents, the Rapporteur, the Chairmen of such main committees as shall be established, and one delegate of a Government

elected by the Conference from among those Governments not already represented on the General Committee. The President of the Conference shall serve as Chairman of the General Committee.

The next order of business is thus to elect the Chairmen of the two main committees and the delegate of one Government.

Dr. Mayz Lyon (Venezuela):* The Delegation of Venezuela is pleased to nominate Dr. S. Paul Ehrlich, Jr., of the United States of America for Chairman of Committee I, and Dr. Horacio Rodríguez Castells of Argentina for Chairman of Committee II.

Dr. Ronco (Uruguay):* My country completely supports the motion.

Dr. Godoy Jiménez (Paraguay):* I agree with the proposal.

Mr. Sanjines (Bolivia):* I support the proposal.

Dr. Valdivieso (Chile):* I am in agreement with the proposal.

Dr. Tezanos (Dominican Republic):* I am completely in agreement with the proposal.

Dr. Uclés (Guatemala):* I support the proposal.

Dr. Marchand (Peru):* I too support the proposal.

Decision: Dr. S. Paul Ehrlich, Jr., of the United States of America was elected Chairman of Committee I, and Dr. Rodríguez Castells of Argentina was elected Chairman of Committee II.

President:* It only remains now to elect the delegate of a country to serve on the General Committee.

Dr. Talma (Barbados): I have very great pleasure in nominating the Chief of the Delegation of Brazil, Dr. Alfredo N. Bica, to serve on the General Committee.

Dr. Valentine (Jamaica): Jamaica also supports that proposal.

Dr. Alvarez Gutiérrez (Mexico):* My country supports the proposal.

Dr. Díaz-Granados (Colombia):* I support the proposal.

Mr. Sanjines (Bolivia):* I too support the proposal.

Dr. Valdivieso (Chile):* I agree with the proposal.

Dr. González Gálvez (Panama):* I support the proposal presented.

⁷Resolution I. *Official Document PAHO* 104, 59.

Dr. Godoy Jiménez (Paraguay):* I adhere to the proposal.

Dr. Ronco (Uruguay):* I support the proposal.

Dr. Mayz Lyon (Venezuela):* My country also supports the proposal.

Dr. Marchand (Peru):* We also support the proposal.

President:* Since no other candidate has been nominated and most of the countries have seconded the one nomination, the Delegate of Brazil is elected.

Decision: The Delegate of Brazil was elected to the General Committee.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The General Committee therefore consists of the following seven members: the President, the two Vice-Presidents, the Rapporteur, the Committee Chairmen we have just elected, and the Delegate of Brazil. The General Committee will hold its first session at 4:00 p.m. for the purpose of organizing the program of the Conference.

First Report of the Committee on Credentials

Dr. Henry (Trinidad and Tobago): I have the honor to present the report of the Committee on Credentials, as follows:

The Committee on Credentials established at the first plenary session and composed of Dr. Francisco Parra-Gil, Ecuador, Dr. Orontes Avilés, Nicaragua, and Dr. Mervyn U. Henry, Trinidad and Tobago, held its first session on 28 September at 2:30 p.m. The Committee designated Dr. Parra-Gil as Chairman, Dr. Henry as Rapporteur, and Dr. Avilés as Secretary.

The Committee examined and found the credentials submitted by the delegates, alternates, and advisers of the following countries to be in good order: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Guyana, Haiti, Honduras, Jamaica, Kingdom of the Netherlands, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, United Kingdom, United States of America, Uruguay, and Venezuela, as well as those of the Observers from Canada.

The credentials of the observers from the following inter-governmental and nongovernmental organizations were also accepted: the Organization of American States, the Inter-American Development Bank, the United Nations, the Economic Commission for Latin America, the United Nations Children's Fund, the United Nations Food and Agriculture Organization, the United Nations Development Program, the International Council of Nurses, the International Dental Federation, the World Medical Association Incorporated, and the World Federation of Occupational Therapists. The Committee will meet again to examine the credentials of the delegates who have not yet deposited them.

President:* If there are no comments, the report of the Committee on Credentials will be considered approved.

Decision: The first report of the Committee on Credentials was approved.

*The session was suspended at 4:00 p.m.
and resumed at 4:40 p.m.*

First Report of the General Committee

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

The General Committee met and discussed the order of the day for Tuesday, 29 September. Business will begin with the presentation of the Quadrennial Report and the Annual Report of the Director, with appropriate comments and considerations. The next item of business will be the reports of the countries on health conditions during the period 1966-1969. It was agreed to request the Ministers and delegates to make their presentation as brief as possible, keeping within 10 minutes, because with 28 countries represented a great amount of time would be taken if longer statements were made.

It was also agreed to ask the chiefs of delegations who wish to speak on this item to register with the Secretariat; they will be recognized in the order in which they so register.

It was next decided to have the election of the Director of the Pan American Sanitary Bureau on Wednesday, 30 September, after the morning recess. The election of members of the Executive Committee will be held on the same day, following the afternoon recess, at 4:30 p.m.

The daily schedule of sessions of the Conference will be 9:00 a.m. to 12:00 noon and 3:00 to 6:00 p.m. This schedule was decided upon to enable the General Committee to meet from 12:00 to 12:30 p.m. and provide for orderly presentation of the business of the Conference each day.

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

Dr. Olguin (Chairman of the Executive Committee):* It is a great privilege for me, in compliance with Rule 14 of the Rules of Procedure of the Executive Committee, to present to this XVIII Pan American Sanitary Conference the annual report on the activities carried out by the Executive Committee from October 1969 to the present, a period during which it held its 63rd and 64th Meetings.

*Dr. Olguin then read
Document CSP18/15⁸*

⁸Annex 1.

President:* The floor is open for discussion of the report.

Dr. Avilés (Nicaragua):* This is simply to commend the Chairman of the Executive Committee on his detailed and excellent report describing the work of that Committee. Seldom have the preliminary budget estimates been examined so carefully and minutely as they were by this Committee, as has been so well described by Dr. Olgún. It is therefore my opinion, and one that I believe is shared by my colleagues, that the Committee showed great wisdom in electing as its Chairman Dr. Olgún, who has faithfully expressed the thinking, desires, and policy of the Pan American Health Organization in the Executive Committee.

Dr. Campos Salas (Mexico):* Mexico considers the

annual report of the Chairman of the Executive Committee to be a clear and complete account of the matters dealt with during the meetings to which reference has been made. I therefore move that the report be approved.

President:* If there are no other comments, the report of the Executive Committee will be considered approved.

I shall ask the Rapporteur to prepare a draft resolution on the subject.⁹

The session rose at 5:15 p.m.

⁹See sixth plenary session, p. 95.

THIRD PLENARY SESSION

Tuesday, 29 September 1970, at 9:15 a.m.

President: Dr. José Renán Esquivel (Panama)

Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1966-1969

Item 10: Annual Report of the Director of the Pan American Sanitary Bureau, 1969

President:* The session will please come to order. The Director of the Pan American Sanitary Bureau, Dr. Abraham Horwitz, has the floor to present the Quadrennial Report and the Annual Report.

Dr. Horwitz (Director, PASB):* I am going to summarize the *Quadrennial Report of the Director for 1966-1969*,¹ the *Annual Report for 1969*,² and at the same time the document *Health Conditions in the Americas, 1965-1968*,³ distributed yesterday.

I must apologize for the fact that the last-named document could not be sent to the Governments as far in advance as we would have liked. As a possible justification I should like to point out that this is the fifth of a series begun 20 years ago. I would suffice to

compare the first of these reports, that covering the period 1950-1954, with the current one to appreciate the qualitative and quantitative improvement that has taken place in the statistics the Governments compile, analyze, and send to us to enable us to assess the dynamics of health and disease in the Hemisphere.

I am going to make a number of references to that document during my statement, but I am sure that the Ministers and their associates will understand as well as I that this is a reference work consulted daily to determine the situation in each country and compare it with that in the other countries of the Hemisphere.

An examination of what was accomplished during the 1960's, of the objectives of the Charter of Punta del Este, and of the progress and setbacks during the period, provides support for the thesis that there is no lack of knowledge in the Americas concerning the problems of health or the methods for solving them. What is known is more than what is accomplished. In most of the countries information on problems and methods is either available or within reach. And the common denominator of all societies, developed and developing alike, is the inadequacy of resources or, in other words, the weakness or absence of an infrastructure for placing techniques

¹Official Document PAHO 101.

²Official Document PAHO 102.

³Scientific Publication PAHO 207.

within the reach of those who need them. This applies not only to the health sector, but also to economic and social development.

That is why we said in the introduction to the Quadrennial Report that the two essential and constant factors for the progress of the health sector are services with the widest possible coverage in each country, and the training of professionals and auxiliaries to implement the objectives of each program and of the over-all plan.

In this period the consensus was reached that no health project is feasible without a stable infrastructure. And as the Director-General of the World Health Organization told us yesterday, this is true of every country in the world.

A closely related problem is the inefficient use of human, material, and financial resources because of waste, duplication, or lack of coordination. The Technical Discussions of the XIX Meeting of the Directing Council, on financing of the health sector,⁴ as well as the working document prepared by our Organization, point to the fact that each country currently has a greater or lesser number of institutions providing medical care, at times without regard to the comprehensive plan for the sector. It is frequently the case that the amount invested could have benefited a much larger number of persons if there had been joint programming and coordinated implementation to attain the objectives of each agency. The solution lies in creating genuine national health systems so organized as to provide for the action appropriate to each participating institution. In Chile, perhaps for historical reasons, it has been possible to bring this idea to fruition by establishing the national health system together with the administrative mechanisms that permit the necessary agreements to be established among the participating institutions without infringing on the legal authority of each.

Several weeks ago, at the Bolivian Foreign Ministry in La Paz, I had the honor to sign with seven Ministers the decision by the Government to coordinate under the Ministry of Public Health the activities of 17 institutions offering medical services. I took the liberty of pointing out to the dignitaries of the Government that unless an effective mechanism for implementing this coordination were established the agreement would not benefit those whom it was intended to benefit. The Quadrennial Report mentions a number of countries that are planning to attempt a similar approach to the problem. In some of these countries the number of institutions providing medical services of various kinds is as high as

80. Upon considering the amount of investment required to simply support the administrative structure of each of these agencies, the conclusion is inescapable that a mechanism of this kind for making better use of resources is urgently needed. I repeat that the document on the financing of the health sector that we intend to distribute to the Governments clearly illustrates the situation.

In summary, the experience of the last four years may be said to have taught us that extending the coverage of services, training the necessary auxiliaries and professionals, making better use of resources, investigating the origin, dynamics and effects of the principal problems, and improving the reporting procedures, especially for population and health statistics, are fundamental components of the program of action in all the countries for the decade beginning this year.

But in addition there were three questions directly related to the prevention and treatment of disease that arose and acquired particular relevance throughout the world. These are: the interdependent relationship between population and development; the crisis in the universities; and the new vision of man-environment relationship that has been given so much importance, especially in the last two years.

In regard to the interdependence between population and development and each of the latter's component sectors, we are convinced that the discussion has had a wholesome effect in leading the national Governments and the governing bodies of the international organizations to determine the principles and rules by which their action in this field is to be governed. Events in the Americas, together with experience in other regions, have revealed substantial gaps in the knowledge of human reproduction and the relative effectiveness of contraceptive methods, and have emphasized the urgent need to train instructional personnel and other professionals so that the principles and methods of family planning can be incorporated into the health services with the objective of providing for voluntary determination of the number of children desired and the spacing between them.

In 1969 we cooperated in this field with 14 Governments and established here at Headquarters a Department of Health and Population Dynamics which brings together the maternal and child health programs and the programs directly related to family planning.

Another salient development of the quadrennium was the university crisis, which involves philosophical and political questions along with educational issues. Although there are strongly conflicting opinions, we can agree that all of our countries have ample room for

⁴Scientific Publication PAHO 208.

reforms directed to improving the teaching and learning of all the disciplines related to the health function and placing them on a multidisciplinary basis. The Governing Bodies of PAHO approved a set of fundamental principles and methods for this purpose, to which we have devoted our efforts these last four years; these have culminated in the proposal for the establishment of the faculties of health sciences. This involves a modification in depth of the existing teaching system, a modification that is conceptual and affects the structure and even the architecture of universities. It is, by its very nature, a long-range undertaking, but it is a highly important one if the universities are to really operate in the interest of development within our own sphere of activity.

The third question, the interdependence of man and his environment, which is the specific concern of the science of ecology, has also become extremely relevant in recent years, especially in the technologically advanced countries. The Director-General of WHO said at the 45th Session of the Executive Board that the expression "environmental factors affecting man" has come to mean so many things that each person understands it in his own way; this is so because it embraces both the qualitative and quantitative aspects of all relations between man and his physical and social environment. It is used as often in relation to comparatively specific matters, for example pollution, as in relation to the entire range of problems pertaining to the ecology and the biosphere.

So far as WHO is concerned, none of these extreme uses is of any help in establishing consistent rules for its activities. The first is irrelevant because, for all the tremendous importance of pollution, it can only be regarded as one of the main effects of the environment on health; the second, because it covers too much ground.

As the Ministers are aware, an item on man-environment relationships was adopted yesterday for inclusion on the agenda of this Conference. We have distributed a document on this matter and are hoping that the Conference will issue a statement on how to reconcile the solution of basic problems of sanitation still unsolved with the solution of those problems which have emerged, or are about to emerge, as a result of industrialization, urbanization, and development.

Population policy and its gradual implementation where the government so decides, the reform of the university, and the definition of the problems of the environment for each society in the Americas are three components of the action program for the 1970's.

Dr. René Dubos said recently that: "What happens to children in their first five years marks them for the rest

of their lives ... people are prisoners of their nutritional past."⁵

The Governing Bodies of the Organization have agreed that formulating and executing a food and nutrition policy is an urgent matter. Similar conclusions have been stated by the Ministers of Agriculture at their meetings on the control of foot-and-mouth disease and other zoonoses, conducted jointly with FAO and UNICEF. We are taking steps toward these ends. The objective is as difficult to achieve as it is simple to announce. It is a matter of meeting the biological and cultural needs of the population and, so far as possible, the requirements of the economy. In the reports to which I am referring we mention a large number of variables that are involved in this process. But above all the obstacles, what really stands out is the substantial progress achieved in recent years in the production of food as a result of the research sponsored by the Rockefeller Foundation and the Governments of Mexico and the Philippines. The so-called "green revolution" has given rise to such optimism that some would venture to maintain that the greatest problem in the coming decades will not be a shortage of food but the need to organize and operate the various services for placing food within the reach of the consumers, with preference given to the most vulnerable population groups, that is, mothers and children.

Planning is yet another of the instruments of health. In his statement yesterday, Dr. Candau made various references to the progress made in the Americas in this field, the influence of approaches by Governments in other regions of the world, the importance of the Pan American Health Planning Program, already in operation, and the training of specialists in this field. Planning is obviously one of the long-range tasks for this decade.

The progress made in the preceding decade warrants the expectation of even more rapid progress in the decade now under way. But this progress is also revealed by an analysis of the problems related to health conditions and not only to resources; we shall refer to some of these problems, taking into account the information supplied by the Governments and contained in the three reports under discussion.

The Governments agree—and the Secretary General of the OAS referred to this yesterday—to consider the increased life expectancy at birth as the indicator that sums up progress for all health activities. This is the same indicator generally being used by the United Nations in relation to development as a whole.

⁵"René Dubos," by Anthony Bailey. *Horizon*, Vol. XII (3), 58 (Summer, 1970).

The target set was to increase average life expectancy by five years during the decade that began with the signature of that commitment in August 1961. In those countries where the statistics being kept made it possible to compute the increase in life expectancy, the information for 1960-1968 was as follows: in South America the increase was 2.3 years; in Central America and the Caribbean area it was a year and a half. These figures, although below the target, reveal a reduction in the mortality rate and an increase in population. There were a few countries in which life expectancy rose very little or even showed a slight decline. These countries are indicated in the appropriate tables in *Health Conditions in the Americas*. Closely related to this index is the death rate among children below age 5, which was to be reduced by one half during 1962-1972. The available information for most of the Governments shows that the rate of infant mortality in Central America and the Caribbean area was reduced by only 30 per cent of the proposed reduction. In South America the reduction in infant mortality was 43 per cent of the proposed target. In the 1-4 year group, the results are much more encouraging. In Middle America the reduction was 71 per cent of the target, and in South America it was 83 per cent. If the known rates of mortality among infants and children below age 5 during 1960-1962 had still prevailed in 1968, an additional 236,000 children would have died. Or at least it could be said that the death of 236,000 children was prevented in a single year. The importance given to this figure will of course depend on the value placed on life by each individual. As far as we are concerned, the saving of 236,000 children is tremendous progress. Although we wish that the number were much larger, this is simply another way of assessing an advance which, while perhaps slower than the urgency of the case requires, is no less an advance. Every advance in health involves an experience that rapidly yields a multiplier effect.

But, in spite of all this progress, when the over-all health problems of the Hemisphere are examined within the parameters of mortality by age groups, it is seen that the principal problem is mortality among those under age 5, which continues to account for 41.1 per cent of all deaths in Middle America, 34.7 per cent in South America, and 4.7 per cent in North America. Diagnoses are of limited quality, and among the essential instruments for improving them are laboratories and pathological anatomy services, which are still scarce in all the countries and concentrated mainly in the larger cities. However, the diagnoses made in accordance with the International Classification of Diseases show that in the period 1956-1967 mortality in children under 5 caused

by infectious and parasitic diseases was reduced by 52 per cent, while that resulting from respiratory diseases declined 35 per cent; deaths from diseases of the digestive tract, by 48 per cent; deaths from congenital malformations and diseases of early infancy, by 21 per cent; deaths from ill-defined causes, by 42 per cent; and deaths from all other causes, 47 per cent. But it should be kept in mind that although sufficient knowledge is available there is a lack of resources, that is, a lack of infrastructure for preventing many of these deaths.

One of the factors contributing to the prevention of these deaths is, of course, improved sanitation. In this respect I should like to supplement the figures cited yesterday by Mr. Felipe Herrera, because there have, of course, been contributions from other agencies, and the contribution made by the communities themselves is the essential one as far as we are concerned. I maintain that the progress made in the provision of water supply facilities during the decade that began in 1961 is truly impressive. At the present time, 126 million persons are served by water supply facilities in Latin America and the Caribbean area. More than a half of these facilities were installed during the last nine years. For the urban communities the targets in the Charter of Punta del Este have been attained and, in some countries, surpassed. Twenty million inhabitants of the rural areas are being served by public water supply systems. This program has made substantial progress in the last four years. Since 1961 the Governments have devoted \$1.7 billion to water supply and sewerage services, and of this amount 70 per cent came from national sources in the form of direct investment. To illustrate the significant strides made in 1966-1969, suffice it to say that the investments in this field came to \$945 million, of which 66 per cent was provided by the countries. The external capital is derived from loans, mainly from the Inter-American Development Bank and, in lesser proportions, from the United States Agency for International Development, Export-Import Bank, and other organizations.

We are informed by the Governments that the goal for the 1970's is to give special attention to medium-sized cities and to methods of mass installation for rural communities. We shall continue to extend advisory services for improving the administrative, maintenance, and financial aspects of water supply systems, and greater emphasis will be laid on sewerage services and sewage treatment plants.

May I repeat that there is an agenda item on man and his environment and that we hope to receive some guidance from the Conference concerning this matter. In this connection, I shall read some passages from a recent

message of President Nixon's to the United States Congress on the quality of the environment, which in my opinion have a very important bearing on the future of the developing countries of the Hemisphere. President Nixon said:

The basic causes of our environmental troubles are complex and deeply imbedded. They include: our past tendency to emphasize quantitative growth at the expense of qualitative growth; the failure of our economy to provide full accounting for the social costs of environmental pollution; the failure to take environmental factors into account as a normal and necessary part of our planning and decision-making; the inadequacy of our institutions for dealing with problems that cut across traditional political boundaries; our dependence on conveniences, without regard for their impact on the environment; and more fundamentally, our failure to perceive the environment as a totality and to understand and to recognize the fundamental interdependence of all its parts, including man himself.

It should be obvious that we cannot correct such deep-rooted causes overnight. Nor can we simply legislate them away. We need new knowledge, new perceptions, new attitudes—and these must extend to all levels of government and throughout the private sector as well: to industry; to the professions; to each individual citizen in his job and in his home. We must seek nothing less than a basic reform in the way our society looks at problems and makes decisions.⁶

This succinct description of the situation in the most advanced of the world's technological societies should lead us to stop and think and determine what action is needed to prevent the developing countries from experiencing comparable problems in the future. And this is the type of guidance we hope to receive from the Governing Bodies of WHO and PAHO.

In the field of nutrition, the quadrennium was marked by a more precise identification of problems, thanks to the nutrition surveys in various countries, particularly the Central American countries and Panama. The latter surveys were carried out by the Governments of those countries, by the Institute of Nutrition of Central America and Panama (INCAP), and by the United States Public Health Service through the National Institutes of Health. The most prevalent problems are protein and calorie deficiencies; anemia caused by deficiencies of iron, vitamin B₁₂, and folic acid; goiter and endemic cretinism; hypovitaminosis A; ariboflavinosis; and dental caries. These problems, acting singly or in combination, are conditioning factors on morbidity and mortality in children. Another significant development during the quadrennium was the decision

of the Governments to establish and implement a food and nutrition policy. This long-range task will be facilitated by the Center for which the Argentine Government has kindly offered headquarters facilities and which will serve as a bank for data on the processes ranging from production to consumption in each country. Nutrition problems, like those relating to the environment, are multifunctional and therefore call for multidisciplinary action. Since they require the participation of a wide variety of government agencies, coordination will be both essential and complex. The paramount feature should be a national program designed to reconcile the needs of the population with those of the economy.

During the quadrennium, the basic guidelines for the formulation of food and nutrition programs, in their various aspects, as part of the local health services were determined. A strong thrust was given to the training of personnel in nutrition with a view to effective inclusion of this function in the national health plans.

The provision of food supplements acquired a new dimension with the decision to utilize the resources of the World Food Program as an incentive for community and economic development projects, along with their present use in maternal and child health programs. As a result of Resolution X of the XIX Meeting of the Directing Council,⁷ the Organization is now collaborating in 77 health projects in which the Governments use resources of the World Food Program; 33 of these are under way and 44 under study in 22 countries. Some of them are aimed at nutritional protection of the more vulnerable groups, and the provision of the food supplement is used also as an educational opportunity. Other projects are directed to people involved in the construction of basic sanitation facilities: a balanced diet is provided to the families of local inhabitants assisting in the work. In others, hospitals are encouraged to divert part of their food budget to such institutions as health centers. A number of other arrangements may be conceived, for example plans to encourage outpatient treatment of persons suffering from tuberculosis, leprosy, and other diseases. These measures are included in programs of health, land settlement, agricultural development, and other economic undertakings.

The research on the supply, consumption, and utilization of food and their many interrelated aspects has yielded valuable knowledge for the solution of the problem of malnutrition. INCAP and the Caribbean Food and Nutrition Institute, as well as nutrition

⁶*Environmental Quality—The First Annual Report of the Council on Environmental Quality* (Transmitted to the Congress, August 1970). U.S. Government Printing Office, 1970, p.vii.

⁷*Official Document PAHO 99, 60.*

institutes of various countries, have made important contributions that have served to provide guidance for nutrition programs in the Region. They should continue their work in the future in the light of any changes brought about in each country as a result of a better diet and a reduction of the problem. We regret to say that there are no statistics available so far on the number of persons or patients who have benefited from a balanced diet made possible by the programs in which our Organization is cooperating; we trust that records of this kind will begin to be kept in the future.

The Quadrennial Report takes note of important advances in the field of communicable diseases. I should like to dwell at some length on malaria, which accounts for the largest investment for a communicable disease campaign made by the Governments and the Governing Bodies of the Organization. As the delegates are aware, the Twenty-First World Health Assembly adopted⁸ a new strategy in 1968 for the eradication of malaria and provided for its implementation through joint committees including economists, health administrators, malariologists, and representatives of international agencies, including UNICEF and AID. We have been working along these lines for the last year and a half. The Advisory Committee on Malaria Eradication convened by us made the following forecast in 1969 regarding probable developments in originally malarious areas covered by the 22 active programs, which affect a total population of 113 million: "In terms of population, it is estimated that for 59 per cent the prospects for eradication are good; for 13 per cent progress will depend on a solution being found to financial problems; for 17 per cent technical and operational problems are holding up progress; and for the remaining 11 per cent there are serious technical problems that require changes in the present methods of attack."⁹

What progress was made during the quadrennium? The Quadrennial Report shows that some 10 million persons progressed to the maintenance phase, thereby removing themselves from the threat of these parasites, the disease itself, and its fatal consequences. The details are clearly set forth on page 56 of the Quadrennial Report, which shows the status of the different phases of the program in the three major regions of the Hemisphere.

In summary, the results achieved until now—reduction of morbidity, mortality, depression and absenteeism caused by malaria, and investments by Governments and

international organizations which are estimated at \$600 million since 1954—support our conviction that the only sensible course of action is to continue until the disease is eradicated. Otherwise the disease will very soon reappear in endemic form in places where it has been eliminated, and epidemic outbreaks will again occur with the resulting mortality, especially in mothers and children.

The relevant agenda item will give the delegates an opportunity to examine this problem in detail.

Although the number of smallpox cases reported during 1966-1969 was only some five thousand less than in the previous four-year period, the record has improved substantially, especially in Brazil, where the disease continues to be endemic and has the highest rate of incidence in the Hemisphere. We are convinced that everything favors the eradication of smallpox from the Americas. Suffice it to say that Brazil vaccinated 6.5 million persons during 1962-1966 and almost 40 million in 1967-1969, with the number of vaccinations continuing to rise in the present year. As a result of the program sponsored and financed by the Governments and WHO, many countries have managed to increase substantially the number of persons vaccinated. Good-quality vaccine is available, as is the equipment for applying it, including jet injectors.

The picture is less encouraging where tuberculosis is concerned. The target set by the Charter of Punta del Este—reducing the mortality rate to one half by the end of 1961—was not attained. In South America, as in Central America and the Caribbean area, the rate of decline has been substantially below the target. Nevertheless, if the present situation is compared with that which existed 20 or 30 years ago, considerable progress becomes evident: mortality has declined to 22 per 100,000 in South America and 18 per 100,000 in Central America and the Caribbean. But as we are all aware, when the mortality rates fall to their lowest level, the elimination of a disease, at least as a fundamental health problem, no longer depends entirely on biological techniques, but mostly on the removal of obstacles stemming from underdevelopment.

Progress against leprosy has been very slow. There are many basic questions to be resolved in order to fully identify the dynamics and, therefore, the epidemiology of the disease. While the quadrennium was marked by no radical change in the Americas in regard to this disease, there is now more experience in the use of a methodology that would make possible a systematic and continuing reduction of its incidence.

The *Aedes aegypti* program, dealing with another matter of special concern to our Organization, experi-

⁸Resolution WHA21.22 *Off. Rec. Wld Hlth Org.* 168, 11.

⁹*Official Document PAHO 102, 59.*

enced some significant setbacks during the quadrennium, with the reinfestation of areas in countries that had eliminated the vector. Certain Governments have yet to begin their eradication program and are thereby placing their neighbors in jeopardy. Epidemiological surveillance in countries that have achieved eradication leaves much to be desired. The picture was further complicated by an outbreak of dengue. We have yet to measure with any precision the economic losses resulting from absenteeism attributable to dengue, but it is believed they are even comparable to those due to influenza. At its XIX Meeting, the Directing Council resolved¹⁰ to supplement the report of the Study Group on the Prevention of *Aedes aegypti*-Borne Diseases and called for a comparative cost-benefit analysis of various methods. But unless new biological techniques, including genetic techniques, are found by research, eradicating the vector through the use of insecticide will continue to be the indicated procedure. The problems confronted today by the Americas in this field are administrative and financial problems.

A significant event during the quadrennium was the turning over of the Pan American Foot-and-Mouth Disease Center by the Organization of American States to the Pan American Health Organization for financing under its regular budget and for direct administration by PAHO. I should like to express my appreciation once again to the OAS for the financial support provided over a period of 15 years with funds from the Program of Technical Cooperation. Mr. Herrera told us yesterday that the Inter-American Development Bank has included in its lending policy the provision of funds for foot-and-mouth disease control. He also informed us of the loans already approved for this purpose. All of the South American Governments are interested in this problem and in its gradual solution; similarly, the Central American Governments are interested in strengthening the vigilance effort, particularly in southern Panama. The opening of the Pan American Highway through the Darién region will pose a threat of transmission of the virus from Colombia, with all the serious consequences this would have for the Central American Common Market and the export of meat, which is one of its principal foreign-exchange earners.

A reading of the reports of the Center's Scientific Advisory Committee reveals the importance of the research activities carried out, all of which are practical in purpose, whether they deal with identifying carriers, improving the effectiveness of the vaccines, obtaining

preparations effective against the disease in sheep and hogs, gaining a better understanding of the biology of the virus, identifying subtypes, or other matters investigated.

Comparable progress has been made against rabies, brucellosis, hydatidosis, tuberculosis, and leptospirosis through the Pan American Zoonoses Center in Argentina. We have begun to gather data on these diseases, some of which appear in *Health Conditions in the Americas, 1965-1968*.

An average of 210 fatal cases of rabies per year were reported in the Hemisphere. In areas where adequate rabies control programs have not been instituted, it is not uncommon for 25 per cent of the persons bitten to have to submit to a course of treatment against the disease. Five thousand cases of brucellosis per year, chiefly caused by *Brucella melitensis* were reported in Argentina, Mexico, and Peru. A very encouraging development was the success of the program for the eradication of bovine tuberculosis, as a result of which the rate of infection in animals was reduced to 0.11 per cent in Venezuela and to 1 per cent in Montevideo, Uruguay. Argentina is estimated to be sustaining a loss of \$60 million per year as a result of bovine tuberculosis, which experience shows can be eliminated. Both the World Bank and the Inter-American Development Bank are in a position to consider loans for this purpose. Between 500 and 800 cases of human hydatidosis per year, 7 per cent of them fatal, were reported in Chile and Uruguay. The economic losses attributable to this disease are estimated at no less than \$10 million per year in Argentina, Chile, and Uruguay.

In 1969 we consulted all the Governments as to what they expect from the Pan American Zoonoses Center and we told them what the Center could contribute. A first planning course on zoonoses will be held at the Center in 1970 or, at the latest, in 1971, and will include practical activities in areas of Argentina that the Government has kindly agreed to make available for this purpose.

I should like to say once again that the policy on foot-and-mouth disease and other zoonoses is directed exclusively to reducing the unnecessary loss of animal proteins; in view of the importance this function has acquired within the Organization, we have established a Department of Human and Animal Health.

With regard to human resources, we say in the Quadrennial Report that "the series of studies and surveys conducted during the past four years have yielded a rich flow of information on structure, administration, curricula, teaching personnel, budgetary plans, and other significant data which will serve as an

¹⁰Resolution XXIII. *Official Document PAHO 99, 72-73.*

important tool in the planning and development of human resources." This has enabled us to propose, as already noted, an authentic university reform in the health sciences, a reform which, if carried out, will make it possible to achieve an even closer correlation of socioeconomic development with the training of professionals and auxiliary personnel for the prevention and cure of disease. This, in our opinion, was the most significant development in education during the four years.

But the data presented in *Health Conditions in the Americas* indicate that the rate at which new physicians are being trained in the Americas today is well above the rate of population growth. During the 1960's the number of medical schools was virtually doubled, reaching a total of 151. The most serious shortage (and one which is getting worse) is the shortage of nurses. The physician-nurse ratio, 1.9:1 in 1964, stood at 2.3:1 in 1969. Counting nursing auxiliaries, the ratio was 1.9 per physician in 1964, dropping to 1.8 in 1969. The deterioration is made more serious because of the growth of the population, the rise in demand, and the increasingly complex techniques now being used. It is worth noting that the United States of America and Canada have almost 6 nurses and nursing auxiliaries per physician (2.2 nurses and 3.4 auxiliaries).

In the last four years, no less than 16,000 nursing auxiliaries were trained in courses organized with the help of our Organization. We have the impression that for reasons of budgetary shortage not all of these auxiliaries were taken into the health services. In any event, the problem cannot be solved with auxiliaries alone, as supervision by professionals is essential. Well-trained nurses and auxiliaries alike are indispensable for the provision of efficient and comprehensive medical care.

We distributed to the Governments a Technical Advisory Committee report¹¹ proposing a system of nursing services at three levels, which the Governments are putting into practice.

The Quadrennial Report gives an account of the intensive effort being made to provide graduate training in various health specialties, citing by way of example the 248 courses in sanitary engineering, attended by 7,161 engineers, which dealt with matters of great significance for environmental science, some of which have been the subject of research in various universities in the Americas, specifically 37 universities in 22 different countries.

The training activities at INCAP benefited 437 professionals from all the countries in the Americas and 11 from other parts of the world.

And now, a few brief remarks on the textbook program, which is in full operation. Four textbooks—those on pathology, biochemistry, physiology, and pharmacology—have been distributed. These books were selected by committees whose members were chosen by the professors in each field, and by our Organization. As of 28 September 1970, a total of 21,598 copies of the four textbooks had been acquired by medical students. The revolving fund established for the program provided the Organization with an income of nearly \$180,000 by 18 September 1970. This income has been reinvested, naturally, in the acquisition of books for the new generations of students. Another three textbooks are now being selected, and the committees will continue to meet until the 22 books representing the total program of the Organization, as proposed, have been chosen. The program has been financed thus far with the Organization's Special Fund for Health Promotion, but we hope that the Inter-American Development Bank will soon approve the loan proposal submitted to its Board of Directors. But I repeat that the program has been received so well by all the universities and has aroused such interest among the students (80 per cent of whom are buying the books on cash terms and only 20 per cent on the installment plan) that we are convinced it should become an on-going program of the Organization. In the event that the loan is not approved, the program should still be continued, even if at a slower pace, with whatever funds are available, for I am convinced that the students are in turn convinced of the need for it.

Other training materials should be considered in the future. Every student should have access to a microscope and to modern slides of normal and pathological tissue; similarly, they should all have access to an endoscope, a sphygmomanometer, and an ophthalmoscope, instruments of which my own generation dreamed but which were never within its reach. In my time, the diapason was usually out of order.

During 1966-1969, 3,809 fellowships were awarded, as compared to 2,560 in 1962-1965. And if the number of fellows from other regions who studied in the Americas is added in, the total number during the last four years is 4,767. The Governing Bodies laid down criteria for a trial program involving the granting of fellowships enabling professionals to study in their own country, and the granting of "institutional" fellowships. The results of the program in seven countries were evaluated and will be the subject of a report.

A large number of courses and seminars were offered,

¹¹Scientific Publication PAHO 180.

either in connection with programs in which the Organization cooperates, or with problems on which the Governments have expressed concern. At least 30 per cent of the total amount of funds is devoted to activities that can be regarded as education or training activities.

As for physical resources, we shall consider those representing the greatest amount of investment: hospitals. According to our records there are 14,048 such establishments in Latin America, compared to only 10,000 in 1964. We believe that the difference is largely attributable to better reporting, prompted by the enormous cost of constructing a hospital and equipping each bed, but that it is also partly attributable to new construction. In any case, the ratio of beds per 1,000 population has diminished slightly in Middle America, owing to population growth, and has increased slightly in South America. By way of comparison, Northern America had 8.4 beds per 1,000 inhabitants in 1968, whereas Middle America had 2.6 and South America 3.6. These figures reveal the size of the gap and the urgent need for better and more productive utilization of this resource. It should be kept in mind that the cost of constructing and equipping a hospital bed averages out today to at least \$15,000 in any developing country of the Hemisphere. Simple multiplication will give an idea of the very considerable amounts involved.

The reports I am discussing contain data on discharges per bed, occupancy rates, and average number of days' stay per patient. All of these figures reveal a better use of this essential resource, with variations from country to country, but a far cry from optimum utilization.

All of this explains the emphasis placed by our Organization—you will forgive me for repeating this—on the establishment of national health systems, which in the last analysis afford a means of providing better care to a larger number of patients through planned coordination. The national interest must prevail over that of any single institution.

Another means to the same end is the Hospital Maintenance and Engineering Center sponsored by the Government of Venezuela and operated in part with contributions from the United Nations Development Program and advisory assistance from WHO. I was recently privileged to visit the Center and firmly believe that it is destined to become an instrument of tremendous importance for the entire Hemisphere once the Government of Venezuela establishes its national system throughout the country. The loss of increasingly complex capital goods through lack of preventive and corrective maintenance is enormous.

We have also encouraged the concept and practice of

progressive patient care, the first phase of which became a reality during the quadrennium with the planning and organization of six intensive care units in as many teaching hospitals. We hope—and this is indeed coming about—that other establishments will set up this essential service and that the ensuing phase will be implemented so that the available human resources can be allocated more on the basis of the seriousness of the patient's condition, as determined by a proper diagnosis, than of the mere number of patients.

The most important feature, beyond a doubt, was our effort to provide the administrators of the 14,048 hospitals we have mentioned with an opportunity to bring their knowledge and experience up to date; this is a long-range task in which the universities, particularly the schools of health, are called upon to play the principal role.

Another important event during the quadrennium was the inauguration in 1969 of the Dental Materials Center in the School of Dentistry of the Central University of Venezuela in Caracas, thanks to the cooperation of the University and a generous contribution from the W.K. Kellogg Foundation. This is an undertaking comparable to drug quality control in that it will make it possible for dentists to obtain materials of proven quality as determined by an examination of the increasingly complex elements used in dentistry. We have already learned that dental caries are more than just an esthetic handicap; they are also an important manifestation of nutritional deficiencies.

The other important group of health facilities are the health centers and rural health posts. We have information available from 19 countries. In 1968, according to our records, there were 8,936 such local units, as compared to 6,242 in 1964. This is an increase of 43 per cent.

Even allowing for population growth, the increase was still 27 per cent, but there are still many rural communities without ready access to minimum health care. In 1967 we estimated that 57 per cent of the towns with less than 10,000 inhabitants had no medical service at all and no access to adequate service. This means that there were 30 million people without continuing care and, what is even worse, without even occasional medical attention.

A redoubled effort must therefore be made, as our Governing Bodies have pointed out, to increase coverage of the health services. The Technical Discussions during the XVII Meeting of the Directing Council (Trinidad and Tobago, 1967) on the rural problem and how to obtain increasingly wider coverage, were a valuable contribution in this field. The Governments presented a number of

schemes, all successfully used, but it is necessary to use them more intensively and seek new arrangements.

We have also distributed a summary¹² of the 123 research projects sponsored throughout the Hemisphere by PAHO jointly with scientific institutes in the countries concerned. A few of the subjects with which they deal are: nutrition in its various aspects; patterns of mortality in children and adults and multiple causes of death; various zoonoses and their prevention; malaria, with respect to both vectors and plasmodia; immunology; arboviruses and their distribution in nature; and training in the evaluation of human resources. A simple reading of each project will suffice to indicate the scope and quality of the work carried out. This will explain why our Advisory Committee on Medical Research has said that the Latin American countries could well set as a target the investment of 0.5 to 1 per cent of the gross national product—depending on the relative wealth of each nation—in research activities.

Biomedical research is an essential tool for the intellectual and cultural progress of the countries and for the achievement of goals that are humanitarian as well as cultural. This is a target that we would like to see attained in the current decade, at least as it relates to research in the health sciences.

The quadrennium was also marked by the inauguration of the Regional Library of Medicine, an event made possible by the generosity of the Government of Brazil, through its Ministries of Health and Education, and of the University of São Paulo, the National Library of Medicine of the United States Public Health Service, and the Commonwealth Fund. The Library has begun its work in Brazil and since 1969 has filled 23,000 interlibrary loan requests from 110 libraries by Brazilian scientists. Of these requests, 57 per cent were filled from the Library's own resources, 11 per cent from those of other libraries in São Paulo participating in the program, and 34 per cent from the system and from the U.S. National Library.

A number of other countries have shown an interest in participating in this plan, which should eventually become a Pan American clearinghouse for bibliographic information, so that each Government, acting through the health institutions that have libraries, will have access to current information on the books possessed by the other Governments or available in the Regional Library of Medicine. It should be added that the Regional Library increased its supply of periodicals from the original 350 titles generously donated by the

University of Sao Paulo to 1,350. To supplement this supply we can count on the generous cooperation of the U.S. National Library of Medicine. This will enable any student of health problems in the Hemisphere who is interested in any publication issued since 1 January 1964 to obtain it through this network, using the machinery available in his own country. We have proposed this idea and hope it will be supported by the Conference. We believe that the United Nations Development Program and perhaps the Inter-American Development Bank will be interested.

A way must be found so that in the years ahead the students may read and the scientists keep up to date on the latest developments in an age in which knowledge advances with amazing rapidity.

As we said in the Quadrennial Report:

The spiraling growth of the technology and industrialization of health equipment, materials, and drugs makes the prospect for the 1970's somewhat disquieting. The difficulty will be not so much to formulate possible alternatives as to select those best calculated to attain the targets set. At the same time, the 1970's will be a decade of opportunity if we are able to make proper use of the lessons of the last decade, to benefit from past mistakes, and to put our faith in the innate ability, the good intentions, and the heartfelt and legitimate aspirations of the people. Hence the responsibilities of those with the decision-making power to reduce the impact of mortality and morbidity are great and will be still greater.

... The Governments decide, and the international bodies that advise them, including PAHO and WHO, must amend or mold their policy accordingly. The more clearly defined the plan, and its programs and projects, the more coordinated and efficient the work of these bodies will be. If we seek complementarity, the pivot must be the human beings; the means, national investments of every kind; and international coordination and external capital must be complementary.

President:* The floor is open for discussion of Dr. Horwitz's excellent report. The Chair recognizes the Delegate of Nicaragua.

Dr. Avilés (Nicaragua):* I should like to commend Dr. Horwitz on the brilliant summary of the status of health in the Americas contained in the Quadrennial Report for the last four years.

It will be very difficult to make any useful comments on the report, since the Director has already described the current health conditions, comparing them with those prevailing four years ago, in clear and realistic terms supported by indices and figures. He has shown us what progress has been made under the policy laid down by the Member Countries and, above all, the effects exerted on the improvement of health by the proper use of resources, by the training courses held, mainly in planning, and by the efforts made to convince those who manage the funds that any investment in the health

¹²Research in Progress, 1970. Document RD49/5(9)-R, June 1970.

sector is a profitable one in that it results in the improvement of health and hence of human beings, who are the greatest asset for the economic development of the countries.

We should not lose sight of the fact that we are gathered here in a Pan American Sanitary Conference, the highest authority of the Pan American Health Organization. It is from this room that a policy should emerge setting the strategy to be followed in our countries for achieving better use of resources and coordination of efforts. For one of the reasons why so many resources are wasted lies in the lack of coordination and the proliferation of health institutions. Coordination among the various institutions in both the public and private sectors leads to more efficient health activities providing greater benefits to the individual and the community.

Dr. Horwitz has pointed out, for example, that the average number of days per hospital stay has been reduced in all the countries of the Americas. We all know that there is nothing more expensive than medical care. If we manage to reduce the duration of a hospital stay, which costs about \$10 per day in our countries, from an average of 14 days to 10, this will represent a considerable saving.

Moreover, we planners know that prevention is cheaper than cure. I have yet to understand why it is that in lists of the 10 chief causes of death, various infectious diseases preventable through vaccination are consistently among the first five. If we administer a few cents' worth of vaccine we can prevent a disease costing thousands of dollars.

Furthermore, if we could lessen the demand for hospital care by referring medical consultations to health centers, we would have more available capacity in our hospitals and would be able to make better use of our human resources.

A factory that produces 100 units per hour could never produce 200 units per hour, but I know of some very good hospitals that have 110 patients for each 100 beds. In the best hospital that we have in my country, one that would be rated good in any part of the world, there are two children per bed in the pediatrics department because the demand is excessive and the hospital has no more capacity.

I should therefore like to point to the weakest elements of public health strategy and direction that I believe should be discussed in this Conference.

We must try to avoid cases of diseases for which vaccines are available. I fail to understand why there is smallpox in the Americas or why there is poliomyelitis. These are diseases that can easily be attacked.

Naturally, all the countries are developing countries as far as planning is concerned, and they have set their priorities in keeping with their own resources and strategies.

I do not wish to overlook Dr. Horwitz's remarks in his report concerning the importance of alleviating the problems of nutrition. The Americas have a sufficient supply of food to feed their population, but a nutrition education policy is lacking. Food is wasted in our countries, we have an exportable surplus of meat, and we have fish and a sufficient supply of proteins. But malnutrition is rampant because we fail to educate our mothers and children. Education must be given the greatest importance. No public health program can succeed without education. I congratulate Dr. Horwitz on having presented the general picture of this aspect of public health.

In political elections I am not an advocate of re-election, but where administrative matters are concerned I am definitely in favor of retaining the services of good administrators, such as Dr. Horwitz has shown himself to be. And I am not saying this as propaganda for tomorrow's election but simply as the best way I know of praising the services of a Director who has shown remarkable ability as the head of PASB and as the mentor of health activities in the Americas.

President:* The Delegate of France has the floor.

Dr. Hyronimus (France):* I only wish to thank and congratulate the Director of PASB and all his associates for the excellent report he has presented. I shall refer briefly to the main points of his report, in which the Director has undoubtedly shown a great deal of insight in discussing the problems that arose in the last four years, or rather in the last decade.

In other times, when the Directing Council held its meetings, most of our discussions concerned communicable diseases; we were preoccupied with malaria, *Aedes aegypti* eradication, smallpox control, and similar questions. These problems persist, although much progress has been made, but today, as a result of social and economic progress, we are also confronted by the new problems of pollution and we have been taken unawares by the university crisis.

The problem of pollution is very important without a doubt and a source of deep concern for modern society. I have already spoken at length of this problem and have no intention of returning to it, but it is only logical that the Pan American Health Organization and the World Health Organization should be profoundly concerned with these problems, which jeopardize our society. Infant mortality has diminished, to be sure, although not

as much as we would wish, but while important progress has been made in some fields, there are others, particularly those relating to the new problems, where important causes of mortality continue to be found. Highway and work accidents are one example, and children are among the victims of highway accidents, a fact that in certain countries has altered the statistics in unexpected ways.

Returning to communicable diseases, the fight against *Aedes aegypti* is of considerable interest; its results have at times been discouraging, especially in the Caribbean area, where the campaign began in 1954, or even further back. In other words, after 17 years' efforts to control this vector of yellow fever and dengue there is still much to be done. How long will it be before conclusive results are attained? Although we do not know exactly how long, I fear that unfortunately we shall have to continue allotting substantial amounts for a very long time to the fight against this vector; and I say unfortunately because we could use the money to meet other needs.

Public water supply and sanitation have made a great contribution to easing the problem of pollution to which we have referred. Every community we have supplied with water has shown an appreciable reduction in the incidence of certain diseases and afflictions, to the point where it is not too much to hope for the disappearance of certain intestinal parasitoses that are still taking a substantial toll, especially in the Caribbean area, and in certain countries of North, South, and Central America. The education of which I have spoken—public health education, education in any form—is of great importance since, as the Delegate of Nicaragua has said, if we fail to educate the people, if we fail to give them the instruction they need, no disease will disappear or diminish in importance. As for medical personnel, there is no question that today, in modern societies, a much larger number of physicians is needed than was needed at any time in the past, or that the number of nurses is insufficient even in the most advanced countries. We are in need of paramedical and nursing personnel, and most important of all, although there have been many medical students in recent years, those students, upon graduation, are usually setting up practice in the larger towns and cities while the shortage of physicians continues in the countryside. I believe it would be desirable to curb this trend and to improve medical care in the rural areas.

That is all I have to say at the moment, and I shall end by congratulating the Director of PASB and his staff on their excellent report.

President:* The Delegate of Chile has the floor.

Dr. Valdivieso (Chile):* I should like to begin my comments by saying that although the report just presented by the Director refers to the four-year period just completed, its importance transcends these limits because it describes our achievements during the final part of a decade in which I believe we have worked on the basis of realities we must never forget. The Charter of Punta del Este and its reaffirmation at the Meeting of the American Chiefs of State, also in Punta del Este, were the essential tools for the establishment of the targets to be achieved during the decade by the Organization and the technical agencies of the Member Countries.

The special importance of that Meeting was that as a result of a very personal initiative of the Director of PASB a number of very new concepts were introduced into the agenda. I am referring of course to something which had been very frequently discussed but which materialized on that occasion: the definite substitution of the concept of public health investment for that of public health expenditures.

There was no possibility of promoting the economic and social development of the countries of the Americas unless that important element of public health were given the leading position it deserved, and this explains the special significance of the status of the accounts at this time. For irrespective of whether the statements presented by the Director are positive or whether they show some gaps, the fact remains that they reflect a situation for which we are all responsible. I can conceive of no truly effective action by the Director and the Organization unless each and every Member Country and its technical agencies begins by making its contribution and meeting its responsibilities. The problem has sufficient importance to merit our careful consideration. Many of the figures cited by the Director have led me to think of our own Ministry of Public Health in Chile and to wonder whether its agencies have attained the targets set for them. I know that some of them have, while others are still performing inadequately. In any event, the report is extremely constructive and poses challenges for the future.

I was interested to see that on two occasions the Director referred to the need for the public health agencies to coordinate their efforts and develop the means that will make possible this coordination. He emphasized the establishment of public health systems, and I am personally happy to see that this is the means he advocates for promoting coordination of this kind. The situation he mentioned of various countries where dozens of agencies are active in public health does not apply to Chile, but I am fully aware of the problem

nonetheless. We in Chile are quite in agreement with the ideas expressed by the Director and have also advocated the establishment of a national system of public health. The system and a national council were established two years ago, and for the first time the agencies directly subordinate to the National Health Service and all of the institutions directly or indirectly involved with the country's public health problems are seated around a single table. The system is yielding good results and I wanted to say this here because I believe that the norms or the recommendations on which this national health system was founded were the outcome of the deliberations of the working group established at the initiative of the Director of PASB.

I shall repeat that, as far as I am concerned, and without examining the main aspects discussed by the Director, this is an inspired document and one worthy of being analyzed and pondered at leisure.

In conclusion I should simply like to say that, although the balance is positive, there are surely certain things that will not satisfy us. But I should particularly like to refer to what I regard as a very important fact posing a tremendous challenge for the coming decade. As we improve the provision of services and our public health indices, it always seems as if nothing important is being resolved and the road ahead is neither shorter nor easier to travel. The more we improve our services the greater the demand for them becomes. This puts us in mind of Dr. Candau's remark that reaching a target does not imply that what remains to be done will be any easier. This, to me, is the great lesson to be derived from the Director's report.

President:* The Delegate of Panama has the floor.

Dr. González Gálvez (Panama):* The Delegation of Panama cannot remain silent at this time or fail to extend its cordial congratulations to Dr. Horwitz for his precise, detailed, and excellent report on the public health situation in the Region of the Americas.

Since I intend to be brief, I shall refer immediately to the point I consider most important: the part of the report in which it is stated that the vast majority of the countries of the Americas are still confronted with problems arising from poor coordination, duplication of efforts, and the absence of a unified national system of public health. This is certainly the case, for when we examine the public health situation and organizational structure in our countries we find a wide diversity of organizations, ministries of health, social security agencies, and private institutions performing work in this field with no coordination whatsoever. This lack of a unified system is to me the major problem, since it leads

to so many other difficulties that have serious public health implications. This duplication of resources, this lack of coordination, often places the various organizations in a single country in competition with one another, even though in reality their objective is the same, with serious detriment to public health activities.

In spite of these handicaps, as the Director says in his report, the countries have made a very great effort and have been aided in this by the support of the Pan American Health Organization. Nevertheless, I believe it very important that, as the Delegate of Nicaragua said, we set as a goal the establishment of a unified public health policy as an outgrowth of this Conference, and I believe such a policy should be manifested by the establishment in our countries of unified public health systems to ensure the closest cooperation among the various agencies. The result of this should be the best possible utilization of our countries' available resources, limited as they are because of our very status as developing countries. PAHO gives evidence in this report of its effective work in support of that done by the Governments themselves.

We must continue our steady progress and establish definite goals for taking stock of our resources and establishing specific action programs. This is precisely what the Organization has done in the last four years, and its activity is providing firm support for the strengthening of the public health sector in all our countries.

I agree that any investment made by the Governments in public health, with the support of the Organization, is the best investment that can be made and the one that will yield the highest dividends in the short, intermediate, and long run, for the best contribution to the development of our countries is a public health contribution providing healthy workers capable of attaining progressively higher levels of economic and social development.

*The session was suspended at 10:55 a.m.
and resumed at 11:30 a.m.*

President:* The session is resumed. The Delegate of Argentina has the floor.

Dr. Rodríguez Castells (Argentina):* I asked for the floor to express very briefly my approval of the valuable report presented by our Director.

To those of us who have been dealing for many years with problems of public health, it is a moving experience to see reflected in a report as substantial as this what we already knew of the efforts made by the countries in recent years to solve their public health problems. And

although any progress undoubtedly is a result of the efforts of each country, it is no less attributable to the assistance provided by the Pan American Sanitary Bureau through its unceasing work as an adviser and as an organizer and coordinator of activities. My congratulations, therefore, to the Bureau and, particularly, to its Director.

I shall not comment on the details of what has been said, particularly since each delegation head will be given the opportunity to present his statement very shortly. Argentina is almost entirely in agreement with what has been said here today.

I should simply like to present a specific motion that the meeting approve our Director's report by acclamation and with the highest commendation.

President:* The Delegate of the United States of America has the floor.

Dr. Steinfeld (United States of America): The United States Delegation would like to add its congratulations to those of the other countries of the Hemisphere to the Director of the Pan American Sanitary Bureau, Dr. Horwitz, for an outstanding report, not only because it is comprehensive in terms of health education, public health activities, and delivery of medical services, but because it provides, in the two volumes presented, a background of data upon which we will build our programs for the future. We feel that this is an extremely important report, well done and useful both in terms of what has been accomplished and as a guideline and an outline of the problems that we face together in the coming decade.

President:* The Delegate of Honduras has the floor.

Dr. Pineda (Honduras):* The Delegation of Honduras wishes to join the other delegations in congratulating the Director of PASB on his Quadrennial Report, in which the realities, achievements, and shortcomings in the field of public health in the Americas are so faithfully reflected.

With the help of the Bureau, my country too has achieved success in many public health endeavors in the last few years. With its advisory assistance we have managed to unify at least the public part of the sector—government, decentralized agencies, and municipalities—and we have also established important contacts with the organized private sector. We have yet to unify another enormous part of the sector: the free and unorganized segment of the private sector which is really the medical profession.

Thus, in speaking of unifying the public health sector, what we are proposing is a new system, a unified

system, that should be of tremendous help in achieving our goals, in making better use of our scarce supply of trained manpower, and in bringing down the costs of public health programs.

Once again, my sincerest congratulations to Dr. Horwitz and his associates on the brilliant report they have presented and for the very useful orientation thereby given our countries in Latin America.

President:* The Delegate of Paraguay has the floor.

Dr. Godoy Jiménez (Paraguay):* My Delegation wishes to add its congratulations to the others heard here today on the brilliant report presented by Dr. Horwitz. I should like to make a few brief comments on certain matters that are perhaps closely related to what has been said at this session.

As my country's Minister of Public Health and Social Welfare, I am personally interested in making a special appeal to my fellow Ministers who are present in this room. Many of us have attained the office of Minister for our work as administrators, and in many cases for our political background. The direction and administration of a country's public health activities is in our hands, and it is an enormous responsibility. Our contacts with one another are often too infrequent; as Ministers of Public Health of the Americas we should come together more often, establish more frequent personal contacts, and even visit one another's countries on a reciprocal basis to get a first-hand picture of how our peoples are progressing in the execution of important programs.

I also wish to voice a concern that I have sensed in my conversations with many of the Organization's consultants. The feeling seems to be that the Ministers of Public Health should provide for closer "teamwork"—if I may use the term—between the central public health administration and these consultants who so kindly work with us toward the achievement of our goals.

I also want to say—and I do this in a very personal way, bearing in mind the problem we face in our own Ministry—that as Ministers of Health we should work in closer coordination and contact with our own advisers, who are the real "sanitarians," the public health experts, in each ministerial agency.

In brief, the specific point that I wished to make was the following: there should be more contacts among all the Ministers of Public Health of the Americas, either through meetings or through reciprocal visits; and in each Ministry the Minister should work in closer contact with our Organization's consultants and with the heads of the different departments.

Finally, may I repeat my opening remarks and again

express our most cordial congratulations to Dr. Horwitz on the report presented to this Conference.

President:* The Delegate of Trinidad and Tobago has the floor.

Dr. Henry (Trinidad and Tobago): I too, on behalf of the Government of Trinidad and Tobago and as the leader of this Delegation, would like to add my quota of congratulations to the Director on the splendid report he has given to us this morning. I think that all the hyperbole that has been used to describe this report has been in fact well deserved. The report has been interesting, informative, comprehensive, and it has been to the point. I think the problems that have been identified are problems we all can recognize in our own territories. There are certainly common solutions to these problems but each country will have its own particular way in which the solution may be modified. I think that a report of this nature should not only be a reference document to remain on the shelves of libraries, but should serve as an incentive for action programs in the future. Once again, on behalf of the Government I represent, I congratulate the Director and his staff on this splendid report.

President:* The Delegate of Uruguay has the floor.

Dr. Ronco (Uruguay):* My Delegation joins with the distinguished chiefs of delegation who have spoken here today in conveying special congratulations to the Director for his brilliant report, to the Pan American Sanitary Bureau for its painstaking work, and to the Governments of the countries for their constant and increasingly firm and vigorous efforts to bring together the peoples of the Americas and attain the goals set by our Organization.

In conclusion, I should like to appeal for an increasingly better coordination of efforts so that costs can be reduced and intensive attention can be given to preventive work directed to certain problems that can readily be averted in our countries.

President:* The Delegate of Costa Rica has the floor.

Dr. Orlich (Costa Rica):* Our Delegation also wishes to join with the other delegations that have expressed cordial congratulations to Dr. Horwitz on the clear report he has presented this morning.

President:* The Delegate of Venezuela has the floor.

Dr. Mayz Lyon (Venezuela):* On behalf of my country's Delegation and Government, I want to add my congratulations to those so cordially expressed here this morning for the excellent report presented by Dr.

Horwitz and the entire staff of PASB on the activities during the last four years.

The report deserves our sincere applause for its wide-ranging and expressive description of accomplishments and for the remarkable ability to synthesize displayed by Dr. Horwitz.

On a personal level, I should like to thank him for having mentioned the two programs being developed in my country: the Dental Materials Center and the Hospital Maintenance and Engineering Center. These are undoubtedly two pioneering programs that will soon begin to render valuable service to all the countries.

President:* The Delegate of Brazil has the floor.

Dr. Brito Bastos (Brazil):* The Delegation of Brazil listened with great interest to Dr. Horwitz's summary, and I am sure that the documents to which he referred deserve our very careful attention. The excellence of Dr. Horwitz's report was no surprise to me or to anyone else present here, and the Delegation of Brazil is pleased and honored to congratulate him.

President:* The Delegate of Mexico has the floor.

Dr. Campos Salas (Mexico):* Mexico wishes to add its voice to the unanimous congratulations of this meeting for the fine report presented by Dr. Horwitz, which we regard as a highly valuable reference document on the past and present and for the future, and which I shall no doubt have occasion to refer to time and again.

Reflected in the report are, on the one hand, the combined efforts of all the countries of the Americas and, on the other hand, the sound direction of the Pan American Health Organization.

All of the advances in the field of health that are cited in the report are the result of our effort and of that sound direction.

This makes the report an encouraging document, a source of guidance, and a spur to planning, increased effort, and coordination. It challenges us to try even harder and to perform our daily activities with an even greater sense of community.

President:* The Delegate of the Dominican Republic has the floor.

Dr. Tezanos (Dominican Republic):* To complete the unanimous chorus of congratulations to Dr. Horwitz for his report, we should like to say that we join wholeheartedly in the commendation.

President:* The Delegate of the United Kingdom has the floor.

Dr. Frazer (United Kingdom): I have just about

three words to say to congratulate our Director on his report. This, I must say, seems to become an annual and sometimes a quadrennial intellectual feast, so I do offer my heartiest congratulations.

President:* The Delegate of Colombia has the floor.

Dr. Dfáz-Granados (Colombia):* At the beginning of his statement, Dr. Horwitz said he was very sorry that he had not been able to distribute in advance the excellent report presented today. And I am even sorer than he, because if we had read this highly important document summarizing PAHO's work during the last four years we would have been in a better position to express our concerns, criticism, and praise precisely and correctly.

Magnificent work has no doubt been done. Of course I am not the person best qualified to judge it; I do not, perhaps, have the continuous experience that many delegates of other countries have, for public health has not by any means been my field in the last few years. I attained the office of Minister of Public Health of the Republic of Colombia not because I was the most authoritative spokesman for this highly important field of human knowledge, but simply because I represent the concern and needs of many sectors in my country, which are the same concerns and needs of representatives of other countries, and because of this I might be considered to have an objective and precise knowledge of the problems of our people. I am motivated by a vehement, and all but unlimited, desire to find a solution to the problem of the needier classes in our societies of the Americas.

And that is why I said that I might have been able to develop some of the points that are common to all of us: the problem of hospitals and better utilization of our hospital beds; the problems of preventive medicine as an important factor in the economy of our country because of the opportunity it affords for making better use and allocation of our resources by devoting them to prevention rather than cure. I might have been able to work out a better interpretation of what the problems of nutrition signify, essentially, for us. Also, I would have been able to expound at greater length on the training of our people, the increase in our human resources, and what this means to our countries in terms of enabling them to expand and improve the coverage of services to rural areas in many countries where, as in mine, most of the people live in the countryside and, consequently, by reason of communications difficulties and lack of adequate overland transportation links or radio-telephone service, are rather isolated from the rest of the country and therefore subject to greater hazards than the inhabitants of urban areas.

In short, I believe that a magnificent body of work is reflected in the report. But this does not mean that we have progressed far enough. The road ahead is still long, and I believe that with the determination of all of us who are today representing our Governments we can achieve in the immediate future for our countries a higher level of well-being and the possibility of resolving the problems afflicting them.

I congratulate Dr. Horwitz and all his associates on the report he has presented. And I regard it as a very important document that can serve as a point of departure for achieving in the near future what we all desire for our peoples.

President:*The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I should like to join with the delegates who have already spoken and to congratulate Dr. Horwitz on the magnificent report he has presented. Only one who is profoundly versed in the matters discussed could have summarized as briefly as Dr. Horwitz a document of such importance, containing so much interesting material. To attempt a detailed analysis of this document would obviously take many hours, and I have no intention of imposing on your patience. I should like to emphasize at least three important areas in which the action of the Pan American Sanitary Bureau was decisive during the last decade, particularly the last four years, and where the guidance provided by its Director was effective and outstanding. The Minister of Public Health of Chile already referred to the first of these points when he said that health is one of the elements of economic and social development. The far-reaching importance of this assertion is self-evident and requires no further comment. For the first time we have managed to open a breach in the wall that separated us from the economists, and now, thanks to this new circumstance, we can deal with them directly and obtain enormous benefits by these means.

With regard to the second point, the Organization's performance was also outstanding and decisive. There is a new awareness of the importance of planning as a means of assuring that our scarce resources will be invested on the basis of our priorities. While it is true that the development of planning has differed from country to country and has been limited to sectoral planning in the vast majority of the countries, we can now expect, thanks to the efforts of all the countries and the sound orientation supplied by the Bureau, that comprehensive planning of health in the Americas can become a reality during the coming decade.

The third point, one relegated thus far to a secondary plane and looked down on to some extent, refers to

improving the administrative organization of institutions with a view to more effective achievement of the general and specific objectives of each project and each plan. Most of the health personnel was unfortunately unfamiliar with this area of activity, and the health experts did not accord it sufficient importance. This led to innumerable failures and fiascos, and I therefore believe that the importance now being given to the improvement of these services is truly noteworthy. The Organization has cooperated toward these ends and has assumed, as I have said, an effective leadership role in attempting to bring about the improvement of administrative methods and in fostering and creating greater incentives for their modernization.

I shall not attempt to dwell at greater length on a subject that others have already discussed, or will discuss, with greater precision and clarity than I could hope to achieve.

President:* The Delegate of Peru has the floor.

Dr. Marchand (Peru):* The Delegation of Peru also wants to congratulate the Director on his important report and agrees with the Delegate of Argentina that it should be approved by acclamation.

President:* I consider the extremely valuable document presented by Dr. Horwitz to have very great significance. You will remember that I am a pediatrician, and we have always lived and worked by the rule that growth must come from the bottom up. It is for this reason that the wonderful work done by our Organization in the interest of our community's well-being deserves our applause. This work has a particularly large significance for me, since we were accustomed to turning to the Organization for assistance and when the Ministry of Health was established we sought the help of its competent technical groups. The assistance we received, and the timeliness with which it was given, were truly magnificent in my opinion.

Our goal has always been to identify the problems affecting the health of the population. We must undertake a genuine community-wide medical effort in which the people play an active part, together with the technical cadres, in the solution of those pressing problems.

The report presented by the Director reveals the significant work that the Bureau has done in my country under extremely difficult circumstances.

In conclusion, I shall ask the Rapporteur to prepare, for subsequent examination by the Conference, a draft resolution on the motion made by the Delegate of Argentina.

The Observer from Canada now has the floor.

Dr. Layton (Observer, Canada): At the outset, may I express the appreciation of my Government and my Delegation for the generously afforded opportunity to address the Conference at this particular point. May I also extend the heartiest congratulations of my Delegation to you Mr. President and to your Vice-Presidents and the Rapporteur on your election to the important offices you will occupy throughout the Conference.

I have been honored, at previous meetings of this distinguished body, to report on the progress that had been achieved in major areas of public health work in Canada. On this occasion, however, I wish to place on record, on behalf of the Government of Canada, a statement which, we hope, will have broad implications for the progress of public health activities throughout the Americas.

As many of you may know, my Government has been conducting over the past two years a major review of its foreign policy. It has not only re-examined the principles on which it should be based as a whole, but also has given particular attention to a number of specific areas. One of these was Latin America. In the White Paper, which was released in June of this year, the Canadian Government declared that it wished to encourage and develop closer and more meaningful relations with individual countries in the Hemisphere and with organizations of the Inter-American System. It recognized, of course, that the people of Canada and the peoples of Latin America are already acquainted. We have enjoyed over the years many valuable contacts and we both can point to figures to show our importance to one another. Yet it is the wish of my Government to build further on what already exists and to strengthen in a more systematic fashion our relationships in their several fields. For us, there is the proposition that between Canada and the Latin American countries as neighbors in one Hemisphere, between Canada and regional groupings of such countries, and between Canadians and Latin Americans on a person-to-person basis, there are expanding possibilities for mutual benefits. Among the objectives of the policy are such fundamental aims as enhancing the quality of life both in Latin America and in Canada by encouraging and supporting cultural and scientific exchanges. Furthermore, wherever possible there will be an effort to cooperate with the countries of the Americas in enterprises designed to preserve the harmonious natural environment and, by means of research and development assistance, to contribute to economic development in Latin America, thereby fostering the cause of social justice between regions of the Hemisphere.

To this end my Government has decided to double its development assistance efforts and to make its resources available on both a multilateral and a bilateral basis. In further pursuit of these objectives, the Canadian Government also intends to take certain initiatives vis-à-vis hemispheric organizations. As you know, Canada is already a member of the Pan American Institute of Geography and History, the Inter-American Center of Tax Administrators, the Center of Inter-American Monetary Studies, the Inter-American Statistical Institute, and the United Nations Economic Commission for Latin America. We follow closely the work of the Inter-American Economic and Social Council and of the Council for Education, Science and Culture and, of course, we maintain close relations with the Inter-American Development Bank through its administration of Canadian development funds over the last few years (some \$60 million to date). Our close association with all of these organizations will obviously be continued and strengthened, but in addition Canada hopes to make a contribution to the work of the Export Promotion Center, to support the Inter-American Emergency Aid Fund, and to seek full membership in the Inter-American Institute of Agricultural Sciences, the Indian Institute, and the Conference on Social Security.

Finally, Mr. President, Canadians have always appreciated the welcome we have received at your meetings, both Governing Bodies and technical groups, and we have noted carefully the valuable contribution

this Organization has made and continues to make in raising health and general living standards in Latin America. My Delegation recalls with pleasure that both the Conference and the Directing Council on earlier occasions have recorded their wish for the incorporation of Canada as a member of the Pan American Health Organization. My Government intends to respond to this warm gesture and, when it has completed the necessary administrative and financial arrangements, to seek full membership by inviting the Governing Body of this Organization, at the appropriate time, to accept Canada as a full Member. I might add that we view this prospect with some optimism.

These decisions are clear; a firm step, in principle, has been taken. I look forward with considerable confidence, therefore, that Canada will find its place in the immediate future, constructively cooperating in the deliberations of this Organization, which is so vitally concerned with the health and well-being of all the peoples of the Americas.

President:* We appreciate the remarks of the Observer from Canada; we know they will be more than welcome in this working assembly, in view of the important role of Canada in the Americas.

Are there any further comments?

The session is adjourned.

The session rose at 12:15 p.m.

FOURTH PLENARY SESSION

Tuesday, 29 September 1970, at 3:00 p.m.

President: Dr. Adán Godoy Jiménez (Paraguay)

Later: Dr. José de Jesús Mayz Lyon (Venezuela)

*President:** The meeting is called to order. Will the Secretary please report whether we have a quorum.

Dr. Arreaza Guzmán (Assistant Director, PASB):* Yes, Mr. President, a quorum is present.

Dr. Alvarez Gutiérrez (Mexico):* The Delegation of Mexico would not like to see the Canadian Observer's statement at the end of the last session go unnoticed. I believe it is important to make very clear my own Government's feeling of satisfaction—and, I am sure, that of all the delegates—upon learning of Canada's desire to become a full-fledged member of our Organization.

I should like, therefore, to express the gratification of the Government of Mexico, and, no doubt, of all of you as well, and to urge the Government of Canada and its representatives, and the officers of the Organization, to take whatever steps are necessary so that we will soon have the pleasure of receiving our Canadian friends within our Organization.

Dr. Rodríguez Castells (Argentina):* I was about to make the same motion that has just been made by Dr. Alvarez Gutiérrez, and I of course support his motion entirely. That is, I had asked for the floor to request that measures be taken as soon as possible to bring about the inclusion of Canada, so that all the countries of the Americas will be brought together in this Organization.

Second Report of the General Committee

*President:** The Chair requests the Secretary to announce the decisions adopted by the General Committee and present any Secretariat announcements he has.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The General Committee met at 12:15 p.m. and reached the following decisions:

The meeting will continue with Item 11 (Reports of the Governments) this afternoon. Item 12 (Election of the Director of the Pan American Sanitary Bureau) will be taken up on

Wednesday, 30 September, after the coffee break; and Item 13 (Election of Three Member Governments to the Executive Committee) will also be dealt with on Wednesday, at approximately 4:30 p.m.

The General Committee recommended to the Conference that a new item, concerning the problem of cholera in the world, be added to the agenda so that the Director-General of the World Health Organization, Dr. Candau, may present a report on the status of that disease. Since this would be a new item, its inclusion in the program would have to be approved by the Conference in plenary session by a two-thirds majority, as provided in Rule 10 of the Rules of Procedure of the Conference.

The Committee also agreed on the allocation of the agenda that would be discussed in plenary session and those to be referred to Committees I and II.

In regard to the very fundamental item concerning the proposed program and budget, it was decided that since some delegations are composed of a single member and it is important to have all the delegations participate in the discussion of this matter, Committee II will not meet on the day the program and budget is discussed in Committee I, so that all delegates may take part in the analysis and discussion of the document.

Finally, the Committee considered two draft resolutions that are now being distributed: one on the application of Article 6-B of the Constitution of PAHO, dealing with voting rights, and the other on the Annual Report of the Chairman of the Executive Committee. Both draft resolutions will be submitted to the Conference for approval at tomorrow morning's session, that is, the session following their distribution.

*President:** The report just presented by the Secretary is open for discussion. If no one has any comment, before proceeding to another item we shall take a vote on including the item "Cholera" on our agenda. This vote is required by our Rules of Procedure. Will those in favor please indicate by a show of hands?

Decision: The inclusion on the agenda of the item "Cholera" was unanimously approved.

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

Dr. Horwitz (Director, PASB):* I should like to

report on the implementation of Resolution XXXIX of the XVII Pan American Sanitary Conference, which appears in *Official Document 74* (page 99), and which reads as follows:

*Reports of the Governments of the Organization
on Public Health Conditions*

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 experience; and

Considering that it would be in the interest of the Governments to use the Conference as a forum for the 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 four 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.

In compliance with this resolution, we communicated on 31 May with all the Member Governments, to which the resolution had been sent, and requested them to send their reports far enough in advance to enable us to carry out instructions. This request was repeated during the month of August in another communication.

Prior to the beginning of this Conference we received 12 country reports, of which eight were examined, since these were the only ones that presented the information in condensed form, the other four countries having limited themselves to sending general statistical reports in which national planning or programming was not always mentioned. In other words, although the Organization was asked to deduce a policy, no information was sent on either a policy or its implementation. The other four reports were the annual reports submitted to the legislative bodies of the countries concerned.

In the eight reports examined, primary emphasis is laid on the following aspects which we shall mention without attempting to place them in any precise order, since the order varies from report to report: population characteristics; structure of general mortality and infant

mortality; communicable diseases reported during the four-year period (the specific diseases vary, of course, according to the country in question); health resources, including personnel and institutional resources; sanitation; and nutrition. These are the subjects generally discussed; in addition, the following topics were dealt with by one or two countries: increase in life expectancy, by one country; health planning, by two countries; population dynamics and family planning, by one country; and mental health, by one country.

In brief, we were not able to carry out the terms of this resolution within the prescribed period because we did not receive the reports of all the Governments, and those that we did receive did not come in sufficiently soon to enable us to make a more exhaustive analysis. In any case, the listing of topics I have just made might be useful to the Ministers or delegates in determining the topics to be discussed in their statements.

President:* According to the order of registration, the first report will be that of the Delegation of Chile.

Report of the Delegation of Chile

Dr. Valdivieso (Chile):* The participants have received a copy of the report we are presenting in compliance with the provision referred to by the Director. This report summarizes those features of our work that we consider to be the highlights of the four-year period. Consequently, I propose to use the time available—not more than 10 minutes the Secretary tells me—to point out certain facts I consider the most important, so as to provide some supplementary data that will perhaps be helpful in arriving at an assessment of these activities.

As we all know, health conditions in a country are not dependent solely on the health services alone, and when we analyze the result achieved in a period such as this, we find that a number of other elements besides health activities are reflected in the indices of health conditions.

Therefore, just as the Director began his report this morning by citing health indices and showing how they reflect changes and progress made in the Hemisphere, I shall refer primarily to general resources available for health activities and to productivity, organization, and proper use of all these resources. What I shall attempt to show, first of all, are the results achieved through the allocation of significantly increased resources not only for health but also for other sectors of social development. If 1964 is taken as the base year (100), the real index of total growth of public sector expenditures in

Chile for health, housing, and education rose considerably. For the health sector alone, it increased to 141.3 in 1965, to 142 in 1966, and to 156.6 in 1967. The allotment of resources for housing and education also increase significantly in the same years: to 125, 151, and 177, respectively, for education, and to 142, 172, and 165 for housing.

These figures will be found in an article dealing with the National Health Service of Chile, by Dr. Bogoslav Juricic and myself, which was published in the *Boletín de la Oficina Sanitaria Panamericana* (June 1970). I am making a point of this because it is obvious that the allocation of funds for health alone would not have yielded the results which are described, and by stressing this fact we hope to avoid any impression that we are immodest enough to believe that all of the progress and improved health conditions in Chile are due exclusively to the work of the Ministry of Public Health and its agencies.

Which are the first results to be emphasized? I can begin by saying that the birth rate, general mortality, and natural population growth underwent changes between 1966 and 1969. General mortality dropped from 10.2 to 8.9 per 1,000 population and the birth rate from 32.5 to 28.1. Natural population growth also diminished, from 2.23 per cent in 1966 to 1.92 per cent in 1969.

Some very important changes have taken place in infant mortality and in mortality among the 1 to 4 year age group. Both of these mortality rates have constituted major health problems in Chile for many years. In fact, the infant mortality rate, which stood at between 117 and 120 per 1,000 live births about 20 years ago, remained for some time at this exceedingly high level. In 1966, the first year of the quadrennium we are reviewing, the rate was 100.2 per 1,000 live births. As a result of progress during the four years, infant mortality has been reduced to 78.7. This, as you will appreciate, is a considerable reduction, in fact the largest ever recorded over a four-year period during Chile's public health history. And it should be stressed, as the Director has also done, that one of the commitments assumed by the health services of the Member Countries through the Charter of Punta del Este was to reduce infant mortality by at least one half. Although the progress during the last four years has placed us close to the goal, I must acknowledge that we have not quite reached it, mainly because the reduction during the earlier part of the decade was not as fast as that in the last four years.

As for mortality in the 1 to 4 year age group, our rate at the beginning of the decade, when the goal of a 50 per cent reduction was set, was 7.2 per 1,000 population. By

1966 it had fallen to 5.1, and at the present time it is 3.0, which means that we have more than reached our target.

This has brought a change in the order of the 10 principal causes of death in Chile, and I believe it is important to note how radically our present situation differs from that prevailing in 1964, when the list was headed by diseases of the respiratory system, with childhood diseases in second place, diseases of the digestive tract in third place, and so on. Owing precisely to the reduction of mortality in the 1 to 4 year age group, the order at present shows significant changes. Although diseases of the respiratory system are still in first place, deaths from diseases of the circulatory system are now second, tumors are third, and diseases of the digestive tract are fourth. Deaths from childhood diseases dropped from second to sixth place.

A comparison of the causes of death in these different years points up the profound changes in the relative importance of the various health problems, undoubtedly as a result of the specific action of the health services, but also as a result of changes in the country's general economic and social conditions of the country.

Brief mention should be made also of certain items in which unusually important and encouraging changes have occurred.

Tuberculosis was a veritable scourge in Chile 30 years ago, when the death rate for the disease was more than 200 per 100,000 inhabitants. With the advent of antibiotics, streptomycin, and other tuberculostatic drugs, the picture, as you all know, changed dramatically. The present death rate is 29 per 100,000.

I should also mention, speeding up my presentation, that the National Health System, based on the arrangements recommended by the Organization itself, is now an operating reality in Chile. The basic national instrument of this system is the National Health Council, in which all agencies with responsibilities in the health field participate along with the health planning office.

A survey of health manpower, soon to be completed, will provide information on the supply of the principal types of health workers: physicians, pharmacists, nurses, etc. The demand for services of this personnel, and the effectiveness with which they are being used—subject, of course, to the funds that the country can allocate—will be a highly important consideration in any future decision taken in Chile regarding the planning of health in general.

President:* The next Delegation on the list is the Delegation of the United States of America,

Report of the Delegation of the United States of America

Dr. Steinfeld (United States of America): It is a great honor and pleasure to join my colleagues from the nations of the Americas at this important meeting of the Pan American Sanitary Conference. I hope that I shall soon have the pleasure of welcoming the Government of Canada among us, too.

The progress that has been made by this Organization during the last four-year period is now a matter of record, and we can all take pride in that progress. Above all we continue to cherish the unique relationship that PAHO has developed with the Member States, a relationship that makes it possible for us to work together and to deal with problems—health problems—of mutual concern. This is indeed an invaluable way of securing the interchange of knowledge and experience. The Pan American Health Organization is one of the leaders in intergovernmental health activities, in every sector of that field.

Each of our countries wants for their citizens no less than the best health care and health status possible. We in the United States of America set ourselves the goal of securing for every citizen the highest attainable level of health. We are attempting to achieve this goal by a threefold approach, encompassing preventive medicine, health education, and high-quality health care. Our basic task is to retain those features of our health system that are unequalled in the world, and to build upon them. We need deliberate nonintervention where the system is working well, and deliberate intervention where it is not. Clearly we do not yet have solutions to all our problems. As a nation we are engaged in many programs that will provide experience and partial answers. However, we are also looking with great interest and enthusiasm at the impressive endeavors of our colleagues in the Americas and in other parts of the world. Although there may be differences in regard to the scope of basic problems, those in the United States are essentially the same as those upon which you are working so vigorously. These are problems that are not limited by political or geographic boundaries. They are universal.

The problems to which I refer are those of securing a suitable distribution of health personnel, of facilities, and of money to enable good-quality health care to be readily accessible to all of our population. We are all faced with growing demands upon our health facilities, and ever-increasing demands upon our health budget. In the past decade the United States Government's health expenditures have risen from \$3.5 billion to approximately \$20.6 billion for the current year. This rapid

growth of the federal health budget means that the Federal Government now contributes one third of the total of public and private expenditures on health in the United States. This, in turn, has meant a rapid and dramatic alteration in federal participation in health care and a significant departure from the historic role of the U. S. Government. Both the consumers and the providers of health care in the country are seeking to improve the effectiveness of the expenditures, and while improving that effectiveness to eliminate or reduce the problems associated with maldistribution and unavailability of health care. Successive Presidents of the United States have shown their interest in this by reaffirming the national goal of accessible health care of good quality for every citizen, and what we are trying to do now is to explore the ways in which this can become a reality.

During the last four-year period we have made considerable progress in some areas and less in others. The broad areas of federal concern are health education, health research, preventive medicine and public health, and lastly, the delivery of health services. In health education, we have begun an educational campaign on the health hazards of smoking cigarettes, and we have succeeded in reversing the rising trend of cigarette consumption in the country. The present Administration has undertaken a vigorous campaign to acquaint the public with the hazards of drug abuse and alcoholism. Much, however, remains to be done in connection with emergency care and accident prevention at home and in occupational settings, with improving the safety of the products we use, and with educational efforts to improve the quality of our environment.

In the area of medical research, the discoveries in the past four years are too numerous to mention. Considerable progress has been made in viral oncology, cancer chemotherapy, caries research, genetics, arteriosclerosis, immunology and transplantation, neurological diseases, as exemplified by L-Dopa therapy of Parkinsonism, and basic biochemistry and electrobiology. Further, we have begun an international research forum through the Fogerty International Center. Much remains to be done, and the United States will continue to pursue and emphasize medical research, since only through research can we find the ultimate solutions to man's problems.

In the fields of preventive medicine and public health, we have identified a new series of problems and challenges to man's health. The early work in the field of public health was directed toward the control of communicable diseases. In this area we have met with ever-increasing success: man's life span has lengthened more and more during the twentieth century. We still

have problems in connection with the control of infectious diseases. Rubella may soon be conquered, but other diseases remain a problem. Syphilis and gonorrhea—diseases we should be able to control—are again increasing in incidence, and it is precisely this problem that is the topic of the Technical Discussions of the present Conference. Recently cholera outbreaks have occurred in areas outside the Americas; we shall be hearing about that tomorrow. Public health problems are not restricted to infectious diseases. Increasingly man's advancing technology has resulted in new chronic diseases due to pollution of air and water and to inadvertent contamination of our foods by pesticides or industrial chemicals. In response to the need to improve the physical part of our environment, President Nixon has just created the new Environmental Protection Administration. There are, indeed, diseases ascribable to technology that are not occupational or industrial. These are the diseases and hazards to health caused by our advancing technology, the so-called technogenic diseases, and they are legion. The self-pollution of cigarette smoking, which is also a public health problem, leads to lung cancer, emphysema, and heart diseases, to mention only a few disorders. There is the problem of social unrest, the alienation of our urban poor, the "anomie" of our adolescents and our youth. We need new mechanisms for improving our social and psychological milieu: this too, is a public health problem. As important as any other public health program is that of providing adequate family planning information and services for every woman who wants such information and service. President Nixon is the first United States President to pledge such services to every woman who desires them. Notable advances in nutrition also have been suggested by the recent White House Conference on Nutrition. These are advances we have made in the past four years but they are not completed, they are on-going activities.

Finally, there is the problem of the provision of health services to all who need them. This has several aspects. We are educating more health professionals, of all categories, than we were four years ago. We have initiated programs to bring health care to the aged and to the poor. These programs, called Medicare and Medicaid, have not been unqualified successes. We must remodel our health schedule in every aspect, but we must do it collectively. Again I repeat: We must have deliberate nonintervention where the system is working well, and deliberate intervention where the system is not working well. Attempts to improve the system are being made through the regional medical program, the comprehensive health planning program, and the health

services research and development program in the Public Health Service. These are all attempts at improving our delivery system, which I am certain can and will be improved as we implement the successful modifications and we discard those attempts to improve health services which are not successful.

Now, clearly, these are not local or national concerns. The effects of environmental contamination, of ineffective drugs that are not of high quality, of preventable disease and human suffering, are the concern of the entire international community, and PAHO has rightly shared this concern. PAHO has assisted its Member States in finding solutions to many of these problems. It inspires and nurtures coöperation between the nations of the Americas. In our attempt to solve the health care problems that we have identified, and in striving to meet our national priorities, we in the United States are looking to the knowledge and experience of the other countries of the Americas. In trying to meet the ever-increasing demands for health care we are examining the functions of the various kinds of professional personnel in health care, and we are significantly exploring the utilization of new types of health professionals. We are just beginning to accumulate experience in this area. We are testing the use of pediatric nurse practitioners, comprehensive nurse practitioners, and the like. Very much needs to be learned about the training and utilization of this wide range of health personnel, and we expect to profit from your extensive experience in this field. Past experience has taught us that the provision of money alone, or the addition of physicians or nurses alone, will not solve the problems I have defined. Finding viable answers to these formidable challenges that face us all will take, not only time and money, but the concerted efforts of many people from many countries working together, sharing both our successes and our failures, so that all of our peoples may enjoy a better life. PAHO clearly has a major role to play in assembling and analyzing the many pieces of this complex puzzle that has to be fitted together if we are to fulfill this obligation, and it will not be an easy task. I am confident that PAHO will meet these new challenges with the dedication, the confidence, and the progressive spirit that it has displayed throughout its long and distinguished history. It is with a distinct sense of pride in the Organization that I pledge the full cooperation of the United States of America in this effort. Thank you.

President:* The Delegation of Argentina now has the floor.

Report of the Delegation of Argentina

Dr. Rodríguez Castells (Argentina):* The white

booklet you have received contains a detailed account of what has been achieved in our country since the last Conference, as well as an outline of the policies and strategies we have laid down for the health sector. I shall limit myself, therefore, to certain points that we believe signify progress in the improvement of health conditions in our country.

In the first place, we shall say that Argentina has established priorities for the control of what we have come to call preventable pathology. Our National Communicable Disease Control Plan operates through a provincial program, as required by our federal system of government, and covers such aspects as vaccination, improvement of reporting, promotion and development of health laboratories, and even new legislation, since our present laws in the field of communicable diseases are obsolete. Before the end of this year, the new communicable disease law, which will represent great progress in the fight against these diseases, will no doubt be enacted.

Priority has also been established for nutrition and food problems, to be dealt with by means of supplementary feeding programs in those provinces that have nutrition problems. We already have a new Food Code which will regulate practically all these activities and provides for the establishment of a committee to establish, for the first time, a nutrition policy for the entire country.

The development of rural health programs in almost all the provinces has been another source of progress. Since 30 per cent of our people (approximately 8 million inhabitants) live in the rural areas, the program has been set up to provide protection for close to one third of this population, or almost 2.5 million people, during the initial years. The plan is very simple: it is based on a realistic criterion calling for house visits by health auxiliaries specifically trained for this purpose in such health activities as vaccination, care of pregnant women, and referral of children to hospitals. In other words, this health personnel performs only those functions for which it is specifically trained, serving as a link between the remote rural communities and the hospitals.

This, of course, requires adapting the hospitals involved to the sharply rising demand triggered by our health education activities in the rural communities.

A fourth point related to this preventable pathology is the substantial development of environmental sanitation activities, basically through the national program for the provision of potable water to small communities (those with between 100 and 3,000 inhabitants). This program, which extends to almost all the provinces, has

made it possible to complete 180 water supply systems and to begin work on another 150.

It should be noted that our main activity has been to conduct a brief program of community promotion, since 70 per cent of the cost of the water supply facilities is financed by the communities themselves, with the help of funds from an Inter-American Development Bank loan, and the remaining 30 per cent is paid by the State. Thus, the community provides this 70 per cent, in resources, labor, and raw materials, and what has really been done is to motivate the community. All of these programs will lead undoubtedly to a reduction of general and infant mortality. While recorded infant mortality in our country has diminished slowly, it is important to bear in mind that since our records have improved substantially in the last three years, it is very likely that the reduction has been greater than that indicated by the figures reported.

Health education, to which we have also given great importance in Argentina, has been conducted under a modern approach that seeks, along with disseminating knowledge, to bring about the change in the attitudes and conduct of the population vis-à-vis health problems. And this program aimed at changing attitudes and conduct has been carried out through the schools, which we consider to be the most effective vehicle in our country.

Statistics is another field in which progress has been made. During the last four years, our national plan has brought about what we regard as a radical change in our system of statistics. We now have reliable vital and hospital data. More than three million cards are processed each year on computers, and the information now available is really unprecedented in our country. We are today in a position to supply trustworthy statistics to the international organizations.

In human resources, our country has seen two developments to which we attribute far-reaching importance for the identification and solution of problems in this field. The first, a new departure in recent years, is the extremely close relationship established between the universities and the health agencies. At the present time, the Secretariat of State for Public Health and all the provincial health agencies have close ties with the universities. Scores of agreements have been concluded with universities, permitting concerted planning for a common objective. In other words, the universities are now actively concerned with health problems, and both types of institutions are trying to work together to solve them, to a point where even medical training matters are discussed with the health agency. Our country's nine schools of medicine are substantially changing their

curriculum in an effort to train the type of physicians who will be able to cope with the country's problems—physicians with a sense of social awareness that was formerly absent from our medical training—while also seeking to create in all our medical activities a preventive attitude which our country needs in its present physicians.

The other important development in human resources is the national survey of health and medical education manpower, similar to the one conducted in Colombia. Our survey is now in the second year of a three-year program and is providing the country with really valid information that will be extremely useful for the solution of our problems.

In common with all other Latin American countries, we have a shortage of nurses and nursing auxiliaries. Although we are training this personnel, our educational capacity is only sufficient to prepare one fourth of the number needed. According to our estimates, we will have to train 10,000 nurses per year during the next 10 years in order to have the supply we really require. Since our educational capacity is limited, we are trying to find emergency solutions to this problem, which is serious not only in the case of nurses but also of health workers of every kind.

In conclusion, I should like to say a few brief words on our present policies and those for the immediate future. It is our own belief—a widely shared belief, as evidenced by what others have said today in this Conference—that studies such as those which have been conducted or are now under way are an imperative requirement for defining the national systems of medical care in our countries. In Argentina—and the problem may be similar in other Latin American countries—the health sector is divided into three well-developed subsectors: the State; social welfare plans, which have experienced a substantial rise in Argentina in recent years; and the private subsector. These three subsectors are far from having the coordination they should have, and our first task is to coordinate them and devise a comprehensive system of medical care, seeking also the sources for its financing. This is a long-range or, at least, intermediate-range task, but we are hopeful that at the next Conference, four years from now, we shall be able to say that we have a national system of medical care responsive to our reality and satisfying the aspirations of all three subsectors, for each has legitimate aspirations. We are working toward this end, and all three subsectors have groups of technicians who are properly qualified to perform this task, so that not too far in the future we shall be able to define our system of medical care and, what is more important, its financing, for the work

would be of little use if the two things were not done at the same time.

In the meantime, our policy is to exert every effort to improve hospital care. Through a nationwide effort, we have managed to define minimum standards of service for different kinds of hospital facilities. Each province is now attempting to bring its hospitals up to the standards, and we are allotting resources to this improvement of hospital care, which we would say is the indispensable foundation for the entire infrastructure, for everything else that we have to do in the field of health.

This, Mr. President, is our present orientation, and the rest is described in our report.

President:* I shall invite the Vice-President to take the Chair for a few moments while I read my report.

Dr. Mayz Lyon then took the Chair.

Provisional President:* The Minister of Paraguay now has the floor to present his quadrennial report.

Report of the Delegation of Paraguay

Dr. Godoy Jiménez (Paraguay):* I shall attempt to summarize what we say in our written report. It contains an introduction in which we speak of certain aspects of the life and development of our country. We mention a new political constitution of Paraguay, the agrarian reform, and advances in transportation and communication, power, and housing. During 1968 and 1969 the Paraguayan Housing and Urban Planning Institute, an autonomous agency, constructed 1,288 multifamily housing units and 240 apartments grouped into several "monoblocks" under a program financed to the extent of 65 per cent by a \$3,400,000 loan from the Inter-American Development Bank, the other 35 per cent representing the national contribution.

Among other aspects, we also mention tourism, a new industry that has shown vigorous growth in Paraguay during recent years.

The report then goes directly into the progress of our health programs:

Health plans. During the period, we prepared our first Five-Year Health Plan, to cover the period 1969-1973. As a point of departure for this Plan we took the two earlier plans, both of two-year duration, under which the activities for diagnosis of the health situation were expanded and improved through the training of statistical personnel in almost all of the country's health centers. For purposes of planning, the country was divided into six health regions.

Program of maternal and child health. This important aspect of public health was virtually the hub of our health activities during the four-year period. Our infant mortality shows a slightly downward trend, with year-to-year fluctuations explained by unevenness in the registration of live births. Reduction in mortality was strongly evident among children in the 1 to 11 month group (from 101.7 per 1,000 live births in 1968 to 91.1 in 1969), but not among infants under 28 days old, for which the mortality rate during the four years remained between 40.6 and 41.2 per 1,000 live births. Among the causes of infant mortality, tetanus declined, and birth injuries, asphyxiation of the newborn, and infections increased. Mortality of mothers in childbirth remained stable at around 4.6 to 4.9 per 1,000 live births. Professional care at childbirth increased from 54.3 per cent of all deliveries in 1966 to 55.4 per cent in 1969.

Training of practical midwives was resumed, following five seminars dealing with this subject and a campaign to impress upon medical and paramedical professionals the importance of strengthening the training in this field. A sustained increase is evident in the proportion of deliveries attended in institutions (up from 49.3 to 50.6 per cent), with the consequent decline in deliveries at home. The proportion of pregnant women registering for prenatal care rose to 55 per cent of all expectant mothers in communities served by the Ministry of Public Health and Social Welfare. Mothers' clubs and similar groups are operating on a continuing basis. On 18 May 1970, the Ministry signed a population and nutrition agreement with the Agency for International Development (AID) for the purpose of improving family life by strengthening and expanding the programs of maternal and child care and nutrition and promoting responsible parenthood on a voluntary basis. Preparations are being completed for the installation of six experimental clinics.

Communicable disease control program. In 1965, with the assistance of UNICEF and WHO, an urban and rural demonstration program for communicable disease control was inaugurated. On the basis of experience in 1966 and 1967, the program was extended under a new agreement to 1968. It would not be realistic to expect a significant reduction of morbidity and mortality in so short a time; however, it is a source of satisfaction to point out that much understanding has been acquired of the control practices or methods applicable to these diseases. The operating mechanism has been gradually improved through the establishment of working standards, the introduction of health planning methods, and the setting of targets based on the knowledge of

available resources. The establishment of the National Committee for Coordination of Communicable Disease Control Activities merits special mention.

Tuberculosis mortality declined significantly, to 21.5 per 100,000 inhabitants in 1966 and remained at that level, with slight variations, through 1969. Morbidity, which is generally more stable, nevertheless declined from 124.2 per 100,000 inhabitants in 1966 to 105.0 in 1969. A nationwide program of direct BCG vaccination is now being conducted, with emphasis on vaccinating infants under one year of age and school children at age seven.

The incidence of syphilis was 168 per 100,000 inhabitants in 1966 and 186.2 in 1969. This situation led our Ministry to establish a national venereal disease control section in the Department of Epidemiology and Zoonoses.

Pneumonia and bronchopneumonia occupy second place among the causes of general mortality and are fourth in general morbidity. Morbidity is higher in children under 5 years of age.

Mortality and morbidity for communicable diseases preventable through vaccination, such as diphtheria, pertussis, and tetanus, have generally declined as a result of continuing vaccination. The increase in morbidity rates for poliomyelitis in recent years (1967 to 1969) is therefore considered anomalous.

Among the diseases caused by intestinal parasites, hookworm disease continues to be one of the principal causes of morbidity. Efforts undertaken through the health centers to improve environmental sanitation reduced the morbidity rates from 1,600 per 100,000 inhabitants in 1966 to 1,300 in 1969.

Diarrhea and enteritis are the chief cause of death among children less than 5 years of age, because of poor sanitation conditions and insufficient health education. An ambitious program of rural environmental sanitation is now in progress. The mortality rates for diarrhea ranged in 1966-1969 from 81.3 to 125.1 per 100,000 inhabitants, second only to the feared cardiovascular diseases among the general causes of death.

The opening up of new colonization areas, involving land-clearance operations and the penetration of man into the jungle, increased the number of cases of leishmaniasis. We have found it necessary to turn to UNICEF for assistance in the treatment of patients. Although deficient reporting makes it difficult to quantify the extent of the problem, we believe the situation is improving.

Smallpox was endemic in Paraguay until 1960. Since then, the cases recorded (small localized outbreaks) have come from neighboring countries. Notwithstanding this

progress, the number of vaccinations was increased steadily during the past four years, with the attack phase of the program scheduled for 1971. Paraguay has signed an agreement with WHO and PAHO for the purpose of beginning a three-year smallpox eradication program in the early months of 1971.

The leprosy program has been strongly intensified during the past year.

In rabies control, the Ministry is now working in cooperation with the School of Agronomy and Veterinary Medicine of the National University, under an agreement between the two entities. Of the 558 cases of rabies recorded in Paraguay during the period, 511 (91.5 per cent) were canine rabies; of these, 70 per cent occurred in the Fifth Health Region.

The Malaria Eradication Program is yielding very satisfactory results at this time.

*The session was suspended at 4:12 p.m.
and resumed at 4:40 p.m.*

President:* The session is resumed. The Minister of Venezuela has the floor to present his report.

Report of the Delegation of Venezuela

Dr. Mayz Lyon (Venezuela):* The report of Venezuela to this Conference was distributed yesterday by our Delegation, and you will have time to examine it more carefully later on. It contains a summary account of the most important health developments during the last four years and of some of the many problems we constantly encounter in endeavoring to achieve our purposes.

Since the report includes the details of the program and their results, I shall limit my remarks at this time to certain matters which experience during the four-year period shows to be of particular importance to the development of our health program.

Venezuela, like almost all the Latin American countries, is going through a period of intensive population growth, the economic and social consequences of which require no elaboration at this time. With an annual rate of population growth of more than 3 per cent, our country has attained, and is likely to continue to have for some time in the future, an extremely young population structure, one in which persons at the productive ages must carry an extremely heavy burden of dependents. The State is bound to secure the health and well-being of the entire population, within which the segment that consumes but does not produce, is, as pointed out, the most numerous.

Although the birth rate declined from 44.7 to 41.7 per 1,000 during the four years, the net rate of natural growth has barely been modified during this time, which suggests that we can hardly expect any significant change in the population structure in the near future unless we take measures so that this structure will not depend entirely on the influence of individual attitudes and conduct. We believe that the improvement of the educational level of the population, an improvement we hope to bring about through a sustained and increasingly broad educational effort, will influence this phenomenon more lastingly and effectively than could any other kind of effort, whether directed or left to circumstances.

The data for the last four years show that in general we have managed to achieve satisfactory results in the control of certain communicable diseases, though the progress has not been equally great in every case, and in some there has been little at all. This picture is influenced by very diverse factors: biological in the case of some diseases (malaria, for instance), social in other cases (venereal diseases), technical in most cases, and in every instance heavily influenced by economic limitations and administrative shortcomings. The latter two factors may act together or separately, but their results are always the same.

If we lack the resources for controlling a disease, there will be no possibility of controlling it, whatever the administrative procedure may be. But this is not always the case, particularly where diseases preventable through immunization are concerned. With many of these diseases, administrative inefficiency is a much more important deterrent to their control than are economic limitations. As a case in point, you will see in our report that poor utilization of poliomyelitis vaccine has prevented us, despite our being so close to eradication, from reaching the level of control attained against this disease by other countries of the Hemisphere.

The considerable health effort made in recent decades has boosted our life expectancy at birth to a very satisfactory position within the over-all picture provided by the countries of the Hemisphere. But it will be noted that this indicator showed no change during the last four years. It might be thought, with some justification, that this phenomenon reflects a standstill in the country's health progress. But this is not the case; the fact is that the apparent lack of progress is due to a better knowledge of mortality, resulting in turn from expanded medical care and from improvement of the system of vital statistics. Underregistration of mortality is declining steadily, and this affects the values upon which this indicator is based.

With the increase in the adult population, and with

better diagnostic facilities, chronic diseases in Venezuela, as in many other countries, have assumed greater importance among the problems of public health. Cardiovascular diseases and malignant tumors are now the first two causes of death, followed by accidents, which for certain age groups are the first causes of death. Because the incidence of these causes of mortality and morbidity is particularly heavy at the ages of greatest economic productivity, they represent a serious loss of economic strength for the country and, therefore, a very significant public health problem. We have created organizations, now in full activity, for the control of cardiovascular diseases and cancer, but not for the prevention of accidents. In regard to these serious hazards, which are destined to increase continually with progress and the introduction of modern technology and machinery, public health in the future will have to do much more than simply compute the number of accidents and their victims.

An extraordinarily large problem is being created in our countries, and Venezuela is no exception, as a result of the uncontrollable demand for medical care services on the part of a population increasingly aware of its rights in the field of health. The situation in Latin America as a whole shows wide variations from country to country with regard to hospital facilities and health personnel. But even the best equipped in this respect are faced with unsatisfied demand. In Venezuela, although we managed to increase the number of beds during the period under review, the ratio of beds to inhabitants continues to be unsatisfactory.

For a country which, like Venezuela, has only a few short decades of experience in the delivery and administration of medical care as a social service, this problem of medical care has brought with it some important political, economic, administrative, and professional problems. The high capital cost of physical plant and equipment, along with the rising operating costs, have caused maladjustments both in the national budget and the health sector itself. Unfortunately, social conditions have made us more concerned with responding to community pressures than with developing or improving the administrative structure and financial system that will enable us to extend the coverage of services and give them greater depth.

The hospital plan for the next 10 years calls for the construction of new beds, which is inevitable. By the end of the decade, in 1979, we hope to have an additional 6,830 hospital beds, though even this will represent no substantial modification of our present ratio per 1,000 inhabitants. But the important feature of this plan, aside from the increase in number of beds, is

the provision for parallel establishment of a network of peripheral outpatient clinics for the purpose of decentralizing hospital services, thereby allowing better use of hospital beds and, at the same time, bringing service into the communities that require it.

It would be rather pointless to say here that my country's health expenditures are high or low, adequate or inadequate, in proportion to the national budget or to the gross national product. What we can say with certainty is that these expenditures will continue to grow and that our duty lies in perfecting the system so as to ensure better use of the funds available to us, which will always be relatively inadequate. Through the administrative reform recently enacted by the National Government, Venezuela is taking important steps along these lines. The reform process involves every sector of public administration, and in regard to the health sector will lead to the organization of a National Health System that will help to reduce administrative expenses, increase the coverage of services, and avoid duplication.

I should like to say a few brief words about an important advance in the field of medical care during the last four-year period, namely, the program we have set in motion to ensure efficient maintenance and operation of medical care facilities. The goal of this program is to assure effective and continuing service at these facilities and also to safeguard the substantial investment they represent, prolong their useful life, prevent their premature deterioration, and bring about an awareness of the importance of maintenance. The Hospital Maintenance and Engineering Center that we have established to fill this need is now in its initial stage of development, and we hope that it can later be of service to other countries of the Hemisphere that have similar problems. Beginning this year, the project has begun to receive financial assistance from the Special Fund component of the United Nations Development Program.

In the field of environmental sanitation, our performance over the four-year period has also been satisfactory although, of course, inadequate, to cover national needs. This inadequacy is due, on the one hand, to the fact that basic sanitation facilities are increasingly more expensive and they must keep step with the general development of infrastructure facilities, and on the other hand, to the fact that population growth is such that the coverage capacity of the service is quickly outstripped. Our report provides details on the national housing and water supply programs and, particularly, those for the rural areas, for which the Ministry of Health and Social Welfare is responsible.

But we cannot feel very complacent about the progress made, however substantial it may be, when we

realize that in other areas of environmental sanitation, such as water pollution, air contamination in the cities, radiation protection, and similar matters, we have barely begun to take some action. A matter of particular concern is our very limited coverage in occupational health (owing to the country's rapid industrial growth), a problem of great importance because of the undeniable interdependence between the health of industrial workers, on the one hand, and community health and national economic development on the other.

Our report also contains details on the efforts made for the development of health manpower. Two important facts emerge from an analysis of this information: one is that the structure of our health manpower is rather distorted, with the number of physicians out of proportion to that of the other members of the health team. Our ratio of 1:3 is far from that which we should try to achieve and which the more developed countries already have. The other fact is that, conversely, some of the other components of the health team, especially dentists, nurses, and nutrition and laboratory personnel, are in evident short supply.

This finding has led us to consider the important role of the university in the execution of a sound policy for the training of health personnel. I can say with some satisfaction that through a concerted effort we are achieving a close and beneficial understanding with a view to joint planning and execution in this field. The universities and the Ministry of Health have both understood that medical education is a matter of mutual responsibility and a common objective.

The problem we have pointed out refers not only to the quantitative aspect of the health team, but also to the qualitative aspects, which are just as important. The medical profession cannot be expected to change its attitude and thoughts about the individual patient, but there is no doubt that the teaching of liberal (or individual) medicine can never suffice in itself to satisfy the demands of a society organized to an ever-increasing extent on a collective basis and in which medicine has become a public service. We are therefore obliged to encourage the social approach in our universities, since medical education will certainly never fully attain its objectives until the physician and his team of associates are in a position to work together within the country's political and institutional framework for medicine, with optimum benefits to themselves and to society.

There must be a gradual and harmonious coming together of the university and professional practice, whether public or private. Whatever the profession may be, and however it is practiced, this transition must not be a traumatic experience for the professionals involved,

and this is precisely where the university and the health administration must cooperate in order to create favorable attitudes and avoid unfortunate conflicts.

I shall conclude with a word of appreciation to the Organization which has brought us together in these stately surroundings. Of all the activities described in our report, there are practically none in which the Organization has not been involved. Its cooperation, however large or small in scope, has always been timely and effective. We, on our part, have contributed our quota of service to this movement, since we are convinced that international solidarity in this field must be increasingly strengthened so that the inequalities we observe today and which we cannot correct immediately will be smaller and smaller in the years to come. We therefore take this occasion to reaffirm our purposes and best wishes for the attainment of ever-higher levels of well-being and health among the peoples of the world and particularly in this Hemisphere..

President:* The Delegation of Jamaica has the floor to present its report.

Report of the Delegation of Jamaica

Dr. Valentine (Jamaica): I do not wish to indulge in repeating long lists of figures, but I should like to point to one or two things in our report: first, the continued decline in our infant mortality rate, and second, the continued decline of our birth rate. Our quadrennial projection for joint programs, prepared by PAHO in collaboration with our Minister of Health, caused us to realize that one of our outstanding priorities is the implementation of an effective maternal and child health program. To this end we have, in one section of the island, begun a feasibility study for a maternal and child care program which, we hope, will eventually be extended to cover the whole island. This program will operate in very close collaboration with the National Family Planning Board and will, we feel, intensify family planning work in the island. This Board has been in existence since 1968, and in July of this year legislation was passed to legalize its operation. Operating under the control of the Ministry of Health, it is having a great impact on population dynamics in the country and also, we hope, on social and economic conditions.

We are glad to report that in 1969, as in every year since 1962, there were no cases of malaria in Jamaica. There was only one case of laboratory-confirmed poliomyelitis and there were no cases of quarantinable diseases. But in view of the anxious situation in regard to hemorrhagic dengue fever and of the development of

new insecticides, the Government of Jamaica decided to embark on an *Aedes aegypti* eradication program in 1969, as an extension of the on-going program that constituted part of an insect vector control program. It is expected that United Nations Development Program participation will help to make this an effective four-year eradication program. PAHO/WHO has considerably assisted in the preparation of the program, and the plan of operations is based on the findings of the PAHO/WHO sponsored insecticide testing unit that has been stationed in Jamaica.

In the field of immunization, the coverage of the population was 71 per cent in the case of poliomyelitis, but only 50 per cent in that diphtheria, whooping cough, and tetanus. There was a 40 per cent coverage of the susceptible population under 15 years of age by BCG immunization against tuberculosis. We realize that it is incumbent upon us to step up our immunization procedures.

With regard to water supply, a total of 78 per cent of the population, that is 99 per cent of the urban and 70 per cent of the rural population, have piped connections or water supply within easy access. However, it is significant that only 46.1 per cent of the population—97.8 per cent of the urban and 26.1 per cent of the rural—are served by continuously reliable potable water supply systems 24 hours a day. There are more than 1,300 minor water supply schemes in the country; but we have two extensive feasibility studies on the subject of the supply of water comprehensively throughout Jamaica to improve the situation.

As to nutrition, thanks to the efforts of the Caribbean Food and Nutrition Institute, of the nutrition units of the Ministry of Health, and of the research units sponsored by the United Kingdom, a complete re-evaluation of the study on our country's nutrition has just been completed. The findings indicate that one fifth of the very young babies were underweight, while the older babies showed some improvement until around the age of 9 months. About a quarter of the children between 9 and 24 months suffered from fairly severe malnutrition, and 4 per cent of those aged 6 to 18 months suffered from very severe malnutrition. As a result we are conducting intensive research to develop a satisfactory high-protein, high-calorie palatable weaning food in Jamaica.

I should now like to refer to the training of health personnel. The number of medical students admitted to the University increased to 120, whereas the number admitted 20 years ago was only 33. In addition to the State-registered nurse training program, five new schools for the preparation of assistant nurses were opened

between 1968 and 1970, and courses for community health aides were developed. Paramedical training in radiography, pharmacy, and medical technology has been increased, and we now plan to train our own physiotherapists and occupational therapists. A PAHO/WHO consultant report on the subject of the latter has been submitted to us, and the Minister of Health is studying it with a view to implementation. Canadian support has been welcome in the field of personnel. At the University of the West Indies, satisfactory progress has been made by an advanced nursing education unit for the training of tutors in nursing, and in teaching and administration. An interesting experiment has been carried out in the rural areas with the use of final-year students of Jamaica and of the United States of America. This project is a joint venture of the Ministry of Health, the University of the West Indies, and Cornell University. Its purpose is the development of health services in the rural community, with particular reference to immunization, family planning, nutrition, and the training and utilization of community health aids. A new laboratory aide training scheme has been started, to supplement the personnel trained as medical technologists, in the courses given at the University of the West Indies School of Public Health in Jamaica. A new dental auxiliary school, the first in the Hemisphere, was opened in May this year, with a view to improving dental care for schoolchildren, and UNICEF and PAHO/WHO have supported the development of this school.

Finally, we wish to express our thanks to PAHO for all the help it has given, and we look forward to continued cooperation in the future.

President:* Dr. Martínez Junco has the floor to present the report of Cuba.

Report of the Delegation of Cuba

Dr. Martínez Junco (Cuba):* Before beginning our report we consider it a duty to present an explanation and then make a request. When we reviewed our report and summarized it to adjust its length to the time allowed, although we were able to eliminate many figures and other details, we came to the conclusion that it was not advisable to delete those aspects in which reference is made to our philosophy as to how to improve the health of man. We believe this places a special responsibility on us at this time. Although we realize the importance of setting forth the modest gains we have made in improving the health of our people, we feel it is even more important to describe the ideas and philosophy underlying these gains and, doubtless, much of the work that we still have to do.

The reason why the Cuban Delegation was so favorably impressed by the report of the Director is that, drawing on his experience and a formidable ability to summarize, he was able, without limiting his description of health conditions in the Americas, to expound on policy considerations of the greatest importance to the future of the programs.

Since we ourselves were not able to arrive at a similar condensation, it is possible that our report will exceed the limit by a few minutes. We should therefore like to ask the Chair to allow this, and if he grants this request we should like to thank him in advance.

During the past four years, attending to the health of our people has continued to be a top priority task, among the many major tasks inherent to structural and economic change. We believe, above all, that medicine, as it is now taught, practiced, and delivered at the level of the health services, is a type of medicine so traditional, so antiquated, so thoroughly decadent, that it needs to experience the same type of change as we advocate in regard to the social structures.

The traditionalism of today's medicine has a good deal of the quackery and obscurantism of the spiritual remedies of the last century. Then, as even today, false reasons were invoked in an attempt to ignore the real causes: then through ritual, and now through the use of prescriptions, we have sought to expel the evil humors, the evil spirits, the evil poisons.

Within the context of the major political, social, and economic changes sought in our country, we are very aware of this situation, and we realize that we shall have to make a tremendous effort to bring about the necessary changes in our medicine, in its teaching and practice, and in research so that, putting aside this burden of traditionalism, it will become a health science combining the efforts of specialists in many fields of human knowledge to study man and society and to establish cause-and-effect relationships and prescribe truly effective treatments that, by eradicating the underlying evils, will assure the physical and mental health of man in the future.

In the entire environment surrounding a pregnant woman, there is so much to be investigated if we are to find the means of providing her with all the necessary qualitative and quantitative elements, during every minute of her pregnancy, so that it will terminate with the birth of an acceptable human being! So much obstetrical science is needed to prevent any damage at the time of delivery! There is so much research to do in the field of congenital malformations and of fetal mortality in the latter stages! Perhaps we should make perinatology a medicosocial science rather than just a

medical science. Only this will assure the emergence of the strong and capable men who will provide the firmest foundation in the future for the solution of the many problems facing humanity, a humanity which in the midst of the present change is showing signs of the need for these abilities, for new human and scientific values, and which, with new and more ample vision, will no longer propose solutions through birth control, or atomic extermination, and will begin to find in the physical and intellectual inequalities not an opportunity for the perpetuation of class differences but a lofty responsibility toward mankind.

While none of this will be easy, we believe it important to say it here at the Conference of this Organization, for there is perhaps no part of the world that is so in need of the type of effort demanded by these new concepts or that offers as many possibilities as Latin America, because of its natural and spiritual wealth and because our traditions and culture are not as stable as those of other societies which, while new, are already old.

The present health conditions of the Cuban people can be partly described in terms of certain indicators. Our birth rate is 28.9 per 1,000 inhabitants and our general death rate, from all causes, is 6.8 per 1,000 inhabitants. Our infant and child mortality rates are 44.7 per 1,000 live births among children less than one year of age, 1.7 per 1,000 among preschoolers, and 0.5 per 1,000 among schoolchildren.

We are waging a struggle against infant mortality in which all our obstetricians and pediatricians are involved. The causes of death and disease among other age groups are comparable in magnitude to those of any developed country. Heart diseases are first among our causes of death, followed in order by malignant tumors, cerebrovascular diseases, influenza and pneumonia, birth injuries, accidents, and enteritis and other diarrheal diseases.

The morbidity picture has changed very favorably in regard to communicable diseases, and I shall not tire you with figures. The most important thing I should like to say is that we have had no cases of malaria since June 1967 and no cases of quarantinable diseases for 10 years.

Other useful figures are the following: we have one physician for each 1,100 inhabitants, and our services are providing consultations at the rate of 4.1 per inhabitant per year.

An element of great importance in the external services of our facilities is the steady qualitative and quantitative improvement of our child care centers. Ninety per cent of all children born in my country are now being delivered in institutions. Prenatal consultation

and continued examination of pregnant women and newborn children are not only the best activity that a public health organization can carry out to improve the health of a country, but also the one providing the best opportunity for research on child growth and development.

Our encouragement and study of breast feeding have led us to believe that its influence on the child goes far beyond the value of the nutrients and other nutritional aspects. We believe that it influences the entire field of the child's psychological development and that the relationship between child and mother at the moment of feeding generates, through a feeling of closeness perceived by the newborn child, important ingredients of the child's future mental structure, ingredients that will later enable it to cope with all the intellectual demands placed upon its human capacity. Today in the vast majority of the countries, owing to the influence of what we have come to call development or industrialization, and particularly to the interests of the big dairy trusts and even to considerations of culture which emphasize the form of the bust, these elements of undeniable value are cast aside and traditional pediatrics attends to other interests with little regard to scientific considerations.

A newborn child is the highest expression of human life, and scientists today, as well as those of us who form the child's environment, have the very weighty responsibility of seeing to it that he becomes a worthy adult representing the best in human values.

We could give you such other figures as the number of beds, the number of physicians and stomatologists, and other resources devoted to public health, all of which, when taken together, would explain the health indicators I have cited and which represent the level of health attained by our people. But I believe that if I did so I would fail to meet my responsibility to all that are present here, for while these achievements have been the result of our efforts, they are simply a point of departure for the attainment of higher goals, the thought of which makes us unsatisfied with whatever we have accomplished. All that we see in these accomplishments is a possibility, a new position from which to advance to the development of the new type of man that we need.

I should tell you also that we have difficulties, for you should know that our country is no paradise. We believe neither in paradise lost nor, even less, in paradise promised. My country is a small island of 8,000,000 inhabitants, a country in process of revolution and change and whose people are entirely devoted to work and engaged in a heroic effort to create a firm foundation of possibilities, a country where the mirage

of shops brimming with accumulated goods has disappeared, but where there are no more unemployed, no more beggars, no more hungry children, no prostitution, and no institutions which, through charitable acts, would attempt to assuage in a single day the misery and hunger of a man who has lived with them for an entire year, for an entire lifetime.

We are working intensively and earnestly, not with a view to creating a level of knowledge and organization that will later enable someone to establish a complex network of individual interests, but rather with a view to achieving whatever society needs. And we are doing this through the arduous efforts of every individual, for it is only through the efforts of all that the most important things can be done. This is the essence of the new scale of values, an ideology in which man develops with a full awareness of the importance of cooperation, of humility, in which man acquires the feeling that he is everything within society and nothing outside of society, in which man feels that he has absolutely no value isolated from his fellowmen and that he can in no way amass property in an amount that will enable him to live under exceptional conditions and to conceive or hold to the idea of property as the only reason for existence.

The inequalities in the distribution of wealth among our Latin American people are of such magnitude, such size, that we would not be showing our people the respect they deserve if we were to stand before you here to present an analysis of health conditions and fail to go to the root of the problem on the grounds that this is another type of field, that ours is a technical organization, that the matter should not be dealt with here, that it has nothing to do with those that we have gathered here to discuss. I assure you that the day is not far off when the most pressing topic, the central theme of discussion at these meetings will be the definition of the relationship between labor productivity and health, the distribution of resources as factors related to the means of production. And the time will come when these technical organizations will submit proposals to the Governments on these matters. And I further believe that the truly scientific among the scientists making up these technical organizations will have to devote themselves, not to the study of birth control or of death and the analysis of autopsies, but rather to the influence that the present forms of society are having on disease and death, to the analysis of how society is using the means of production. And the final recommendations of technicians and scientists will surely be along these lines. Those who disagree will have to excuse me, but the fact is that the problems that my people have to resolve must be approached from this point of view, and the most

important and fundamental of my country's difficulties are being attacked mainly through a prescription for the education of our people and our children.

School enrollment in Cuba now includes 1,391,597 students at the primary level, 150,318 at the secondary level, 50,181 at the technical level, 16,779 at the preuniversity level, 7,977 students in rural workers' schools, and 35,046 university students. This is our best achievement.

It will be thought, and rightly so, that this involves a tremendous effort, but I assure you that our greater effort is not the one expressed in mere statistical terms, but rather the effort that we are making, and shall continue to make, so that ultimately all our technicians, all our students, will develop in keeping with the concepts I have expressed, so that in developing their knowledge they will aspire only to working within society, so that a person who has acquired tremendous knowledge will not end up by compromising and turning on his fellowmen.

At the level of this Organization, we would say that the health of the people must rest on a sound cultural, ideological, and social foundation; that the terms nutrition and diet should not merely connote morphology and physical development, but also conjure up the "nutritional" elements of forms of life, forms of society, higher cultural and spiritual values which, rightly understood, will prevent any one from regarding future humanity as simply a table brimming over with abundant food; the future world will be pictured in terms of a vital place to work, endowed with all the necessary factors, which will be put to their natural use in nourishing man for a life in harmony with his fellowmen, enabling him to reach the highest spiritual values.

Many will think this utopian, particularly those who are today living in the Utopia of the unjust. But for us it is neither more nor less than the right reward of the just, a reward attainable only through work and a man-environment relationship which is never altered through the use of napalm, machine guns, chemical warfare, bacteriological warfare, blockades, or what is even worse, sustained robbery of the people.

President:* The Delegate of Mexico has the floor to present his report.

Report of the Delegation of Mexico

Dr. Campos Salas (Mexico):* I shall present a summary of the data contained in the report submitted by my country to the Conference.

Population. Mexico's population has increased at an unusually rapid rate since 1930. In 1960 we had 36,046,000 inhabitants, and in 1970 the estimated population is 49,113,750 according to preliminary data from the last census. In other words, the increase during the past decade was 36.3 per cent. It is important to note that 46.3 per cent of Mexico's inhabitants are less than 15 years of age. Mexico was a predominantly rural country until 1960, when, according to the census taken that year, the urban population was slightly larger than the rural (50.7 per cent urban and 49.3 per cent rural). In 1970 the inhabitants of the urban areas account for 59.5 per cent of the total, and it is estimated that by 1980 the proportion will rise to 67.1 per cent. This sharp increase in population has been due to a considerable reduction of general mortality and to a high birth rate, which in 1960 was 44.6 per inhabitants and in 1968 (the most recent year for which figures are available), 43.5 per 1,000.

Education. In 1960, out of 27,986,838 inhabitants aged 6 years or more, 10,573,163 (36 per cent) were illiterate; it is estimated that in 1970 the proportion of illiterates is between 25 and 28 per cent. Of the total amount of the direct budget of the Federal Government for 1970 (28,133,881,000 pesos), 7,946,889,000 pesos is allotted to education. In 1960 the records show that the country had 32,230 elementary schools with an enrollment of 5,368,000 students and with 112,900 teachers; in 1968 the number of schools was 41,543, and they had 180,431 teachers and close to 8,000,000 students.

The enrollment in secondary, vocational, normal, commercial, and professional schools increased by proportions ranging from 80 to 100 per cent between 1960 and 1969. In 1960, these schools had 450,367 students; the number in 1969 was 1,480,000.

Labor force. In 1960 the economically active population was 11,332,016, or 31 per cent of the total population; in 1970 it reached 15,421,716 (31.4 per cent of the total). The proportion of the population engaged in farming, animal husbandry, forestry, hunting, and fishing dropped from 54.21 per cent in 1960 to 48.95 per cent in 1970; conversely, the population working in processing industries rose from 13.73 to 16.3 per cent of the total.

Economy. The country has continued to develop by virtue of the fact that economic growth during recent years has been consistently about 6 per cent, a rate comfortably exceeding that of population growth. Economic growth in 1968-1969 was at 6.4 per cent.

Per-capita income (at 1950 prices) was 2,461 pesos in 1967 and 2,617 pesos in 1969.

During 1965-1969 the gross national product rose from 98,200,000,000 to 130,317,000,000 pesos, a rate representing an average growth of 6.1 per cent per year.

The electric power industry (nationalized in 1960) produced 11,371,000 kwh of power for consumption in 1960 and 22,872,000 kwh in 1968, the supply of available power having doubled over the intervening period of eight years.

Mortality. The general mortality rate in 1960 was 11.2 per 1,000 population; by 1968 it was 9.6, a rate that can be considered in line with the figures for developed countries. This reduction of 1.6 per 1,000 means that more than 78,000 lives will have been saved in 1970. The preliminary figure for general mortality in 1969 was 9.1, indicating a further reduction of 0.5 per 1,000 inhabitants since 1968.

Infant mortality in 1960 was 74.2 per 1,000 live births; in 1968, it was 64.2. This reduction of 10 points per 1,000 signifies a saving of 1 per cent of the children born live. (An appendix to the report distributed shows the first 10 cases of infant and perinatal mortality in 1968.) Of the 2,200,000 children expected to be born in 1970, 22,000 more will survive the first year of life than survived in 1960, as indicated by this decline in the rate. Since infant mortality is strongly influenced by perinatal mortality, it will be necessary to achieve a significant reduction in the latter if the combined rate is to be reduced to a substantial extent. This will require, among other things, improved prenatal and obstetrical care.

Mortality in the 1-4 year group dropped from 12.8 per 1,000 in 1960 to 9.8 in 1968, signifying that there were three deaths less for each 1,000 children in that age group. (The first 10 causes of death among preschool-age and schoolchildren are listed in an appendix to the report.) The risk of death from complications during pregnancy, partum, and puerperium was reduced from 1.9 per 1,000 live births in 1960 to 1.4 in 1968. Life expectancy at birth was 57 years in 1960, 62.4 in 1967, and is estimated to be 63.9 in 1970—in other words, an increase of 6.9 years between 1960 and 1970, a figure in accord with the target of 5 years set in the Ten-Year Health Plan of the Charter of Punta del Este.

Communicable diseases. Although they continue to be of great importance within the epidemiological picture of the country, mortality rates for communicable diseases have declined significantly because some have been or are about to be eradicated, while increased efforts have been made to control others, thus preventing a large number of deaths. In 1968 the 10 principal

causes of death among the infectious and parasitic diseases were: enteritis and other diarrheal diseases (97.4 per 100,000 inhabitants), measles (21.2), tuberculosis (19.4), pertussis (11.1), septicemia (5.9), tetanus (4.3), bacillary and amebic dysentery (4.2), typhoid fever (2.7), paratyphoid fever and other salmonellosis (2.2), infectious hepatitis (1.2), and syphilis and its after-effects (0.5). Present knowledge can doubtless be used to reduce the mortality rates of these diseases to a significant extent; indeed measles can be eradicated.

Yellow fever. In 1963 *Aedes aegypti* was eradicated, and since 1965 nine reinfestations have been reported. In order to keep the country free of this vector, continuing safeguards are taken at international airports and ports where vessels from other countries arrive. We have continued to apply disinsectization to used tires coming from infested areas in the United States of America. Between 1964 and 1970, 20,107,368 kilograms of this product were so treated.

Leprosy. In 1965 there were 14,536 cases of leprosy on the active register; the present number is 13,533, of which 10,964 are under surveillance. During the last six years the proportion of leprosy cases under surveillance reached 81 per cent and, in many localities, 100 per cent. During 1967-1970, 3,370 new cases were registered and 56,914 contacts examined.

Malaria. The Malaria Eradication Program was continued, although with less intensity than required, because of budgetary restrictions the Government had to impose in order to avoid a deficit for certain economic programs under way. It is expected that during 1970, once the problem that gave rise to the financial cutbacks have been solved, the funds needed for stepping up the malaria campaign will be available.

Malaria statistics have been rising steadily since 1961, when 11,849 cases were reported: in 1967 the number of cases was 15,163; in 1968, 26,039; and in 1969, 48,843. While this would seem to indicate a substantial rise in incidence, it is also certain that these statistics are influenced by the special efforts being made to detect new cases.

Pinta. This disease is localized particularly in the states in the Balsas River Valley, particularly Guerrero, Michoacán, and Oaxaca. A campaign to eradicate the disease was started in 1960. During the last six years, 7,639,424 persons were examined, 74,265 cases confirmed (9.7 cases per 100,000 persons examined), and 70,562 cases treated. The incidence of the disease was reduced from an initial 39.4 per 1,000 to 0.3, as shown by the last evaluation made. This indicates a possibility that the disease will soon be eradicated.

Onchocerciasis. This regional endemic disease is localized in three foci (two in Chiapas and one in Oaxaca), where there are 36,000 cases. During the last six years the onchocerciasis control program was reorganized and placed under the responsibility of the Coordinated Public Health Services of the states mentioned above. A technical reorganization was also carried out, on the basis of an evaluation made in 1968 with the assistance of an international expert.

Poliomyelitis. During 1965-1967, 29,493,000 doses of Sabin vaccine were administered; a course of three doses was given to 5,414,187 children under 3 years of age, the average yearly coverage among this age group being 22.5 per cent. The number of cases was 637 in 1965, 1,024 in 1966, and 648 in 1967, representing rates of 1.5, 2.32, and 1.42 per 100,000 population. Early in 1968 the health authorities undertook a national program to eradicate poliomyelitis in both the rural and urban areas; the three doses of the vaccine were administered to 80 per cent of the children under 5 years of age in localities of more than 100 inhabitants. The program was divided into two phases: a first or intensive phase lasting six months, and a second or maintenance phase which is continuous. In 1968 and 1969 there were 850 and 429 reported cases, with rates of 1.80 and 0.88 per 100,000 population. By the end of 1969, the three doses of vaccine had been administered to 5,284,325 children under 5 years, or 78.5 per cent of the population in this age group.

Rabies. A total of 1,350,000 dogs were vaccinated during 1965-1970. The coverage along the northern border rose to 80 per cent of the dogs exposed to the disease. In 1968 there were 68 cases of human rabies, less than in any of the eight preceding years.

Rickettsiosis. In 1966 there were 66 deaths from this disease (0.2 per 100,000 population), and in 1969 only five deaths (0.05 per 100,000). This striking reduction, resulting from the effective measures being applied, warrants the prediction that the disease will soon be eradicated from Mexico.

Measles. On 1 March 1970 the Ministry of Health and Welfare began a program of measles vaccination in the rural parts of Puebla State. This marked the commencement of an intensive measles control program. Controlling the disease is of special importance to Mexico because it is among the first 10 causes of death, having accounted in 1968 for 10,011 deaths (21.2 per 100,000 population).

Pertussis. The morbidity rate for pertussis in 1964 was 94.8 per 100,000 population; in 1965 it was 53.8; in

1968, 50.8; and by 1969, according to preliminary figures, it was 22.6 per 100,000. Mortality from this disease has shown a downward trend, from 15.1 per 100,000 in 1961 to 11.1 in 1968.

Diphtheria. The morbidity rate for diphtheria was 2.4 per 100,000 population in 1961, 1.2 in 1967, and 0.3 in 1969. Mortality caused by the disease declined from 1.0 in 1961 to 0.7 in 1967 and 0.5 in 1968.

Tetanus. The morbidity was 3.0 per 100,000 population in 1961, 2.4 in 1967, and 1.1 in 1969. Tetanus mortality has been declining commensurately.

Tuberculosis. A five-year plan of intensified tuberculosis control was begun in 1966. Initially put into effect in the Federal District and in the northern and south-eastern zones, its main activity is BCG vaccination of children under 15 years of age. Since January 1970 the administration of BCG without previous PPD has become more widespread. It is estimated that 20 per cent of the susceptible population is being protected by the tuberculosis activities of the various agencies involved. The mortality rate declined from 26.4 per 100,000 in 1960 to 19.4 in 1968.

Veneral diseases. In 1965 syphilis morbidity was 39.9 per 100,000 population; in 1967 it was 32.2, and in 1969, 28.6. The rates for gonorrhoea were 40.4 in 1965, 29.5 in 1967, and 24.8 in 1969. Syphilis mortality was 0.7 per 100,000 in 1965, 0.6 in 1967, and 0.5 in 1969. Among children under one year of age, syphilis mortality was 5.6 per 100,000 live births in 1965, 5.1 in 1967, and 0.2 in 1969.

Smallpox. No cases of smallpox have been reported in Mexico for 15 years. The activities carried out to keep the disease eradicated may be summarized under the headings of epidemiological surveillance and maintenance of protection levels. The number of smallpox vaccinations administered has averaged 4 million per year.

Resources. In 1969 there were 98,084 hospital beds for a total of 48,933,000 inhabitants, equivalent to 20.0 beds per 10,000 population, or 1 for each 499 inhabitants. Of the total beds, 60,430 were in institutions operated by the Government or in decentralized institutions: 32,948 in facilities operated by the Ministry of Health and Welfare or subsidized by the Federal Government; 16,967 operated by the Mexican Social Security Institute (IMSS); 2,566 by the Institute of Social Security and Services for Government Workers (ISSSTE); and 7,949 by other official or decentralized agencies. In addition, 37,654 beds were operated by

private institutions. The total beds are distributed among 1,791 establishments of the Ministry, 368 centers of the IMSS, 38 centers of the ISSSTE, and another 111 official or decentralized agencies as well as various private institutions. Allocations for the Ministry of Health and Welfare, medical care services, and hospitals accounted for 5.75 per cent of direct federal expenditures in 1970 (\$1,619,000,000 out of \$28,133,881,000 pesos).

Health personnel. In 1960 the country had 20,590 physicians, or 1 per 1,751 inhabitants; in 1965 the number was 25,033, or 1 per 1,705; and for 1970 an estimated 32,000, or 1 per 1,583. It should be noted that although Mexico's system of social service has encouraged physicians to locate in rural communities, their distribution is still uneven, with most of them concentrated in the largest cities, especially the Federal District. As for dentists, there were 3,463 in 1965, or 1 per 12,327 inhabitants; in 1970 there were 5,333, or 1 per 9,501. In 1965 we had 8,252 graduate nurses, or approximately 2 per 10,000 inhabitants; in 1970 the estimated number is 13,752, or 2.6 per 10,000 inhabitants. The number of nursing auxiliaries in 1970 is estimated at 50,000, which is 9.8 auxiliaries per 10,000 population.

Environmental sanitation. Housing growth has been considerable in the urban areas, where the number of housing units rose from 3,123,598 in 1960 to an estimated 5,345,504 in 1970, the average year-to-year increase being 221,900 units. In the rural areas, the number of units increased only from 3,285,498 in 1960 to 3,638,537 in 1970, representing an average yearly construction of 35,304 units. To obtain the best possible results from rural housing investment, the Government has concentrated on communities with from 500 and 2,500 inhabitants, of which there are 11,000. Of these communities, only 2,200 had water supply service prior to 1965, but another 3,200 were provided with the service between 1965 and 1970, raising the total coverage to approximately 50 per cent of all these communities. In 1970, 70 per cent of the urban population was served by water supply facilities, while in the rural areas only 15.4 per cent of the population had this service. In regard to sewerage, it is estimated that 55 per cent of the urban but only 1.5 per cent of the rural population has this service in 1970.

Nutrition. In spite of the increase in population, the Mexican diet has been improving, mainly because of the efforts of the Government, whose agricultural policy led to a threefold increase in investments in this sector, and

to the construction of irrigation facilities, which along with the utilization of fertilizers have made it possible to increase production. Other factors have been the extension of the road network, from 45,089 km in 1960 to 75,033 in 1968, and the operations of the National Staple Commodities Company to improve the distribution of food and regulate prices.

The latest available figures on per-capita intake of calories and proteins are those for 1967, which show a daily average per person of 2,625 calories and 75 grams of proteins, including 22.9 of proteins of animal origin. These figures reveal a definite and steady improvement in the population's diet.

President:* The Delegation of Uruguay has the floor to present its report.

Report of the Delegation of Uruguay

Dr. Ronco (Uruguay):* As recognized in the Charter of Punta del Este and in the 1967 Declaration of the Presidents of America, public health is the essential prerequisite and foundation on which the deeply desired progress and well-being of the countries of the Hemisphere must be built. These documents also establish objectives and targets to be reached within a given period in various health sectors. Economic progress depends on the level of health of the inhabitants of each country. Health, when so regarded, is seen to be something more than the mere absence of disease; it is the state of complete physical, mental, and social well-being to which every individual is entitled by reason of his human condition. It is the most important asset possessed by any nation.

Health levels. The health levels of a country can be determined through an analysis of its mortality rates (causes of death and ages at which it occurs) and by the prevalence and characteristics of the different diseases. In Uruguay, life expectancy at birth is approximately 70 years. The general mortality rate was 9.2 per 1,000 population in 1968. The infant mortality rate (first year of life) was 49.8 per 1,000 live births in 1967. This rate, while low in comparison with those of other countries, could be further reduced through adequate maternal and child care programs such as those we are undertaking. It should be kept in mind that Uruguay's rate of population growth is the lowest in the Americas (birth rate, 21.7 per 1,000 inhabitants in 1966). In this respect, Uruguay's situation is comparable to that in several highly developed European countries.

Uruguay's favorable health conditions are a result of health measures through which we have managed to

control such diseases as smallpox, diphtheria, poliomyelitis, and rabies and to reduce tuberculosis and typhoid fever mortality to a considerable extent.

At present, the first and second causes of death in Uruguay are cardiovascular diseases and cancer, respectively, owing in part to increased longevity. At the same time, this longevity of the population has increased the number of mental patients, rheumatism cases, etc. As in many other countries, accidents and suicide are an important cause of death. Uruguay's climate is not propitious to many of those tropical diseases that require such substantial expenditures for control measures in other countries of the Americas.

The estimated number of hospital beds in the country is about 6 per 1,000 population, which is considered a very acceptable figure. The breakdown is approximately 3.8 beds for acute patients and 2.3 for chronic patients.

Responsibilities of the Ministry of Public Health. While there are many public agencies (ministries, municipalities, autonomous institutions, school of medicine, etc.), private entities (medical care and mutual aid institutions, etc.), and joint public and private agencies concerned with providing health care in certain fields, in actual practice the guidelines are set by the Ministry of Public Health, which has the widest area of activity and covers the largest number of fields. The Ministry is planning to bring its activities throughout the country into line with modern standards of health promotion, disease prevention and treatment, and rehabilitation. Its role in public health is that of a standard-setter and planner, and it exercises continuing supervision and evaluation over services provided in this field.

Resources of the Ministry of Public Health. In 1969 the Ministry was allotted 5.72 per cent of the national budget. Of this allotment, 77 per cent was for treatment and rehabilitation and the rest for disease prevention and the improvement of health. Approximately 13,000 hospital beds, or about three quarters of the total number in the various health facilities throughout the country, are in institutions operated by the Ministry, which discharge some 168,000 patients and provide approximately 4,189,000 beds-days of hospital care per year. These establishments perform 1.5 million consultations and issue approximately 7.5 million prescriptions per year. About 22,000 maternity cases, more than a third of the yearly number of births in the country, are handled by these institutions.

The Ministry has close to 14,000 regular employees, including 1,776 university-trained professionals, 1,070

medical technicians, 1,863 administrative employees, 4,432 specialized auxiliaries, and 4,754 clerical and service employees.

Hospital construction plan. With contributions from various sources, a large number of hospitals in both the capital and other parts of the country are being expanded, modernized, and provided with new services, at a cost of more than 1,540 pesos. In the capital alone, construction is under way on two hospitals with a design capacity of 850 beds for adults and 450 for children.

The new Hansenian Institute, a modern center for the study of treatment of leprosy patients (70 beds) was recently inaugurated. This facility, which places Uruguay in a privileged position, should help to solve the leprosy problem in the country.

Communicable disease control. As part of the hemisphere-wide *smallpox* eradication program agreed upon by all the countries and the Pan American Health Organization, Uruguay is stepping up its vaccination program in all departments, with the aim of achieving optimum immunity levels (80 per cent or more) within a brief period. There is no smallpox in Uruguay at the present time.

The epidemiological picture of *poliomyelitis* has changed fundamentally in recent years. In the last five years there were only a few cases, in unvaccinated or incompletely vaccinated children, and no deaths were reported.

Systematic vaccination of children against *diphtheria*, beginning in the third month of life, together with revaccination one year later and at 6 years of age, has brought the incidence of this disease to a very low point. *Pertussis* and *tetanus* vaccination among the most susceptible and exposed groups has also been intensified in recent years.

Vaccination against *measles* and, more recently, against *influenza* is also being administered on a progressively wider scale to the more exposed population groups.

Mortality due to *tuberculosis* was about 160 per 100,000 inhabitants in 1920. By 1957 it had been reduced to 22.2, and by 1967 to 12.2.

Laboratories. The Government has an active policy of drug quality control and, with the help of PAHO, the UNDP, and the IDB, hopes to complete its plan very soon for the Pan American Drug Control Institute.

Maternal and child health. Special importance has been given to programs of disease prevention and health care for mothers and children. A Department of Maternal and Child Health was recently established in

the Ministry of Public Health to foster programs to improve health and provide medical care to mothers and children throughout the country. On the basis of agreements with international agencies, a number of short-range programs in this field have already been developed. The Ministry is also actively involved in the fight against infant diarrheas and enteritis, which lead to high mortality in infants, particularly during the summer months. Infant mortality in Uruguay is already among the lowest in the Americas, but the expert opinion is that it can be reduced to even lower levels through nationwide programs of maternal and child health. The Ministry very recently inaugurated the Latin American Center for Perinatology and Human Development. This institution, established with the assistance of PAHO, will be a demonstration, research, and training center providing valuable services to the rest of the countries of Americas.

President:* The Delegate of Honduras has the floor to present his report.

Report of the Delegation of Honduras

Dr. Pineda (Honduras):* In the brief time allotted to us, we shall attempt to summarize the principal activities carried out by the Ministry of Public Health and Social Welfare between April 1969 and March 1970. More details on this work will be found in the report sent to the Director of PASB.

Budget. The budget remained at the 1968 level. In 1970 our budget was substantially reduced because of the emergency situation through which our country passed in 1969. Hurricane Francelia had disastrous consequences; the major rivers in the northern coastal area overflowed, destroying the crops and decimating our herds.

Medical salaries. The Honduran Medical Association presented the Government with a proposed salary scale representing a 25 per cent increase, so that our physicians received a considerable increase this year.

Environmental sanitation. Our Ministry carried out a large number of emergency activities and a program of basic sanitation, including immunization and medical care, in the border areas. Permanent medical brigades, and some mobile ones, were maintained for a period of several months in these areas, where they were able to reach some almost inaccessible places that can only be reached on horseback or by helicopter. PAHO and the Organization of American States donated large amounts of drugs, biological products, and surgical supplies, in

addition to \$100,000 in cash that was used in the rehabilitation program in the areas of conflict.

At the suggestion of the Director of PASB, who visited our country in September 1969, preliminary studies were made for a five-year environmental sanitation program in the rural areas. It calls for the construction of 300 small water supply systems and 50,000 latrines, improvement of 5,000 rural houses, and construction of 300 slaughterhouses and markets to benefit 250,000 rural dwellers. The first stage of the program will be carried out in the affected areas at a cost of \$5 million, of which more than half is expected to come from a loan requested from the Inter-American Development Bank.

Training. The following courses were held during the past year: nine regular 12-month courses for nursing auxiliaries, attended by 309 participants; four five-month courses for nursing assistants, with 144 participants; 84 training programs on basic nursing principles, attended by 2,054 auxiliaries; seven short courses of the same general kind for 166 assistants; 12 training programs on nursing administration and supervision for 242 graduate nurses; three short courses in applied nutrition for 115 nursing auxiliaries; two short courses in midwifery for 35 auxiliaries; and one 12-month course in health education for 16 health educators.

Regulations. Regulations were issued in April 1969 on: (a) medical certificates of death; (b) environmental sanitation; (c) sanitary food control; (d) communicable disease control; and (e) training of personnel.

Planning. A National Health Plan was drawn up through a planning method that makes it possible to define an economic or social sector objectively, determine its role in the production of goods and services, delimit its institutional structure, including institutions in the organized private sector, and, using objective criteria, to select the most significant institution in the sector so as to determine and project its financial capacity, output, productivity, and administrative capacity—all with a view to arriving at an estimate of its potential contribution to the performance of the over-all and sectoral development plan. This same analysis is then applied, on the basis of the same procedure used for the significant institutions, to the entire sector involved. By using this sectoral and institutional diagnosis, it was possible to formulate basic sectoral policy and long-range action and investment plans.

Statistics. A physician who had received specialized training abroad under a PAHO fellowship was appointed head of our Statistical Department; the methods and

procedures used by the Department were evaluated; and preparations were made to introduce a medical certificate of death beginning in January 1970. A new computer was installed in the central office.

Immunizations. The vaccination programs were given considerable impetus in 1969. These included the smallpox vaccination campaign, aimed at protecting 80 per cent of the population less than one year of age; the DPT vaccination program, in which the target is to administer a first dose to 80 per cent of the children one year of age, a second dose to 70 per cent of those below age one, and a third dose to 100 per cent of those who received the second; the Sabin vaccine program, aimed at protecting 80 per cent of those below age one (two oral doses administered); mass vaccination against measles, to protect close to 80 per cent of the children below age one; and BCG, administered to all newborn children born in institutions, to all of non-reactors between 0 and 14 years of age in urban areas, and to 23.5 per cent of the 0-14 year age group in rural areas. Typhoid vaccination was administered according to epidemiological conditions, with protection provided to 10 per cent of the most exposed population.

Poliomyelitis and measles. The poliomyelitis situation in our capital became increasingly serious between November 1968 and February 1969, reaching a peak of 15 cases in January 1969. This led our Epidemiology Department to carry out an intensive vaccination campaign with the cooperation of the International Medical Research and Training Center of the University of Louisiana (USA). A pilot program of combined measles and smallpox vaccination was carried out in the capital, 842 doses being administered to children under 5 years of age.

Enteroparasitic diseases, venereal diseases, and leprosy. Enteroparasitic diseases pose a serious threat, especially to infants, because of poor sanitary conditions. Diarrheas, colitis, and enteritis, including many cases due to intestinal parasites, constitute one of the main causes of death. Multiparasitism is rampant throughout the country, most of the population being infested by more than one species of parasite.

Because of deficient reporting (although there are services in most of the country's health centers and subcenters, particularly in the ports), we can provide only approximate data on the venereal diseases. In 1968 there were 2,009 cases of syphilis (80.5 per 100,000 population). In 1969 the number of reported cases of gonorrhoea was 4,480 (260 per 100,000).

A total of 299 leprosy cases were registered in 1969, of which 278 were under surveillance and 21 were

released from surveillance. Their pathology was as follows: lepromatous forms, 42 cases (15.1 per cent); tuberculoid, 117 (42 per cent); indeterminate, 103 (37 per cent); and the remainder were of other forms. In 1969, 2,229 contacts were registered, of whom 1,320 (60 per cent) were under surveillance.

Tuberculosis campaign. The activities of the tuberculosis campaign in 1969 are summarized in the following figures:

Tuberculin test	88,393
Non-reactors	64,907
Reactors	12,685
Not read	10,801
BCG vaccinations	241,493
Photofluoroscopies taken	126,020
X rays taken	3,673
Cases diagnosed	1,630
Patients hospitalized	562
Persons under chemical treatment	1,449
Consultations carried out	19,180
Home visits	2,329
Contacts examined	2,645

Epidemic of Venezuelan equine encephalomyelitis. An outbreak of Venezuelan equine encephalomyelitis occurring in September 1969 in the Departments of Choluteca and Valle resulted in seven human cases and the death of a 5 year old child. The Ministry of Natural Resources, through its local agencies, vaccinated 28,000 equines. A total of 1,200 animal deaths were recorded. The epidemic later spread to the western, central, and northern parts of the country, where vaccinations are currently being performed.

Salt iodization. In the salt iodization program, the Bureau of Salt Production was reorganized and a new, privately-financed plant was installed, giving the country three plants of this type.

Construction of health units and hospitals. Fifteen new buildings for health subcenters and stations were inaugurated during 1969, bringing the number of health units built in the last five years to 86. The 60-bed Manuel de Jesús Subirana Hospital in Yoro has been completed, as has the 50-bed Rotario Hospital in Tela, and the Neuropsychiatric Hospital in Tegucigalpa, with capacity for 600 patients, is scheduled for completion around the end of 1970.

Malaria Eradication. The malaria eradication campaign was continued without interruption in 1969. DDT-resistant mosquitoes were found in the southern part of the country, and it was necessary to use Baygon spray in the areas where they were found. With the cooperation of WHO, PAHO, UNICEF, AID, and the

Center for Disease Control of the U.S. Public Health Service, a revision of the program was made in April 1970. The revision encompassed the administrative, financial, logistical, and technical aspects, as well as the program's socioeconomic impact in the country.

University Hospital and the Leonardo Martínez and Atlántida Hospitals. A loan has been requested from the IDB for construction of the University Hospital, the plans for which are now complete. Construction can start as soon as the Bank approves the loan. The Leonardo Martínez Hospital for San Pedro Sula and the Atlántida Hospital for La Ceiba are included in our budget, and construction will start in 1971.

In conclusion, I should like to thank the Pan American Health Organization for the technical assistance it has given to my country.

President:* The Delegate of Guatemala has the floor.

Report of the Delegation of Guatemala

Dr. Uclés (Guatemala):* I shall merely present a summary of our report, since it has been distributed and you will have an opportunity to read it at leisure.

1. *Administrative reorganization of the Ministry of Public Health and Social Welfare.* One of the most significant advances during the last four years was the administrative reorganization of the Ministry which involved the following features, among others:

- a) Centralization of supervisory activities.
- b) Decentralization of program execution.
- c) Inclusion of health promotion, recovery, and rehabilitation functions within the responsibilities of the health care establishments.
- d) Regionalization of the country, and establishment of well-defined health areas.
- e) Avoidance of duplication of services and programs in a single community.
- f) Expansion of the coverage of certain programs operating on a vertical basis.
- g) Establishment of an organization responsible for coordinating the health activities carried out by the Ministry of Public Health and Social Welfare, the Guatemalan Social Security Institute, the Armed Forces, San Carlos University, and private nonprofit health institutions. This organization is the National Health Council.

2. *Social security programs.* Another step forward was the establishment of a regular sickness insurance program by the Guatemalan Social Security Institute, with coverage restricted at this time to only a part of the

country. The Institute also extended its regular and work accident insurance programs to those departments where this coverage did not exist.

3. *Reorganization of the teaching program of the School of Medical Sciences of San Carlos University.* The School radically changed its system of medical instruction away from the traditional approach it had been following from time immemorial. The present philosophy lies in giving the student an understanding of actual health conditions in the country, instead of simply teaching him how to cure disease.

The instruction is now focused on three aspects—the community, the family, and the individual—and includes health promotion, recovery, and rehabilitation as an integrated unit.

On the basis of an agreement entered into by our Ministry, the School of Medical Sciences, and the Institute of Nutrition of Central America and Panama (INCAP), the Chimaltenango health area was established as a practical training ground for all personnel receiving instruction in any of the health disciplines. These facilities are now being used by students of medicine, dentistry, nursing, and nutrition as well as by nursing auxiliaries, and arrangements are being made for sanitary engineering, veterinary medicine, and other students to do their field work in the area. By this means, in addition to gaining first-hand knowledge of conditions in Guatemala's rural areas, the students will learn to work together as a team with personnel in other disciplines.

4. *School of Dentistry.* This School has also altered its curriculum to include activities for the promotion and improvement of oral health. An important part of this change was the establishment of "supervised professional practice" in different rural areas of the country for students who are close to graduation. This program has given very useful results, both for the rural communities and for the students themselves, during the two years since it was established.

5. *Sanitary engineering education.* The establishment of a postgraduate sanitary engineering course in the School of Engineering was undoubtedly another forward step in the training of health manpower. The course is attended regularly by students from all of Central America.

6. *Communicable disease control.* In this field, the following developments are worth mentioning:

a) *Malaria.* Earlier accomplishments in the malaria eradication program were placed in serious jeopardy when the mosquito developed resistance to the insecti-

cide used in the campaign. As a result, the number of cases increased significantly, making it necessary to establish mass treatment programs and to resort to the use of Camolar and other control techniques.

A three-year plan, later extended for one more year, was carried out. This program, involving the use of all the necessary means of coping with the situation, reduced the number of malaria patients. In 1969 the program was handicapped by adverse weather conditions (heavy rains), to a point where it was feared that the problem would become more acute, but timely action prevented this from occurring.

The activities of the malaria program in 1966-1969 are summarized below.

	1966	1967	1968	1969
Houses sprayed	122,757	752,620	859,459	683,648
Blood smears examined	376,439	439,292	492,940	521,436
Positive findings	22,045	19,684	10,407	10,494
Percentage of positives	5.85	4.48	2.11	2.01

Source: National Malaria Eradication Service.

b) *Yellow fever*. Guatemala had managed to eradicate *Aedes aegypti*. Unfortunately, reinfestation in two of the neighboring countries led to the mosquito's reappearance in the urban area of Escuintla Department. Although eradication was again achieved through immediate and vigorous action, the presence of *A. aegypti* in neighboring countries poses the threat of new reinfestation.

There is urgent need for implementation of the decision taken by the Governments of the Americas to eradicate this vector of yellow fever from their territories.

c) *Tuberculosis*. Despite a downward trend, tuberculosis continues to pose a serious problem in countries which, like Guatemala, have a low rate of development and a low standard of living, since the control of the disease depends on more than purely medical considerations.

The widespread distribution of the disease, which is a problem of varying size in every region of the country, along with the fact that it affects the population at the most productive stages of life, has obliged the health sector to increase its control activities and to continue other programs whose effectiveness has been demonstrated by satisfactory results: case-finding and treatment, immunization of susceptible groups, and education of the public.

Between 1966 and 1969, the Ministry's Tuberculosis Division extended the coverage of the following pro-

grams to various localities in the interior of the country:

"Control of tuberculosis in Guatemala" This program, begun in September 1958, was extended during 1966-1969 to cover the Department of Suchitepéquez, nine municipalities in Retalhuleu Department, three in Santa Rosa Department, four in San Marcos Department, four in Quezaltenango Department, and Zones 12 and 19 in Guatemala City. The following results were achieved: during 1966, 124,109 tuberculin tests, 87,913 photofluoroscopies, 60,972 vaccinations, and 1,323 cases discovered; during 1968, 100,768 tuberculin tests, 65,813 photofluoroscopies, 41,601 vaccinations, and 1,402 cases discovered; and during 1969, 36,543 tuberculin tests, 48,529 photofluoroscopies, 22,816 vaccinations, and 140 cases discovered.

"Tuberculosis vaccination month (July)." The designation of July as tuberculosis vaccination month was begun in 1964. During 1966-1969 the program of vaccination was carried out in the public and private elementary schools of the capital city and the other municipalities in Guatemala Department, as well as in other departmental capitals and municipalities in the interior. The results were as follows: during 1966, 61,841 tuberculin tests, 91,010 photofluoroscopies, and 48,866 vaccinations; during 1967, 177,953 tuberculin tests and 105,658 vaccinations; during 1968, 112,922 tests and 57,048 vaccinations; and during 1969, 134,309 tests and 153,715 vaccinations.

"BCG vaccination of newborn children." Vaccination of newborns was continued in the maternity wards of Roosevelt Hospital and the Maternal and Child Center of the Guatemalan Social Security Institute. The numbers vaccinated were: 17,466 in 1966, 15,017 in 1967, 16,210 in 1968, and 18,047 in 1969.

Treatment of cases detected through the search activity was carried out by the Central Tuberculosis and Children's Clinics and the San Vicente Hospital in the capital; the Rodolfo Robles Hospital and Tuberculosis Unit in Huehuetenango; and 12 tuberculosis wards in national hospitals in the interior of the Republic. Generally speaking, the number of beds is limited in relation to demand, since most of the patients hospitalized are in advanced stages of the disease and therefore the beds are occupied for long periods by chronic and irrecoverable cases.

In 1959 the tuberculosis mortality rate was 70 per 100,000 inhabitants; by 1967 it had dropped to 24. Taking this downward trend into account, it is considered that compulsory BCG vaccination of all newborn infants during their stay in the maternity ward, administration of booster shots to schoolchildren at age 10, the increased use of chemoprophylaxis in contacts and in

children under 3 years of age showing a positive reaction to tuberculin but no positive X-ray findings, and early treatment of cases, could bring about the following reductions: in children under 15 years, 70 per cent; in the 15-64 age group, 30 per cent; in the 75 years and over group, no change.

7. *Water supply.* The water supply situation is not satisfactory, and the Government has continued its efforts to extend this service. During the four years covered by this report, 173 water supply systems were constructed: 50 for urban communities and 123 for rural areas. It should be made clear that the present policy for the supply of water to rural communities is based on delivering the water to the home, discarding the system of placing public fountains in strategic areas, because of the continuing danger of contamination.

8. *Four-year projections.* In compliance with Resolution XXVII¹ approved at the XIX Meeting of the PAHO Directing Council, the Ministry of Public Health and Social Welfare, with the assistance of PASB officials, drew up four-year projections for Guatemala with the following basic purposes:

a) To establish a national health policy clearly setting forth the activities to be carried out for the attainment of predetermined goals and objectives.

b) To establish a reference framework for the programming of health activities to be carried out in the next 10 years.

c) To enable PASB to program its advisory services to the country on the basis of actual needs and in accordance with the health policy adopted by the Government for the next 10 years.

9. *New services.* The following new services of the Ministry were inaugurated during the four years: one hospital, five bed wards, 17 health centers, 22 health

posts, and five nutrition rehabilitation centers. In addition, the Social Security Institute inaugurated two hospitals and six polyclinics and clinics.

The new private institutions built included the Cancerology Institute Hospital, which was inaugurated during the quadrennium.

10. *Health statistics.* With the addition of a Statistical Division to the Planning Unit of the Ministry, as part of its National Department of Public Health, considerable impetus was given to the collection, tabulation, and publication of statistical data needed for the programming of activities and evaluation of services. There is still, however, a certain lag in the tabulation of population statistics, especially those on mortality, which are collected by an agency that is not a part of the Ministry.

In summary, while progress has been made in this space age, there is still much to be done. We are comforted, however, by our profound faith in God and in our own destiny and by the thought that, as history tells us, Rome was not built in a day.

President:* The Delegate of Cuba has the floor.

Dr. Martínez Junco (Cuba):* We should like to request that, instead of the brief 10-minute period allotted for the presentation of each report, those delegates who have yet to make their reports be allowed a slightly longer time.

President:* I believe that since some Delegates have been permitted up to 12 minutes, we can continue to allow this same two-minute margin to others, unless the Conference decides otherwise. Eleven delegates reported today, another 10 or 11 will probably speak tomorrow morning, and the remaining reports will be presented tomorrow afternoon, completing this time of the agenda.

¹Official Document PAHO 99, 76.

FIFTH PLENARY SESSION

Wednesday, 30 September 1970, at 9:15 a.m.

President: Dr. José Renán Esquivel (Panama)

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

President:* The session will please come to order. We shall continue with the presentation of the country reports. The Delegate of Trinidad and Tobago has the floor.

Report of the Delegation of Trinidad and Tobago

Dr. Henry (Trinidad and Tobago): I have the honor to present to this Conference the report on the state of health of the people of Trinidad and Tobago. This will supplement the documentary record you already have before you. Before I do this, however, I wish to express my Government's pleasure at the momentous step that the Government of Canada announced to this Conference yesterday. It is the feeling of my Government that the full and formal entry of Canada on the PAHO scene at this time can do nothing but enhance the state of physical, mental, and social well-being of this Organization.

As the decade of the 70's opens, Trinidad and Tobago can, like other countries, point to achievements as well as to unsolved problems. The present balance sheet suggests that, if we think we have worked hard in the past, we have to work even harder in the future, if the gains already made are to be consolidated and further advances made. In the field of epidemiology, for example, in an area that has seen the scourges of malaria and yellow fever, we now have a satisfactory record, for since malaria was eradicated in 1964 we only have the occasional imported case, and no case of yellow fever has occurred since 1964. But this is the sort of achievement that will bring complacency only at one's peril, for we remain vulnerable to both these diseases. In the one case because we still have the vector, in the other case because it is our neighbors who have the vector. Self-interest alone demands that we maintain strong surveillance programs and at the same time

support PAHO regional projects for the control or eradication of these vectors.

In the field of leprology the Ministry is slowly implementing a modern approach. It is now paying great attention to contact-tracing, maintaining vigorous therapeutic measures, and embarking on new rehabilitative measures, including the provision of better protective footwear for patients. The intention is to phase out of existence the present leprosarium now located at very high cost on an off-shore island, and to utilize funds thus saved to maintain a more vigorous control program on the mainland.

Our former tuberculosis hospital is functioning at a 50 per cent bed-occupancy as far as tuberculosis cases are concerned. Beds have therefore been pressed into service for other types of chest diseases. A BCG vaccination campaign is now in progress. We have, like other countries, witnessed an upsurge in the incidence of venereal diseases and we are tackling this problem vigorously. On-going programs exist against smallpox, diphtheria, tetanus, typhoid, and poliomyelitis.

In an age of rapidly advancing medical technology, we are still not at the point of bridging the gap between expectation and performance, as far as the delivery of medical care is concerned. The increased demand for medical care is due not only to the achievements of medical technology itself, but also to population increase, and to the population's attitude everywhere that health is a basic right. The task of Governments is not helped by the spiraling cost of medical care, nor by the "brain drain" which leaves countries like Trinidad and Tobago short of many categories of health personnel, doctors, nurses, dentists, pharmacists. Faced with the shortage of medical personnel, we welcome the opportunity to participate in the training of final-year medical students at the University of the West Indies. The shortage of dentists has been complicated by the presence of the unqualified practitioner. But we are hoping to alleviate this situation by introducing dental nurses of the New Zealand type. We are meeting the problem of the shortage of nurses by improving the

quality of their training and by introducing nursing assistants, thereby relieving nurses of some of their former duties, to enable them to concentrate on better patient care. Again, increased training programs seem to be the only answer to the shortage of pharmacists.

In most of the areas mentioned above we have had the benefit of advice from this Organization. I wish at this point to identify three of the unsolved problems that are militating against efficient delivery of medical care, namely, faulty maintenance of equipment, lack of trained hospital or health service administrators, and inadequate financing of the health sector. Our old traditional method of financing health care has been to allocate to it about 10 per cent of the national budget, with little or no individual outlay for inpatient care, drugs, or other costly services. This is placing a severe strain on the type of service people have come to expect. Reassessment of the situation, especially in the light of the Technical Discussions on Financing of the Health Sector¹ which took place in 1969, is an urgent imperative. Finally, two important decisions taken within the past quadrennium give me cause to feel reasonably optimistic about the future. First, in 1967 we in Trinidad and Tobago formally adopted our first national health plan; and secondly, in that same year, the Government instituted a national family planning program and from its inception operated it as an integral part of the maternal and child health program. Implementation of the health plan has proved more difficult than anticipated, but even now the more closely the plan is examined, the more is one convinced of the correctness of its basic approach and philosophy.

In conclusion, we wish to thank PAHO for the assistance it has given us in the past and look forward to a continuation of fruitful and meaningful cooperation with this Organization.

President:* The Delegation of Brazil has the floor.

Report of the Delegation of Brazil

Dr. Bica (Brazil):* The principal changes in Brazil during 1966-1969 are related to the creation of a new medical public health structure for the protection and restoration of health, which was the result of the administrative reform of the Ministry of Health aimed at decentralizing its activities and obtaining better performance in planning, coordination, supervision, and control. The reform is currently being implemented through the formulation of policies and plans for health activities at the service of communities and individuals. The Ministry

is mainly responsible for planning, coordination, supervision, and control of activities in this sector, with actual performance of these activities left, as far as possible, in the hands of the states, municipalities, and the private sector.

The basic structure of the Ministry of Health includes the following units: central units for planning, coordination, and financial control, which comprise the offices of the Secretary General and the Inspector General of Finance; direct support units, including the office of the Minister and the Division of Security and Information; the advisory office to the National Health Council; the office of International Support and Coordination for International Health Matters; central management offices, including the Secretariats for Public Health and Medical Care and the Department of Administrative Affairs; and, finally, the regional action offices, which are called Federal Health Delegations.

The fundamental activities of the Ministry are divided between the two Secretariats: Public Health and Medical Care. The first is responsible for preventive measures in general; activities for the eradication and control of the major endemic diseases; prevention and control of communicable diseases; compilation, analysis, and evaluation of epidemiological information and statistics; environmental sanitation; public health control at borders and ocean, river and sea ports; food and drug control; and cooperation with and assistance to the health services of the states and territories. The Secretariat for Medical Care is in charge of promoting and coordinating medicosocial care activities, including the protection of mothers, children and adolescents, and the prevention of disease and recovery of physical and mental health, as well as for providing medical expertise. As part of the reform, the Oswaldo Cruz Foundation was set up as the successor to all the Ministry's units formerly responsible for inspection and production of vaccines, drugs, and preventive products in general and for the training of specialized personnel to bolster the public health programs coordinated and organized by the Ministry or undertaken by the National Health Fund. The Foundation is also in charge of preparing the draft of a basic public health law for the purpose of bringing uniformity into all these activities in every part of the country and placing them under the general guidance and supervision of the Federal Government, while transferring the operational responsibility for many of the activities to the states and territories.

When the National Health Plan was drawn up in 1968, it included only those activities related to the protection and recovery of individual health. Public health activities were not included despite the fact that

¹See *Scientific Publication PAHO 208*.

Brazil's principal health problems are those affecting extensive population groups and those related to the high incidence of communicable diseases in areas lacking adequate environmental sanitation services. A high-level committee recently examined the Plan and found it to be inadequate because of prevailing economic conditions in Brazil that prevented its extension to other regions of the country. At the present time, an interministerial committee is seeking to develop a new system of medical services, based on the health problems in the various regions, more responsive to the country's actual needs, and capable of meeting criteria and establishing priorities to ensure more effective social use of the resources available for this sector.

The salient aspects of health activities in Brazil during the period under review may be summarized as follows:

Malaria. In spite of the obstacles to be surmounted in covering the enormous malarious areas of the country, which include 9 million square kilometers where 36 million people are exposed to the infection, we are carrying forward the fight against malaria. During 1966-1969 substantial progress was made, particularly in extending our field operations and installing infrastructure services in new areas. During the second half of 1968 insecticide spraying operations reached a peak level of more than 6.5 million sprayings, covering a total of 4 million houses. Field activities have made a steady advance. Since 1964, when they covered the States of Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Rio de Janeiro, and Paraná, they have been extended gradually into southern Bahia and Minas Gerais and the State of Espírito Santo in 1965; into the São Francisco River basin in Minas Gerais and Bahia in 1967; and into the Amazon basin, including the States of Maranhão, Piauí, Mato Grosso, Goiás and Santa Catarina in 1968. During this period parts of the northeast states, as well as Minas Gerais, Rio de Janeiro and Paraná, were gradually brought into the consolidation phase, with more than 900,000 houses sprayed. Between 1965 and 1969 malaria was eradicated from 345 municipalities with almost 6 million inhabitants. It is worth mentioning here that São Paulo State, using its own funds, carried out an eradication program and brought its entire area into the consolidation phase in 1965. The progress of malaria control activities in the various regions of the country is shown in the map appended to the document that will later be distributed.

Smallpox. Smallpox, as is known, was prevalent in extensive regions of the country, and thousands of cases were reported each year. This prompted the Ministry of Health to undertake in 1966 a smallpox eradication

campaign directed to intensifying and coordinating public and private activities throughout the country for the prevention and control of the disease and to eradicate it entirely. From 1962 to 1966 the state health services, in cooperation with the Ministry of Health, performed only 6,400,000 vaccinations. After the campaign was organized, the number of vaccinations per year was gradually increased, and between 1967 and June 1970, 60 million were performed. At the present rate it may be anticipated that the entire population of Brazil will be vaccinated by mid-1971. What I am saying—and I should like to make this clear—is that the population will be vaccinated, not that the disease will be eradicated. Of the 27 states and territories, 11 states, the Federal District, and one territory have already been covered by the vaccination program. In those states which are in the attack phase, surveillance and "blocking" operations are proceeding simultaneously. It may therefore be said that rapid progress is being made toward consolidation. In the three major political subdivisions where the attack phase has been completed, the number of cases reported has dropped in 1970 by proportions ranging from 83 to 93 per cent.

Yellow fever. The XV Pan American Sanitary Conference (1958) recognized² that the vector of urban yellow fever had been eradicated in Brazil, the last remaining focus in the country having been eliminated in 1955. Twelve years thereafter, in 1967, *Aedes aegypti* invaded the country through the port of Belém, Pará, which had been free of the vector since 1948. This reinfestation was a result of constant sea and air traffic with ports in certain countries of the Americas which had not eradicated the urban yellow fever vector from their territory. From Belém the mosquito spread to the interior of the State of Pará, over a radius of 200 kilometers and infested 38 localities. Later, in August 1969, foci of *A. aegypti* were discovered in the city of São Luis, capital of Maranhão State, in a locality close to São José do Ribamar. Maranhão borders on the State of Pará. Through a program in which phosphorous insecticides were used, *A. aegypti* was brought under control in certain localities; thus, for example, the infestation index has been reduced from 5.6 to 0.8 per cent in Belém, 2.9 to 0.7 per cent in São Luis, and 3.0 per cent to 0 in São José do Ribamar. Between 1967 and 1969 operations in the infested area covered 1,000,800 basements, and close to 6 million inspections by the surveillance service. During this period 3,219 samples collected in the areas of yellow fever incidence were examined and 28 cases were confirmed, including 22 in

²Resolution XXXV. Official Document PAHO 27, 40.

the western part of the States of Paraná, Santa Catarina, and Rio Grande do Sul, one in the territory of Roraima, and five in Pará. Nine and a half million persons were vaccinated against yellow fever during the same period.

Plague. Between 1967 and 1969, 783 cases of plague (62 of them fatal) were reported in the endemic rural areas, which covered 230,000 km² and included 205 municipalities in the States of Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Bahia, Minas Gerais, and Rio de Janeiro. The focus-control activities are aimed at preventing mortality through early treatment, preventing secondary cases through chemoprophylaxis of contacts, and interrupting transmission within houses by eliminating the vector. A research project on the ecology of plague has been under way in Pernambuco since 1966 with the cooperation of specialists from the Pan American Health Organization, the object being to gain a clear understanding of the mechanisms through which the bacillus is preserved and spread in the permanent foci and establish firmer epidemiological foundations for the fight against the disease.

Another important program worth mentioning is that for the control of Chagas' disease, which covers a very extensive area.

President:* The Delegation of Guyana has the floor.

Report of the Delegation of Guyana

Dr. Baird (Guyana): Before reading my brief statement I must apologize because the material circulated by Guyana, owing to a misunderstanding, is not what it should have been. The past quadrennium has been characterized by important and fundamental changes. In 1966 Guyana became an independent country, and on 23 February 1970 it severed its formal ties with Great Britain by adopting the status of a republic. As the Cooperative Republic of Guyana, my country has underscored the importance of the cooperative as an instrument of social and economic change. Development has not been easy and among the many problems attendant on attaining independent status are those related to preventing illness and promoting health. The existing pattern of health services in Guyana resulted from a series of *ad hoc* developments forced upon previous administrations from time to time, generally as a result of crises. Although a sweeping condemnation of this pattern might be regarded as justifiable, it is felt that a careful and dispassionate assessment of the existing situation is required in order to determine rational directions for future development. Thus, in 1969 it was

decided that we should embark on a national health plan, and it is expected that by the year's end we shall be able to implement this plan.

As a result of our studies in the preparation of the plan, we can say that we have identified a number of problems. First, there is the lack of trained health personnel. Efforts have been made to initiate training for nursing and paramedical personnel, and a new category of assistant nurses has been introduced. We have been training radiologists, and we have in Guyana, as I believe do some of the other territories of the English-speaking Caribbean, a type of personnel we call "dispensers." We are reorganizing the training of these dispensers so that they will be able to go into the interior areas and take on greater responsibility. As in other territories, because of the shortage of physicians we have problems of getting health care to the people living in the vast interior of our country. We are thinking, too, of training a category of personnel we would refer to as "dispensing assistants," who would carry out certain tasks to relieve our few, hard-pressed pharmacists, so that they could perform the duties for which they were trained. Like all the territories in the Caribbean, we have on foot plans for training dental nurses similar to those trained in New Zealand.

It is also obvious to us that we must restructure the administration of the health service to allow more involvement of citizens and greater decentralization. We shall perhaps have to build more health facilities, and we must improve the existing ones, so that we can offer a wider range of health services to communities. In this regard, we are planning three hospitals; the main hospital would be in Georgetown and there would be two regional hospitals. We are very keen on upgrading these hospitals and also on upgrading our health centers, since we are emphasizing the preventive aspects of medicine because hospital care is much costlier. We are hoping that our citizens will be able to receive adequate medical care in their own communities and that only special cases of very ill patients would be channeled to our main hospitals.

Studies have shown that the greater proportion of our population is young and that we have a large number of women of child-bearing age. Therefore, emphasis will be placed on maternal and child health. We still have problems of diphtheria and tetanus, and, of course, of gastroenteritis and malnutrition. This, again, underlines the need for strengthening maternal and child health services. We are also taking a close look at school health and dental health on the whole.

So far as malaria is concerned, we believe we have eradicated it in the coast lands, but we are still having

some cases of malaria and these, I am afraid, are imported from our neighbors. Yellow fever, because of our closeness to the jungles of the Amazon basin, is a constant threat. It is essential to keep the size of the vector population within controllable limits, and the current program is directed to that end. We have no smallpox, but most of you know that earlier in 1970 we had a smallpox scare and this points up the need for vigilance at all levels.

Like other territories, we have problems regarding medical health statistics. We are hoping that when we implement our health plan we shall be able to form a planning unit, and to include in it staff to keep our medical statistics up to date. Special reference should be made, I think, to health legislation. We find that our health legislation is outdated and efforts to update it are being made at the present time. We have worked on a food and drug ordinance, we have plans for changing our regulations so far as pharmacy and poison regulations are concerned, and we are working now on a bill for the control of private hospitals.

In concluding this brief summary of our health situation, I would like to thank PAHO and WHO for all the help we have received.

President:* The next speaker is the Delegate of the Kingdom of the Netherlands.

Report of the Delegation of the Kingdom of the Netherlands

Dr. Gielen (Kingdom of the Netherlands): Since Surinam and the Netherlands Antilles are equal and self-governing partners in the Kingdom of the Netherlands, I have two separate reports to make, one on health conditions in Surinam and the other on the Netherlands Antilles. However, I do not think I shall have to ask for double time, as both reports are very short. Unfortunately, this is not because of the time limit agreed upon yesterday, but because of lack of information, which is our greatest handicap. In our planning, great attention will be devoted to creating means of enlarging and reviewing already existing systems so as to be better informed about health conditions in our countries. For this task we are assured already of the cooperation and help of PAHO, for which we are very grateful.

I shall report first on health conditions in Surinam. The crude death rate was 7.2 per 1,000, the birth rate 41.6, and the infant mortality 30.0 per 1,000 live births in 1966. The 10 leading causes of death are heart diseases, diseases of early infancy, senility, accidents

(traffic, poisoning, violence), vascular lesions affecting the central nervous system, malignant neoplasms, bronchopneumonia, diseases, gastrointestinal diseases, diseases of the urogenital tract, and malnutrition. The Government is responsible for determining the goals of a national health policy, and how these should be achieved, with the technical and financial means available. Our activities are based on the premise that the fundamental objective of any health program is the coordination of disease prevention and health promotion activities. The Government has promoted development in the political, economic, financial, and health sectors by means of a National Five-Year Plan (1965-1970) and at present through the second National Five-Year Plan.

Owing to limited financial means, however, we still face a number of problems in the health field. We need to improve our health laws and health statistics, and measures have been taken to step up activities in these sectors. Difficulties have been experienced in the recruitment and retention of qualified health personnel, and we also suffer from the poor quality of our clerical and executive staff. One source of concern is still our hospitals. Plans have been made to increase the size of the present hospitals as well as the quality of the services rendered. Surinam has been assisted by PAHO, WHO, and UNICEF in organizing an expanded insect control campaign from 1953 to 1954, a dried skimmed milk distribution plan from 1954 to 1966, an antituberculosis campaign from 1955 to 1956, a malaria eradication campaign from 1957, an *Aedes aegypti* eradication campaign from 1962, and a water supply program from 1969. PAHO and WHO also provided advisory services for programs in nursing, nutrition, wuchereriosis, yaws, and schistosomiasis control and for a course in health statistics and medical records. The cooperation and collaboration thus extended to us are regarded as highly important and we are very grateful for it.

As regards shortage of medical and paramedical personnel, in addition to the acute shortage of doctors, there are not enough pharmacists, dentists, nurses, midwives, laboratory technicians, etc. Although there are three schools for nurses, three for midwives, one for pharmacists' assistants, and one for laboratory technicians, most of the persons trained there leave the country to settle elsewhere. To meet the need for nursing personnel, a new school for assistant nurses was established in 1968. With regard to the Medical Faculty, it should be noted that a Surinam Medical School was established in 1882, closed in 1891, and reopened in 1899. On 1 November 1968 the University of Surinam was created, and on 26 September 1969 the Medical Faculty there was established and the former Medical

School was closed permanently. The central hospital was converted into the Teaching Hospital. Clinical training of medical students now takes place at the University of Surinam, but preclinical education is provided at the State University of Leyden in Holland, with which the Surinam Medical Faculty cooperates. However, a Medical Scientific Institute is being built near the Teaching Hospital, and after it begins operations in 1971, a complete medical education lasting seven years will be possible in Surinam. At present 143 medical students are enrolled in the Medical Faculty.

The malaria eradication campaign in Surinam was started in May 1958 with the aid of WHO, PAHO, and UNICEF. The present status is that in the flat coastal zone eradication has been achieved, while in the hinterland we still have great difficulties. With regard to yellow fever, the results obtained by the *Aedes aegypti* eradication campaign are encouraging, owing to an increase in activity since 1967. However, two confirmed fatal cases of jungle yellow fever occurred in the interior of Surinam in November 1968 and August 1969. As regards *Wuchereria bancrofti*, in a house-to-house campaign from 1949 to 1951, some 50,861 inhabitants of the capital were examined. Ten years after the first mass survey, a second examination was made (1959-1961) of 39,167 urban dwellers. The microfilaria rate had dropped from 17.4 to 9.0 per cent, and in children under 5 years, from 4.8 to 1.0 per cent. The elephantiasis rate was reduced from 5.3 to 1.1 per cent. The *Culex quinquefasciatus* infestation rate dropped from 25.6 to 0.5 per cent. Now, after a further 10 years, a third survey (1969-1971) is being conducted. The wuchereriosis rate is very low in rural areas. Schistosomiasis is endemic in the inhabited part of the rural swampy north-central coastal region of Surinam, especially where shell ridges are present. The snail host, *Biomphalaria glabrata*, is indigenous in Surinam. In 1968 and 1969 single feces specimens from 85,867 persons in rural areas were examined. *Schistosoma mansoni* ova were found in 4.9 per cent. Control of the disease is hampered by the fact that there are several animal reservoirs such as the wild rat, great anteater, squirrel, monkey, and wild mouse. We expect to be able to improve control and to step up activities in this sector during the next few years.

With reference to the Netherlands Antilles, the average life expectancy in 1967 was 70.1 years for men and 74.0 years for women. The crude death rate was 5.0 per 1,000. Infant mortality was 11.6 per 1,000 live births in Curaçao in 1968. The leading causes of death in 1966 were cardiovascular diseases, malignant neoplasms, senility, accidents (traffic, poisoning, violence), vascular

lesions affecting the central nervous system, infant diseases, bronchopneumonial diseases, and gastrointestinal diseases. None of the so-called quarantinable diseases exist in the Netherlands Antilles. In spite of poor information, I am able to supply some data about certain communicable diseases, as follows:

	1964	1965	1966	1967	1968	1970
Bacillary dysentery	1,202	972	712	427	384	—
Typhoid	3	1	4	—	—	4
Other salmonellosis, including paratyphoid	593	584	447	564	164	—
Tuberculosis	8	5	16	2	5	—

All these diseases show a remarkable decrease during the period 1964 to 1968. Since almost every child in the Netherlands and territories is being vaccinated against poliomyelitis, tetanus, pertussis, diphtheria, and smallpox, these diseases seldom occur and never with an explosive character.

We have a shortage of medical and paramedical personnel. In 1968 the number of physicians was 130 (1 per 1,664 inhabitants), of whom 51 were specialists and 79 general physicians (including government and company doctors, for instance). In 1970 the number of physicians was 124 (1 per 1,760 inhabitants), of whom 49 were specialists and 75 general physicians (including 13 public health officers and 13 company doctors). These data show a decrease in the number of physicians. For the time being, the number of young general practitioners coming from the Netherlands is increasing, but the position regarding specialists is very discouraging, especially in the field of public health where none are available. Although data regarding the paramedical professions are not available, it is a known fact that there is a shortage of dentists, nurses, and midwives.

In 1967 a cancer registration program was started in cooperation with the International Cancer Institute of Lyon, France. Carcinoma of the esophagus occurs to a significantly higher degree in Curaçao than in any other part of our Hemisphere; research on the phenomenon is in progress. In 1968 a family planning program was begun in Curaçao, initiated by a private foundation with financial support from the Netherlands. In 1970 a similar program was started on Aruba, and steps are being taken to coordinate these activities in the future with those the Government will take in these fields. On 14 September 1970 a national campaign to eradicate *Aedes aegypti* was begun in the Netherlands overseas territories. It will end in 1973. We have received very considerable assistance in the campaign from PAHO.

In 1970 a 60-bed hospital was added to the already existing seven hospitals; so far it is being used as a clinic

for gynecology and obstetrics, but in the near future it will become a general hospital. The total number of hospital beds is now 1,371. Compared with standards in more highly developed countries, this shows a shortage of approximately 400 beds, or 30 per cent.

On behalf of the Government of Surinam and the Netherlands Antilles, I wish to express our thanks and gratitude for the advice and services we are receiving from PAHO in connection with the various programs we are developing.

President:* The Delegate of Costa Rica has the floor.

Report of the Delegation of Costa Rica

Dr. Orlich (Costa Rica):* Costa Rica's report has already been distributed. The Ministers and delegates will note that, as requested, the report has been kept to a brief summary of health conditions and progress achieved by Costa Rica in the last four years. I shall attempt to pinpoint briefly some of the health indicators that I consider most worthy of note and that reflect the situation in my country.

Costa Rica is a small country with a population that numbered only 1,489,825 in 1965 and 1,648,815 in 1968. The number of live births declined from 63,000 in 1965 to 59,000 in 1968; the birth rate per 1,000 was 42.3 in 1965, dropping to 36.2 in 1968. The number of deaths in 1965 among the entire population was 12,814, falling to 10,653 in 1968. The mortality rate per 1,000 population was 7.6 in 1965 and was reduced to 6.5 in 1968. The rate of population growth was 3.37 per cent in 1965 and 2.1 in 1968. The number of deaths among children was 4,796 in 1965, dropping to 3,534 in 1968. The infant mortality rate per 1,000 live births was 76.0 in 1965 and 59.6 in 1968. Among children in the 1-4 year group the number of deaths was 1,419 in 1965 and 962 in 1968. These figures are of course related to the degree of malnutrition in some of the children. In 1968 the principal cause of death continued to be gastroenteritis.

The Ministry of Public Health is responsible for health services at the national level, but the Costa Rican Social Security Agency also plays an important role in health and welfare activities and is in fact today providing 40 per cent of the medical care extended to the population.

For purposes of planning and program execution, the country is divided into 11 districts, as shown in the map included in the report.

In 1967 Costa Rica had 48 hospitals and other medical care facilities, with a total of 6,165 beds. By 1969 the number of hospitals had increased by three and

the number of beds by 856. In 1967 we had 858 physicians (1 per 1,860 inhabitants); in 1969 we had 935 (1 per 1,818).

In 1969 the dentists numbered 227, or 1.3 per 10,000 inhabitants, and the pharmacists 520, or 3 per 10,000. There were 680 graduate nurses (4 per 10,000 inhabitants) and also 2,716 nursing assistants and auxiliaries (16 per 10,000 inhabitants).

The University of Costa Rica has Schools of Medicine, Dentistry, Pharmacy, and Microbiology. In 1967, 16 physicians were graduated, and in 1969, 20. In 1967 seven dentists were graduated, and in 1969, nine. In pharmacy we had five graduates in 1967 and 15 in 1969, and in microbiology 16 and 26, respectively.

There is a School of Nursing which offers a three-year course; in 1967 it had 134 students and graduated 71. This proportion is still maintained. A nine-month training course for midwives is also given; 15 students per year are normally graduated. There are also three Schools for Nursing Auxiliaries, the duration of the course being nine months; approximately 160 students per year are graduated.

As for communicable diseases, it is estimated that 37 per cent of all deaths are due to these diseases, with 48 per cent occurring among children under 5 years of age. In regard to the morbidity rates, it is estimated that 60 per cent of all hospital cases are patients suffering from communicable diseases, 68 per cent of them children under 5 years of age. An intensive measles and smallpox vaccination drive was started in 1967. The smallpox vaccination covered 40 per cent of the susceptible population, and the measles vaccination 56.5 per cent. A mass BCG vaccination campaign was begun in 1968 and eventually covered 72.3 per cent of the total population.

Tuberculosis mortality and morbidity rates declined considerably. This disease continues, however, to be an important cause of death, mainly among the productive population; in 1968, in fact, it was the seventh cause of death in the 15-44 year age group and was sixth in the 45-64 year group.

The morbidity rate for pertussis was 78.3 per 100,000 children in 1966. In the same year, measles was the fourth most important cause of morbidity among children 1 to 4 years of age. An epidemic in 1969 resulted in more than 7,000 cases. Poliomyelitis is endemic throughout the country; an epidemic in 1969 left 110 paralytic cases in its wake. A mass vaccination drive against poliomyelitis, measles, and smallpox is scheduled to begin 13 October 1970.

The infectious and parasitic diseases with the highest mortality rates in 1966 were tetanus, ascariasis, pulmonary tuberculosis, and measles. Neonatal tetanus

causes a certain number of deaths, especially in rural areas. Intestinal parasites continue to be highly prevalent throughout the country, particularly in the rural areas.

Malnutrition is an important contributing factor to the high infant mortality rate and is associated with low living standards; 57.6 per cent of the children under 5 years of age are undernourished to some extent, and 1.5 per cent have third-degree malnutrition.

In 1966 cancer was the third, second, first, and second cause of death, respectively, among persons in the age groups 5-14, 15-44, 45-64, and 65-or-over.

Accidents, especially traffic accidents, increase year by year; in 1969 they ranked sixth among the causes of death.

During 1968, 64,154 pregnant women used the services of 137 prenatal consultation centers and 153 infant health centers, with the result that 52,203 deliveries, obviously a very high percentage, were attended to in hospitals.

In the field of environmental sanitation, 57 per cent of the total population lives in houses without a toilet or latrine; 31 per cent of the urban and 70 per cent of the rural population is without these sanitary facilities.

There is a program, scheduled to begin in 1971, for the construction of sewerage systems in 11 cities. The installation of latrines in the rural areas will be stepped up with the cooperation of the municipalities.

As to water supply, 18 per cent of the total population lacks this service; 100 per cent of the urban population has water service, but in the countryside 28 per cent of the population is without it.

On the basis of a diagnosis of the health situation, the Sectoral Planning Office of the Ministry is drawing up a national health plan to ensure more rational use of available resources, with preference given to programs directed to maternal and child health, extension of environmental sanitation, health education, and improvement of general nutrition levels.

President:* The Delegate of El Salvador is recognized.

Report of the Delegation of El Salvador

Dr. Esquivel (El Salvador):* The Government of El Salvador, through the Ministry of Public Health and Social Welfare, is pleased to be represented here at this XVIII Pan American Sanitary Conference as provided for in the rules of the Pan American Health Organization. We bring greetings to the delegates and to all health workers in the Americas from their public health colleagues in my country. At the same time, we are glad to express our best wishes for the success of this meeting

and the resultant well-being of the communities of the Americas.

During 1966-1969, as a result of the Ten-Year Plan started in 1964, we were able to compile more reliable statistics and to supplement them with evaluations made at the local and regional levels and at the supervisory offices of the Ministry. This has in turn made it possible for us to assess the advances made and the work still to be done and to recognize problem areas and establish appropriate priorities. As a result of this, we are now reorganizing the Ministry and establishing a new Health Code and special regulations for the medical care services.

The characteristics of El Salvador—a small land area, 41 kilometers of highway per 100 km², electricity in all the cities and towns and some of the rural areas, and increasingly effective coverage by radio, press, and television—make it a country where health problems increase year by year along with demands for medical care, especially in view of the generally hostile natural environment and the lack of knowledge among the people as to how to prevent the diseases affecting them. In spite of this, the health indicators show a declining trend in general and infant mortality and in deaths among children under 5 years of age.

According to the patterns of mortality and of morbidity (external consultations and hospitalization), infectious and parasitic diseases rank first among the problems of health; of the total number of cases, 60 per cent are gastrointestinal diseases, resulting from the hostile environment. In 1969 enteric diseases showed a significant rise, mainly because of an epidemic of dysenteric *Shigella A-1*, which continued into the early part of 1970. Malaria and tuberculosis ceased to occupy a place among the first 10 causes of disease and mortality during the last four years. In spite of the increase in the vaccination programs, higher protection levels must still be attained if the incidence of communicable diseases preventable through vaccination is to be reduced.

Studies are being conducted to improve the financing of the health services, since expenditures per capita remained unchanged during the last four years. Among the sources of financing, voluntary contributions by the users of the services are now being tried, and we believe that better utilization of resources, which are inadequate to the present demand, will result from improvements in administration.

The National Department of Health, which coordinates work in the five regions into which the country has been divided, pursues a policy of integrating preventive

and curative services with sanitation and health education.

Twenty-nine new services were added during 1966-1969, and we believe that the distribution of facilities is very satisfactory, since 85 per cent of the population now have access to them. In 1970-1975, however, this health infrastructure will have to be strengthened, mainly through an increase in human resources.

In the provision of services, the number of consultations has increased, particularly hospital admissions, but it is gratifying to say that, according to evaluations made, more effective utilization is being made of the same number of hospital beds, resulting in higher productivity and lower costs.

Fifty-two buildings were constructed for health units and stations, and construction was begun on three hospitals.

Special mention should be made of the program for the supply of potable water and construction of latrines in rural areas. This is a program undertaken by the National Department of Health with the cooperation of PAHO and UNICEF and the participation of the local citizenry.

In the fight against nutritional diseases, food control has been improved through the addition of special personnel. The Sanitation and Nutrition Divisions have completed a joint program of salt iodization which is helping to eliminate the problem of endemic goiter.

Registration of mothers and children with a view to their protection is becoming increasingly effective, and the family planning program has been established in 53 health services. This program, in which the individual participates voluntarily, was begun during the four-year period under review.

The malaria campaign achieved successful results with the implementation of the three-year plan, assisted by an AID loan and an increase in the ministerial budget for this campaign; as a result, the number of cases was reduced by 43,200 (from 68,500 to 25,300) between 1966 and 1969.

In the fight against tuberculosis, 1,350,000 persons were vaccinated during the period of the report. Out-patient treatment was improved, and by 1969 the sanatoria had an average of 150 vacant beds per month.

Laboratory services have, naturally, increased their examinations to meet the demand; 42 laboratories are now available to support clinical, epidemiological, and sanitation activities.

Although the training of personnel has been increased, we believe that further improvement is needed; evaluations and studies of available personnel

indicate that the shortage of manpower is one of the major problems faced by the Ministry of Public Health.

Short courses and inservice training are being used as a means of encouraging all health workers to teach the rudiments of prevention and cure of disease through talks, demonstrations, or booklets. In this, emphasis is placed on the cooperation of teachers and school-children.

The third evaluation of the Health Plan was conducted in 1967. It included qualitative evaluation: human resources, material resources, financial resources, administration; quantitative evaluation: analysis of mortality, morbidity, consultations and hospital discharges, and their structure and forecast; and analysis of resources, activities, productivity, and costs for each local and regional service and for the country as a whole.

The fourth evaluation of the Ten-Year Health Plan was begun with the cooperation of technical personnel from PAHO/WHO, but had to be suspended because of the problems that arose in 1969.

An Organization and Methods Office was established during the four-year period.

The Ministry of Public Health appreciates the cooperation of the institutions and countries mentioned in our report and wishes to reaffirm its decision to collaborate with all the countries in bringing about a reduction of the problems so seriously affecting the well-being of the peoples of the Americas.

President:* Thank you very much. The session will now be recessed.

*The session was suspended at 10:25 a.m.
and resumed at 11:00 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

We shall now examine Item 12 of the agenda. The Secretary will please read the provisions of the Rules of Procedure of the Conference relating to the election of the Director.

Dr. Arreaza Guzman (Assistant Director, PASB):* The pertinent provisions of the Rules of Procedure read as follows:

Rule 45. 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.

Rule 50. Elections shall normally be held by secret ballot. Except as concerns the election of Members of the Executive Committee and of the Director of the Bureau, when the number of candidates for elective office does not exceed the number of offices to be filled, no ballot shall be required and such candidates shall be declared elected.

Where ballots are required, two tellers shall be appointed by the President from among the delegations present.

Rule 56. 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.

The General Committee, consisting of the President, the two Vice-Presidents, and the Rapporteur, the Chairmen of the two Committees, and the head of the Delegation of Brazil, established at its first 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 50 of the Rules of Procedure, paragraph 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 everyone.

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 forms signed by the tellers, and if any person has obtained the necessary majority vote, he will declare the person elected. Otherwise, the President will call for a new vote, in conformity with the third paragraph of Rule 56 of the Rules of Procedure.

8. Any matter not covered by the above-described procedure will be submitted to the Conference for consideration.

President:* The Delegate of Uruguay has the floor.

Dr. Ronco (Uruguay)* On behalf of the Government of Uruguay it is my privilege to nominate Dr. Abraham Horwitz for a new term of office as Director of the Pan American Sanitary Bureau.

The statements heard yesterday on the accomplishments of the Governments and the work of the Organization during the past decade and on the projects to be carried out during the current decade are the best indication of the need for continuity in the work of the Pan American Sanitary Bureau in behalf of the health of the people.

The delegates went beyond approval of Dr. Horwitz's report, including the plans for the years immediately ahead: they commended him warmly on the work he and his associates had done. This work reveals a doctrine and a manner of implementation fully in accord with the policy set by the Governing Bodies and the countries, a policy characterized by adherence to modern principles and practical methods for efficient and gradual action to resolve the problems of highest priority. It also reveals a profound concern for humanitarian considerations.

We have witnessed to what great extent the Pan American Sanitary Bureau, under Dr. Horwitz's direction, has managed to intensify its activity in the fields of eradication and control of communicable diseases, health promotion and protection, and the training of personnel, while at the same time extending its sphere of action into such other problems as nutrition, administration of medical care services, chronic diseases, health and population dynamics, drug quality control and costs, the common market for biological products, control of foot-and-mouth disease and other zoonoses, the participation of the health sector in programs for the development of river basins, the use of electronic data processing, the application of scientific research, etc.

Another noteworthy feature has been the Organization's consistent advocacy of the thesis that health is an essential component of development and social well-being, a doctrine which has been included in such instruments as the Act of Bogotá, the Alliance for Progress, and the Charter of Punta del Este.

Moreover, successful negotiations with international lending agencies, particularly the Inter-American Development Bank, have led to their establishing a policy for investments in programs of health and well-being and have thereby made possible a noteworthy advance in the provision of water supply to urban and rural areas and progress in other health programs in most of the countries of the Hemisphere. Support has also been obtained from the IDB for the inclusion of medical education in health programs with a view to promoting the training of professionals more attuned to the needs of their countries. This has included the planning of medical education, improvement of its quality, the training of teaching and research personnel, medical pedagogy, and the provision and improvement of teaching materials.

In other words, the PASB, in addition to intensifying its traditional programs, has given health activities a new dimension, a dynamism in keeping with the advances of science and with conditions in the countries. In all of this, the unique role played by Dr. Horwitz was possible only because of his outstanding professional qualifications and personal attributes, including sound academic and humanistic training, a brilliant mind, unwavering dedication and effort, efficiency as an administrator, and above all, a calling to serve the cause of improved health and well-being for our peoples.

The achievements I have mentioned are evidence of progress, but they also give rise to problems rendered even more complex by the need to apply existing knowledge and to promote new initiatives in relation to situations arising from modern technology and development and affecting social well-being.

The usefulness of international organizations is in direct proportion to their ability to perceive such situations and offer timely cooperation. Their effectiveness, especially when they have succeeded in faithfully interpreting the policies of the Governments without interfering in them, renders the continuity of their work especially essential.

The Pan American Sanitary Bureau has met this criterion of effectiveness, and that is why my Government, in recognizing the meritorious work of the Director and his associates, considers it extremely desirable for Dr. Horwitz to continue in his present functions.

President:* The Delegate of Venezuela has the floor.

Dr. Mays Lyon (Venezuela)* I have the high honor to place before this Conference the name of a distinguished Colombian physician, Dr. Gabriel Velázquez, for the office of Director of the Bureau.

Dr. Velázquez, a graduate of the University of Colombia, class of 1944, has had a long and distinguished career in the health service of his country, rising from Chief of the Municipal Medical Services in Cali to Minister of Health of Colombia. During his many years of activity, which have made him well known throughout the Hemisphere, he has served ably and dynamically in other countries of the Americas. Dr. Velázquez has even been a consultant to the Pan American Sanitary Bureau and, until this year, to the World Health Organization. As an educator, he was the first Dean of the School of Medicine in Cali, and he has taught in several of our countries, including, I am proud to say, my own.

He has been President of the Colombian Association of Medical Schools and founder and Vice-President of the Pan American Federation of Associations of Medical Schools.

He has received the highest decorations of the Colombian Government, including the Cross of Boyacá, awarded to him for services to public health, and the Government of Bolivia has conferred on him the Order of the Condor of the Andes for services to medical education and health in Bolivia.

Dr. Velázquez was awarded the degree of Master in Administration in 1967 and has served as guest professor of social medicine in the Harvard School of Public Health.

In nominating Dr. Velázquez, I do so fully convinced that his dynamism, sound training, and past performance offer the best assurances of distinguished work as the head of the Bureau.

President:* Does anyone else wish to speak?

Dr. Díaz-Granados (Colombia):* I wish to thank the Chief of the Delegation of Venezuela for the honor he has paid Colombia by proposing one of its most distinguished public health specialists for Director of the Pan American Sanitary Bureau.

It is an honor for Colombia, and our desire to encourage rotation in executive posts, such as this and others, is consistent with a traditional policy shared by other countries and in other organizations, of stressing continuity with change. In other words, it is important to follow the important guidelines laid down by those who have been directing these international institutions,

but at the same time to encourage renewal so that all of the countries, and they all have citizens highly qualified in every field of human knowledge, may have the opportunity to fill the leading positions and direct policies such as that with which we are now concerned.

I consider it important for this feeling to prevail. The Delegate of Nicaragua has told us that he is not in favor of continuity in executive positions, a very natural and logical position which, while implying appreciation for past accomplishments, also holds out an incentive and encourages an aspiration and a desire of all the other countries to occupy positions of importance.

Dr. Velázquez, the Delegate of Colombia, whose candidacy has been proposed, embodies all of the great aspirations of Colombia's youth. A man of tremendous modesty, he stands out for his intellectual and human qualities, which place him among the best trained and most scholarly of the men devoted to the solution of the problems of the Americas.

I am convinced of the need for change with continuity. It is imperative to bring further decentralization into the policy of the Pan American Sanitary Bureau and to establish agencies in the various zones of the Region so that the problems of each can be better known and the decision-making process strengthened, and so that all decisions will not have to be taken in Washington. A strong feeling of national identity must prevail, and it is the zones themselves that should interpret, examine, and identify the problems, since, along with the common characteristics present in the Americas, there are also variations.

The sole purpose of these brief remarks has been to thank the Delegate of Venezuela on behalf of the Government of Colombia for the honor he has paid my country.

President:* The Delegate of Nicaragua has the floor.

Dr. Avilés (Nicaragua):* Since the Delegate of Colombia has referred to a statement I made, my Delegation wishes to clarify the position and sentiments expressed in its remarks congratulating Dr. Horwitz, Director of the Pan American Sanitary Bureau.

An election always gives rise to an electoral campaign, and in an electoral campaign banners are always held aloft to persuade the voters to support a given candidate or withhold support from another.

I, personally, have had occasion to exchange views with the Delegation of Colombia on the matter of electing the Director of PASB, and I have listened of course with great interest to the description of the programs favored by the Colombian candidate, Dr. Velázquez. However, since we did not know the exact

day on which the election would be held, I told my distinguished colleagues and friends from Colombia that we were awaiting the arrival of the Minister of Public Health of my country, who would bring instructions as to how to cast our vote. However, in addition to being my country's Director of Health Planning, I am also in charge of international affairs, especially those involving relations with the World Health Organization and the Pan American Health Organization. In view of its experience in this field, our office is consulted by the Government, the Ministry of Foreign Affairs, and the Ministry of Public Health. The office has been represented at meetings such as this since 1955, when the Eighth World Health Assembly was held in Mexico, and we have sufficient information for appraising the merits of administrators of the international health organizations.

One of the arguments put forth by one of the candidates for Director has been that re-election is never to be desired. But "re-election" is a very difficult word to interpret and understand. It is a word that can just as well be used to defend or to attack a position. The Constitution of the Organization makes no mention of re-election nor does it prohibit a Director's continuance in office. But using re-election as a political and partisan term is something quite different from applying the word to "re-election" to an executive office.

That is what I wished to say in my remarks yesterday congratulating Dr. Horwitz, because the best way of congratulating him is to give him a vote. It is not a matter of re-electing him, for even if he does not want to continue in office, and even if this would be a sacrifice for him, we, these countries of the Americas, this Organization, and this Conference, are duty bound to take his achievements into account and to give him the vote of confidence he deserves, thus enabling him to continue his program. This will not be a re-election, but rather the continuance in office of a manager who has demonstrated his integrity, his efficiency, and above all, his profound knowledge of the health problems and the economic and social problems of all our countries.

President:* The Delegate of Guatemala has the floor.

Dr. Uclés (Guatemala)* We are tremendously pleased to see that the names of two distinguished medical personalities are being considered. This pleasure arises from the fact that we would not have liked to take part in a vote in which there was only one candidate, however impressive his qualifications might be. I believe that the possibility of making a choice in any situation or at any time is part of the democratic philosophy motivating our countries.

And, once again, that is why we are pleased to know that the delegates will be offered the opportunity to choose one of two possibilities.

This high level meeting is no appropriate occasion for propaganda. I say this because I have the impression—and in this I am speaking for my Government—that each of us will cast his vote not as an individual but as the representative of his country and that most, if not all, of us have received instructions from our Governments to vote in a given way. And so I say that the only proper procedure is to present the candidates and describe their curriculum for the benefit of anyone who is unfamiliar with their qualifications. Although we are free to express our opinions and sympathies, it is still my impression, perhaps a personal one, that in a high-level meeting such as this, a meeting of Ministers who represent their respective Governments at the summit of the health sector, the only proper procedure is to proceed to vote once the candidates have been nominated. For this reason, I shall refrain from analyzing the qualifications of the candidates nominated or discussing their relative merits or those of the systems they represent.

I simply wished to make these brief remarks to indicate that we have instructions from our Government as to how we should vote at the proper time.

President:* Does any other delegate wish to speak? The Delegate of the United Kingdom and the Delegate of El Salvador are appointed to serve as tellers.

The tellers took their seats to the left of the President, verified that the ballot box was empty, closed the box, and placed it within the view of all those present. They then handed each of the delegations a voting form.

The delegates will be called in alphabetical order by the Secretary and will please come forward as called to deposit their ballots.

Dr. Arreaza Guzman (Assistant Director, PASB):* There are 28 countries present. I shall call them in alphabetical order, except that the President, Rapporteur, and the two tellers will be called last.

A vote was taken by alphabetical order; the count of the votes was made.

President:* I shall read the results: Number of ballots deposited, 28; number of valid ballots, 28; number of ballots voided, 0; blank votes, 0; majority, 15; votes for Dr. Horwitz, 20; votes for Dr. Velázquez, 8.

According to these results, Dr. Horwitz is declared elected.

Applause.

Dr. Díaz-Granados (Colombia):* Unfortunately I was not given the opportunity to present some brief remarks before Dr. Horwitz was declared elected, but I will make them now in any case.

In the first place, I wanted to thank the delegations of those Member Countries who were planning to vote for the Delegate of Colombia. In the second place, I wanted to invite them to join with me, in the interest of the solidarity and unity that should govern the conduct of the countries of the Americas, to vote for Dr. Horwitz so that the record would show that he was elected by unanimous vote, by acclamation.

This was what I wanted to ask before the President formally declared Dr. Horwitz elected.

President:* Would the Delegates of Uruguay and the United States of America be good enough to inform the Director of his election and escort him back into the room.

Dr. Horwitz entered the room, amidst general applause, accompanied by the Delegates of Uruguay and the United States of America.

President:* Dr. Horwitz, it is our pleasure to inform you that you have been elected Director of the Pan American Sanitary Bureau for the coming term of office.

Dr. Horwitz (Director, PASB):* Mr. President, Ministers, delegates, and Dr. Candau: Thank you very much for this new display of confidence, which I of course receive in the name of all the staff and members of the Organization and which I should like to interpret to mean that the work done up to now and the proposals we have advanced for the next four years meet with the approval of the Governments.

I am led to this belief especially by the kind remarks that were made after the presentation of the *Quadrennial Report* for 1966-1969, the *Annual Report*, and the document on health conditions in the Americas, remarks which, to a large extent, should be applied to the Governments themselves.

It is a fact that man is the only creature, the only living being, who is not content with being what he is and lives in a state of constant rebellion, a rebellion which is the essence of each individual life.

But the real reward—and after many years I venture to say this here “at home”—comes when life gives one the opportunity to “realize” himself. This “realization” has always been for me a very simple thing: it is a matter of serving others with no ulterior motives of any kind.

And my feeling of gratitude, distinguished Ministers, arises basically from the fact that you and your Governments have given me during the past years, and for the years ahead, this admirable opportunity to "realize" myself by fostering the well-being of countless individuals unknown to me.

I am certain that this is the philosophy of service deeply rooted in the tenets of the World Health

Organization and the Pan American Health Organization, and I thank you once again for the opportunity you have given me to continue applying it. Finally, I should only like to assure you that our paramount objective for the next four years is to redouble our efforts.

President:* The session is adjourned.

The session rose at 12:10 p.m.

SIXTH PLENARY SESSION

Wednesday, 30 September 1970, at 3:05 p.m.

President: Dr. José Renan Esquivel (Panama)

President:* The meeting will come to order. Do we have a quorum, Mr. Secretary?

Dr. Arreaza Guzmán (Assistant Director PASB):* Yes, we have.

Third Report of the General Committee

President:* The Secretary will please read the report of the General Committee.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The General Committee met at 12.10 p.m. today and agreed on the following schedule:

1. The meeting will continue today with the discussion of the topics as listed in the order of the day distributed to the delegations, beginning with Item 37, Cholera, which will be presented by the Director-General of WHO.

2. Everything possible will be done to complete Item 11, Reports of the Governments, of which nine have yet to be presented.

3. The sessions of Committees I and II will begin on 1 October, at 9:00 a.m., if possible. These Committees, once installed, will elect their Vice-Chairmen and Rapporteurs and organize the discussion of the items assigned to each of them, as indicated in Document CSP18/34, which has just been distributed. Item 19, *Aedes aegypti*, assigned to Committee II, will not be discussed until next week since there is a paper related to this topic that is being translated and will not be ready until then.

4. Finally, the General Committee reviewed the draft resolutions on the Director's Quadrennial Report and on the Director's Annual Report. The revised drafts have been

distributed and will be considered at the next plenary session.

Item 37: Cholera

Dr. Candau (Director-General, WHO): I should like to refer first to the fact, a fact that is well enough known, that cholera has probably been endemic since the remotest ages in the lowlands along the Ganges and Brahmaputra Rivers in Eastern Pakistan and the eastern part of India, and in the Yangtse valley in China. The history of cholera has recorded six pandemics during the period 1817-1923, due to the spread of the disease along the routes of human travel. Since 1923, the disease has been confined to the Indo-Pakistan sub-continent, with occasional incursions into neighboring countries in Asia. There was an outbreak in Egypt and Syria in 1947-1948. Cholera also occurred during the Second World War in the Ukraine, but we have had virtually no pandemics since 1923. Besides the foci in the Indo-Pakistan subcontinents there was another focus of cholera in the Celebes in Indonesia. This was called "para-cholera," since it was found that El Tor vibrios were responsible for that focus.

Following the discovery of the cholera vibrio in 1884, it was observed that it was very common in nature to have hemolytic vibrios, while true cholera vibrio was not hemolytic. Nobody paid too much attention to this until 1906, when some of these vibrios were isolated at the El Tor quarantine station in Egypt. This is the reason for the name El Tor.

Since there was no cholera epidemic at the time, nobody paid much attention to this type of vibrio. In 1938, de Moor described endemic cholera in the Celebes in Indonesia due to the hemolytic (El Tor) biotype of *Vibrio cholerae*. Subsequently, the El Tor vibrio has been the etiologic agent in the seventh pandemic. We are now in the seventh pandemic. The six previous ones were due to the classical cholera vibrio. It is interesting to note that in recent years the El Tor biotype of the *Vibrio cholerae* has lost its typical hemolytic characteristic, and it is now distinguished from the classical vibrio by resistance to Mukerjee's phage IV, resistance to polymyxin, and ability to agglutinate chicken red-blood cells. There are distinctive epidemiological differences between El Tor and classical cholera. The infection-to-case ratio is higher with El Tor cholera, and the El Tor vibrio is generally hardier, surviving longer in the environment, making it more easily detectable in bacteriological surveys of water and night-soil samples. In addition, the few chronic carriers of *Vibrio cholerae* described in the literature have all been due to the El Tor biotype.

It is difficult to give a true account of the cholera situation in the world today, because of poor surveillance and reporting. However, from the figures reported to WHO, it is possible to follow the trend of the spread of the disease. It is quite clear that the present pandemic started in 1961 from an island in the Celebes. This occurred at the beginning of that year, and by May and June the disease had invaded several islands in the Celebes archipelago. This was believed to be due to a shifting of the Chinese population and movements of troops in the area. Sarawak became infected in late June following a regatta. From that moment the disease started spreading to other parts. Rumors of outbreaks in Kwantung Province on the Chinese mainland remained unconfirmed, but the disease continued its onward march, reaching Macao and Hong Kong in August, and the Philippines in September. It will probably never be known how this seventh pandemic actually began and how the disease was introduced into various countries.

When we look at the map we see that, starting from Celebes, the pandemic moved eastward in the direction of Sarawak, Singapore, and the Philippines and north to Korea and of course to China, about which we do not have any definite information. During the years 1960 to 1963 and 1964 the disease appeared in Asia: in Burma, Thailand, Cambodia, East Pakistan, and India. In 1965 and 1966 it continued westward in the direction of Europe, through West Pakistan, Afghanistan, Iran, and Iraq to the frontier of Turkey, thus arriving once again at the gates of Europe and Africa. This happened in

1966. During 1967-1968 the disease appeared and disappeared in several of these countries. The year 1969 saw a large expansion of the disease and a new country was invaded. It was Laos, which had not been invaded before. And so we arrived to 1970. But I think that before I come to 1970 I shall say more about the previous history of the disease, because I think it is of great interest to all countries in the Americas.

We should first consider that careful investigations have repeatedly shown that human beings—cases in the incubation, clinical, or convalescent stages, and their contacts—are the only reservoirs of the cholera vibrio. Animals living in and around infected quarters have been found to excrete vibrios for short periods, but are not real reservoirs. Recent studies in various cholera-affected countries have estimated that there may be 10, 25, or even 100 infected asymptomatic individuals in a community for every clinical case of cholera, particularly among family and household contacts. Excretion of vibrios by chronic carriers after recovery from El Tor cholera is not a common feature. In general the excretion of vibrios by cases and their contacts continues for only seven to 10 days. However, studies carried out in the Philippines have shown that some individuals can remain in the carrier state for four months to eight years, and that the vibrio can establish itself in the gall bladder. I think we are perhaps coming back to the story of typhoid.

It is quite interesting to see the change in the situation of cholera, and to realize that the Region of the Americas was not affected during the first pandemic, which lasted from 1817 to 1823. But the disease arrived in Europe, in the USSR in the region of Georgia and the Caspian and Black Seas. At the same time it arrived in Africa, in Mauritius, Reunion, and Zanzibar. The second pandemic (1829-1851) reached Canada, the United States of America, Mexico, Cuba, Guyana, Guatemala, Nicaragua, Colombia, Panama, Jamaica, and probably Ecuador, Peru, and Chile. The third pandemic (1852-1860) also came to Central America, Guyana, the United States of America, Mexico, the West Indies, Canada, Colombia, Venezuela, and Brazil. The fourth pandemic (1863-1875) is the one during which, for the first time, the vibrio arrived on the west coast of Africa, and we have descriptions of a very serious epidemic in Gambia, Senegal, and in Portuguese Guinea. Besides this it was found in Madagascar, the Seychelles, the region of Kilimanjaro, the Congo River, Tunisia, Algeria, Morocco, and so forth. This pandemic also reached the Americas, and cases were recorded in the West Indies, Guadeloupe, Santo Domingo, St. Thomas, Cuba, the United States of America, Central

America, Paraguay, Argentina, Brazil, Uruguay, Bolivia, and Peru. The fifth pandemic (1881-1896) reached Argentina and Chile. In Africa, its presence was recorded in what was called French West Africa, but there was no real epidemic in Africa, with the exception of Egypt. So we arrive at the sixth pandemic, which lasted from 1899 to 1923 (all through the First World War). This pandemic did not reach Africa south of the Sahara, or the Americas. The westernmost point that the disease reached was the island of Madeira. This means that in the present century we had no cholera in the Americas and no cholera in the western part of Africa.

Now the situation in 1970 is an extremely interesting one. In the first place, the disease has appeared in all the regions of Asia where it used to be endemic, and we have had cases notified from Indonesia, India, East Pakistan, Burma, Nepal, Korea, Vietnam, the Philippines, Malaysia, including Sabah and Sarawak, and Brunei, and one imported case in Japan. In the Middle East, the disease has been notified in Jordan, Israel, Lebanon, Syria, Saudi Arabia, and Dubai (a sheikdom on the Persian Gulf). It has been reported in Libya in North Africa, and also among refugees in camps under the responsibility of UNRWA and in Lebanon, Syria, Jordan, and Israel. That is nothing extraordinary, since these are more or less near to areas of endemicity. I should like to call your attention to one detail: Israel has reported 188 cases of cholera with only two deaths. That shows a mortality of a little more than 1 per cent, and I think this is an extremely important thing to keep in mind, because when cholera is well treated it becomes a benign disease and there is no reason for the emotion that has been aroused in many parts of the world.

The situation in Europe is quite interesting. The disease has appeared on the Caspian Sea in the area of Astrakhan in the USSR; here we have the type El Tor Inaba. It also appeared on the Black Sea, at Odessa and Kerch, where it was type El Tor Ogawa. The total number of cases in the USSR—and I am referring to the last two months, starting from the beginning of August—was 720—503 in Astrakhan, 92 in the Odessa area, and 87 in Kerch. In addition, 38 cases were imported in various points of the USSR. These outbreaks have been very well dealt with by the USSR authorities and notified to WHO, and the country at the present moment is clean. It is not an infected area any more. But last week there was a case of cholera (El Tor Ogawa) reported from the United Kingdom (Wales); the case probably started, or was recognized, on 12 September. The impression is that the case is that of a person who had taken a vacation in Tunisia, on the island of Djerba. However, I should like to say that as of

today, we do not know of the existence of cholera in Tunisia, though we have had very good collaboration with the Tunisian authorities. As you can see, with so many mild cases and the possibility of asymptomatic carriers, it is a little difficult really for us at the present moment to ascertain that the case came from Tunisia. I am making this reservation because I think the Tunisian authorities have given every possible help to WHO.

We have another situation, and I think an extremely serious one, in Africa. For the first time certainly in this century, and probably for more than a hundred years, cholera has appeared in West Africa, in Guinea. Here a large number of cases have occurred, and we are having a serious problem because one case already arrived in Ghana from Guinea. The patient was isolated at the airport and died; the clinical and bacteriological diagnosis was cholera. Last week we were notified of two cases in a fishing village in Sierra Leone, a neighboring country of Guinea, both cases being positive clinically and bacteriologically. This situation in Guinea has been worrying us because of the possible expansion of the disease to other areas of West Africa. If you realize that Guinea is very near Senegal, and very near Liberia, and that this coast is in continuous contact with the Americas, you can see how important it is to recognize the existence of epidemics in this part of the world.

Your Governments have been informed in a document circulated by the United Nations that WHO was disseminating information which was not true. I should like to give you a few explanations. On 19 August, I received a cable from the Minister of Health of Guinea notifying the Organization that there was a severe epidemic of acute diarrhea in the Conakry region, that 230 cases had been hospitalized, 27 of which were fatal, and that there was a strong clinical and bacteriological presumption of cholera. The same cable contained a request for cholera vaccine, drugs, and a WHO consultant. WHO sent to Guinea a team consisting of one epidemiologist, one bacteriologist, and one clinician specialized in the diagnosis and treatment of cholera. Our epidemiologist and bacteriologist, working in close cooperation with their Guinean counterparts, isolated *Vibrio cholerae* biotype El Tor, serotype Ogawa, from several hospitalized and ambulant cases, from all four samples of sewage from different parts of the city, and in one of two samples of sea water near the coast. Two of the 19 vibrio strains isolated before the arrival of the WHO team were made available to the WHO experts and were confirmed as *Vibrio cholerae*, El Tor, serotype Ogawa. It is quite clear that no blame attaches to Guinea: Guinea has been the victim of the

importation of the disease from one of the endemic areas of the world. However, this contains a very important lesson for all of us. Because they had no experience of the disease, they were not able to diagnose it, probably for several months, and when they did at last diagnose it they had a few hundred or even thousand cases on their hands. I think this lesson is extremely important for all of you to keep in mind. As I said, normally with cholera—when you have so many mild cases and you have carriers—although you see the “iceberg,” as it were, you see only one part of it, and not the major part that lies below the water. This is one of the problems that is worrying us today. We hope that we shall be able to help the Government of Guinea, and also neighboring countries. One of the actions taken by WHO was to organize short courses from 7 to 11 September, one in English and the other in French. The English-language course was held at Ibadan (Nigeria), and was attended by 33 medical officers and scientists from 11 African countries. The French course, held at Bobo-Dioulasso in Upper Volta, was attended by 38 medical officers and scientists from 14 French-speaking countries. I think this is a very important example of how WHO emphasized the need to call the attention of the medical profession and the health authorities to the problem of cholera.

Now I should like to say what measures can be taken. I think really very little can be done. I think even the countries that are free from cholera, the countries of the Americas, will have to ask for the vaccination certificate. The vaccination is not very efficient, but is the best weapon you have. Probably the vaccination does not immunize more than 50 per cent of the persons vaccinated for more than six months, and then only if the vaccine is really good. Research is under way to try to improve the vaccine. But even if half of the people are immunized, the number of susceptible persons coming in contact with the source of the infection will be much less than if you do not vaccinate. According to the International Health Regulations that will come into force on 1 January 1971, you can ask for a vaccination certificate, and you can keep a person holding a valid one under surveillance for a period of not more than five days. If a person has no vaccination certificate, he can be isolated for five days. But I think the most important thing is really for all the authorities in the Americas, especially those in the most exposed countries—the countries in North America and in South America that have direct air connections with Africa—to bring to the attention of the medical profession the ways of diagnosing cholera and to ensure an early diagnosis of the disease, if it does arrive in the country.

In a country that has a reasonable medical service there is no reason to worry about cholera. Cholera is a benign disease if good treatment is available. The use of antibiotics, especially tetracycline, ensures a very low mortality from it. I think this positive attitude ought to be taken, not the negative one of resorting to exaggerated measures that are of no value at all. We are all in one world, and when we remember that in the previous pandemics, when transportation was so much more difficult, the disease went, in the Americas, to Chile, Argentina, Paraguay, Uruguay, Brazil, and to the west coast, there is no reason at all to think that there is no possibility today of its arriving in the Hemisphere. But I think if the health authorities know about this, and if the medical profession is in a position to diagnose cholera, there is no reason for any emotion to be aroused or for there to be any great anxiety about this disease, which today, I repeat, is a benign disease.

President:* Does any delegate wish to speak on this interesting topic?

Dr. Wells (Barbados): I should like to say how very much interested I was in Dr. Candau's very clear exposition of the history of the disease. There is a question I should like to ask in connection with immunization against cholera. The usual procedure is to give the vaccine in the recommended dose, usually 1 ml, subcutaneously. My question is this: Is there any contrary indication to giving it intradermally, and is the immunity that results from intradermal injection as effective as that resulting from subcutaneous injection?

Dr. Candau (Director-General, WHO): I believe that the question asked by the Delegate of Barbados is extremely important to us. We are using the jet injector and immunizing by intradermal injection, but we do not have any proof of the value of this method. We use it because there is no other way, in regions like Africa where there is such a shortage of manpower, to vaccinate large numbers of persons. We are using the method; but I do not think that at the present stage of scientific knowledge we can answer your question. The small group that has been studying the matter has the impression that the response is exactly the same.

President:* The Delegate of Mexico has the floor.

Dr. Campos Salas (Mexico):* It sometimes happens that travelers from infected areas arrive at certain major cities without a vaccination certificate. Moreover, it is sometimes impossible to monitor these persons for a period of five days because they do not know what hotel they will be staying at or whether they will change

their place of stay. What measure might be advisable as a substitute for direct surveillance? Might some type of preventive treatment with tetracycline be the answer?

Dr. Candau (Director-General, WHO): I do not think I am able to answer your question. There is no doubt that if a traveler from an infected area has no valid vaccination certificate, you can isolate him. If you have no way of isolating him during five days, the only thing you can resort to is surveillance. As to giving tetracycline as a preventive, I do not think there is enough experience to answer your question. It has been used for control of carriers and of domiciliary transmission, but I do not know if it will be possible to use it as a means of preventing introduction of cholera in a country or interrupting the course of an epidemic.

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* I should like to supplement the Director-General's excellent and interesting statement with a description of certain measures we are taking in the Region of the Americas.

The Ministers will no doubt recall that about a year ago a course on bacteriological diagnosis of cholera was held at the Center that was then called the National Communicable Disease Center of the U.S. Public Health Service, in Atlanta, Georgia. The course was attended by some 12 microbiologists. This course will be held again.

Furthermore, information on the progress of the epidemic has been distributed upon its receipt from WHO Headquarters. Also, at the request of the Colombian Government one of our advisers visited the Connaught Laboratories of the University of Toronto, in Canada, to perfect his knowledge of modern vaccine production techniques, and we are confident that Colombia will be able to produce the vaccine and even have some available for other countries requiring it. But since the technique is simple—this is a vaccine based on a killed microorganism—it is possible that other Governments will be interested in producing it, as they already have the strain that is used today. In such event, our expert would be in a position to advise the laboratories concerned. All of these are safeguard measures to avoid being taken by surprise. Moreover—and I am not certain whether the Director-General emphasized this—it is possible that WHO will issue an updated edition of a booklet containing information on the latest treatment, which has been undergoing changes, and on the characteristics and methods of administration of the vaccine. This booklet, once translated into Spanish, will be given wide distribution by us.

In short, while it is not a matter of creating any alarm, there is evident danger that with the enormous

air traffic between the western coast of Africa and the eastern coast of the Americas a carrier or patient of the disease may arrive.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I want to say that the Government of my country is very concerned over this problem because of the very direct links between Africa and Brazil. The necessary measures are therefore being taken at all sea and air ports to maintain vigilance and discover any possible cases.

PAHO recently awarded fellowships to two Brazilian officials to enable them to attend a course to be held in October. These two technicians will, upon their return, organize a course for medical officers and laboratory directors from all the states of Brazil to train them in the diagnosis of the disease. The country is producing vaccine in sufficient quantity to meet present needs. In addition, a Portuguese version is being prepared of the booklet mentioned by Dr. Horwitz, based on the excellent information previously distributed by WHO.

President:* The Delegate of Cuba has the floor.

Dr. Martínez Junco (Cuba):* The statement by Dr. Candau was very interesting to us. We are very grateful to him because his statement supplements a number of reports we already had on the beginning of what appears to be a new pandemic, and we have been very vigilant in our efforts to keep our territory from becoming a springboard for its expansion. We have taken measures at sea and air ports and, above all, sanitary measures that we consider very important.

We want to say, also, that, thanks to the courses, our bacteriologists are able to maintain a supply of the strain in our country. We are making serodiagnoses and have spread the knowledge of the diagnostic procedure to the provincial laboratories. We are keenly interested in the possibility of producing the vaccine, and while I am not a bacteriologist I believe it might be useful to mention, in connection with the question asked as to the method of immunization, that the toxin of the El Tor vibrio has a component whose antigenic effectiveness is very brief, and this is a component that acts on the lesion of the intestinal cell that produces all the electrolytic imbalance or loss of fluid. This component does not change its antigenic response, regardless of the method.

President:* Does anyone else wish to speak? The Delegate of Trinidad and Tobago has the floor.

Dr. Henry (Trinidad and Tobago): I should like to ask whether any countries are at present employing

isolation of travelers who arrive in their countries from infected areas."

Dr. Candau (Director-General, WHO): There are countries that are doing this, but there are others that are doing much more, things in excess of the International Health Regulations, believing that what used to be called a *cordon sanitaire* will solve their problem. Isolation is being resorted to in many areas of the world, and persons not vaccinated are being kept isolated for five days.

Dr. Gielen (Kingdom of the Netherlands):* I am from a very small country, the Netherlands Antilles. We have very intensive air and sea traffic. I do not consider the problem of cholera to be of very great importance. But air traffic is of great importance to our people. If we start checking every aircraft coming from the areas that have been mentioned, it will take us hours and hours, and that will have repercussions on our economy. I wonder whether it would not be possible to devise something to make it easier to check people coming from those areas, some stamp of a special color for instance. Checking one hundred people from one aircraft takes perhaps two hours, and all air traffic at the airport is affected. So I wonder whether it would not be possible to devise some way of identifying these persons by checking their passports to see whether or not they come from those areas.

Dr. Candau (Director-General, WHO): I believe that would be possible, but it could only be done by an agreement among Governments, and this is what makes the problem more difficult. I think, on the other hand, that countries like the USSR, for instance, did not let anyone leave the area during the epidemic period without being vaccinated. There was no danger because they insisted on people being vaccinated five days before they left the area. This is another thing countries could do: establish a system of mutual confidence based on the knowledge that they can trust each other to vaccinate people five days before they are allowed to leave an infected area.

President:* The Delegate of Paraguay has the floor.

Dr. Godoy Jiménez (Paraguay):* I believe that my country, for geographic reasons and perhaps because of traffic patterns, is the least threatened by this situation, but we needed to have a vaccine because our population was naturally worried. We turned to the Pan American Sanitary Bureau and managed to buy a small supply, but we still need more and are thinking of using the Emergency Revolving Fund, in which case the Ministry

will repay the corresponding expense. In short, we need a larger supply of vaccine at this time in order to be prepared and, particularly, so that when our people ask us whether we have the vaccine we can tell them that we do.

Furthermore, I do not seem to recall any mention of the number of cases diagnosed or treated, the number of deaths, the mortality rate, etc.

Dr. Candau (Director-General, WHO): What I mentioned previously was just an example. In areas where there is well-organized treatment, mortality from the disease—as in the case of Israel—has been little more than 1 per cent. Out of 188 cases they had two deaths, and one cannot expect not to have any deaths because there are small children, and old people and there are always other factors contributing to mortality. But I think that what Israel has demonstrated is that in practice a high mortality of cases can be avoided, allowing for the fact that some fatal cases cannot be avoided owing to situations other than cholera. This is one significant example. The Russians did not give exact figures, but they said that mortality was negligible in the approximately 500 cases they had in the early part of the outbreaks. That is the best information we have. When there is no treatment, mortality goes up to around 8 to 10 per cent. In the case of Guinea, for instance, it was quite clear that mortality was nearly 10 per cent in the first few days, until the country began to have the resources for treatment and to know better how to administer it.

President:* The Delegate of the United Kingdom has the floor.

Dr. Frazer (United Kingdom): I was most interested in what was said about the vibrio being found in sea water. How long does the vibrio survive in salt water? Obviously if we are unlucky enough to find a case at an airport on an island, there is no knowing where the vibrio is going to end up.

Dr. Candau (Director-General, WHO): The infected samples were from the beach. When the tide goes down it leaves pools of brackish water, and it was in those puddles that the vibrio was found. I do not want to give the impression that it was found in the sea offshore; it was in those beach puddles, at low tide, not far from where the drains emptied into the sea. Of the two samples taken, one was positive. This is important in the case of Guinea, because our impression was that the fishermen going along the coast from one country to the other would spread the disease. In fact what happened in Sierra Leone was predicted three weeks beforehand.

The disease was carried by fishermen going from one small harbor to another.

President:* The Delegate of Argentina has the floor.

Dr. Rabinovich (Argentina):* In connection with the relative effectiveness of cholera vaccine, it is important to bear in mind the recommendation that two doses of vaccine be given and not only one as would appear to be suggested by the mention of a vaccination. Actually two vaccinations should be administered, with a given interval, and some even recommend three. I also wish to point out that, once an epidemic begins, cholera vaccine does not reduce it or check it entirely, at least according to the information available to us. What I am saying is that vaccination is effective as a preventive tool but not as a means of controlling an epidemic already in progress, and this makes it imperative for countries susceptible to this type of infection to restrict the possible entry of carriers or patients as much as possible.

In regard to this general subject I should like to say that because of the diverse antigenic effectiveness of the vaccines, which is by no means always the same, we are renewing our strains and bringing them up to date. Also, we require two vaccinations, and we issue a certificate (a small information card) to travelers who are going to countries declared to be infected areas, or to local infected areas, telling them to visit a physician should the slightest symptom occur. They are told of the possible consequences to them and instructed to report any symptoms and, of course, suspected cases, to the health office or department at the border. This is the only sure way of checking an epidemic, which, once on the way, can unfortunately not be stopped by vaccination.

President:* The Delegate of Cuba has the floor.

Dr. Martínez Junco (Cuba):* We should like to emphasize that in the opinion of our Government's competent agencies, and considering the deep anxiety that the menace of this disease can induce in the people, vaccination does not afford the best means of protection, not only because of the short duration of the immunity it provides but also because of the low percentage of the immunity. If we have no other alternative, perhaps our best procedure would be to allow the people to think of vaccination as the most effective possibility.

Furthermore, we understand that the cholera vibrio does not subsist in a high alkaline environment, that it needs an acid environment in order to subsist, so that its presence in sea water would not signify that it can live in this environment but rather that the sea water has

become so polluted that for all practical purposes it is no longer sea water at all.

*The session was suspended 4:00 p.m.
and resumed at 4:30 p.m.*

Item 13: Election of Three Member Governments to the Executive Committee on the Termination of the Periods of Office of Nicaragua, Trinidad and Tobago, and Uruguay

President:* The session will be resumed. We are going to elect three Member Governments to serve on the Executive Committee, replacing Nicaragua, Trinidad and Tobago, and Uruguay, whose periods of office have terminated. The Secretary will now read Rules 54 and 55 of the Rules of Procedure.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The rules are as follows:

Rule 54. The Conference shall elect the Member Governments to serve on the Executive Committee by secret ballot, in conformity with Article 15, paragraph A, of the Constitution.

Rule 55. The term of office of Member Governments elected to the Executive Committee shall begin immediately after their election and they shall hold office until their successors are elected.

Since this is a vote by secret ballot, the provisions of Rule 50 will apply. According to these provisions, tellers should be appointed to count the votes, and the election will be decided by majority vote of the Governments present and voting, which means that an absolute majority, or one more than half the number of votes cast, will be required for election. Blank ballots will not be taken into account in computing this majority.

Rule 52 provides for cases in which the number of candidates receiving more than one half of the votes is greater than the number of elective places to be filled, in this instance three places. In such event, the Rule provides as follows: "If the number of candidates obtaining such majority is greater than the number of elective places to be filled, those candidates obtaining the largest number of votes shall be deemed to have been elected."

These, then, are the rules applicable to the election of the three members of the Executive Committee.

Dr. Uclés (Guatemala):* We should like to place before the delegates for consideration the candidacy of Honduras to fill one of the vacancies on the Executive Committee resulting from the completion of the terms of office of Nicaragua, Trinidad and Tobago, and Uruguay. The countries of Central America and a good

number of the other countries represented at this Conference have stated that they would view this candidacy with pleasure.

Dr. Avilés (Nicaragua):* The Delegation of Nicaragua nominates the United States of America to occupy one of the places that would be left vacant on the Executive Committee. As the delegates are aware, the United States has always demonstrated its keen interest in cooperating, both here at Headquarters and directly with the Governments of the countries in resolving their problems. Moreover, it has a team of representatives on the Executive Committee whose work invariably yields very interesting results. For this reason, although we are not always in agreement with them, we consider it desirable that they be represented on the Executive Committee.

Dr. Parra-Gil (Ecuador):* I should simply like to ask the Secretary whether it is possible to vote on the same ballot for the three countries or whether a separate ballot should be taken for each place to be filled.

Dr. Arreaza Guzmán (Assistant Director, PASB):* According to the Rules the names of the three countries can be placed on a single ballot.

Dr. Parra-Gil (Ecuador):* On behalf of the Delegation of Ecuador, I wish to propose Brazil to occupy one of the vacant places to be filled in this election.

Dr. Mayz Lyon (Venezuela):* The Delegation of Venezuela seconds the nomination of Honduras, Brazil, and the United States of America presented to this meeting.

President:* The next order of business is the appointment of the tellers. The Secretary will please read the relevant Rules.

Dr. Arreaza Guzmán (Assistant Director, PASB):* Rule 50 reads as follows:

Rule 50. Elections shall normally be held by secret ballot. Except as concerns the election of members of the Executive Committee and of the Director of the Bureau, when the number of candidates for elective office does not exceed the number of offices to be filled, no ballot shall be required and such candidates shall be declared elected.

Where ballots are required, two tellers shall be appointed by the President from among the delegations present.

This rule would apply to the present situation. However, there is some possibility of doubt, since Rule 54 says very categorically that:

Rule 54. The Conference shall elect the Member Governments to serve on the Executive Committee by secret ballot, in conformity with Article 15, paragraph A, of the Constitution.

Dr. Godoy Jiménez (Paraguay):* I was about to refer to the situation just pointed out by the Secretary, but I still have the impression that we would have to reach an agreement on the rule first read by the Secretary. If there are no other candidacies to fill these three places, the three countries nominated thus far—Honduras, the United States of America, and Brazil—would have to be declared elected. The Delegation of Paraguay continues to support these three candidacies.

Dr. Rodríguez Castells (Argentina):* Since I am usually very respectful of the Rules of Procedure, I propose in this case that the only three candidates nominated be declared elected by acclamation.

If there are no other candidates, why should we lose time with secret ballots, which in any case are announced?

President:* Are all the delegates in agreement?

With all due respect to the Chair and the opinion of the distinguished members of this Conference, the Constitution is very clear. If, for example, there is only one candidate for Director of the Bureau, the election should still be made by secret ballot, and even if we all announced that we intend to vote for that candidate, the election must be made. This applies to the Executive Committee as well. It is traditional, and the point has been raised on other occasions. The only result is that we have to take the trouble to come forward and deposit our votes. But if we failed to do this and anyone challenged the voting, the results would be legally void under the terms of the Constitution.

We shall now proceed to a vote. The Delegates of Venezuela and Trinidad and Tobago are appointed to serve as tellers.

Dr. Arreaza Guzmán (Assistant Director, PASB) proceeded to call the delegate of the various countries in the English alphabetical order to deposit their votes: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, France, Guatemala, Guyana, Haiti, Honduras, Jamaica, Kingdom of the Netherlands, Mexico, Nicaragua, Panama, Paraguay, Peru, United Kingdom, United States of America, Uruguay, Trinidad and Tobago, and Venezuela.

The balloting then proceeded.

President:* The tellers have handed me the results of the voting, which are as follows: Number of votes obtained—Brazil 27, United States of America 17, Honduras 26.

Decision: Having obtained the required majority, the Governments of Brazil, Honduras, and the United States of America were elected members of the Executive Committee.

Item 16: Technical Discussions: Venereal Diseases as a National and International Health Problem

Election of Moderator and Rapporteur

Dr. Alvarez Gutiérrez (Mexico):* I nominate Dr. Alfredo N. Bica, Delegate of Brazil, for Moderator of the Technical Discussions, and Dr. Mervyn U. Henry, of Trinidad and Tobago, for Rapporteur.

President:* Are there other nominations? The Delegate of Uruguay has the floor.

Dr. Ronco (Uruguay):* My country seconds the nominations made by the Delegate of Mexico.

Dr. Arreaza Guzmán (Assistant Director, PASB):* In the present case, since there are no other candidates, Rule 50 can be applied. The first paragraph of the Rule says: "when the number of candidates for elective office does not exceed the number of offices to be filled, no ballot shall be required and such candidates shall be declared elected."

Decision: The Representatives of Brazil and of Trinidad and Tobago were elected Moderator and Rapporteur, respectively, of the Technical Discussions.

Application of Article 6-B of the Constitution of PAHO (conclusion)

President:* The Rapporteur will read the draft resolution on this subject.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The General Committee has approved the following draft resolution, in principle, for submission to the Conference and for consideration and possible approval:

The XVIII Pan American Sanitary Conference,

Considering the significance of decisions to be taken at the XVIII Pan American Sanitary Conference and the importance of full participation by all Member and Participating Governments; and

Recognizing the efforts made by those Governments in arrears more than two full years to meet their obligations and thus comply with the Constitution of the Pan American Health Organization,

Resolves:

To accord the right to vote in the XVIII Pan American Sanitary Conference to those countries affected by Article 6-B of the Constitution of the Pan American Health Organization.

President:* The draft resolution read is before you for consideration. Those in favor will please so indicate by a show of hands.

Decision: The draft resolution was approved.¹

Item 8: Annual Report of the Chairman of the Executive Committee (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution approved by the General Committee on this item reads as follows:

The XVIII Pan American Sanitary Conference,

Having reviewed the Annual Report of the Chairman of the Executive Committee, Dr. Victorio V. Olguín, Representative of Argentina (Document CSP18/15), on the work of that Governing Body during the period that has elapsed since the XIX Meeting of the Directing Council; and

Bearing in mind the provision 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. Victorio V. Olguín, Representative of Argentina (Document CSP18/15), and to commend him and the other members of the Committee on the work accomplished.

President:* The draft resolution is before you for discussion. Those in favor will please so indicate by a show of hands.

Decision: The draft resolution was approved.²

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

Dr. Arreaza Guzmán (Assistant Director, PASB)* In keeping with the decision of the General Committee, the President has asked me to tell you that he believes it would be preferable to use the remaining time, about 45 minutes, for the presentation of country reports. There are still nine countries that have not presented their statements. Since it will surely not be possible for all of these countries to speak during this time, another

¹Resolution II. *Official Document PAHO 104*, 59-60.

²Resolution III. *Official Document PAHO 104*, 60.

plenary session will have to be held tomorrow during the first part of the morning to hear the last remaining statements, and the Committees will begin their work immediately after the coffee break.

President: * The Delegate of Colombia will present his report.

Report of the Delegation of Colombia

Dr. Díaz-Granados (Colombia): * I am unfortunately not blessed with any particular skill in summarizing. I must therefore begin by apologizing in advance for any slight lack of coordination in my statement.

The Ministry of Public Health of Colombia has adhered also to the concept that health should not be regarded as a privilege but rather as a right of every individual. On the basis of this concept, the Government began to realize more than five years ago that it was its obligation to establish very precise guidelines for health activity. As a means to this end it began a diagnosis of the situation, consisting basically of a study of its available manpower, a survey of its institutional resources, and an analysis of its economic resources.

On the basis of this appraisal of the situation and of a precise knowledge of its resources, the Government formulated a National Health Plan four years ago and, at the same time, approved an administrative reform with a view to bringing the organization into line with the development of the planning process.

Planning: The planning process undertaken by the Ministry has been marked by four basic features. It is:

1. Decentralized, with planning done at the local and sectional levels and consolidated at the national level.
2. Expansive, meaning that it covers an increasingly larger number of institutions and, consequently, persons.
3. Progressive, meaning that it is based on a cycle proceeding from diagnosis to programming, evaluation, and finally, reformulation to obtain the improvement of the system.
4. Coordinated with the planning of the other economic and social sectors.

The National Health Plan has proceeded according to the following chronological stages:

1966: Collection of information.

1967: Processing and analysis of the data to establish the diagnosis. Formulation of the plan on the basis of average figures for the country as a whole. Presentation and discussion with the health authorities and delivery of the basic information to the sectional health services with a view to the formulation of sectional plans.

1968: First year of implementation, with the assistance of the constitutional and administrative reforms (adjustment of organization).

1969: Second year of implementation, during which the preceding year's work was evaluated and the plan for this year reformulated. Preparation, discussion, and approval of standards. Approval of the National Hospital Plan by the Congress.

1970: Consolidation of the National Health Plan. Introduction and initial implementation of the National Hospital Plan.

Coordination: The Government has developed coordination at all levels.

1. Internal coordination, through the operation of the Technical Committee.

2. Intrasectoral coordination, through the Superior Health Council, consisting of representatives of the Ministry of Public Health and the directors or managers of the agencies under its jurisdiction, as well as the directors of the Colombian Social Security Institute and the National Welfare Agency.

The Council unifies policy and constitutes an important link with the technical level, as the plans it studies are those presented by the Planning Committee for the sector, and this Committee in turn composed of the heads of the planning offices of the agencies composing the Council.

3. Intersectoral coordination, through the National Administrative Planning Department, the Council on Economic and Social Policy, and the Council of Ministers.

Joint programs are also developed with such other institutions as the National Navy, the Colombian Agrarian Reform Institute, the Colombian Association of Medical Schools, the Colombian Hospital Association, etc.

4. International coordination. A program has been drawn up with the cooperation of PAHO to project the utilization of these resources for the next few years. UNICEF and FAO have provided very effective cooperation in the form of equipment and supplies.

Achievements and projections: The principal achievements include, notably, the following:

1. Financial resources: The budget of the Ministry of Public Health for 1966 was 243,000,000 Colombian pesos. The 1970 budget amounts to 870,000,000 pesos, and the proposed budget for 1971 (now being considered by the National Congress) includes requests totaling 1,371,000,000 pesos. Expenditures have risen from 42,000,000 pesos in 1966 to 507,000,000 during 1970.

2. Training of personnel: Special emphasis has been laid on the training of auxiliary personnel, with a view to

the delegation of functions exercised entirely until now by professional personnel. From 1966 to 1969, 1,961 nursing auxiliaries were trained.

3. Research: The Survey of Health Manpower and Medical Education has found many applications, the principal ones being: the provision of information for the National Health Plan; orientation of medical and paramedical education; and use as a model for research in other countries. The structure of the study, and the experience obtained in carrying it out, were useful in the establishment of the Division of Special Research of the National Institute for Special Health Programs (INPES). The following operational research is now under way:

- Survey of dental resources.
- Census of social welfare and rehabilitation facilities.
- Study of medical care institutions.
- Experimental study of health services.
- Inventory of institutional manpower.
- Preparatory study for the extension of maternal and child protection services.
- Study of the causes for resistance to spraying in the malaria campaign.

Epidemiological research is proceeding with respect to:

- Chagas' disease.
- Leishmaniasis.
- Equine encephalitis.
- Bartonellosis.
- Leprosy.

4. Medical care: Substantial efforts have been made to extend medical care to unserved groups, urban and rural as well, through construction and equipping of hospitals, services by multidisciplinary teams, and the delegation of functions to auxiliary personnel. The basic activity in this field is the National Health Plan (Law 39 of 1969), which constitutes the fundamental part of the National Health Plan included in the General Economic and Social Development Plan and which covers the physical infrastructure, organization, and trained personnel needed to make up a system that will progressively extend medical care to the largest possible number of people through the integrated utilization of resources. The Plan provides basically for: determination of medical care levels for a system of regionalized health services; completion and equipping of 54 hospitals; endowment of all the hospitals in the country with the equipment considered basic; establishment of a system of transportation (ambulances) and communications (telephone and radio); training of 8,000 persons; and allocation of additional resources for the operation of hospitals. At the same time, work has proceeded on a program for the extension of maternal and child services

which includes the training of rural health promoters, the delegation of functions to auxiliary personnel, early diagnosis of cancer of the uterus, education to combat criminal abortions, and information and services on responsible parenthood and family planning.

The following large-scale vaccination campaigns have been carried out: from 1967 to 1970, 11,200,000 persons (80 per cent of the susceptible population) were vaccinated against smallpox; 3,700,000 persons (66 per cent of the susceptible population) were vaccinated with BCG; and one million persons were vaccinated against diphtheria, pertussis, and tetanus.

The National Institute of Health produced 53 million doses of biological products between 1966 and May 1970. These products included BCG, yellow fever, tuberculosis, smallpox, rabies, and typhoid fever vaccine, DPT, tetanus and diphtheria toxoids, and Schick tests.

I should like to have a minute more so that I can describe a program I consider of special importance: the family welfare program. Establishment of the Colombian Institute of Family Welfare (Law 75 of 1968) went a long way toward solving one of the major needs of the country by making it possible to undertake the study of problems of children and the family; to create an awareness of the concept of comprehensive protection of the family unit through the coordinated efforts of various institutions; and to make available additional resources for these purposes—all of which will enable us to prevent and deal with a substantial part of the social pathology besetting children and young people in Colombia.

The Institute engages in activities aimed at protection and rehabilitation, training of personnel, nutrition, distribution of benefits, formulation of welfare policies, advisory services to institutions, and legal assistance.

During its brief existence, the Institute has provided supplementary food rations to two million persons through its nutrition programs aided by UNICEF, FAO, the OAS, CARE, and CARITAS. It has also trained auxiliary personnel to multiply the effects of its nutrition programs; constructed nine protection centers, four social readaptation centers, one promotion center, and five welfare centers; and distributed supplies worth 62 million pesos to establishments engaged in the protection of minors.

This is a summary of the principal activities carried out in my country and their projections for the next few years, with a view to improving the health conditions of the population.

President: * The Delegate of Panama has the floor.

Report of the Delegation of Panama

Dr. González Gálvez (Panama):* During the brief time available for presenting this report we shall refer quickly to some of the structural and program changes that have taken place in the health sector in Panama and present some indicators that might provide an idea of the situation in this regard, since the two documents distributed this morning, *Atlas de geografía médica* and *Evolución de los programas de salud de la República*, both relating to the last four years, contain details of the different programs.

The health policy is aimed primarily at decentralizing programs and activities toward the communities themselves to provide them with the resources they need for proper handling of their problems of health and disease.

This has made it possible to create in the communities a genuine awareness of their problems and to arouse in them a keen and patriotic interest in participating to the extent of their possibilities in the achievement of solutions. While it has not been easy to apply this divided responsibility for health care as a philosophy and a working method, we can say with some satisfaction that the major obstacles have been surmounted and that progress is being made at an increasingly rapid rate.

In compliance with the fundamental objectives of the Charter of Punta del Este, our country has proceeded to structure the health sector within more precise limits and has established a unit for the establishment of a National Health Planning Commission. This unit is responsible for examining the possibilities of coordinating and harmonizing all health activities and placing them under integrated plans so that all resources, whatever their origin and kind, may be brought to bear on this task.

There is not the slightest doubt that of all the changes made in the last four years the most important was the division of the old Ministry of Labor, Social Welfare, and Public Health to create a separate Ministry of Health, which satisfied a long-felt need in our country.

Along with the efforts made in the field of planning, the application of the new health policy has brought a number of technical and administrative changes in the structure of programs and health services of the public sector, as a result of the new medical and public health criteria.

The structure of the Ministry of Health has been consolidated under four basic work programs: maternal and child health, adult medical care, environmental

sanitation and administration. These programs include a wide variety of subprograms and activities making up the various fields of work.

In addition, a system of program budgeting, based on these four fundamental programs, has been established. This system, a financial expression of properly justified health activities, makes it possible to arrive at a precise definition of the achievements it is hoped to bring about under each proposed goal with the resources available.

A working system has been developed under which medical care activities are decentralized and each institution and health team is assigned targets based on the population under its jurisdiction.

Decentralization of activities has been strengthened through further consolidation of the system of regionalization. This has made it possible to give separate operating autonomy to each of the regions into which the country is divided, so that each regional office is set up as a decentralized agency with responsibility for directing, regulating, integrating, coordinating, supervising, and evaluating the activities carried out in its region by health institutions.

There is now a greater awareness of the importance of early diagnosis and of timely and proper treatment of disease. The traditional attitude of hospital institutions has been replaced by a more dynamic attitude that encourages medical services to project their activities outward to the community and to discover possible harmful effects in advance and combat them more effectively, an attitude that also helps to achieve a substantial lowering of the cost of medical care.

The communities have been motivated and educated so that, as they become informed, they can take a more active part in recognizing their health problems and assume their proper responsibilities for cooperating effectively and dynamically in the solution of those problems. This is one of the most far-reaching achievements, as it makes it possible to combine the work of the health teams with that of the communities within a coordinated effort for the improvement of health conditions.

The public subsector has been provided with the administrative programs and legal and technical advisory services it needs in order to make health activities operate more smoothly and with proper support at all levels.

In the last 10 years, according to the latest census, Panama's population has shown an increase of 32.5 per cent, largely in the rural areas. This rapid increase, at the rate of approximately 3 per cent per year, is evidence of Panama's substantial share in the rapid population growth characterizing all of Latin America.

Life expectancy is 58 years for males and 61 for females, with an average of 59 years for the two sexes; these figures compare favorably with the life expectancy of 52 years that we had 40 years ago.

The birth rate has dropped from 38.4 per 1,000 population in 1966 to 37.9 in 1969. The general mortality rate declined from 7.8 to 7.2 per 1,000 during the last four years. The infant mortality rate, 45 per 1,000 live births in 1966, dropped to 38.7 in 1969, one of the lowest rates in Latin America. Among the 10 principal causes of death, those which can be reduced have shown a sharp downward trend, and the first four places are held at this time by heart disease, malignant tumors, cerebrovascular diseases, and accidents, suicides and homicides.

As for morbidity, the country has been free of quarantinable diseases in recent years. There was an outbreak of *Aedes aegypti* infestation last year, but measures of every kind have been taken to combat it. The programs of vaccination against the more common communicable diseases have been intensified. The incidence of leprosy has fallen to such an extent that it was decided to close the only leprosy sanatorium in the country and rely on more effective control of the disease through currently available techniques. Tuberculosis morbidity and mortality have shown a similar downward trend, and the program against this disease has been held at stable levels since 1969. Evaluation of the malaria eradication program shows that there are no technical obstacles in the way of eradication in Panama; in view of this, it is expected that the three-year plan currently being carried out in the country will make it possible to eradicate the disease in the next few years.

The financial resources available for covering the needs of the health sector increased from 16.4 million balboas in 1960 to 45.9 million in 1969, signifying a cumulative yearly growth of 13.7 per cent. Stated in terms of balboas per capita, this figure also shows a rising trend. The budget of the Ministry of Health subsector accounts for 13.4 per cent of the national budget and has risen by 16.2 per cent since 1966.

Concerning our human resources, we had 5.3 physicians per 10,000 population in 1966, and now have 5.5. During the same period, the number of dentists has risen from 0.6 to 1.0 per 10,000, and the number of nurses from 7.1 to 7.7. In spite of these increases, and because of the large scope of the programs, the country has made some efforts to recruit a certain number of foreign professionals to assist in the programs.

In the field of environmental sanitation, water supply has been extended to cover 38.1 per cent of the

rural population, and in the urban areas coverage has been increased to 90.3 per cent, surpassing the target set at Punta del Este.

I believe I have covered very briefly the health situation in my country. I would like to take this occasion to express our appreciation to the international organizations, particularly the Pan American Health Organization, for their support, which has helped us to achieve this situation.

President:* The Delegate of the Dominican Republic has the floor.

Report of the Delegation of the Dominican Republic

Dr. Tezanos (Dominican Republic):* During the period covered by this report my country planned its most recent national census of population and housing. This census was taken in January 1970 and the official preliminary figures indicate that the Dominican Republic's population is 4,011,589; 39.9 per cent constitute the urban population and 60.1 per cent live in the rural areas.

The most important feature of this population is the high proportion of young people less than 15 years of age, who represent 47.3 per cent. This justifies beyond a doubt the importance given to health activities. The population grew at a steadily rising rate during the last four years, the rate of natural increase being 2.36 per cent in 1966 and 3.39 per cent in 1969. The birth rate also increased gradually, reaching a level of 47.4 per 1,000 population in 1969. The general mortality rate of 7 per 1,000 apparently remains unchanged, but the statistics on which this conclusion is based are far from complete. The same qualification applies to the infant mortality rates, which diminished substantially from 81.1 per 1,000 live births in 1966 to 63.9 in 1969. Communicable diseases have continued to be the most serious public health problem, and the morbidity and mortality figures for these diseases warrant the statement that they are important causes of disease and death, accounting for a high proportion of general mortality and especially of infant mortality.

With the reorganization of the National Malaria Eradication Service in 1966, principally on the basis of adequate financing, the foci of transmission that were spread throughout the entire area in the attack phase were gradually reduced until finally, in 1969, the only remaining focus was in the municipality of Dajabón. The targets for establishing a network of information posts as part of this program were attained, and by 1969 the country had 4,704 such posts. In 1969 the Ministry of Public Health conducted a national nutrition survey

with the cooperation of PAHO, the Research Foundation of New York, and the Institute of Nutrition Sciences of Columbia University. The principal findings of this survey concerned malnutrition among children under 5 years of age, whose condition, according to the classification used, was as follows: normal, 59.2 per cent, and undernourished, 40.8 per cent. The undernourished 40.8 per cent were further classified as follows: first degree malnutrition, 27.4 per cent; second degree, 10.9 per cent; and third degree, 2.5 per cent. Average daily intake of calories and proteins was also low: 1,634 calories and 43.1 gr of proteins.

The country's population is predominantly rural, and environmental conditions where they live have an important influence on their health. Of the total urban population in 1966, 67.9 per cent had water supply service, as against only 8.3 per cent for the rural population. In the rural areas, 100 per cent of the population lacked sewerage service, and the corresponding figure for the urban population was 86.5 per cent.

Natural population growth was such as to absorb all the new services established through substantial domestic investment and loans granted by international financial institutions, to a point where the work carried out was barely sufficient to keep the situation from deteriorating.

The country's available health manpower is very limited, as shown by the following ratios per 10,000 inhabitants: physicians, 4.6; dentists, 1.1; nurses, 0.6; and nursing auxiliaries 4.8. As in many Latin American countries, the shortage of professionals is made worse by the high percentage of those who emigrate.

To meet the needs of the population we have 11,057 hospital beds, or 2.6 per 1,000 population. Of these beds, 6,439 are in institutions operated by the Ministry of Public Health, 582 in Armed Forces institutions, and 1,399 in Social Security institutions. The public sector's allocations for health remained stable during the last four years, with annual health expenditures by the Government accounting for 12.1 per cent of the national budget.

During the period covered by this report, the country found it necessary to readjust the national economy, which had deteriorated seriously as a result of the events in 1965, well known to all of you.

In spite of these adverse conditions, which have now been surmounted, the Ministry of Public Health, aware of the serious health problems involved, has taken preliminary measures or put into operation programs for their solution.

The Government, fully cognizant of the need for a

national development plan to guide its action program in the next four years, prepared a socioeconomic diagnosis of the country in 1969 and, within its context, a diagnosis of the health sector. Later, as part of the first National Development Plan, a scheme was devised for regionalization of health activities under a system of local services reporting to a regional health center.

The Ministry was especially concerned with providing at least the most essential medical services to the entire population of the country. The results of these efforts may be appreciated in the available figures for 1969, which show that 80 per cent of the total population is now so covered.

In order to solve the serious health problem represented by communicable diseases, a national program of control was planned for the next four years with the technical assistance of PAHO and with international financial assistance. The basic objectives are to achieve useful levels of immunity through specific vaccination and to ensure early diagnosis and treatment.

The plans for the next four years call for administering 9,523,720 doses of DPT, tetanus toxoid, smallpox and poliomyelitis vaccine, and BCG.

Although there is no official population control policy, the rate of natural increase made it necessary to organize a control program, and in 1968 the National Population and Family Council was established and given specific functions relating to the study, investigation, and analysis of the country's population problem. The Council also has an Executive Secretariat responsible for carrying out a family planning program through the maternal and child services of the Ministry of Public Health. The program began in 1968 with nine clinics, which were increased to 16 in 1969, a year in which 17,139 women agreed to accept control measures. The plans for the next four years call for attending to 200,000 women of child-bearing age, representing 20 per cent of the female population in that age group.

During the period of this report, PAHO rendered continuing technical advisory services to the Ministry of Public Health in connection with various programs in progress. The Ministry is very grateful for the cooperation received from PAHO, which it considers extremely valuable.

President:* The Delegate of Bolivia has the floor.

Report of the Delegation of Bolivia

Mr. Sanjines (Bolivia):* Unfortunately, for reasons beyond his control, Dr. Javier Ossio, Minister of Social Welfare and Public Health of Bolivia, was unable to

arrive here in time to present the report prepared by his Ministry, which has been distributed for the information of the delegates to this XVIII Pan American Sanitary Conference.

Speaking on his behalf, I shall attempt to summarize very briefly the health situation in Bolivia, basing my observations on the report prepared by the Commission of the Ministry of Social Welfare and Public Health, whose new structure and designation arise from the administrative reform taking place in my country.

The report is a preliminary paper prepared for inclusion in the country's long-range development strategy, and for use as a source of internal information for health planning purposes.

It should be noted that Bolivia does not have well-developed statistical systems for recording vital data and the results of public health activities throughout the country, nor do its records cover the entire population or all institutions. Consequently, the paper presented contains factual errors and many subjective appraisals, as well as approximate figures that are useful only for activities within the country designed to alleviate the more evident problems and ultimately obtain more reliable information.

For this reason, the report will seem very pessimistic to you. Nonetheless, it was deemed desirable to publicize it abroad in order to make known our serious shortcomings and problems, which are precisely in the critical area indicated by PAHO and, accordingly, merit priority so that the situation can be improved.

In Bolivia, economic and social development, considered in terms of its level, fast pace and structure, is confronting a health situation extremely unfavorable to social progress and even to development itself, because of its substantial impact on expenditures, on the average life span, on workers' productivity, and on the learning ability of children and young adults.

This is confirmed by an objective diagnosis of the health situation. We have a young population, which is very susceptible to infectious and parasitic diseases owing to its high infant component, to meager biological defenses, and to malnutrition, which affects two-thirds of the children under 15 years of age and leaves an indelible stamp on those who survive, as evidenced by their smallness of size and reduced learning capacity, a situation which also limits the educational and financial means of protection by keeping learning and income at low levels. In addition to all of this, the survivors are subject to a hostile environment in which water and sewerage are scarce and animal vectors of disease are present in abundance.

Moreover, health policy is failing to pay its proper

role in offsetting the susceptibility of the population and the hostility of the environment, because of its undue concentration on the urban areas, on the 600,000 affiliates of the social security system. This approach practically overlooks more than half of the population, which is poor, ignorant, and lives in scattered communities in the agricultural areas. Moreover, emphasis is placed on attempting to control a disease after it makes its appearance, rather than on preventing it.

The situation thus briefly described can be substantially altered during a first five-year period without a commensurate increase in health expenditures by simply making better use of available health resources, whose efficiency of utilization can be doubled in five years. A second five-year period will then be devoted to reorienting the training of personnel and the pattern of investment.

All of this requires an early reorganization of the health sector in the public and semipublic subsectors to make it possible to bolster disease eradication and control programs, redistribute resources both geographically and by social level, and, in 20 years to attain the highest level of health compatible with the country's social and economic possibilities by offering every Bolivian a substantially greater opportunity for health and by giving the health sector a high capacity for research on national health problems and for innovative solutions.

By this means, the sector will not only serve as a vehicle for distributing the benefits of development, but will also support development by raising life expectancy and the capacity to work and learn and by reducing the demands of poor health on national savings and investment.

The diagnosis I have mentioned was based on four main factors: population distribution by age groups and geographic areas; the nutritional status of the population; the living environment; and health policy as it affects the population.

The health objectives of the strategy adopted for the economic and social development plan are to bring about within 20 years a situation in which the Bolivian people will enjoy the highest level of health consistent with the economic and social development level planned for the country, in which disparities in health opportunities will be kept to a minimum, and in which the health sector will have a high capacity to investigate the country's problems and to innovate ways and means of finding those solutions most responsive to the needs of Bolivia.

To achieve the first of these objectives—improving the level of health—it is proposed: (1) to eradicate,

where it is technologically and economically feasible, such diseases as malaria, smallpox, yellow fever, exanthematic and epidemic typhus, etc.; (2) to achieve the maximum possible reduction, consistent with technical, economic, and organization possibilities, of such diseases as diphtheria, pertussis, measles, typhoid fever, poliomyelitis, diarrheas, nutritional diseases, occupational diseases and accidents, tuberculosis, etc.; and (3) to meet the demand for health services imposed by those diseases which have not been eradicated and which, from the technological standpoint, are not reducible.

In line with the second objective, efforts will be made to reduce the inequalities in the population's access to health services through geographic, social, and functional redistribution of available national health resources.

Finally, regarding the third objective—expanding and orienting the national capacity for research and technological innovation—it is hoped to bring this about by financing selected research projects and through new orientations in the training of health personnel.

The delegates will find in the report distributed to them a detailed description of the objectives that we have set and that my country hopes to attain through great sacrifice, with the understanding, guidance, and support of the World Health Organization and the Pan American Health Organization.

I shall conclude by expressing my Government's appreciation for the opportunity we have been given to present our problem and to request cooperation in their solution.

President:* The Delegate of Barbados has the floor.

Report of the Delegation of Barbados

Dr. Talma (Barbados): We have prepared for circulation a document that describes the organization of health services in Barbados and chronicles some of our achievements over the past four years. So perhaps I may be forgiven if I should look back over the whole decade of the 60's. In this period we have seen our birth rate reduced from 33.5 in 1960 to 20.9 in 1969. This achievement is due in no small measure to an active Family Planning Association which was formed as a private organization in 1955. This Association has attained a unique position in our country; some of the members of its Executive Council are also members of the government service, working in the Ministries of Health and Education, the Statistical Department, and the Development Department. It receives financial support from the Government and has free access to all

our maternity and child health clinics. It has recently been giving attention to sex education in schools, since we find that about 22 per cent of our mothers are in the 15-19 year age group.

Over the past years we have observed satisfactory decline in a number of illnesses. We have made steady progress with our immunization programs against smallpox, diphtheria, poliomyelitis, tetanus, typhoid, and tuberculosis and, with aid from PAHO and UNICEF, with our environmental sanitation programs. We are hoping to bring our *Aedes aegypti* campaign to a successful conclusion at the end of next year, and then to maintain a vigilance program through the establishment of a special branch of our public health inspectorate, responsible for insect and rodent control.

In the early part of the decade we commissioned 550 of the 600 hospital beds in a new general hospital. In recent years this hospital has become part of the teaching facilities for medical students in the Caribbean area. Although we have not built any new hospital for mental illness, we have made considerable improvement with physical facilities, and we have recently been paying attention to the development of outpatient clinics and the use of psychiatric social workers and medical social workers.

One of our greatest problems during the 60's has been the recruitment and retention of medical and paramedical staff. This has been due, in particular, to two factors. The first is that in the past we had paid insufficient attention to the training of the staff that was needed in increasingly large numbers and in more and more fields of specialization. The second factor has been the "brain drain" to other countries. However, toward the end of the period under review the situation appears to be improving. In this connection I should like to urge support for the proposals that the Medical Faculty of the University of the West Indies is making for postgraduate medical education in the Caribbean area. For undoubtedly one cause of our loss of doctors has been the fact that the young doctor has had to go outside the Caribbean area for further training. It is also clear that a great deal can be done within the Caribbean area in the field of paramedical education. In this regard, I should like to see a more rapid development of plans for collaboration and a sharing of facilities within that area. We are prepared to cooperate to the utmost of our ability in the establishment of common standards of medical and paramedical qualifications and in the use of regional training facilities at appropriate levels. As I said at the meeting of the Directing Council last year, we have made considerable progress in Barbados with our plans to train and retrain State registered nurses, and we

have established new levels of nurses. In this last year we have formulated plans for the local training of other types of paramedical staff—public health nurses, public health inspectors, druggists, laboratory technicians, and dieticians—where before we had to rely on overseas training and therefore always found ourselves in short supply.

It is my very great pleasure to acknowledge at this point all the help in the field of training which we have received from Dr. Horwitz and his staff. We have benefited from the training of fellows in public health administration, hospital administration, public health engineering, health education, nursing, health statistics, medical records, water services, and other fields. In this context we must pay a tribute to the Director's recent decision to assist us by the establishment, from January of this year, of a Caribbean section of the human resources program. This we consider to be one of the most imaginative undertakings in the area, and it promises to be of considerable assistance in dealing with the development of schools and of medical and paramedical staff for the Region.

In these last 10 years we have opened two new district maternity hospitals, and we can report that nearly 8 per cent of all births last year took place in hospitals. With the aid of the Caribbean Food and Nutrition Institute, which is supported by PAHO, we undertook an island-wide sample nutrition survey in 1969. As a result of this activity, our national Nutrition Committee, established in 1967, is now busily engaged on projects aided by UNICEF, FAO, and PAHO for combating malnutrition. Three new outpatient clinics in rural areas have been opened in the last few years. Three others have been reorganized, and plans have been completed for a new central clinic and for two other rural clinics. These clinics are used for both curative and preventive work. We have also recently completed plans for a new central laboratory for health services, which will be a multipurpose one. During the past four years our school dental and ophthalmological services have been reorganized and we recently decided on the establishment of a comprehensive school health program. About a year ago we assumed direct responsibility for the administration of certain institutions that were called infirmaries but really dealt with both geriatric and welfare cases. This will result in there being one large geriatric hospital of 500 beds in the central area, and two others of 120 beds each. New regulations concerning communicable and notifiable diseases require that all children entering schools for the first time must be immunized against diphtheria, poliomye-

litis, smallpox, and tetanus. This will give us 100 per cent coverage of that age group.

There are certain problems for which I feel we must urgently find solutions. These are refuse collection, refuse disposal, and sewage disposal. To solve these will involve a heavy burden; it will require expert advice of various kinds and considerable capital expenditure. We shall within a year or two come to the end of all available sites for sanitary landfill methods of refuse disposal, and we shall have to pay for expensive alternative methods. It is also clear, in view of our increasing density of population in the main city area and the rapid construction of hotels and other types of accommodation for our tourist industry, that we shall have to make a more sophisticated approach to sewage disposal and establish a sewage disposal system, beginning with the city area.

There is also a great need, judging from such indications as we have, for us to take greater precautions against venereal disease and make greater efforts to control it, even though the problem has not reached the epidemic proportions reported from other countries.

As I have mentioned before at meetings of the Directing Council, my Ministry participates fully in the development planning process of our country. We originate the plans for health and we are represented on the National Planning Committee, where those plans are integrated into the country's comprehensive plan. In this way our planning remains realistic and, I may add, practicable.

Figures based on the average for the years 1964 to 1966 show that the life expectancy at birth of a male Barbadian was 65.5, and of a female 70.9 years.

Mr. President, I should like to emphasize once again my Government's commitment to regional cooperation. That is why we feel that the establishment of a Caribbean Health Ministers' Conference in Trinidad in 1969 was one of the most significant, if not the most significant, event of the decade. There was a second meeting in Barbados this year at which plans were made for the establishment of a secretariat. As far as I know it should be possible for this step to be taken in time for the third meeting, due to take place in Bermuda in February 1971. That meeting may well advocate the accelerated promotion of schemes for regional cooperation, training, use of treatment facilities, drugs, standardization and testing, and so on. In this work we must acknowledge the assistance given by PAHO, not only in facilitating meetings of the Standing Committee, but also in the establishment of the secretariat and in the follow-up of recommendations.

You will gather from all that has been said that

Barbados considers that PAHO has been of considerable assistance to the Region and to ourselves over the last few years. We have valued the opportunities provided by the meetings of the Directing Council for coming to know the other countries, for picking up new ideas, and for making valuable contacts and developing associ-

ations useful for the promotion of the health of the people of Barbados and of the Region of the Americas as a whole.

The session rose at 6:05 p.m.

SEVENTH PLENARY SESSION

Thursday, 1 October 1970, at 9:05 a.m.

President: Dr. José Renán Esquivel (Panama)

*President:** The seventh plenary session will please come to order. Before we begin I should like to welcome Dr. Francisco Urcuyo Maliaño, Vice-President and Minister of Public Health of Nicaragua. We are very glad that he was able to join us. Dr. Urcuyo has the floor.

Dr. Urcuyo Maliaño (Nicaragua):* I hope you will excuse me for not having been able to join this important Conference from the beginning. Unfortunately, I was detained in my country by matters of State. It is a pleasure for me to greet my colleagues and delegates from the Member Countries, as well as Dr. M. G. Candau, Director-General of the World Health Organization, and Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau.

I wish to take this opportunity to congratulate Dr. Esquivel on having been elected President of this Conference, and also to congratulate the Vice-Presidents and other members of the General Committee. It is also a pleasure to congratulate my good friend Dr. Abraham Horwitz on his re-election as Director of the Pan American Sanitary Bureau. I wish him the best of success.

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

*President:** We shall continue with the presentation of the country reports. The Delegate of Nicaragua has the floor.

Report of the Delegation of Nicaragua

Dr. Urcuyo Maliaño (Nicaragua):* Nicaragua is fortunate in having conditions very propitious to economic and social development and, therefore, of being in a generally favorable condition to improve the health of the population.

It is situated in the central part of the Central American Isthmus, 10° north of the Equator. It has an area of 148,000 km² and a population of two million. The country is shaped like an equilateral triangle, and lies between the Atlantic and Pacific oceans. There are two lakes, one of which is among the 10 largest in the world. There are also 30 smaller lakes, known as lagoons, and 94 rivers with 78 main tributaries, giving the country a unique topography.

Nicaragua has very fertile lands, no deserts, extensive forests, and abundant water; farming and livestock-raising are the chief economic activities.

The first 10 causes of death in the country are as follows: gastritis and enteritis, accidents, pneumonia, heart disease, diseases of the digestive tract, suicides and injuries, tetanus, malignant tumors, malaria, and vascular lesions affecting the central nervous system.

Of each 100 deaths, 50 correspond to children under 5 years of age. There are also high mortality rates for infectious diseases transmitted by water, food, and flies and for infectious diseases preventable through vaccination. The diseases with the highest incidence are gastroenteritis and intestinal parasitosis, infectious diseases, and malnutrition. This shows that our health problems are closely linked to environmental sanitation, mainly water supply and excreta disposal, and to diseases

preventable through vaccination and nutrition education.

The most vulnerable age group is 1-5 years; most hospital patients belong to the 20-30 year age group; the principal cause of injuries are traffic accidents.

Children under 15 years of age make up 50 per cent of the total population of two million. The birth rate is rising: from 43 per 1,000 in 1966 it has increased to 46 per 1,000 in 1970. Sixty per cent of the population is rural.

The top priority problem is water supply and excreta disposal; however, between 1966 and 1970 we have managed to extend the provision of potable water to 90 per cent of the urban and 8 per cent of the rural population. In regard to excreta disposal, 40 per cent of the urban and 13 per cent of the rural population is now being served and we are developing an intensive program to extend coverage in the rural areas with the objective of surpassing the goals set forth in the Charter of Punta del Este.

We have the problem of malnutrition, mainly protein deficiency. Nicaragua produces sufficient food for its population, but nutrition education is not sufficiently widespread to ensure proper utilization of the nutritional elements. The average daily calorie intake in Nicaragua is 2,325 per capita but consumption is unevenly distributed among the various population groups.

As for health resources, there are 38 hospitals, with 4,686 beds (2 beds per 1,000 population); 89 health centers; 50 private clinics; 11 mobile rural health care units; 973 physicians (1 per 2,000 population); 413 nurses (1 for each 2 physicians); 97 dentists; 34 health educators; 2,061 nursing auxiliaries (2.1 per physician); and 40 social workers.

Of the total national budget for the health sector for 1969, 7.3 per cent was allotted to the Ministry of Public Health and 22.7 per cent to the health sector as a whole. The latter figure represents \$10.00 per capita.

The Ministry is now conducting the following principal programs under the National Health Plan: water supply and sewerage, vaccinations, family planning, nutrition and nutrition education, medical and dental care, health education, construction of health centers, public health laboratories, malaria eradication, maternal and child health, latrine construction, epidemiological control of tuberculosis, drug control, personnel training, biostatistics, and nursing.

We have put into practice the new strategy for malaria eradication recommended by the Twenty-Second World Health Assembly and the national and international review group, which classified our program

of eradication as indefinite in duration, owing to the many problems presented by resistance to insecticides. At the present time we are applying OMS-33 to more than 18,000 houses in areas where transmission and resistance are greatest. We have already completed two spraying cycles and will begin the third on 6 October, all in the hope of reducing transmission. We are planning to spray a larger number of houses next year, and our Government has already made purchases amounting to \$300,000 for this purpose.

The nutrition program is carried on jointly by the Ministries of Public Health, Education, and Agriculture. It covers 212 rural schools with 35,000 children and 685 teachers. Food supplements are supplied to 181,850 children under age 5 and to mothers: 1,277,013 pounds of milk have been distributed. A total of 696 persons (teachers, service personnel, volunteers) have been trained in nutrition education, receiving 254 hours of classroom instruction. In the nutrition education and recovery service, 50 per cent of the children treated in the 13 existing services, which deal with second degree nutrition, have been rehabilitated. The basic elements of nutrition have been introduced into the primary school curriculum in 2,027 urban and rural schools. Regulations are being drawn up for a salt iodization program. There is a program of maternal and child health, its objective being to reduce morbidity and mortality in these vulnerable groups.

In regard to human resources development, the National Social Security Institute has a policy of financial incentives for professionals working in remote areas. The Ministry of Public Health is extending its network of health centers to areas far from the capital, with the assistance of personnel provided by the National University through the compulsory social service program: physicians, medical technologists, dentists, and other professionals.

Programs are under way for the training of teachers abroad through international fellowships, and the curricula of the nursing schools are being examined with a view to unifying the programs.

Our accomplishments since the last Conference include the formulation of a National Health Plan in 1965, an increase in the budget, the reduction of mortality, coordination with other institutions, improvement of medical care, and more efficient use of resources.

The community education program is aimed at improving and increasing human and material resources and inducing other economic sectors, both public and private, to cooperate in improving the health of the Nicaraguan people.

President:* The Delegate of France has the floor.

Report of the Delegation of France

Dr. Hyronimus (France):* The three overseas departments of France in the Antilles-Guiana region have a combined population of only 720,000. The smallness of this territory in comparison to the larger countries of the Americas might lead one to think that our task is correspondingly easy and our problems of limited scope. But this is not so. In spite of the means placed at our disposal by the home country, we are faced with a number of difficulties that we shall attempt to describe briefly to the extent we believe them of interest to the countries represented here.

First of all, we have a population problem in the Antilles. Thus, for example, Martinique, a country with a population density of 300 inhabitants per km² (a considerable density for a territory without resources), is not and can never be industrialized; consequently, as soon as Parliament passed a law enabling us to act in this field we began a campaign to reduce the birth rate. There have been public debates. There has been popular agitation among a reluctant population, but the final decision, as was natural, has been made by the women. As a result, the birth rate has been declining since 1968 and the trend was accentuated in 1969, when it fell to 10 per cent below the previous years; while this is encouraging, it would be premature to draw conclusions.

We also face the problem of tuberculosis. Considering the means at our disposal, the results have not been up to expectations; it would be logical to suppose that eradication of the disease would be possible in a country as small as ours. The fact is that we do not have a sufficient number of medical officers going into our public health services. It is more a problem of organization than of means.

I should like to raise a problem that is of profound concern to us and that I believe is of interest to the entire world, although it is rarely examined. I refer to the problem of alcoholism. A single figure should suffice to give some idea of its importance: in 1969, 8.6 per cent of the deaths recorded in Martinique were caused by alcoholism. It is well known that the drink most widely consumed on the Island is rum, which mainly attacks the brain and rarely the liver. Wine is now beginning to be consumed by a larger segment of the population and, accordingly, cases of cirrhosis are also beginning to be recorded.

Syphilis will be examined in the Technical Discussions, and I shall therefore concentrate at this time on the major endemic diseases characteristic of tropical

countries. There is leprosy in Martinique, Guadeloupe, and Guiana. The latter, with a population of 44,000 divided into well-defined, geographically stable groups, has a particularly active health service, and—this is worth mentioning—one physician for each 1,200 inhabitants. As a result, leprosy can be studied with great precision and the statistics I shall now present have been very carefully reviewed. In 1969 Guiana had 958 leprosy cases; this is 2 per cent of the total population, a very substantial figure. As for treatment of the disease, it is well known that recent years have seen no significant progress and therefore emphasis must be placed on the detection of cases, particularly among students. Since something like 98 per cent of the school-age population attends school, our efforts are centered on case-detection in the schools.

We are also concerned with the problem of schistosomiasis. I shall present some figures concerning the Antilles: in fecal analyses performed in Martinique, eggs of *Schistosoma mansoni* were found in 5.4 per cent of the samples examined. In Guadeloupe, the rate is even higher (7.1 per cent). Professor Pantrizelle of the Medical Faculty of Bordeaux is investigating this matter and performing systematic serologic examinations. Forty-two per cent of the samples examined have yielded positive findings; no final conclusions have yet been drawn. The figure is obviously very high, and the reason must surely be very interesting. Actually, and this should be clarified, according to statistics available to us, approximately 2.8 per cent of the population suffers from schistosomiasis, not 42 per cent.

We also have malaria. Although eradicated in Guadeloupe and Martinique, it persists in Guiana, where 52 cases, a rather high figure, were recorded in 1969. It is important to note that approximately one-third of the cases are imported.

Finally, we shall refer to a problem that is of concern to us and, I am sure, to all of you as well; this is the matter of *Aedes aegypti* control, which was initiated in 1968, a year of massive infestation in Martinique. The *Stegomyia* index ranged from 40 to 80 per cent, and a control campaign was started in 1968. We consider the resources brought into use to be sufficient, and the present index in two-thirds of the territory of Martinique is 1.7. Guadeloupe is encountering various problems of organization, due to the small number of medical officers in public service. These problems make it necessary to begin the campaign again on a new foundation. We believe it will bring results comparable to those achieved in Martinique and in Guiana, where the *Stegomyia* index has been declining and is expected to drop to zero in 1971.

There are many more things I could mention, particularly cancer, which is so important in our countries and was the cause of 10 per cent of all deaths, a very impressive figure, in 1969.

I shall conclude by saying that statistics have enabled us to estimate the annual health expenditures of the average inhabitant of Martinique, including physicians' fees, drugs, and hospitalization. This figure is 369 francs, equivalent to about \$68. To arrive at an estimate of the total spending by the entire population, it is obviously necessary to multiply this figure by 720,000 inhabitants.

President:* The Delegate of Peru has the floor.

Report of the Delegation of Peru

Dr. Marchand (Peru):* My first words will be to express to the Member Governments represented here the profound appreciation of the Government of Peru for their solidarity and assistance following the earthquake that shook the north-central part of my country last 31 May. Some idea of the magnitude of this disaster can be gleaned from the fact that the quake area covers approximately 83,000 km² and has a population of close to a million inhabitants.

This catastrophe slowed down the enormous efforts by Peru to find a way to well-being and progress. My Government regards reconstruction and development as inseparable parts of a single revolutionary process of change. It believes that this process cannot be limited to restoring the damaged communities to their earlier condition—which would simply amount to restoration of backwardness and poverty—but that these communities must be offered a better level of living than that which they had before.

We want to make it perfectly clear that the Pan American Sanitary Bureau, Regional Office of WHO for the Americas, came to our aid from the very first moment. In acknowledging this, our Government also acknowledges the important work done in the wake of this tragedy by the international organizations of the Inter-American System and the United Nations family.

The contributions received from the countries and organizations are being utilized within the national plan for helping the victims and rebuilding the devastated areas.

Once the magnitude of the earthquake had been determined and emergency measures taken for relief of the victims, action began on the preparation of a plan of work for rehabilitation and reconstruction in the disaster area. The Government established a Commission for the Rehabilitation and Reconstruction of the Damaged

Areas (CRYRZA) and endowed it with an initial budget consisting of 2 per cent of the General Budget of the Republic. The health sector presented a medium-term plan setting forth the policy to be followed for constructing and equipping health facilities and water and sewerage system in the towns. A program and a system of priorities were established. A copy of this plan was sent to the Director of the Pan American Sanitary Bureau.

Commitments have already been entered into for the construction of the following facilities during 1970-1971:

<i>Health establishments</i>	<i>In millions of sols</i>
Repair of hospitals: Caleta (100 beds), Casma (30 beds), Huarney (25 beds), and Huarás (130 beds)	21.0
Repair and equipping of health centers: Hyaylas, Corongo, Sihuas, Chacas, Llamelín, San Marcos, and Cajatambo (8 beds each)	8.9
Repair and equipping of health stations at Vicos, Aquia, Huasta, Ranrahirca, Tumpa, and San Luis	2.0
Construction and equipping of five health centers (8 beds each)	17.35
Construction and equipping of 15 health posts	15.58
Start of construction of hospitals at Carás, Santiago de Chuco, Pomabamba, and Huari	40.0
<i>Environmental sanitation in rural areas</i>	
Reconstruction and rehabilitation of 51 water supply systems	3.17
Construction of 30 water supply and 5 sewerage systems, 5 health workshops, and 12,000 latrines	36.0
Total	144.0

The funds are derived from a CRYRZA allocation of 144 million sols, which includes \$400,000 donated by AID. The latter amount is earmarked for the construction and equipping of five health centers.

The main aspects of this plan are summarized in the table entitled "Plan for the Rehabilitation and Reconstruction of the Damaged Areas," contained in the report distributed. It will be seen that the program for 1970-1971 includes four hospitals of the 15 included in the five-year period, seven health centers of the scheduled 28, other work relating to the repair and equipping of health facilities, and the reconstruction of 81 water supply and five sewerage systems, and the construction of 12,000 latrines. During 1972-1974, 11 hospitals, 21 health centers, and 22 water supply or

sewerage systems would remain to be built. This will require funds beyond the amount that can be made available by internal financing, so that assistance will be needed from bilateral and international organizations.

The investment needs foreseen for this second stage of 1972-1974 amount to approximately \$14,300,000.

The technical work involved in programming the reconstruction of health facilities in the damaged areas and in conducting the negotiations for international contributions to facilitate the achievement of the plan's objectives would require an intensification of the valuable services rendered to the Government of Peru by PAHO/WHO and by other specialized agencies and funds of the Inter-American System and the United Nations family.

In the limited time available I can only provide a very broad outline of developments. Detailed information on Peru's attainments during the 1966-1969 period will be found in the document already distributed. However, a balanced account of achievements has the special merit of helping to determine what remains to be done and enabling us to adjust goals and perfect activities.

It has been said here that the outstanding event of the decade just completed, actually a new body of doctrine, was the acceptance of health as a component of economic and social development. In the decade that is beginning we must seek and find concrete and positive manifestations of this acceptance. This we can only do to the extent that we cease to regard problems of health as isolated phenomena divorced from the economic, social, and political realities.

Health levels and mortality and morbidity rates for particular population groups in the urban or rural environment apply to specific age groups and are traceable to specific types of causes. They are largely manifestations or reflections of a given socioeconomic structure. This explains why many health problems cannot be solved entirely through the specific efforts of the health sector alone. It will not suffice for the Governments to obtain increased resources, adjust existing medical care and public health techniques, or develop plans and programs for activities directed toward better use of scarce resources. All of this will not be enough unless accompanied by an effort to remove the basic causes of health problems, most of which stem from conditions shaped by our state of underdevelopment.

Mention has also been made of the acceptance of planning as a system for scheduling investments on the basis of priority needs, and of the important role of political decisions in planning. We believe that much progress was made during the past decade. Systems and

methods were developed, planning units were established in the ministries or departments of health, human resources were trained, most of the countries formulated plans, and—what is an indication of genuine progress—it was recognized that planning is a complex and difficult process that is just beginning in our countries. We entirely agree that consolidating the integrated planning of health in the Americas and making feasible its application is a necessary item of the agenda for the coming decade. We should only like to add that the essence of planning is not the pool of resources or instruments it requires, nor the technical quality of the plan produced. Nor does its essence lie in the mere accomplishment of the goals set forth in the plans. The essence of this process must be the direction, speed, and above all, the social impact of the change that is achieved. In other words, using the example of my country, I would say that even the most methodologically perfect planning for the most effective use of the best possible service will avail us nothing if we continue to reach only a half of our population, and this within a framework of profound injustices.

Health problems arising from ecological imbalance will continue to acquire ever-increasing importance as technological development advances. But our concern should not be only with problems of this kind, which emerge as a result of the constructive efforts of man; we must also, and with even greater justification, be concerned with those problems that can arise as the result of experiments aimed at destructive ends, such as the atomic explosions in the Pacific. As General Mercado Jarrín, Minister of Foreign Affairs of Peru, said before the United Nations General Assembly, there must be deep concern over the serious disturbances that will inevitably be produced by radioactive pollution of water and over the effects this is likely to have on the economy and on one of man's main sources of nutrition.

Allow me one more observation. Since the international organizations are undoubtedly called upon to play an increasingly important role in the countries' efforts to attain better standards of living, external cooperation requires our special attention and, more than just comments, a repeated expression of our points of view.

In the field of health, as in every other economic and social sector, external cooperation must be guided by and carried out within the framework of the following five points, which we consider basic:

1. The requirements for external cooperation must be determined by the countries themselves in terms of their over-all development and health policies.

2. External cooperation should be consonant, in every technical aspect and in all its implications, with a country's development level; it should therefore be directed to the establishment or adaptation of technologies compatible with the countries' absorption capacity, so that it will permit the maximum and most effective use of available resources and will not create or intensify problems arising from the mere "transplantation" of objectives and technologies from the developed countries.

3. External cooperation should be furnished on liberal terms and should never be subject to political, economic, or technical conditions that will distort its true purpose.

4. External cooperation, especially that derived from international organizations, should be apportioned to the countries on the basis of need and never be given as a result of discriminatory or arbitrary pressures or political commitments.

5. International organizations, like governmental foreign aid programs and voluntary agencies, should rationalize the use of their technical and financial resources by coordinating their action in each country, if possible within a single, combined program, or at least on the basis of separate and compatible programs and of cooperation requirements determined by the countries themselves.

The Delegation of Peru is grateful to the President of the Conference for the facilities he has extended and expresses best wishes for the success of this meeting.

President:* The Delegate of the United Kingdom has the floor.

Report of the Delegation of the United Kingdom

Dr. Frazer (United Kingdom): This report on attainments and progress in the past four years must necessarily be limited, not because considerable effort has not been made but because more time is required by these territories, in which there have been many changes in prime responsibility, necessitating adjustments and re-evaluations of former methods of policy-making and field direction.

The recent baseline surveys of health conditions and resources in the small territories, with a concomitant definition of individual targets to be attained within a limited time, will lead to a clearer assessment of advances in the future.

Notable advances have been and are being made in the supply of potable water, which had relied on old systems for many years. Progress is also being made in environmental health, a necessary priority because the

role of tourism has an important and growing part in national economies.

There is increasing interest and growing action in the field of family planning. While it is difficult in such a varied scene to present a series of comparative figures and accepted indices showing improvement, a great deal of basic work has been carried out.

The move to independence of the Caribbean territories, now represented individually at this august Assembly, has left a number of small units in which the individual provision of the highest techniques in health, particularly in the curative field, is impractical. That is not to say that the larger territories have stopped providing the services they did in the past; that is not so, for they have increased their help. However, action has been initiated which we are sure will show great results. The adjustments to internal self-government, and the replacement of imported administrative and technical officers by local officers, throw great strain on the manpower of small territories. And in this assessment of present and future human resources requirements, our recent efforts have been centered especially on the effective and economic use of these resources, now and in the future.

A similar situation exists with regard to technical equipment; small territories cannot afford modern equipment in isolation, or if they can, it would be selfish to use the few available technicians in a small area without sharing with others.

The machinery used in order to advance in this field has been twofold: meetings of the Ministers of Health and the promotion of common programs by PAHO/WHO; thus joint plans, based on agreed priorities in health, have been devised and are going ahead. This is a great step forward; from the point of view of PAHO/WHO, the individual requirements of small Governments are being rationalized and coordinated so that programs are no longer designed for individual requests, but for joint needs.

Equally, the organization of the Caribbean Health Ministers Conference has provided an opportunity for Ministers of smaller territories not only to meet together, but also to relate their needs and problems to the resources and problems of the larger territories and also to the University and external agencies. In helping with the development of this Conference, of which the first meeting was in Trinidad in February 1969 and the second in Barbados in April 1970, PAHO/WHO has played a sympathetic and generous role.

President:* The Director of the Pan American Sanitary Bureau has the floor.

Dr. Horwitz (Director, PASB):* Only to make some brief remarks about the statements presented to the Conference. These remarks will refer more to the use to which the reports will be put than to their content.

I should like to emphasize that the Organization has been enriched these last two days, first of all by the printed reports prepared and distributed by some Governments, and secondly by the oral presentations we have heard.

Concerning the reports, which of course contain the most recent statistics, we are planning to compare this information with the data contained in the publication *Health Conditions in the Americas, 1965-1968* as part of our continuing analysis of health information received from the countries. This information has enabled us to prepare and compile, over a period of 20 years, successive reports on health conditions in the Americas, and in this last report to greatly expand the data.

Factual language has prevailed over narrative in the different presentations. Either in absolute numbers or, when possible, in terms of rates, there has emerged, as a concrete result, that which the Delegate of Nicaragua, Dr. Avilés, referred to in the early sessions: an outline of a health strategy for the coming decade, one that we respectfully urge be supplemented with the strategy formulated by us in the introduction to the *Quadrennial Report*. And it is a strategy that is based not merely on good intentions but on much more solid foundations, namely, the experience of the previous decade and the reports we have had the privilege of hearing.

Perhaps the Conference will wish to arrange for a review of the system followed at this meeting for the presentation of the reports. It is possible that such a review, which the Executive Committee might be asked to undertake, would lead to a better and perhaps more informative method that will not oblige certain Ministers to speed their presentation in order to keep within a specified time limit, which no one likes to do. Perhaps the presentations could be followed by a discussion and questions by the Governments on features of a presentation considered of particular interest.

This is, of course, a matter for the Conference to decide and one in which we shall gladly cooperate if the decision is to undertake such a review.

There is one matter on which I should like to present some brief comments. The document *Health Conditions in the Americas, 1965-1968* contains a chapter which for reasons of custom is incorrectly entitled "Health Expenditures" but which should be called "Health Investments." This chapter refers to the investments foreseen for the next four years in the different countries. The information is very deficient; it is my

opinion that the comparisons we have made are unrealistic, but obviously if a Government really wants to present an accurate projection of financing for the health sector it must first develop, very thoroughly, the basic information required, and we shall take the liberty of proposing to all the Governments a model to be used in preparing a study of this kind to establish a firm foundation allowing comparisons within each country over a given period of time, as well as comparisons between countries with respect to particular problems.

We believe that this is a task that the schools of economics would find very interesting, and it seems to me that at least in those countries where the school of economics requires the presentation of a thesis in order to obtain a degree, this would be an interesting topic for the thesis. Once agreement was reached on a minimum design to provide a much more realistic picture of the speed, dynamics, and structure of investment, small allotments of funds by our Organization might be a means of assisting in the preparation of such theses.

Without such data we cannot even dream (if you will excuse this verb), much less speak, of cost-benefit or cost-effectiveness studies in health.

What has been taking place is, on the one hand, continuous improvement of vital and health statistics—this conclusion is inescapable—and, on the other hand, perhaps because of the intensity of the daily work in the ministries of health, a lack of concern with the performance of the sector as a whole in each country.

It appears to me that the ministries of health are now fully convinced that the sector must be examined in its entirety and that, as usual, a basis for this examination—the most realistic possible basis—must be found. We respectfully urge that in attempting to analyze this common basis we do so in keeping with a common outline that will make possible comparisons within and between countries with respect to a given problem.

I repeat that we are planning to submit to the Governments through the usual channels an outline of this type. Although we intend to seek the opinions of economists, we shall keep in mind that initiatives of this kind must be very simple at the start if the risk of total failure is not to be run.

We do not know what amount or quality of information is available in the ministries of finance and economy and in the planning boards of our countries.

It should not be forgotten that biometrics considerably antedates econometrics in the history of science, and that agrometrics is practically non-existent in many of our countries. Even today there are schools of agronomy and veterinary medicine that do not teach statistics, and although the agricultural sector continues

to be fundamental to the economy of our countries we lack statistical data. We who are in the field of health complain of deficiencies in the health statistics, demographic statistics, etc. In other fields the deficiency is very marked. We believe that the proposed model can be an effective mechanism for obtaining better data in the interest of health.

We have taken careful note of the statements made and intend to add to our library all the documents presented. Those delegates who have not done so are urged to send us their documents, for these are part of the natural history of health and disease in the Hemisphere, and as I have said, I regard the compilation of this history as one of the fundamental tasks of the World Health Organization and the Pan American Health Organization.

Item 9: Quadrennial Report of the Director of the Pan American Sanitary Bureau, 1966-1969 (conclusion)

President:* The Rapporteur is requested to read the draft resolution on this item.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The following draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having examined the Quadrennial Report (1966-1969) of the Director of the Bureau on the activities of the Pan American Health Organization during the period between the XVII and the XVIII Pan American Sanitary Conferences (*Official Document 101*); and

Considering the terms of Article 4-F of the Constitution of the Pan American Health Organization,

Resolves:

To approve the Quadrennial Report (1966-1969) (*Official Document 101*) 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.

Decision: The draft resolution was unanimously approved.¹

Item 10: Annual Report of the Director of the Pan American Sanitary Bureau for 1969 (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall now read the draft resolution prepared on this item:

The XVIII 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 1969 (*Official Document 102*); 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 1969 (*Official Document 102*), to commend him on the excellent work accomplished during the year, and to extend its commendation to the staff of the Bureau.

Decision: The draft resolution was unanimously approved.²

Dr. Arreaza Guzmán (Assistant Director, PASB):* The two Committees of this Conference will be constituted after the coffee break. Committee I, essentially for financial and administrative matters, will hold its meetings here in Room A, and Committee II, on technical matters, in Room B.

The items that will probably be dealt with by each of these Committees are listed in today's order of the day. I say probably because each Committee will prepare its own program of work and then present it to the General Committee for coordination with the rest of the work; but it is the privilege of each Committee to establish its own program, subject only to general coordination.

The General Committee has also decided that Committee II will suspend its meetings during the discussion of the PAHO program and budget so that all the delegations, particularly those consisting of a single member, may take part in the examination of this important subject.

In their constituent meetings, the Committees will begin by designating their officers. In addition to the Chairman, who is already elected by this Conference, they should elect a Vice-Chairman and also a Rapporteur, whose duty it shall be, following the discussion of each item, to prepare the appropriate draft resolution to be discussed with the Rapporteur of the Conference and also put before the General Committee and subsequently submitted to this Conference in a plenary session for approval.

I have one more announcement to make: any delegate who has not yet done so is requested to register for the Technical Discussions which begin tomorrow. This registration is necessary so that the corresponding groups can be established. The Technical Discussions, as their name implies, are discussions involving analysis and exchange of views among the members, and to establish very large groups would preclude such an exchange of views. We need to have some idea of the number of

¹Resolution IV. *Official Document PAHO 104*, 61.

²Resolution V. *Ibid.*, p. 61-62.

delegates planning to participate. I wish also to remind you that these discussions are open to all who are present, whether delegates or observers, and that participation is on a personal basis and not on behalf of the Governments. They have been designated as Technical Discussions, and although they are part of the Conference they do not have the same category. The discussions should be as open as possible so that anyone

may express his opinions as frankly and clearly as possible. In this way, the document prepared will be really useful and will represent a contribution to the improvement of our programs for the control of venereal diseases.

The session rose at 10:00 a.m.

EIGHTH PLENARY SESSION

Tuesday, 6 October 1970, at 5:10 p.m.

President: Dr. Adán Godoy Jiménez (Paraguay)

President:* The eighth plenary session will please come to order. The Secretary has some announcements to make.

Dr. Arreaza Guzmán (Assistant Director, PASB):* I should like to confirm that a working group has been appointed by the President to examine the proposed topics for the Technical Discussions. The following persons were chosen to make up this group: Dr. Rabinovich (Argentina), Dr. Tezanos (Dominican Republic), and Dr. Valentine (Jamaica). The report should be finished by tomorrow afternoon, so we suggest that the group meet during tomorrow morning's coffee break to review the documents compiled and be able to present a report to the Conference and the General Committee.

President:* Dr. Henry will now read the report of the Committee on Credentials, after which we shall recognize the Rapporteur to read some draft resolutions.

Second Report of the Committee on Credentials

Dr. Henry (Trinidad and Tobago): I have the honor to present the second report of the Committee on Credentials.

The Committee on Credentials, consisting of Dr. Hernán Veintimilla (Ecuador), Dr. Mervyn U. Henry (Trinidad and Tobago), and Dr. Orontes Avilés (Nicaragua), held its second session on 6 October 1970, at 5:00 p.m. The Committee examined and approved the credentials submitted by the observers from the following nongovernmental organizations:

The International Confederation of Midwives, the International Council on Alcohol and Addictions, the International Federation of Gynecology and Obstetrics, the International Fertility Association, the International Hospital Federation, the International Planned Parenthood Federation, the International Union for Health Education, the International Union against the Venereal Diseases and the Treponematoses, the League of Red Cross Societies, and the Milbank Memorial Fund.

Decision: The report was unanimously approved.

Participation of Canada in the Pan American Health Organization

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* We should like to submit the following draft resolution for consideration:

The XVIII Pan American Sanitary Conference,

Noting the declaration by the Government of Canada of its intent to join the Pan American Health Organization as soon as the necessary administrative arrangements have been completed;

Recognizing that, with the incorporation of Canada, the membership of the Organization would include all the Governments of the Americas; and

Noting that as early as 1949 the Member Governments, acting through the Directing Council at its III Meeting, in Resolution VIII, expressed the wish for the incorporation of Canada into the Organization as soon as possible,

Resolves:

1. To express its pleasure with the declaration of the Government of Canada of its intent to join the Pan American Health Organization as soon as possible.

2. To request the Director to provide all available assistance in order that Canada may join the Organization without delay.

President:* The draft resolution just read is submitted for consideration.

Decision: The draft resolution was unanimously approved.¹

Item 13: Election of Three Member Governments to the Executive Committee on the Termination of the Periods of Office of Nicaragua, Trinidad and Tobago, and Uruguay (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall read the draft resolution on this item:

The XVIII Pan American Sanitary Conference,

Considering the provisions of Article 9-B of the Constitution of the Pan American Health Organization; and

Considering that the Governments of Brazil, Honduras, and the United States of America were elected to the Executive Committee on the termination of the periods of office of Nicaragua, Trinidad and Tobago, and Uruguay,

Resolves:

1. To declare the Governments of Brazil, Honduras, and the United States of America elected to the Executive Committee for a period of three years.

2. To thank the Governments of Nicaragua, Trinidad and Tobago, and Uruguay for the services rendered to the Organization by their Representatives on the Executive Committee.

President:* The floor is open for consideration of the draft resolution just read.

Decision: The draft resolution was unanimously approved.²

Health Conditions in the Americas (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall read the pertinent draft resolution:

The XVIII Pan American Sanitary Conference,

Having examined the report on *Health Conditions in the Americas, 1965-1968 (Scientific Publication 207)*, in relation to the series prepared for previous Conferences covering the period 1950-1964,

Resolves:

1. To approve the report on *Health Conditions in the Americas, 1965-1968 (Scientific Publication 207)*.

2. To recommend that the Organization continue to maintain the series of reports which evaluate the progress in the health field in the Region and establish the bases for future health programs.

3. To urge the Governments to take the necessary actions for the improvement of vital and health statistics.

President:* The draft resolution just read is before you for consideration.

Decision: The draft resolution was unanimously approved.³

Item 37: Cholera (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall read the draft resolution on this item:

The XVIII Pan American Sanitary Conference,

Having heard the presentation made by Dr. M. G. Candau, Director-General of the World Health Organization;

Conscious of the recent spread of cholera to areas of the Near East and of Africa, where the disease has not been endemic;

Concerned that the disease may appear without warning in the Americas;

Noting that the Director of the Pan American Sanitary Bureau has already arranged, through the collaboration of the Center for Disease Control of the United States Public Health Service, for training in bacteriological diagnosis of cholera for selected health officials of the countries of the Americas; and

Noting also that the Bureau is prepared to provide technical assistance in the preparation of cholera vaccine,

Resolves:

1. To thank the Director-General of the World Health Organization for his very informative presentation.

2. To urge the Governments to intensify their surveillance efforts in order to provide the earliest possible warning in case the disease appears in the Americas.

3. To recommend strongly to the Governments that, in applying the measures provided for in the International Sanitary Regulations with regard to international travelers, they not go beyond the scope of those Regulations.

President:* The draft resolution just read is before you for consideration.

Decision: The draft resolution was unanimously approved.⁴

Item 12: Election of the Director of the Pan American Sanitary Bureau, and Nomination of the Regional Director of the World Health Organization (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall now read the draft resolution on this item:

¹Resolution VI. *Official Document PAHO 104*, 62.

²Resolution VII. *Ibid.*, p. 63.

³Resolution VIII. *Ibid.*, pp. 63-64.

⁴Resolution IX. *Ibid.*, p. 64.

The XVIII Pan American Sanitary Conference,

Considering the provisions of Article 4-E and 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;

Taking into account Article 45 of the Rules of Procedure of the Conference, which provides that the Director of the Bureau shall be elected by any number of votes greater than half the number of the Governments of the Organization;

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; and

Seeing that the election of the Director of the Bureau has been held in accordance with the above-mentioned procedure,

Resolves:

1. To declare Dr. Abraham Horwitz Director of the Pan American Sanitary Bureau, for a period of four years to begin on 1 February 1971.

2. To inform the Executive Board of the World Health Organization of the designation of Dr. Abraham Horwitz for appointment as Regional Director for the Americas.

President:* The draft resolution just read is submitted to a vote.

Decision: The draft resolution was unanimously approved.⁵

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

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall now read the draft resolution on this item:

The XVIII Pan American Sanitary Conference,

Having considered the reports of the Governments of the Organization on health conditions and the progress achieved during the interval between the XVII and XVIII Pan American Sanitary Conferences, presented in accordance with Resolution XV adopted at the III Meeting of the Directing Council; and

Mindful that these reports contain extremely valuable data on important aspects of the health conditions in the countries concerned and reflect the results of diversified experience,

Resolves:

To thank the Governments for their reports on the health progress achieved during the period 1966-1970.

⁵Resolution X. *Ibid.*, p. 65.

President:* The draft resolution just read will now be put to a vote.

Decision: The draft resolution was unanimously approved.⁶

Dr. Aguilar Rivas (El Salvador):* Following the presentation of the Governments' reports to this Conference we had occasion to exchange views with several delegates concerning the results of the country reports. On the basis of these conversations, the Delegation of El Salvador wishes to make a proposal so that our colleagues can decide whether or not it is necessary to present it in the form of a resolution. The proposal read as follows:

"The Delegation of El Salvador, acting in agreement with other delegations and convinced that the reports of the Member Governments of the Organization on public health conditions and progress achieved during the period between successive conferences contain highly useful records of experience, believes that the reports of the Governments should enjoy the highest priority within the agenda of the Conference. It therefore requests the Executive Committee to study, in collaboration with the Governments, a mechanism to facilitate the formulation, presentation, and discussion of the reports so as to make them increasingly useful to the countries."

President:* The Delegate of El Salvador has just submitted a proposal. We shall distribute the text to the other delegations for examination at a future session.⁷

Item 20: Smallpox Eradication

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall now read the proposed resolution on this item.

The XVIII Pan American Sanitary Conference,

Having been informed of the status of the smallpox eradication campaign in the Americas (Document CSP18/9);

Considering that, despite the successes achieved to date, it is essential that the countries continue to assign first priority to the problem of smallpox eradication in the Americas; and

Bearing in mind that, as long as endemic foci continue to exist in the Hemisphere, it is indispensable that a high level of immunity of the population be maintained by the use of freeze-dried vaccine meeting the minimum standards recommended by the World Health Organization,

⁶Resolution XI. *Ibid.*, pp. 65-66.

⁷See tenth plenary session, p. 126.

Resolves:

1. To reaffirm that smallpox eradication continues to be one of the most important priorities for this Hemisphere and for the Pan American Health Organization.
2. To thank the Government of Brazil for the efforts it has made to eradicate smallpox from its territory, and to congratulate it on the results achieved to date.
3. To urge the countries to strengthen their eradication or maintenance programs, giving special attention to evaluation of the coverage results and vaccine "takes," and developing efficient epidemiological surveillance activities for the detection and investigation of cases and the containment of outbreaks.
4. To urge vaccine-producing countries to intensify their efforts to produce freeze-dried vaccine meeting the requirements of the World Health Organization.
5. To thank the countries that have made donations to the vaccine bank of the Organization and to ask them to continue to do so.
6. To instruct the Director of the Bureau:
 - a) To continue taking the necessary measures for coordinating national and international efforts for the eradication of smallpox, and to continue providing the countries with technical and material assistance, using funds assigned by PAHO/WHO.
 - b) To continue reporting to the Governing Bodies of the Pan American Health Organization on the progress of the smallpox eradication program.

Dr. Ehrlich (United States of America): I was not present of course during the discussions on smallpox in Committee II, and I am sure the Committee gave very careful consideration to the development of this resolution. But I find that it does not contain any reference to certain ideas currently being discussed, not only in my country but in Geneva by the World Health Organization and in other parts of the world. In certain parts of the world it is felt that the vaccine may constitute a greater hazard than non-vaccination and the threat of smallpox. I wonder whether consideration was given to that point during the discussions in Committee II, and whether it might not be worth while to give it consideration by modifying the resolution before us to reflect the possibility that, in some countries, a more flexible approach might be adopted in view of our present knowledge of the epidemiology of smallpox and of the present containment of smallpox not only in this Hemisphere but also in other parts of the world.

Dr. Mohs Villalta (Costa Rica):* I should like to refer to the remarks of the Delegate of the United States of America. It is true that the possible hazard presented by vaccination, under certain circumstances, in the event of a smallpox case, was mentioned during the discussion of smallpox vaccination in Committee II. However, it was my understanding that the Committee, along with acknowledging that the number of smallpox cases in the Hemisphere continues to be high and that

the movement of persons between American countries is increasing, concluded that it would be better to simply discuss this aspect without including it in the resolution; that is, to simply underscore the need to attain high immunity levels among our people until smallpox cases have been completely eliminated from certain countries of the Hemisphere.

Dr. Ehrlich (United States of America): I should certainly agree with the Delegate of Costa Rica. But—and I do not wish to press the point—I am wondering if there should not be some recognition here of the fact that the Conference considered this alternative of non-vaccination under certain circumstances, and perhaps rejected it at the present time because of the smallpox situation within the Hemisphere. The question may perhaps not be something we ought to spend a lot of time discussing, but one would think that the Conference might wish to consider a resolution which contained language indicating that this was given consideration. I have no language to suggest.

Dr. Bica (Brazil):* I am completely in agreement with what the Delegate of Costa Rica has said. It seems to me that changing the proposed resolution could weaken it. Moreover, it would be necessary to make clear whether the reference is to smallpox eradication in general or to countries that have eradication programs under way. I do not believe that a country where an eradication program is going forward would have the problems that might be encountered by countries in which no smallpox cases have been reported for many years and which have a high level of immunity. Most of the Latin American countries are not in this position, and I therefore do not believe that the draft resolution should be amended.

Dr. Rodríguez Castells (Argentina):* I agree with the Delegates of Costa Rica and Brazil, since my Delegation believes that the terms in which the proposed resolution was drafted are correct and are responsive to Latin America's needs. This is to say that the resolution should not be drafted in any way that will lessen the likelihood of vaccination. There are several countries which have not had cases of smallpox for some years and yet are of the opinion that so long as the disease exists in certain neighboring countries the maintenance of vaccination is essential as a means of safeguarding against the disease.

In short, the proposed resolution as drafted has my support and I see no need to add anything that might weaken it.

Dr. Ehrlich (United States of America): I shall be pleased to accept the recommendation of the Delegates

of Costa Rica, Brazil, and Argentina and withdraw my suggestion for modifying the resolution before us.

President:* Since the Delegate of the United States of America has withdrawn his motion, the draft resolution on smallpox eradication is submitted to a vote.

Decision: The draft resolution was unanimously approved.⁸

President:* The Secretary has the floor.

⁸Resolution XII. *Official Document PAHO 104*, 66-67.

Dr. Arreaza Guzmán (Assistant Director, PASB):* The General Committee decided at its mid-day meeting today that there will be no meeting of Committee I tomorrow morning. Committee II will meet at 9:00 a.m. in Room A, with the attendance of all the delegates, to discuss two items: *Aedes aegypti* eradication in the Americas, and the General Program of Work of PAHO/WHO covering the period 1973-1977.

The Secretary of Committee I reports that its only remaining task is to examine the resolutions on the items dealt with by that Committee. A very brief afternoon session is scheduled for this purpose.

The session rose at 6:00 p.m.

NINTH PLENARY SESSION

Wednesday, 7 October 1970, at 5:15 p.m.

President: Dr. Rogelio Valladares (Venezuela)

Dr. Horwitz (Director, PASB):* Since the Acting President of the Conference, Minister of Public Health and Social Welfare of Paraguay, Dr. Godoy Jiménez, is not present in the room, and in the absence of the other Vice-President, the delegates are required by the Rules of Procedure to elect a President *pro tempore* so that discussion may continue on the items of the agenda. Would you please nominate a delegate to take the Chair?

Dr. Aguilar Rivas (El Salvador):* I nominate Dr. Rogelio Valladares of Venezuela.

Dr. Horwitz (Director, PASB):* Dr. Valladares of the Venezuelan Delegation has been nominated. Are there any other candidates, or does someone wish to second this nomination?

Dr. Bica (Brazil):* I have the honor to second the nomination made by the Delegate of El Salvador.

Dr. Rabinovich (Argentina):* This Delegation also supports the nomination.

Dr. Juricic (Chile):* I support the nomination made by Dr. Aguilar Rivas.

Dr. Marchand (Peru):* I second the nomination.

Dr. Horwitz (Director, PASB):* I would appreciate it if Dr. Valladares would take the Chair.

Dr. Valladares then took the Chair.

President:* Fellow delegates, this time I can truly say that I was not prepared for the election. Thank you for the honor.

We shall now continue the discussion of the agenda items. Dr. Horwitz will present Item 35.

Item 35: General Program of Work of the Pan American Health Organization/World Health Organization, Covering the Period 1973-1977

Dr. Horwitz (Director, PASB):* Document CSP18/28,¹ which I shall now present, contains the general work program of PAHO and WHO for the Region of the Americas to be carried out, once it is

¹Sec Annex 8.

approved, during the period 1973-1977. This document is an outgrowth of Resolution WHA23.59² of the Twenty-Third World Health Assembly and of the resolutions on long-range planning and evaluation approved by the PAHO Directing Council at its XIX Meeting³ and by the Executive Committee at its 61th Meeting.⁴

An attempt has been made to set forth in this document the first results of the quadrennial projections, that is, of the projects for which the Governments are interested in receiving the cooperation of our Organization. It reflects, of course, the health objectives of the 1960's, resulting from the policy known to all of you, and it includes the Final Report⁵ of the second Special Meeting of Ministers of Health of the Americas, a document that we have come to regard as a valuable source of ideas on policies and methods for gradual solution of the problem of health. We have tried to embody this entire set of principles, methods, and action guidelines in the document that we now have the honor to submit to the Conference for consideration. At yesterday's session of Committee I, during the discussion of the item on long-range planning, we referred once again to the system of quadrennial projections, and I should therefore like to avoid a further description of it. I shall simply point out once more that these projections are the tools adopted by the Governing Bodies for the internal planning of PAHO activities and of WHO activities in the Americas and that they are basically designed to afford the Ministers of Health and other health authorities of the Member Countries an insight into what is occurring with respect to the sector at a given time, in terms of its relationship to economic development. This will enable them to determine their priorities for the quadrennium, establish hypotheses of change and objectives for improving those priorities, plan the investment of national resources, and, as a consequence, estimate their requirements in terms of international cooperation.

We believe that this exercise has been very well received by the Ministers of Health. We appreciate the understanding they have shown in accepting what we have attempted to do without great experience in this field. In any event, our efforts have had the immediate results that were anticipated: they had the effect of arousing the interest of each country's professionals so that, with the cooperation of their colleagues in the Organization, they submitted to their Minister of Health,

at the proper time, the national data needed for taking the appropriate decisions.

From the mass of data provided by 26 countries and territories in the Americas, 21 indicators were selected, representing the principal areas of development in the broadest sense, that is, economic, cultural, social, and health development. This series of indicators was then broken down under various headings. Life expectancy at birth was taken as the general indicator, and the specific topics chosen for consideration were: health structure and resources, the environment, educational levels and structures, economic levels and structures, and population structure.

Using this series of data and subjecting it to some simple correlations, we are able to arrive at a better description than ever before of the situation of the health sector in the Hemisphere, its relationship to economic development, the extent and nature of the highest priority problems, related trends, and the interaction of economic development and the health sector. All of this culminated in the first attempt to construct what has come to be called "socioeconomic categories" of the group of 26 countries and territories in the Hemisphere.

The currently available information, which we shall gradually improve on the basis of experience gained in preparing future quadrennial projections, will serve as a useful guide in directing investment and resources toward the solution of those problems which are most common, toward the countries where the problems are most acute, and, we also hope, in guiding the investment of supplemental foreign capital for the financing of the sector.

I shall not tire you by dwelling on the many tables that were included in the quadrennial projections in an attempt to describe the Region's health sector and its interrelations with development in terms that would meet the purposes I have just summarized. What I would like to underscore is that the exercise which we have submitted for your consideration and which you have received so kindly will not only be useful to the individual countries but will also be—and in fact, already is—very helpful in organizing regional activities in the field of international health cooperation.

With this background, and on the basis of the information we have presented concerning the history of the Organization in the past decade, we are submitting for consideration by the Conference a projection of the work of PAHO and WHO in the Americas for 1973-1977 in two major fields of cooperation: one relating to the infrastructure of the sector, the other to health services, and both, of course, interdependent. The former

²*Off. Rec. Wld Hlth Org.* 184, 32-33.

³Resolution XXVII. *Official Document PAHO* 99, 76-77.

⁴Resolution XIV. *Official Document PAHO* 96, 14-15.

⁵*Official Document PAHO* 89.

embraces especially administration, defined in its broadest sense as an active and continuing effort to contribute to better health through the strengthening and renewal of knowledge, skills, and attitudes and to bring to bear all available resources, adjusting them to the continuous change in the concepts and phenomena of health. The second field involves a definition of the various activities for attending to the most significant problems of the communities, meeting the demands of the people most in need, and orienting these services toward the places having the greatest need. Naturally, every classification is artificial, and the very purpose of this exercise is to show that what PAHO and WHO should accomplish during 1973-1977 could be done in a number of ways. We have chosen this method of presenting first the infrastructure and then the services because it seems to us that the discussions in this Conference have shown that the principal weakness today in the health process of the Americas lies more in the infrastructure, that is, in organization and administration and resources, than in the amount of knowledge available for solving specific problems. That is why we have used this arrangement and this nomenclature, and I repeat: administration and resources under the heading of sectoral infrastructure; health services, again divided into those directed to individuals and designated as comprehensive medical care, those intended to act on the environment, which are self-explanatory, and supplementary services, in which we include, at this time, health laboratories and health education. The document details each of these categories, defines them, establishes their purpose and action framework, and sets forth the conceptual and practical activity to be carried out by the Organization. To cut short this discussion, I shall tell you that we have included in the final part of the document a summary of what we propose should be done if the Conference gives its approval. I shall now draw on this summary to describe briefly what we propose to do for each of the subcategories of the two major categories mentioned.

Naturally, the entire description, being regional in scope, is qualitative rather than quantitative, but we trust that as better information becomes available, particularly population data and vital and health statistics, and as the quadrennial projections are improved through experience, this regional description will become much more numerical. In the meantime, we still have the objectives of the Ten-Year Public Health Program of the Charter of Punta del Este, which we continue to strive to reach. Thus, in connection with the first category—the infrastructure of the health sector and its two major subcategories of administration and

resources—the document says that our goal for the five-year period is institutional improvement of the sector and of its administrative methods and procedures and improvement of the collection, analysis, and dissemination of health statistics, particularly as regards their use for defining programs, programming activities, evaluating performance, and channeling resources toward particular ends. We also propose to continue the program of research, directing this work increasingly toward problems of highest priority, for which purpose we shall attempt to strengthen the regional centers for biomedical reference and communication, as well as the training of research workers. We further propose to strengthen the national planning process, with emphasis on the determination and application of operational policies and strategies, the adaptation of infrastructure facilities, and a genuine integration of national health plans into those for economic and social development. For this we are counting on the cooperation of the countries and the assistance of the Pan American Health Planning Program. Yesterday's discussion on health legislation in Committee I reflected precisely what we propose to do in this field during the five-year period under consideration. As for resources, we are proposing the consolidation and extension of studies on manpower for every discipline and at every level, including medical teaching laboratories, behavioral science studies and studies directed toward the establishment of faculties of the health sciences. In regard to material resources, we have emphasized the need to plan the utilization and distribution of installed capacity in terms of a sectoral policy and strategy; and with respect to financing, we again point to the urgent need of making a thorough analysis of financing currently available for the sector, in order to make better use of resources, regardless of the institutions investing in them, and determine the need for supplementary capital from abroad.

In the chapter on health services, we stress the need to act on a basis of combined preventive and curative work, regionalization, and expanded coverage especially in the rural areas. We highlight the importance of continuing the program for the eradication or control of communicable diseases, and to continue also extending the activities of programs for non-communicable diseases of importance from the epidemiological point of view. Salient among these, of course, are the chronic and degenerative diseases, cardiovascular diseases, tumors, diabetes, and mental diseases. Because of the importance of protecting mothers and children, we have given this matter the priority it deserves; our projection calls for the organization and strengthening of maternal and child health services, including family planning, for which the

Governments have formulated and wish to execute their own policies. In relation to malnutrition we have emphasized once again that no solution is possible unless the countries have a suitable food and nutrition policy.

Thanks to yesterday's discussion in Committee II, we now have some clear guidelines as to how we should proceed in the great problem of man-environment relationships. The Committee adopted the third of the three alternatives that we proposed. Thus, we shall intensify our action against the physical problems of the environment. We shall consider, first of all, the problems deriving from that environment so as to determine the points of departure under today's conditions and apply the necessary measures, particularly in regard to problems posed by industrialization, urbanization, and internal migration.

In line with another decision of the Governing Bodies, we have included quality control of drugs and biological products and suggest that work begin with studies of drug quality control and programs of food hygiene.

The very important progress made in the past 10 years in the field of zoonoses control—a progress resulting from efforts made in cooperation with the Ministries of Health and Agriculture and the universities and aimed essentially at saving highly-needed sources of protein, especially for the benefit of the more vulnerable population groups—suggests another important field of activity in which improvements will be made during the next five years when the specialists in livestock planning trained by the Pan American Zoonoses Center begin to put their teachings into practice.

We have emphasized also the urgent need to establish or strengthen the network of laboratories as a supplementary service, and to design and apply a model for evaluating the educational component in the various programs of health, as well as to revise and update the health education content in the curricula of the schools.

We insist, also, that all of this effort will be lacking in positive results if the consumers, that is, the human beings that we are pledged to serve, assume a static rather than a dynamic role, if the beneficiaries are not made part of the plans, programs, and projects from the time of their formulation, if they are not organized into well-informed groups able to spread their knowledge and experience to others within and outside their own community. All this has to do with the modern sciences of communications, beamed in this particular instance toward the people. But even so, these efforts will not achieve their purposes if the institutions, the members of the national health services and of the international organizations, each on their own sociological plane, fail

to adapt and provide continuous reports on the purposes, objectives, results, and reassessment of the entire process—in short, unless the health sector becomes the vital and most humane moving force of these social factors. It seems to me that much was done in the past decade in this field, but to achieve this essential purpose we must explore the means of applying the new technology of the communications sciences.

And so, another cycle is closed with these quadrennial projections. Thus, the experience gathered through the years is brought into this internal programming mechanism to permit an increasingly precise definition of what the Governments wish to do and what they expect of the international organizations.

I do not have the slightest doubt that this conceptual and general proposal I have presented, one in which human beings will continue to be, as they should, the focus of activity, will become increasingly precise in terms of actual progress made and in terms of what remains to be done.

Whatever decision is reached by this Conference will be conveyed to the Director-General of the World Health Organization so that his report thereon will be included in the General Work Program of WHO to be submitted to the Executive Board and subsequently to the World Health Assembly.

President:* The subject presented by the Director of the Bureau is submitted for discussion. The Chair believes it necessary and advisable to hear the opinion of the delegates in order to facilitate the work of the Rapporteur and the preparation of the resolution to be submitted on this item.

Dr. Ehrlich (United States of America): I would first like to congratulate the Director on an excellent document, which puts the health sector into a conceptual framework so that one can see it as an entity rather than as a series of separate, perhaps uncoordinated or unintegrated activities. For this I think our congratulations are well deserved because it is a very difficult task. I would like, however, to stress one point I believe the Director made in introducing this document, and that is to re-emphasize the necessity for a quantitative approach to health planning. It seems to my Delegation that this document should evolve in time to be the penultimate stage, if you will, in the entire process of country planning and intergovernmental organizational planning, and would then represent the synthesis of these various processes. Planning should not only include quantification and set objectives that we can strive to meet over the next four years, but should indicate also the sources of financing, external as well as

internal. This document, in other words, should be the blueprint that the Organization can follow in meeting its needs, so that four years from now we can look back and see where we have been and measure the progress we have made. It seems to me that over the next four years this process will be an important element in our emphasis on planning, on analysis, on evaluation.

I wish to mention only one other thing; the document contains a list of 24 items, under which activities will be proposed or conducted. I find it difficult to argue specifically with any one of those proposed, but I think it might be of some advantage to the Conference if there was an indication of priority, of the importance of one activity as opposed to another. Perhaps this is not unrelated to my first comment in the sense that if one quantifies development, one can then indicate the proposed magnitude of effort to be applied to a particular area of activity. The structuring in terms of magnitude of effort and goals appears to me to be the proper approach to improving our planning at both the national and the international level.

I would like once again to congratulate the Director on taking the health sector, a very complex sector indeed, and putting it into a conceptual framework that gives us an opportunity to examine it in a productive way.

Dr. Bica (Brazil):* I would like to associate myself with Dr. Ehrlich's remarks and commend the Director on the document he has prepared. It is obviously difficult to summarize a subject as vast as this in so few pages; moreover, I believe the program outlined covers the principal needs of the countries of the Americas, certainly those of Brazil. The document mentions some of the fields to which the Ministry of Health of Brazil is giving priority in its own programs, such as communicable disease control, basic sanitation, and maternal and child care, which, together with the national food policy, are elements of first importance. It is worth mentioning that proper control of communicable diseases is impossible without first improving the collection, processing, analysis, and dissemination of health statistics. Neither is it possible to conduct health programs without proper training of health personnel in various categories, and unfortunately this is one of the most serious problems facing the Ministry of Health of Brazil. For various reasons which I shall not discuss here, no action has been taken for the renewal of our personnel, and this requires preferential attention.

It has been said that in order to control communicable diseases it is essential to establish a national and regional technical-administrative system for controlling

the quality, efficacy, and safety of pharmaceutical and biological products. Planning and developing a national system of laboratories is an important part of this priority program of our Ministry.

For all the reasons I have given, I should like to say that the Delegation of Brazil is in agreement with this program, which, as Dr. Ehrlich said, will serve as a guide for the Organization's work during the next four years, and principally as a guide enabling the countries to establish programs in cooperation with PAHO and WHO.

Dr. Orellana (Venezuela):* There is little I can add to what has already been said by the two preceding speakers, except to say that I am pleased with the document because of its intrinsic excellence, already pointed out, and also because of its extraordinary importance for the action of the Governments forming part of WHO and PAHO, particularly—and this was the reason for my intervention—as a point of departure for that international cooperation of which we have spoken here. I believe that this general program of work should be approved by the Conference, transmitted to the WHO Executive Board and, to the fullest possible extent, communicated also to the other international organizations directly or indirectly concerned with the health sector and to the financial organizations. We are approving a long-range plan of activities that could hardly have been expressed as completely and precisely as it was in the document. In short, the special purpose of these remarks is to underscore the importance of the general program from the standpoint of international coordination of the countries' technical cooperation, since it is necessary that this cooperation be increasingly strengthened as the international machinery grows larger in every field, including health, and as more resources become available and the countries acquire greater possibilities of using those resources.

Dr. Juricic (Chile):* I wish to join in the congratulations voiced by other delegates on the quality of the document submitted to us and the summary which the Director has made of it. This document offers a very complete and realistic picture of the problems and resources of the Region.

Given the great diversity of economic, social, and health levels, not only between countries in the Region but also between areas of a given country, it is evident that national planning is a prerequisite necessary to enable the Organization to prepare its own program of work. Any criticism against the Organization's work program at a given moment is actually a criticism of the countries themselves, since the program of the Organi-

zation can be only the sum of the programs presented by those countries.

Although program priorities vary from country to country according to the problems of each, there are certain aspects which, as aptly noted in the summary, are of concern to all countries. One of these is the problem relating to health infrastructure, mainly involving organization, resources, and the use of those resources, with sound information systems and wide coverage as corollaries. In some countries, including my own, there is a conviction that a larger part of the national income cannot be devoted to health programs without impairing other socioeconomic development activities that have at least as great an impact on the level of health as health programs do. The effort to bring about a better utilization of available human and material resources, an effort requiring effective coordination of the sector, constitutes, I believe, the principal concern of those countries at this time. Research on human-resources problems and on the application of methods and the identification of critical areas is indispensable in every country, regardless of its degree of development. The document, especially its summary, gives a very good account of the Region's main health problems, and it is here that national planning should determine the programs of each country according to its priorities and resources, and above all, identify those areas where external assistance is required.

If you will allow me, I should like to mention a particular reference in the document which I wish to correct. In speaking of the importance of communicable diseases, the statement is made that infectious and parasitic diseases continue to account for 30 to 66 per cent of deaths from all causes in the countries of the Americas, with the exception of only three countries: Argentina, Cuba and Uruguay. I am not familiar with the exact situation in other countries, but Chile should be added to the list of those exceptions. According to data for 1969—and surely those who drew up the report did not have access to these data because some of the information for that year is published only in the report which was brought to this meeting and which the writers of the document had no opportunity to see—communicable diseases accounted for 14.9 per cent of all deaths, including those from intestinal diseases as well as from diarrhea among infants less than one year of age, tuberculosis, other infectious diseases, and diseases of the respiratory tract (pneumonia, influenza, etc.), which can be considered "communicable diseases." During the last 10 years, the incidence of communicable diseases has declined very rapidly in my country, with differences of 2 per cent between 1968 and 1969. In any

event, even in 1968 and 1967 the mortality caused by communicable diseases was well below 30 per cent of all deaths.

The general program of work of PAHO/WHO for 1973-1977 should reflect, as the document very correctly says, the identification by the countries themselves of the areas in which international cooperation is needed. We believe that the countries require assistance from the Organization in preparing their health programs and, accordingly, in identifying those areas in which they lack sufficient capacity to tackle certain problems that could be resolved through international assistance. There are, however, problems which, at this time, cannot be solved in some countries, including my own, even with international aid, without neglecting other problems having a higher priority, either because of their greater seriousness or because more technical resources are available for dealing with them.

Dr. Talbot (Guyana): I would like to thank the Director for his report; I expected this caliber of report and I am happy that it is the kind of document that could be useful to me. I think my first reaction to it was to welcome a very comprehensive checklist, as I am involved in health planning at the moment. This document will be useful not only in that sense, but also because it has very clearly defined the things that PAHO will be involved in. Often we attend meetings, and we make decisions and pass resolutions, and they appear quite separate. So it is very useful to look at this document and to realize that in it are presented in a very integrated and well-defined form the points we have been discussing and have been urging.

I wish also to comment on something the Director said about the need to improve the infrastructure, because I have been shocked by the limitations imposed by a poor infrastructure. As I remember, he said that we needed this more than technical knowledge. In my estimation, the technological knowledge is available in many instances, at least in my country. It is the lack of managerial skill that is serious, and I am very happy to note that this area has been recognized and clearly identified as one on which we will be concentrating, because there is a real need for this in Guyana. Another need is that for some kind of assistance in costing our programs, because we have to try to achieve our goals by using the least possible of our resources. Assistance in costing these approaches to the solution of our problems would be very useful. Often we feel that the tried and true solution is the one we should use. I believe that we are now at the point where we ought to examine all the alternatives available, and be very adventurous in select-

ing those that would work best in a particular situation. But we need special assistance in doing this kind of analysis.

I would like to commend the Director on his report, but not in the sense that we did not expect it. We do expect that he will give us the kind of stimulation we need in this type of discussion, and I am sure that this will prove a very useful document for Guyana.

Dr. Campos Salas (Mexico):* The Delegation of Mexico wishes to add its own unqualified congratulations to those expressed by the delegates who have spoken. The document is truly excellent and contains a highly useful series of guidelines that will prompt us to consult it frequently in the future. It sets forth very clearly, as it was intended to do, the critical areas in which cooperation is required from PAHO, and it identifies the priority health problems in which this cooperation is required. It expresses concern with the need to strengthen national institutions to enable them to provide better service, not only within the country but also to other countries, and the need to provide effective encouragement to new forms of international cooperation. The Delegation of Mexico therefore wishes to join in the well-merited congratulations extended by all the speakers.

Dr. Rabinovich (Argentina):* It is a great pleasure for me to express my Delegation's congratulations for the excellent report prepared. The program designed not only presents a modern frame of reference for the sector but also points out its fundamental problems, indicating the basic programs likely to lead to feasible solutions. And I wish to point out and emphasize that all of this is conceived within a structure constituted by members that operate at this time with a certain degree of elasticity or fluidity, that is, as members and not as integral parts. The report points up the importance of arriving at a stage of integration in which the parts will be intermingled.

May I say once again that my Delegation is fully in agreement with the views expressed by the Director.

President:* The Chair would like to consult the delegates regarding the advisability of prolonging the session in order to be able to complete the discussion of this item and then go on to Item 17 (Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council).

Since there seems to be no objection to this proposal, we shall continue with Item 35 and then take up Item 17. If no other delegate wishes to speak at this time, we shall give the Director the opportunity to address

himself to some of the comments made in the course of the discussion.

Dr. Horwitz (Director, PASB):* I do not wish to lose this opportunity to thank all the delegates for their kind remarks about this report, which is a report of the entire Organization. I am sure that the Conference will agree with me that I should address my words of gratitude particularly to Dr. Talbot (ladies first, always). While all of the comments have been very valuable, it was she who pointed out, drawing on the experience of her own country, that the most serious problem is the lack or weakness of infrastructure and the absence of knowledge about the present cost of activities being carried out on the basis of installed capacity. She noted, therefore, the need for studies of this kind with a view to making better use of available resources, and she pointed out that the search for possible solutions to problems which are old in our countries should not be limited to the tried and true approaches but should be "very adventurous," her very words. To a large extent, this is what the document is trying to say.

I should like to repeat, and with this I believe I am answering the Delegate of the United States of America to some extent, that since the report is regional in scope and is aimed at simply presenting the problems, it cannot establish priorities. The priorities are within each country. For the Region as a whole, the priorities still in effect are those that served as a basis for the most recent Special Meeting of Ministers of Health of the Americas, held in Buenos Aires. However, as some of the delegates have pointed out, the priorities emerge from a simple reading of the document. The Delegate of Brazil noted that the document refers to communicable diseases, sanitation, and protection of mothers and children, these being the supporting columns of the work of his country's Ministry of Health at the present time.

The Delegate of Chile made reference to communicable diseases. I appreciate this reference because it gives me the opportunity to refer to one of the tables used in the analysis of the 21 indicators contained in the quadrennial projections, the one relating to mortality from infectious and parasitic diseases. But before reading the data I wish to say once again that these are the figures the countries gave us, that we have not gone over them yet to verify their consistency with the figures received in our Statistics Department in the reports on the world health situation. In any case, I believe that these figures will answer the question of the Delegate of Chile. Taking into consideration the 25 countries that furnished data on the percentage of mortality attributable to infectious and parasitic diseases, it will be

seen that in 64 per cent of those countries (accounting for 82 per cent of the total population of 253 million) the mortality from infectious and parasitic diseases ranged from 30.4 to 66.3 per cent. This would leave 36 per cent, or nine countries, in which the rates were between 6.4 and 30.3 per cent. The exceptions therefore include more countries than the three that the document indicates, but in preparing the document we had to use the information available at the time. I repeat that this analysis, which could only be made in the last few weeks, will be carefully checked for consistency with statistical information available to our Organization. It does, however, serve as a point of departure for a regional analysis which, as noted by some of the delegates, will enable us to draw comparisons between the situation existing today and that which will exist four years hence as a result of efforts made in the intervening period, both in the Region as a whole and in each country. It has not been an easy task to produce this document, and I am happy to see that it meets with the approval of those members who have been good enough to give us their comments.

President:* The Rapporteur will please prepare a resolution reflecting the statements made by this assembly.⁶

Item 17: Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas

President:* We shall go on to the discussion of Item 17. Would the Secretary please read the pertinent rules and the report of the working group?

Dr. Arreaza Guzmán (Assistant Director, PASB):* I shall now read the provisions on selection of topics for the Technical Discussions, as contained in the corresponding rules.

Rule 7. The Technical Discussions shall deal with only one subject, which shall be selected each year at the meeting of the Conference or the Directing Council preceding that at which the Technical Discussions are to be held. The Governments and the Director of the Pan American Sanitary Bureau shall be entitled to suggest subjects either prior to those meetings or in the course of them. The Bureau shall inform the Governments of the Organization of the subjects proposed. Both the Conference and the Council shall be entitled to delegate the selection of subjects to the Executive Committee.

Rule 8. The subjects proposed shall be submitted to a working group appointed by the President of the Conference or

the Council, as the case may be, which shall be responsible for hearing the proponents and preparing a list of not more than three subjects for submission to the appropriate plenary session.

Rule 9. The Conference or the Council, as the case may be, shall select as the subject for the Technical Discussions that which receives the affirmative vote of a simple majority of the Governments present and voting in plenary session. Voting shall be by ballot. If none of the subjects receives the required majority, a second vote shall be taken on the two subjects that obtain the highest number of votes, except that if two of the subjects obtain the same number of votes, and that number is smaller than that obtained by the third subject. In that event, another vote shall be taken. If, on the second vote, none of the subjects obtains the required majority, a further vote shall be taken and the subject that obtains the highest number of votes shall be selected.

In computing votes, only ballots which specify one of the three subjects proposed shall be taken into consideration. Ballots which specify other subjects, or two or three of the subjects proposed, shall be null and void.

And now I shall read the report of the working group appointed to prepare the list of three subjects to be submitted to this Conference for its selection of the topic of the Technical Discussions for the next meeting of the Directing Council.

The working group appointed to propose subjects for the Technical Discussions to be held during the XX Meeting of the Directing Council, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas, composed of the Delegates of Argentina, the Dominican Republic, and Jamaica, met on 7 October at 10:30 a.m.

As a result of the study of the subjects proposed by the various delegations, the working group found that the following subjects had received the greatest amount of support, and therefore submits them to the Conference for consideration. These subjects are:

- 1) Accidents.
- 2) Environmental pollution.
- 3) Drug addiction.

It is now incumbent upon the delegations to select one of the three subjects proposed.

President:* The Delegates of Costa Rica and Cuba are designated to serve as tellers.

A vote was taken, and the tellers counted the votes.

President:* The result of the voting is as follows: Number of ballots deposited, 23; valid ballots, 23; majority, 12. "For Drug Addiction," 4 votes; for "Environmental Pollution," 10 votes; for "Accidents," 9 votes.

Since none of the subjects received the necessary majority, a second vote will be needed, limited to the two topics that obtained the largest number of votes. In other words, we shall now decide between "Environmental Pollution" and "Accidents."

⁶See tenth plenary session, p. 126.

A second vote was taken.

President:* The result of the second vote is as follows: Number of ballots deposited, 22; valid ballots, 22; majority, 12. For "Environmental Pollution," 12 votes; for "Accidents," 10 votes.

Decision: The topic "Environmental Pollution" was selected.⁷

Following a suggestion by the Director, the Chair requests the proponents of the subject to give us a brief supplementary explanation of it. Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* The decision taken by the Conference is in line with the draft resolution approved by Committee II on man-environment relationships, and I should like to explain that this was entirely coincidental and in no way prepared. The subject that I would have preferred was "Mental Health," which I have been proposing for six years and has never been approved. But in the aforementioned draft resolution the Director is instructed to prepare, for submission to the XX Meeting of the Directing Council, projections concerning the environment and its relationship to health for the 1970's, including specific and objective long-range proposals and the design of programs which the Organization and the Governments could adopt for the purpose of monitoring pollution trends and to implement essential corrective and control measures. The question I should like to raise is the following: if the topic selected, "Environmental Pollution," is interpreted in its broadest sense, we should include pollution of the air, water, soil, and all components of the environment. If such is the case, the discussion will be more extensive than profound and the participants will have to select from the working document or documents prepared those aspects that they wish to emphasize. Or perhaps the Conference would wish to have the Technical Discussions concentrate on a single aspect, in view of the fact that to comply with the instructions contained in the aforementioned draft resolution we would have to prepare projections for the 1970's in the entire range of man-environment relationships.

In brief, the Conference should tell us if it wishes to have the Technical Discussions devoted to an in-depth analysis of a given aspect of environmental pollution or whether it would prefer to have a general analysis of all aspects of environmental pollution which are today

present in the Hemisphere. I hope I have made myself clear.

Dr. Bica (Brazil):* I believe that the topic selected is too extensive to be discussed in the space of the few hours, so my suggestion would be that the Conference consider a single aspect, my preference being for air pollution. The subject in general will be examined in the report the Director has been requested to present to the next meeting. Specifically, I suggest that the discussion be limited to air pollution.

President:* The Chair would appreciate it if some of the 12 delegates who voted for the subject of environmental contamination would express their thoughts in this regard.

Dr. Rabinovich (Argentina):* Having participated in the working group that considered the subjects, I can say that five countries referred to air pollution and the others to soil pollution and general pollution, so that in the course of the initial proposals there were well-defined opinions favoring the discussion of air pollution. I am giving this information as a possible help in guiding the definition of the subject.

Dr. Talbot (Guyana): I was not in favor of the topic, but I would think that it would be useful for us to have something on water pollution.

Dr. Mohs Villalta (Costa Rica)* I should just like to take a minute to say that I was persuaded this morning that the term *polución* is preferable to *contaminación* in referring to these problems in Spanish. I found reliable proof of this in a review of a publication of the Spanish Royal Academy that should dispel any doubts concerning the acceptance of the term *polución*. Furthermore, the definitions of *contaminación* and *polución* used by the international health agencies clearly indicate that *contaminación* implies the action of bacteria, viruses, and microorganisms, and since that is not the intended meaning of *contaminación* when applied to air, water, etc., the term *polución* is really the one that best reflects or interprets what is meant in this case. I should like to recommend, therefore, that the term *polución* be accepted for reference to this problem.

With respect to the scope of the subject, I should simply like to point out that the entire matter is of great interest to all of us and that it would be worth while to broach the matter at first in a general way, that is, including the various elements that can be polluted and emphasizing or accentuating, as the Director said, that which the Conference chooses.

⁷See tenth plenary session, p. 127.

Dr. Valentine (Jamaica): The Delegate of Costa Rica has already expressed exactly what I was going to say, and I should like to second his remarks.

Dr. Pineda (Honduras)* I think it would be ideal if the subject could be discussed in general, but it is very extensive, as already said, and I would prefer to see it limited to water pollution.

President:* The decision will not be as easy as I had supposed, because there are five opinions of members of the group favoring air pollution, two favoring a general treatment of the subject, and two interested in water pollution.

Dr. Rabinovich (Argentina):* Since there has been mention of the connotations of the terms, I should like to support the suggestion of the Delegate of Costa Rica, for *polución* in Spanish implies "making unclean" or "spoiling," while *contaminación* in its technical sense, signifies infecting a surface or other recipient body or making it less aseptic. Now, in environmental engineering, contamination of recipient bodies is contamination of anything that surrounds man and can be exposed to any type of pollution; if we wish to select the term *polución* there is no objection to this because in Spanish *polución* means spoiling, and *impoluto* means unspoiled.

President:* If the problem were simply to select a term, we could settle it quickly by consulting members of the Royal Academy, but the problem is that we have not defined the subject.

Dr. Ehrlich (United States of America): As the problem is one of attempting to delimit the area, I wonder if we can keep it general but yet specific enough if we concentrate on the health effects of pollution of the air, water, or soil, and do not concern ourselves with methods or techniques for limiting emissions from automobiles, for example. If we limit it to the health impact of air pollution and of soil and water pollution, perhaps there could be productive Technical Discussions.

Dr. Horwitz (Director, PASB):* We could study the subject taking into account the tenor of this discussion and at the proper time present to the Executive Committee an outline of the working document, with the understanding that if the information obtained until

then did not permit a specific examination, but rather a general one, we would proceed on the latter basis. By the same token, if the information were such as to enable us to study a given aspect more in depth, this is what we would do. In other words, the Executive Committee could decide at the end of June whether the work should be concentrated on the health impact of pollution in general or on an in-depth analysis of any of its components.

If I may, I should like to turn to the question of nomenclature. According to the 1970 edition of the Dictionary of the Spanish Royal Academy, the word *polución* means ejaculation. On the other hand, it is true that the terms *poluto* and *impoluto* exist. In all sincerity, I am somewhat afraid that because of the question of images with which we are all familiar, we might expose the subject to certain dangers. I refer to the young. For this reason, despite the fact that in bacteriology the word *contaminación* refers to the presence of microorganisms in objects, that is, inanimate elements, I would prefer it if, as decided by the Conference when it voted for the subject, we spoke of *contaminación* and *contaminantes* despite the fact that in English the word *pollution* has a broader meaning.

President:* I believe that what the plenary session is specifically interested in doing at this time is to consider the proposal by the Director that the Secretariat be allowed to consider the way in which it will present the subject to the Executive Committee at its next meeting. Thus, the Bureau could examine the subject beginning at this time and decide on the basis of sufficient information which aspects could be given the greatest emphasis. The Chair submits for your consideration the proposal that the Secretariat be given leeway to submit an outline for the Technical Discussions to the next meeting of the Executive Committee, preparing it in accordance with its possibilities.

Decision: The Director's proposal was accepted, and it was agreed that the Executive Committee would examine the outline for presentation of the subject selected.

The session rose at 6:55 p.m.

TENTH PLENARY SESSION

Thursday, 8 October 1970, at 9:20 a.m.

President: Dr. Adán Godoy Jiménez (Paraguay)

President:* The session will please come to order. We shall now examine the draft resolutions still pending. In order to avoid unnecessarily extending the discussion, since all the delegates are familiar with many of the draft resolutions and have approved them in the respective Committees, I shall pause a few moments after the Rapporteur reads each proposal, and if no delegate makes any comments or observations the draft resolutions will be considered automatically approved.

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

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Convinced that the reports of the Governments of the Organization on health conditions and progress achieved in the intervals between one Conference and the next constitute useful records of experience; and

Considering that the reports of the Governments should be one of the most important items on the agenda of the conference,

Resolves:

To request the Executive Committee to study, in collaboration with the technical staff of the Pan American Sanitary Bureau and in consultation with the Governments, ways and means of facilitating the formulation, presentation, and discussion of the reports of Governments so that the other Members of the Organization may derive the greatest possible benefit from the experience of each country.

Decision: The draft resolution was unanimously approved.¹

Item 35: General Program of Work of the Pan American Health Organization/World Health Organization, covering the Period 1973-1977 (*conclusion*)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having examined the report of the Director on the General Program of Work of PAHO/WHO for the period 1973-1977 (Document CSP18/28);

Mindful that this Program is in accordance with the recommendations embodied in Resolution WHA23.59 of the Twenty-Third World Health Assembly on the General Program of Work covering a Specific Period;

Considering that, in preparing this Program, changes in the order of priority of national and regional health programs and the trends observed in recent years in PAHO activities have been taken into account;

Noting that this Program is in line with the recommendations of the World Health Organization on long-term planning and that it constitutes a first step in the preparation of forecasts and projections concerning PAHO/WHO activities for a longer period, especially with regard to:

a) The analysis and evaluation of data on the health status of the population of the Americas and on environmental sanitation conditions;

b) Studies on methods of planning, organization, and social and economic analysis of national health systems;

c) Promotion of multinational agreements on the conduct of regional programs relating to health and sanitation problems affecting the Region or a particular group of countries;

d) Coordination of research;

e) Identification of the most efficient and effective measures of assistance to Member Countries in organizing their health systems and especially in training of the necessary manpower; and

f) Adoption of measures designed to enable the countries to fully participate in the activities of PAHO/WHO.

Recognizing that this Program is in accordance with the recommendations of Resolution XV approved by the 64th Meeting of the Executive Committee on joint planning by Governments and the Organization through a system of four-year projections; and

Considering that the Program satisfactorily meets the requirements for assistance established by the Governments at the regional, Zone, and country level for the period 1973-1977,

¹Resolution XIII. *Official Document PAHO 104, 67.*

Resolves:

1. To commend the Director of the Bureau on his detailed report (Document CSP18/28), which will enable all the activities to be examined as a consistent whole.

2. To approve the proposed General Program of Work of PAHO/WHO for the period 1973-1977 and to request the Director of the Bureau to transmit it to the Director-General of the World Health Organization so that he may take it into account in preparing the Fifth Program of Work of WHO for the above-mentioned period insofar as it relates to the Region of the Americas.

3. To recommend to the Governments and the Director of the Bureau that they continue their efforts for the joint programming of activities of the Organization and collaborate in the development and improvement of the system of four-year projections.

4. To urge the Member Countries to continue and increase their efforts to gain more knowledge of the health status of the population and to develop and strengthen the health infrastructure, including information systems, research, planning, and administrative improvement as well as coordination of national health systems.

5. To recommend to the Governments that they continue and strengthen their basic sanitation programs and give the necessary attention to the emerging problems of industrialization and urbanization, including the definition of new indicators in this field.

6. To recommend to the Governments that they continue and strengthen studies on health resources, especially human, technical, and financial resources, so as to ensure that national health plans are properly carried out.

7. To request the Director to report to the XX Meeting of the Directing Council on the proposed program.

Decision: The draft resolution was unanimously approved.²

Item 17: Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas (conclusion)

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Bearing in mind the provisions of Rules 1, 2, 7, and 8 of the Rules for Technical Discussions,

Resolves:

To select the topic "Environmental Pollution" for the Technical Discussions to be held at the XX Meeting of the Directing Council of the Pan American Health Organization, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas.

Decision: The draft resolution was unanimously approved.³

Consideration of Draft Resolutions from Committee I

Item 14: Report on the Collection of Quota Contributions

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the report on the collection of quota contributions (Document CSP18/23 and Addenda I and II);

Noting that the payment of quotas in arrears has improved but that four countries remain in arrears more than two years; and

Convinced of the importance of obtaining the full support of all Governments for the program of the Organization through prompt and full payment of quota contributions,

Resolves:

1. To take note of the report on the collection of quota contributions (Document CSP18/23 and Addenda I and II).

2. To thank those Governments which already have made payments in 1970, and to urge all Governments to pay remaining balances of arrears and current-year quotas before the end of the year.

3. To express concern about the number of Governments in arrears more than two years and to recommend to those Governments that they fulfill their financial plans for the payment of arrears within a definite period.

4. To recommend to the Director of the Bureau and to the Executive Committee that they analyze the problem of quotas in arrears more than two years and promote compliance with Article 6-B of the Constitution, taking into account the suggestions and comments made by the delegates.

5. To request the Director to continue to inform the Governments on the status of quota collections and bring to their attention the importance of unanimous support of the program of the Organization, through the full and prompt payment of quota contributions by each Government.

Decision: The draft resolution was unanimously approved.⁴

Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Bearing in mind the provisions of Staff Regulation 12.2,

²Resolution XIV, *Ibid.*, pp. 68-69.

³Resolution XV, *Ibid.*, pp. 69-70.

⁴Resolution XVI, *Ibid.*, pp. 70-71.

Resolves:

1. 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 CE64/14, and approved by the Executive Committee at its 64th Meeting with the effective date of 1 January 1970.

2. To endorse the Director's plan to provide an appropriate administrative tribunal for those staff members who do not now have access to an external tribunal and to request that the Director implement his plan as soon as possible.

Decision: The draft resolution was unanimously approved.⁵

Item 34: PAHO Award for Administration

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered Document CSP18/8, Rev. 1, concerning the PAHO Award for Administration; and

Bearing in mind the importance of encouraging a high standard of competence in the administration of health services,

Resolves:

1. To approve the procedure and the criteria for the award of the PAHO Award for Administration, set forth in Document CSP18/8, Rev. 1.

2. To urge the Governments to use the PAHO Award for Administration as an incentive to those who do outstanding work in the field of administration in the health sector or in the form of written papers on administrative topics that are applicable to the health sector.

Decision: The draft resolution was unanimously approved.⁶

Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Cognizant of the report presented by the Government of Peru on the emergency situation caused by the earthquake of 31 May 1970 (Document CE64/17);

Noting the report of the Director on the steps taken by the Pan American Sanitary Bureau on the occasion of the above-mentioned emergency;

Bearing in mind the extent of the destruction and the material and human losses caused by the earthquake; and

Bearing in mind the proposal of the Government of Peru contained in Document CE64/17,

⁵Resolution XVII. *Ibid.*, p. 71.

⁶Resolution XVIII. *Ibid.*, pp. 71-72.

Resolves:

1. To note the expressions of thanks given by the Government of Peru for the assistance received.

2. To request the Director of the Bureau to introduce, in consultation with the health authorities of the Government of Peru and in accordance with the information to be provided in due course, appropriate changes in the program being carried out in the country with the assistance of the Organization in order to adapt it as far as possible to the new circumstances.

3. To instruct the Director to make available to the Government, subject to budgetary limitations, the technical assistance necessary for carrying out studies to determine the kind and amount of assistance required for the rehabilitation of the health infrastructure in the devastated areas.

Decision: The draft resolution was unanimously approved.⁷

Item 32: III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Final Report of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Other Zoonoses (Document CE64/13);

Bearing in mind that the Report adequately reflects the accomplishments of the meetings of the Ministers of Agriculture that were convened by the Director pursuant to Resolution XIX of the XVII Meeting of the Directing Council;

Recognizing that these achievements are the result of collaboration between the national health services and the ministries of agriculture of the Hemisphere, as recommended by the Special Meeting of Ministers of Health of the Americas (Buenos Aires, Argentina, 14-18 October 1968);

Bearing in mind the importance and magnitude of the programs for the control of foot-and-mouth disease and other animal diseases and the importance of financial aid from international credit institutions for these programs;

Considering the meaningful results obtained by the Pan American Foot-and-Mouth Disease Center from broadening its activities and raising the level of its assistance to the countries; and

Noting the favorable reception given by the Governments to the Mission designated by the Director of the Bureau to discuss with the authorities of the countries of the Hemisphere the importance of zoonoses control as an integral part of economic and social development, and the support expressed by the ministries of agriculture for continuing and expanding the work of the Center,

Resolves:

1. To take note of the Final Report of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control (Document CE64/13), held pursuant to Resolution XIX of the XVII Meeting of the Directing Council of

⁷Resolution XIX. *Ibid.*, pp. 72-73.

PAHO, which was submitted by the Director of the Pan American Sanitary Bureau.

2. To express its thanks to the ministries of agriculture for their efforts to solve the problems connected with these diseases and to reduce their impact on the socioeconomic development of the countries.

3. To note with satisfaction those resolutions concerning national food and nutrition policies, including food availability and consumption indices, as a significant move toward joint activities by health, education, and agriculture agencies of the countries.

4. To reaffirm its support of the Pan American Foot-and-Mouth Disease Center and the programs it is conducting.

5. To reiterate the importance of supporting the activities of the Pan American Zoonoses Center in order to bring about greater control of the zoonoses in the countries; and to endorse Resolution II of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control concerning the financing of the Center and supporting the proposal to the United Nations Development Program that it extend its financial assistance to the Center.

6. To express its thanks to the Governments of Argentina and Brazil for their valuable technical and financial assistance to the Pan American Zoonoses Center and the Pan American Foot-and-Mouth Disease Center, respectively.

7. To point out that all the other resolutions of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control contribute to more effective control of animal diseases as a supportive measure for improving human health in the Hemisphere.

8. To emphasize the need for international organizations to provide the countries with more technical assistance in coordinating their campaigns to control animal diseases.

Decision: The draft resolution was unanimously approved.⁸

Nursing

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered Resolution X approved by the Executive Committee at its 64th Meeting, which recommended to Governments that they organize and set up a nursing system in accordance with the objectives of national health plans, defining the quantity and type of nursing resources required for delivery of health care and the system of nursing education required for the preparation of the different types of personnel, and that they make provision in health plans for necessary funding;

Considering that in that same resolution the Director of the Bureau was requested to continue to promote the nursing programs of the Organization and to endeavor to obtain additional funds for their expansion;

Recognizing the essential role played by nursing in the delivery of health care to the population and the relationship between the achievement of program objectives and the

availability of adequate and appropriate nursing resources; and Bearing in mind the need for maximum utilization of nursing resources,

Resolves:

1. To endorse Resolution X approved by the Executive Committee at its 64th Meeting.

2. To recommend to the Governments that they initiate action that will lead to the prompt establishment of a nursing system in which areas of responsibility and quantity and category of personnel required are defined and which is compatible with health program objectives and the type and level of medical care to be provided.

3. To recommend to the Governments that they establish a permanent mechanism for participation by nurses in the planning and evaluation processes and for keeping information on existing nursing resources current and available.

4. To recommend to the Director that he take the necessary steps to provide assistance required by countries in determining their system of nursing and elaborating plans to meet their needs, and that he assign the resources required for effective action.

5. To request the Director to report to the XX Meeting of the Directing Council on the action taken and progress made by the countries.

President:* The Delegate of Trinidad and Tobago has the floor.

Dr. Henry (Trinidad and Tobago): I wish to speak in support of the proposed text, and to suggest a minor amendment for the sake of greater clarity and to give greater emphasis to this most important resolution on nursing, which we all support. With specific reference to paragraph 2, I would suggest that the word "local" be inserted before "health program objectives," and that the following words be added at the end of the same paragraph: "bearing in mind the need for Governments to provide health care to all sectors of the community." This modification is intended merely to give greater clarity and emphasis to this most important text. It does not change the substance in any way, but I believe that the training of nursing personnel should be very much identified with what this personnel is required to do in the local environment. With the insertion of the word "local" before "health program objectives," the last portion of the paragraph would read: "and which is compatible with local health program objectives and the type and level of medical care to be provided, bearing in mind the need for Governments to provide health care to all sectors of the community."

President:* Would the Rapporteur please read paragraph 2 of the operative part of the draft resolution with the amendment proposed by the Delegation of Trinidad and Tobago.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):*

⁸Resolution XX. *Ibid.*, pp. 73-74.

Paragraph 2, with the proposed amendment, reads as follows:

2. To recommend to the Governments that they initiate action that will lead to the prompt establishment of a nursing system in which areas of responsibility and quantity and category of personnel required are defined and which is compatible with local health program objectives and the type and level of medical care to be provided, bearing in mind the need for Governments to provide health care to all sectors of the community.

President:* Are there any other observations? If not, the draft resolution is considered approved.

Decision: The draft resolution was unanimously approved.⁹

Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference

Resolves:

1. To appropriate for the financial year 1971 an amount of \$16,950,165 as follows:

Part I:	Organizational Meetings	\$ 363,598
Part II:	Headquarters	3,642,169
Part III:	Field and Other Programs	9,326,530
Part IV:	Special Fund for	
	Health Promotion	250,000
Part V:	Increase to Assets	250,000
	Subtotal—Parts I-V	\$13,832,297
Part VI:	Pan American Foot-and-Mouth	
	Disease Center	1,405,034
	Effective Working Budget (Parts I-VI)	\$15,237,331
Part VII:	Staff Assessment	
	(Transfer to Tax	
	Equalization Fund	1,712,834
	Total—All Parts	\$16,950,165

2. That the appropriation shall be financed from:

a)	Assessments in respect to:	
	Member Governments and Participating 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	
	or in accordance with the Directing	
	Council resolutions	\$16,745,165
b)	Miscellaneous Income	205,000
Total	.....	\$16,950,165

⁹Resolution XXI. *Ibid.*, p. 75.

In establishing the contributions of Member Governments and Participating Governments, their assessments shall be reduced further by the amount standing to their credit in the Tax Equalization Fund, except that credits of those Governments who levy taxes on the emoluments received from PAHO by their nationals and residents shall be reduced by the amounts of such tax reimbursements by the Organization.

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 1971, inclusive. Notwithstanding the provision of this paragraph, obligations during the financial year 1971 shall be limited to the effective working budget, i.e., Parts I-IV.

4. That the Director shall be authorized to transfer credits between parts of the effective working 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 of the part from which the credit is transferred may be made with the concurrence of the Executive Committee. All transfers of budget credits shall be reported to the Directing Council.

5. To approve an increase in the appropriation level of \$15,237,331 for the effective working budget specified in paragraph 1 above, in an amount to be determined by the Executive Committee, but not to exceed \$300,000. Such increase shall be financed in the first instance from any available miscellaneous income and then, if necessary, by transfer from the Working Capital Fund, with no increase in the assessments in respect to Member Governments and Participating Governments.

a) The probability that the United Nations General Assembly will approve a professional salary increase in 1971, with consequent increased budgetary requirements, for which contingency no provision is included in the amount appropriated in paragraph 1 above.

b) The lack of provision for carrying out the recommendations of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control for an additional appropriation for \$300,000 to cover the needs of the Pan American Zoonoses Center.

6. That in applying the increase called for in paragraph 5, the Executive Committee give first priority to funding increases in salary costs.

Decision: The draft resolution was unanimously approved.¹⁰

Assessments of the Member Governments and Participating Governments of the PAHO

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Taking into account that Member Governments appearing in the scale adopted by the Council of the Organization of American States are assessed according to the percentages shown

¹⁰Resolution XXII. *Ibid.*, pp. 76-77.

in that scale, in compliance with Article 60 of the Pan American Sanitary Code; and

Considering that other Member Governments and Participating Governments are assessed in accordance with Resolutions XXVII and XXVIII of the XVII Meeting of the Directing Council,

Resolves:

To establish the assessments of the Member Governments and Participating Governments of the Pan American Health Organization for 1971 in accordance with the scale of quotas shown below and in the corresponding amounts.

Decision: The draft resolution was unanimously approved.¹¹

(See following page)

Item 28-a: Regular Budget of WHO for the Region of the Americas for 1971

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having examined the Proposed Program and Budget Estimates for the Region of the Americas as presented in *Official Document 98* by the Director of the Pan American Sanitary Bureau; and

Bearing in mind the dynamics of the preparation and updating of program proposals,

Resolves:

To endorse the revisions to the 1971 Program and Budget Estimates for the World Health Organization regular program in the Americas as shown in *Official Document 98*.

Decision: The draft resolution was unanimously approved.¹²

Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered *Official Document 98*, submitted by the Director of the Pan American Sanitary Bureau, which contains the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972; and

Bearing in mind that the Proposed Program and Budget Estimates are submitted to the Pan American Sanitary 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 them into account in preparing the proposed budget estimates of WHO for 1972; and

Noting the recommendations contained in Resolution XII approved by the Executive Committee at its 64th Meeting,

Resolves:

To approve the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972, appearing in *Official Document 98*, and to request the Regional Director to transmit them to the Director-General of that Organization so that he may take them into account in preparing the WHO budget estimates for 1972.

Decision: The draft resolution was unanimously approved.¹³

Regional Projects to be Implemented in 1971-1972 with Funds of the United Nations Development Program

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the over-all program and budget of the World Health Organization for the Region of the Americas, including the portion which is expected to be financed under the United Nations Development Program; and

Noting that, in addition to projects requested by countries directly to the United Nations Development Program, there are regional and interregional projects which benefit countries throughout the Americas,

Resolves:

1. To urge the Governments to continue to give full consideration to the importance of health activities in social and economic development, and to increase the proportion of health projects in the total number of projects requested from the United Nations Development Program.

2. To endorse and recommend to the United Nations Development Program approval of those regional projects proposed for the Region of the Americas for the program 1971-1972; specifically, the projects are: environmental sanitation in the Caribbean area; management of health services; studies and investigations of water resources; teaching of behavioral sciences; *Aedes aegypti* eradication in the Caribbean area; health education in the Caribbean area; biostatistics education and population dynamics; and Pan American Health Planning Program.

3. To recommend to the United Nations Development Program approval of proposed interregional projects which foster public health throughout the world and in particular those in which the Governments of the Americas may participate.

4. To recommend to the Governments that they individually make known their interests and endorsements to the United Nations Development Program in regard to the regional and interregional projects.

¹¹Resolution XXIII. *Ibid.*, pp. 77-78 and 79.

¹²Resolution XXIV. *Ibid.*, p. 78.

¹³Resolution XXV. *Ibid.*, p. 80

XVIII Pan American Sanitary Conference

(1) Country	(2) OAS scale %	(3) Gross assessment US\$	(4) Credit from tax equalization fund US\$	(5) Adj. for taxes by Govts. on emoluments of PAHO staff US\$	(6) Net assessment US\$
Argentina	7.06	1,171,314	119,811	—	1,051,503
Barbados	0.08	13,273	1,358	—	11,915
Bolivia	0.31	51,432	5,261	—	46,171
Brazil	6.76	1,121,542	114,720	—	1,006,822
Chile	1.74	288,681	29,529	—	259,152
Colombia	1.52	252,181	25,795	250	226,636
Costa Rica	0.31	51,432	5,261	—	46,171
Cuba	1.44	238,909	24,438	—	214,471
Dominican Republic	0.31	51,432	5,261	—	46,171
Ecuador	0.31	51,432	5,261	—	46,171
El Salvador	0.31	51,432	5,261	—	46,171
Guatemala	0.38	63,045	6,449	—	56,596
Haiti	0.31	51,432	5,261	—	46,171
Honduras	0.31	51,432	5,261	—	46,171
Jamaica	0.38	63,045	6,449	—	56,596
Mexico	6.60	1,094,997	112,005	—	982,992
Nicaragua	0.31	51,432	5,261	—	46,171
Panama	0.31	51,432	5,261	—	46,171
Paraguay	0.31	51,432	5,261	—	46,171
Peru	0.75	124,432	12,727	—	111,705
Trinidad and Tobago	0.31	51,432	5,261	—	46,171
United States of America	66.00	10,949,974	1,120,054	606,593	10,436,513
Uruguay	0.68	112,818	11,540	—	101,278
Venezuela	3.20	530,907	54,305	6,731	483,333
Subtotal	<u>100.00</u>	<u>16,590,870</u>	<u>1,697,051</u>	<u>613,574</u>	<u>15,507,393</u>
	<u>Equivalent percentages</u>				
<u>Other Member Governments</u>					
Guyana	0.24	39,818	4,073	—	35,745
<u>Participating Governments</u>					
France	0.22	36,500	3,734	—	32,766
Kingdom of the Netherlands	0.19	31,523	3,224	—	28,299
United Kingdom	0.28	46,454	4,752	—	41,702
Subtotal		<u>154,295</u>	<u>15,783</u>	—	<u>138,512</u>
Total Assessments— All Countries		<u>16,745,165</u>	<u>1,712,834</u>	<u>613,574</u>	<u>15,645,905</u>

(2) This column includes the OAS percentages adding to 100 per cent and the equivalent percentages applicable to other Member Governments and Participating Governments. The OAS scale minimum assessment is 0.31 per cent or per-capita contribution equal to that of the largest contributor, whichever is smaller.

(5) This column includes estimated amounts to be received by the respective Member Governments in 1971 in respect of taxes levied by them on staff members' emoluments received from the PAHO, adjusted for any difference between estimate and actual for the second preceding year. The adjustments in respect to 1969 are increases of \$20 for Colombia, \$123,199 for the United States of America, and \$331 for Venezuela.

5. To request the Director to continue to provide the ministries of health with assistance in preparing projects for submission to the United Nations Development Program, and to remind the ministries that under the current system for making such submissions they may present requests for health projects at any time during the year.

Decision: The draft resolution was unanimously approved.¹⁴

Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having studied *Official Document 98*, 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 Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 to be considered by the 66th Meeting of the Executive Committee and by the XX Meeting of the Directing Council; and

Recognizing that the provisional draft of the Proposed Program and Budget Estimates contains soundly conceived and much-needed health projects,

Resolves:

1. To take note of the provisional draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972, appearing in *Official Document 98*.
2. To request the Director to use the provisional draft as a basis for preparation of the Proposed Program and Budget Estimates for 1972, after further consultations with Governments to determine their latest desires and requirements in relation to the priorities of the Governments and of the Organization.
3. To request the Executive Committee to make a detailed examination of the revised Program and Budget Estimates for 1972 to be presented by the Director, after further consultations with Governments, and to submit its recommendations thereon to the XX Meeting of the Directing Council.

Decision: The draft resolution was unanimously approved.¹⁵

Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1971 and 1972 as contained in *Official Document 98*; and

Recognizing the advisability of projecting probable program needs into future years,

Resolves:

To recommend to the Director-General that he include in the Program and Budget Estimates of the World Health Organization for 1973 the proposed program for the Region of the Americas as detailed in Document CSP18/20.

Decision: The draft resolution was unanimously approved.¹⁶

Item 36: Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having studied the report presented by the Director in Document CSP18/29;

Noting with pleasure that the Pan American Health and Education Foundation has been activated under the leadership of Dr. Abel Wolman, and that its broad and continuing cooperative relationship with the Pan American Health Organization has been expressed in a signed agreement;

Taking note of the progress made to date in the textbook program and the signature of an agreement between the Foundation and PAHO for its joint operation;

Bearing in mind that the Inter-American Development Bank has under consideration a loan to the Pan American Health and Education Foundation for the textbook program to be carried out in cooperation with the Pan American Health Organization, but that the loan is subject to guarantee of repayment by means of a letter of credit;

Recognizing that it has been the intention of the XVII Pan American Sanitary Conference, as expressed in Resolution XV, and of the Directing Council at its XIX Meeting, as expressed in Resolution XXXVI, to promote the textbook program both directly and through the Foundation, including the undertaking of necessary financial obligations and support; and

Believing that the loan arrangement represents the best available conditions for financing the textbook program,

Resolves:

1. To approve the form of Application and Agreement for Commercial Letter of Credit between the Pan American Sanitary Bureau and The Riggs National Bank of Washington, D. C. (Riggs Form 352/Rev.'54, as amended), presented to this meeting.

2. To authorize the Director of the Pan American Sanitary Bureau or his duly designated delegate for and on behalf of the

¹⁴Resolution XXVI. *Ibid.*, pp. 80-81.

¹⁵Resolution XXVII. *Ibid.*, pp. 81-82.

¹⁶Resolution XXVIII. *Ibid.*, p. 82.

Pan American Health Organization which shall be deemed to include the Pan American Sanitary Bureau, hereinafter referred to as PAHO:

a) To order or receive from or through The Riggs National Bank of Washington, D. C., a letter of credit for the Pan American Health and Education Foundation with the Inter-American Development Bank as beneficiary in an amount of \$2,040,000 and in the form presented to this meeting, secured by collateral provided by PAHO in an amount not to exceed \$2,040,000;

b) To execute, relative thereto, in the name of PAHO and to deliver, from time to time, an Application and Agreement for Commercial Letters of Credit in the form presented to this meeting with such modifications or changes that may seem necessary or desirable to the Director, or his delegate, and such other agreements, applications, hypothecations, pledges, assignments, indemnities, guarantees, loan agreements, notes, or other documents that may seem necessary or desirable;

c) To execute, relative thereto, in the name of PAHO, acknowledge and deliver a deed of trust conveying the Governor Shepherd Apartments, 2121 Virginia Avenue, N. W., to trustees to secure the obligations of PAHO under said Application and Agreement for Commercial Letter of Credit and related letter of credit and to indemnify the Riggs National Bank of Washington, D. C., against loss under said letter of credit, in the form presented to this meeting with such changes or modifications that may seem necessary or desirable to such Director, or his duly designated delegate; and

d) To take any other and further action necessary to carry out and implement the authority hereby granted.

3. That The Riggs National Bank of Washington, D. C., may rely upon the authority hereby conferred until receipt by it of a certified copy of a resolution of this Conference of the Directing Council of the Pan American Health Organization revoking or modifying the same.

Decision: The draft resolution was unanimously approved.¹⁷

Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Cognizant of the proposal of the Government of Peru on the organization of regional assistance in the event of disasters (Document CSP18/26, Annexes I and II);

Bearing in mind that natural disasters occur relatively frequently in certain geographic areas of the Hemisphere, and may occur sporadically in virtually all of them;

Taking into account that natural disasters may give rise to emergencies which, because of their magnitude in relation to the resources of the country itself, exceed the possibility of coping with them properly and make external assistance necessary;

Considering that a proper organization and national planning sometimes make it possible to prevent and always to reduce in large measure the consequences of natural disasters and as a corollary the magnitude of the emergency;

Recognizing that, in those countries which have not yet done so, it is necessary to establish agencies capable of coping with such emergencies and to plan their activities so as to make better use of national resources as well as to be in a position to request with precision and to use as effectively as possible external assistance, regardless of its origin;

Considering that because of the diverse origin and nature of external assistance, there is obviously a need for a coordinating agency whose main office must be in the country affected and under theegis of its authorities;

Taking into consideration that the existence of a proper national organization and prior planning of the use of resources to cope with emergency situations are essential to enable the country to establish the necessary coordination with agencies of the United Nations System, with the Inter-American Emergency Aid Fund, and with bilateral assistance agencies; and

Having taken note of the document submitted by the Director of the Bureau on the problem of emergency situations and existing arrangements for dealing with it (Document CSP18/26),

Resolves:

1. To recommend to the Governments, and especially to those of countries situated in geographic areas in which natural disasters are more frequent, that they make provision in their plans for the establishment of the necessary agencies in order to cope with emergency situations caused by natural disasters or for their improvement if they already exist.

2. To recommend to the Governments that they pay special attention to the planning of health measures to be taken in emergencies and that they assign it due priority.

3. To request the Director of the Bureau to study the method of collaborating with the Governments and provide them with the assistance they deem necessary for studying the situation, establishing the necessary agencies, and planning the work to be carried out in an emergency.

4. To request the Director to study existing external assistance arrangements and, in collaboration with the authorities of the health sector of the countries, to attempt to establish a procedure for coordinating and channeling regional assistance in the event of disasters exceeding the operating capacity of the affected country.

Decision: The draft resolution was unanimously approved.¹⁸

Consideration of Draft Resolutions from Committee II

Item 18: Report on the Status of Malaria Eradication in the Americas

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* We shall now examine the draft resolutions from Committee II. The one on malaria eradication reads as follows:

¹⁷Resolution XXIX. *Ibid.*, pp.83-84.

¹⁸Resolution XXX. *Ibid.*, pp. 84-85.

The XVIII Pan American Sanitary Conference,

Having considered the XVIII Report of the Director of the Bureau on the status of malaria eradication in the Americas (Document CSP18/7);

Aware of the measures adopted pursuant to Resolution WHA22.39 of the Twenty-Second World Health Assembly on the re-examination of the global strategy of malaria eradication;

Recognizing the need to continue the malaria eradication program in order to consolidate the progress made in the Americas and to safeguard the funds invested in that program;

Bearing in mind that malaria is still a major public health problem in many areas of the Americas and hinders their economic development and that some countries still face administrative, financial, or technical difficulties that are preventing the early completion of the program;

Considering the need to incorporate the malaria eradication program in that part of the national development plan dealing with the health sector; and

Recognizing the assistance furnished to Governments by international agencies,

Resolves:

1. To take note of the XVIII Report of the Director of the Bureau on the status of malaria eradication in the Americas (Document CSP18/7).

2. To express its satisfaction with the steps taken pursuant to Resolution WHA22.39 on the re-examination of the global strategy of malaria eradication and program evaluation, and to request the Director to continue these basic activities of program review and evaluation and make the results available to the Governments.

3. To reaffirm the goal of malaria eradication and the need for each Government to provide the essential resources for carrying out operational plans drawn up in accordance with the revised strategy.

4. To congratulate those countries that have continued to make progress toward eradication.

5. To draw the attention of Governments to the importance of incorporating the malaria eradication program into that part of the national development plan dealing with the health sector, and of giving suitable priority to the appropriation of funds for it.

6. To request the Governments and the Director to continue and strengthen research aimed at devising more efficient, safe, and economical methods of interrupting malaria transmission, and of evaluating the economic impact of the eradication of that disease.

7. To reaffirm the need to strengthen the coordination of national malaria eradication services and general health services with a view to extending coverage in rural areas, and to assign polyvalent health activities to the personnel of both services in areas in the maintenance phase.

8. To emphasize to the Governments the desirability of increasing, with the assistance of the Pan American Sanitary Bureau, activities for the health education of the public designed to reduce as much as possible factors that limit the effectiveness of the attack measures used.

9. To thank PAHO/WHO, UNICEF, and the Agency for International Development for their assistance to the Governments in carrying out malaria eradication programs, and to request international agencies to continue to provide their valuable collaboration in order to achieve the goal of eradicating

that disease, which is hindering the economic development of areas still infected.

Decision: The draft resolution was unanimously approved.¹⁹

Item 19: Aedes aegypti

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having examined the report of the Director on the status of *Aedes aegypti* eradication in the Americas (Document CSP18/13);

Considering the reports of the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases, of the Scientific Advisory Committee on Dengue Surveillance in the Americas, and the proposed cost-benefit study of programs for the prevention of *A. aegypti*-borne diseases prepared by a firm of consultants;

Taking into account Resolution XXIII of the XIX Meeting of the Directing Council and Resolution VII of the 64th Meeting of the Executive Committee;

Bearing in mind the fact that the extensive areas of the Hemisphere that are still infested by *A. aegypti* are a potential source of reinfestation for the countries and territories already free of the vector and endanger the success of the continent-wide campaign; and

Aware of the dangerous situation caused by the reappearance of dengue fever and the continuing threat of the "urbanization" of the virus of yellow fever in the Americas,

Resolves:

1. To recommend to the countries and territories already free of *A. aegypti* that they strengthen their surveillance activities against reinfestation.

2. To request countries that had already achieved eradication of the vector and were subsequently reinfested to adopt measures designed to achieve the definitive elimination of *A. aegypti*.

3. To urge the Governments of the countries and territories still infested with *A. aegypti* to take the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as possible and to assign the highest priority to the adoption of measures that will ensure that the vector is not exported to countries free of it.

4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost and subject to the receipt of a sufficient amount of voluntary contributions to cover the estimated costs of those studies.

5. To request the Director to submit to the 66th Meeting of the Executive Committee a report on the status of the proposed cost-benefit study.

¹⁹Resolution XXXI. *Ibid.*, pp. 86-87.

President:* The Delegate of the United States of America has the floor.

Dr. Ehrlich (United States of America): My Delegation finds that this draft resolution does not properly reflect the discussion as it was held in Committee II. In particular the point of the Delegation of the United States was that it was essential to carry out the proposed study agreed to during the last Directing Council Meeting in Resolution XXIII, and that in many instances it was a prerequisite for any action to be taken by certain countries. This draft resolution as it is written does not reflect the degree of importance that the Directing Council attached to the study. I would therefore like to suggest some revisions, which with your permission, Mr. President, I shall read out. To begin with, paragraph 1 would be modified as follows: "To recommend to the countries and territories already free of *Aedes aegypti* that they strengthen their surveillance activities against reinfestation...." and then this addition: "taking the fullest advantage of pertinent new developments arising out of the studies referred to in paragraph 3 below". Paragraph 2 would read: "To urge countries that had already achieved eradication of the vector and were subsequently reinfested to adopt measures designed to achieve the elimination of *A. aegypti*." The word "definitive" is removed, as it appears to us to be redundant. Paragraph 3 is a revision of the existing paragraph 4. This order is proposed because of the suggestion that the study is a prerequisite and precedes what is proposed in paragraph 4. Paragraph 3 then would read: "To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost and, if necessary, to seek voluntary contributions to cover the cost of these studies." Paragraph 4 would read as follows: "To urge the Governments of the countries and territories still infested with *A. aegypti* to consider the necessary steps consonant with the results of the study referred to above, and pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as practical and to assign the priority necessary for the adoption of measures that will ensure that the vector is not exported to countries free of it." In paragraph 5 we have no modifications to suggest.

The purpose of this revision is to indicate once again the importance which my Delegation feels the carrying out of this study has, and to view it as a prerequisite, if

you will, to effective action as suggested in paragraph 3 in the draft resolution.

President:* The Delegate of Costa Rica has the floor.

Dr. Mohs Villalta (Costa Rica):* Before other delegates express their opinion on this draft resolution, I should like to make clear that as Rapporteur of the group that drafted this text I cannot share the opinion of the Delegate of the United States of America that the text does not reflect the sense of the discussions in the Committee. I could perhaps admit that the text does not exactly reflect the view of the Delegation of the United States as expressed during the discussion. But it happens that the Committee was divided into two groups: one position was upheld by the United States and the other primarily by Brazil, with the support of some other delegations. The draft resolution was designed to maintain a balanced or intermediate position, and for this reason we believe that the text reflects the sense of the Committee and not that of a single delegation.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* In view of the significant changes proposed by the Delegate of the United States of America, which are rather extensive, I would like to have the text of his proposals distributed. I am sorry to suggest this, as it will lengthen our discussion, but I do believe it necessary to examine the text carefully, since we cannot vote or decide upon the proposed amendments on the basis of a simple reading by the Rapporteur.

President:* Does any other delegate wish to speak? The Chair understands that the motions made were the following: the Delegate of the United States of America proposed an amended text, the Delegate of Costa Rica supports the draft resolution in its original terms, and the Delegate of Brazil is of the opinion that the amendment should be distributed to the delegates present. The Delegate of Barbados has the floor.

Dr. Wells (Barbados): I should like to point out that when this resolution was being discussed in Committee II we did not have the English text available. We only had the Spanish text before us, and that caused considerable difficulty to the English-speaking persons. For this reason I would like to support the proposal now made by Brazil, that the amendment proposed by the United States of America be circulated for consideration before a final decision is taken.

President:* We shall take note of the proposal of the Delegation of the United States of America. Once it is

translated, the proposal will be distributed to all the delegations and considered.²⁰ The Rapporteur has the floor to continue reading the remaining draft resolutions.

Item 24: Multinational Centers

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having studied Document CSP18/22 and annexes containing guidelines for the establishment and operation of multinational centers recommended by the Executive Committee at its 64th Meeting; and

Recognizing the value of multinational centers for dealing with health problems of interest to several countries,

Resolves:

1. To approve the following general guidelines for the establishment and operation of multinational centers:

a) For the purpose of these guidelines, a multinational center shall be defined as an institution or center administered by international staff and supported to a significant degree by international funds, which provides services for all the countries in the Region, or a group of them in a particular area.

b) The establishment and operation of multinational centers shall be based on the priorities arising out of the planning of the PAHO/WHO program. Under this system, each country's appraisal of its health problems shall determine the extent and nature of the international assistance that will best serve to support the health programs of the Member Countries.

c) Where the solution of a country's health problems requires services of a standard and capacity not existing in a country, PAHO/WHO will collaborate with the health authorities with a view to strengthening the national institutions in order to meet the needs of the country but resorting, in cases where this is not possible, to national institutions of other countries with sufficient resources.

d) Where there are no suitable national institutions to deal with problems of common interest, multinational centers will be planned and developed in consultation with the Governments in order to make maximum use of PAHO/WHO assistance.

e) In their own or related fields, multinational centers should support, assist, and supplement the programs of the countries and should promote international cooperation for the solution of common problems.

f) In view of the fact that multinational centers are institutions and are created only when there are no adequate national institutions, international financial assistance is regarded as a long-term obligation. Nevertheless, each multinational center should be reviewed regularly in planning the program and in the light of its importance in relation to the needs of the participating countries.

g) In planning a multinational center, the Director shall seek financial and other support from extra-budgetary sources, in addition to the regular budget. The host Government should

provide premises and, as far as its resources permit, also contribute supplies, personnel, and funds. The choice of a location should take into account the resources of the potential host Government as well as any other factors affecting the services rendered to countries.

h) Proposals for multinational centers shall continue to be submitted as part of the PAHO/WHO program and budget to the Executive Committee and to the Directing Council or the Conference, for consideration and approval.

2. To thank the Director for his report on the program and activities of the existing multinational centers.

Decision: The draft resolution was unanimously approved.²¹

Item 25: Man-Environment Relationships

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Director's special report on man-environment relationships (Document CSP18/10) and having reviewed Resolutions WHA23.59 and WHA23.60 of the Twenty-Third World Health Assembly;

Recognizing that rapid population growth and accelerating technological advances in urbanizing societies are creating unprecedented impacts on man's total environment and that the speed, magnitude, and complexity of these forces intensify traditional problems and create a host of new physical and mental stresses;

Bearing in mind that the characteristic which distinguishes health ministries from other agencies in the environmental field is their focus on the health and well-being of peoples and the significance of environmental change to man; and

Observing with satisfaction the aggressive and effective measures taken by the Governments to strengthen national institutions and to meet the goals in the Charter of Punta del Este related to a quality human environment,

Resolves:

1. To commend the Director on the report on man-environment relationships (Document CSP18/10) and on his initiative to keep Governments informed on evolving problems of environmental health.

2. To recommend to the Director:

a) That the Organization intensify its program of assistance to Governments in developing new or more effective approaches and techniques for controlling environmental hazards.

b) That the Organization continue its activities to collaborate with Governments in the strengthening of the continental networks for education, training, and research; to develop and implement practical systems for monitoring of environmental pollution; and to improve the organization and administration of environmental services.

c) That the Organization continue to give special attention in

²⁰See p. 143.

²¹Resolution XXXIII. *Official Document PAHO 104*, 88-89.

its programs to the health needs of rural peoples, with emphasis on community organization, self-help concepts, and revolving-fund mechanisms to support mass-approach techniques for providing water supplies, sewerage services, housing, and related environmental improvements.

d) That he continue his commendable efforts, in collaboration with both bilateral and multilateral international agencies, for the purpose of making available financial and technical support to assist Governments in providing a healthful environment.

3. To request the Director to develop, for submission to the XX Meeting of the Directing Council, environmental health projections for the 1970 decade, including specific and realistic proposals with long-range goals and the design of programs that the Organization and the Governments might undertake to monitor pollution trends and to implement essential control and remedial measures.

Decision: The draft resolution was unanimously approved.²²

Item 21: Resolutions of the Twenty-Third World Health Assembly of Interest to the Regional Committee

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having seen Document CSP18/18 in which the Director of the Pan American Sanitary Bureau submits to the attention of the Regional Committee for the Americas several resolutions adopted by the Twenty-Third World Health Assembly; and

Bearing in mind that the Bureau has under consideration subjects to which the World Health Assembly resolutions refer,

Resolves:

1. To take note of the following resolutions contained in Document CSP18/18:

WHA23.35: "Training of national health personnel"

WHA23.36: "Community water supply."

2. To take note of the following resolutions, approved by the Twenty-Third World Health Assembly and proposed to the Conference by the Delegation of the United States of America:

WHA23.13: "International monitoring of adverse reactions to drugs"

WHA23.42: "Drug dependence."

3. To also take note of three other resolutions, and to state that the Conference has dealt with these subjects as items on its agenda and adopted resolutions thereon:

WHA23.12: "Measures taken in pursuance of the revised global strategy of malaria eradication"

WHA23.32: "Health consequences of smoking"

WHA23.59: "General program of work covering a specific period."

Decision: The draft resolution was unanimously approved.²³

²²Resolution XXXIV. *Ibid.*, pp. 89-90

²³Resolution XXXII. *Ibid.*, pp. 87-88.

Item 22: Control of Cigarette Smoking

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the report of the Director of the Bureau on the control of cigarette smoking (Document CSP18/12);

Bearing in mind the resolutions on this problem adopted by the XIX Meeting of the Directing Council and the Twenty-Third World Health Assembly;

Recognizing the serious health hazards of cigarette smoking, a habit which contributes significantly to the development of pulmonary and cardiac diseases, including bronchopulmonary cancer, chronic bronchitis, emphysema, and ischemic heart disease;

Considering that programs for the prevention of these diseases should include vigorous action designed to reduce the prevalence of the smoking habit as well as other activities intended to discourage the acquisition of that habit, especially by young persons;

Convinced that the habit of smoking cigarettes must be presented as a health hazard, and that public health agencies should take the lead in disseminating this information;

Bearing in mind the valuable experience accumulated in countries where considerable efforts have been made for years to control cigarette smoking; and

Considering that any program for controlling the smoking habit must be based on an accurate assessment of the extent of tobacco consumption and an adequate knowledge of the motives and attitudes of the population in regard to the problem,

Resolves:

1. To recommend to the Governments that they intensify and coordinate the efforts of health authorities, scientific associations, and the community to combat tobacco consumption.

2. To commend the Pan American Sanitary Bureau on its initiative in planning a survey on the characteristics of the smoking habit in eight cities of Latin America, and to request the Director to take such measures as may be necessary to ensure that the study is undertaken as soon as possible, subject to the financial resources of the Organization.

3. To promote the conduct of similar surveys in all the countries in the Region interested in controlling cigarette smoking.

4. To request the Director to establish a clearinghouse for receiving and transmitting information concerning smoking and health in order to promote and facilitate the exchange of experiences and educational materials among agencies in the Region interested in the control of smoking.

5. To request the Director to report to the XX Meeting of the Directing Council, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas, on the action proposed and its financial implications for the Organization.

Decision: The draft resolution was unanimously approved.²⁴

²⁴Resolution XXXV. *Ibid.*, pp. 91-92.

Item 16: Technical Discussions: Venereal Diseases as a National and International Health Problem

President:* The Chair requests Dr. Henry (Trinidad and Tobago), Rapporteur of the Technical Discussions, to present the report on those Discussions.

Report of the Rapporteur

Dr. Henry (Trinidad and Tobago): I have the honor to present to the Conference the report on the Technical Discussions.

*Dr. Henry then read the report on the Technical Discussions, contained in Document CSP18/DT/8.*²⁵

President:* The report presented by the Rapporteur of the Technical Discussions is before us for discussion. The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I should like to propose a correction to the Spanish version of the document, under point 9, second paragraph, which now reads as follows: "Incorporar a los programas los elementos esenciales siguientes para controlar las enfermedades venéreas: la notificación de casos y de serologías reactivas..." This is not technically correct, nor is it, I believe, good Spanish. I propose that it read: "la notificación de los casos y de los individuos que den resultados positivos a la serología para la sífilis, o al examen serológico para la sífilis," or something of this sort, but not "serologías reactivas."

President:* The Delegate of Brazil has suggested a purely stylistic change, which will be introduced.

Dr. Juricic (Chile):* A small detail, Mr. President: my name is incorrectly written.

President:* The spelling of the name of the Delegate of Chile will be corrected.

The Observer for Canada has the floor

Dr. Layton (Observer, Canada): I am extremely hesitant to intervene at this point for I am afraid my comments might be considered as a criticism of the report. I would like to reassure Dr. Henry that they are not intended in that light. I would like to congratulate him and those who worked with him in producing such a useful document. There are, however, in two places some rather odd expressions, if I might put it that way, and I would like to suggest some minor modifications, purely in wording; they are not substantive changes by

any means. One appears in point 13, second paragraph of the English text. The second sentence now reads: "This fact, which is well supported by experience, must be emphasized to those who frequent prostitutes." This is a most unusual way of expressing it to my thinking, as a retired venereal disease control officer. I would like to suggest that this might be modified to read: "This fact, which is well established, must be impressed upon those who consort with prostitutes." I have this written out and I will turn it over to the Rapporteur if I may. The other item, which I do not quite understand, is the expression "limiting the factors conditioning these diseases," in point 17. I would like to suggest that point 17 might be reworded: "Enact health and social legislation for dealing more effectively with venereal diseases and limiting the factors which encourage their spread." I think what is meant by "conditioning these diseases" is to limit the factors encouraging their spread and I would like to suggest this change for consideration by the Rapporteur.

President:* The proposed amendments, which refer to style, will be taken into account. The Rapporteur will read the draft resolution on this topic.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Final Report of the Technical Discussions on "Venereal Diseases as a National and International Health Problem," held during the present meeting,

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 officials of the other international agencies and nongovernmental organizations who participated.
3. To recommend to the Director of the Pan American Sanitary Bureau that he give this report the widest possible distribution.
4. To request the Director, subject to budgetary limitations, to provide the Governments which request it with assistance in implementing the recommendations contained in this report.

Decision: The draft resolution was unanimously approved.²⁶

Consideration of Draft Resolutions from Committee I (conclusion)

Item 15: Financial Report of the Director and Report of the External Auditor for 1969

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The

²⁵Published in *Scientific Publication PAHO 220*.

²⁶Resolution XXXVII. *Official Document PAHO 104, 93*.

draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Financial Report of the Director and the Report of the External Auditor for the fiscal year 1969 (*Official Document 97*), as well as Resolution IV approved by the Executive Committee at its 64th Meeting, as presented in Document CSP18/14;

Noting the improvement in the payments of arrears, so that the Organization continues to be in sound financial condition;

Observing with satisfaction the beneficial effect of the long-term financial policy in the past decade of not spending, on the average, at a higher level than income, so that even the large deficit of 1969 did not result in an excess of expenditure over income during the decade; and

Recognizing that in view of the low income in 1969, the Director made efforts in that year to reduce the expenditure as much as possible,

Resolves:

1. To approve the Financial Report of the Director and the Report of the External Auditor for the fiscal year 1969 (*Official Document 97*).

2. To commend the Director on having consistently pursued long-term financial policies which have enabled the Organization to achieve and maintain a sound financial position.

3. To urge the Governments to pay their quotas as soon as possible to assure maximum fulfillment of the program of the Organization.

4. To call attention to Resolution VI approved by the Directing Council at its XVIII Meeting, in the sense that the External Auditor should amplify his report to include comments concerning administrative practices in PAHO.

5. To recommend to the Director that, with respect to the informational annex on PAHO/WHO expenditures, he provide data to facilitate a comparison of expenditures with budgeted amounts.

6. To thank the External Auditor for his report.

Decision: The draft resolution was unanimously approved.²⁷

Item 33-a: Long-Term Planning and Evaluation

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the reports of the Director of the Bureau on the steps taken in connection with the joint programming of the assistance required by the countries in dealing with their priority health problems (Documents CSP18/16 and CE64/8, Rev. 1);

Recognizing that the immediate outcome of the first stage of this process has been to permit an orderly review of the health

problems of the Region, of individual countries, and of groups of countries which has provided the Bureau with guidelines in selecting the areas in which to provide the most assistance;

Considering that, if the procedure is to be improved, not only must further studies be carried out, but it is necessary for PASB to continue to receive the full cooperation of the countries that have adopted the procedure and for those countries which have not yet done so to accept it;

Considering that the formulation, execution, and evaluation of national health plans constitute the basis for the satisfactory joint programming of the Organization's activities; and

Considering that, with the work now in progress, the pertinent resolutions of the Executive Committee and the Directing Council of PAHO and the World Health Assembly are being carried out,

Resolves:

1. To approve the reports of the Director on the activities carried out in connection with the long-term planning and evaluation of PAHO/WHO assistance to the countries (Documents CSP18/16 and CE64/8, Rev.1).

2. To recommend to Governments that they adopt or continue to apply the joint programming procedure.

3. To recommend to the Director that he continue the studies for the improvement of the procedure so as to ensure that maximum use is made of the available resources.

4. To recommend to Governments that they continue their efforts to apply health planning procedures at the national level.

5. To request the Director to continue to apply the joint programming procedure in the formulation of the Organization's programs and budgets, and to report on the results of his efforts to the XX Meeting of the Directing Council.

Decision: The draft resolution was unanimously approved.²⁸

Item 33-b: Long-Term Financial Indicators

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Considering Resolution EB45.R13 on long-term financial indicators adopted by the Executive Board of the World Health Organization at its Forty-Fifth Session;

Affirming that the definition, preparation, and utilization of such indicators is an inseparable part of the procedures for health planning and for the programming of activities to achieve the goals of the health policies of the countries;

Understanding that the possibility of developing and using these indicators depends fundamentally on a substantial improvement in national planning procedures, on the accuracy of the programming of the activities concerned in the countries, and on the extent to which the internal programming procedures of PAHO/WHO have been developed, as well as a precise knowledge of the impact of specific activities in modifying health situations; and

²⁷Resolution XXXVI. *Ibid.*, pp. 92-93.

²⁸Resolution XXXVIII. *Ibid.*, p. 94.

Recognizing that this highly complex subject requires more detailed study and that, in particular, the Organization must undertake consultations with the Governments,

Resolves:

1. To recommend to the Director of the Bureau that he undertake the necessary consultations with the Governments.

2. To postpone discussion of this question until the Directing Council has held another meeting and has had an opportunity to examine the results of these consultations.

3. To request the Director-General of the World Health Organization to include this resolution and the view expressed by the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee for the Americas, in the report to be prepared for the Forty-Seventh Session of the WHO Executive Board.

Decision: The draft resolution was unanimously approved.²⁹

Item 26: Health Legislation

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having considered the report on the survey of health legislation in the Americas during the last 20 years (Document CSP18/21, Addendum I and Annex), prepared by the Director pursuant to Resolution XXVIII of the XIX Meeting of the Directing Council and Resolution XVI of the 64th Meeting of the Executive Committee;

Considering that this report reviews the most salient aspects of the basic health legislation of the countries of the Americas between 1948 and 1968, and indicates the main areas of concern, the priorities assigned to them, and the trends observed;

Bearing in mind that this report will be of use to countries that wish to revise their health laws and regulations and bring them up to date; and

Recognizing that the material available will facilitate subsequent studies on subjects of common interest, particularly the examination and modernization of the Pan American Sanitary Code,

Resolves:

1. To approve the report of the Director on the survey of basic health legislation in the Americas (Document CSP18/21, Addendum I and Annex), and to request the Governments to forward the pertinent documentation to complete the report, so that it may be given wide distribution among the Member Countries.

2. To urge the Governments to promote the revision and modernization of their health laws and regulations.

3. To recommend to the Governments that they encourage the universities to give due attention to the teaching of health legislation in law schools, medical schools, and schools of public health.

4. To request the Director to continue to provide the countries that request it with technical assistance in revising and modernizing their health legislation.

5. To request the Director to sponsor meetings of interdisciplinary study groups to discuss legal matters and the unification of the basic principles of health legislation, including the study of essential aspects that might be covered in such legislation, so as to provide the countries with a guide that they could use according to their individual characteristics and needs.

6. To recommend to the Director that he continue to promote and carry out studies on the modernization of the Pan American Sanitary Code.

Decision: The draft resolution was unanimously approved.³⁰

Item 38: Other Matters

Inter-American Development Bank

Dr. Valladares (Venezuela):* The Delegation of Venezuela wishes to take this final opportunity to present two matters to the Conference for consideration. In the first place, we have a draft resolution regarding the Inter-American Development Bank. Having heard in the course of the meeting the statement of the President of the Bank, bearing in mind the experience that the great majority of our countries have had in relation to loans granted by the Bank for health programs, considering also our aspiration that the Bank participate in the textbook program, and finally, considering that the Bank is completing its first 10 years of operations this year, we have prepared the following draft resolution:

The XVIII Pan American Sanitary Conference,

Having heard with pleasure the statement made by the President of the Inter-American Development Bank at the inaugural session on the investment of capital in health projects;

Having noted in the reports of the Governments expressions of appreciation for the contribution of the Bank to their health programs;

Considering that the Bank has recently celebrated its tenth anniversary; and

Bearing in mind the importance of an investment of external capital to accelerate the implementation of health programs for the benefit of the peoples of the Americas,

Resolves:

1. To associate itself with the homage rendered to the Inter-American Development Bank on the occasion of its tenth anniversary.

2. To express appreciation to the Bank and to recommend that it:

a) Increase the volume of loans for types of activities where

²⁹Resolution XXXIX. *Ibid.*, p. 95.

³⁰Resolution XL. *Ibid.*, pp. 96-97.

loans already have been approved, such as water supply, foot-and-mouth disease, zoonoses, hospitals, medical education, and production of biologicals:

b) Approve loans for new subjects already included in the Bank's policies, as well as for other health programs when the investment of external capital is justified; and

c) Analyze all loans for social and economic development to identify the health components and include financial support for them as an integral part of the total projects.

3. To recommend that the Governments revise their planning to include appropriate requests for external capital to accelerate health programs for the benefit of their people.

President:* The draft resolution just read is before the delegates for consideration. The Delegate of the United Kingdom has the floor.

Dr. Frazer (United Kingdom):* It is just a matter of the English translation. The word "homage" in English has a slightly different connotation I think from the word as meant in Spanish. This is in the first operative paragraph of the resolution. I do not know if the distinguished Delegate of Barbados has another word to put in its place—"tribute," perhaps?

President:* The Delegate of Jamaica has the floor.

Dr. Valentine (Jamaica):* I was going to suggest the word "tribute" also, Mr. President.

President:* This change will be made, gentlemen. I believe it is entirely a stylistic change.

The Delegate of Cuba has the floor.

Dr. Sagaró (Cuba):* Cuba wishes to say that for obvious reasons it will abstain from supporting this draft resolution.

Decision: The draft resolution was approved with one abstention.³¹

Place of the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas

President:* The Delegate of Venezuela has the floor.

Dr. Valladares (Venezuela):* The second matter that I wished to submit to the Conference for consideration is the following: The Delegation of Venezuela wishes to invoke Rule 1 of the Rules of Procedure of the Directing Council to convey to this Conference the invitation of its Government to receive in Caracas the representatives of the Member Governments to the 1971 Meeting of the Directing Council of PAHO.

We are fully aware that since the Pan American Health Organization has a Headquarters building as well equipped as this, with comfortable and ample auditoriums and rooms and everything necessary to ease the work of meetings of its Governing Bodies, it might be slightly out of line for Venezuela to offer to be host to the XX Meeting of the Council.

However, there are reasons why we decided to make the proposal. We believe that by receiving the delegations to this policy meeting in our country, we could foster a better understanding of our mutual problems, our sociocultural and economic characteristics, and our history and geography.

These visits are assuredly useful to host and visitor alike in that they offer the opportunity for a closer exchange of views, arouse in us a greater curiosity, I would say, about problems and specific solutions, and enable us to familiarize ourselves more thoroughly with our efforts in the face of common problems.

Moreover, when meetings of the Governing Bodies of international organizations are held away from the permanent headquarters, they acquire a different degree of importance and significance.

The meetings are given first-line coverage in the public information media, and the various agencies outside the health sector in our countries attain better information on the international organizations concerned.

We believe that the Organization also receives an opportunity of strengthening its presence before the authorities and people of the country that serves as host.

We know that this invitation which we extend signifies a budgetary effort on our part. Although we are reputed to be a rich country, any judgment in this regard is purely relative and our financial needs are as acute as those of any of our sister countries; we are all pressured by persistently unsatisfied demands. But the Government of Venezuela is willing to make this effort if we can thereby help to increase our knowledge of one another as parts of a Hemisphere and to strengthen the work and prestige of the Pan American Health Organization.

President:* The cordial invitation extended by the Government of Venezuela to have the next meeting of the Directing Council held in the city of Caracas is before the delegates for consideration. I believe this proposal should be received with applause.

Applause.

The Rapporteur has the floor.

³¹Resolution XLI. *Ibid.*, p. 97.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* In view of the invitation extended by the Delegate of Venezuela, I should like to read the following draft resolution:

The XVIII Pan American Sanitary Conference,

Noting the kind invitation extended by the Delegate of Venezuela to hold the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas, in Caracas, the capital of Venezuela; and

Considering that, in accordance with Rule 1 of the Rules of Procedure of the Directing Council, the place of the meeting shall be chosen by the Conference,

Resolves:

1. To offer its sincere thanks to the Government of Venezuela and to accept with satisfaction its invitation to hold the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas, in the city of Caracas.

2. To instruct the Director to take, in consultation with the Host Government, the necessary steps to organize the meeting and to fix the date thereof.

Decision: The draft resolution was unanimously approved.³²

*The session was suspended at 10:35 a.m.
and resumed at 11:30 a.m.*

**Consideration of Draft Resolutions from Committee II
(conclusion)**

Item 19: Aedes aegypti (conclusion)

President:* The session is resumed. The Rapporteur will read the draft resolution with the amendment proposed by the Delegate of the United States of America.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The amended draft resolution reads as follows:

The XVIII Pan American Sanitary Conference,

Having examined the report of the Director on the status of *Aedes aegypti* eradication in the Americas (Document CSP18/13);

Considering the reports of the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases, of the Scientific Advisory Committee on Dengue Surveillance in the Americas, and the proposed cost-benefit study of programs for the prevention of *A. aegypti*-borne diseases prepared by a firm of consultants;

Taking into account Resolution XXIII of the XIX Meeting of the Directing Council and Resolution VII of the 64th Meeting of the Executive Committee;

Bearing in mind the fact that the extensive areas of the Hemisphere that are still infested by *A. aegypti* are a potential source of reinfestation for the countries and territories already free of the vector and endanger the success of the continent-wide campaign; and

Aware of the dangerous situation caused by the reappearance of dengue fever and the continuing threat of the "urbanization" of the virus of yellow fever in the Americas,

Resolves:

1. To recommend to the countries and territories already free of *A. aegypti* that they strengthen their surveillance activities against reinfestation, taking the fullest advantage of pertinent new developments arising out of the studies referred to in paragraph 3 below.

2. To urge countries that had already achieved eradication of the vector and were subsequently reinfested to adopt measures designed to achieve the elimination of *A. aegypti*.

3. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost, and, if necessary, to seek voluntary contributions to cover the costs of those studies.

4. To urge the Governments of the countries and territories still infested with *A. aegypti* to consider the necessary steps consonant with the results of the study referred to above, and pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere to achieve that objective as soon as practical and to assign the priority necessary for the adoption of measures that will ensure that the vector is not exported to countries free of it.

5. To request the Director to submit to the 66th Meeting of the Executive Committee a report on the status of the proposed cost-benefit study.

President:* The Delegate of the United States of America has the floor.

Dr. Ehrlich (United States of America): It has been brought to the attention of my Delegation that there is a phrase in operative paragraph 4 which could be interpreted by some countries as a reason for delaying or not beginning programs to eradicate *A. aegypti*. This is the phrase which reads "to consider the necessary steps consonant with the results of the study referred to above." It is the position of my Delegation that a country should not delay action pending the results of any study. This has been our position in the past and it still is. In order to clarify the matter, I would suggest that that phrase be deleted so that the paragraph would in no way imply that countries should not take action as soon as they are prepared to do so.

President:* Would the Delegate please read the paragraph so that we can see how it would read with the correction proposed?

Dr. Ehrlich (United States of America): Paragraph 4 would read as follows:

³²Resolution XLII. *Ibid.*, p. 98.

To urge the Governments of the countries and territories still infested with *A. aegypti* to consider the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as practical and to assign the priority necessary for the adoption of measures that will ensure that the vector is not exported to countries free of it.

Dr. Hyronimus (France):* I should like to have something clarified. In the course of the discussion extensive reference was made to this study conducted by a private firm, and I should like to know whether, according to this resolution, the intention is to continue relying on the help of that firm or whether the study, which really appears to be necessary, will be entrusted exclusively to the Bureau staff and to other units of public organizations. I fail to see how a private firm could make any significant contribution, since the only place where it can obtain the necessary information is in our organizations, where we have perfectly well-trained experts and other persons, or in the public health services, or in the WHO in Geneva. Therefore, why should we turn to voluntary contributions for this study? This makes me wonder whether this resolution accurately reflects yesterday's discussion or whether most of the delegations agree that we should continue to resort to that private firm.

President:* The Rapporteur has the floor.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* Perhaps I can dispel the doubts of the Delegate of France by reminding him that the Director told us yesterday in the Committee that it would surely be less expensive to do the study in the Bureau with its own staff. This is reflected in the phrase that reads: "To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost, and, if necessary, to seek voluntary contributions...." I believe that this reflects the Director's statement that the study will be much less expensive if it is not done by a private firm.

President:* Is the question answered? Dr. Horwitz, has the floor.

Dr. Horwitz (Director, PASB):* I should like to clarify this point because it is obviously very important. The Rapporteur is entirely right. We believe that the study to be done by the firm of Nathan Associates could be done much more economically by experts of the same caliber who were staff members of the Organization. But the problem is that we have no funds in our budget for hiring such specialists. The fact is that the

demand for contributions for *A. aegypti* eradication programs far exceeds our available resources at this time for such programs, this despite the fact that in 1969 we invested \$349,000 in *A. aegypti* programs and that you have been good enough to approve approximately \$530,000 for 1971. In short, I believe that voluntary contributions will be essential, because the regular budget would not permit this additional work to be done unless the action programs were reduced, and I do not believe that this is the sense of this discussion. What I wish to emphasize is that supplementary voluntary contributions will be indispensable if we are to make studies of this kind, although the cost will have to be well below that which this private firm has proposed.

President:* The Delegate of Guyana has the floor.

Dr. Talbot (Guyana): It was my understanding that the consensus was that this type of study should be done only if voluntary contributions were obtained. Therefore, on the basis of that and on the basis of what has just been said by the Director, the Guyana Delegation will favor the revised resolution, in which operative paragraph 3 states that this study is to be carried out at the lowest possible cost and subject to the receipt of voluntary contributions.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* Comparing the two resolutions, the original one presented by the Rapporteur and the proposal of the United States Delegation, I fail to see how the second represents any improvement. I believe that the original proposal is much broader and clearer and that it would avoid some of the problems that might arise from the second. Moreover, paragraph 4 of the initial proposal suggests that the studies to be done would be recommended by the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases. The Directing Council had already recommended that the Study Group be constituted as soon as possible, independently of assistance to the programs. The recommendations formulated by the Group appear in Section V of the Study Group's Report. The original draft resolution proposed the performance of those studies, and not the ones recommended by the Directing Council. I agree entirely that this study should be done at the lowest possible cost. The Conference does not desire to have a million dollars spent on an unnecessary study or one of limited usefulness.

Therefore, the Delegation of Brazil favors maintaining the initial proposal, perhaps with minor amendments we have discussed with Dr. Ehrlich, and with changes in the language used. For example, in

paragraph 2 the word "definitive" qualifying the elimination of *A. aegypti* could be deleted. If we are speaking of eradication, it must be final, as otherwise there is no eradication. Furthermore, the last phrase in paragraph 3 could be modified somewhat to read "and to assign the necessary priority." As for paragraph 5, I have the impression that the study was dead and is now being revived. While it appears that the study would not be done if the necessary resources were not available, the Director is being requested to submit to the 66th Meeting of the Executive Committee a report on the status of the cost-benefit study. This study will not be done if there are no funds. In such event, what could the Director submit to the Executive Committee?

President:* The Delegate of Barbados has the floor.

Dr. Wells (Barbados): There are just two observations I should like to make on the subject of voluntary contributions. My impression of the discussions held in the Committee on this matter was that the voluntary funds were to be obtained if necessary, and that the study was not to be dependent on the provision of voluntary funds. Secondly, I believe the Director indicated that he felt—I do not think he went further than this—that it might be possible to obtain voluntary funds if necessary. In other words, he did not give me the impression that he was unduly concerned about voluntary funds being available. I do not know whether the Director will be kind enough to clarify this point, but this was my impression of what he said.

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* I should like to say to the Delegate of Barbados that the impression he received was the result of my constitutional make-up. I am an optimist by nature and I am hopeful that in view of the interest aroused by this discussion we shall be able to obtain voluntary contributions, but I have no assurance that this will be so.

President:* The Delegate of the United States of America has the floor.

Dr. Ehrlich (United States of America): I perhaps could clarify the matter a bit more by saying that my Government is quite prepared to help support such a study by providing a voluntary contribution if this Conference feels that such a study should be carried out. I do not believe that we would want to support a study that would be done only if money was available or in circumstances of that kind. It seems to me that the Conference must determine whether such a study is in fact important in order to re-examine the question of

the Hemisphere's policy with respect to *A. aegypti* eradication. If it does so decide, I believe my Government would be interested in helping to support such a study.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I apologize for my frequent interventions, but the Delegation of Brazil believes that this study will undoubtedly delay the eradication work, and we are already some 20 years behind. The period we initially set expired in 1961, nine years ago. Since it will take at least three years to carry out this study, it would be 1973 before we would decide whether or not it is worth our while to eradicate *A. aegypti* from the country. As I said before, the study has absolutely no interest for the countries that have already eradicated the vector, nor for those which have decided to eradicate it and are intensifying their efforts to this end. Actually there may be no more than two countries interested in this study. If they wish to conduct it, there is nothing to keep them from doing so, but I do not think that the Conference intended to recommend this study to other countries that have no interest in doing it. Moreover, its cost would be high. Why not use voluntary contributions to help those countries that wish to perform the study?

President:* If no one else wishes to speak, I am going to put the two resolutions to a vote, in view of the fact that each party continues to support its respective draft. The Delegate of Argentina has the floor.

Dr. Rabinovich (Argentina):* Perhaps the delegates would be amenable to eliminating the phrase "consonant with the results of the study referred to above" from operative paragraph 4 of the amended draft resolution.

President:* Dr. Horwitz, would you be good enough to explain this point?

Dr. Horwitz (Director, PASB):* As I see it, the current situation is the following: The proposal of the Delegation of the United States of America represents an amendment of the original proposal. The Conference has to decide first of all on the proposed amendments. Since these affect various paragraphs of the operative portion, it might be better to take a separate vote on each paragraph differing from the original proposal.

If the Conference decides to vote in this way, the Rapporteur will have to read the corresponding paragraphs so that the Conference can vote on each.

President:* The Delegate of the United Kingdom has the floor.

Dr. Frazer (United Kingdom): Having listened to everyone very carefully, it seems to me that neither of

the texts for the operative part of the resolution really resolves the problem. The basic problem, as I listened to it, seems to be whether to support this cost-benefit study or not. Both texts support it in varying degrees. But from the Delegate of Brazil I get the impression that he puts it far more clearly than that: we must either support the study or not support it.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* The Delegation of Brazil has already stated its point of view clearly: it considers this study to be absolutely unnecessary except in such countries as might want to conduct it at their own expense, which we could obviously have no objection to their doing. We are proposing the performance of those studies suggested by the Study Group of the Prevention of *Aedes aegypti*-Borne Diseases, which include a cost-benefit study, but that the latter not be given the degree of importance attached to it by the draft resolution presented by the Delegation of the United States of America. If a country wishes to carry out the cost-benefit study and has funds of its own, we have no objection to its doing so, but I do not believe the Organization should allot to this study funds that could be put to better use in the eradication program.

President:* I shall ask the delegates to abide by the suggestions made by Dr. Horwitz. We shall follow this procedure, examining the draft resolutions paragraph by paragraph.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* I shall read, paragraph by paragraph, first the operative portion of the original proposal, and then the equivalent paragraph in the text presented by the Delegation of the United States of America.

The original draft resolution reads:

1. To recommend to the countries and territories already free of *A. aegypti* that they strengthen their surveillance activities against reinfestation.

The amended text proposed by the Delegation of the United States of America for this paragraph is the following:

1. To recommend to the countries and territories already free of *A. aegypti* that they strengthen their surveillance activities against reinfestation, taking the fullest advantage of pertinent new developments arising out of the studies referred to in paragraph 3 below.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I should like merely to ask for a clarification. Regarding those "new developments arising out of the studies referred to in paragraph 3," I should

like to know which are those "new developments" referred to by the Delegate of the United States of America.

President:* The Delegate of the United States of America has the floor.

Dr. Ehrlich (United States of America): That is obviously a question that cannot be answered; the study has not been carried out, so that any new developments that may result cannot be described. Operative paragraph 1 quite clearly says "new developments arising out of the studies." If no new developments arise, obviously there will be nothing that anyone could take advantage of, but I think we ought not to preclude the possibility of there being new developments in this field; we do not necessarily have to continue using methods that, while successful, may be improved upon as time goes on.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* It is evident that if new studies are made, everyone can take advantage of their results, but as far as I am concerned I am not pleased with the idea that any action decided upon should have to depend on such studies, as this leaves the impression that we have to await such innovations. While I know that this is not the intended meaning of the resolution, the text appears to indicate that the performance of any *A. aegypti* eradication activities would have to await the result of the studies.

President:* We are going to submit to a vote the amendment to paragraph 1 of the draft resolution as presented by the Delegation of the United States of America.

The amendment to the draft resolution was rejected by a vote of 13 against, 6 in favor, and no abstentions.

President:* The Rapporteur will read the second paragraph of the amended text proposed by the United States of America.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* Actually, except for the elimination of the word "definitive," there is no difference between the proposed amended text and the original. It is therefore unnecessary to read it, and we can go on to paragraph 3.

The original proposal reads:

3. To urge the Governments of the countries and territories still infested with *A. aegypti* to take the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by

those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as possible and to assign the necessary priority to the adoption of measures that will ensure that the vector is not exported to countries free of it.

The corresponding paragraph proposed as paragraph 4 in the amended text presented by the Delegation of the United States of America reads as follows:

To urge the Governments of the countries and territories still infested with *A. aegypti* to consider the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as practical and to assign the priority necessary for the adoption of measures that will ensure that the vector is not exported to countries free of it.

Naturally, the two texts are similar in spirit and it would be simply a matter of changing the order. I do not know whether the Chair would believe it advisable to vote on this amendment.

President:* The Delegate of Guyana has the floor.

Dr. Talbot (Guyana):* It seems to me that this does call for a vote because if one decides to vote for the revised resolution, one will be voting for operative paragraph 4 of the original draft resolution, which is incorporated in the revised text.

President:* The Delegation of Guyana has requested that a vote be taken because it believes the order in the resolutions to be important. A decision must therefore be taken on whether paragraph 4 will become paragraph 3 of the resolution. The Delegate of Argentina has the floor.

Dr. Rabinovich (Argentina):* It is not merely a matter of the order of the paragraphs; there are also some phrases that have a different connotation. Thus, for example, the original proposal refers to achieving the objective "as soon as possible," without considering the matter of feasibility; the phrase "as soon as practical" involves a consideration of feasibility that may be subject to decision. On the other hand "as soon as possible" calls for the performance of an activity, whatever it may be, for achieving a fixed objective.

President:* Paragraph 4 of the amended text proposed by the Delegation of the United States of America will therefore be put to a vote. The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I should like to know what it is that we are going to vote upon. Is it paragraph 3 of the original or paragraph 3 of the amended text proposed by the United States of America?

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* The vote will be on the amended text proposed by the United States of America for the provision appearing as paragraph 4 of the operative portion, which corresponds to paragraph 3 of the original resolution. The order in which it will appear will be decided later according to the results of the voting.

President:* The amendment proposed by the Delegation of the United States of America is submitted to a vote.

The amendment to the draft resolution was rejected by a vote of 11 against, 8 in favor, and no abstentions.

President:* Will the Rapporteur continue reading the other paragraphs?

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* Paragraph 4 of the original draft resolution reads as follows:

4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost and subject to the receipt of a sufficient amount of voluntary contributions to cover the estimated costs of those studies.

The corresponding amendment (paragraph 3 of the proposal of the United States of America) reads:

3. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost and, if necessary, to seek voluntary contributions to cover the costs of those studies.

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* It seems to me, with all due respect to Dr. Bica, that there is no substantial difference between the studies because the resolution of the Directing Council instructed us to consider the problem as a whole. Dr. Reeves' Committee met, and unfortunately the meeting was not attended by the economist who was to do the cost-benefit studies. Pursuant to the terms of the resolution, we invited some experts from an independent group, the firm of Robert R. Nathan Associates, Inc., to supplement the report of Dr. Reeves. Accordingly, whether the studies referred to in the Directing Council resolution are done, as proposed by the Delegate of the United States of America, or whether those recommended by the Study Group are carried out, the cost-benefit analyses will be included in any case.

Frankly, therefore, I see no substantial difference between the intent of the two proposals, and I understand that the Delegate of Brazil, while not in agreement that the cost-benefit studies should be done, because of the cost they represent, recognizes that they are included among those proposed by the Study Group.

Under these circumstances, Mr. President, I do not believe that there is really any fundamental difference between the texts of the two resolutions, and unless a delegate feels that there is a difference, no vote would be necessary.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* If there is no difference, why introduce an amendment?

President:* The Delegate of the United States of America has the floor.

Dr. Ehrlich (United States of America): The amendment was submitted because the original resolution in English called for the study to be carried out only if voluntary contributions were provided. I have been led to believe by the statements made by Dr. Bica and by others that the Spanish version of the original draft resolution did not have the same phraseology, so that it may have been only in the original English text that there was a problem. In any event, the amendment in the English text was intended to authorize the Director to carry out the study and to seek voluntary funds if necessary. In one case the Conference is endorsing the need for the study and in the other case it is not. The amendment was proposed in order to allow the Conference to endorse the need for the study.

President:* The Delegate of Barbados has the floor.

Dr. Wells (Barbados): I was going to ask whether we could have the Spanish text read again because when I was listening to the interpretation as the Rapporteur was reading it, it certainly did not correspond to what we have in the English text before us. I do not know whether the Spanish text of the original resolution contained things which did not appear in the English text that I have before me. So I wonder whether the Rapporteur could read it out—perhaps slowly for the interpreter—so that we can get the actual wording of the English text.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* Paragraph 4 of the original draft resolution in Spanish reads as follows:

4. Autorizar al Director a tomar las medidas necesarias para realizar los estudios recomendados por el Grupo de Estudio de la OPS sobre la Prevención de las Enfermedades Transmitidas por el

Aedes aegypti y que dichos estudios se lleven a cabo en la forma más económica posible, sin incrementar el presupuesto, y procurando obtener contribuciones voluntarias adecuadas.

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* I referred moments ago to the purpose of these studies, comparing Resolution XXIII of the XIX Meeting of the Directing Council with the recommendations of the Study Group. I see no difference between the two, but reading both proposals carefully in Spanish reveals that the amendment of the United States of America makes the voluntary contributions a supplementary feature, while in the original draft resolution the voluntary contributions are a necessary prerequisite. And this is what the Conference must resolve. It has always been our intention that these studies should be done with voluntary contributions, without affecting the regular budget. In this respect there is a difference between the two resolutions, at least in the Spanish text.

Dr. Hyronimus (France):* I fear that we find ourselves in a thorough state of confusion and that at the time of voting we shall not know exactly what it is that we are voting upon. If I have understood correctly, the Delegate of Brazil said that he thought it useless to spend money on the cost-benefit study, and that any money available, even from special sources, should be used to contribute to the execution of campaigns in those countries which have economic difficulties in this respect. If this is what the Delegate of Brazil wished to tell us, I am perfectly in agreement with him and it is therefore my impression that neither of the two resolutions we are examining expresses our opinion. It would be useful, therefore, to know once and for all whether the majority of those present here would agree or not with the Delegate of Brazil; otherwise, we run the risk of voting against our own views and approving a resolution whose sense we do not understand.

President:* Following the same procedure as heretofore, we shall submit to a vote the amendment proposed by the United States of America.

The amendment to the draft resolution was rejected by a vote of 14 against, 2 in favor, and 2 abstentions.

President:* The Rapporteur will now read the draft resolution as finally worded.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* As you will no doubt have noted, there is no difference in paragraph 5. Since this is the case, and since the amendment presented by the United States of America has not carried, I shall read the original draft:

The XVIII Pan American Sanitary Conference,

Having examined the report of the Director on the status of *Aedes aegypti* eradication in the Americas (Document CSP18/13);

Considering the reports of the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases, of the Scientific Advisory Committee on Dengue Surveillance in the Americas, and the proposed cost-benefit study of programs for the prevention of *A. aegypti*-borne diseases prepared by a firm of consultants;

Taking into account Resolution XXIII of the XIX Meeting of the Directing Council and Resolution VII of the 64th Meeting of the Executive Committee;

Bearing in mind the fact that the extensive areas of the Hemisphere that are still infested by *A. aegypti* are a potential source of reinfestation for the countries and territories already free of the vector and endanger the success of the continent-wide campaign; and

Aware of the dangerous situation caused by the reappearance of dengue fever and the continuing threat of the "urbanization" of the virus of yellow fever in the Americas,

Resolves:

1. To recommend to the countries and territories already free of *A. aegypti* that they strengthen their surveillance activities against reinfestation.

2. To request countries that had already achieved eradication of the vector and were subsequently reinfested to adopt measures designed to achieve the elimination of *A. aegypti*.

3. To urge the Governments of the countries and territories still infested with *A. aegypti* to take the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as possible and to assign the necessary priority to the adoption of measures that will ensure that the vector is not exported to countries free of it.

4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council at the lowest possible cost and subject to the receipt of a sufficient amount of voluntary contributions to cover the estimated costs of those studies.

5. To request the Director to submit to the 66th Meeting of the Executive Committee a report on the status of the proposed cost-benefit study.

President:* The Delegation of Barbados has the floor.

Dr. Wells (Barbados):* This is just a matter of the translation. I am sorry to refer to it again, but the English text we have before us is not the translation of the Spanish version. I am sorry about that, but operative paragraph 4 in the text I have before me is not a translation of the Spanish text of that paragraph. I believe that there is a slight difference in the meaning.

President:* The Delegate of Chile has the floor.

Dr. Juricic (Chile):* I should like to point out that the language in paragraph 5 is inconsistent with that in

paragraph 4. Paragraph 4 authorizes the Director to take measures, but does not oblige him to do so. If the Director feels that the study is not necessary, he is not obliged to carry it out, according to this paragraph. But in paragraph 5 the Director is requested to submit the study. That is to say, in one paragraph he is authorized and in the other he is obliged. There should be consistency in the text of the two paragraphs.

President:* The Rapporteur has the floor.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The Delegate of Chile will please excuse me, but I believe that the paragraphs are entirely consistent. What the Director is requested to submit is a report on the status of the project, which could simply say that the project was not carried out. He is not asked to present the results of the study, but only a report on the status of the project. That is the sense of the resolution.

President:* The Director has the floor.

Dr. Horwitz (Director, PASB):* I should like to supplement the explanations given by the Rapporteur. In compliance with the resolution, which we assume to be approved subject to consideration of the differences in the English and Spanish texts pointed out by the Delegate of Barbados, what we are going to do is to make a careful review of the three documents we have available: the resolution of the Directing Council, the report of the Study Group headed by Dr. Reeves, and the report of Robert R. Nathan Associates, Inc., on the cost-benefit ratio.

We are going to seek voluntary contributions, but at the same time we shall decide what measures really require priority attention. We are going to determine which measures can be carried out through the use of our own staff and material resources and which would require additional funds.

A report on all of this can be placed before the Executive Committee at its next meeting, and if any voluntary contributions are received by that time, this will enable us to present a more complete report.

I hope that these explanations will satisfy the Delegate of Chile. The difference between the English and Spanish texts of operative paragraph 4 is that the English text refers to the resolution of the Directing Council, while the Spanish text refers to the Report of the Study Group. Since the original was Spanish, or so I seem to recall, the English would have to be changed to conform to the original Spanish.

President:* The Delegate of Barbados has the floor.

Dr. Wells (Barbados): That was not the point I was

making. In the English text it says, "subject to the receipt of a sufficient amount of voluntary contributions." Now, that means that the study will be dependent on the receipt of voluntary contributions. As I understood the interpreter who read the Spanish text, he used the word "seeking," authorizing the Director to carry out the study *seeking* voluntary contributions, which has quite a different meaning to my mind.

President:* The Delegate of Paraguay has the floor.

Dr. Delmás (Paraguay):* It seems to me that to eliminate this confusion we should bear in mind that the Spanish text is already approved. The problem lies exclusively in the English translation, which the Secretariat can adjust and submit to the closing session.

President:* The Delegate of Brazil has the floor.

Dr. Bica (Brazil):* I am perfectly in agreement that the Director should make a study of the three reports. To eliminate the confusion arising from paragraph 5, I would propose that it be amended to read as follows: "To request the Director to submit to the 66th Meeting of the Executive Committee a report on the status of the studies referred to in paragraph 4." With this language, all of the studies would be included.

President:* Dr. Horwitz has the floor.

Dr. Horwitz (Director, PASB):* The English version does not contain a very important phrase which appears in the Spanish text and which reads as follows: "sin incrementar el presupuesto" (without increasing the budget). If this phrase is added, then "procurando obtener contribuciones voluntarias adecuadas" (attempting to obtain adequate voluntary contributions) implies that the study will be possible only if sufficient voluntary contributions are obtained. I repeat, the phrase "without increasing the budget" is missing in the English, but if we are authorized to make a careful translation, which the Conference can check when it sees the Final Report of the closing session, this error will be corrected.

President:* The Chair considers that the original draft resolution, as contained in Document PR/31 of Committee II, was adopted *in toto* when the amendments were rejected. In any case, we shall now take a vote on the entire text of the resolution.

*By 15 votes in favor, none against, and 3 abstentions, the draft resolution was approved.*³³

[The English text of paragraph 4, corrected to agree with the approved Spanish text, was as follows: "4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases and that these studies be carried out at the lowest possible cost, without increasing the budget and attempting to obtain a sufficient amount of voluntary contributions."]

President:* The Secretary has some announcements to make.

Dr. Arreaza Guzmán (Assistant Director, PASB):* Mr. President, all the topics of this meeting have been discussed and it only remains to invite the participants to the closing session, to be held in this room at 6:00 p.m. today. But first I should like to invite all the members of the Executive Committee, including those who have completed their term of office and those composing the new Committee, to a meeting at 3:00 p.m., in Room B of this building. I also wish to remind the delegates to let us know if they would like to have the documents sent to them at their home addresses and to be good enough to leave their packages of documents with their name and postal address. Thank you, Mr. President.

President:* This session is adjourned.

The session rose at 12:45 p.m.

³³Resolution XLIII. *Ibid.*, pp. 98-99.

CLOSING SESSION

Thursday, 8 October 1970, at 6:50 p.m.

President: Dr. Adán Godoy Jiménez (Paraguay)

Reading, Approval, and Signing of the Final Report

President:* The closing session will please come to order. The Rapporteur will read the Final Report of the Conference.

Dr. Alvarez Gutiérrez (Mexico, Rapporteur):* The delegates have before them Document CSP18/45, containing the Final Report of the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization.

Dr. Alvarez Gutiérrez read the preamble and the forty-three resolutions contained in the Final Report of the Conference.

The President: Does any delegate wish to speak? If not, the Final Report is approved.

Approved.¹

The Final Report was then signed by Dr. Adán Godoy Jiménez, Vice-President of the XVIII Pan American Sanitary Conference, and by Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, Secretary ex officio of the Conference.

President:* Fellow delegates, Director of the Pan American Sanitary Bureau: Speaking for myself, and most particularly for the Government and people of Paraguay, I should like to express the deep satisfaction which I feel as the work of this XVIII Pan American Sanitary Conference draws to a very successful conclusion.

These quadrennial Conferences afford the Pan American Health Organization its most effective instrument for arriving at a practical assessment, based on fundamental concepts as well as facts and statistics, of health

conditions in the countries of the Americas, the work of the Governments, and the measures they are taking, alone or in concert with the Organization, to provide their inhabitants with the highest possible level of health and well-being.

Important as all the meetings of the Governing Bodies are, the Conference stands out because of this very important function. The work of the Conference goes beyond those matters, important in themselves, that have to do with the election of authorities and the approval of budgets and work programs. On a higher plane, the Conference is nothing less than a health parliament for the Hemisphere, where all the countries are heard, all problems are considered, and all the experience accumulated by any Member Country is generously placed at the disposal of the other countries.

And so we can hardly help but feel a definite satisfaction with a job well done, but also a certain sense of regret that the Conference is about to come to a close. The fact is that today marks the end of fruitful and high-level discussions that will be remembered as an enlightened and concrete manifestation of hemispheric solidarity.

I am sure that we all feel the importance of this brotherly link that has bound us together for the last two weeks. It is our responsibility, therefore, to translate these feelings into specific action in each of our countries for the benefit of the community.

Whatever affects any country of the Americas affects us all. Just as no Government can remain indifferent to the needs of its people, neither can any American State regard the problems or achievements of a sister country with cold indifference. The problems offer an opportunity for that close collaboration that ennobles giver and receiver alike; the achievements, the positive accomplishments, become part of the common patrimony of this extraordinary group of nations.

Permit me, as a citizen of an American country, but also as a soldier in the ceaseless fight for the health and well-being of our peoples, to single out this growing

¹Official Document PAHO 104.

sense of hemispheric solidarity as one of the highest achievements of this XVIII Pan American Sanitary Conference, the highest manifestation of our enduring sense of brotherhood.

In closing we should like to express our sincere gratitude for the cooperation extended by the officials of the Pan American Health Organization, by Dr. Abraham Horwitz, a soldier in a noble cause, by all his devoted and selfless associates, from the most humble to the highest, and by all those who helped us to under-

stand our most cherished goal in a climate of genuine and wholesome American brotherhood.

With these words, we declare the XVIII Pan American Sanitary Conference closed. Thank you all once again.

Applause.

The session rose at 7:20 p.m.

3. PRECIS MINUTES OF THE COMMITTEES

COMMITTEE I

FIRST SESSION

Thursday, 1 October 1970, at 10:30 a.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

Election of Vice-Chairman and Rapporteur

The Chairman called the session to order and announced that the Committee's procedure would be governed by Rule 50 of the Rules of Procedure of the Conference. As Dr. Olguin was participating in a dual capacity, as Chairman of the Executive Committee and as the Delegate of Argentina, he would indicate in which capacity he was taking the floor.

Dr. Juricic (Chile), seconded by Dr. Alvarez Gutiérrez (Mexico), Dr. Gama e Silva (Brazil), Dr. Olguin (Argentina), Dr. Delmás (Paraguay), and Dr. Ronco (Uruguay), nominated Dr. José Luis Orlich, Minister of Public Health and Chief of the Delegation of Costa Rica, as Vice-Chairman of Committee I, and Dr. Carlos A. Pineda, Chief of the Delegation of Honduras, as Rapporteur.

Decision: Dr. José Luis Orlich, Delegate of Costa Rica, and Dr. Carlos A. Pineda, Delegate of Honduras, were unanimously elected Vice-Chairman and Rapporteur, respectively, of Committee I.

Item 14: Report on the Collection of Quota Contributions

Mr. Lannon (Chief of Administration, PASB), introducing Document CSP18/23 and Addenda I and II,¹ said that the most recent information on the status of contributions was to be found in Addendum II, which showed that \$2,719,565 of arrears and \$6,433,897 of current contributions had been collected so far in 1970.

Current quota collections amounted to 46.4 per cent of the budget figure, against 40.6 per cent the previous year. The arrears and contributions collected totaled 66.1 per cent of the current budget, which, together with the Working Capital Fund, enabled the Organization to meet its current commitments.

Some concern was felt, however, about the countries in arrears, of which there were five. Of those, four owed more than two years' contributions, while the fifth owed a relatively small amount. In accordance with Resolution V² adopted by the Executive Committee at its 64th Meeting, consultations had been held with the Governments in arrears with a view to making arrangements for payment, and one country had undertaken to pay its current quota plus 10 per cent of its arrears. The undertaking had not yet been fulfilled, however. The Bureau would endeavor to reach an agreement with the Governments concerned on an arrangement by which they would reduce their arrears by an annual payment at least equal to their current quota.

At the same meeting, the Executive Committee had adopted Resolution VIII,³ requesting the Director to inform the Member and Participating Governments, as early as possible in each calendar year, of the scale of assessments corresponding to the level of the proposed program and budget estimates for the following year, recognizing that those figures were tentative pending a decision of the Directing Council or the Pan American Sanitary Conference. Pursuant to that resolution, the Director would inform Governments early in 1971 of the tentative quota assessments for 1972, which should

¹Mimeographed documents.

²*Official Document PAHO 103, 51-52.*

³*Ibid.*, pp. 53-54.

help them to make the necessary provision in their national budgets.

Dr. Frazer (United Kingdom) expressed the view that it was regrettable that the Conference should have been asked to adopt the draft resolution on the application of Article 6-B of the Constitution (Resolution II), which suspended the operation of part of the Constitution, and that, furthermore, that action should have been taken before the Credentials Committee had submitted its report, that was to say, before it was certain that all the delegations present had the right to vote. In view of the importance of the matter, particularly in a Conference year, he proposed that the implications of Resolution II should be re-examined, preferably at the opening session of the next Executive Committee meeting.

Mr. Rosenthal (United States of America) strongly supported the previous speaker. In the view of his Government, Article 6-B of the Constitution automatically applied as soon as a country was more than two years in arrears in its contributions. He felt that the action taken on Resolution II was to be deplored, since it had been taken without any prior review of the defaulting countries' ability to pay. Although he appreciated the motives which had led to the submission of the draft resolution, he wished it to be clearly understood that its adoption should not be considered as a precedent since a precedent of that kind could undermine and weaken the Constitution through non-enforcement.

There undoubtedly were reasons for the non-payment of contributions by certain countries. They should be considered and some plan worked out with the Governments concerned for paying off the arrears. A working group might be established to consider the matter and consult the Governments concerned, which would welcome such cooperation.

Lastly, his Government did not consider that its contribution for 1968 was in arrears, for reasons previously explained.

Dr. Hyronimus (France) endorsed the views of the Delegates of the United Kingdom and of the United States of America.

Dr. Olguín (as Delegate of Argentina) considered the prompt payment of quota contributions to international organizations to be extremely important, so that the programs might be carried out without any deficit being incurred. He therefore attributed significance to the Executive Committee's decision to have the Governments informed of the tentative scale of assessments for the following year. The Organization generally took up

the matter of quota payments with the Governments at the appropriate time; yet the quotas in arrears clearly reflected an inability to meet the commitments on schedule. Paradoxically, that difficulty usually coincided with a greater need for outside contributions in order to solve serious domestic health problems. The speaker was pleased that the delegates had adopted Resolution II at the outset of the Conference.

Nevertheless, the Constitution was explicit with regard to the procedure to be followed, and Dr. Olguín recommended that in the future its provisions be adhered to insofar as the matter of precedents was concerned.

The Delegation of Argentina placed particular importance on the situation under discussion, for even though the quotas might appear moderate from the overall point of view their importance for the countries and for the Organization's budget was considerable.

Mr. Burton (Barbados) expressed concurrence with the views put forward by the Delegate of the United Kingdom. There was a simple procedure that might obviate the difficulty regarding delegations' right to vote: at the beginning of every Conference, there should be a thorough examination of the reasons for which certain countries were in arrears. If those reasons were found to be valid, those countries could continue to participate in the discussions, with the right to vote, without there being any question of unconstitutional procedure.

Dr. Alvarez Gutiérrez (Mexico) pointed out that the problem of quota arrears was twofold, each aspect deserving separate consideration. In the first place, he viewed the appointment of a group to study the reasons for those arrears and the exercise of the right to vote as too formal a step; the Organization was in fact composed of countries, and if some of those countries were denied participation, it would be acting unilaterally, not as the representative of the entire Hemisphere.

In the second place, it was essential to implement the program, and for that purpose funds were required. Perhaps a draft resolution was in order, calling upon the Director to appoint a group of economists to propose a more effective system for the collection of quotas and encouraging the Governments to make their contributions on time, insofar as possible.

The Chairman suggested that the Rapporteur should be asked to draft a suitable text embodying the views expressed and taking into account the suggestion put forward by the Delegate of Argentina.

Dr. Pineda (Honduras, Rapporteur) said he would draft a resolution in which he would attempt to reflect and coordinate the views and suggestions put forward by the Delegates of the United Kingdom, the United States of America, France, Argentina, Barbados, and Mexico, and that he would submit the text as soon as possible.⁴

Dr. Olguín (as Chairman of the Executive Committee) proposed that the draft resolution charge the Executive Committee with studying that matter at a future meeting, once the necessary data had been compiled.

Item 15: Financial Report of the Director and Report of the External Auditor for 1969

Mr. Lannon (Chief of Administration, PASB), introducing *Official Document 97*, said that the financial report of the Director was divided into three parts: the introduction, containing the Director's comments, and the financial statements on PAHO regular, special, and trust funds; the Institute of Nutrition of Central America and Panama; and the informational annex giving a summary and distribution of PAHO and WHO expenditure. The report of the External Auditor was to be found at the end of the document.

The Organization had had a deficit of \$2,623,778 at the end of 1969, that had been due mainly to delays in payment by the major contributors, but most of them had cleared their arrears in 1970.

The report placed emphasis on compliance with the financial policy laid down in 1959, according to which the Organization's expenditure was not to exceed its income as a general rule. Table B (page 6) showed that, over the 10-year period 1960-1969, total obligations had in fact been kept within total income. That had been true in 1969 despite a shortfall in contributions (total appropriations of \$12,592,836 and a total expenditure of \$12,144,534), since the Director had taken steps to reduce expenditure, which had been held at 96.44 per cent of the authorized budget. Similarly, only 64.99 per cent of the Special Malaria Fund had been spent. However, as the Fund was already nearly exhausted and voluntary contributions would cease in 1970, deficits were to be expected in 1971, amounting to \$750,000 in 1971 (despite a carry-over of some \$80,000 from 1970) and also 1972.

The position of the Community Water Supply Fund was less satisfactory than in previous years, as the large and regular contributions it had received in the past had ceased, and the smaller contributions made in 1969 had

come mainly from public water authorities and had been earmarked for advisory services and training. Table A showed that nearly \$150,000 had been budgeted, but only \$56,000 had been spent.

PAHO grants and other contributions were higher than in 1968, largely because of the increase in certain programs such as that on health and population dynamics. Only 58 per cent of the funds available had been spent in 1969, but the balance would be carried over to 1970.

As to WHO funds, an additional allocation of 1 per cent from the WHO regular budget had been received and almost completely applied. The Malaria Eradication Special Account had been drawn on to the extent of \$177,519; that account was becoming exhausted, a fact which had implications for PAHO's own Special Malaria Fund. The Technical Assistance component of UNDP had contributed less, and the Special Fund component more, than in 1968. The heading "WHO-Other" covered a variety of trust and counterpart funds.

The position of the PAHO Working Capital Fund was discussed on page 3 of the report and in Table C. It had not been possible to make the usual provision to replenish the Fund in 1968, so that by the beginning of 1970 it had sunk to only 25.1 per cent of the budget, but the position had improved owing to collections during the first half of 1970.

As to the financial statements in the report, Exhibit I (page 13) summarized the appropriations and obligations of PAHO for 1970. An amount of \$181,370 had been transferred to finance salary increases that had been approved earlier, but the necessity for transfers had been avoided in the field and other programs by curtailing expenditure. Total expenditure had been \$12,144,534, or \$448,000 less than the appropriation. Exhibit II itemized income and expenditure. Net quota contributions amounted to \$9,764,058, which, plus miscellaneous income, gave a total of \$10,341,354. Expenditure totalled \$11,894,534 and \$250,000 had been transferred to the Special Fund for Health Promotion in accordance with the agreement with the W.K. Kellogg Foundation, so that there had been a deficit of \$1,803,180, which had been covered by an advance from the Working Capital Fund.

Schedule 1 (page 17) gave a breakdown of investments, including the ownership of the Governor Shepherd Apartments (\$1,410,833), which would provide future office space and, in the meantime, was producing a satisfactory return. The total for procurement services on behalf of Governments shown in Schedule 4 (\$316,694 in 1969) was slightly higher than in 1968 (\$288,017). The Emergency Procurement

⁴See p. 186.

Revolving Fund (Schedule 5) was in a better position than in previous years and the level of indebtedness had been reduced from about \$75,000 to \$53,000 thanks to the cooperation of the Participating Governments. As to the Special Malaria Fund (Schedule 6), the United States of America letter of credit for \$1,000,000, had been drawn on to some extent, leaving a balance of \$692,335 available for 1970, which had been increased to \$1,192,335 by a pledge for \$500,000. It was hoped that some of that amount could be carried over to 1971 to reduce the expected deficit. Schedule 8 was new; it showed the progress of the textbook program from 1968 onward. The books procured had cost \$256,000 for the two years, which compared with the net available assets for the program of some \$277,000. Although income from the sale of a limited number of copies could not be expected to cover expenditure, the ultimate aim was to make the program self-supporting.

The report of the External Auditor (pages 73-79) was favorable. The memorandum dealing with certain administrative details mentioned at the end of the report (page 79) concerned the need to ensure liquidity. It had been prompted by a longer term investment than usual, which had been terminated in September 1970, but in the meantime it had yielded the Organization 11 per cent. The External Auditor had further expressed the hope that the automation of the administrative services would be continued.

Mr. Rosenthal (United States of America) suggested that the Committee might wish to embody in a resolution its view of the two reports contained in *Official Document 97*. He welcomed the External Auditor's comments on the administrative practices of the Organization, on which the Committee might wish to request him to submit more detailed observations. The Committee might also recommend that an additional schedule be included in the report showing the original appropriations for programs and any changes in the use of the funds appropriated for each program. It would be extremely useful, for instance, if an additional column could be added to the statement of expenditure by budget and individual project (beginning on page 50) showing the amount of the original appropriation, thus facilitating a comparison with the actual expenditure.

Mr. Lannon (Chief of Administration, PASB) pointed out that in Document CSP18/17 some of the information requested by the Delegate of the United States of America was already given, although not in monetary terms.

Dr. Olguín (as Delegate of Argentina) stated that the Organization's financial situation was of concern to all

the Governments. Despite Mr. Lannon's excellent report, it was frequently difficult to interpret the figures, and he therefore endorsed the suggestion of the Delegate of the United States of America to the effect that the budget include a summary table showing the original appropriations.

The Financial Report of the Director, the proposed program and budget, and the final part of the Annual Report of the Director offered extensive data on the implementation of the programs and on the status of investments. However, presentation of those figures in tabular form would facilitate both reading and understanding, especially since the Organization's budget comprised a large number of separate funds. Any supplementary information on its nature and composition would therefore be well received. The speaker supported the Delegate of the United States of America, who had suggested that the External Auditor undertake a critical assessment of the administrative procedures of the Organization. The Delegation of Argentina had been among those that had sought the introduction of that sound practice in the World Health Organization. It was true that the financial situation of international organizations could be cyclical in nature; during the 1950's and 1960's such ups and downs could be compensated for by adjusting the programs to the availability of funds, a policy that might well be followed in the future to prevent unsettling deficits.

Dr. Williams (Deputy Director, PASB), speaking on behalf of the Director, said that he wished to emphasize the very serious situation of the Special Malaria Fund. That Fund had been kept going by the extremely generous contributions of the Government of the United States of America, which had made available some \$10,000,000 since the inception of the program, but could now no longer continue its donations. As had been pointed out by the Chief of Administration, the Fund would have a deficit of more than \$800,000 in 1971, a deficit that could be expected to increase to about \$1.5 million over a three-year period. It would be impossible to meet such a commitment out of the regular budget. The Director was leaving no stone unturned to find additional funds and he did not wish, at the present time, to propose any specific action, but he did wish the extreme gravity of the situation to be clearly understood.

Dr. Pineda (Honduras, Rapporteur) said he would draft a resolution embodying the comments made.⁵

⁵See p. 187.

Dr. Olguín (as Delegate of Argentina), referring to the item on malaria eradication, which would be taken up by Committee II, asked Dr. Williams whether the Secretariat had given thought to some means of budgetary or extrabudgetary financing in order to overcome the difficulties faced by that highly important program for combating the disease, inasmuch as its implementation might be jeopardized by the decrease in WHO funds and in voluntary contributions.

Dr. Williams (Deputy Director, PASB), replying to the Delegate of Argentina, said that the Director had in mind several possible methods of financing the malaria eradication program. It was more for Committee II to discuss the matter in detail. The Director had wished only to ensure that Committee I was informed of the situation.

Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau

Mr. Lannon (Chief of Administration, PASB), introducing the amendments to the Staff Rules (Document CSP18/4 and CE64/14),⁶ said that the amendments, to be found in the annex to Document CE64/14, related to the education grant, the travel of dependents, service benefit, medical certification and inoculations, and maternity leave, and they were mainly intended to align PASB practice with that of WHO. If it was in agreement with those changes, the Committee might wish to adopt a resolution along the lines of the proposed resolution contained in Document CSP18/4.

As to the question of establishing an administrative tribunal, the Director was anxious to ensure for the staff of the Bureau a similar recourse to that available to the staff of WHO, namely, appeal to the administrative tribunal of the International Labour Organisation (ILO). In July 1968, at its 59th Meeting, the Executive Committee had been informed⁷ that discussions were in progress with the Secretary General of the Organization of American States (OAS) on the establishment of an administrative tribunal within the Inter-American System. The General Assembly of the OAS, which met during June and July 1970, had requested the Permanent Council of the OAS to study the matter and submit a proposal to the next session of the General Assembly, to be held in April 1971.

In view of those developments, the Director wished to hold a referendum to ascertain whether the staff of

the Pan American Sanitary Bureau wished to have recourse to the future OAS tribunal or to the existing body of the ILO. The results of the referendum would be embodied in an amendment to the Staff Rules which would be submitted to the Executive Committee.

Mr. Burton (Barbados) asked whether he was correct in inferring from the statement just made that PASB staff had at present no recourse to any tribunal.

Mr. Lannon (Chief of Administration, PASB) said that that interpretation was substantially correct, although PASB staff members were covered by certain internal procedures.

Mr. Burton (Barbados) asked whether there would be any objection to the staff members of PASB having recourse to the ILO tribunal pending the establishment of a tribunal by the OAS.

Mr. Lannon (Chief of Administration, PASB) said that that was a matter to be decided by the referendum.

Dr. Alvarez Gutiérrez (Mexico) shared the concern of the Delegate of Barbados and asked whether the Conference might not recommend that until the various alternatives were put to a referendum, the staff should have recourse to the ILO for the adjudication of any problems.

Mr. Lannon (Chief of Administration, PASB), replying to the Delegate of Mexico, said that the Conference would be entitled to make such a recommendation.

Dr. Olguín (as Delegate of Argentina) asked whether it was necessary, pending adoption of the proposed procedure, to stipulate which body should serve as tribunal in such cases. Inasmuch as the existing machinery had thus far proved satisfactory, the speaker wished to know whether there was any reason for discontinuing its application and seeking recourse to the ILO.

Mr. Rosenthal (United States of America) said that the United States favored an independent tribunal but he was dubious about the usefulness of setting up any interim machinery. If the Conference made a recommendation to that effect, it might appear to be attempting to influence the result of the referendum. The PASB staff alone should decide which body—the existing ILO machinery or the proposed OAS machinery—it favored. If, however, there were cases pending which required to be submitted to a tribunal without delay, that would alter the case.

Mr. Lannon (Chief of Administration, PASB) replied

⁶Mimeographed documents.

⁷Official Document PAHO 87, 230.

that, to his knowledge, there were no such cases pending.

Dr. Williams (Deputy Director, PASB) said that the Director was convinced of the necessity for an administrative tribunal for PASB staff but he was concerned about the right steps to take to secure that recourse for the staff. The ILO tribunal was already in existence, and WHO staff were entitled to appeal to it, whereas PASB employees were not. The question had been complicated by the news that the OAS was setting up its own tribunal, but that tribunal did not yet exist and it was not yet known when it would be established. For that reason, in suggesting an amendment to the Staff Rules, the Director wished to organize a referendum and consider whatever alternative was selected by the staff.

Dr. Alvarez Gutiérrez (Mexico) said that he did not wish to present a formal proposal.

Dr. Olguín (as Delegate of Argentina) explained that he too had made no specific proposal but had merely asked for additional information on the actual need for interim machinery prior to disclosure of the results of the current consultations and study.

The Chairman said that, as far as he understood, there was no need to establish interim machinery at the present time. He suggested that the Rapporteur should be asked to draft a suitable text reflecting the views of the Committee.⁸

It was so agreed.

The session rose at 11:55 a.m.

⁸See p. 187.

SECOND SESSION

Thursday, 1 October 1970, at 3:05 p.m.

Chairman: Dr. José Luis Orlich (Costa Rica)

Fourth Report of the General Committee

The Chairman called the session to order and asked the Secretary to read the decisions adopted at the morning session of the General Committee.

Dr. Williams (Deputy Director, PASB) read the decisions adopted by the General Committee at its fourth session:

1. The order for the discussion of items by Committee I would be as follows: Item 30, Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country; Item 31, Assistance for the Medical Rehabilitation of the Area Affected by Earthquake of 31 May 1970; and Item 34, PAHO Award for Administration.

2. The order for the discussion of items by Committee II would be: Item 18, Report on the Status of Malaria Eradication in the Americas; Item 20, Smallpox Eradication; Item 21, Resolutions of the World Health Assembly of Interest to the Regional Committee.

3. It was agreed that, because of its close relationship to the budgets, Item 32 on the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control, would be discussed on Monday, 5 October, before

Items 27, 28, and 29 were taken up. At that time, only Committee I would meet.

4. The General Committee studied Draft Resolution PR/5, Rev. 3, on the participation of Canada in the Pan American Health Organization, recommending that the text be approved by the Conference in plenary session.

5. The General Committee would hold its next meeting at noon on Monday, 5 October.

6. It was emphasized that all proposed resolutions on items assigned to Committees I and II must be examined by the respective committees before being submitted to the General Committee.

Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country

Dr. Coll (Chief, Liaison and Public Relations Office, PASB), in presenting Document CSP18/26¹ on this item, recalled that at the 64th Meeting of the Executive Committee the Government of Peru had introduced Document CE64/16,² which dealt in a general way with

¹See Annex 12.

²See p. 460.

the problems arising from the catastrophe that had occurred in that country on 31 May 1970, particularly the difficulties in using the aid offered by other countries and by international agencies. The document also contained the following proposal: to approve the inclusion in the provisional agenda for the XVIII Pan American Sanitary Conference the Peruvian proposal requesting that specially appointed experts prepare and submit a study on the possibility of establishing an agency capable of dealing with such disasters. The Executive Committee had adopted Resolution XXI,³ whose preamble referred to the statement of the Peruvian Representative and the report of the Director concerning the steps taken by the Organization in that emergency, and whose operative part called for the transmittal of the aforesaid document to the XVIII Conference. The PASB considered it appropriate to review the current situation, and to prepare a summary report, which appeared as Appendix 2 to the document presented.

Dr. Marchand (Peru) said that the dreadful experience undergone by his country prompted him to offer the Conference observations which, together with the comments of other delegations, might lead to a recommendation on the subject.

When the disaster occurred in Peru, the multiplicity of its attendant problems, whose impact was felt not only on the health of the affected population, at first made it impossible to identify the most urgent needs and to distribute effectively the aid so generously provided by the Governments and by international organizations. Once those initial difficulties were overcome, a Committee on Rehabilitation and Reconstruction, immediately established by the Government, went into operation. Nevertheless, owing to the absence of machinery for the coordination of external assistance, many items were received in excessive quantities, whereas others were either insufficient or entirely lacking.

Two courses of action were open to the Pan American Health Organization: first, the Conference could charge the Pan American Sanitary Bureau with studying the possible establishment of regional machinery for the coordination of external assistance in case of disasters or emergencies; and second, the Organization could examine the possibility of technical assistance being offered to establish or strengthen national agencies under such circumstances.

Dr. Alvarez Gutiérrez (Mexico) said that, inasmuch as his country was constantly threatened by hurricanes, he considered the proposal of Peru to be most appropriate. Disasters were sometimes of such magnitude that no agency, whether national or international, could cope with them. It was also true that external assistance could not be used effectively unless the recipient country had a well-structured organization in operation. For that reason, Mexico had adopted an emergency relief plan six years ago. He did not believe, however, that a new international agency was required, since several already existed, among them the OAS Inter-American Emergency Aid Fund, and the Director of PASB participated in the Committee of that Fund.

Dr. Martínez Junco (Cuba) also considered it advisable to establish machinery of the kind described. His country was willing to cooperate, as it had following the Peruvian disaster, especially since Cuba was continually threatened by hurricanes and other sources of danger. It had therefore adopted a system for ensuring the civil defense of the various regions and for protecting the lives and livelihood of its people.

The approach taken in Document CSP18/26 was indeed sound, for nationwide readiness in the face of disasters of all kinds was essential, and it was likewise advisable to establish international machinery for coordinating the aid from those countries that fulfilled their commitment to international solidarity under such circumstances.

Dr. Juricic (Chile) said that, because of its broad scope, the item might better be examined in detail at a seminar convened by the Organization at a future date. As for Document CSP18/26, he believed it would be an error to look upon disasters as emergencies for which no preparation was possible. Chile had a good deal of experience in that regard, since it, like Peru, was struck by earthquakes with dismaying regularity. The document properly stressed the need for national plans to cope with such situations. Without such plans, it was impossible to organize efforts within the countries, much less international aid. It was essential that each plan be multidimensional. Adequate legislation had to be enacted well in advance of a disaster. Once the situation arose, the authorities in charge had to be invested with special powers. A permanent emergency relief organization, such as the one established in Chile, was indispensable. It was advisable to formulate regional programs which, though autonomous, were coordinated with the national program and included an inventory of resources in the areas of health, food supply, and especially communications, which were usually

³Official Document PAHO 103, 62.

disrupted as the result of such disasters. The Chilean experience suggested the advisability of bringing in personnel from other areas to replace the local authorities in the emergency area, since the latter were frequently affected personally and through their family ties. It was also well to lay the groundwork for post-disaster rehabilitation. Educating the public, especially through the schools, was essential. The establishment of permanent warehouses, as the Chilean Emergency Relief Office had done, was in order. The Chilean experience also proved that the food supply problem could be solved with relative ease, provided there were records of the location of food and authorization for its requisition. That experience showed that food donations should be curtailed as soon as possible, although it was desirable to organize centers where the people might obtain food.

In the field of health, the speaker said that, without going into detail, what was needed was prompt medical-surgical attention and measures for the prevention of epidemics, which were usually due to the disruption of the normal water supply, as was true of gastrointestinal disorders and typhoid. In winter the spread of respiratory infections in such cases was generally very serious. Furthermore, it had been noted that earthquakes produced mental health problems, but these could be alleviated by keeping the people occupied. It was, of course, also necessary to evacuate the injured and to re-establish regular medical services.

The remaining point, which was in fact the one under discussion, was international emergency aid. Random assistance requests created more problems than they solved, for, as the Delegate of Peru had pointed out, too much aid of certain kinds arrived and not enough of others.

Dr. Canales (Nicaragua) did not wish to remain silent when a subject of such importance as the proposal of the Delegate of Peru was being discussed.

Nicaragua also had a national emergency agency, established two years ago at the time of an earthquake which, though not of the magnitude of the one in Peru, nevertheless had a major impact on the population. That agency had operated very effectively during floods, volcanic eruptions, and other disasters. It was made up of both governmental and private organizations and had as its chairman the Minister of Public Health, thus ensuring the active participation of that Ministry.

As the Delegate of Mexico had pointed out, what was required above all else was to strengthen the national agencies, as a prerequisite to the establishment of international machinery.

Dr. Olguín (Argentina) said that the document submitted by the PASB and the statements made by the previous speakers had covered almost all aspects of the topic. Nevertheless, because of the importance of the subject, it was incumbent upon all delegations to express their views.

In case of disaster, it was essential above all to count on properly organized national agencies. Without a national emergency relief plan, international assistance would always have little effect. Any plan of that kind, of course, required sufficient flexibility so as to cope with any situation, since the consequences of a disaster could take many forms. The Delegate of Chile, for example, had mentioned the impact on the mental health of the population; and such repercussions should be anticipated in national emergency relief plans.

The plans had to take into account the characteristics of each country: its physical geography, means of communication, etc. Thus, for example, when the normal channels of communication were disrupted, amateur radio operators played an important role, since they were able to assume temporary responsibility for part of those services. In any case, it was essential to have both a sound local and regional organization and a central supportive organization.

On the international level, disasters or emergencies usually prompted widespread action in support of the affected country, as when the recent Peruvian tragedy had so deeply touched all the peoples of the Americas. Quite possibly the assistance offered in such cases lacked the necessary coordination, but there could be no doubt as to the unity of feeling among all the countries. As the document noted, there were already in existence a number of international agencies and arrangements whose assistance, theoretically, ought to suffice: the United Nations, UNICEF, the World Food Program, WHO, and in the Americas the Inter-American Emergency Aid Fund, in which the Director of the Bureau had participated from the very beginning. It was, however, necessary to strengthen the existing machinery, to increase coordination within the system, and to improve communication at the various levels, in order to produce a truly effective international arrangement capable of properly supplementing the operating capacity of the individual countries.

It was essential to bear in mind that, aside from the aid furnished by other countries and international organizations, in times of disaster the private sector became mobilized to the point of overtaxing all communications media. In the case of the recent Peruvian disaster, Argentina had found it necessary to establish,

by Executive Decree, a special committee to coordinate the outpouring of aid.

All this lent support to the notion, expressed earlier, that strengthening the national agencies was the prime objective. On the international level, rather than establish a new organization to take its place alongside those already in existence, what was needed was better coordination among them all. A detailed study of the problem was indeed in order, but with the present machinery in mind. In a recent survey conducted by the Red Cross, some 95 replies had been received from countries that indicated they already had national emergency relief plans.

Without going into the matter of the countries' post-disaster rehabilitation, it was worth noting that every emergency called for the immediate consideration of the medium- and long-term assistance on which the affected country might count if it was to achieve full rehabilitation. However, such assistance, whether furnished on a bilateral basis or through international organizations, had to meet the country's real needs, since an inadequate aid program could lead to further problems.

Dr. Ehrlich (United States of America) congratulated the Bureau on having produced an excellent document. He emphasized the importance of national planning for dealing with disaster situations. In that connection, he said it was difficult to imagine how an international agency could have coordinated the spontaneous outpouring of help that Peru had received from all over the world. Coordination was only feasible at the national level. Careful national planning, together with expert guidance and assistance from PAHO and other organizations, seemed to offer the most effective way of providing a rational system for meeting emergencies occurring in Member Countries.

Dr. Hyronimus (France) referred to his country's recent experience when on 20 August the island of Martinique had been devastated by a hurricane. Fortunately, the so-called ORSEC Plan had immediately been put into effect and, thanks to that prompt action, it had been possible to limit the effects of the disaster and to receive speedy assistance from the neighboring territories, especially Guadeloupe, Guyana, and the British islands in the Caribbean.

In such cases, the Department Prefect was able to count on the immediate support of the heads of the major services (the army, police, navy, health, public works, etc.) in order to coordinate all the resources; moreover, the telecommunications services were placed

under his direction, as a means of ensuring maximum efficiency in the operations.

That recent experience was proof that the formulation of national emergency relief plans was of vital importance.

Dr. Marchand (Peru) thanked the delegates who had spoken on a subject of such great concern to his country. The Peruvian Delegation wished to reiterate the expression of gratitude, offered by the speaker in his initial remarks at the Conference, for the generous aid furnished his country.

What concerned him at present, however, were the disasters which, unfortunately, might strike any part of the Americas in the future and which, because of their magnitude, might exceed the operating capacity of the affected country. The basic assumption had to be that each country was equipped with a more or less adequate national relief plan for coping with emergencies. Yet, no matter how effective such a plan, when more than 10 per cent of the population was affected, as in Peru, the entire resources of a country were insufficient.

That had been the experience of Peru, which his Delegation wished to bring before the Conference. In making the earlier proposal, he had in mind not the disasters whose extent could be anticipated but those that might be of such proportions as to overwhelm the entire aid machinery of a country.

The Peruvian Delegation favored the establishment of an international agency capable of coordinating aid from the various countries, since it considered that there ought to be an immediate relief arrangement to which the countries affected by disasters might have recourse without having to turn to a series of international organizations at such critical times, as was now the case. If such a coordinating agency existed, the aid furnished by the international community to the countries affected by disasters would doubtless be more rapid, effective, and constructive.

Dr. Ronco (Uruguay), having listened with much interest to the views of the various speakers, fully supported the Peruvian proposal.

Dr. Parra-Gil (Ecuador) also wished to endorse the observations so cogently expressed by the Delegate of Peru. It was not a matter of discussing emergencies that could be handled by the countries themselves, with their own resources and aid machinery, but those that far exceeded the countries' operating capacity.

The speaker therefore favored the creation of the machinery proposed by the Delegation of Peru, so that any country struck by a disaster might, through

established and effective channels, receive assistance from the international community. The Delegation of Ecuador fully supported the proposal of Peru.

Dr. Alvarez Gutiérrez (Mexico) believed that all the delegations were in basic agreement on the issue. He would therefore address himself only to the last point made by the Delegate of Peru, namely, the fact that certain disasters defy the efforts of any national agency. Unfortunately, what had occurred in Peru might happen elsewhere, and it was these extreme and unusual situations that should be anticipated at the international level.

True, the existing national machinery needed to be improved (without excessive bureaucratization), but at the same time the Pan American Sanitary Bureau, which maintained liaison with many other international organizations, might study the establishment of a mechanism which, though simple, would be capable of acting effectively in such emergencies.

The speaker believed, for example, that the Director of the Bureau might serve as representative of such a body, inasmuch as he was in touch with WHO and was a member of the OAS Committee for the Inter-American Emergency Aid Fund. He then asked whether the Bureau itself—with the necessary internal adjustments and with its role in such cases clearly defined—might not serve as the international machinery required.

Dr. Coll (Chief, Liaison and Public Relations Office, PASB) said that the statements made thus far clearly showed the importance of two points.

First, the need for a properly planned national organization as the basis for any future action. Such an organization, necessary when the emergency could be handled solely with the country's own resources, took on even greater importance when, because of the extent of the disaster, external aid to supplement those resources was forthcoming and had to be coordinated and channeled. The organization could also effect economies in resources, both domestic and external, by requesting and distributing only those items for which a real need existed. Thus, a well-structured national agency was the foundation for any future action.

The second point, which had been approached by all the delegations from various angles, was the advisability of establishing some sort of international machinery capable of supporting the national organizations. The difficulty lay in determining the nature of such a mechanism, in deciding whether it should serve as coordinator, as a channel for external assistance, as liaison between the Governments and other agencies, etc.

In any case, certain delegations—whose countries had, because of unfortunate geographic conditions, a good deal of experience with such situations—had pointed out the importance of a thorough, detailed analysis of the matter. In this respect, the Organization could undoubtedly play a major role by studying the problem with dispatch but with the care required, so that, should another disaster like the recent one in Peru occur—it was hoped that one never would—more effective action might be taken.

The Chairman asked the Rapporteur to draft a resolution on the item.⁴

*The session was suspended at 4:20 p.m.
and resumed at 5:00 p.m.*

Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970

Dr. Coll (Chief, Liaison and Public Relations Office, PASB) presented Document CSP18/24.⁵ The item had been proposed by the Government of Peru at the 64th Meeting of the Executive Committee in Document CE64/17,⁶ which appeared as Appendix 1 of the working document. Appendix 2 dealt with the PASB relief activities in Peru following the earthquake of 31 May 1970. In its proposal, Peru, besides expressing its deep appreciation to the Governments for the moral and material support they had furnished, requested PASB to do everything it could to provide the maximum support for the medical rehabilitation of the affected area. The Executive Committee adopted Resolution XXI,⁷ in which it referred to the Peruvian statement and to the Director's report on the steps taken by the PASB in connection with the emergency; expressed its sincere regrets to the Government of Peru; and decided to transmit Document CE54/17 to the XVIII Pan American Sanitary Conference.

As Appendix 2 of Document CSP18/24 indicated in summary form, the PASB concentrated its efforts in those areas in which it was best prepared to act. The Chief of the Zone IV Office, with headquarters in Lima, immediately got in touch with the local authorities and established a system for the exchange of information which operated without interruption. Urgently needed medical supplies were dispatched at once. Technical

⁴See p. 188.

⁵See Annex 11.

⁶See p. 453.

⁷Official Document PAHO 103, 62.

assistance was also made available, thanks to the presence of specialized personnel in various fields in the Zone Office.

Agencies of the United Nations and of the OAS were likewise provided with advisory services. The Inter-American Emergency Aid Fund assigned for medical supplies the sum of \$100,000, which was administered by the PASB.

What was extremely important was the fact that the work was carried out in close cooperation with Peruvian authorities, thus perhaps laying the groundwork for the kind of machinery now being proposed.

The Government of Peru, according to its Representative on the Executive Committee, wished to review its program of work insofar as PASB cooperation was concerned, and requested the necessary technical assistance for carrying out those programs.

Dr. Marchand (Peru) reiterated the proposal made by his country before the Executive Committee and noted that Dr. Coll's excellent report obviated the need for further comment on his part.

The Chairman asked the Rapporteur to draft a resolution on the item.⁸

⁸See p. 189.

Item 34: PAHO Award for Administration

Mr. Araya Borge (Adviser in Regional Administrative Methods and Practices, PASB) presented Document CSP18/8, Rev. 1,⁹ which described the background and nature of the PAHO Award in Administration, whose purpose was to encourage the administrative strengthening of the health services. At its 64th Meeting the Executive Committee adopted Resolution XX,¹⁰ approving the procedure and criteria for granting the award, as proposed by a working party composed of Trinidad and Tobago, Uruguay, and Venezuela, and requesting the Director to bring them before the XVIII Conference for its consideration.

Dr. Alvarez Gutiérrez (Mexico) proposed that the procedure and criteria for granting the award, as submitted to the Conference by the Director, be approved.

The Chairman requested the Rapporteur to draft a resolution on the item.¹¹

The session rose at 5:40 p.m.

⁹See Annex 7.

¹⁰Official Document PAHO 103, 61-62.

¹¹See p. 189.

THIRD SESSION

Monday, 5 October 1970, at 9:15 a.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

Item 32: III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control

The Chairman called upon Dr. Acha, Chief, Department of Human and Animal Health, PASB, to introduce the item.

Dr. Acha (Chief, Department of Human and Animal Health, PASB) noted that the documents related to Item 32 had been examined by the Executive Committee at its 64th Meeting, held in Washington in June-

July 1970. They included the agenda of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control; the final report of the meeting; the program and budget of the Pan American Foot-and-Mouth Disease Center; and the Report on Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center—Program and Future Financing of the Center, that latter document having been prepared by the mission appointed by the Director of the Bureau.

The Inter-American Meetings at the Ministerial Level were convened pursuant to Resolution XIX¹ adopted by the XVII Meeting of the Directing Council. The I Meeting had been held in Washington in 1968; the II, in Rio de Janeiro, Brazil, in 1969; and the III, in Buenos Aires, Argentina, in 1970.

The working documents for the meetings were transmitted to the Governments in advance, and the final reports were submitted to the Directing Council and the Executive Committee as well. The documentation on the first two meetings had been issued as PAHO *Scientific Publications* 172 and 196, respectively; that of the III Meeting would be issued as *Scientific Publication* 218.

From the start, and in keeping with the express desire of the Directing Council, the agenda of the meetings had included the study not only of the problem of foot-and-mouth disease but of problems related to rabies, brucellosis, hydatidosis, and bovine tuberculosis. The meetings had helped establish close cooperation between the ministries and national agriculture and public health services in the field of nutrition and had improved coordination with other international agencies.

The Inter-American Development Bank had extended loans to four countries in the amount of \$30 million for the prevention and control of foot-and-mouth disease and the zoonoses that were the cause of major economic problems, such as brucellosis, rabies, and bovine tuberculosis. It was hoped that by the end of 1970 the figure would exceed \$50 million. The countries had invested \$130 million in counterpart funds. Loan requests for national brucellosis control programs were being prepared in Colombia and Venezuela; for brucellosis and foot-and-mouth disease programs in Uruguay; and for brucellosis, hydatidosis, and rabies programs in Bolivia. The Pan American Foot-and-Mouth Disease and Zoonoses Centers, technical advisory agencies recognized both by the Inter-American Development Bank and by the United Nations Development Program, were assisting in the preparation of those projects.

The Special Meeting of the Ministers of Health of the Americas (Buenos Aires, 1968) had recognized² the importance of coordinated action by the health and agriculture agencies in their campaigns against those diseases, and at the Twenty-Second World Health Assembly, in Boston, the Member Governments had

requested³ the WHO Director-General to expand that agency's efforts in that area.

Although PAHO had been cooperating with the Governments in the control of foot-and-mouth disease for the past 19 years, the Ministers of Agriculture, since their I meeting, had been requesting additional technical assistance in support of zoonoses programs. Accordingly, the program of work had been expanded and the resources of the Pan American Zoonoses Center, currently funded through the PAHO and WHO regular budgets and contributions from the UNDP and the Argentine Government, had been increased.

Document CSP18/11⁴ included detailed budgets of the two above-mentioned Centers.

The II Inter-American Meeting recommended to the Governments that they make provision for zoonoses control programs in their agricultural development plans; moreover, it requested the Organization to submit to the III Meeting "a study on the assistance which the Pan American Zoonoses Center could render to the agricultural and stock-raising agencies for the Americas in their efforts to control zoonoses" and to request the Governments to study "the possibility of providing the Pan American Zoonoses Center with the necessary funds to expand and extend its activities for the benefit of the economy and the health of the peoples of the Americas."⁵

To implement that decision, a study mission appointed by the Director visited 15 countries between December 1969 and February 1970. The mission's report, submitted to the III Inter-American Meeting, examined the impact of the zoonoses on human health and such assistance as might appropriately be furnished the Governments. During August and September 1970, the mission completed the second phase of its assignment by visiting the 10 remaining countries in Central America and the Caribbean area. All the Governments stressed the need for an expansion of the Center's activities and indicated their willingness to contribute to its financing. In that regard, letters of support had been received from 20 Governments.

Appendix A of Document RICAZ3/14⁶ showed UNDP contributions to the project up to January 1972. It was proposed that contributions from the ministries of agriculture would begin in 1971, as shown in that Appendix, as a means of partially defraying expenses hitherto covered by UNDP funds. That agency had been

¹Official Document PAHO 82, 74-76.

²Official Document PAHO 89, 29.

³Resolution WHA22.35 *Off. Rec. Wld Hlth Org.* 176, 16-17.

⁴Mimeographed document.

⁵Resolution VIII. *Scientific Publication PAHO* 196, 12-13.

⁶Mimeographed document.

requested to expand the second stage of the project, so as to include new activities. If it agreed to do so, the expansion would take effect during the fiscal years 1972-1975, whereupon the Center's budget would be funded by a system of quota payments similar to that currently applied to the Pan American Foot-and-Mouth Disease Center.

The expanded project would include training; technical assistance in the planning, preparation, and execution of control programs (for which loan requests would be made to international lending agencies); supply of reference biologicals; diagnostic reference services; and applied research.

The training activities would in turn include courses in planning animal health programs, with emphasis on the zoonoses of major economic impact in the various countries, in order to help meet the need for standardization of control program procedures. An economist, already appointed, was currently drawing up a curriculum on the application of which he would later advise the Governments. The Governments of Argentina and Brazil had offered to test the new techniques in their respective countries, and the Latin American Institute for Economic and Social Planning (Chile) would assist in organizing the activities.

Document CSP18/11 contained the program and budget estimates of the Pan American Foot-and-Mouth Disease Center for 1971, 1972, and 1973. The budgetary increase, the same as that shown in *Official Document 98*, which the Executive Committee had examined at its 64th Meeting, amounted to approximately 6.5 per cent, a sum virtually sufficient to cover the rise in costs.

The III Inter-American Meeting, in Resolution II⁷ on the program and future financing of the Pan American Zoonoses Center, approved the program recommendations contained in the report of the special mission, in which the Governments were requested to give special attention to programs for the control and prevention of brucellosis, rabies, bovine tuberculosis, and hydatidosis, as well as the recommendations on the activities of the Center in education, research, and advisory services. It also supported "a proposal to the United Nations Development Program for extension of financial assistance to the Center as a regional project" and recommended to the XVIII Pan American Sanitary Conference "that it approve an additional appropriation of \$300,000 for 1971 to meet the requirements of the Center...in the understanding that the Ministries of Agriculture of the Governments of the Organization will

increase their financial support in accordance with the scale of assessments."

The Chairman invited Dr. Olguin to complete the presentation of the item.

Dr. Olguin (as Chairman of the Executive Committee) recalled that the document in question had been submitted during the discussion of the item at the 64th Meeting of the Executive Committee. In view of the Center's importance for the entire Region, the Committee had recommended⁸ that the Conference endorse its activities and the expansion not only of those aimed at combating the zoonoses as such but also collateral activities related to the social and economic impact of those diseases, to nutrition, and to health in general.

Now that implementation of the project was drawing to a close, substantial funding having come from the UNDP with counterpart funds from the Argentine Government, it was necessary to determine the means of financing the project from 1972 on.

The Executive Committee had recommended approval of both the arrangements made thus far and the new round of negotiations with UNDP in regard to continuing the financial assistance to the Center until the Governments could, through quota contributions, assume responsibility for funding the budget. The meeting had discussed the possibility of placing the Center on a regional basis by spreading among a number of countries the support hitherto provided by the Argentine Government, which had furnished most of the counterpart funds and which had expressed its intention, as host country, to continue making a substantial contribution in accordance with the criterion applicable to all multinational centers.

The Executive Committee had also taken note⁹ of the preparation of that proposal, which would be submitted to UNDP, and of the fact that the III Inter-American Meeting had recommended that the XVIII Pan American Sanitary Conference approve an additional appropriation of \$300,000 to meet the needs of the Center, as Dr. Acha had pointed out. As for that increase, which called for careful consideration, certain members of the Committee had felt that if payment of the quota contributions were assumed by the ministries of agriculture of the countries, difficulties might arise inasmuch as the disbursement of quotas to international organizations was within the province of the ministries

⁷Scientific Publication PAHO 218, 10-11.

⁸Resolution IX. *Official Document PAHO 103, 54-55.*

⁹Resolution XI. *Ibid.*, p.56.

of foreign affairs. Others were of the opinion that, since the ministries of health were responsible for relations with agencies of the kind in question, it would be best if the Governments were to make direct payment of the quota contributions, with the advice and consent of the above-mentioned ministries, regardless of the source of the funds.

In Resolution IX the Executive Committee had requested the Director to transmit to the XVIII Pan American Sanitary Conference the documentation on the III Inter-American Meeting and to furnish additional information on the programs carried out by the Center, and it had recommended that the Conference approve the additional appropriation of \$300,000 for 1971.

Dr. de Caires (United States of America) recalled that at the 64th Meeting of the Executive Committee, at which that resolution had been adopted, the U.S. Observer had already expressed doubts about the constitutionality of the procedure suggested for finding the extra financing for the Center. Operative paragraph 5 of Resolution IX was based on operative paragraph 4 of Resolution II adopted by the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, according to which the additional financing of \$300,000 was to depend on the ministries of agriculture of the Governments of the Organization increasing their financial support. That was contrary to the procedure in some countries, including his own, where the responsibility for contributions to international organizations lay, not with individual ministries such as agriculture, but with a foreign affairs agency, such as the State Department. Therefore, the format of the resolution raised the question of an important legal principle to which his Delegation was unable to agree. Furthermore, it did not feel that the need for an increase in funds was immediate as yet, since the Pan American Zoonoses Center would not be in a position to embark on a vigorous program until its recruitment needs were met.

Dr. Bica (Brazil) said that despite his Government's keen interest in the Center's activities it was concerned over the proposed \$300,000 increase, which would have to be met by an increase in the countries' quota contributions to PAHO. Inasmuch as such an increase would raise those quotas, his Delegation, acting on instructions, requested that the proposed PAHO budget of \$15,237,331 be adjusted in such a way as to include the additional sum contemplated for the Zoonoses Center but without raising the PAHO budgetary level for 1971.

The Chairman asked the Secretary if, in his opinion, the provisions of the proposed resolution would

constitute a financial obligation on the part of the Organization. If so, that might be more appropriately discussed under Item 27, Proposed Program and Budget Estimates of the Pan American Health Organization for 1971.

Dr. Williams (Deputy Director, PASB) said that such a procedure would be quite in order; the Committee's endorsement of the resolution would not involve any financial commitment on the part of the Organization.

The Chairman proposed that the Committee endorse Resolution IX on that understanding.

Decision: The draft resolution presented in Document CSP18/11 was unanimously approved.¹⁰

Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971

Item 28-a: WHO Regular Budget for the Region of the Americas for 1971

Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972

Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973

Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972

Dr. Horwitz (Director, PASB), referring to agenda Items 27, 28-a, 28-b, 28-c, and 29, said that his statement would be followed by an analysis of the budget structure by the Bureau's Chief of Administration. As the Executive Committee Chairman had already pointed out, the Committee at its 64th Meeting had conducted a detailed examination of the program and budget. The Director would have occasion to refer to the Final Report of that meeting (*Official Document 103*); to the Proposed Program and Budget Estimates (*Official Document 98*); to Document CSP18/17,¹¹ which contained the revision of the Proposed Program and Budget of the Organization for 1971; to his Quadrennial and Annual Reports (*Official Documents*

¹⁰See tenth plenary session, p. 128.

¹¹Mimeographed document.

101 and 102); and to the document entitled *Health Conditions in the Americas, 1965-1968 (Scientific Publication 207)*.

At the 64th Executive Committee Meeting the Director had outlined the frame of reference within which, in his judgment, health work would have to be carried out in the Americas from 1971 and 1972 on. For that purpose, several parameters might be used. The first parameter, a political one, included the pronouncements of the decade of the 1960's, culminating in the Declaration of the Presidents of America¹² and in the noteworthy Final Report¹³ of the second Special Meeting of the Ministers of Health (Buenos Aires, 1968), which projected the health function up to the end of the twentieth century. That document served as a source of constant reference and a guide to future action.

The second parameter, an economic one, was related to the growth of the countries' economies and over-all development and, with specific reference to the health sector, to the more effective utilization of available resources and to the application of outside capital in such priority areas as determined by the Governments.

The third parameter, a technical one, had to do with the Governments' difficulty in choosing, from among the never-ending developments in science and technology, those best suited to the conditions of their particular countries. The process was extremely complex, with moral, political, economic, and social implications. One of the goals of society was to provide all its members with continuing health care of the highest quality. No country in the world had yet achieved that goal. In the Americas, especially in Latin America and the Caribbean area, the body of existing knowledge and experience was not being fully put to use, owing particularly to weaknesses in the economic and social infrastructure and, more specifically in the health sector, to the shortage of qualified manpower, to the rising cost of operations, to the lack of practice in preparing feasibility studies, to inadequate statistics, and to the insufficiency of up-to-date scientific information on the dynamics of the problems requiring solution.

As for the administrative parameter, it was related to the gap between the hypotheses of change, the objectives in the light of which they were interpreted, and effective administrative capability for achieving those goals. Thus the urgent need for modernizing administration.

With regard to the legal parameter, consideration of Item 26 (Health Legislation) would shed light on the

backwardness and lack of coordination of legislation, in connection not only with recent problems but also with long-standing ones, with a resultant lack of uniformity in laws and regulations and in their application.

The educational parameter took the forms of university reform—not political reform or reform aimed solely at the redistribution of power, but reform designed to improve the teaching and learning process and to integrate all the health sciences.

An examination of the mortality parameter would lead inevitably to the conclusion that the death rate among children under 5 years of age was the major current health problem in Latin America and the Caribbean area, despite its variations from country to country. Given the health conditions in the Americas, it was well to bear in mind that in Middle America 41.1 per cent of all registered deaths were in the under-5 group, and in South America the percentage was 34.7. Not even the 4.7 per cent figure for the countries of North America was the best when compared with that of other highly developed countries in the world. True, the situation had improved, but to a lesser extent than in the 1-4 year group, with infectious diseases continuing to be a major cause of death. As the Annual Report for 1969 showed, even though the same topics were dealt with time and time again, a process of development was apparent. Attention was still directed to communicable diseases, basic sanitation, malnutrition, chronic diseases, and accidents, while congenital disorders, mental health, and dental health—all problems of varying importance within the countries—were gaining recognition. The solution to those problems required several kinds of resources, including planning, organization and administration of health services, education and training of professional and auxiliary personnel, research, national financing, and supplementary outside capital.

The current programming of the work of PAHO and WHO in the Americas was, in accordance with the mandate of the Governing Bodies, the natural outgrowth of the planning process. The priorities of the plan, the hypotheses of change, and the measurable objectives were the bases for determining which programs required the assistance of WHO, PAHO, and other international organizations. In the absence of a plan or strategy, the system of quadrennial projections was a viable substitute. The speaker said that when the item on the PAHO/WHO general program of work for 1973-1977 was discussed, further comments would be made on that system, which has just been put into effect in the current year; it was for that reason that the 1971 program was not based on such projections. It was hoped that they would be taken into account from

¹²OAS Official Records OEA/Ser. C/IX.1 (Eng.), 1967.

¹³Official Document PAHO 89.

1972 on, and that the corresponding program would be revised in the light of the Governments' aspirations and desires for the subsequent four years. Under that system, readjustments for each quadrennium would be based on annual evaluations. To that end, modifications in the current budget terminology were likely to be introduced. Any proposed change in budget nomenclature would in due course be submitted for the consideration of the Executive Committee, the Directing Council, or the Conference, as appropriate. Such a change would necessarily be in terms of development, with the Organization's budget terminology gradually highlighting conditions in the health sector as related to problems of advanced stages of development and to the constant acquisition of technological data.

For 1971, 549 projects were being submitted to the Conference for consideration; 53 of them were either new or reactivated from 1970, some had been eliminated by decision of the Governments, and 42 were scheduled for completion in 1970.

Document CSP18/17 included the \$300,000 mentioned in connection with the Pan American Zoonoses Center. With that exception, Table 2 of that document was the same as Table 2 on page 7 of *Official Document 98*. Both retained as major headings Protection of Health, with its subcategories communicable diseases and environmental health; Promotion of Health, which included general services and specific programs; Development of Educational Institutions; Program Services; Administrative Direction; Governing Bodies; and Increase to Assets. For 1971 the proposed allocations were the following: 32.8 per cent for Protection of Health; 39.7 per cent for Promotion of Health; 9.6 per cent for Development of Educational Institutions; 4.8 per cent for Program Services; 10.7 per cent for Administrative Direction (including 5.3 per cent for administrative services as such); 1.6 per cent for Governing Bodies; and 0.8 per cent for Increase to Assets. Inasmuch as the budget had been drawn up on the basis of programs, it was well to bear in mind that each category and allocation covered all activities, whether project-related, national, multinational, or regional. As for the multidisciplinary projects, the distinction among the various categories was somewhat artificial, owing to the slow progress in international operations research. Thus, for example, a portion of the funds allocated to medical care was earmarked for nursing.

Because conditions varied from country to country, the budget reflected the continental program and each of the specific projects, whether regional, intercountry, or national. An allocation of 23 per cent of the budget was proposed for communicable diseases; in 1969 and

1970 the percentages for that category were 24.9 and 22.0, respectively. Of that sum, malaria was allotted 8.3 per cent, which was comparable to the amount actually invested in 1969, even though the earmarking for 1969 had been as high as 10.5. That evidence of a cutback in activity was due to the financial situation of the WHO and PAHO program. The speaker thought that, in view of the full discussion of the matter by Committee II, nothing more needed to be said, aside from calling attention to the problem confronting PAHO and the WHO Regional Office for the Americas with regard to the future of that program.

The problem was even more complex because of the new strategy, which had led to a change in the joint policy of WHO and UNICEF; that shift in approach had in turn created a climate of uncertainty in some countries of the Americas in which the programs had not produced the desired results throughout the national territory. The speaker recalled that for the past five years, an additional appropriation of \$200,000 was included in the PAHO regular annual budget as a means of gradually replacing the voluntary contributions. Although such contributions had come mainly from the Government of the United States of America, other Governments of the Americas had been no less generous. Thus far, the United States Government's voluntary contributions to PAHO had totaled \$21 million, which had provided major support for the continental malaria eradication program. That catalytic effect had led the Governments to invest enormous sums, on the order of \$600 million. The Governing Bodies considered it appropriate for the malaria program to be financed through the PAHO and WHO regular budgets, but because of the magnitude of the investment it was anticipated that the arrangement would extend over a 10-year period. Owing to circumstances confronting each Government, additional voluntary contributions could not now be expected, precisely at a time when a drastic reduction in staff had lowered the minimum effective limit of international financial aid to some \$2.4 million. During fiscal year 1971-1972 the deficit for the countries that were following that budgetary plan would amount to \$340,000. Furthermore, the fact that in certain countries UNICEF had also reduced its contribution to the malaria program and might even curtail its essential assistance further complicated the already far from simple financial picture. It was vital that that venture, which during the past decade had benefited more than 60 million persons, be carried to a successful conclusion. There were still 56 million persons exposed to the risk of malaria, whose condition had undoubtedly improved since the start of the

campaign, and growing numbers were rejoining the work force. According to continuing research on the countries' real capability of going on with the program, failure to carry it to its conclusion would mean within a very few years the loss of all the gains that had been made; the countries located in the tropical belt of Latin America and the Caribbean area especially would suffer from a high endemicity rate, with serious epidemic outbreaks and a return to the difficult situation of the past.

As far as PAHO and WHO were concerned, a formula was needed for absorbing the \$840,000 deficit so that, beginning in 1973 or 1974, the PAHO and WHO regular budgets would be able to cover that \$2.3 or \$2.4 million minimum. Otherwise, the Governing Bodies might do well to decide whether it was worth while investing the budget allocations in the malaria campaign, since the effect would be minimal. One might wonder how the assigning of funds to other categories might limit the damage already caused. It had been suggested that in order to make up the deficit PAHO might obtain a loan, which could be financed provided an annual appropriation of \$200,000 were continued after the minimum operating level had been reached. There would be no difficulty in liquidating the loan within four or five years, whereupon the Organization's own resources could be drawn upon. The Organization was making and would continue to make every effort to prevent such a crisis.

The Director said that the smallpox situation had already been fully covered. As for tuberculosis, leprosy, and venereal diseases, much remained to be done. The criterion was to strengthen the general and local health infrastructure, with the likelihood of increasingly promising results. Thus far the Organization's contribution was very modest, despite the slight increase in the allocations for these those diseases. The essential factor was the broadening of the scope of the programs through the efforts of the Governments themselves.

The Government of Brazil was interested in establishing an expanded program for the prevention and control of Chagas' disease and schistosomiasis within the whole or part of one state; to that end, it planned to turn to the UNDP, in which case the pertinent figures, to be examined in due course by the Executive Committee, might require modification. The Argentine Government was extremely interested in a housing program in an area of high incidence of Chagas' disease; should special funds for that purpose be forthcoming, the relevant budget figures would likewise have to be altered. The same was true of the Uruguayan Government with regard to a hydatidosis program. In that

connection, it was worth stressing the fact that the budget was not static and hopefully would never become so—that at each meeting of a Governing Body proposals would be prepared at the Governments' initiative and with PAHO assistance and, when it proved necessary to do so, the relevant budget figures would be adjusted accordingly.

To the 9.8 per cent for Environmental Health should be added the 1.7 earmarked for Environmental Sciences in category III (Development of Educational Institutions), thereby bringing Environmental Health to an investment level of 11.5 per cent of the budget, including all funds.

The speaker drew to the attention of the Committee the three alternatives proposed for the decade beginning in 1970, in which the problems of basic environmental health would have to be considered. Despite the impressive progress made in that area during the past decade, new problems had arisen as the result of industrialization, urbanization, accelerated migration, pollution, noise level increases, etc. In that sense, the guidelines to be drawn up by the Conference were awaited with much interest. It might become necessary to adjust certain budgetary allocations in the post-1972 period.

As for *Aedes aegypti*, Dr. Horwitz mentioned the instructions¹⁴ issued by the Directing Council at its XIX Meeting, the opinions and recommendations of a Study Group on the prevention of diseases transmitted by that vector, an excellent report on the incidence of dengue in the Americas, and the proposal of a contracting firm for a cost-benefit analysis in relation to the *A. aegypti* problem. On the basis of that documentation, the Conference was in a good position to set guidelines for future action. Meanwhile, it was worth noting that in 1969 the sum of \$394,080 had been invested, whereas the figure of \$523,155 was proposed for 1971 because of constantly increasing requests for assistance, especially in the countries and territories of the Caribbean. It was hoped that the Government of Jamaica would present its project on the eradication of the vector to the UNDP, so as to obtain financial aid from that agency. Were the project to be approved for 1971 or 1972, it would be necessary to increase the relevant figures in the appropriate budget categories, in the understanding that within the United Nations System the WHO would be the agency responsible for implementation of the project.

Dr. Horwitz emphasized that the basic objective of the activities for the promotion of health was strength-

¹⁴Resolution XXIII. *Official Document PAHO 99, 72-73.*

ening and broadening the infrastructure of that sector in the Americas through projects in which the Organization offered assistance. That program classification included 63 projects. It was perhaps the one subject to the greatest change from year to year, because during the past decade new health ministries had been established; legislation had been revised; new health regulations had been promulgated (in Peru, for example); the ministries or agencies of which they were composed had undergone reorganization; and national health systems had been created. Liaison with other agencies that offered medical services, such as the social security institutions, had been improved. Attempts had been made to modernize administration, particularly where health planning and implementation of the programs in question were being carried forward. Interest had been shown in new methods and techniques for making the organizational structures more effective. Construction and availability of resources had increased, as had coverage. Although the terminology remained unchanged, the substance of specific fields had undergone enormous change in the past 10 years in response to the interest shown. The process of education and training went forward without interruption. For all those reasons, it was proposed that nearly 40 per cent of all funds be assigned to that category; as the WHO Director-General had so aptly stated, without sound services that were well administered by professional and auxiliary personnel, progress, at least in that key area of development, was impossible in the Americas.

Nursing was assigned 1.7 per cent of the funds for General Services and 1.4 per cent of the funds for Development of Educational Institutions, aside from approximately one-third of the amounts included in the medical care projects, since the role of nurses was of major importance. Moreover, it had been suggested to the Governments that a system be adopted for dividing nurses into three categories, as had been recommended by an expert committee composed of nurses, health administrators, and planners, in the interests of a better organization of nursing services and speedier action in emergencies. The training of nursing auxiliaries had been intensified; although the speaker had earlier quoted the figure of 16,000, he believed the number trained in the past four years at courses in which the Organization had assisted to be far larger. As certain time-activity studies had shown, and as the Quadrennial Report had indicated, it was an error to assign such valuable professionals as nurses to manual tasks that might just as well be performed by auxiliary personnel, especially in hospitals—a wasteful practice that the speaker believed was virtually universal. At the same time, the means of

incorporating the nursing function into the national planning process and of planning that function itself had been devised. There were sufficient data on how to proceed in that field; no time should be lost, for not only was there a shortage of nursing personnel in proportion to the number of physicians but it was likely that medical personnel were being assigned tasks that fell within the nursing province—although, fortunately, there were some countries in which that situation did not exist. It was necessary to bear in mind also that in certain countries nurses' remuneration was a problem, but the importance of the nurse's role and the sacrifices it entailed called for encouragement in the form of the highest possible remuneration.

As for laboratories, considerable progress could be reported, but the situation remained far from satisfactory. The progress took the form of growing interest in many countries in modernizing techniques for the production of biologicals, especially those which were not yet on the market, which were essential for combating major diseases, and on which the countries of the Region depended. In the past 10 years real advances had been made in Ecuador; in Colombia (where an excellent institute, in a modern building, had been inaugurated); in Peru, whose Government had submitted to the Inter-American Development Bank a project for financing a large institute devoted to the production of biologicals, to pathological anatomy, and to nutrition; and in Mexico, whose proposal for expanding the production of biologicals had been approved by UNDP and where it was hoped that beginning in 1971 it would be possible to produce polio vaccine to meet not only domestic needs but also those of other Latin American countries. It was expected that UNDP would approve the Cuban Government's project next January; moreover, the Governments of Chile and Venezuela were interested in improving their institutes. Mention was due the Central American Institute for the Production of Biologicals, with headquarters in Guatemala City, for which the Guatemalan Government had submitted a \$1 million loan application to the Central American Bank for Economic Integration; the speaker had just learned that the Bank accorded a very high priority to that project. It was therefore apparent that in the next decade there would be no shortage of high-quality and strictly controlled vaccines for the common diseases. The gaps that remained were rather in disease diagnosis and in the network of diagnostic laboratories, an area in which—with some exceptions—progress had been slow. The work carried out by the Venezuelan Government was extremely interesting; the Government of Guatemala had established a network covering a large number of

local agencies; the Government of Chile had set up a network of laboratories, particularly those concerned with tuberculosis, which encompassed some 140 local services, thus improving the quality of diagnosis and at the same time reducing mortality due to that disease; and the State of São Paulo, Brazil, offered another example of that kind of network.

Nevertheless, that basic service, without which statistics and health plans would be inadequate and the control of communicable diseases delayed, was far from being generally available. It was therefore hoped that significant advances might be made in that field in the next decade. In 1969 major efforts had been undertaken in the area of health education; the speaker called the Committee's attention to Table 42 in the Quadrennial Report (page 139), on health education personnel in the Americas in 1967. For each country listed in the table, the minimum manpower requirements were shown, the personnel being divided into two categories: health education specialists and other experts employed by the health ministries or departments, and technicians serving in related governmental and voluntary agencies. It was worth noting that in Canada there were 7 specialists in the first category, whereas a minimum of 8 were required; there were 511 in the United States of America, where the minimum requirement was 714, according to data which included Puerto Rico; there were 232 in Latin America, where the minimum required was 740; and there were 8 in the Caribbean area, where the minimum was 28. Though perhaps less acute, the same deficiencies were noted in Latin America and the Caribbean area with regard to other types of technicians in health education services, even when personnel assigned to other governmental and voluntary agencies were taken into account. It was necessary to point out that, in the current era of instant communication, the field of medicine lacked adequate means of disseminating data on technological advances, and the Organization was willing to do whatever it could to speed up the process. In 1969 guidelines had been prepared for incorporating health education into the planning process, and to that end a seminar had been held in Paracas, Peru. An advisory committee had drawn up standards for evaluating such programs, and the standards currently in effect would have to be modified to ensure compatibility with the maternal and child health and family planning programs. The speaker said that although investment funds were limited, he believed that the most urgent problem confronting the countries was training key technicians and providing them with the above-mentioned information and resources.

*The session was recessed at 10:40 a.m.
and resumed at 11:10 a.m.*

Dr. Horwitz (Director, PASB), continuing his statement on the program and budget, noted a reduction in the item for Statistics from \$893,761 in 1970 to \$748,480 in 1971. Included were funds for the Inter-American Investigation of Mortality in Childhood, which was an extension of the study on mortality in adults, that earlier work having already been published and distributed.¹⁵ The current investigation was being carried out in 15 areas in 10 countries of the Hemisphere, from Canada to the southern part, and it involved a series of variables that would shed considerable light on the factors related to the major health problem confronting Latin America and the Caribbean area. Upon evaluation of the first group of deaths, a preliminary report had been submitted to the PAHO Advisory Committee on Medical Research; copies were available to anyone interested in the subject. It was expected that the study, which contained a considerable amount of data and their analysis, would be published about 1972.

Administrative Methods showed an increase from \$312,260 to \$520,514, in response to a growing number of requests from Governments. Fortunately, there was no longer any doubt as to the need for modernizing administrative procedures, which were an essential factor in the development of health work. Funds had been requested from UNDP in order to develop a five-year program for training administrators in health services organization and administration; approval of a regional program would result in an increase in the relevant categories. In that regard, Dr. Horwitz noted that certain Governments were required by their constitutions to submit program budgets, in accordance with current practices.

The reduction in Health Planning bore a relationship to UNDP contributions to the Pan American Health Planning Program, in Santiago, Chile, which worked closely and effectively—indeed, shared a building—with the Latin American Institute for Economic and Social Planning (ILPES) and the Economic Commission for Latin America (ECLA). With the support of the Governments of the Americas, the Director of the Program, Dr. David Tejada-de-Rivero, would undoubtedly make of it a highly advanced center in health planning. The University of the West Indies was currently conducting the first health planning course in English, under the

¹⁵ *Patterns of Urban Mortality. Scientific Publication PAHO 151.*

auspices of the Governments of that area and the Pan American Health Planning Program. If allowed to continue, that training activity would benefit other countries as well.

If Part A of the Promotion of Health category made up the basic general infrastructure, Part B unquestionably made up the basic specialized infrastructure. Even though the Maternal and Child Health allocation amounted only to \$670,920, the supplementary nature of that sum should not be overlooked, nor should its basic orientation toward education, training, and research activities. To meet the needs of maternal and child health services as such, it was necessary to draw on funds earmarked for projects in related fields, especially nutrition, sanitation, nursing, and general public health services.

Dr. Horwitz recalled that last July he had attended the inauguration of the Latin American Center for Perinatology and Human Development, under the direction of Professor Roberto Caldeyro-Barcia and sponsored by the Ministry of Public Health and the University of Uruguay, together with the Organization. That Center, which was attended by fellows from all parts of the Hemisphere and which was beginning to provide advisory services to the countries of the Americas, was concerned not only with disseminating simple procedures geared to that extremely sensitive period in the human reproduction process but also with conducting research on the variables that affect pregnancy, childbirth, puerperium, and the first days of life.

The sum allocated to Nutrition had risen to \$2,245,402. The speaker emphasized that the problem of malnutrition in Latin America would not be solved until Governments adopted a food and nutrition policy that placed greater stress on the biological needs of the people than on economic considerations. In other words, given the population growth, until Governments determined the essential nutrients for a balanced diet, the problem of malnutrition would persist in the Latin American countries.

In collaboration with FAO and UNICEF experts, the Organization had submitted to the Governments for consideration the bases for drawing up and implementing such a policy. Beginning in 1971, seminars would be held for groups of countries, in order to discuss how the policy might take the form of a program and be carried into effect. True, the obstacles were great and problems of a delicate political nature were likely to arise, but it was no longer possible to witness the tragic spectacle of large numbers of children dying in Latin America, not so much because of infectious diseases as because of underlying malnutrition. More-

over, those who managed to survive were scarred for the rest of their lives. That in no way meant interference in each Government's decisions regarding its agriculture policy; the aim was rather to see that the greatest possible number of children, adolescents, mothers, pregnant women, and other adults received normal, adequate diets.

In regard to the Nutrition Data Retrieval and Analysis Center, Dr. Horwitz said that the valuable cooperation of the Argentine Government had made it possible to work with experts from that country and from FAO in the preparation of a report for the UNDP. What was involved was truly a data bank, covering the entire production-to-consumption process, in order to arrive at a basic approach; then, through experience, the formulation and implementation of the food and nutrition policy might be gradually refined and rounded out. The provision and use of those data would, of course, be entirely up to the Governments.

In 1969 the XIX Meeting of the Directing Council resolved¹⁶ to carry into effect a supplementary food policy, taking advantage of the resources of the World Food Program. There were currently 24 projects under way and 33 in preparation; in other words, the resources of the Program were being used in 57 projects, directly or indirectly health projects but in all cases related to the development process. The Program's contribution had of course to be taken into account in the formulation and implementation of that policy. Similarly, research would have to be carried forward on the utilization, consumption, and availability of foodstuffs, such studies being undertaken jointly by the Institute of Nutrition of Central America and Panama (INCAP) and the Caribbean Food and Nutrition Institute, under the auspices of Governments, the University of the West Indies, PAHO/WHO, and FAO.

Interest in mental health was on the rise; despite the Organization's limited resources, funds for that program would be increased by \$75,086 from 1970 to 1971. Besides alcoholism and drug use, the program would deal with epilepsy and its incidence, and improvement in patient care and related matters would also be of concern.

In the field of dental health, the center for the quality control of dental materials had begun operations, with the support of the Government and the Central University of Venezuela. Moreover, water fluoridation projects and dental epidemiology and manpower studies were under way in Venezuela and Argentina.

¹⁶Resolution X. *Official Document PAHO 99*, 60.

As for radiation and isotopes, guidelines had been drawn up for radiological protection and for legislation and regulations and the coordination of research in that field. The level of radioactive contamination of air, water, and foodstuffs continued to be measured. In 10 countries, 12 stations were operating to measure radioactive air pollutants and 6 to measure radioactive contamination of milk. The samples were tested by the U.S. Public Health Service.

The speaker emphasized the work being done at the University of Panama in the area of food control in Central America. He also noted that the Government of Uruguay had announced its intention to make all necessary arrangements to install the Pan American Drug Quality Institute in Montevideo; it would be a center for education and research and, eventually, reference, for any Government requesting its services. The need for such a center, which would begin operating either in 1971 or in 1972, was beyond question.

Dr. Horwitz then dealt with coordination of national health systems. Many of today's 14,000 hospital administrators were unfamiliar with progressive patient care procedures and with operations research; however, there was no doubt that the Latin American Center for Medical Administration in Buenos Aires would gradually become a school for the advanced training of high-level administrators in countries of Latin America and the Caribbean area, where in all likelihood health investments currently exceeded \$3 billion.

The 1971 allocation for Health and Population Dynamics was considerably lower than that for 1970, pending approval by the U.S. Agency for International Development (AID) of a new investment of more than \$1 million in Colombia's program, which had made a successful start. Such approval would raise the figures to the 1970 level; the distribution of the remaining funds was the same as for 1969. Thus far, 14 Governments had expressed interest in collaborating with the Organization, which was offering them full assistance. It was hoped that in 1971 operations might be extended also to Ecuador and Haiti (a population project for the latter country having been submitted to the United Nations Special Fund for consideration) and that activities might be intensified in Central America, the Caribbean area, and Guyana.

A proposal had been submitted to AID in connection with a five-year plan for updating the information on human reproduction and its effects currently available in medical schools and other institutions concerned with the health sciences. The six-week courses would be held in Argentina, Chile, and Uruguay, mainly for the benefit of professors of physiology, pediatrics, obstetrics, pre-

ventive medicine, etc. Courses would also be organized for nurses, midwives, and auxiliaries, with simplified methods being tested for use by the latter group. All those activities were entirely within the framework established by the Organization's basic policy, in keeping with the decisions of the Governments, that policy being to suggest that the activities be incorporated into maternal and child care programs, with persuasion rather than coercion being the watchword. The basic principle was that each family should be free to decide on the number of children it wanted and on the spacing of births.

That budget category was therefore one which, if the efforts under way proved successful, could show significant changes in the figures; if so, the Executive Committee and the Directing Council would be informed in due course.

The Development of Educational Institutions was closely related to the policy of establishing schools of health sciences. For 1971, 130 projects were proposed; it was worth noting that the organization and administration of instruction in that field had assumed the nature of a separate discipline that warranted exclusive attention. The Americas could do well without the traditional medical school dean who divided his time among his private practice, the health service, and the university, the latter receiving the least of his attention. Influenced perhaps by that approach, some students had also begun to divide their time between the university and other activities, to the detriment of their education. Everyone—faculty, students, and especially deans—should be committed to a single course of action.

Dr. Horwitz said that, in view of his earlier remarks and in light of the fact that health ministries would have departments of education in the health sciences, a six-week course for a select group of professionals dedicated to that discipline would be held at Headquarters, beginning in January 1971. Through round-table discussions the course would take up modern pedagogical trends in the behavioral and health sciences, which were vital to the training of the new group of professionals and auxiliaries needed in Latin America. That training process would undoubtedly take on the characteristics of an institution, for it was fitting that the Organization gradually become in a real sense a health university of the Americas. A university not because instruction was offered within its walls (although some courses would in fact be held at Headquarters), but because, in the Greek tradition, a catalytic force would be applied to current educational trends. It should be noted in that connection that, as the Sixth Conference of Directors of the Schools of Public

Health (Medellín, Colombia, 1969) had pointed out, there was an urgent need to modernize those institutions and their faculties, in accordance with the new public health concepts of an era of instant communication. A plan to achieve that goal would be proposed in due course.

Category IV in the proposed program and budget dealt with Program Services, which were also essential to the work of the Organization. Included were such activities as the *Scientific Publications*, the *Boletín de la Oficina Sanitaria Panamericana*, the journal *Educación Médica y Salud*, the *Gazette* (whose distribution was not limited to specialists in the health field), the *Official Documents*, audiovisual materials, fellowships, etc. All those activities required greater investments; thus a sum representing 4.8 per cent of the total program allocations was being proposed.

The item for General Expenses increased to 4.6 per cent and Administrative Services to 5.3 per cent. Those two subcategories under Administrative Direction included the administration of the Organization's properties: the Headquarters building, the Governor Shepherd building (which was being administered with Directing Council approval and which was expected to produce annual returns amounting to \$100,000, which would, as agreed, be applied to the Termination and Repatriation Entitlements Fund), and the Zone Office properties in Caracas, Rio de Janeiro, Lima, Buenos Aires, and Guatemala City.

An amount equal to 1.6 per cent of the total budget was proposed for meetings of Governing Bodies, as was a 0.8 per cent increase to assets, reflecting the changes stemming from resolutions adopted by the Directing Council in 1969 and 1970 and the proposal to increase those assets, in 1971 and 1972, to a safety level.

Table 4 of Document CSP18/17 showed the distribution of personal services, fellowships, and participants. For 1971, a total of 1,413 professional and local posts, 1,183 short-term consultants, and 1,163 fellowships (377 long-term and 786 short-term) was proposed. Without going into the breakdown of those fellowships, it was sufficient to state that it was planned to earmark funds for fellowships for professionals who would study in their own countries, and that a start had been made on the selection of candidates for institutional fellowships, i.e., those designed for carefully chosen individuals who would carry out five-year special programs in teaching and research, particularly in teaching institutions.

In 1972 the professional and local posts would number 1,414 (virtually the same as in 1971); the figures for short-term consultants (1,225) and for

fellowships (1,158) would likewise remain at practically the same level. The precise manner in which those funds would be used would depend on the analysis to be made of the quadrennial projections—which constituted the internal programming of the Organization—because the number and purpose of the allocations could change in accordance with Governments' decisions, based on a prior assessment of the proposals of their respective ministers.

Table 3 of Document CSP18/17 showed the program budget in detail. For 1971, it included 62.3 per cent for Advisory Services, 13.6 per cent for Development of Human Resources, 8.3 per cent for Research, and 15.8 per cent for Indirect Program Costs. The figures reflected the Organization's efforts in the field of research, and it had been suggested that each country invest between 0.5 and 1 per cent of its gross national product in general, technical, and scientific research, with the corresponding amount for health. The Organization believed that the machinery needed for handling that level of investment was available.

The sums for Development of Human Resources referred mainly to teaching institutions. If all the courses for professional and auxiliary personnel were taken into account, 30 per cent of the Organization's total funds could be estimated as being earmarked for education.

A table analyzing the sources of funds would be reviewed in detail by Mr. Lannon. The only additional comment necessary was that the Committee's decision was to be on the regular budget of PAHO for 1971, on the provisional draft of the proposed program and budget estimates of PAHO for 1972, and on the proposed WHO estimates for 1972, in order to transmit them to the Director-General for consideration by the Executive Board and the World Health Assembly. The Director emphasized that especially with regard to the UN Special Fund the figures for 1971 and 1972 were subject to change because of the status of current projects. In addition to the projects already mentioned, there was the Computer Center for Health inaugurated last April, thanks to the valuable cooperation of the Argentine Government; in that Center, high-level health officials of the Americas would become familiar with the latest developments in systems analysis. That project was scheduled for approval next January. Mention had already been made of Cuba's project regarding institutes for the production of biologicals; Guatemala's project in conjunction with the Central American Bank for Economic Integration; the possibility of establishing a Pan American Drug Quality Institute in Uruguay; the proposed establishment of laboratories for the pro-

duction of biologicals in Chile, Peru, and Venezuela; the second phase of the Pan American Zoonoses Center; the second phase of the project for research and teaching in sanitary engineering and other current projects in Venezuela; the Nutrition Data Retrieval and Analysis Center, etc. All those projects would lead to changes in the budget figures, as would the generous contributions of the United States of America and perhaps of certain European countries in expanding the maternal and child health and family planning activities. What was being examined, therefore, was the budget at the present moment; it was not static but, as it should be, basically dynamic.

The Conference should also be informed of the proposed Pan American Network for bibliographic information, which, judging by the trials conducted by the Regional Library of Medicine (São Paulo, Brazil) among 110 institutions with health sciences collections, might become a reality. It was hoped that a proposal supported by all the Governments of the Americas, whatever the status of their bibliographic data, might be submitted to the UNDP, since the purpose was to make available to scientists everywhere sources of information that might help solve problems they encountered in their work, teaching, or research. The decision of the Inter-American Development Bank with regard to the loan for the textbook program was expected shortly (although the program was going forward with its own funds). Mention was also due the generous offer of the Peruvian Government to furnish an appropriate building to serve as permanent headquarters of the Pan American Sanitary Engineering and Environmental Sciences Center, which was already in operation.

The Director concluded by apologizing for what might have been an unduly long statement, but he regarded the budget to be so vital to the Organization that he felt bound to furnish the Committee all necessary background information on which to base its decisions.

The Chairman thanked the Director for his excellent presentation of the program and budget and invited the Chief of Administration to analyze the structure of the budget.

Mr. Lannon (Chief of Administration, PASB) said that, as the Director had reviewed the substance of the proposed program and budget, his own task would be to describe the structure of the budget presentation and to outline certain budgetary details.

The program and budget documentation comprised *Official Document 98*, covering the period 1969 through 1972; Document CSP18/17,¹⁷ dealing with the

PAHO regular budget for 1971; Document CSP18/19,¹⁷ which gave supplementary information concerning the WHO regular budget for 1971; and Document CSP18/25,¹⁷ which reported the action of the Executive Committee on the PAHO program for 1972.

The Conference was required to take two primary budgetary actions: as the Governing Body of PAHO, it had to make an appropriation and authorize the corresponding quota assessments for 1971 for the PAHO regular program; further, as the WHO Regional Committee for the Americas, it had to make recommendations to the Director-General on the program for the Americas to be included in the 1972 WHO regular budget. In connection with the first task, the Conference, acting as the WHO Regional Committee, was invited to review program revisions in the WHO program for 1971 in the Americas, as summarized in Document CSP18/19. With regard to the second task, the agenda included the provisional draft of the 1972 program and budget of PAHO so that the Conference could view the WHO and PAHO proposals as an integrated program for the Americas. The Conference was invited to provide guidance on the program content of the PAHO regular budget for 1972. No action was needed on the portion of the program and projects included in *Official Document 98* that was to be financed from other sources.

In addition, acting once again as the WHO Regional Committee, the Conference had to review and recommend the general program and direction of effort of the Regional Office for 1973, which was dealt with in Document CSP18/20.¹⁸ Also, it might wish to review the 1971 and 1972 projects covering more than one country which were proposed for financing under the Technical Assistance portion of the United Nations Development Program. Those relating to the Americas were described in *Official Document 98* and data on the various worldwide projects had been sent to the ministries of health of the Member Governments for review and comment.

The proposed program and budget of the Organization for 1971 had been considered in draft form at the XIX Meeting of the Directing Council (1969), which had endorsed the provisional program and had requested the Director to use the draft as the basis for the final proposal after further consultation with Member Governments (Resolution XIII).¹⁹ Those consultations had been held and the results were embodied in the

¹⁷Mimeographed documents.

¹⁸Mimeographed document.

¹⁹*Official Document PAHO 99, 63.*

revised program and budget proposal published as *Official Document 98*. The Executive Committee had reviewed the new proposal in detail and its recommendations were before the Conference. The recommendations were based not only on its review but also on the report and recommendations of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control. The Director had commented on the resulting increase of \$300,000 in the PAHO regular budget over the figures shown in *Official Document 98*. The increase was reflected in a revised draft appropriation resolution, quota assessment plan, distribution of funds table, and program tables, all given in Document CSP18/17. The net effect of the increase would be to enlarge only the budget for the Pan American Zoonoses Center. No other changes were contemplated from the program set forth in *Official Document 98*.

The latter document was the Organization's first budget to be compiled by computer. A few errors had crept into the text and were noted on an errata sheet at the front of the document. The budget was presented by program and type of activity and by object of expenditure, i.e., personnel costs, duty travel, fellowships, seminar participants, supplies and equipment, and grants and other expenditure, as well as by organizational structure and geographic location.

In the review of all funds, the Committee might find it convenient to refer to Table I of Document CSP18/17, which reflected fully the Executive Committee's recommendations. The PAHO regular budget for 1971 showed a projected increase of 12.2 per cent over the 1970 figure, from \$13,852,119 to \$15,537,331. That figure included about 5.5 per cent for increased costs, 1.3 per cent for absorption of the malaria program into the regular budget, 2.2 per cent for absorption from the UN Special Fund in connection with the program of zoonoses control, as recommended by the Ministers of Agriculture, leaving about 3.2 per cent for program expansion. The percentage change for increased costs did not include the approximate sum of \$450,000 likely to be required to cover the salary changes currently under consideration by the United Nations General Assembly, which would probably take effect on 1 January 1971.

The percentage change from 1970 to 1971 varied considerably among other sources of funds. Income for the Community Water Supply Fund and Other Grants was usually made available for specific purposes. Grants were seldom firmly committed for projects two years in advance and so were not included in the budget until the projects were formally assured. Those grants

therefore showed a sharp decrease with the completion of the current commitment, but they might become available in larger amounts as plans developed.

The Special Malaria Fund budget showed a decrease, accounted for by some fall in requirements and by the absorption of about \$200,000 into the regular budget. However, the budget for 1971 remained at \$829,868, for which the Bureau did not have pledges. The anticipated deficit in that area for 1972 was \$619,242. If no means of financing the potential deficit could be found, the Bureau would have to submit loan or similar proposals to the Executive Committee to bridge the gap until the program was financed entirely from the regular budget.

The amounts shown for the WHO regular budget for 1971 and 1972 represented increases of 9.5 and 8.9 per cent, respectively. Funds projected under the United Nations Development Program and for Other Grants were within reasonable expectations.

Turning to *Official Document 98*, he said that pages 7 through 13 contained the analysis of the program which the Director had reviewed and listed the elements required to carry out the proposed program.

Page 14 gave details of the budget by object of expenditure and fund. Personnel costs, i.e., advisory services, continued to be by far the largest item and accounted for 65.4 per cent of the total. Page 15 summarized the major programs by fund and pages 16 through 42 briefly summarized the various programs on which the Director had commented.

From page 43 to page 426 the budget was presented in the traditional form—broken down into six parts, with a summary of the whole on page 43.

Part I consisted of the costs of the meetings of the Governing Bodies and the Conference and Translation Services. The total for 1971 was \$493,400, made up of \$363,598 on the PAHO regular budget and \$129,802 on the WHO regular budget. No new posts were proposed under that part.

Under Part II, Headquarters, no net change in posts was proposed for 1971. The common services detailed on page 57 were consistent with experience in 1969 and with projected requirements. The forecast total cost for Part II was \$5,445,690.

No significant changes in Zone Office costs were contemplated in Part III, Field and Other Programs. Pages 67 through 420 gave details by Zone, country, and project of the program discussed with and requested by the various ministries of health of the Member Governments and reviewed in depth by the Executive Committee. The \$300,000 recommended by the

Executive Committee for the zoonoses control program would fall under Part III of the budget.

Part IV gave details of the Special Fund for Health Promotion, under which there was a proposed appropriation of \$100,000, intended mainly for use in the textbook program. Part V was devoted to increasing the Working Capital Fund and Part VI concerned the Pan American-Foot-and-Mouth Center. *Official Document 98* concluded with six annexes, of which Annex 4 showed projects requested by Governments, to be implemented if funds became available. In connection with Annex 6, the Bureau had acquired a house in

Caracas as the Zone I Office; the outlay had been financed partly from the Building Fund and partly from the 1970 budget. The Venezuelan Government had agreed to continue its contribution toward the cost of housing the Zone Office.

In conclusion, Mr. Lannon drew the Committee's attention once again to Document CSP18/17, containing the proposed appropriation resolution for the Organization for 1971 and the authorization for assessments.

The session rose at 12:05 p.m.

FOURTH SESSION

Monday, 5 October 1970, at 3:10 p.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

The Chairman welcomed to the session Mr. Siegel, Assistant Director-General of the World Health Organization.

Fifth Report of the General Committee

Dr. Williams (Deputy Director, PASB) informed the Committee of the decisions taken by the General Committee at its fifth session, held at 12 noon. They were as follows:

1. The General Committee had agreed that Item 35 (General Program of Work of PAHO/WHO covering the period 1973-1977), assigned to Committee I, should be discussed in the same manner as the other budget items, i.e., Committee II would not meet while the item was being discussed.

2. After the budgets had been discussed, the items assigned to Committee I would be dealt with in the following order: Item 26 (Health Legislation), Item 33-a (Long-Term Planning and Evaluation), Item 33-b (Long-Term Financial Indicators), and Item 36 (Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation).

3. Committee II, when it reconvened, would consider the following items: Item 21 (Resolutions of the World Health Assembly of Interest to the Regional Committee), Item 22 (Control of Cigarette Smoking), Item 24 (Multinational Centers), Item 25 (Man-Environment Relationships), and Item 19 (*Aedes aegypti*).

4. Item 17 (Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council of PAHO, XXIII Meeting of the Regional Committee of WHO for the Americas) would be considered at a plenary session after a working group appointed by the President had reviewed the proposals made by Governments.

5. The order of the day for 6 October would depend upon the progress made in the discussion on the budgets; Committees I and II might meet separately at 9 a.m., and a short plenary session might be held in the afternoon to take action on draft resolutions that had already been brought to the General Committee's attention.

6. The following draft resolutions, which had been presented to the General Committee, would be distributed in the afternoon of 5 October: Election of Three Member Governments to the Executive Committee, Health Conditions in the Americas, Report by Governments on Health Conditions, Election of the Director, and Cholera.

Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971 (*continuation*)

Item 28-a: WHO Regular Budget for the Region of the Americas for 1971 (*conclusion*)

Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972 (*continuation*)

Item 28-c: Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973 (*continuation*)

Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 (*continuation*)

Dr. Olguín (as Chairman of the Executive Com-

mittee) said that because the Executive Committee had held its 64th Meeting from 29 June to 9 July 1970, it had been able to take into account the decisions of the Twenty-Third World Health Assembly with regard to the Americas. At the 64th Meeting, the Committee had examined the PAHO proposed program and budgets for 1971 and 1972 and, at 11 consecutive sessions, conducted an exhaustive analysis of the Organization's activities and functions, bearing in mind all the conditions and factors affecting the health and welfare of the peoples of the Americas. In drafting the proposal that it finally resolved to submit to the Conference, the Committee had been very much aware of the countries' financial resources and of their priorities.

The PAHO budget was extremely complex, in terms not only of the amount of funds involved but of the variety of their sources. Thus the importance of voluntary contributions and of funds from international credit agencies such as the Inter-American Development Bank and the U.S. Agency for International Development. The countries themselves usually found domestic financing difficult, especially when the goal was to achieve the degree of integrated medical care that technical and scientific progress had made possible.

The Executive Committee's discussions had centered on *Official Document 98* and on the statements of officers of the Organization. The Committee had been concerned above all with general budgetary considerations; it had noted the excellent presentation of the data and the use of computers in the preparation of the program and budget proposals.

Committee members as well as PAHO officials had stressed the gradual decline in health activities in the Technical Assistance component of the United Nations Development Program, owing often to the priorities set by Governments themselves. They had also stressed the importance of contributions from the UNDP Special Fund to national and regional projects, and the need—especially at the national level—for coordinating international assistance so as to obtain the maximum benefit from the resources it offered, and for planning activities with a view to their possible financing with national or international funds. Certain representatives and observers had pointed out the catalytic effect of international aid on national programs.

The Committee had considered strengthening the basic health services essential to the establishment of an adequate infrastructure, and had emphasized the importance of training health workers and of carrying out environmental health activities, among which water supply warranted special attention.

That general review had also dealt with the means of incorporating WHO funds and programs funded from that source into the PAHO regular budget.

As for professional training, the Committee had noted with satisfaction the amounts allocated to the development of educational institutions and to personnel training, even though all programs included funds for those purposes as well. It had also pointed out the need for considering the countries' ability to absorb such personnel, so that professionals would not emigrate elsewhere and so that the services of trained health workers would not go unused. By way of example, the Committee had cited the disproportion between the number of physicians and the number of nurses in the Americas.

The need for effective statistical data systems had likewise been stressed.

In analyzing planning needs, the Committee had pointed out that information gaps hampered the preparation of national health plans that might be incorporated into general development planning. Reference had been made to the importance of evaluation and its close relationship to planning and to programming. In that regard, the Committee had examined the assessment that had been made of the malaria eradication and other programs.

Following the general observations on the program and budget, each part of *Official Document 98* had been scrutinized. The Committee had concluded that the program as presented was a balanced one which took into account both resources and priorities, although certain projects requested by Governments had been set aside owing to budgetary limitations.

The Executive Committee had received a proposed budget whose general level was 10 per cent higher than that of 1970. In addition, it had approved \$300,000 for the Pan American Zoonoses Center.

In short, the Executive Committee was of the opinion that the programs contemplated in *Official Document 98* were currently needed in the Americas and that the funds proposed for carrying them into effect were adequate. It had therefore adopted Resolution XI,¹ which submitted the PAHO proposed program and budget for 1971 to the XVIII Pan American Sanitary Conference for consideration, in the light of the views expressed in Document CSP18/17.

The Chairman thanked the Chairman of the Executive Committee for his statement. It was the responsibility of the members of Committee I to assure themselves that the budget proposals now submitted to

¹*Official Document PAHO 103, 56.*

them met the requirements of the Organization. He suggested that the Committee begin by considering the tables and the summaries in *Official Document 98* and then discuss the individual parts of that document, and that after that it should consider the draft resolutions.

Dr. Hyronimus (France) understood that the addition of \$300,000 would increase the PAHO budget by 12.2 per cent, not 10 per cent. In view of the countries' difficulties in meeting their quota assessments, he wondered whether a scale of priorities had been established to carry out those programs that were indispensable, in case the necessary funds for implementing all programs were not available. He also wondered how possible cutbacks might be decided upon, so that, in accordance with the policy followed by the Organization in previous years, expenditures would not exceed income.

The Chairman said that after the Committee had discussed the program in the manner he had suggested, it could recommend approval either of the original proposal for a budget of \$15,237,331, or of the Executive Committee's resolution proposing a higher figure.

Dr. Hyronimus (France) explained that he had raised the question because he thought an exchange of views would make it possible to arrive at a scale of priorities that might be needed in carrying out the programs.

Dr. de Caires (United States of America) said that he would like to revert to the subject of nursing. At the Committee's last session the Director had virtually called for a new definition of the role of nursing. Frequent references had been made in the countries' four-year reports to the delivery of health services, to which nursing personnel was of crucial importance, and some Governments had already begun a complete review of the role of the nurse and of nursing auxiliaries. His Delegation was submitting a draft resolution on the subject for the Committee's consideration and for possible transmission to the Conference.

The Chairman said that the draft resolution would be translated and distributed for consideration the following day.² He invited the Committee to examine the tables in *Official Document 98* (pages 6-15).

Dr. Juricic (Chile) said that although he had not made an exhaustive analysis of *Official Document 98*, he had listened with interest to the comprehensive statements by the Director and the Chief of Adminis-

tration of the Bureau and to the detailed account just given by the Chairman of the Executive Committee on the manner in which the Committee had examined the budget at its last meeting. That, the Executive Committee had fully analyzed the budget was beyond doubt.

By way of a general comment, the speaker expressed satisfaction at the improvement in the Organization's budget document over the years and at the use of a computer, for the first time, in the preparation of the 1971-1972 budget proposals.

As for the proposed budget increase, it might at first glance seem large, but on closer examination it proved to be modest, paralleling almost exactly the vegetative increase of the population of the Americas. No less could therefore be approved.

It was important to note that approximately 10 per cent of all funds were allocated to the development of human resources, the best possible health investment.

Dr. Juricic observed that in Table 4 of the document in question the number of professional posts assigned to the malaria program had decreased from 113 in 1969 to 91 in 1970, 84 in 1971, and 71 in 1972. He also noted an increase in the figures for environmental health and nutrition, and wondered to which categories those two increases might be attributed.

Dr. Horwitz (Director, PASB), in reply to the Chilean Delegate's question, explained the over-all professional personnel situation: the number of medical officers had been reduced by 2 from 1969 to 1970, reduced by 2 from 1970 to 1971, and increased by 8 from 1971 to 1972; the number of nurses had been reduced by 2 from 1969 to 1970, increased by 4 from 1970 to 1971, and reduced by 1 from 1971 to 1972; the number of sanitary engineers had been increased by 2 from 1969 to 1970 and by 2 from 1971 to 1972; and the number of technicians assigned to the malaria program had been reduced by 14 from 1969 to 1970, by 5 from 1970 to 1971, and by 9 from 1971 to 1972. Other professional posts had been increased by 28 in 1970, by 14 in 1971, and decreased by 19 in 1972.

In certain programs the professional staff had been increased up to 1971 and then cut back from 1971 to 1972, as Table 4 showed.

The increase in nutrition posts from 1969 to 1970 was attributable to INCAP staff; the increase in those posts from 1970 to 1971, to Caribbean Food and Nutrition Institute staff.

The Chairman invited the Committee to pass on to the summaries (pages 16 to 42) and Parts I, II, and III.

Dr. de Caires (United States of America) said that he had a general comment on programs in all the Zones

²See p. 201.

(Part III). During the discussion on project descriptions in the Executive Committee, the Director had undertaken to include, in the future, a short evaluation of individual projects. His Delegation had noted with pleasure that the Director's Annual Report contained a section, under each project, entitled "Work Done," which gave a brief description of the project's objectives and achievements. He thanked the Director for having included that section; it would be most valuable.

Dr. Juricic (Chile), referring to project AMRO-4709, on the Pan American Drug Quality Institute to be established in Montevideo, pointed out that a little over a year ago his Government had adopted a National Drug Formulary, requiring that the public health sector use a list of more than 200 medications which, according to a special committee composed of staff members of universities and the National Health Service, were essential to health programs. The list covered generic drugs, some 90 of which were already available to the public through private pharmacies at prices as much as a fourth lower than those of patent medicines.

For the system to gain the necessary acceptance by the medical profession and the public, it was essential that the drugs be of the highest quality and under strict control.

Chile had followed the development of the Montevideo Institute with much interest, since it had made a concerted effort to improve its national drug service. What the country needed were professionals in sufficient number and with the proper training; in that latter regard, the new agency might offer assistance, besides serving as a reference center.

Dr. Rodríguez López (Uruguay) reported that the Pan American Drug Quality Institute was well on its way toward being established, pending necessary legislative approval. The Government was taking all necessary steps in the hope that operations might begin in 1971 or 1972.

*The session was suspended at 4:35 p.m.
and resumed at 5:05 p.m.*

Dr. Rabinovich (Argentina) commented on the Pan American Zoonoses Center, shown on page 367 of *Official Document 98*. In presenting a proposed program and budget of PAHO for 1971 in the amount of \$15,537,331, Document CSPI8/17 noted that that sum included the \$300,000 recommended by the Ministers of Agriculture for the Center. The speaker recalled the impact of the zoonoses on health, nutrition, and the economy of the countries. Not only was that situation

well known, but one of the Conference documents described it in considerable detail. Yet the proposed budget limited the operating capacity of the Center, which would face difficulties in 1971. The Argentine Government's current contribution equaled that of the UNDP Special Fund, but unless funds from the latter source were forthcoming in 1972, Argentina's contribution would be insufficient to cover the entire Region. The speaker therefore asked that the item be given thorough consideration.

Dr. Rodríguez López (Uruguay) endorsed the views of the Argentine Delegate, believing the Pan American Zoonoses Center not only to be essential to health but also to have an effect on the countries' exports. The budget under discussion placed the future of the Center somewhat in doubt.

The Chairman said that, since there were no comments on Parts IV, V, and VI, he would invite the members of the Committee to discuss *Official Document 98* as a whole.

Dr. Orellana (Venezuela) spoke of the difficulties first in obtaining and then in continuing projects under the UNDP, whether through its Special Fund or its Technical Assistance components, and of the serious implications of a suspension or cutback in those contributions; a case in point was the Pan American Zoonoses Center. The Chairman of the Executive Committee was to some extent correct in asserting that continuity of the projects was the responsibility of Governments themselves. Yet, however much Governments might do in that regard, the United Nations agencies charged with implementing the various projects could establish better coordination at the international level so as not to jeopardize the health sector. If the Jackson Report indicated that the international assistance received by each country should be planned in close cooperation with the UNDP Resident Representative, it was no less true that machinery at the international level—in other words, at the level of the agencies involved—was appropriate in order to permit better coordination and greater flexibility in all UNDP operations.

The Chairman suggested that the Rapporteur might perhaps draft a resolution³ for the Committee to submit to the Conference, endorsing the regional projects to be implemented in 1971-1972 with funds of the UNDP, as referred to by the Delegate of Venezuela, and requesting

³See p. 203.

that the endorsement be transmitted to the UNDP.

Dr. Horwitz (Director, PASB), finding Dr. Orellana's comments to be extremely interesting, noted that the Jackson Report on the United Nations System was under study by the UNDP Governing Council and by other United Nations agencies. There seemed to be general agreement on at least one of the recommendations made in that Report—country planning as the focal point of all international assistance, including all sectors and therefore of course the health sector. The current system of quadrennial projections would make it easier for the health sector to play a role in the over-all planning by country; and, in view of their proven ability to obtain aid from the Special Fund, the Governments might, through national planning boards and on the basis of those quadrennial projections, approach that agency for financial assistance as soon as they developed appropriate projects. Thanks to those projections, the health sector would be clearly defined, just as it was hoped that international assistance, especially that provided by the UNDP, would be.

Dr. Olguín (as Chairman of the Executive Committee), replying to the Venezuelan Delegate, said that if in his report he had made special mention of coordination at the national level, he wished to make it clear that the Executive Committee had by no means overlooked the importance of coordination at the international level. He emphasized the value of the study⁴ recently completed by the Executive Board of the World Health Organization on coordination with other specialized agencies. There was no doubt that coordination at the national level and coordination at the international level were equally important processes.

The Chairman requested the Rapporteur to draft a resolution reflecting the views that had been expressed, for the Committee's consideration the following day.

He then invited the Committee to consider the various resolutions on the subject of the budget which were before it, beginning with the Executive Committee proposal concerning the 1971 program and budget of PAHO, contained in Document CSP18/17.

Dr. Pineda (Honduras, Rapporteur), read the following proposed resolution on Item 27, covering the appropriations for the Pan American Health Organization for 1971:

⁴"Organizational Study on Coordination with the United Nations and the Specialized Agencies." *Off. Rec. Wld Hlth Org.* 181 (Annex 4), 39-157.

The XVIII Pan American Sanitary Conference

Resolves:

1. To appropriate for the financial year 1971 an amount of \$17,274,315 as follows:

Part I: Organizational Meetings	\$ 363,598
Part II: Headquarters	3,642,169
Part III: Field and Other Programs	9,626,530
Part IV: Special Fund for Health Promotion	250,000
Part V: Increase to Assets	250,000
Subtotal—Parts I-V	\$14,132,297
Part VI: Pan American Foot-and-Mouth Disease Center	1,405,034
Effective Working Budget (Parts I-VI)	\$15,537,331
Part VII: Staff Assessment (Transfer to Tax Equalization Fund	1,736,984
Total—All Parts	\$17,274,315

2. That the appropriation shall be financed from:

a) Assessments in respect to:

Member Governments and Participating 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 or in accordance with the Directing Council resolutions

b) Miscellaneous Income

Total

In establishing the contributions of Member Governments and Participating Governments, their assessments shall be reduced further by the amount standing to their credit in the Tax Equalization Fund, except that credits of those Governments who levy taxes on the emoluments received from PAHO by their nationals and residents shall be reduced by the amounts of such tax reimbursements by the Organization.

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 1971, inclusive. Notwithstanding the provision of this paragraph, obligations during the financial year 1971 shall be limited to the effective working budget, i.e., Parts I-VI.

4. That the Director shall be authorized to transfer credits between parts of the effective working 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 of the part from which the credit is transferred may be made with the concurrence of the Executive Committee. All transfers of budget credits shall be reported to the Directing Council.

Mr. Rosenthal (United States of America) observed that his Delegation's instructions were to support an

increase of not more than 10 per cent over the budget figure for 1970, i.e., not more than \$15,237,331; the figure proposed by the Executive Committee, \$15,537,331, was \$300,000 higher than that, or 12.2 per cent higher than the 1970 figure. Several other delegations also felt that the Executive Committee's figure was too high. The budget was a good one and he hoped that a unanimous decision would be reached on the subject of it. Perhaps the Committee might find ways of keeping it to the lower figure.

Dr. Juricic (Chile) agreed that there was a \$300,000 difference between the proposed budget in *Official Document 98* and that presented in Document CSP18/17 as the Executive Committee's proposal; moreover, there was the probability of another sizable expenditure not covered in any document, and that was the sum of approximately \$450,000 to be applied to salary increases for professional staff beginning 1 January 1971. The speaker therefore proposed that the draft resolution be amended so as to authorize the Director, with prior Executive Committee approval, to increase the budget shown in *Official Document 98* by \$300,000, with funds from miscellaneous income and by transfer from the Working Capital Fund but with no increase in the Governments' assessments, and that at the same time priority be given first to the imminent increase in staff salaries and then to financing the Pan American Zoonoses Center.

The Chairman suggested that the Delegate of Chile provide the Rapporteur with the text of his amendment to the resolution:

Dr. Bica (Brazil), on behalf of his Delegation, favored approval of the 1971 budget as shown in *Official Document 98*, which contemplated a 10 per cent increase over that for 1970, but said that his Government's instructions were to withhold approval of any increase exceeding 10 per cent; he therefore opposed the additional appropriation requested for the Pan American Zoonoses Center, even though he was well aware of the Center's importance and needs.

The Chairman requested the Rapporteur to read the amendment proposed by the Delegate of Chile.

Dr. Pineda (Honduras, Rapporteur) read the amendment proposed by the Delegate of Chile, as follows:

5. To approve an increase in the appropriation level of \$15,237,331 for the effective working budget specified in paragraph 1 above, in an amount to be determined by the Executive Committee, but not to exceed \$300,000. Such increase shall be financed from any available miscellaneous

income and by transfer from the Working Capital Fund, with no increase in the assessments in respect to Member Governments and Participating Governments. This approval is given in recognition of:

a) The probability that the United Nations General Assembly will approve a professional salary increase in 1971, with consequent increased budgetary requirements, for which contingency no provision is included in the amount appropriated in paragraph 1 above.

b) The lack of provision for carrying out the recommendations of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control for an additional appropriation of \$300,000 to cover the needs of the Pan American Zoonoses Center.

6. That the Executive Committee give first priority to funding increases in salary costs, within the requirements and limitations expressed in paragraph 5 above."

Mr. Rosenthal (United States of America) said that he thought the amendment represented an excellent solution, and asked that it be circulated to the Committee.

The Chairman said that a copy of the text of the amendment would be circulated the following day.⁵

He then invited the Committee to turn to Executive Committee Resolution XIII, covering Item 29, provisional draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972.

Dr. Pineda (Honduras, Rapporteur) read the text of Executive Committee Resolution XIII, as follows:

The Executive Committee,

After considering in detail *Official Document 98* 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 Proposed Program and Budget Estimates of the Pan American Health Organization for 1972, to be considered by the 66th Meeting of the Executive Committee and by the XX Meeting of the Directing Council; and

Recognizing that the provisional draft of the Proposed Program and Budget Estimates contains soundly-conceived and much-needed health projects,

Resolves:

1. To recommend to the XVIII Pan American Sanitary Conference that it take note of the provisional draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972, appearing in *Official Document 98*.

2. To recommend to the XVIII Pan American Sanitary Conference that it request the Director to use the provisional draft as a basis for the preparation of the Proposed Program and Budget Estimates for 1972, after further consultations with the Governments to determine their latest desires and requirements in relation to the health priorities of the countries.

⁵See p. 201.

Mr. Rosenthal (United States of America) said that although his Government had supported a 10 per cent increase in the budget in 1970, and was prepared to support a further similar increase in 1971, it would not necessarily continue to support an automatic 10 per cent increase every year. It had been shown in the last two years that it was possible for a reduction to be made in the budget after the budget document had been issued. The amount of increase from year to year should depend upon the value of the program and the availability of resources; it ought not to be automatic.

The Chairman observed that it appeared the Committee approved Executive Committee Resolution XIII. He requested the Rapporteur to draft a resolution of Committee I accordingly.⁶

He then called upon the Chief of Administration to present Item 28-a, on the WHO Regular Budget for the Region of the Americas for 1971.

Mr. Lannon (Chief of Administration, PASB) presented Document CSP18/19, which read as follows:

The Forty-Fifth Session of the Executive Board of the World Health Organization indicated the desirability of specific review by the WHO Regional Committees of changes in projects already proposed for 1971. These projects were originally recommended by the XXI Meeting of the Regional Committee for the Americas and included in the budget for 1971 approved by the Twenty-Third World Health Assembly.

Following the directives of the Directing Council at its XIX Meeting, all projects in the Americas have been reconsidered with the various Member Governments to assure reflection of their latest desires and requirements. The results of these consultations are now shown in PAHO *Official Document 98*, Proposed Program and Budget Estimates.

In summary, of WHO regular projects for 1971: 57 projects have no changes; 137 projects have costing changes or minor revisions in elements; 9 projects planned for 1971 were completed in 1970; 5 projects were cancelled or postponed; 4 projects were added to the WHO regular total, arising from transfers from other sources of funds; 13 projects were advanced from the list of those proposed last year to be implemented if funds became available; and 20 projects are new or reactivated.

No significant changes are proposed for the Regional Office or regional advisers.

Mr. Lannon added that the document contained a proposed resolution that the Conference might wish to consider. The Rapporteur would, perhaps, read the proposed resolution in question.

Dr. Pineda (Honduras, Rapporteur) read the proposed resolution on the WHO Regular Budget for the Region of the Americas for 1971.

Decision: It was unanimously agreed to recommend to the Conference that it endorse the revisions to the 1971 program and budget estimates for the WHO regular program in the Americas as shown in *Official Document 98*.⁷

The Chairman said that the next text to consider was Resolution XII of the Executive Committee, concerning Item 28-b, Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972. He requested the Rapporteur to read the resolution.

Dr. Pineda (Honduras, Rapporteur) read the text of Executive Committee Resolution XII, as follows:

The Executive Committee,

Having considered in detail *Official Document 98* submitted by the Director of the Pan American Sanitary Bureau, which contains the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972;

Bearing in mind that the Proposed Program and Budget Estimates are to be submitted to the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization for the Americas, for review and transmittal to the Director-General of the Organization so that he might take them into account in preparing the budget estimates of WHO for 1972; and

Recognizing the importance of maintaining the budgetary allotments for the eradication of malaria at a satisfactory level until such time as the objectives of that program are achieved,

Resolves:

To recommend to the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas, that it approve the Proposed Program and Budget Estimates of the World Health Organization for 1972, appearing in *Official Document 98*, and to request the Regional Director to transmit them to the Director-General of the Organization so that he may take them into account in preparing the budget estimates for 1972.

Dr. Bica (Brazil) asked what the increase in the 1972 proposed program and budget would be in terms of the 1971 level.

The Chairman replied that it represented an 8.9 per cent increase. There being no further comments, he requested the Rapporteur to draft a resolution for the Committee to consider.⁸

He then called upon the Chief of Administration to present agenda Item 28-c, Preparation of the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973.

⁶See p. 203.

⁷See tenth plenary session, p. 131.

⁸See p. 202.

Mr. Lannon (Chief of Administration, PAHO) presented Document CSP18/20, which read as follows:

The Twenty-Third World Health Assembly reviewed the tentative projection for the WHO program and budget for 1972 in global terms. This projection is detailed in *Official Record 179*, Appendix 8, "Summary of Budget Estimates 1969-1971, with a Tentative Projection for 1972." The portion of this program for the Americas is reflected in PAHO *Official Document 98*, Proposed Program and Budget Estimates, which is being considered at this meeting of the WHO Regional Committee for the Americas.

The Director-General of the World Health Organization has requested that the Regional Committee for the Americas recommend a tentative program projection in global terms for 1973 within a planning ceiling of US\$8,627,000. The tentative projections which follow have been made taking into account unavoidable increases in costs for continuing activities as well as priorities for such additional resources as may become available in this Region. It is summarized in the following table together with a comparison of the distribution of WHO regular funds by program for 1970-1972. The Regional Committee may wish to

recommend this distribution to the Director-General of the World Health Organization for inclusion in the WHO program for 1973.

The annex to the document contained a summary of the budget estimates for 1970-1972, with the tentative projection for 1973. In answer to a question by the Delegate of the United States of America, Mr. Lannon said that the WHO budget figure for the Americas for 1973 represented an increase of about 8.5 per cent over the figure for 1972.

The Chairman requested the Rapporteur to draft a resolution on the subject under discussion for the Committee to consider.⁹

The session rose at 6:10 p.m.

⁹See p. 203.

FIFTH SESSION

Tuesday, 6 October 1970, at 9:15 a.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

The Chairman said that the draft resolutions on Items 27, 28-b, 28-c, and 29 had been distributed only that morning. He therefore suggested that the Committee defer its consideration of those resolutions to enable the delegations to study them carefully. That course would also free those delegates who wished to attend Committee II, which would thus be able to commence its session immediately.

It was so agreed.

The Chairman invited the Committee to take up the other draft resolutions before it, namely, those on Items 14, 15, 23, 30, 31, and 34.

Item 14: Report on the Collection of Quota Contributions (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the following draft resolution on the item:

The XVIII Pan American Sanitary Conference,

Having considered the report on the collection of quota contributions (Document CSP18/23 and Addenda I and II);

Noting that the payment of quotas in arrears has improved, but that five countries remain in arrears more than two years; and

Convinced of the importance of obtaining the full support of all Governments for the program of the Organization through prompt and full payment of quota contributions,

Resolves:

1. To take note of the report on the collection of quota contributions (Document CSP18/23 and Addenda I and II).

2. To thank those Governments which already have made payments in 1970, and to urge all Governments to pay remaining balances of arrears and current-year quotas before the end of the year.

3. To express concern about the number of Governments in arrears more than two years and to recommend to those Governments that they fulfill their financial plans for the payment of arrears within a definite period.

4. To recommend to the Director of the Bureau and to the Executive Committee that they analyze the problem of quotas in arrears more than two years and promote compliance with Article 6-B of the Constitution, taking into account the suggestions and comments made by the delegates.

5. To request the Director to continue to inform the Governments on the status of quota collections and bring to their attention the importance of unanimous support of the

program of the Organization, through the full and prompt payment of quota contributions by each Government.

The Chairman called for comments on the proposed resolution.

Mr. Lannon (Chief of Administration, PASB) pointed out that the number of countries in arrears had fallen to four.

The Chairman welcomed that news and said that the word "five" in the second preambular paragraph should accordingly be replaced by "four." If there were no objections, he would take it that the Committee approved the resolution in that form.

Decision: The draft resolution, as amended, was unanimously approved.¹

Item 15: Financial Report of the Director and Report of the External Auditor for 1969 (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the following draft resolution:

The XVIII Pan American Sanitary Conference.

Having considered the Financial Report of the Director and the Report of the External Auditor for the fiscal year 1969 (*Official Document 97*), as well as Resolution IV approved by the Executive Committee at its 64th Meeting, as presented in Document CSP18/14;

Noting the improvement in the payments of arrears, so that the Organization continues to be in sound financial condition;

Observing with satisfaction the beneficial effect of the long-term financial policy in the past decade of not spending, on the average, at a higher level than income, so that even the large deficit of 1969 did not result in an excess of expenditure over income during the decade; and

Recognizing that in view of the low income in 1969, the Director made efforts in that year to reduce the expenditure as much as possible,

Resolves:

1. To approve the Financial Report of the Director and the Report of the External Auditor for the fiscal year 1969 (*Official Document 97*).

2. To commend the Director on having consistently pursued long-term financial policies which have enabled the Organization to achieve and maintain a sound financial position.

3. To urge the Governments to pay their quotas as soon as possible to assure maximum fulfillment of the program of the Organization.

4. To call attention to Resolution VI approved by the Directing Council at its XVIII Meeting, in the sense that the External Auditor should amplify his report to include comments concerning administrative practices in PAHO.

5. To recommend to the Director that, with respect to the informational annex on PAHO/WHO expenditures, he study the practicability of providing data to facilitate a comparison of expenditures with budgeted amounts.

6. To thank the External Auditor for his report.

Mr. Rosenthal (United States of America) said that he understood that the data referred to in operative paragraph 5 could be provided without difficulty, and a study therefore seemed unnecessary. Accordingly, he proposed that the words "study the practicability of providing" in that paragraph be replaced by the word "provide." The effect of that change would be to shorten by one year the time it would take to transmit the information to Governments.

Mr. Lannon (Chief of Administration, PASB) said that the Secretariat could, and would, provide the required data.

The Chairman invited the Committee to approve the amendment proposed by the Delegate of the United States of America.

Decision: The draft resolution, as amended by the Delegate of the United States of America, was unanimously approved.²

Item 23: Amendments to the Staff Rules of the Pan American Sanitary Bureau (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the following draft resolution:

The XVIII Pan American Sanitary Conference.

Bearing in mind the provisions of Staff Regulation 12.2,

Resolves:

1. 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 CE64/14, and approved by the Executive Committee at its 64th Meeting with the effective date of 1 January 1970.

2. To endorse the Director's plan to provide an appropriate administrative tribunal for those staff members who do not now have access to an external tribunal.

Mr. Rosenthal (United States of America) said that those PASB staff members not covered by the ILO tribunal were concerned about the matter of access to an external administrative tribunal. The decision as to which tribunal should be used properly should rest with the staff itself, both at Headquarters and in the field, through a referendum outlining all the various options

¹See tenth plenary session, p. 127.

²See tenth plenary session, p. 140.

Mr. Lannon had referred to at the first session of Committee I. Although he understood that the Director intended to implement that as soon as possible, he thought it appropriate that the Conference should formally demonstrate its interest in the subject and its concern for the general welfare of PASB staff. He therefore suggested that the proposed resolution should include an operative paragraph 3 reading: "To request the Director to implement his plan as soon as possible," in order to start action on the matter.

Dr. Aldereguía (Cuba), referring to the amendment proposed by the Delegate of the United States of America, considered it unnecessary to insert an additional paragraph, inasmuch as the point could be covered in the present operative paragraph 2 by the following wording: "To endorse the Director's plan to provide as soon as possible an appropriate administrative tribunal...."

Mr. Rosenthal (United States of America) said that he accepted the Cuban suggestion.

Mr. Lannon (Chief of Administration, PASB) said that the Secretariat agreed with the proposed addition as reflecting its own intentions.

The Chairman invited the Committee to approve the amendment proposed by the Delegate of the United States of America, with the modification suggested by the Delegate of Cuba.

Dr. Pineda (Honduras, Rapporteur) read operative paragraph 2 of the draft resolution, which, with the proposed amendments incorporated, was worded as follows:

2. To endorse the Director's plan to provide an appropriate administrative tribunal for those staff members who do not now have access to an external tribunal and to request that the Director implement his plan as soon as possible.

Decision: The draft resolution, with the amendments submitted by the Delegates of the United States of America and Cuba, was unanimously approved.³

Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country (*continuation*)

Dr. Pineda (Honduras, Rapporteur) read the following draft resolution:

The XVIII Pan American Sanitary Conference,

Cognizant of the proposal of the Government of Peru on the organization of regional assistance in the event of disasters (Document CSP18/26, Annexes I and II);

Bearing in mind that natural disasters occur relatively frequently in certain geographic areas of the Hemisphere, and may occur sporadically in virtually all of them;

Taking into account that natural disasters may give rise to emergencies which, because of their magnitude in relation to the resources of the country itself, exceed the possibility of coping with them properly and make external assistance necessary;

Considering that a proper organization and national planning sometimes make it possible to prevent and always to reduce in large measure the consequences of natural disasters and as a corollary the magnitude of the emergency;

Recognizing that, in those countries which have not yet done so, it is necessary to establish agencies capable of coping with such emergencies and to plan their activities so as to make better use of national resources as well as to be in a position to request with precision and to use as effectively as possible external assistance, regardless of its origin;

Considering that because of the diverse origin and nature of external assistance, there is obviously a need for a coordinating agency whose main office must be in the country affected and under the égis of its authorities;

Taking into consideration that the existence of a proper national organization and prior planning of the use of resources to cope with emergency situations are essential to enable the country to establish the necessary coordination with agencies of the United Nations' System, with the Inter-American Emergency Aid Fund, and with bilateral assistance agencies; and

Having taken note of the document submitted by the Director of the Bureau on the problem of emergency situations and existing arrangements for dealing with it (Document CSP18/26),

Resolves:

1. To recommend to the Governments, and especially to those of countries situated in geographic areas in which natural disasters are more frequent, that they make provision in their plans for the establishment of the necessary agencies in order to cope with emergency situations caused by natural disasters or for their improvement if they already exist.

2. To recommend to the Governments that they pay special attention to the planning of health measures to be taken in emergencies and that they assign it due priority.

3. To request the Director of the Bureau to study the method of collaborating with the Governments and provide them with the assistance they deem necessary for studying the situation, establishing the necessary agencies, and planning the work to be carried out in an emergency.

4. To request the Director to study existing external assistance arrangements and, in collaboration with the authorities of the health sector of the countries, to attempt to establish agencies for coordinating and channeling assistance so as to take better advantage of it.

Mrs. Eldridge (Observer, Organization of American States) said that she wished to acquaint the Committee with the initiative taken by the OAS and its Inter-American Emergency Aid Committee, of which the

³See tenth plenary session, p. 127.

Director of PASB was a member. The Inter-American Emergency Aid Fund, set up by the Member Governments of the OAS to cover many forms of emergency aid, including health assistance, had been very grateful for the Bureau's collaboration in emergency health matters since its creation. The OAS Member Governments had been asked to establish national liaison authorities responsible for program coordination on occasions when an emergency exceeded the capacities of an individual Government. She understood that 80 per cent of those Governments had complied with the request. Some of the authorities were in ministries of health and others in national planning offices or other ministries. She suggested that, in order to further the Inter-American Emergency Aid Committee's aim of ensuring that all emergency assistance was channelled through the designated national agency, the wording of operative paragraph 3 of the draft resolution might be modified to the effect that the Conference requested the Director of PASB, who was a member of that Committee, to study ways and means of integrating the health sector with the total emergency plan of Member Governments and to activate the public health emergency assistance plan whenever necessary through the existing Inter-American Emergency Aid Committee and the national coordinating agency, as determined by each Government, in order to ensure unified preplanned action once a Government had requested assistance.

The Chairman asked whether any delegate would formally propose the suggested amendment.

Dr. Frazer (United Kingdom) said that he was glad to propose the change suggested by the OAS Observer, which would help to ensure the speed of action essential in an emergency.

The Chairman suggested that further consideration of the resolution should be deferred until the delegates had an opportunity to see the newly proposed wording in writing.

*It was so agreed.*⁴

Item 34: PAHO Award for Administration (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to recommend that the Conference approve the procedure

and the criteria for the granting of the PAHO Award for Administration, set forth in Document CSP18/8, Rev. 1; and that it urge the Governments to use that Award as an incentive to persons doing outstanding work in the field of administration in the health sector or in the form of written papers on administrative topics applicable to the health sector.⁵

Item 31: Assistance for the Medical Rehabilitation of the Area Affected by the Earthquake of 31 May 1970 (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to recommend that the Conference (a) express its appreciation for the thanks given by the Government of Peru for the assistance received; (b) request the Director of PASB to introduce, in consultation with the health authorities of the Government of Peru and in accordance with the information provided in due course, appropriate changes in the program being carried out in that country with the Organization's assistance in order to adapt it as far as possible to the new circumstances; and (c) instruct the Director to make available to the Government, subject to budgetary limitations, the technical assistance necessary for carrying out studies to determine the kind and amount of assistance required for the rehabilitation of the infrastructure in the devastated areas.⁶

Item 26: Health Legislation

Dr. Ríos (Consultant, PASB) pointed out that the intention was to summarize the health legislation in the countries of the Region, which, as had been noted⁷ at the 61st Meeting of the Executive Committee, had shown an increasing concern in recent years over the nature, substance, relevance, and up-to-dateness of such legislation. Various experts had presented papers and critical comments on existing legislation, describing it as inappropriate, out of date, and incomplete, and some had proposed a division between health legislation and public administration legislation, so as to make the former a separate branch of law. However, because those

⁵See tenth plenary session, p. 128.

⁶See tenth plenary session, p. 128.

⁷See *Official Document PAHO 96, 97.*

⁴See p. 206.

were theoretical proposals, based on local data and referring mainly to existing health codes and regulations—and especially the Pan American Sanitary Code—and because there was no organized body of information from which to draw a more or less generally applicable and comparative picture of the problem and to assess the validity of the criticism leveled in each case, the Executive Committee had called for a survey of basic health legislation in the Americas.⁸ The six objectives of the study under discussion appeared in the annex to Document CSP18/21.⁹

In the preparation of the study, relevant constitutional and penal code provisions, as well as specific laws and regulations on health matters, had been taken into account. As for the latter, the selection had been made as indicated in the aforesaid document, and included the legal and regulatory provisions mentioned therein covering the period 1948-1968. Availability of the materials had been an important consideration. Resolutions at the ministerial level had not been consulted, nor had juridical provisions not published in official registers or bulletins.

Dr. Ríos then commented on the survey's conclusions as presented in Document CSP18/21. They read as follows:

The review of the legal provisions which relate to health in countries covered by the present text, and which were issued over the last 20 years, allowing for limitations and omissions in the course of gathering them together, enables one to make the following comments:

1. All countries covered in this study possess legislation and regulations covering the central topic of interest, while the depth and extension with which they treat matters connected with individual and community health, as well as the care, degree of sharpness, and systematization in covering these areas and their appropriate regulations, vary from country to country.

Looked at chronologically, this legal material indicates the impact of change as regards concepts in the field of health, the language used, the increase in the area of authority covered by the public health function, and the intervention by the State as a controlling agency, and it can be viewed as a flexible and easily changeable body of legislation.

3. The universality of areas of critical interest is clearly evident as a result of the recurrent mention of these in the texts of all countries which have produced legislation or regulations on similar topics and as a result of the evident and even common priority assigned to establishing norms covering them.

4. The content of this legislation and system of regulations is very similar in essence, and in some cases even in terminology used, suggesting a transculturation of standards. This has led many professionals to maintain that they are irrelevant to the particular needs of each country. Such an argument is only relatively valid when one remembers that in many countries of

the Region there is a disequilibrium and disproportion in the degree of development of the capital cities, the main cities, and the rest of the country, with the need for legislation in some matters covering the requirements even at the highest developmental level.

5. There is no evident unity of viewpoint in identifying all compulsory standards that could make up a "health law" and at this time legal texts which have been said to cover "health" or "public health" include subjects which relate to the promotion and protection of the health of the community. Nor are the subjects included in or left out of such books, titles, or chapters merely as a result of exercising judgment as to their selection or identification.

6. The legislation reviewed only exceptionally appears in a form of combining in one single unit the three aspects of development, promotion, and protection. This characteristic is more accentuated in countries where the public health function is only relatively, or to a small extent, specialized, and where it is shared between various governmental departments, in accordance with the interests and objectives being sought, or with the restrictive or penal character of its legislation.

7. One notes a high degree of heterogeneity and introspective norm-setting, particularly in federal countries, which does not seem justified from any scientific or technical point of view that alone would justify such norms.

In some federal countries the tendency toward the standardization of the central norm-setting authority is evident, but it should be seen more as an effort at rationalizing compulsory standards or as due to inactivity or lack of capacity to act at the local level.

8. The whole body of codified or noncodified legislation which touches upon individual or community health or which can be specifically identified as such in all countries, includes four main types of provisions:

a) *Administrative*, relating to the legal system of the public department authorized to act in certain areas and the powers and attributions which are conferred on the health authorities, generally, or as regards special topics.

b) *Specific provisions relating to health subjects*, those which find their justification or basis in science or technology; they regulate rights and obligations of natural or juridical persons; they govern their actions or activities to the extent that they are of interest to, or affect, public or individual health; they determine the requirements and conditions under which such actions and activities can be developed; and they establish the requirements and characteristics which must be met by their outcome or product, as appropriate.

c) *Coercive or penal provisions*, to bring about compliance with compulsory stipulations; and to penalize infractions of compulsory standards covered in the previous item.

d) *Procedural provisions*, to which the individual is subject when exercising his rights or carrying out his daily activities, and also public officials who are responsible for carrying out the duties of sanitary policing both in their control aspect and as a public service.

9. Greater authority is undoubtedly given to administrative and penal legal provisions.

In effect, almost all health laws at present are really enabling instruments for the appropriate authority in each subject and/or laying down the organization of the respective public department. Generally speaking, this legislation basically establishes

⁸*Ibid.*, Resolution XV, p.15.

⁹Mimeographed document.

the framework of the attributions for which each is responsible and its functions in the case of each topic.

The provisions (orders, prohibitions, or authorizations) covering the population in its capacity as subjects personally responsible for the health of the community to which they belong and for their individual health are, comparatively speaking, very limited. The power to establish specific standards is largely transferred to the field of regulation, and for this reason countries with limited or out-of-date regulations have considerable gaps in their standards, even in cases where sanitary codes or special laws are in force.

10. The juridical system in this field which requires a coherent, synchronized, and complementary network involving constitutional, special, and penal provisions appears to be in a state of internal conflict in some countries and not to possess complementarity in others.

11. Almost all sanitary codes fail to meet the requirements of providing a juridical method which would contain "complete documents, adequate to meet the needs of the area, which establish general principles on the basis of a logical pattern with considerable internal consistency, without its being necessary to complement them with other laws but only to provide for their regulation in order to facilitate compliance with them or to establish technical details with regard to them."

12. In all countries, the authority or authorities covering the health function have been provided with ordinary and extraordinary powers and authority, granted on a legal basis and very much greater than those of other bodies at the same administrative level, enabling them to require compliance with the laws and regulations, to achieve the fulfillment of their objectives, and to carry out those actions entrusted to them.

13. Most countries keep their materials in a disorganized state, and there is no evident legislative function in existence nor any system for permanently bringing them up to date or consolidating them. Both legal and regulatory documents as well as the innumerable and hurried amendments seem to be the outcome of pressures or needs of the moment.

14. With very few exceptions, there is no apparent distribution of materials or their transmission to the people, as an organized function and with clearly defined objectives, making it possible to keep the population apprised of its contents. Its great volume and the lack of up-to-date texts leads to ignorance of its content even by those people responsible for specific functions and by the nonspecialized members of the legal profession.

The Chairman congratulated Dr. Ríos on the quality of her study and thanked her for her excellent presentation. He invited the Committee to comment on the item.

Dr. Yepes (Colombia), recognizing the importance of including health legislation on the Conference agenda, said that his country considered such legislation basic to the implementation of national health plans. However, the wide range of factors that entered into the situation and the diversity of the institutions involved made clarification of the issue essential.

With advisory services furnished by the Bureau and benefiting from the experience of the Peruvian Govern-

ment, Colombia had been formulating a new health code. In that connection, the speaker considered the following points to be of relevance: (1) definition of the sphere of competence of the health sector, especially in nutrition, health education, educational and occupational rehabilitation agencies, etc.; (2) consolidation of standard-setting and coordination responsibility, which should be assigned to the ministry of public health, and definition of the legal status of the other institutions concerned (social security agencies, etc.); (3) concern with general questions was within the province of the Legislative Branch, whereas the issuance of regulations was within that of the Executive Branch; (4) establishment of compulsory social service for public health personnel, in order to ensure their proper geographic distribution to which end such personnel would naturally be offered satisfactory working conditions and remuneration; and (5) food and drug control, with special reference to advertising.

The speaker noted that the lack of clear lines of legal authority of the various agencies led to administrative difficulties.

Dr. Juricic (Chile), after congratulating Dr. Ríos on her excellent report, said that without going into detail regarding the document, whose technical nature was beyond his field of competence, he considered supplementation of the survey essential. It had been difficult enough to compile the necessary data, and it was therefore important to keep them current. Moreover, it was necessary to make an effort to enforce the legal instruments. To that end, it might be advisable to undertake a companion study on the organization and operation of the legal agencies of the health ministries and departments and on their relationship to the judicial bodies.

Dr. Orellana (Venezuela) stressed the importance of the document, which contained a valuable survey of health legislation during the past 20 years and which could serve as the basis for future revision.

Resolution XVI¹⁰ adopted by the Executive Committee at its 64th Meeting had requested the Director, *inter alia*, to continue the study of the essential aspects to be covered in a health code that the countries could use as a guide, and to promote the meeting of interdisciplinary study groups to discuss legal matters and the unification of the principles of health legislation. In the speaker's opinion, the present discussion served to implement that resolution and to make it

¹⁰Official Document PAHO 103, 59.

possible to share the experiences of the various countries.

Dr. Orellana concluded by emphasizing the need for updating the Pan American Sanitary Code so that it would reflect the numerous provisions adopted in recent years. That task was incumbent upon the Pan American Sanitary Bureau.

Dr. González Gálvez (Panamá), after praising the report presented, said that legislation was basic to the development of health programs. The speaker was pleased to announce that, with Dr. Ríos' cooperation, the legislation of Panamá had been reviewed and that a comprehensive health code had been drawn up and submitted to the appropriate authorities for approval.

Mr. Burton (Barbados) said that he too was impressed by the scope of the study. Because of the diversity of national constitutions and practices, legislation was often something which revealed how countries differed. The study, however, demonstrated that their health aims were virtually identical. That was borne out by the approach which the Canadian International Development Agency had adopted when assisting Barbados in the revision of its legislation. He wished to take the opportunity to thank the Agency publicly for its help.

Dr. Ríos (Consultant, PASB) considered it desirable to clarify a basic point in cooperation with medical officers, namely, the role of health legislation in society. It was essential to determine whether what was needed was a body of laws and regulations to deal with the organization and structure of the health services and with the allocation of functions, or whether the legislation had to go much further and include the role of the individual within society.

The Chairman asked the Rapporteur to draft a resolution on Item 26 for consideration by the Committee, taking into account Resolution XVI of the 64th Meeting of the Executive Committee and the comments made.¹¹

Dr. Horwitz (Director, PASB) thanked the delegates for their comments. He pointed out that, as Dr. Ríos had explained, the extent of the survey carried out could be seen in the 3,119 cards summarizing both the general and the specific legislation in this ever-growing field. The question raised by Drs. Juricic and Orellana as to whether the Governments wished the Organization to

continue performing this function was well taken, since thought must indeed be given to the need for keeping the data current, a task not yet under way. If the reply was affirmative, the next question would have to be: What did the Governments and the Organization want done with the data thus compiled, since, as with statistics, it made no sense to publish them if they were not used? Although the Pan American Sanitary Code, which dated back to 1924, had been amended with the issuance of the first International Sanitary Regulations, its content was still clearly out of keeping with the terminology used in the course of the discussion on the item.

Dr. Ríos had noted that the basic question, which lay beyond the purpose of health legislation, was far from settled. It was worth considering whether one should be concerned with the behavior of human beings in the light of their own and others' health needs, or solely with the organization and administration of health services. The answer to that question had to be reflected in national legislation and in a revised Pan American Health Code. Moreover, if the Conference decided that the Bureau should carry on that task, another question would be: What should be done with the professionals who were now completing their studies or would be trained in the years to come and who would perhaps continue to underestimate the importance of existing laws and to disregard the fact that they must be enforced and updated through experience? To prevent such a situation, it would be well to encourage schools and departments of the health sciences and law to deal with the problem. Another question concerned the course of action to be taken by the Organization. All those queries had to be reflected in the Organization's program and budget, which would be submitted to the Governing Bodies once it was decided whether one or another course should be followed. When Committee II and then the Conference in plenary session studied the problem of the relationship between man and his environment, the basic question of determining the health ministries' responsibility in matters that clearly encompassed all sectors would immediately arise; and it would then be necessary to decide whether those ministries should concern themselves with essentially multidisciplinary issues and what their responsibilities should be. In any attempt to fix such responsibilities, the legal question would inevitably arise, for without laws and regulations action was impossible. The Director therefore requested that in the drafting of the resolution on the item, or at least in the discussion on the proposal, specific instructions be given on the course to be followed by the Organization,

¹¹See p. 204.

in the knowledge that in due time the Executive Committee, the Directing Council, or the Conference, whichever was the appropriate body, would receive the proposals for consideration in the light of their impact on the Organization's program and budget.

*The session was suspended at 10:20 a.m.
and resumed at 11:05 a.m.*

Item 33-a: Long-Term Planning and Evaluation

Dr. García Gutiérrez (Chief, Department of Special Technical Services, PASB) presented two documents to the Committee members: CSP18/16,¹² on long-term planning and evaluation, and CSP18/27,¹³ on long-term financial indicators. They dealt, respectively, with Items 33-a and 33-b, which because of their close relationship might best be considered jointly. Item 33-a was concerned specifically with the process of planning the assistance activities of the Organization with the countries; the document before the Committee reported on the measures promoted and taken by the Bureau pursuant to resolutions of the World Health Assembly and of recent meetings of the PAHO Executive Committee and Directing Council. At its XIX Meeting (1969) the Council had adopted Resolution XXVII,¹⁴ whose operative paragraphs 3 and 6 recommended that the Director prepare "long-term plans and the corresponding budget estimates," "bearing in mind the guidelines and stages proposed by the Twenty-Second World Health Assembly" and in conformity with "national health plans, the needs of the countries, and the objectives of the Governments," and that the Director report "on progress in implementing the planning process, including the participation of Member Countries."

Accordingly, the procedure that the Organization proposed to follow in its joint programming with the countries, and whose purposes were set forth in the appendix to Document CSP18/16, had been submitted to the Executive Committee for consideration at its 64th Meeting.

It was logical to assume that the programming of activities of the Organization would be in support of the development and implementation of the health plans of the countries at each stage and, consequently, it was essential that the process be carried out within the

context of the basic social and economic development factors of the countries and in close cooperation with the specialized agencies of both the Inter-American System and the United Nations. The proposed process had been the object of a preliminary field test in August 1969, as the result of which appropriate modifications had been introduced in the original plan and an initial program of work had been drawn up to serve as a guide for that joint action with the countries. Pursuant to one of the requests made by the Executive Committee and the Directing Council, the Director had sent a note to the health authorities of the countries of the Americas suggesting the organization of joint working groups, to be composed of national officials and Organization staff and charged with the follow-up of the various stages of the process and, basically, with identifying the critical areas for which external cooperation was required. That provided a single frame of reference to which the Organization would adjust once each country decided which were the activities for which PAHO assistance was needed. The joint planning process with the countries had been initiated in March 1970 and, as the table annexed to the report showed, 22 countries had, with PAHO staff assistance, drafted preliminary programs for which the Organization's aid during the next four years was projected. Two countries had decided to furnish only basic information, pending resumption of the process early in 1971. Finally, two countries had not yet taken any action.

The information received was now being analyzed, including the preliminary programs that countries had submitted to the Organization, based on the joint definition of areas requiring priority assistance from PAHO. It would thus be possible to prepare initial quadrennial projections, whose initial review would take place in the last quarter of 1970.

It was important to note that implementation of the decisions of the Governing Bodies of the Organization called for cooperation on the part of all the countries, not just a few of them, for if all the Governments did not send the pertinent information on the critical areas requiring PAHO cooperation, it would be extremely difficult to prepare the regional projects and to arrive at an over-all projection. The procedure being followed should be perfected gradually, with experience or on the basis of the results of the supplementary studies. The feasibility of its application, both for the Organization and for the countries, would be the subject of a special statement by the Director when he presented his proposal on the General Program of Work of PAHO/WHO. Inasmuch as that item was closely related to the subject of long-term financial indicators, the speaker

¹² See Annex 6.

¹³ Mimeographed document.

¹⁴ Official Document PAHO 99, 76-77.

asked whether there were any questions before the next item was taken up.

Dr. Alvarez Gutiérrez (Mexico) was pleased by the rate of progress of the joint planning, which would benefit the countries by giving them the opportunity to express their needs for international assistance and would also facilitate the work of the Organization by enabling it to plan its activities in accordance with the countries' real needs. Furthermore, the Governments would have a clearer picture of the range of international assistance available to them, a far from easy task for the health sector to deal with, as had been apparent in the case of natural disasters.

Mexico's falling behind schedule was due to its awaiting the change in administrative authorities, so that the new officials might deal directly with representatives of the Organization with a view to the joint preparation of the four-year program, in which the Government of Mexico was most interested and which it looked upon with much hope.

Dr. Juricic (Chile) found the report useful because, although much was said about the need for the Organization to plan its activities, its objective of assisting the countries would be thwarted unless the countries themselves began to identify the areas that required priority assistance.

Thus far, whenever a problem arose the countries turned to the Organization for support; yet experience had shown that when the problem was truly serious and pressing, the Organization was unable to furnish assistance because by then its resources were committed to other activities, which probably had lower priority.

It was therefore incumbent upon the countries to furnish not only the basic information that a good many of them had already supplied, but also detailed information that would enable the Organization to carry out its task properly.

The speaker proposed that a resolution to that effect be drafted.

Dr. Aguilar Rivas (El Salvador) said that his country had been engaged in health planning since 1964 and that now, with the system of joint action, progress in that sector was expected. The long-term planning would facilitate the work of PAHO as well, in that priorities could be more effectively determined at the outset.

The speaker asked whether evaluations would be made on an annual or biannual basis, or upon termination of projects, and whether they would be conducted at the request of the countries or on the Organization's initiative.

Dr. Talbot (Guyana) said that she was aware of the importance of long-term planning and evaluation and hoped that PAHO would assist countries in that respect. The Delegate of Chile had rightly stressed the importance of countries providing full information, but Guyana was unable to do so because of its inadequate data collection arrangements. She was not in favor of help which consisted in the organization of planning courses for a handful of senior administrative officials of ministries of health, because in Guyana, with its open civil service system, such staff might be transferred to other departments at short notice and the Ministry of Health deprived of the benefit of their planning knowledge. The kind of assistance she would welcome would be guidance from PAHO as to the lines along which the whole process of planning and evaluation should be developed, so that all concerned, instead of only the few who had taken a course, could be associated with it.

Mr. Rosenthal (United States of America) said that he had listened with interest to both the presentation and the delegates' comments on long-term planning, which was an essential activity if the maximum use was to be made of limited resources. He thought that long-term planning should receive greater emphasis in the country reports presented to the Sanitary Conferences. He suggested that, in the future, the Governments should forward in advance to the Secretariat, for distribution to delegations, the kind of report they had previously submitted to the Conference from the floor—i.e., their account of progress in the public health field—and use their floor time for describing instead the problems they had encountered in long-term planning and any solutions they had found. That would allow an exchange of ideas on those problems at least every four years.

Dr. Frazer (United Kingdom) said that long-term planning could not be divorced from long-term objectives. It was convenient in some countries to define a long-term objective by a change in a health index, and so the quadrennial exchange of information suggested by the United States Delegate might well consist of reports of countries' failures rather than their successes. That would not only be salutary for the reporting Government but also conducive to fruitful discussion. Greater advantage could be obtained from studying countries' achievements at leisure in printed form than from considering them in the conference room.

Dr. García Gutiérrez (Chief, Department of Special Technical Services, PASB), in reply to the question

raised by the Delegate of El Salvador, explained that the procedure was based on four-year planning with annual evaluations, both global and by project, so that those areas not covered in the initial projections might be examined. Since it was always a matter of projections, the targets would have to be reviewed each year in order to keep them in line with the progress of the work.

Although the method was originally conceived as covering a 10-year period, the Governing Bodies had recommended a limit of four years; evaluations, however, were to be annual.

Dr. Talbot's comments were extremely well taken, for joint action was indeed impossible when one of the elements acted in isolation. In the initial stage a change in attitude and an acceptance of the method were needed. There was no denying that certain shortcomings had been noted, but through experience and on the basis of joint action they could be overcome in the future. As for Dr. Talbot's request for guidance for the programs, the Organization would bear that problem in mind and attempt to solve it in the most fitting manner.

In reply to the Delegate of the United States of America, the speaker said that the suggestion warranted consideration, although in his opinion the way in which the material was now presented in the quadrennial projections made it possible to regularize the problems and to propose possible solutions.

The determination of long-term objectives, mentioned by the Delegate of the United Kingdom, would be achieved gradually and adjusted periodically, so that within four years the criteria necessary for an evaluation of the programs would be available.

The speaker thanked the Delegates of Chile and Mexico for their comments.

Dr. Alvarez Gutiérrez (Mexico) said, in connection with the statement made by the Delegate of El Salvador, that in his country all projects were the object of a quarterly evaluation conducted jointly by representatives of the Organization and by the official in charge of each project. Under such a system, it was possible to keep abreast of the progress of the work.

Dr. Horwitz (Director, PASB) called the Committee's attention to the general activities of the Organization in health planning. By mandate of the Governing Bodies, the process of health planning had been promoted for the past eight years, with a good deal of progress made. More than 200 persons had been trained in an international course and probably several hundred more in national courses, but what was most significant was having created an awareness of the need for health planning.

Much remained to be done before the policy decision could be translated into sufficient continuity and solidity to prevent the political vicissitudes of a country from affecting the national health plans, but until a national health planning process was formulated, implemented, evaluated, and consolidated, the programming of activities on the part of international organizations would lack the necessary support that those plans could offer. Thus, the method of quadrennial projections had been established to facilitate international planning, particularly that of WHO and PAHO. Although that method was equally applicable to any other period, the four-year term corresponded to the Organization's budgetary cycle. In fact, the period was not four years, since each year adjustments were made, evaluations were conducted, and planning for the next four years was carried out. Under ideal conditions, the quadrennial projections would stem from national health plans and their priorities.

After explaining to Dr. Frazer that there could be no plan without quantifiable objectives, the Director noted that in the absence of national health plans the quadrennial projections took on the autonomy characteristic of a system, and although they in no way served as a substitute for national plans because of a lack of identified priorities and targets, the process went forward on the basis of experience and intuition, with a Government's aspirations and the manner and place it wished to fulfill them with international assistance being arrived at by deduction.

Once the quadrennial projections were formulated, evaluation became a *sine qua non* the moment each program was established; the hypothesis of change, the objectives reflecting it, and implementation had also to be taken into account.

Dr. Horwitz noted that for many years the Organization had been attempting to evaluate all the projects. As had been mentioned at yesterday's session, chapter VIII of the Annual Report contained a summary of the objectives, the work accomplished, and the failures that had been met with. It was thought that if the countries adopted a system for evaluating the projects that were implemented with PAHO assistance, the health ministries might decide to extend that method to all their activities, especially those that received no external support yet were perhaps more important than those that did. As could be anticipated, the method would lack proper balance unless the quadrennial projections and their evaluations were linked with the administrative and budgetary cycle. The time would come when all those tools would be supplemented by comprehensive systems of data by project and when modern

methods in communications science would be brought to bear, so that all the human resources and, through them, the material and financial resources as well might be devoted to the achievement of clearly defined objectives. There was no doubt that the system under discussion was still in its infancy.

The Director thanked all the Governments for the interest they had shown in the system of quadrennial projections and for the favorable reception they had given it. Unless the Governments specified to the contrary, he considered it necessary to continue attempting to achieve the goal of national planning, using the quadrennial-projection system as an interim measure.

The Chairman asked the Rapporteur to draft a resolution on Item 33-a, reflecting the comments made, for submission to the Committee.¹⁵

Item 33-b: Long-Term Financial Indicators

Dr. Barrenechea (Chief, Planning Section, PASB) pointed out that Item 33-b had been included pursuant to Resolution EB45.R13¹⁶ adopted by the WHO Executive Board at its Forty-Fifth Session, when it had been decided to submit the matter to the regional committees for consideration. According to available information, the long-term financial indicators, which expressed program costs at their various levels of implementation, were based on a relationship between objectives and costs of programmed activities, and program achievement; it was therefore hoped that their use would improve the preparation of programs and facilitate the decision-making process and financial arrangements. The indicators permitted a quantitative analysis of the advantages and disadvantages of achieving certain objectives. However, the tools available for establishing such indicators did not allow the application of solely quantitative criteria, and decision-making and program evaluation thus had to be based on a sound qualitative analysis. Nor could the indicators be used as the single or principal criterion for solving the recurring problem of allocating resources to programs of a different nature, not only among the various sectors but within the health sector itself.

The indicators served only as guidelines to support sound reasoning. Moreover, the problems related to the period of programming, especially if it was long-term, called for great caution in the interpretation and use of

the indicators, with unforeseen modifications being introduced during the programming.

Although the design and application of the indicators could theoretically help improve the planning and evaluation of the activities of the countries and of PAHO/WHO, as well as the budgetary process, the conditions underlying their formulation were numerous. Establishing these indicators would make it imperative to introduce in the countries' planning processes a thoughtful definition of their health policies and strategies and the precise setting of goals, which in turn called for a clear-cut definition of the problems, an assessment of the possibilities for solving them, and a decision on coverage.

It was therefore essential to identify and classify precisely the program activities and their stages, and to determine the time required for their organization; and the utilization of network analyses, flow charts, etc., was also needed. Moreover, consideration had to be given to the possibility of having resources available for carrying out such activities, in accordance with the level of sectoral and national development, whether current or anticipated for a stipulated period, and to determining the real and monetary costs, a step that presupposed the definition of other production functions.

The decision on the various combinations of resources required the use of cost-effect methods of analysis which, in turn, called for certain hypotheses on the relation between program achievement and anticipated results. That achievement hypotheses were inevitably undermined by the influence of variables outside the health sector was all too well known.

Once the decisions were made regarding activities and combinations of real and financial resources required for their implementation, the need for external assistance had to be estimated in sufficiently specific terms and an evaluation made of the institutional or sectoral absorption capability with regard to that assistance. Such an analysis had to be made in the light of the programs of the sectoral plan taken as a whole.

It was incumbent on PAHO and WHO, for their part, to establish a similar system for planning their own activities. Formulating the proposed indicators would impose on both organizations the same need for detail and precision as that placed on the countries. In reality, most of the factors that affected the operation of the indicators were beyond the control of the two organizations. The preparation of long-term financial indicators for program and budget projections had an additional limitation: the need for making assumptions regarding the contribution of PAHO and WHO activities

¹⁵See p. 205.

¹⁶*Off. Rec. Wld Hlth Org.* 181, 8-9

to the success of the countries' activities in the solution of health problems. The weakness of the assumptions on the efficacy of a given course of action in the health sector was even more apparent when an attempt was made to apply them to the activities of the Organization. In most cases the Organization's assistance constituted the support for certain partial activities included in the countries' programs. Generally that assistance did not have the same demographic and geographic coverage as did the activities of the recipient countries, and it was usually oriented toward the support of general activities (personnel training, improvement of statistical data, administration, research). That kind of assistance for the development of the health infrastructure was of major importance and indeed essential to the success of activities designed to raise the level of health, but the quantitative evaluation of its contribution to the fixed goals was particularly difficult because its repercussions were necessarily felt throughout the system.

In mentioning those points, the speaker wished to describe a situation that was extremely complex and that required thorough study, in the light of the development of the countries' health services.

It was hoped that the joint action of countries and the Organization would be carried forward in the development of planning, in the case of the quadrennial projections, and that the strengthening of national health planning processes would permit the testing and perfecting of programming and the accumulation of sufficient experience on which to base that kind of undertaking.

Dr. Juricic (Chile) recalled that at its Forty-Fifth Session (January 1970) the WHO Executive Board had studied the matter. Although the document under discussion was clear with respect to the ultimate objective of establishing financial indicators—which was a cost-effect measurement so as to obtain the greatest return from available funds and to identify the areas in which investment was advisable—the speaker saw all that as being predicated on a sophisticated planning process, the establishment of program budgets, and periodic evaluations.

The procedures for achieving those objectives required more thorough study, which would be possible only when national planning and program budgets had come to be routine.

The speaker thought it advisable to have the item taken up regularly at meetings of the Executive Committee and the Directing Council as additional data became available, since the current information was of a general nature.

Dr. Rabinovich (Argentina) noted that an attempt had been made to define the cost-effect relationship but that the methods for applying the system were difficult to consolidate. The document under discussion was really a statement of intent, designed to encourage further study of an extremely complex subject.

Dr. Horwitz (Director, PASB) welcomed the suggestion of the Delegate of Chile with regard to the item, which was to be the object of analysis by the World Health Assembly once it had been re-examined by the Executive Board, and he elaborated on it by proposing a preliminary test of a clearly defined project. In that way, he believed, it would become apparent why the Bureau considered the national cost-benefit and cost-effect studies in the Americas somewhat premature. A carefully controlled trial would make it possible to put the method into practice and to highlight the reasons that counseled a degree of caution with regard to its broader application. Such an experiment, conducted in agreement with one of the Governments, might be under the supervision of the Planning Section and the research department of the Pan American Health Planning Program, in a nationally based project of international cooperation. The results might be reported to the Executive Committee and the Directing Council next year, and the complex question re-examined. The procedure would ultimately take effect in the health sector in response to the need for better use of limited financial resources and for the most persuasive arguments for obtaining greater investments.

The Chairman said that he was confident that the WHO Executive Board would continue to show interest in the subject to which the Chilean Delegate had referred. He asked the Rapporteur to draft a resolution on the item, reflecting the comments made, for consideration by the Committee.¹⁷

The session rose at 12:05 p.m.

¹⁷See p. 205.

SIXTH SESSION

Tuesday, 6 October 1970, at 3:15 p.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

Sixth Report of the General Committee

Dr. Williams (Deputy Director, PASB) read the following decisions adopted by the General Committee at its sixth session, held earlier that day:

1. The President of the Conference announced that a working party had been appointed to study the topics to be proposed for the Technical Discussions scheduled during the XX Meeting of the Directing Council in 1971. The group would be composed of Dr. Alfredo Rabinovich (Argentina), Dr. Francisco M. Tezanos (Dominican Republic), and Dr. Edward J. Valentine (Jamaica). It was hoped that its report would be ready for submission to the plenary session on Wednesday, 7 October.

2. According to the Chairmen of Committees I and II, it was possible that both Committees might conclude their consideration of the items on the order of the day for 6 October by mid-afternoon. Accordingly, following the afternoon recess Committee I, but not Committee II, would reconvene to take up the pending draft resolutions. Immediately thereafter, the eighth plenary session would be held to consider the draft resolutions examined by the General Committee.

3. On Wednesday, 7 October, only Committee II would meet, to consider Items 19 (*Aedes aegypti*) and 35 (General Program of Work of PAHO/WHO Covering the Period 1973-1977). It was hoped that the report on the Technical Discussions held on Friday, 2 October, would be ready for consideration at the plenary session scheduled for Wednesday afternoon, 7 October.

4. Depending on the status of the work, it was possible that the Executive Committee would meet briefly on Thursday, 8 October.

Item 36: Financing of the Program of Textbooks for Medical Students—Pan American Health and Education Foundation

Mr. Moore (Chief, Department of Budget and Finance, PASB), introducing Document CSP18/29,¹ said that it provided some background information regarding the textbook program and the Pan American Health and Education Foundation (PAHEF), and indicated the action needed to allow the program to go forward

Resolution XXXVI² adopted by the Directing Council at its XIX Meeting requested the Director to: (1) continue negotiations with the Inter-American Development Bank for a loan to finance the textbook program; (2) activate the Pan American Health and Education Foundation; and (3) continue interim financing of the program on a limited scale. The document reported on the action taken in each of those three areas.

Four textbooks had already been distributed and a fifth would shortly be available. In the meantime, the main lines of the administrative structure and procedures had been established. Medical schools had shown considerable interest in the program, which should be highly successful if adequate financing could be obtained. The distribution of seven more titles in process of selection would depend on whether those funds would be forthcoming. The textbook loan had been approved by the Project Committee of the IDB and was now awaiting action by the Board of Executive Directors. The loan was to be made, not to PAHO but to PAHEF, which was why the Director had been asked to activate the Foundation. An account of the steps taken was to be found in the reference document. An agreement had been signed between PAHEF and PAHO under which the Foundation would consider the financing of projects proposed by PAHO and would seek the technical advice and approval of PAHO on all projects, and joint programs would be undertaken as mutually agreed in joint plans of operation. The textbook program was to be one of those joint projects. The agreement between PAHO and PAHEF on the program was to be found in the appendix to the document. The budgetary provisions for PAHO support would be found under project AMRO-6000 in the proposed program and budget estimates (*Official Document 98*), pages 411-412.

As was explained in the document, it was necessary for the Organization to provide a collateral for the letter of credit to be provided by The Riggs National Bank of

¹See Annex 9.

²*Official Document PAHO 99, 84.*

Washington, D.C., to guarantee the financing of the textbook program. Accordingly, a draft resolution had been prepared for consideration by the Conference, approving the application and agreement for a commercial letter of credit between PASB and The Riggs National Bank, which was the standard form used in such transactions. A copy of it was available for examination if any member of the Committee wished to see it. The provisions relating the letter of credit to the textbook program were embodied in an amendment which also was available for examination. Under that amendment, PAHO agreed initially to provide collateral in the form of government securities and negotiable certificates of deposit acceptable to The Riggs National Bank to an amount of \$600,000, and that would gradually be increased in future years to a maximum of \$1,000,000 as the level of the loan increased. The depositing of the securities with The Riggs National Bank would not in any way affect the income from those securities, which would be received by the Organization. The securities could be sold or redeemed by the Organization, provided that the total value of the securities in collateral would be maintained. Secondly, the Organization agreed that the Foundation would not increase the loan until additional collateral had been provided. Thirdly, part of the collateral amounting to \$1,040,000 would be provided by a mortgage on the Governor Shepherd building. Lastly, PAHO would waive the immunity from judicial process that it possessed as an international organization in any proceeding instituted to enforce the terms of the letter of credit. Immunity had similarly been waived in the case of the loan from the W. K. Kellogg Foundation for the Headquarters building. The risk involved in the Organization's providing collateral was very small. Its contribution covered the operating costs, and the assets of the Foundation would consist either of stocks of books, which would have a cash value, or of cash received from the sale of books.

The text of the draft resolution was in the form desired by the legal advisers of The Riggs National Bank, with one small amendment in operative paragraph 2-c, where the words "or his duly designated delegate" had been inserted after the word "Director."

The XVIII Pan American Sanitary Conference,

Having studied the report presented by the Director in Document CSP18/29;

Noting with pleasure that the Pan American Health and Education Foundation has been activated under the leadership of Dr. Abel Wolman, and that its broad and continuing cooperative relationship with the Pan American Health Organization has been expressed in a signed agreement;

Taking note of the progress made to date in the textbook program and the signature of an agreement between the Foundation and PAHO for its joint operation;

Bearing in mind that the Inter-American Development Bank has under consideration a loan to the Pan American Health and Education Foundation for the textbook program to be carried out in cooperation with the Pan American Health Organization, but that the loan is subject to guarantee of repayment by means of a letter of credit;

Recognizing that it has been the intention of the XVII Pan American Sanitary Conference, as expressed in Resolution XV, and of the Directing Council at its XIX Meeting, as expressed in Resolution XXXVI, to promote the textbook program both directly and through the Foundation, including the undertaking of necessary financial obligations and support; and

Believing that the loan arrangement represents the best available conditions for financing the textbook program,

Resolves:

1. To approve the form of Application and Agreement for Commercial Letter of Credit between the Pan American Sanitary Bureau and The Riggs National Bank of Washington, D.C. (Riggs Form 352/Rev.'54, as amended), presented to this meeting.

2. To authorize the Director of the Pan American Sanitary Bureau or his duly designated delegate for and on behalf of the Pan American Health Organization which shall be deemed to include the Pan American Sanitary Bureau, hereinafter referred to as PAHO:

a) To order or receive from or through The Riggs National Bank of Washington, D.C., a letter of credit for the Pan American Health and Education Foundation with the Inter-American Development Bank as beneficiary in an amount of \$2,040,000 and in the form presented to this meeting, secured by collateral provided by PAHO in an amount not to exceed \$2,040,000;

b) To execute, relative thereto, in the name of PAHO and to deliver, from time to time, an Application and Agreement for Commercial Letters of Credit in the form presented to this meeting with such modifications or changes that may seem necessary or desirable to the Director, or his delegate, and such other agreements, applications, hypothecations, pledges, assignments, indemnities, guarantees, loan agreements, notes, or other documents that may seem necessary or desirable;

c) To execute, relative thereto, in the name of PAHO, acknowledge and deliver a deed of trust conveying the Governor Shepherd Apartments, 2121 Virginia Avenue, N.W., to trustees to secure the obligations of PAHO under said Application and Agreement of Commercial Letter of Credit and related letter of credit and to indemnify The Riggs National Bank of Washington, D.C., against loss under said letter of credit, in the form presented to this meeting with such changes or modifications that may seem necessary or desirable to such Director, or his duly designated delegate; and

d) To take any other and further action necessary to carry out and implement the authority hereby granted.

3. That The Riggs National Bank of Washington, D.C., may rely upon the authority hereby conferred until receipt by it of a certified copy of a resolution of this Conference or the Directing Council of the Pan American Health Organization revoking or modifying the same.

Dr. Juricic (Chile) recalled that when the program under discussion had been proposed some years ago it had aroused a good deal of interest in that it was designed to fill a gap in medical education in Latin America. Not only were there few textbooks in Spanish but those that were available were mainly out-of-date translations, at one time from the French and more recently from the English. Besides, the books were expensive, making it necessary for students to rely on the dubious study method of note-taking.

The initial doubts regarding the feasibility of the project had been dispelled by its resounding success, in spite of the limited resources. The need for and viability of the program were apparent from the fact that 75 per cent of the medical schools in Latin America were participating in it and by the cash payment for 80 per cent of the textbooks sold.

The results of the protracted negotiations for the IDB loan could be seen in the draft resolution submitted to the Committee. Although the loan was granted directly to the Pan American Health and Education Foundation, the necessary steps had been taken to ensure the Organization's participation in the program, because of the need for continuing contact between PAHO and the centers.

While fully endorsing the draft resolution, the Delegation of Chile wished to know the status of the 25 per cent of the schools that were not participating in the program—whether discussions with them were under way, whether there were any problems, and if so, of what kind. The speaker also asked whether the textbooks might be sold on the installment plan or made available on a rental basis.

The Chairman thought that, before the draft resolution was put to the vote, the Committee should be assured that the collateral which PAHO was providing would pose no threat to its financial stability.

Mr. Rosenthal (United States of America) asked whether he was correct in assuming that the Governor Shepherd building would represent \$1,040,000 of the collateral, and that the rest would come from the general portfolio of PAHO.

Dr. Villarreal (Chief, Human Resources Development Department, PASB), in reply to Dr. Juricic's first question, said that of the 150 medical schools in the Region, some 110 had joined the program. The remaining 40 were newly established schools or departments, most of them in Brazil, and because the courses of study were limited to the first- or second-year level, they had no need for the textbooks being made available.

Textbooks purchased for cash accounted for approximately 80 per cent of the total, whereas about 20 per cent were paid for in installments. Very few books, less than 1 per cent, had been rented, most likely because of the high discount on the purchase price and also perhaps because rental arrangements would place too great an administrative burden on the local personnel in charge of the programs.

Mr. Moore (Chief, Department of Budget and Finance, PASB) said that the financial stability of the Organization would not be affected by using the Governor Shepherd building as collateral because it was not part of the liquid assets; it would represent just over 50 per cent of the collateral and the rest would be in securities. The Organization had in the reserve for terminal costs an amount which, with the normal growth over the next five years, would be adequate to provide those securities, and which could prudently be used for collateral, since there was not likely to be a drain on the reserve in the near future. Thus the Working Capital Fund would not have to be touched. In any case, it was highly unlikely that the collateral would ever be drawn on.

The Chairman then put the draft resolution to a vote.

Decision: The draft resolution was unanimously approved.³

*The session was suspended at 3:55 p.m.
and resumed at 4:25 p.m.*

Nursing

Draft Resolution Presented by the Delegation of the United States of America

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on nursing, presented by the United States Delegation, as follows:

The XVIII Pan American Sanitary Conference,

Having considered Resolution X approved by the Executive Committee at its 64th Meeting, which recommended to Governments that they organize and set up a nursing system in accordance with the objectives of national health plans, defining the quantity and type of nursing resources required for delivery of health care and the system of nursing education required for the preparation of the different types of personnel, and that they make provision in health plans for necessary funding;

Considering that in that same resolution the Director of the Bureau was requested to continue to promote the nursing

³See tenth plenary session, p. 133.

programs of the Organization and to endeavor to obtain additional funds for their expansion;

Recognizing the essential role played by nursing in the delivery of health care to the population and the relationship between the achievement of program objectives and the availability of adequate and appropriate nursing resources; and

Bearing in mind the need for maximum utilization of nursing resources,

Resolves:

1. To endorse Resolution X approved by the Executive Committee at its 64th Meeting.

2. To recommend to the Governments that they initiate action that will lead to the prompt establishment of a nursing system in which areas of responsibility and quantity and category of personnel required are defined and which is compatible with health program objectives and the type and level of medical care to be provided.

3. To recommend to the Governments that they establish a permanent mechanism for participation by nurses in the planning and evaluation processes and for keeping information on existing nursing resources current and available.

4. To recommend to the Director that he take the necessary steps to provide assistance required by countries in determining their system of nursing and elaborating plans to meet their needs, and that he assign the resources required for effective action.

5. To request the Director to report to the XX Meeting of the Directing Council on the action taken and progress made by the countries.

Decision: The draft resolution was unanimously adopted.⁴

Item 27: Proposed Program and Budget Estimates of the Pan American Health Organization for 1971 (conclusion).

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item, with the amendment proposed by the Delegation of Chile, as follows:

The XVIII Pan American Sanitary Conference

Resolves:

1. To appropriate for the financial year 1971 an amount of \$16,950,165 as follows:

Part I: Organizational Meetings	\$ 363,598
Part II: Headquarters	3,642,169
Part III: Field and Other Programs	9,326,530
Part IV: Special Fund for Health Promotion	250,000
Part V: Increase to Assets	250,000
Subtotal—Parts I-V	<u>\$13,832,297</u>

Part VI: Pan American Foot-and-Mouth

Disease Center

1,405,034

Effective Working Budget (Parts I-VI)

\$15,237,331

Part VII: Staff Assessment

(Transfer to Tax

Equalization Fund

1,712,834

Total—All Parts

\$16,950,165

2. That the appropriation shall be financed from:

a) Assessments in respect to:

Member Governments and Participating 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 or in accordance with the Directing Council resolutions

\$16,745,165

b) Miscellaneous Income

205,000

Total

\$16,950,165

In establishing the contributions of Member Governments and Participating Governments, their assessments shall be reduced further by the amount standing to their credit in the Tax Equalization Fund, except that credits of those Governments who levy taxes on the emoluments received from PAHO by their nationals and residents shall be reduced by the amounts of such tax reimbursements by the Organization.

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 1971, inclusive. Notwithstanding the provision of this paragraph, obligations during the financial year 1971 shall be limited to the effective working budget, i.e., Parts I-VI.

4. That the Director shall be authorized to transfer credits between parts of the effective working 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 of the part from which the credit is transferred may be made with the concurrence of the Executive Committee. All transfers of budget credits shall be reported to the Directing Council.

5. To approve an increase in the appropriation level of \$15,237,331 for the effective working budget specified in paragraph 1 above, in an amount to be determined by the Executive Committee, but not to exceed \$300,000. Such increase shall be financed from any available miscellaneous income and by transfer from the Working Capital Fund, with no increase in the assessments in respect to Member Governments and Participating Governments. This approval is given in recognition of:

a) The probability that the United Nations General Assembly will approve a professional salary increase in 1971, with consequent increased budgetary requirements, for which contingency no provision is included in the amount appropriated in paragraph 1 above.

b) The lack of provision for carrying out the recommendations of the III Inter-American Meeting, at the Ministerial

⁴See tenth plenary session, p. 129.

Level, on Foot-and-Mouth Disease and Zoonoses Control for an additional appropriation for \$300,000 to cover the needs of the Pan American Zoonoses Center.

6. That the Executive Committee give first priority to funding increases in salary costs, within the requirements and limitations expressed in paragraph 5 above.

The Chairman noted that the draft resolution before the Committee, submitted by the Delegation of Chile, incorporated an amendment to the original proposed resolution in *Official Document 98*, consisting in the addition of paragraphs 5 and 6, which suggested an increase in the appropriation for the effective working budget in an amount to be determined by the Executive Committee.

Dr. Bica (Brazil) asked whether the sum of \$300,000 shown in paragraph 5-b was the same as that appearing above in that operative paragraph. It was his understanding that approval of the draft resolution would raise the appropriation level to a total of \$15,537,331, but he wished to be certain.

Dr. Horwitz (Director, PASB) said that paragraph 5 had to be interpreted in the light of paragraph 6. The \$300,000 increase requested would be financed from miscellaneous income and by transfer from the Working Capital Fund, with no increase in the Governments' quota assessments. If the United Nations General Assembly approved the salary increase, the \$300,000 would be used for that purpose; otherwise, the sum would cover the needs of the Pan American Zoonoses Center.

Mr. Rosenthal (United States of America) proposed a minor amendment to paragraph 5, to make it clear that recourse would not be had too often to the Working Capital Fund. The second sentence of that paragraph would read: "Such increase shall be financed in the first instance from any available miscellaneous income and then, if necessary, by transfer from the Working Capital Fund, with no increase in the assessments in respect to Member Governments and Participating Governments."

Dr. Valladares (Venezuela) considered the explanation given by the Director with regard to the utilization of the \$300,000 perfectly clear, but he found the wording of paragraph 6 less so and therefore in need of revision.

Dr. Frazer (United Kingdom) said that the impression he received from the English text was that if a raise in salaries was approved for 1971, there would be no money for the Pan American Zoonoses Center; whereas he had understood that both projects were meant to be funded, but that the pay increases would come first.

Dr. Horwitz (Director, PASB) replied that the Bureau would very much like to do that, if the Committee would provide the necessary \$600,000. But he took the amended resolution to mean that an increase of \$300,000 would be authorized, and would be used for an increase in salaries if that were approved by the United Nations General Assembly, or if not, for the Pan American Zoonoses Center. He had not understood that both projects were to be funded in 1971, but that in 1972 the additional \$300,000 would be used for the Zoonoses Center, under the terms of the pertinent resolution.

Dr. Valladares (Venezuela) proposed that paragraph 6 of the draft resolution be worded as follows: "That in applying the increase called for in paragraph 5, the Executive Committee give first priority to funding increases in salary costs."

Dr. Juricic (Chile) thought the proposed change added little to the resolution, but saw no reason to oppose it.

Dr. Aldereguía (Cuba) wished to state for the record that the manner in which the draft resolution had been presented did not permit the Governments to express their support for the \$300,000 increase in the appropriation level of the Pan American Zoonoses Center. According to both the letter and the spirit of the text, the funds would be assigned to the Center only if the salary increase were not approved. However, the Delegation of Cuba was under instructions from its Government to endorse the \$300,000 increase for the Pan American Zoonoses Center, which was one of the Organization's multinational centers that allowed the full participation of all Member Countries, and he wished to so state before a final decision was adopted.

Dr. Ronco (Uruguay) said that the Delegation of Uruguay was in full agreement with the view expressed by the Delegation of Cuba.

Decision: The draft resolution with the amendments proposed by the Delegates of the United States of America and Venezuela, was adopted by 16 votes in favor, with 4 abstentions.⁵

Item 28-b: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972 (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item.

⁵See tenth plenary session, p. 130.

Decision: It was unanimously agreed to recommend that the Conference approve the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1972, appearing in *Official Document 98*, and to request the Regional Director to transmit them to the Director-General of that Organization so that he may take them into account in preparing the WHO budget estimates for 1972.⁶

Regional Projects to be Implemented in 1971-1972 with Funds of the United Nations Development Program

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to recommend to the Conference that it (a) urge the Governments to continue to give full consideration to the importance of health activities in social and economic development, and to increase the proportion of health projects in the total number of projects requested from the UNDP; (b) endorse and recommend approval to the UNDP of those regional projects proposed for the Region of the Americas for the program period 1971-1972; (c) recommend to the UNDP approval of proposed interregional projects which foster public health throughout the world and in particular those in which the Governments of the Americas may participate; (d) recommend to the Governments that they individually make known their interests and endorsements to the UNDP in the regional and interregional projects; and (e) request the Director to continue to provide the ministries of health with assistance in preparing projects for submission to the UNDP, and to remind them that under the current system for making such submissions they may present requests for health projects at any time during the year.⁷

Item 29: Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item, as follows:

The XVIII Pan American Sanitary Conference,

Having studied *Official Document 98*, 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 Proposed Program and Budget Estimates of the Pan American Health Organization for 1972 to be considered by the 66th Meeting of the Executive Committee and by the XX Meeting of the Directing Council; and

Recognizing that the provisional draft of the Proposed Program and Budget Estimates contains soundly conceived and much-needed health projects,

Resolves:

1. To take note of the provisional draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1972, appearing in *Official Document 98*.

2. To request the Director to use the provisional draft as a basis for preparation of the Proposed Program and Budget Estimates for 1972, after further consultations with Governments to determine their latest desires and requirements in relation to the priorities of the Organization.

3. To request the Executive Committee to make a detailed examination of the revised Program and Budget Estimates for 1972 to be presented by the Director, after further consultations with Governments, and to submit its recommendations thereon to the XX Meeting of the Directing Council.

Dr. Mohs Villalta (Costa Rica) believed that paragraph 2 should be reworded to read "... in relation to the priorities of the Governments and of the Organization," rather than "... in relation to the priorities of the Organization."

Decision: The draft resolution as amended was unanimously adopted.⁸

Item 28-c: Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1973 (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item, as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Proposed Program and Budget Estimates of the World Health Organization for the Region of the Americas for 1971 and 1972 as contained in *Official Document 98*; and

Recognizing the need to project probable program needs into future years,

Resolves:

To recommend to the Director-General that he include in the Program and Budget Estimates of the World Health Organization

⁶See tenth plenary session, p. 131.

⁷See tenth plenary session, p. 131.

⁸See tenth plenary session, p. 133.

for 1973 the proposed program for the Region of the Americas as detailed in Document CSP18/20.

Dr. Mohs Villalta (Costa Rica) favored substituting the word "conveniencia" for "necesidad" in the second paragraph of the preamble of the Spanish text.

Dr. Frazer (United Kingdom) suggested that the phrase amended by the Delegate of Costa Rica should read in English: "Recognizing the advisability of projecting probable program needs into future years."

Decision: The draft resolution as amended was unanimously adopted.⁹

⁹See tenth plenary session, p. 133.

Assessments of the Member Governments and Participating Governments of the Pan American Health Organization

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item, which established the assessments of the Member Governments and Participating Governments for 1971.

Decision: The draft resolution was unanimously adopted.¹⁰

The session rose at 5:25 p.m.

¹⁰See tenth plenary session, p. 130.

SEVENTH SESSION

Wednesday, 7 October 1970, at 4:05 p.m.

Chairman: Dr. S. Paul Ehrlich, Jr. (United States of America)

Seventh Report of the General Committee

The Chairman called upon the Secretary to read the decisions of the General Committee adopted at its meeting that had been held at noon.

Dr. Williams (Deputy Director, PASB) read the decisions adopted by the General Committee, as follows:

1. During the afternoon, 7 October, Committees I and II would meet, as indicated in the order of the day.

2. Immediately following the meetings of Committees I and II, the ninth plenary session would be convened to discuss Item 35 (General Program of Work Covering the Period 1973-1977), Item 17 (Selection of the Topic for the Technical Discussions at the XX Meeting of the Directing Council), and Item 16 (Technical Discussions: Venereal Diseases as a National and International Health Problem). It would also consider draft resolutions and reports of the Committees.

3. If necessary, a plenary session would be held at 9:00 a.m., 8 October.

4. The 65th Meeting of the Executive Committee had been scheduled for 10:00 a.m., 8 October, in Room B. All Member Governments on the Executive Committee should be represented at that meeting. Should a plenary session be held on 8 October, the meeting of the Executive Committee might be postponed to later in the morning or early afternoon.

5. The closing session of the Conference had been fixed for 5:00 p.m., 8 October.

6. The General Committee had agreed that future proposed resolutions from Committees should be sent to the Rapporteur of the Conference, and that the General Committee would not meet again unless it considered it necessary.

7. Since delegates had had an opportunity to review and express their opinions on proposed resolutions at the Committee level, the General Committee would suggest that, when those were presented at plenary session, only the titles be read, in order to expedite the order of business.

8. The General Committee had also reviewed the reports of Committees I and II and the proposed resolution presented by the Delegate of El Salvador on the country reports.

Item 26: Health Legislation (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to recommend to the Conference that it (a) approve the report of the Director on the survey of basic health legislation in the Americas and request the Governments to forward the pertinent documentation to complete the report, so that it may be given wide distribution among the Member Countries; (b) urge the Governments to promote the revision and modernization of their health laws

and regulations; (c) recommend that they encourage the universities to give due attention to the teaching of health legislation in law schools, medical schools, and schools of public health; (d) request the Director to continue to provide the countries that request it with technical assistance in revising and modernizing their health legislation; (e) request him to sponsor meetings of interdisciplinary study groups to discuss legal matters and the unification of the basic principles of health legislation; and (f) recommend that he continue to promote and carry out studies on the modernization of the Pan American Sanitary Code.¹

Item 33-a: Long-Term Planning and Evaluation
(conclusion)

Dr. Pineda (Honduras, Rapporteur) read the following draft resolution:

The XVIII Pan American Sanitary Conference,

Having considered the reports of the Director of the Bureau on the steps taken in connection with the joint programming of the assistance required by the countries in dealing with their priority health problems (Documents CSP18/16 and CE64/8, Rev. 1);

Recognizing that the immediate outcome of the first stage of this process has been to permit an orderly review of the health problems of the Region, of individual countries, and of groups of countries which has provided the Bureau with guidelines in selecting the areas in which to provide the most assistance;

Considering that, if the procedure is to be improved, not only must further studies be carried out, but it is necessary for PASB to continue to receive the full cooperation of the countries that have adopted the procedure and for those countries which have not yet done so to accept it;

That the formulation, execution, and evaluation of national health plans constitute the basis for the satisfactory joint programming of the Organization's activities; and

Considering that, with the work now in progress, the pertinent resolutions of the Executive Committee and the Directing Council of PAHO and the World Health Assembly are being carried out,

Resolves:

1. To approve the reports of the Director on the activities carried out in connection with the long-term planning and evaluation of PAHO/WHO assistance to the countries (Documents CSP18/16 and CE64/8, Rev. 1).

2. To recommend to Governments that they adopt or continue to apply the joint programming procedure.

3. To recommend to the Director that he continue the studies for the improvement of the procedure so as to ensure that maximum use is made of the available resources.

¹See tenth plenary session, p. 141.

4. To recommend to Governments that they continue their efforts to apply health planning procedures at the national level.

5. To request the Director to continue to apply the joint programming procedure in the formulation of the Organization's programs and budgets, and to report on the results of his efforts to the XX Meeting of the Directing Council.

Dr. Rabinovich (Argentina) proposed that in the second paragraph of the preamble of the Spanish text the word "con" be deleted.

Dr. Valladares (Venezuela) pointed out that the word "Considering" should be inserted at the beginning of the fourth paragraph of the preamble.

Decision: The draft resolution, with the amendments proposed by the Delegates of Argentina and Venezuela, was unanimously approved.²

Item 33-b: Long-Term Financial Indicators (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the draft resolution on the item:

The XVIII Pan American Sanitary Conference,

Considering Resolution EB45.R13 on long-term financial indicators adopted by the Executive Board of the World Health Organization at its Forty-Fifth Session;

Affirming that the definition, preparation, and utilization of such indicators is an inseparable part of the procedures for health planning and for the programming of activities to achieve the goals of the health policies of the countries;

Understanding that the possibility of developing and using these indicators depends fundamentally on a substantial improvement in national planning procedures, on the accuracy of the programming of the activities concerned in the countries, and on the extent to which the internal programming procedures of PAHO/WHO have been developed, as well as a precise knowledge of the impact of specific activities in modifying health situations; and

Recognizing that this highly complex subject requires more detailed study and that, in particular, the Organization must undertake consultations with the Governments,

Resolves:

1. To recommend to the Director of the Bureau that he undertake the necessary consultations with the Governments.

2. To postpone discussion of this question until the Directing Council has held another meeting and has had an opportunity to examine the results of these consultations.

3. To request the Director-General of the World Health Organization to include this resolution and the view expressed by the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee for the Americas, in the report to be prepared for the Forty-Seventh Session of the WHO Executive Board.

²See tenth plenary session, p. 140.

Dr. Valladares (Venezuela) said that, in his opinion, the English phrase "long-term financial indicators" would be rendered more precisely in Spanish as "indicadores financieros a largo plazo," in the title of the resolution.

Decision: The draft resolution, with the amendment in the Spanish version proposed by the Delegate of Venezuela, was unanimously approved.³

*The session was suspended at 3:35 p.m.
and resumed at 4:05 p.m.*

Item 30: Organization of Regional Assistance in the Event of Disasters Exceeding the Operating Capacity of the Affected Country (conclusion)

Dr. Pineda (Honduras, Rapporteur) read the complete text of the draft resolution submitted on the item and operative paragraphs 3 and 4 of the draft proposed by the Representative of the United Kingdom, since in all other respects the two documents were identical. The original text was worded as follows:

The XVIII Pan American Sanitary Conference,

Cognizant of the proposal of the Government of Peru on the organization of regional assistance in the event of disasters (Document CSP18/26, Annexes I and II);

Bearing in mind that natural disasters occur relatively frequently in certain geographic areas of the Hemisphere, and may occur sporadically in virtually all of them;

Taking into account that natural disasters may give rise to emergencies which, because of their magnitude in relation to the resources of the country itself, exceed the possibility of coping with them properly and make external assistance necessary;

Considering that a proper organization and national planning sometimes make it possible to prevent and always to reduce in large measure the consequences of natural disasters and as a corollary the magnitude of the emergency;

Recognizing that, in those countries which have not yet done so, it is necessary to establish agencies capable of coping with such emergencies and to plan their activities so as to make better use of national resources as well as to be in a position to request with precision and to use as effectively as possible external assistance, regardless of its origin;

Considering that because of the diverse origin and nature of external assistance, there is obviously a need for a coordinating agency whose main office must be in the country affected and under the egis of its authorities;

Taking into consideration that the existence of a proper national organization and prior planning of the use of resources to cope with emergency situations are essential to enable the country to establish the necessary coordination with agencies of

the United Nations System, with the Inter-American Emergency Aid Fund, and with bilateral assistance agencies; and

Having taken note of the document submitted by the Director of the Bureau on the problem of emergency situations and existing arrangements for dealing with it (Document CSP18/26),

Resolves:

1. To recommend to the Governments, and especially to those of countries situated in geographic areas in which natural disasters are more frequent, that they make provision in their plans for the establishment of the necessary agencies in order to cope with emergency situations caused by natural disasters or for their improvement if they already exist.

2. To recommend to the Governments that they pay special attention to the planning of health measures to be taken in emergencies and that they assign it due priority.

3. To request the Director of the Bureau to study the method of collaborating with the Governments and provide them with the assistance they deem necessary for studying the situation, establishing the necessary agencies, and planning the work to be carried out in an emergency.

4. To request the Director to study existing external assistance arrangements and, in collaboration with the authorities of the health sector of the countries, to attempt to establish agencies for coordinating and channeling assistance so as to take better advantage of it.

Operative paragraphs 3 and 4 of the draft resolution proposed by the Delegate of the United Kingdom read as follows:

3. To request the Director, who is a member of the Inter-American Emergency Aid Committee, to provide assistance to Governments in the coordination of health measures with their total emergency aid activities.

4. To urge Governments to make the most effective use possible of the services of the existing Inter-American Emergency Aid Committee for those emergencies which require a coordinated multidimensional aid activity.

Dr. Frazer (United Kingdom) said that there was no intention in his amendment of altering in any way the sense and practicability of what had already been proposed. Since the Inter-American Emergency Aid Committee was already in existence, and since the Director was a member of it, it seemed to him that it would only confuse the issue to instruct the Director to try to establish a multiplicity of agencies. When there was a disaster what mattered most was speed, and what was needed from the disaster area was information. On the basis of that information action could be taken by outside agencies. An already existing Emergency Aid Committee would be able to act quickly with the information it was given. He was not suggesting that the Pan American Health Organization abdicate its responsibility, but the first need was usually to open a line of communication to the site of the disaster. The purpose

³See tenth plenary session, p. 140.

of his amendment was to try to streamline the provision of aid.

Dr. Marchand (Peru), after thanking the Delegate of the United Kingdom for clarifying his proposed amendment, said he saw a subtle difference between the two versions.

Operative paragraph 3 of the first draft contemplated the Director's studying the method of collaborating in the establishment of the agencies necessary for coping with emergencies. Even though such agencies already existed in most countries, some were inadequate and could be improved with the help of PAHO. The amendment proposed by the United Kingdom was concerned instead with a coordination system not designed to strengthen the national agencies.

The Delegation of Peru strongly favored retaining operative paragraph 3 of the original draft resolution, since it was more in keeping with the consensus of the group. As for paragraph 4, the original draft envisaged the Director's undertaking a thorough study to analyze existing external assistance arrangements and to assess their effectiveness, whereas that paragraph in the second draft was more static in nature in that it called only for recourse to an existing Committee. However acceptable its underlying concept, the latter version placed limits on the more flexible original text, whose operative paragraph 3 in any case embodied the amendment proposed by the Delegate of the United Kingdom. Calling for a study of existing arrangements did not rule out the possibility that the Committee in question would be considered the most effective, but that remained to be proved.

The speaker reiterated his endorsement of the original resolution and proposed that in paragraph 4 the phrase "in the event of disasters" be inserted after the word "assistance," to emphasize its extraordinary nature.

Dr. Ronco (Uruguay), seconding the motion of the Delegate of Peru, said he would vote in favor of the original draft resolution with the amendment just proposed.

Dr. Alvarez Gutiérrez (Mexico) favored the original resolution, which he felt did not rule out but rather expanded upon the proposal of the United Kingdom. Should recourse to the Inter-American Committee not be possible, aid could be obtained from another agency, upon the advice of the Director.

Dr. Juricic (Chile) endorsed operative paragraph 3 of the original resolution, which he considered very different from the amendment put forward by the

United Kingdom in that it requested "the Director of the Bureau to study the method of collaborating with the Governments and provide them with the assistance they deem necessary for studying the situation, establishing the necessary agencies, and planning the work to be carried out in an emergency." The original text thus took into account the preparatory measures that each country should adopt in the event of a disaster.

The speaker also preferred operative paragraph 4 of the original draft, but he favored changing the phrase "attempt to establish agencies for coordinating and channeling assistance," since such agencies already existed within and outside the United Nations System. What was needed was channeling assistance, not creating new agencies.

Dr. Wells (Barbados) suggested that operative paragraph 4 of the second revision of the proposed resolution might be incorporated in the first revision as its operative paragraph 5, and the first revision thus amended be voted upon, instead of the second revision. The added paragraph would make the point that Governments should make full use of the existing Inter-American Emergency Aid Committee.

Dr. Frazer (United Kingdom) said that, having listened to the remarks by the delegates of other countries, he felt sure that there was no conflict of intentions. His purpose was really to avoid a proliferation of further agencies and to make the best use of what already existed. It was obvious also that the Director would, when a terrible disaster occurred such as that which had been suffered by Peru, give every assistance in his power, whether or not the Conference told him what to do.

Dr. Ronco (Uruguay), agreeing with the Delegate of Chile on the proliferation of new agencies, proposed that operative paragraph 4 of the original draft resolution be reworded as follows:

4. To request the Director to study existing external assistance arrangements and, in collaboration with the authorities of the health sector of the countries, to attempt to coordinate and channel regional assistance in the event of disasters exceeding the operating capacity of the affected country."

Dr. Marchand (Peru) pointed out that his concern was merely a matter of form, which had no substantive effect on the amendment proposed by the Delegate of Uruguay, and he therefore suggested that the two be permitted to discuss the wording together.

Dr. Rabinovich (Argentina) suggested, by way of compromise, that the word "efforts" be used.

The Chairman invited the Delegates of Peru and Uruguay to endeavor to agree together on a new wording for operative paragraph 4 of the first revision of the resolution. Since there was more than one amendment before the Committee, Rule 41 of the Rules of Procedure applied, which required the amendment furthest removed in substance from the proposal be voted on first, then the amendment next removed, and so on. The Committee would, accordingly, first take up the amendment to operative paragraphs 3 and 4 as proposed by the Delegate of the United Kingdom and incorporated in the second revision; then the amendment to operative paragraph 4 of the first revision, proposed by the Uruguayan and Peruvian Delegations; and, lastly, the proposal of the Delegation of Barbados that the operative paragraph 4 proposed by the United Kingdom should become paragraph 5 of the first revision of the resolution.

Dr. Frazer (United Kingdom) said that he would be quite happy to accept the operative paragraph 3 that appeared in the first revision, and operative paragraph 4 as amended by the Delegates of Peru and Uruguay, and he would support the proposal of the Delegation of Barbados.

*The session was suspended at 4:45 p.m.
and resumed at 5:05 p.m.*

Dr. Pineda (Honduras, Rapporteur) read the following amendment to operative paragraph 4 of the original draft resolution, as drawn up by the Delegates of Peru and Uruguay:

4. To request the Director to study existing external assistance arrangements and, in collaboration with the authori-

ties of the health sector of the countries, to attempt to establish a procedure for coordinating and channeling regional assistance in the event of disasters exceeding the operating capacity of the affected country.

Decision: The amendment to operative paragraph 4 of the draft resolution, submitted by the Delegates of Peru and Uruguay, was unanimously approved.

Dr. Marchand (Peru) believed that, whatever the merits of the amendment to paragraph 5 as proposed by the Delegate of Barbados, the suggested text was inappropriate in a resolution of that kind. Since the objective was to strengthen the international coordination machinery, he considered the proposed amendment superfluous. Moreover, the revised paragraph 4 in no way ruled out the possibility that, as a result of the study, the proposed function would be turned over to the Inter-American Committee. It was the personal view of the speaker that it was outside the province of Committee I, and perhaps even of the Conference, to adopt a resolution referring in those terms to an outside agency.

A vote was taken by a show of hands. The proposed amendment was rejected by 14 votes against, 3 in favor, and 2 abstentions.

Decision: The resolution as amended was unanimously approved.⁴

The session rose at 5:30 p.m.

⁴See tenth plenary session, p. 134.

COMMITTEE II

FIRST SESSION

Thursday, 1 October 1970, at 10:35 a.m.

Chairman: Dr. Horacio Rodríguez Castells (Argentina)

The Chairman opened the session and expressed his thanks for having been elected Committee Chairman.

Dr. Arreaza Guzmán (Assistant Director, PASB) explained that under Rule 53 of the Rules of Procedure, the discussions and voting in the Committees of the Conference were governed by the same procedure as those applied in plenary sessions.

Election of Vice-Chairman and Rapporteur

The Chairman invited the delegates to present nominations for Chairman and Rapporteur.

Dr. Rabinovich (Argentina) nominated Dr. Alcides Almada (Paraguay) for Vice-Chairman and Dr. Edgar Mohs Villalta (Costa Rica) for Rapporteur.

Decision: Dr. Alcides Almada (Paraguay) was unanimously elected Vice-Chairman of Committee II, and Dr. Edgar Mohs Villalta (Costa Rica), Rapporteur.

Item 18: Report on the Status of Malaria Eradication in the Americas

Dr. García Martín (Chief, Malaria Eradication Department, PASB) presented Document CSP18/7¹ and singled out two events during 1969 as especially significant: the holding of the Second Meeting of the PAHO Advisory Committee on Malaria Eradication and the approval of Resolution WHA22.39² of the Twenty-Second World Health Assembly.

The Advisory Committee had examined the program of each country in an effort to identify new areas of study and activity with a view to speeding up progress toward malaria eradication and establishing the program's function as an integral part of the health sector and of the general economic development plan.

As indicated in the document, of the 34 political units in the Americas that originally had malarious areas, 11 had achieved eradication, two were in the consolidation phase, and 21 were applying total or partial attack measures.

The United States of America (including Puerto Rico and the Virgin Islands) had requested that its territories be included in the register of areas from which malaria had been eradicated; the relevant report had been sent to WHO for consideration.

A total of 176 million persons (36 per cent of the population of the Americas) were currently living in areas that were originally malarious. Of those persons, 120 million (68 per cent) were in areas that had reached the consolidation or maintenance phase and the remaining 56 million were protected by attack measures.

The number of inhabitants in consolidation-phase areas had increased by 1,500,000 during 1969. In the maintenance-phase areas, which included 14 political units with 73 million inhabitants, 4,113 malaria cases had been reported, of which only 120 were autochthonous.

In the consolidation-phase areas, with 47 million inhabitants, 4,000,000 blood smears had been examined, and 21,120 cases (65 per cent of which were not autochthonous) found. If only the autochthonous cases were taken into account, the rate of incidence was 0.1 per 1,000 inhabitants per year, which was in line with

¹ See Annex 2.

² *Off. Rec. Wld Hlth Org.* 176, 18-19.

the epidemiological status assigned to consolidation-phase areas.

In the attack-phase areas, 7,544,771 blood smears had been examined, of which 296,064 showed positive findings for malaria parasites; the annual parasite incidence was 5.3 per 1,000 inhabitants in a population of 56 million. All of Northern America was in the maintenance phase; in Middle America (Mexico, Central America, Panama, and the Caribbean islands) and South America, 54 and 52 per cent, respectively, of the population of the originally malarious areas was in the consolidation-phase or maintenance phase areas.

Cuba had completed its second year in the consolidation phase and entered the maintenance phase in 1970; therefore, in the Caribbean, malaria had only to be eliminated from Haiti and a small focus in the Dominican Republic. In Mexico the program continued in its "transitional period." The campaigns in British Honduras and Costa Rica were progressing very satisfactorily. Panama was in the first year of operations of a three-year plan, and El Salvador, Guatemala, Honduras, and Nicaragua completed the second year of a similar plan but had encountered some technical problems, the number of cases increasing over the previous year. Fourteen provinces of Peru had recently progressed to the maintenance phase. Argentina, Brazil, French Guiana, Guyana, Paraguay, and Surinam had reduced the number of cases. Bolivia had encountered some problems in the consolidation-phase operations, which had resulted in a reduction in the area in that phase. Ecuador had resumed its eradication program toward the end of 1968 but had yet to bring the resurgence of malaria incidence under control. Colombia and Venezuela had made no progress in the areas in the attack phase, but the situation of those in the consolidation and maintenance phases was satisfactory.

For the inhabitants of the originally malarious areas, prospects of achieving eradication within a brief time were favorable for 59 per cent. For another 13 per cent, progress depended on the solution of financial problems; for 17 per cent the situation was subject to technical and operational problems retarding progress; and for the remaining 11 per cent there were serious technical problems that necessitated replacement of the current attack measures.

The technical problems most frequently encountered were those relating to the vector. The most evident and best known was the problem of physiological resistance of the vector to the usual insecticides, a problem affecting mainly a part of Central America, Mexico, and Haiti; but the most important, particularly in Colombia and Venezuela, was the behavior of the mosquito vector,

which avoided contact with the insecticide spray within the houses. In addition, human ecology among population groups not entirely assimilated into modern life was creating difficult problems.

PAHO had sponsored and carried out much research within its budgetary possibilities. The effectiveness of OMS-33, used for the partial spraying of houses to take advantage of its airborne insecticidal effects, was being investigated.

The research in the field of chemotherapy included field tests with cycloguanil pamoate; studies of the response of *Plasmodium vivax* to different treatment schemes; surveys of public acceptance of various drugs; and evaluation of an *in vitro* method for determining the response of *P. falciparum* to chloroquine.

Entomological studies had been made on the behavior of vectors, their susceptibility to insecticides used in various areas, indices of natural infection, and genetic studies of vectors.

In the field of parasitology, a study had been undertaken to compare the relative diagnostic values of microscopic examination of thick blood films and fluorescent antibody techniques.

In those countries with areas in the advanced phase of the campaign, determined efforts were being made to foster participation of the general health services in malaria surveillance and to train malaria personnel in multipurpose health activities.

In regard to the financial aspects, the Governments had spent \$47 million in 1969 and were estimated to have invested considerably more in 1970. For each dollar spent by PAHO/WHO, 20 dollars were devoted to operations in the countries. The elimination of the special malaria eradication funds was reflected in a shortage in the Organization's budget for 1971 and the next three years. But if the results achieved at the cost of so much human and financial efforts were not to be lost, the program must be continued as intensively and effectively as possible.

Finally, as an outcome of the recommendation in Resolution WHA23.12³ of the Twenty-Third World Health Assembly, there had been an exchange of views with the Governments and with the other organizations cooperating in the program with a view to revising the program. A guide for the revision had been drawn up and groups established consisting of professionals from the countries and a representative from each of the participating agencies: PAHO/WHO, AID, and UNICEF.

During 1970 the programs of eight countries (Costa Rica, Ecuador, El Salvador, Guatemala, Haiti, Honduras,

³ *Off. Rec. Wld Hlth Org.* 184, 6-7.

Nicaragua, and Panama) had been revised; most of them were encountering technical problems in a part of their malarious areas. The analysis included classification of each program according to the progress achieved and the possibility of eradicating the disease completely or partially from the entire country.

A guide for collection of the information needed by the revision groups had been sent to all the countries, and it was hoped that the Governments of those countries whose programs had yet to be revised would consent to such revision.

Dr. Bica (Brazil) commended the Director on the detailed report, which afforded a global assessment of the status of malaria eradication in the Americas. As indicated in the document, certain areas in the countries still infected offered good prospects of ridding themselves of malaria within a relatively short time, while others were not making satisfactory progress, owing to administrative, financial, operational, or other problems. The speaker expressed the view that the latter should be given preferential attention.

In Brazil the 5 million inhabitants of the malarious area in which satisfactory progress was not reported lived in the Amazon basin, where operations had begun in 1968. In the opinion of malariologists and of consultants from the Organization, it was possible to control transmission in that area, although the attack operations would have to be of longer-than-usual duration. The Amazon region of Brazil was entering an important phase of economic development, with the consequent construction of highways and temporary housing for the workers. That, combined with the climate and the little interest shown by the workers in protecting themselves against the disease, made for increased incidence.

Anopheles darlingi continued to be susceptible to DDT; on the other hand, a number of foci attributable to chloroquine-resistant strains of *P. falciparum* had been reported.

Because of the vast size of the country, Brazil had found it necessary to plan its eradication campaign by stages, the first beginning in 1958. For administrative reasons, the program had not actually begun until 1962. But by the following year, the malarious area had been defined and work started on a more precise geographic survey as a preliminary to commencement of activities. By 1965 the program had been put into full operation, 1.6 million houses having been sprayed during the first half of the year and more than 2 million during the second. The corresponding figures for the two halves of 1966 were 1.9 and 2.2 million, respectively.

During the first half of 1969, 3.7 million houses had been sprayed with DDT, but owing to financial difficulties the number had dropped to 2.3 million during the second half. In the current year, 3.5 million houses throughout Brazil had already been sprayed.

Carrying out a campaign of that kind over so large a territory involved serious problems of logistics, since the work required large numbers of vehicles and considerable staff—13,710 persons in 1969. Despite the financial difficulties and certain technical problems, the prospects for the program were good. Of the 35.6 million inhabitants of the originally malarious area, 804,000 were currently living in areas in the maintenance phase, 12.1 million in consolidation-phase areas, and 22.7 million in attack-phase areas.

Varying results had been obtained in the Amazon region. The positivity index was declining at a satisfactory rate along some rivers but not in two important parts of the region: the federal territories of Rondônia and Roraima, located, respectively, on the border with Bolivia and on the borders with Venezuela and Guyana. Rondônia faced a complex problem created by large-scale immigration, highway construction, and resistance of *P. falciparum* to chloroquine. And both territories were confronted with the problem of public resistance to preventive treatment and to regular application of insecticide.

In the seaboard areas of the States of Paraná and Santa Catarina, where there was malaria transmitted by *Kerteszia*, it was hoped to resolve the problem by using the methods employed in the State of Sao Paulo to interrupt transmission: house-sprays with DDT and systematic treatment of cases. Destruction of bromeliad plants was another method used, with the cooperation of the local authorities. In areas in the maintenance phase, a program was under way to integrate the surveillance activities with other health care activities, placing them under the direction of the local health services. With that purpose in view, the former epidemiological surveillance auxiliaries in the malaria program would be given special training to enable them to perform in the rural areas functions pertaining to malaria surveillance, immunization, basic sanitation, health education, and collection of basic statistical data.

In the use of financial resources, the Ministry of Health attached the highest priority to the malaria eradication campaign, for which it was also receiving special assistance from the United States Government in the form of long-term loans, as well as cooperation from PAHO.

Dr. Rabinovich (Argentina) said that the malaria

eradication program in his country was in its final phases. Of the originally malarious area, covering 349,051 km² 32 per cent had entered the maintenance phase, 67.5 per cent was in the consolidation phase, and only 0.5 per cent was in the attack phase. He noted that the respective percentages appearing in Document CSP18/7 were 32, 22.8, and 45.2. The differences in the figures for the consolidation and maintenance phases arose from the fact that a large proportion of the area had been reclassified during the year from the attack to the consolidation phase following an evaluation made in El Chaco and Formosa Provinces by national technicians and a PAHO/WHO consultant.

There were no special epidemiological problems requiring the adoption of measures other than the ones traditionally used in that type of campaign. However, there was the problem of bringing the program as such to completion and, at the same time, beginning the surveillance work with the local health services. The plan was to achieve that final integration of activities through progressive stages and with continuous evaluation.

There was a tendency to devote less funds to health problems as they became less serious, but in view of the risks that would involve, the Secretariat of State for Public Health would not dismantle the malaria eradication program without first taking all the necessary precautions in line with the new health policy established in 1966. Considerable progress had been made toward that end. Thus, the regionalization of public health work in Argentina had resulted in the program's being divided into two regional subprograms, and the local administrations of the malaria eradication program had been consolidated with the federal health delegations, with a resultant possibility of reducing the administrative personnel and making better use of remaining staff.

Significant operational reforms had also been introduced and were currently being evaluated within a limited area. Three departments of Jujuy Province originally classified as meso-endemic or hyperendemic, two of which were currently in the maintenance phase and one in the consolidation phase, had been selected for that purpose. In those departments, the provincial health authorities, with technical and financial support from the National Secretariat for Public Health, were carrying out a comprehensive medical care and environmental sanitation program aimed at achieving total coverage of the population. That criterion of integrating the general health programs with malaria control activities was being extended to all provinces of the country, with adjustments in each case to allow for specific local characteristics.

In short, although malaria was almost eradicated from the country, it was essential to maintain that situation at the least possible cost and risk and within the general process of change in the national health policy.

Dr. Allwood Paredes (El Salvador) recalled that malaria control had begun in Central America in a very casual and imperfect way, based on the methods traditionally applied in sanitation work and vector control. It was not until 1948 that, with the introduction of DDT, control programs had been started in almost all the countries; their initial success had given rise to optimistic expectations that proved to be unfounded when the vector developed new resistance.

The campaign had acquired new momentum after PAHO and WHO proclaimed the eradication of malaria from the world to be a matter of international policy and resources had been increased considerably. The speaker wondered, however, whether the conditions under which approximately \$100 million had been invested in the program since 1955 had always been the best for tackling an undertaking of that kind. As possible evidence to the contrary, he cited the case of four Central American countries—El Salvador, Guatemala, Honduras, and Nicaragua—in which progress toward eradication depended on the possibilities of obtaining funds and instituting new attack measures for resolving technical problems. Those countries had made unusually strenuous efforts to eradicate malaria but had failed to do so up to now for want of scientific knowledge that was still beyond their reach. From the standpoint of biological, biophysical, and socioeconomic realities, there was reason to doubt that malaria could be regarded in 1970 as a disease eradicable from that zone. Even Costa Rica, in spite of the substantial progress it had achieved, could not be considered to have eradicated malaria since it was surrounded by a zone seriously affected by the disease.

The speaker said that he agreed with the Peruvian Delegate's remarks in plenary session to the effect that international public health activities and promotional work must be adapted to the social, economic, physical, and educational conditions of the countries where the work was to be carried out. In the case of Central America, for example, the population had no greater knowledge of malaria than it had possessed 15 years before; that was due to the lack of effective educational work to convert the inhabitants of the endemic and hyperendemic areas into direct and enthusiastic allies of the program.

He concluded by saying that the costs of malaria control should not be measured in absolute terms or in

terms of the number of lives saved or cases prevented, but rather as a contribution to the improvement of general health conditions for the population.

Dr. Martínez Rodríguez (Cuba) joined in the congratulations extended to the Director and his associates for the report submitted, to which, he said, he wished to add some supplementary data regarding Cuba.

The malaria eradication program in Cuba had just entered the maintenance phase in August 1970 after being evaluated by a team composed of personnel from PASB and his country's Ministry of Public Health. In 1966, 25 per cent of the originally malarious area had passed into the consolidation phase; later, in three successive stages, the rest of that area had been similarly reclassified, so that by the end of 1967 the entire originally malarious area had gone from the attack to the consolidation phase. Spraying operations during 1968 and 1969 had been limited to the application of residual-action insecticide as a preventive measure in the last six localities where cases had been reported (in 1966 and the first half of 1967) and to neighboring localities. In 1970, only the six localities with positive findings in 1966 and 1967 had been treated. Since the malarious area contained 8,176 localities and 2,834,422 inhabitants, the number of sprayings in 1969 had been insignificant. The last autochthonous case in the country had been reported on 28 June 1967; since then, all cases detected had been classified in other categories. Between June 1967 and June 1970, 1,653,481 blood smears had been examined in the originally malarious area, of which only four gave positive findings (three in 1967 and one in 1970). The annual blood examination rate was 24.7 per cent in 1967, 21.8 per cent in 1968, 18.1 per cent in 1969, and 7.5 per cent in the first half of 1970, or 15.0 per cent for the year. From the start of the program special emphasis had been placed on reporting of febrile cases by the network of preventive-curative services (polyclinics, hospitals, etc.). A noteworthy factor in the satisfactory progress of the program was its integration in 1967 (last year of the attack phase) into the country's general health services, which had given renewed momentum to the activities.

In view of the current status of the program in the maintenance phase—no autochthonous cases reported for three years and effective maintenance continued through the general health services—the Government of Cuba, through the Ministry of Public Health, had requested PASB to take the necessary steps so that the country would be certified as having eradicated malaria.

The speaker expressed the hope that the following year the Delegation of Cuba coming to the same meeting

room could have the satisfaction of reporting another victory for mankind: the eradication of the disease from Cuban territory.

Dr. Robleto (Nicaragua), after adding his own congratulations to those of other delegates, referred to the status of malaria eradication in his country.

The malarious area in Nicaragua embraced 118,358 km² and in 1970 had a population of approximately 2,000,000. It comprised almost the entire country. The attack phase activities, begun in 1957, had made it possible to interrupt transmission in 1962 in an area having 658,233 inhabitants, but the resistance of the vector *Anopheles albimanus* to dieldrin and DDT had created a serious problem in other areas along the Pacific Coast and in certain inland valleys.

The situation in the consolidation-phase area had deteriorated progressively owing to substantial importation of cases from the problem area and to the economic impossibility of maintaining adequate coverage of the epidemiological surveillance services; thus, the slide positivity rate had risen from 0.78 per cent in 1962 to 2.34 per cent in 1965 and 3.68 per cent in 1966.

Since the new attack measures for solving the problem of vector resistance to DDT in Central America required a considerable increase in financial aid and a coordinated attack against malaria in the neighboring countries, it had become necessary to apply the three-year plan—undertaken by Nicaragua and other Central American countries—for the purpose of interrupting malaria transmission in the problem area and in the area where the vector was susceptible to DDT. The plan had been approved, and in April 1966 an agreement for a \$2,070,000 loan had been signed by the Government of Nicaragua and the United States of America. However, the funds had not become available until 1967 and the plan had not entered into full operation until early 1968. Meanwhile, the number of malaria cases had risen from 10,275 in 1965 to 16,321 in 1967. The original plan had been revised twice, in 1966 and again in 1967, by international experts, who came to the conclusion that it needed to be expanded; an additional sum of \$1,864,000 had been made available for that purpose in August 1968. At the same time, as a result of the revisions of the plan, the area originally in the consolidation phase had been reclassified back to the attack phase.

The revised three-year plan had achieved good results in the first year, as reflected in the decreased number of cases: during 1968, 411,544 blood smears had been examined and 8,250 found positive, as compared with 269,575 examined and 16,321 found positive in 1967.

In 1969, however, the malaria situation had deteriorated because of increased vector resistance and enlargement of the area where the vector was resistant to DDT, development of resistance in *A. albimanus* to malathion in the area where spraying with that insecticide was indicated in the plan, and progressively smaller public acceptance of collective treatment.

Thus, the principal attack weapon had had a much smaller effect than had been anticipated, and 6,294 cases had been reported in 1969 in the areas under collective treatment. In the same year, 498,119 blood smears had been examined throughout the country, with 16,050 found positive. Increases had also occurred in areas where DDT-resistant *A. albimanus* had recently been discovered. *P. falciparum* infections had increased from 479 in 1968 to 2,735 in 1969, most of them in areas under collective treatment.

In spite of the financial difficulties, the Government of Nicaragua had purchased 22,500 kg of the new insecticide Baygon (OMS-33) and quarterly spraying with that insecticide had begun in April 1970 in 236 selected localities of the problem area. Collective treatment had been discontinued entirely in the problem area, leaving only the house-spraying with Baygon in the localities mentioned above and with malathion in another 220 localities of the same area. House-spraying with DDT was also being continued in the area where the vector *A. albimanus* was still susceptible to that insecticide.

Finally, owing to the suspension of collective treatment, the staff of the National Malaria Eradication Service had been reduced from 1,208 in January 1970 to 656 in July of that year.

Dr. Almada (Paraguay) said that this country's experience with malaria eradication was a good example of what could happen when malaria control operations were discontinued (as they had been in Paraguay's case, because of financial difficulties) and of the positive results that could be obtained through sufficient and timely financing.

The execution of the plan had started in Paraguay in October 1957. As the work advanced, it had been noted that the malarious area tended to increase progressively because of the colonization of new territory. Early in 1961 it had become necessary to discontinue spraying for want of additional resources for attack operations in the enlarged area, and to use the available resources primarily for epidemiological research to obtain better knowledge of the problem and arrive at an accurate definition of the country's malarious area. During that period, the incidence of the disease had increased to a

critical level throughout the country. In 1967 the Government had increased its allotment of funds for the program by 50 per cent, and early in 1968 obtained a loan from the U. S. Agency for International Development to supplement the national resources and cover local expenses. In April of the same year a tripartite agreement had been signed with WHO, PAHO, and UNICEF, which substantially increased their participation. In October 1968, the necessary resources having been obtained, the attack phase had begun, and the fourth semiannual spraying cycle was scheduled for completion in October 1970.

Referring to his country's situation during the period when operations had been discontinued, the speaker said that all of Paraguay except for the capital, Asunción, had been regarded as a malarious area with high morbidity and mortality rates; farming, ranching, and forestry activities (in which 64 per cent of the population was engaged) were seriously affected by the disease and by the exodus of population from malarious zones. At the same time, the construction of new highways and hydroelectric plants and the establishment of new agricultural settlements had profoundly altered the ecology of the region, creating conditions propitious to a rapid malaria "explosion" that would have decimated the existing population and cancelled out the earlier efforts.

In October 1968 the attack phase had started with periodic DDT spraying of more than 310,000 houses in 4,930 localities, thus providing direct or indirect protection to more than 2,300,000 inhabitants by interrupting transmission. Semiannual spraying was being continued on schedule, together with strict supervision and a constant search for new cases. For that purpose there were 2,800 notification posts scattered throughout the country in 2,730 localities, most of which were operated by volunteers selected by the communities themselves and trained and supervised by medical and technical staff of the National Malaria Eradication Service. The volunteers had collected 83 per cent of the blood smears examined and located 84 per cent of the malaria cases discovered during the last three years. In addition, an intensive educational campaign was being conducted through visits to rural localities and interviews in homes. There was also a network of 120 volunteer entomological aids who sent in captured mosquitoes for identification and study.

Another activity of the program was the study undertaken to measure the impact of malaria on the country's economy, arrive at a precise determination of the benefits that would accrue from its eradication, and obtain data to show the return on investments made.

The speaker believed that was the first project of its kind conducted in any part of the world. A team was tabulating and coding the data for computer processing.

As a result of the coordinated attack measures, the incidence of the disease had declined, as shown by the following figures: in 1967, 31 per cent of the smears obtained had shown the presence of parasitologically proven malaria; in 1969 the index had dropped to 8 per cent and for 1970 thus far it was 1.5 per cent. All of that supported the expectation that malaria would be eradicated from Paraguay within the period established.

Dr. Ferro (Colombia), referring to the information presented by Dr. García-Martín to the effect that the program in Colombia had remained static during recent years, said that he wished to explain the complex reasons for that situation.

The malarious area in Colombia covered approximately 970,000 km² with a population of some 12 million; 60 per cent of that area, with 8 million inhabitants had responded favorably to the eradication measures. The problem had been limited to 15 per cent of the area corresponding to land settlement zones, and to another 25 per cent with a population density of 0.5 inhabitants per km² which was jungle land for future colonization.

Of the 38,000 cases of malaria discovered in 1969 through examination of blood smears, 70 per cent were from the land settlement zones. The only technical problems were problems of anthropology: those arising from primitive housing, migration to new sources of employment, people with little or no immunity to malaria, public resistance to spraying operations, and above all, the hazards to the life and property of workers in those colonization regions. The measures taken to

protect the settlers against a disease that reduced their capacity for work contributed to the development of those regions and helped to create conditions that could eventually lead to the eradication of malaria. Those measures also prevented reinfection of areas in the consolidation or advanced attack phase and the occurrence of serious outbreaks.

For all those reasons, the Government was justified in continuing the campaign, and organizations such as PAHO and UNICEF were justified in continuing to provide assistance. UNICEF had extended very effective aid by supplying insecticides and spraying equipment, but could provide another useful service by furnishing vehicles as well, since the available vehicles were in such poor condition that the cost of repairs to them was 50 per cent above normal.

To reduce the cost of the campaign, the Government had decided to use the administrative structure of the Eradication Service to extend the benefits of other health activities to the people in the rural malarious areas; thus, the Service had provided administrative support to the yaws and *Aedes aegypti* eradication programs and the mass vaccination campaigns, and had also made a contribution to leprosy control. By means of that arrangement it had been possible, without impairing the effectiveness of the malaria eradication work, to undertake general health activities in which the personnel of the Service (which, by reason of its assignment, reached 100 per cent of the country's localities and most of the houses in the rural malarious area) performed multiple functions.

The session rose at 12:05 p.m.

SECOND SESSION

Thursday, 1 October 1970, at 3:00 p.m.

Chairman: Dr. Horacio Rodríguez Castells (Argentina)

Later: Dr. Alcides Almada (Paraguay)

Item 18: Report on the Status of Malaria Eradication in the Americas (*continuation*)

Dr. González Gálvez (Panama) said that a three-year malaria eradication program had been under way in Panama since 1969 and was now in the attack phase. Since no resistance to insecticides had been encountered, the principal problems were administrative rather than technical; they were gradually being resolved, so that it was very possible that eradication could be achieved in the country in the next few years.

The most recent national and international evaluation team that had reviewed the malaria eradication program, acting under Resolution WHA22.39¹ adopted by the Twenty-Second World Health Assembly, had also verified that the difficulties were primarily administrative. Action was being financed with resources from the National Government and others obtained through loans. The Malaria Eradication Service, which had been made a semi-independent agency, was currently being reorganized and personnel was being trained.

Despite the fact that eradication was possible within a few years, there were five or six areas where malaria persisted, and where malaria activities were being concentrated. Consideration was being given to carrying out a project, which was still unofficial, with the assistance of the United States Government and the Canal Zone authorities, the purpose of which was to assess various possible malaria eradication techniques, for example, spraying of malathion from low-flying aircraft.

Dr. Baird (Guyana) said that transmission of malaria was no longer taking place in Guyana. During the last three quarters (1969-1970) there had been 16 cases of malaria, all of them in the hinterland and all but two of

them believed to be imported. One solution to the problem of imported malaria was for the country in which it occurred to send copies of its findings to the country from which the disease originated. Others were to continue to spray houses on the borders, and to treat the population in border areas with medicated salt.

Health education was most important. It was being effected in Guyana by instructing workers concerned with the malaria program to discuss health matters with the population, and by training certain categories of staff (the military, teachers, the police, and civil servants) working in the interior to take an interest in malaria. The process was a gradual and slow one, but it helped to make the population willing to cooperate in spraying and the giving of blood samples.

As for the problem of maintenance of equipment, endeavors were being made to educate drivers to drive taking into account conditions in the interior. On the subject of vehicles, he pointed out that donors of that equipment should ensure that they were of types in use in the country, for which there were spare parts and with which mechanics were familiar.

The budget for the 1970 malaria program in Guyana was 190,000 Guyana dollars (US\$95,000).

Dr. Mérida de León (Guatemala) noted that his country was included among those in which the malaria eradication program was not making sufficient progress and that it was believed necessary to intensify the educational activities and coordination with neighboring countries in order to strengthen the fight against the disease. He expressed the belief that health education should be recommended as a means of overcoming public resistance to chemotherapy and that malaria control activities should be included in the general health services.

Dr. Guédez Lima (Venezuela) pointed out that malaria had been eradicated in an area including 94 per

¹*Off. Rec. Wld Hlth Org.* 176, 18-19.

cent of his country's population and that that had been a fundamental factor in the socioeconomic progress of Venezuela. Agreements with neighboring countries had been of substantial importance in the control of malaria, since they had permitted an exchange of technical and financial assistance.

Venezuela was at the stage of developing the southern part of the country, a vast and sparsely settled region, and had established general health and environmental programs there, including malaria control activities. As part of those, an attempt was being made to intensify the attack-phase work in certain places containing 5.6 per cent of the population most directly exposed to the disease.

Dr. Martínez Narváez (Mexico) reported that his country was going through a critical stage, with the number of cases increasing even in those areas considered to be in the consolidation phase.

The malaria campaign had been conducted in accordance with the prescribed standards and advice of PAHO. According to a report of the Organization, which he described as excellent, the future of the campaign in Mexico depended on the availability of those new resources, but there were technical problems that could not always be solved solely through an increase in resources, which the countries, in any event, were not always in a position to finance.

It would therefore seem advisable, he said, for PAHO to seek less costly solutions as a means of making its assistance more effective.

Dr. Henry (Trinidad and Tobago) said that despite the stage reached by malaria eradication in Trinidad, constant surveillance had to be maintained because of the trade links with the Middle East and Africa. His country's eradication program was consequently geared to early detection of malaria, and had moved from passive to active detection.

Dr. de Caires (United States of America), after congratulating the Director and his staff on the excellent document, said that it was clear that the malaria program was up against certain problems that could not be solved simply by means of more funds and personnel; a new approach was required for which research was necessary; it therefore was gratifying to see from the document how much research was being done. Some 118 million persons had been covered by malaria eradication programs started since 1957; of those, 14 million were now living in areas from which malaria had been eradicated, 47 million in areas in which malaria transmission was considered interrupted, and 56 million

in areas in which malaria programs were current. Of the last-mentioned category, 52 million were covered by programs now considered to be unsatisfactory: 20 per cent of those because of lack of funds, 13 per cent because of serious administrative or operational difficulties, and 12 per cent because of genuine technical difficulties. That 12 per cent represented only a small proportion of the total and that fact did not detract from its importance, but no one should allow himself to be hypnotized by that fraction of the problem nor should efforts be lessened in areas where established methods were still effective.

Previous status reports to the Conference had contained a section describing the problems that still existed in the Americas and the steps that were being taken to solve them; a section of that kind would have added to the value of the document under discussion.

It would be helpful if the Director would inform the Committee of the stage reached by country program evaluations, and of his assessment of the findings of those evaluations and how he considered they would affect the programs.

The meetings convened by the Director on a regional basis were a development that deserved encouragement; the forthcoming meeting of agencies concerned with malaria programs was likely to be a critical one.

A cautious approach was urged in regard to the recommended large-scale use of the new insecticide OMS-33 in all areas where DDT resistance was found. Its use might be specifically indicated in carefully delineated problem areas, but its wholesale application at that stage might not be wise, particularly because full benefit was not being obtained from routine, proven means of control; the document itself stated that in most countries there was low acceptance of drug therapy by the population.

Dr. Wells (Barbados) said that Barbados did not have and never had had a malaria problem. The anopheline mosquito was not present in Barbados but did exist in neighboring countries. It might be useful to find out just why that should be so.

The Chairman outlined three questions of interest based on the statements of the delegates: (a) Could malaria be eradicated today in countries such as El Salvador, Costa Rica, Honduras, and Nicaragua on the basis of their resources and priorities? (b) Was it desirable and feasible to integrate malaria programs into the general health programs? (c) How were malaria programs evaluated in certain countries?

Dr. García Martín (Chief, Malaria Eradication

Department, PASB) thanked Dr. Bica for his congratulations on the PASB report and for the information he supplied on Brazil's eradication program, the most extensive one in the Hemisphere. Dr. Bica's information coincided exactly with the Bureau's own ideas on Brazil's program. Up to the present, malaria had responded well where it had been properly attacked. Consequently, if adequate operations were effected in Brazil with the same intensity as in the past—and it was hoped that would be the case—malaria would, within a limited time period, be eradicated in a region inhabited by some 80 per cent of the population of the originally malarious areas. There was some concern, referred to by Dr. Bica, in relation to the malaria transmitted by *Kerteszia cruzi*, a vector that had played a well-known role in extradomiciliary transmission; however, in an area bordering São Paulo the malaria transmitted by it had successfully been eradicated.

He commended the Delegate of Argentina on his country's success in reaching the final stages of its campaign. That country had carried out a brilliant campaign, but at one point its progress had been halted at the borders because the neighboring countries were not attacking the problem with the same intensity. As soon as the proper attack measures had been applied in the neighboring states, Argentina had advanced and at present scarcely 0.5 per cent of the malarious areas remained in the attack phase. Less than 100 cases were anticipated during 1970. It was an opportune moment to integrate the malaria eradication services with the general health services, assigning malaria personnel a variety of activities.

In Cuba the services had been integrated during the consolidation phase and the Delegate of that country had stated that the malaria service received even more from the general health services than it contributed. In that connection, he pointed out that, according to a recommendation of the PAHO Advisory Committee on Malaria Eradication, the coordination of the activities should as a rule begin with the attack phase; it should be intensified during the consolidation phase, and integration should occur during the maintenance phase. That recommendation had been followed particularly closely in Paraguay in the attack-phase areas; in Brazil and Colombia in the consolidation phase, and in Peru in the maintenance phase. Nevertheless, an effort was being made to obtain a greater output from the malaria personnel by assigning them other health activities in certain areas, keeping always in mind, however, that it was dangerous to reduce vigilance when the enemy was still strong.

There was justified concern in regard to the future of the Central American programs, which had not made satisfactory progress. As to Dr. Allwood Paredes' statement on the cost of the malaria campaigns, it was very difficult to determine the cost/benefit relationship of one health activity in comparison to another. For example, it was difficult to say whether a dollar was better employed in preparing a particular vaccination or in spraying a dwelling with insecticide. All one could hope to do was to measure the impact a particular activity might produce upon the economy, and even that was difficult. The cost per inhabitant protected in 1969 was \$0.75; the need for greater intensity in the Central American activities had raised the cost in relation to the other countries.

During the years 1946-1950, mortality due to malaria accounted for 12 per cent of the general mortality in the four countries cited by Dr. Allwood Paredes; in 1961, it accounted for less than 1 per cent.

In general, it was believed that, in line with WHO's criteria, an effort should be made to eradicate malaria wherever feasible, using the usual attack measures available. In areas where those measures were not sufficient to interrupt the transmission, other methods should be studied with a view to selecting the most effective. While such methods were being sought, however, the best means available should be used to keep malaria incidence at the lowest possible level and prevent deleterious effects to areas already freed of the disease, to health indices, and to economic development.

Dr. García Martín added that not all areas in those countries were "problem areas." Some 80 per cent of the population lived in areas where malaria could be eradicated by the classic methods, i.e., semiannual sprayings with DDT. But some 20 per cent continued to live in areas which were problematic owing to the vector's physiological resistance to chlorinated insecticides—including DDT—which were the least expensive of those preparations.

That did not mean that other measures could not be employed to diminish incidence and even eradicate the disease. There were other insecticides to which the vector was susceptible, the most promising and the most effective of which was OMS-33, a carbamate which had the added advantage of being short-lived and consequently less harmful to the environment over long periods of time than DDT. OMS-33 insecticide had passed the toxicity test in actual operations and the test of effectiveness upon the vector, as had been demonstrated in Iran, Nigeria, and El Salvador in investigations sponsored by WHO. Its use was now more or less

"standard" in Nicaragua. The tests that had been made indicated that, even 12 weeks after spraying, the sprayed surface continued killing the vector which remained on it for a half hour. As the spraying cycle for that insecticide was every three months, it was lethal during almost the entire interval of the cycle. It did not irritate; thus the mosquito alighted on the insecticide and remained in contact for a sufficient period of time. That was a bit theoretical, of course, because OMS-33 was no panacea. There might be some areas which presented problems, but it was believed that the use of that insecticide was much more effective and considerably less expensive than the measures applied in the past.

In Central America the cost of DDT plus drugs was \$16 per dwelling per year. Current studies of the application of OMS-33 in Nicaragua for six months showed the cost to be \$10 per dwelling per year. He reiterated that one could not expect the use of OMS-33 to eliminate malaria in all areas of Central America, but it should make it possible to reduce the problem to a level not attainable with any of the other measures utilized.

In areas sprayed with DDT, the incidence had risen from 3.8 cases per 1,000 population in 1968 to 5.2 in 1969; in an area where DDT spraying and collective bimonthly administration of chloroquine had been applied, the incidence had risen from 6.1 in 1968 to 36.7 in 1969. In other areas the increases were: from 5.5 to 38.3 (malathion spraying and mass drug administration); from 4.9 to 6.1 (mass drug administration); from 9.6 to 13.9 (active case-detection and radical cure treatment); and from 3.1 to 4.5 (application of larvicides). Consequently, other more effective measures had to be found.

In regard to one of the questions raised by Dr. de Caires, the speaker said that up to the present the massive use of OMS-33 had not been considered. In fact, within the treated areas there were many localities that had had no cases in the past two years, and those localities were not being treated with that insecticide. OMS-33 was being used as a means of eliminating foci, and it might be said that every positive locality was a focus.

In the Central American countries, a strategy review had been made by multidisciplinary groups composed of health administrators, economists, economic development and health sector planners, and malariologists. None of the group members worked in the national malaria eradication programs and all the international agencies collaborating in the programs were represented.

In the review, the WHO guidelines had been followed: the malaria problem had been analyzed by areas to arrive at an appreciation of the situation of the program as a whole. In Costa Rica, it had been concluded that eradication was feasible within a short period of time; in the other four Central American countries, it had been found that the programs were not making satisfactory progress owing to the existence of technical problems in part of the malarious area. Applying the criteria set forth in the report of the WHO Director-General to the Twenty-Second World Health Assembly, it had been concluded that the eradication of malaria should continue to be the ultimate goal; that all efforts should be made to achieve eradication in areas where it was feasible using the usual attack measures; and that in the areas with technical problems that hindered the interruption of transmission, studies of the efficacy of new measures of attack should be conducted until a system leading to eradication could be found. That was the recommendation being made to those countries.

Concerning the educational activities cited by Dr. Allwood Paredes and Dr. Mérida de León, the speaker pointed out that a health education specialist of PAHO had furnished advisory services to the malaria programs of Central America for almost four years. Any campaign which required the active collaboration of the entire population needed to guide that population by means of health education, and that was being done. But to obtain the desired collaboration, it was necessary to bring about a change in attitude that was sometimes long in coming. At present, anthropological studies were being conducted by the U.S. Center for Disease Control in an area of El Salvador in an attempt to learn why the population refused to accept certain measures beneficial to their health.

In conclusion, Dr. García Martín, on behalf of the Organization, thanked the Governments of Brazil and Venezuela for the facilities they had provided for the training of personnel in malariology. He also thanked all the delegates who had made comments on the report presented.

The President announced that discussion on the item would continue at a subsequent session.²

*The session was suspended at 4:10 p.m.
and resumed at 5:10 p.m.*

Dr. Almada then took the Chair.

²See p. 223.

Item 20: Smallpox Eradication

The Chairman announced that Dr. Bichat Rodrigues would present the working document on the item.

Dr. Bichat Rodrigues (Acting Chief, Department of Communicable Diseases, PASB), in presenting Document CSP18/9³ on the item, noted that the introduction pointed out the interest shown by the PAHO and WHO Governing Bodies through a number of resolutions on the smallpox eradication program in the Americas. The document also provided information on the status of the problem during 1965-1969 in which 22,389 cases of the disease had been reported (Table 1). The situation, however, had changed somewhat during those four years: there were five countries with smallpox in 1965 and only one had endemic smallpox at the present time.

After assessing the status of the program in various countries, the Organization had identified the principal difficulties standing in its way. Those were: (a) financial difficulties, which continued to be the main reason why certain countries could not organize adequate programs; (b) inadequate maintenance programs, which made it impossible to sustain a high level of protection among the population; (c) poor epidemiological surveillance, with all the risks that that implied; (d) lack of continuity of operations, which impaired the progress of the program and made necessary its extension over a period of several years at a higher cost; and (e) the need for good quality freeze-dried vaccine. In regard to the latter point, the Organization had cooperated with all countries interested in vaccine production, signing agreements with them for the supply of freeze-drying equipment. That type of equipment had been supplied to 10 countries thus far.

Data on the production of freeze-dried vaccine from 1966 to 1969 were given in Table 2 and Figure 2 of the document. The Organization had signed an agreement with the Connaught Laboratories in Toronto, Canada, providing for officials of that institution to train personnel from laboratories of the Americas in vaccine preparation techniques. It was important to note that 18 laboratories in 13 countries were now in a position to diagnose cases of smallpox (Fig. 3).

The Organization continued to collaborate with the countries in the organization and continuation of adequate maintenance programs for vaccinating at least 20 per cent of the population, with emphasis on

children less than 5 years of age. Epidemiological surveillance should be strictly maintained, particularly while there were still endemic foci in the Hemisphere.

Brazil, the only country in which smallpox was endemic, was conducting a vigorous campaign to eradicate the disease from its territory. Surveillance measures adopted as a result of a case reported in the State of Rio Grande do Sul led to the discovery of 24 cases in the Province of Misiones, Argentina. That indicated the importance of maintenance programs, especially in regions adjacent to endemic areas.

Table 3 showed the number of vaccinations performed in 1966-1969 in countries which had concluded agreements for smallpox eradication. Table 4 presented data on the maintenance program in Middle America.

As for the situation in each country, Argentina found it impossible, for financial reasons, to continue the attack phase in the manner anticipated. Because of the presence of cases in the Province of Misiones, the Government was providing full support to the areas involved, with a view to solving the problem, which could, of course, have repercussions in Bolivia, Paraguay, and Uruguay.

Brazil had virtually completed its attack-phase program from São Paulo to Rio Grande do Sul, i.e., in the four southern states. Figure 5 showed the distribution of the reporting stations in the country's epidemiological surveillance program; Figure 6 the coverage of the vaccination program; and Figure 7 the epidemiological situation from January to June 1970.

Colombia continued with its mass vaccination campaign and had vaccinated almost 68 per cent of the national population.

Bolivia had encountered financial problems in the production of vaccine, but was receiving vaccine on a regular basis from the Organization's vaccine bank in Brazil.

Ecuador began a new cycle of coverage in 1970, starting with the vaccination of children under 5 years of age.

Paraguay was unable to begin its attack-phase program on schedule but was providing coverage through its local health units.

Uruguay had begun to produce freeze-dried vaccine, its output thus far being 136,000 doses.

Finally, Dr. Bichat Rodrigues reported that the Organization had recently signed agreements with Cuba and Venezuela to provide them with equipment for the production of freeze-dried vaccine.

The Chairman thanked Dr. Bichat Rodrigues for his report, which he submitted to the delegates for consideration.

³See Annex 4.

Dr. Bica (Brazil) commended the Director and Dr. Bichat Rodrigues for the clear and precise report submitted. While regretting the fact that Brazil was the only country in the Hemisphere with endemic smallpox, he noted that the Government was doing intensive work to solve the problem in the near future.

In 1966, Brazil began its smallpox eradication campaign and signed a cooperative agreement with PAHO/WHO to receive equipment, materials, and technical assistance. The large-scale vaccination program dated from that year. Of the 27 major political subdivisions of Brazil, 17 states, the Federal District and one territory had been covered by the program and had an epidemiological surveillance unit. As a result, the system of case reporting had improved substantially.

In 1967 a plan of operations was drawn up, the structure of field activities determined, and a manual of operations was prepared to acquaint the members of the field team with their functions and responsibilities.

In 1969 a surveillance program was started for the areas already covered and for maintenance activities in those areas already in the attack phase, where surprising results were achieved. A follow-up of each known case had led to the discovery of new ones that would otherwise not have been found. That made for an apparent increase in the number of smallpox cases and thereby caused administrative difficulties. Accurate figures on the incidence in earlier years would, if available, show the effects of the program to have been more dramatic than present records showed. It should be emphasized that the incidence of the disease in those political units of the country where the attack phase was completed in 1969 declined 70 per cent in comparison with the incidence during the same period of the previous year, while in the other political units the number of cases rose by almost 100 per cent.

The plan of operations for the campaign had set a target of 91 million vaccinations for 1967-1970, but that had to be altered for the following reasons: (a) the population of the States of Rio Grande do Norte, Pernambuco, and Sergipe had already been vaccinated during the previous national eradication campaign carried out with the cooperation of the Department of Health between 1962 and 1966; (b) much of the population of the State of Piauí had been vaccinated by local health agencies. Owing to the appearance of a focus of smallpox in the Federal District during June 1967, the campaign authorities found it necessary to move forward the period of vaccination in Brasília and postpone activities in the State of Goiás, where smallpox was endemic, in order to avoid the reintroduction of smallpox into the Federal District.

In December 1967 vaccination began in the State of Rio de Janeiro to protect the State of Guanabara. Operations were slow at first, but as more vehicles, equipment, and personnel became available the campaign was intensified to a point where the number of vaccinations per week rose from an average of 126,800 in 1967 to 393,750 in 1969.

The progress of the work could be estimated on the basis of the number of vaccinations per week, which increased from 126,800 in 1967 to 235,000 in 1968, 393,750 in 1969, and an average of 795,429 per week during the first half of 1970. The attack phase was now in progress in the States of Rio Grande do Sul, Pará, Amazonas, Acre, and the Territories of Roraima, Rondônia, and Amapá. That would complete the work along the entire coast of Brazil with the exception of Rio Grande do Sul. Vaccination was scheduled to begin in the States of Mato Grosso and Sergipe during the first half of October. Sergipe had been included in the previous national smallpox campaign, but a new vaccination drive was being conducted because cases had occurred there in 1970. The entire population of the Northeast, about 30,000,000 persons, would also be vaccinated because, although the campaign in the area was completed more than five years ago, revaccination activities had been inadequate.

In 1969, an agreement was signed with the Special Public Health Service Foundation for the organization of an epidemiological survey in those states in the attack phase.

Vaccine production had encountered administrative difficulties earlier in 1970 that had made it necessary to enlist the cooperation of PAHO and the Governments of Argentina and the United States of America. Nevertheless, the number of vaccinations had risen steadily, reaching a level of 6,347,000 persons in 1966, 21,000,000 in 1969, and 24,575,000 during the early months of 1970.

The number of cases reported in 1970, through 19 September, was 1,612, compared to 3,062 during a comparable part of 1969.

Dr. Bica concluded by repeating that the annual vaccination programs were increasing year by year in line with the high priority attached to them by the Brazilian Government through the Ministry of Health. The entire population of the country was expected to be vaccinated by mid-1971.

Dr. Martínez Rodríguez (Cuba) said that Cuba had been free of quarantinable diseases for several decades. Despite that, the Government had signed an agreement with PAHO for the purpose of carrying out a 10-year

program to raise the population's level of immunity to smallpox and thereby forestall the danger of an epidemic in the event that imported cases came into the country.

A program of that kind would not be easy to carry out unless it were done on a gradually increasing scale, with priority given to the groups most in need of protection. The population's level of immunity to smallpox had been very low in recent years. In order to raise it and secure public acceptance of an immunization procedure that was virtually unknown to the people, smallpox vaccination of rural children between six months and two years of age was included in a tripartite (PAHO, UNICEF, Ministry of Public Health) program under which five vaccines were being administered to rural children under 15 years of age. The program had won the confidence of the population and of the physicians, who had sometimes been more concerned with the risk of postvaccination complications than with the protection that vaccination could give to the inhabitants of an island where the people had never known the disease.

During the first year of the program, more than 40 per cent of the population, mainly rural, between six months and two years of age, were vaccinated with no complications. The largest-scale adult vaccination effort was the inoculation, late in 1968, of laborers of the port of Havana, more than 90 per cent of whom were protected without any problem arising.

The program agreed upon with PAHO was in its preparatory stage. As the first stage, freeze-dried vaccine would be produced and personnel trained, after which work would begin on vaccinating different population groups on a progressive scale depending upon the degree of risk to which they were exposed.

Dr. Ferro (Colombia) reported that Colombia had had no cases of smallpox since 1966. A three-year, large-scale vaccination program covering the entire country, begun in 1967, was currently nearing completion. By June 1970, 11,794,000 doses had been administered, the proportion of "takes" being 92.5 per cent in persons vaccinated for the first time and 74 per cent in those receiving "booster shots." The target was to protect 14 million persons. The work was being carried out in coordination with the regional health services, each of which was responsible for technical direction of vaccination activities in its own jurisdiction, and with the authorities of the National Malaria Eradication Service. The approximate cost of each immunization had been \$0.05. That low cost was made possible by coordinating the work with that of the

malaria service. In areas of very difficult access, smallpox vaccination was being handled by the staff of the malaria service, which had better penetration into the rural areas than the national health services, and that had provided a very acceptable level of coverage.

The problem of maintaining acceptable immunity levels would arise in 1971. Responsibility for maintenance would possibly be given to the regional health services in the cities and suburbs and left in the hands of the malaria service in rural areas.

Dr. Rodríguez López (Uruguay) said that his country had a long and distinguished record in the field of smallpox control. It had been seriously concerned with the problem since 1812 and had managed to eradicate the disease entirely, so that no cases had been reported for several decades.

As noted in the very detailed report presented, the five cases reported in 1968 and 1969 were imported cases. Despite the nearness of Uruguay to Brazil, where the incidence of the disease was high, the very serious threat that posed to the people of Uruguay had not materialized; that was an indication that the coverage of Uruguay's population was sufficient for at least an acceptable period.

Continual surveillance had been maintained and had succeeded because the personnel of the Ministry of Health in charge of the vaccination work was capable, well trained, and very responsible. The efficiency of that work was confirmed by the evaluations made at the level of the health divisions.

The report presented stated that the coverage was low but also noted that 1,202,000 vaccinations had been performed during 1966-1969 (including 442,000 in 1969) in a country with a population of 2,500,000. That would hardly support the claim of low coverage. In spite of the administrative problems that might arise, especially in the immunization campaigns in rural areas, the Government continued to give priority to the smallpox program.

Dr. de Caires (United States of America) said that it was proper that high priority should continue to be given to smallpox eradication and budgetary provisions should be made accordingly. The imaginative use of surveillance techniques in Brazil was one of the most striking features of the document under discussion; surveillance techniques were a vital component of any smallpox eradication program. The program in Central and West Africa was instructive. Since January 1967, 150 million persons had been vaccinated in that area. In 20 countries with the highest incidence of smallpox in the world, 19 became free of smallpox after three years.

The lesson to be learned from that was the value of the offensive tactic of highly skilled surveillance, to supplement the defensive tactic of mass vaccination. Brazil was to be congratulated.

Dr. Bichat Rodrigues (Acting Chief, Department of Communicable Diseases, PASB) thanked the delegates for their remarks on the malaria eradication programs of their respective countries. He assured Dr. Rodríguez López that no criticism of Uruguay had been intended in the report submitted. The reference to the number of persons vaccinated was merely a comparison between that number and the one in the plan of operations. Moreover, the situation had changed during 1970, as the Government had announced that 90 per cent of the population would be vaccinated in certain departments and that 260,115 persons (72 per cent of the target) had

already been vaccinated. Those figures showed the importance given to those activities.

The information that the Governments of Colombia and Brazil were using the malaria eradication services in the smallpox control program, thereby enlarging the coverage and reducing costs, was very welcome.

The Chairman closed the discussion of the topic and requested the Rapporteur to prepare a draft resolution,⁴ based on the comments made, for examination at a subsequent session.

Dr. Arreaza Guzmán (Assistant Director, PASB) announced that the Technical Discussions would begin tomorrow and possibly continue into the following day.

The session rose at 6:00 p.m.

⁴See p. 224.

THIRD SESSION

Tuesday, 6 October 1970, at 9:30 a.m.

Chairman: Dr. Horacio Rodríguez Castells (Argentina)

Later: Dr. Abelardo Sáenz Sanguinetti (Uruguay)

The Chairman called the session to order and announced that consideration would be given to the first item on the order of the day.

Item 18: Report on the Status of Malaria Eradication in the Americas (continuation)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the following proposed resolution:

The XVIII Pan American Sanitary Conference,

Having considered the XVIII Report of the Director of the Bureau on the status of malaria eradication in the Americas (Document CSP18/7);

Aware of the measures adopted pursuant to Resolution WHA22.39 of the Twenty-Second World Health Assembly on the re-examination of the global strategy of malaria eradication;

Recognizing the need to continue the malaria eradication program in order to consolidate the progress made in the Americas and to safeguard the funds invested in that program;

Bearing in mind that malaria is still a major public health problem in many areas of the Americas and hinders their economic development and that some countries still face

administrative, financial, or technical difficulties that are preventing the early completion of the program;

Considering the need to incorporate the malaria eradication program in that part of the national development plan dealing with the health sector; and

Recognizing the assistance furnished to Governments by international agencies,

Resolves:

1. To take note of the XVIII Report of the Director of the Bureau on the status of malaria eradication in the Americas (Document CSP18/7).

2. To express its satisfaction with the steps taken pursuant to Resolution WHA22.39 on the re-examination of the global strategy for malaria eradication.

3. To reaffirm the goal of malaria eradication and the need for each Government to provide the essential resources for carrying out operational plans drawn up in accordance with the revised strategy.

4. To congratulate those countries that have continued to make progress toward eradication.

5. To draw the attention of Governments to the importance of incorporating the malaria eradication program into that part of the national development plan dealing with the health sector,

and of giving suitable priority to the appropriation of funds for it.

6. To request the Governments and the Director to continue and strengthen research aimed at devising more efficient, safe, and economical methods of interrupting malaria transmission, and of evaluating the economic impact of the eradication of that disease.

7. To reaffirm the need to strengthen the coordination of national malaria eradication services and general health services with a view to extending coverage in rural areas, and to assign polyvalent health activities to the personnel of both services in areas in the maintenance phase.

8. To emphasize to the Governments the desirability of increasing, with the assistance of the Pan American Sanitary Bureau, activities for the health education of the public designed to reduce as much as possible factors that limit the effectiveness of the attack measures used.

9. To thank PAHO/WHO, UNICEF, and the Agency for International Development for their assistance to the Governments in carrying out malaria eradication programs, and to request international agencies to continue to provide their valuable collaboration in order to achieve the goal of eradicating that disease, which is hindering the economic development of areas still infected.

Dr. de Caires (United States of America) said that, in its present form, the proposed resolution left something to be desired. It would be considerably strengthened if operative paragraph 2, which now contained only a general reference to the re-examination of the global strategy for malaria eradication (Resolution WHA22.39), could be expanded and made more precise. PASB had already completed its evaluation of some programs, but the results were not yet available. The evaluation of other programs would be completed by early 1971, and a technical evaluation of the procedures would be made which would have implications for future malaria eradication strategy in the Hemisphere. As all those evaluations, and particularly the implications for future eradication strategy, were of the highest importance, he proposed the inclusion in the resolution of a specific reference to them and to the importance of continuing them, and also of a request to the Director that he make them available.

Dr. García Martín (Chief, Malaria Eradication Department, PASB) explained that eight programs in all had been evaluated by national multidisciplinary teams, consisting of economists, health sector planners, and other professionals, which had been given responsibility for obtaining the data and submitting the reports to their respective Governments. The role of the Organization and other pertinent international organizations had been limited to that of furnishing advisory services.

Dr. de Caires (United States of America) said that he was aware of the steps described. The progress made under national malaria eradication programs was of

interest not only to the country in which the program was carried out but also to other countries. The evaluation of national programs was therefore of value to all those concerned with malaria eradication and although no country would wish to withhold such evaluations, they had not as yet been made available. In proposing his amendments to the resolution he had wished to ensure, first, that the evaluation process would continue, and second, that the results, insofar as they affected future strategy, would be made available. That would help to answer such grave questions as that raised by the Delegate of El Salvador at the first meeting of the Committee, i.e., whether it was still possible to speak of malaria eradication as a goal for the Americas.

The Chairman requested the Rapporteur to take note of Dr. de Caires' proposal.¹

Item 20: Smallpox Eradication (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the proposed resolution on the item.

Decision: It was unanimously agreed to recommend to the Conference that it reaffirm that smallpox eradication continues to be one of the most important priorities for this Hemisphere and for PAHO; thank the Government of Brazil for the efforts it has made to eradicate smallpox from its territory, and to congratulate it on the results achieved to date; urge the countries to strengthen their eradication or maintenance programs, giving special attention to evaluation of the coverage results and vaccine "takes," and developing efficient epidemiological surveillance activities for the detection and investigation of cases and the containment of outbreaks; urge vaccine-producing countries to intensify their efforts to produce freeze-dried vaccine meeting the requirements of WHO; thank the countries that have made donations to the vaccine bank of the Organization and ask them to continue to do so; instruct the Director of PASB: a) to continue taking the necessary measures for coordinating national and international efforts for the eradication of smallpox, and to continue providing the countries with technical and material assistance, using funds assigned by PAHO/WHO; and b) to continue reporting to the PAHO Governing Bodies on the progress of the smallpox eradication program.²

¹See p. 134.

²See eighth plenary session, p. 114.

Item 21: Resolutions of the World Health Assembly of Interest to the Regional Committee

Dr. Arreaza Guzmán (Assistant Director, PASB), in presenting Document CSP18/18,³ said that, at the request of the Director-General of WHO, five resolutions adopted⁴ by the Twenty-Third World Health Assembly would be submitted to the XXII Meeting of the Regional Committee of WHO. Three of them pertained, respectively, to Items 18, 22, and 33 of the agenda, namely: WHA23.12, "Measures Taken in Pursuance of the Revised Global Strategy of Malaria Eradication;" WHA23.32, "Health Consequences of Smoking;" and WHA23.59, "General Program of Work covering a Specific Period." He then read the other two resolutions: WHA23.35, "Training of National Health Personnel," and WHA23.36, "Community Water Supply."

Dr. de Caires (United States of America) proposed that two other resolutions of the World Health Assembly be included among those of interest to the Regional Committee and that it be recommended to the Director that he consider them in the future work of the Organization. The first was Resolution WHA23.13: "International Monitoring of Adverse Reactions to Drugs." The pilot research project for international drug monitoring, for which special financial provision had been made by WHO for 1970 and 1971, had been started in the United States of America and was being transferred to Geneva, as envisaged in operative paragraph 6 of Resolution WHA23.13, but it continued to be of interest to the Hemisphere. The second resolution was WHA23.42, on "Drug Dependence," a problem which was of continuing concern to the Americas.

Decision: It was unanimously agreed to recommend to the Conference that it take note of Resolutions WHA23.35, WHA23.36, WHA23.12, WHA23.32, and WHA23.59.⁵

Item 22: Control of Cigarette Smoking

Dr. Joly (Regional Adviser on Cancer, PASB), introducing Document CSP18/12, Addendum I, and corrigendum,⁶ noted that epidemiological research had shown cigarette smoking to be related to a group of diseases, including cancer of the lungs, larynx, the oral

cavity, the esophagus, and the bladder, chronic bronchitis, emphysema, coronary heart disease, and stomach ulcers. The documents also pointed out that the life expectancy of young males who smoked more than two packs a day was shortened by eight years and that absenteeism for reasons of sickness was greater among smokers.

Since, for many reasons, the cigarette smoking habit was especially widespread in affluent societies, that self-inflicted damage could appropriately be included among the group of diseases designated by Dr. Steinfeld as technogenic. Latin America was not exempt from that risk, as shown by PAHO's study on *Patterns of Urban Mortality*,⁷ made in the early part of the past decade, according to which 20 per cent of all deaths among men between 35 and 64 years of age could be attributed to diseases associated with habitual cigarette smoking. Moreover, the document *Health Conditions in the Americas, 1965-1968*,⁸ indicated that Argentina and Uruguay had higher rates of mortality from lung cancer than the United States of America and Canada.

Although the contribution of the tobacco industry to the economy of many Latin American countries was far from negligible, the sum of the contributions made by the production and marketing of cigarettes and by taxes on their sale lost considerable importance when balanced against the damages represented by loss of earnings, protracted disability, the cost of prolonged medical care, and, above all, the damage done to human lives.

During its XIX Meeting (October 1969), the PAHO Directing Council, convinced that the size of the problem called for decisive action to prevent morbidity and mortality associated with the smoking habit from reaching the high levels in Latin America that they had attained in many of the more developed countries, instructed the Director of PASB, in Resolution XXXIV,⁹ to investigate the measures being taken throughout the Region to control cigarette smoking. A similar concern was expressed by the World Health Assembly in May 1970.¹⁰ In pursuance of the above-mentioned resolution, the Director of PASB requested the health authorities of the Member Countries early in 1970 to send all pertinent information on measures adopted and activities already carried out or planned for the future.

Replies were received from 18 countries by the beginning of March, and shortly afterwards a special

³Mimeographed document.

⁴See *Off. Rec. Wld Hlth Org* 184.

⁵See p. 138.

⁶See Annex 5.

⁷*Scientific Publication PAHO* 151.

⁸*Scientific Publication PAHO* 207.

⁹*Official Document PAHO* 99, 82.

¹⁰Resolution WHA23.32. *Off Rec. Wld Hlth Org*, 184, 15-16.

questionnaire was sent to all the countries for the purpose of supplementing the information initially gathered. That questionnaire, designed for the purpose of collecting information on existing controls over the production, sales, and advertising of cigarettes, as well as cigarette smoking in public places, was answered by 24 countries. The information received in response to the initial letter and to the questionnaire was presented in tabular form, arranged according to the model of the survey, in Appendix VII of Document CSP18/12. The information for one country was received after the report was prepared and therefore was not included in the table. In six countries, the Government exercised some sort of control over the growing and industrial processing of tobacco. Six of the countries reporting on tobacco consumption in recent decades provided specific data on cigarette sales, and in every case that figure showed an increase in cigarette smoking.

The simultaneous diminution of cigar smoking in all the countries showed that cigarettes were replacing other, more traditional, forms of smoking. The prohibition of smoking in public places such as movies, theaters, and public conveyances, imposed in 14 countries, was designed in every case to prevent fire and not to prevent disturbance of non-smokers. Mexico had recently prohibited cigarette smoking in most of its medical care institutions. The report from the United States of America noted a reduction of cigarette smoking in public places, attributable to an educational campaign. Cigarette advertising was largely responsible for the increase in the habit, and four countries—Argentina, Panama, Peru, and the United States of America—had imposed legal restrictions on such advertising. While the enactment and enforcement of restrictive laws was undoubtedly a very positive advance in the programs against chronic smoking, community pressures could play a very effective role even in the absence of such laws. Thus, it was community action that led the tobacco industry and the advertisers to take the voluntary decision to discontinue their television and radio advertising before 9:00 p.m. in Canada. In addition, the national television network and private channels had been broadcasting warnings against cigarette smoking since 1967.

Salient among the activities promoted and sponsored by the U.S. Public Health Services were the research on the extent of the smoking habit, studies on the motivation and attitudes of the general public with respect to tobacco smoking; educational programs, and the establishment of the National Clearinghouse for Smoking and Health. The American Cancer Society, the American Heart Society, and the American Medical

Association were also making a significant contribution to the effort to control tobacco smoking. In addition to Canada and the United States of America, four other countries of the Region were conducting educational programs against cigarette smoking, and would have to be added to the list. A total of 14 countries were planning to organize educational programs against cigarette smoking, as well as controls on tobacco advertising.

As a result of a concerted effort made in the last few years by the health authorities and by private community-service organizations and professional associations, cigarette sales had been declining steadily in the United States of America and Canada. PAHO was convinced that every program designed to reduce the incidence of diseases associated with smoking ought to include among its most important objectives that of bringing about a sharp reduction in the smoking of cigarettes. It was equally convinced that activities aimed at achieving that reduction should be planned on the basis of a reliable estimate of the extent of the habit and on precise knowledge of the prevailing attitude of the community toward cigarette smoking and its effects on health. It was those considerations that prompted the Organization to undertake the survey on characteristics of the smoking habit in Latin America, a survey which for budgetary reasons had been limited to the cities of Bogotá, Caracas, Guatemala, La Plata, Lima, Mexico City, Santiago and Sao Paulo, where, moreover, the investigation on the patterns of urban mortality had provided highly reliable mortality statistics for correlation with the results of the survey. The survey was started with the help of a grant support from the American Cancer Society, from which it was hoped to obtain further support. There was also a possibility of obtaining funds from the UNDP; the application for such funds had received the unqualified support of the countries concerned. The survey would provide information on the prevalence of the smoking habit and on the social, cultural, and demographic characteristics of the smokers. By that means, it would be possible to assist the health authorities of the Region in the formulation of policies and programs concerning the smoking habit and establish a point of departure for evaluating the effectiveness of control activities.

Dr. Sáenz Sanguinetti (Uruguay) said that cancer was the second most important cause of mortality in his country and that malignant lung tumors had been diagnosed in many women in recent years.

The Ministry of Public Health had undertaken an educational program in the secondary schools and

universities, and films on the hazards of cigarette smoking were being presented by television.

Dr. Martínez Junco (Cuba) said that he shared the concern expressed over the hazards of smoking and pointed out that tobacco growing and manufacture was subject to control in Cuba. There were no laws or regulations against the sale or advertising of cigarettes; at the present time, no warning about the risk of smoking was required to be printed on a pack of cigarettes, but a ministerial campaign against the smoking habit was being carried out and smoking in public places was prohibited. In 1959, 11,616,000 cigarettes were smoked, and by 1968 the figure had risen to 18,941,000. Cigar sales also rose during the same period, from 321 to 656 million, and total sales of processed tobacco increased from 5.08 kg to 5.76 kg per person over 15 years of age between 1965 and 1968. An educational campaign against the smoking habit was being conducted through the press, radio, and television.

Dr. Campos Salas (Mexico) said that all physicians, teachers, and mothers should set an example by not smoking in public, an attitude which could have important social effects.

Dr. de Caires (United States of America) concurred with previous speakers in commending the report on the measures taken in the Americas to control the advertising of cigarettes. He noted with satisfaction that four countries of the Hemisphere had already imposed legal restrictions on that advertising, and expressed the hope that other countries would follow their example. However, there were many difficulties in the way of discouraging a practice which was an expression of free will on the part of the individual and in many cases a habit that was hard to break. With those difficulties in mind the Delegation of the United States of America wished to propose the following draft resolution:

The XVIII Pan American Sanitary Conference,

Having considered the report of the Director of the Bureau on the control of cigarette smoking (Document CSP18/12);

Bearing in mind the resolutions on this problem adopted by the XIX Meeting of the Directing Council and the Twenty-Third World Health Assembly;

Recognizing the serious health hazards of cigarette smoking, a habit which contributes significantly to the development of pulmonary and cardiac diseases, including bronchopulmonary cancer, chronic bronchitis, emphysema, and ischemic heart disease;

Considering that programs for the prevention of these diseases should include vigorous action designed to reduce the prevalence of the smoking habit as well as other activities intended to discourage the acquisition of that habit, especially by young persons;

Convinced that the habit of smoking cigarettes must be presented as a health hazard, and that public health agencies should take the lead in disseminating this information;

Bearing in mind the valuable experience accumulated in countries where considerable efforts have been made for years to control cigarette smoking; and

Considering that any program for controlling the smoking habit must be based on an accurate assessment of the extent of tobacco consumption and an adequate knowledge of the motives and attitudes of the population in regard to the problem,

Resolves:

1. To recommend to the Governments that they intensify and coordinate the efforts of health authorities, scientific associations, and the community to combat tobacco consumption.

2. To commend the Pan American Sanitary Bureau on its initiative in planning a survey on the characteristics of the smoking habit in eight cities of Latin America, and to request the Director to take such measures as may be necessary to ensure that the study is undertaken as soon as possible, subject to the financial resources of the Organization.

3. To promote the conduct of similar surveys in all the countries in the Region interested in controlling cigarette smoking.

4. To request the Director to establish a clearinghouse for receiving and transmitting information concerning smoking and health in order to promote and facilitate the exchange of experience and educational materials among agencies in the Region interested in the control of smoking.

5. To request the Director to report to the XX Meeting of the Directing Council, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas, on the action proposed and its financial implications for the Organization.

The Chairman handed the draft resolution presented by the United States Delegate to the Rapporteur, which would be submitted to a vote at a subsequent session.¹¹

Dr. Mohs Villalta (Costa Rica, Rapporteur), speaking as Delegate of his country, said that he agreed with the views expressed by the Delegate of the United States of America. In view of the undeniable relationship between cigarette smoking and a number of serious diseases, he proposed that smoking be absolutely forbidden during the meetings of the Governing Bodies of the Organization. He also expressed the belief that the Governments should be urged to take action to prevent violations of provisions such as those that prohibit smoking in public places. Existing provisions of that kind should be supplemented by other, more effective ones.

*The session was suspended at 10:30 a.m.
and resumed at 11:00 a.m.*

¹¹See p. 243.

Dr. Arreaza Guzmán (Assistant Director, PASB) said that a Chairman *pro tempore* should be appointed to preside in the absence of the Chairman and the Vice-Chairman. He invited the delegates to submit nominations.

Dr. Henry (Trinidad and Tobago) proposed Dr. Sáenz Sanguinetti of Uruguay.

Decision: Dr. Sáenz Sanguinetti (Uruguay) was elected Chairman *pro tempore*.

Dr. Baird (Guyana) associated himself with the comments made by the Delegate of Costa Rica and said that he had been astonished to note the presence of ash trays in the conference rooms. The Committee should recommend to the Director that they be removed. However, as habitual smokers had a real problem that could not be ignored, a special smoking lounge or another area should be reserved for them. Lastly, chewing gum should be provided in the conference rooms for those who felt that to be unable to smoke was a real deprivation.

In Guyana, efforts to discourage cigarette smoking had been directed at young people, since it was felt that it was useless to try to combat the habit in adults that were already cigarette addicts.

Dr. Henry (Trinidad and Tobago) congratulated the Director on his report and on the information he had collected, which gave a panoramic view of cigarette smoking throughout the world.

He supported the draft resolution proposed by the United States of America Delegation, which was a step in the right direction. Medical and health personnel should set an example and practice what they preached. There should be no question of their smoking in private but not in public, as had been suggested by the Delegate of Mexico. As long as the medical profession, which really knew the dangers of smoking to the individual, the family, and the population at large, did not itself refrain from smoking, there was little hope of convincing the public that they should do so. The profession could not afford to countenance a double standard in such a serious matter.

Obviously, efforts to educate the public in the dangers of cigarette smoking had to be directed first and foremost at young people; but they were self-assertive and apt to be rebellious, so that any prohibition was likely to bring a negative response. The only real hope lay in setting a good example.

*Dr. Rodríguez Castells (Argentina)
resumed the Chair.*

Dr. Guédez Lima (Venezuela) said he believed it necessary that not only the Organization but also each of the countries give greater publicity to the health consequences of the smoking habit, especially in regard to lung cancer and other diseases of the respiratory tract. From the practical point of view, he also suggested that the Organization establish a program with its own budgetary allocation for the continuation of the research under way. The report on control of cigarette smoking indicated the need to carry out a broader survey to provide more information on the problem and on the practical measures that should be adopted in the future, but that required a determination of the budgetary allotments needed for continuing the survey. In other words, any resolution adopted to that effect should be accompanied by a formula indicating how the continuation of the work already begun would be financed.

Furthermore, it was not sufficient for the representatives of the countries at meetings of the Organization to set an example; that attitude should be reflected in the general policies of each country with respect to health education, which was the future means of bringing about a fundamental change in smoking and other widespread habits, nutrition patterns, and so on.

Dr. Wells (Barbados) said that he was not convinced that all the evil effects attributed to cigarette smoking were in fact due to that one cause; other forms of air pollution, such as smoke from chimneys and diesel oil fumes, were at least partly responsible. Although participants at meetings could be requested not to smoke, all smoking should not be prohibited. It was up to the individual to refrain.

Since other forms of pollution might be responsible for disease, it was not possible to prevent disease merely by prohibiting cigarette smoking. All that the medical profession could do was to make all the information at its disposal available to the public, in the hope that whatever precautions seemed advisable to minimize the risk of disease would be taken. He agreed that to prohibit smoking might have the opposite effect on young people, who were naturally rebellious. Such a prohibition might even lead them to form the habit when they would not otherwise have done so. An analogy came to mind. It had been asserted by some authorities that carcinoma of the cervix was related to the frequency of sexual intercourse; but, as far as he knew, there had not been any move to prohibit sexual intercourse on that account.

Dr. Mohs Villalta (Costa Rica, Rapporteur), speaking as Delegate of his country, said that, while it was not his intention to enter into a discussion and he respected the

personal opinion of the Delegate of Barbados, he believed that there was scientific proof in precisely the opposite sense. Specific data available revealed a decrease of life expectancy among habitual workers, increased mortality rates in the same group, and association between excessive use of tobacco and coronary disease, pulmonary carcinoma, peptic ulcers, etc. In addition, a number of documents had been published regarding studies made in different countries, the results of which could not be questioned. He considered, on the other hand, that similar proof could not be advanced to substantiate the relationship between carcinoma of the cervix and sexual relations. Consequently, there was a rational basis for the Organization, concerned as it was with health in each of the countries represented in it, to speak out against excessive cigarette smoking and for the Conference to suggest appropriate measures to the Director, and through him, to the agencies responsible for health in the countries.

Referring to the comparison between the effects of tobacco smoking as a self-inflicted damage and those caused, for example, by water and air pollution, he noted that environmental contamination of that kind was, up to now, a matter beyond the control of those who suffered the health consequences and that no immediate measures could be taken to control those consequences, whereas the control of cigarette smoking was something within the reach of all, as it depended upon the will of the smoker.

Dr. Merida de León (Guatemala) expounded upon the opinion expressed by the Delegate of Barbados that the Conference should refrain from advocating any prohibitions affecting social or cultural patterns, as that would invade a strictly personal domain. The same could be said about the suggestion that a smoking room be made available or, as suggested by the Delegate of Mexico, that smoking in public be prohibited. He favored the adoption of recommendations and of action to publicize the damage caused by cigarette smoking, but he insisted that the present meeting should abstain from adopting any resolutions of a prohibitive kind.

Dr. Joly (Regional Adviser on Cancer, PASB) pointed out that the statements of the delegates had agreed on the need to concentrate efforts on preventive education of the young, rather than on altering or neutralizing habits already acquired. He thanked the Delegate of Cuba for the supplementary information presented. As for the effectiveness of educational campaigns, he noted the results obtained in the United States of America (where more than 100,000 physicians had stopped smoking) and in Great Britain.

Referring to the influence of air pollution on lung cancer, a matter touched upon by the Delegate of Barbados, he noted that the report on "Smoking and Health," by Drs. Fletcher and Horn, appearing in Document CSP18/12, Annex IV,¹² contained the statement that "Exposure to air pollution, especially by coal smoke, appears to increase the risk of lung cancer, but its effect is small compared with that of cigarette smoking." In regard to other causes of chronic bronchitis, such as air pollution in general, the report said that they seemed to affect primarily cigarette smokers.

Dr. Campos Salas (Mexico), replying to reference made to his earlier statement, said that his words had been misinterpreted and that he had not recommended that physicians or teachers, who by way of example to others should abstain from smoking in public, should do so in private as well.

Item 24: Multinational Centers

Mr. Moore (Chief, Department of Budget and Finance, PASB), in presenting Document CSP18/22, and Addendum I,¹³ reported that, in accordance with Resolution XXXVII¹⁴ adopted by the Directing Council at its XIX Meeting, the Director had appointed a staff study group at the beginning of 1970 to draft a set of guidelines for the multinational centers. The suggestions of the Government of Argentina had been so close to the study group's own thinking that they had been incorporated without difficulty in the group's report, on which the 64th Meeting of the Executive Committee had adopted Resolution XIX.¹⁵ Operative paragraph 1 contained the guidelines which the Committee might wish to endorse; the report requested of the Director in operative paragraph 2 was the document being presented; and the final paragraph of the resolution provided for the directors of the multinational centers to be present at the regular review of those centers and invited the Directors of the Pan American Foot-and-Mouth Disease Center and of the Pan American Zoonoses Center to attend the 66th Meeting of the Executive Committee, to be held in June 1971.

Dr. Oluín (Argentina) underscored the importance given by Argentina to multinational centers, thanks to which the countries were able to reinforce the activities

¹²Published in the *WHO Chronicle*, Vol. 24, No. 8, pp. 345-370, 1970.

¹³See Annex 10.

¹⁴Official Document PAHO 99, 84-86.

¹⁵Official Document PAHO 103, 60-61.

of their health programs when national mechanisms were insufficient for solving local or regional problems. He characterized those centers as being the expression of decisions freely taken by the Governments but whose establishment aimed at avoiding duplication whenever national specialized centers already existed. A national center could sometimes be converted eventually into a multinational center or integrated into the general health program at the international level.

He noted that the suggestions on multinational centers put forth by the Argentine Government during the 64th Meeting of the Executive Committee had been in agreement with the concept underlying the recommendations presented to the Committee for discussion. Another factor considered important by the Government of Argentina was that any national center of recognized standing could provide multinational services to other countries without that necessarily implying the contribution of funds from the PAHO budget. In any event, it might be advisable to consider the matter simply as assistance furnished to a national program by the Organization at the request of the Government of center's host country. As an example of a center of great importance to the Region, he cited the Pan American Zoonoses Center, established and developed with contributions from the Government of Argentina, for which a project nonetheless existed to solicit support from the UNDP to enable it to strengthen its services at the international level with the aid of a larger budget.

The report on multinational centers presented to the Conference was a valuable contribution in that it provided extensive information to the delegates on the Center's activities. The provision for attendance of directors of centers at meetings of the Executive Committee to report on their respective programs was also considered important. He noted the omission in the report with reference to the Latin American Center for Medical Administration. That Center, although conceived by the Government of Argentina as an international center, had special features owing to the financial participation provided by the Government and the participation of national officials in its work.

He concluded by stating that the Delegation of Argentina was in agreement with Resolution XIX of the Executive Committee submitted to the Conference for consideration.

Dr. Martínez Rodríguez (Cuba) said that the Government of his country was in favor of multinational centers. He requested the Governments of the host countries of such centers to continue to provide services to all other countries of the Hemisphere, regardless of their political creed or governmental structure, in matters relating to technical advice and the training of personnel.

Dr. de Caires (United States of America) said that the guidelines set forth in Resolution XIX of the Executive Committee were acceptable to the Delegation of his country, particularly (d), which provided that multinational centers should be set up only when there were no suitable national institutions to deal with problems of common interest. He strongly supported the remarks made by the Delegate of Argentina on that point. Besides the Latin American Center for Medical Administration, mentioned by that Delegate, another multinational center—the Regional Library of Medicine in Brazil—would have to be included. At the Executive Committee meeting his country's Delegation had stressed the need to finance that center from sources other than the regular budget of PAHO, and he was therefore happy to know that some funds from other sources had already been obtained. The Delegation of the United States of America would support any resolution by the Committee on the establishment of centers which were created in accordance with the guidelines set out in Resolution XIX.

The Chairman requested the Rapporteur to prepare a draft resolution embodying the views expressed during the discussion.¹⁶

The session rose at 11:50 a.m.

¹⁶See p. 244.

FOURTH SESSION

Tuesday, 6 October 1970, at 3:10 p.m.

Chairman: Dr. Angel César Ronco (Uruguay)

Item 18: Report on the Status of Malaria Eradication in the Americas (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the draft resolution on the item, including the amendment proposed earlier by the Delegation of the United States of America:

Decision: It was unanimously agreed to recommend to the Conference that it take note of the XVIII Report of the Director of the Bureau on the status of malaria eradication in the Americas; express its satisfaction with the steps taken pursuant to Resolution WHA22.39 of WHO on the re-examination of the global strategy of eradication and program evaluation, and to request the Director to continue those basic activities of program review and evaluation and make the results available to the Governments; reaffirm the goal of eradication and the need for each Government to provide the essential resources for carrying out operational plans drawn up in accordance with the revised strategy; congratulate those countries that have continued to make progress toward eradication; draw the attention of Governments to the importance of incorporating the malaria eradication program into that part of the national development plan dealing with the health sector, and of giving suitable priority to the appropriation of funds for it; request the Governments and the Director to continue and strengthen research aimed at devising more efficient, safe, and economical methods of interrupting malaria transmission, and of evaluating the economic impact of the eradication of that disease; reaffirm the need to strengthen the coordination of national malaria eradication services and general health services with a view to extending coverage in rural areas, and to assign polyvalent health activities to the personnel of both services in areas

in the maintenance phase; emphasize to the Governments the desirability of increasing activities for the health education of the public designed to reduce as much as possible factors that limit the effectiveness of the attack measures used; and thank PAHO/WHO, UNICEF, and AID for their assistance to the Governments in carrying out the programs, and request international agencies to continue to provide their valuable collaboration in order to achieve the goals of eradicating that disease, which is hindering the economic development of areas still infected.¹

Item 25: Man-Environment Relationships

Dr. Hollis (Chief, Department of Environmental Sciences and Engineering, PASB), in presenting Document CSP18/10² on the item, recalled that the need for remedial action to check the deterioration of the human environment had already been stressed by speakers at the opening session of the Conference. In May, the Twenty-Third World Health Assembly had adopted two resolutions on the human environment (WHA23.59 and WHA23.60),³ requiring the Director-General to prepare a long-range environmental health program, and to consider the feasibility of a WHO global network for monitoring trends. At the same time the United Nations was taking action in the environmental field. It was making arrangements for a world-wide Conference on the Human Environment, to be held in Sweden in 1972, which would consider global trends in pollution and consider methods of stemming the alarming degradation of air, water, and land resources. The outcome might well be a world-wide system of environmental monitoring and surveillance, and possibly even international regulatory measures. Those develop-

¹See tenth plenary session, p. 134.

²Mimeographed document.

³*Off. Rec. Wld Hlth Org.* 184, 32-34.

ments represented some examples of the growing concern felt about the consequences of present changes in the man-environment relationship.

The document he was introducing sought to capture the essence of the situation in regard to the environmental challenge and to suggest the shape of events in the 1970's. Those events were extremely hard to predict; there was likely to be a break in continuity, to which tradition and extrapolation would provide but little guide.

The preface to the document pointed out that rapid population growth and accelerating technological advances in urbanizing societies were having unprecedented effects upon man's total environment. The speed, magnitude, and complexity of those forces were intensifying traditional problems and creating a host of new stresses, many of which were difficult to assess in regard to their health effects; that applied especially to the more subtle, chronic impairments in respect of which there was a wide gap between cause and effect. In addition, during the coming decade the impact on health of noise pollution, congestion, drug abuse, delinquency, and crime, among others, would be becoming increasingly important. And the tempo of change was so rapid that it was becoming extremely difficult to understand exactly what was going on. Nevertheless, it was essential that man should understand what he was doing and be the master, not the victim, of his technology.

The core of the document was the section entitled "Ongoing Programs." Program strategy had, since the early 1960's, two major objectives: first, to update traditional sanitation services, facilities, and practices, with special attention to the needs of rural and low-income populations; and second, to devise structures and to strengthen national institutions in order to cope with more complex environmental problems. In 1961, the Organization had devoted some 95 per cent of its total environmental health resources to problems of basic sanitation, and about 5 per cent to those of new environmental stresses. By the end of the 1960's the ratio was about 85 per cent and 15 per cent, and by the end of the 1970's it should be about 50-50. Those figures showed that the main problem was still that of getting basic sanitation service in order, but the changing character of some of the more complex environmental stresses could not be ignored.

During the past decade, the Governing Bodies had fully supported that strategy and emphasis, since most of the countries possessed the institutional structures, capacities, and competence to carry out a national basic sanitation program. The difficulty was financing.

As for basic sanitation, PAHO was paying special attention to rural community organization, self-help techniques, and mass approaches. In the case of the continental water program, for example, the principles of self-financing, sound administration and management, and good organizational structure, had been stressed; new structures with flexible operation procedures were emerging; realistic water-rate structures had been introduced; large numbers of technicians had been trained; and university-based systems for mission-orientated research were in operation. Thus the environmental program was strengthened through increased professional competence of the engineers and scientists in the Region, development of organizational structure, and efficiency of the national institutions. The national institutions responsible for education, training, and mission-oriented research were particularly important.

There was reason therefore to be optimistic about the likelihood of Governments being able to cope with the more complex problems with which they would be confronted during the coming decade. Some re-adjustment of resources and facilities would be required: health agencies would have to decide on the responsibilities they were prepared to assume for protecting the human environment. It was not a question of their undertaking the construction and operation of major public works systems, since in most countries that was handled by ministries other than the ministry of health; rather it was a question of deciding that what they would do would present them with difficult decisions. That was why the third approach (p. 31) was advocated in the document, which represented a practical balance and a realistic approach, and would cause least disruption to traditional health practices.

Public responsibility for the quality of the environment was, obviously, going beyond the competence of any one governmental agency. Effective programs would require close collaboration between the various agencies and effective systems of communication and coordination. And the focus of all that effort should continue to be on people, on their health, and on their well-being. It was that focus on man which distinguished health agencies from others seeking to operate in the environmental field. It was important that health structures, both national and international, should determine the role that organized public health should play in environmental protection. Broadly speaking, what health agencies could and should do was clear enough in most cases; the difficulty was to narrow it down to specific goals and objectives. What would appear to be needed, therefore, was to lay down health objectives for the 1970's, and to make specific and realistic proposals to

the effect that Governments and the Organization should undertake both to monitor trends and to implement essential control measures.

Implementation of such a plan would require close collaboration between the Governments and between them and the Organization. The plan would have to be ingenious enough to provide realistic prospects of monitoring stress in increasingly complex contemporary society. It would have to keep in proper perspective the health needs of the people in metropolitan industrial complexes and of people in rural areas. Difficult though such a plan could be, it was one that could nevertheless be carried out.

Dr. Bica (Brazil) said that a study of man-environment relationships in Brazil would have to take account of three very important phenomena: (1) the rapid growth of the population, which was expected to double in size by the end of the twentieth century; (2) increasing urbanization, which had made 53 per cent of the total population urban in 1971 and which heralded the early emergence of megalopolis around Rio de Janeiro and São Paulo; and (3) large-scale industrialization in many parts of the country. It was those three factors that were responsible for the increasing deterioration of the environment in the cities and that would progressively accentuate the problems of air and water pollution, unsanitary housing, and radiation.

However, the most serious problems in the country were in water supply, disposal of wastes and solid residues, protection of food, and occupational health, and substantial amounts of resources would be needed to solve those problems. The Delegation of Brazil was therefore in favor of the third alternative proposed in Document CSP18/10, which it considered the one most responsive to the problems facing Brazil and other Latin American countries at present and for the immediate future. He also stressed the importance of extending epidemiological surveillance over changes in the environment, within the possibilities of the health agencies, and the desirability of establishing a network of centers equipped for that task and armed with information collected, analyzed, and interpreted according to uniform methods.

Dr. Sáenz Sanguinetti (Uruguay), after commending the quality of the document presented, noted the close relationship existing between water pollution and development of river basins, as evidenced by the fact that a pilot project to be carried out in the Santa Lucía River in Uruguay was provided for in a special agreement between PAHO and the Government of his country. He agreed with Dr. Bica that the third procedure suggested

in the document was the most feasible one, considering the present possibilities of the American countries.

Dr. Broyelle (France) said that problems of mental health should be considered along with those of physical health as environmental problems and that urbanization, transportation, and other related factors should be taken into account in the programs.

Dr. de Caires (United States of America) said that he particularly welcomed the emphasis laid by the Director on the importance of health agencies, taking the lead in assessing man-environment relationships in so far as they affected health.

The Organization would have his country's support in its assistance in organizing the structures and administrative procedures for the management of community water supplies and sewage systems, which were perhaps mundane environmental matters but nevertheless important.

He drew attention to the great proliferation of activities taking place at present in the field of environmental health. There was need for an inventory of the environmental-related programs of the various international agencies and of the national agencies of the Organization's Member Governments. PAHO should undertake making such an inventory; if one were not made, confusion would rapidly become worse confounded. There was also a need to accelerate the exchange of information; developments were so rapid that delay in exchanging information could be very harmful. There again the Organization could play a unique part. The Pan American Sanitary Engineering and Environmental Sciences Center seemed an ideal instrument for that purpose.

Concern about the adverse effect upon the population of deterioration in the environment had resulted in the elaboration of a wide variety of programs in many fields besides environmental health, such as the conservation of natural resources and urban development. In consequence, attention had been somewhat distracted from the specific problem of human health and well-being, which was a most undesirable development. While other agencies of various kinds had, of course, responsibility for programs of their own concerning the environment, the most effective contribution that could be made by health agencies, national and international, would be to provide the leadership to which the Director had referred.

Dr. Horwitz (Director, PASB) thanked the delegates for their comments on the document presented. He expressed the hope, however, that the discussion would continue and result in clear instructions being issued to

the Secretariat as to what it should do in the field of man-environment relationships, which was posing increasingly complex problems.

Today's ministries of health had a heavy responsibility toward those of the future, since the decisions taken now would affect the performance, possibilities, and sphere of activity of similar institutions in the Hemisphere, and possibly in the entire world, in the coming decades.

If those who were now engaged in health activities regarded environmental problems, whether physical, chemical, psychological, or social, as matters that were not within their particular province because they involved investments, construction, or facilities for which they should not be responsible, then the future of the health ministries was very uncertain. They would gradually become agencies more concerned with disease than with its causes and dynamics and increasingly less concerned with its prevention. There was no other agency of government having that responsibility and also the opportunity to carry it out in connection with development undertakings of every kind, whether public or private.

If there was any reason for advocating that health be conceived as a component of development, it was to proclaim the paramount importance of human beings in all the efforts made by societies to ensure their well-being. And the end should not be forgotten, whatever the size of the means used to attain it.

That fact was emphasized in the document in the hope of bringing about a decision as to who was to assume responsibility for the problem. The Organization believed that as an agency of the Governments, established to serve the people through them, it had a role to perform in that regard.

The document outlined three alternative approaches to environmental problems. Under the first, the essential elements of the environments—physical conditions—would receive the greatest attention. Naturally, those

conditions varied from country to country and would be influenced to a certain extent by the technical and financial capacity of each country's institutions and by the provision of external capital. Under the second approach, the environment became the nucleus around which the activities of all programs revolved. The emphasis there was on the fact that present knowledge was insufficient to support a determination of the real health problems related to the environment. The implication was that the indicators used today to define the health function—mainly those of mortality and morbidity—would not suffice in the coming years. That approach allowed considerable scope for the performance of research that would throw light on the gestation process of diseases and afford indices for measuring it in the future. The third alternative, a combination of the first two, emphasized the work still to be done. For example, as there has been frequently repeated, while there were more than 120 million people served by water supply facilities in Latin America and the Caribbean area, there must be others without that service, and their number was likely to increase with population growth.

The delegates should bear in mind the damage already done to the environment by haphazard industrial development and the risks to which human beings living in that environment were subject. And since industrialization was far from having attained that degree of progress in Latin America, the experience in other areas should serve as a guide for avoiding similar consequences.

The Chairman requested the Rapporteur to prepare a draft resolution on the item for examination at a subsequent session.⁴

The session rose at 3:50 p.m.

⁴See p. 243.

FIFTH SESSION

Wednesday, 7 October 1970, at 9:15 a.m.

Chairman: Dr. Abelardo Sáenz Sanguinetti (Uruguay)

Item 19: *Aedes aegypti*

Dr. Calheiros (Regional Adviser in *Aedes aegypti* Eradication, PASB), in presenting Document CSP18/13¹ on the item, noted that 13 countries and territories in the Hemisphere had completely eradicated *A. aegypti*. Another five countries—Brazil, El Salvador, Honduras, Mexico, and Panama—had also achieved eradication, but had recently encountered reinfestations. All of those countries were conducting activities to solve their respective problems; however, financial difficulties were restricting the activities of the reorganized campaigns in El Salvador and Honduras.

Aside from those reinfestations, *A. aegypti* was still present in the northern part of South America, the United States of America, and the Caribbean area, and had given rise to frequent reinfestations that endangered the success of the hemisphere-wide eradication program.

Although the general picture of the Hemisphere campaign was not too favorable, some successes had been achieved in 1969 and 1970 as a result of efforts made by the Governments with the cooperation of the Organization. Thus, French Guiana and several Caribbean islands began the attack phase, while others were in the final stages of the preparatory or planning phase.

Venezuela continued to carry out limited activities in the western part of the country. Cuba's activities had suffered a setback when the resistance of the vector to chlorinated insecticides made it necessary to substitute phosphorus insecticides in the Province of Havana. In Trinidad there were only a few foci, and Tobago continued to be free of the mosquito. The program in Jamaica was started with limited activities in an area near Kingston, and the Organization cooperated with the Government in the preparation of a program for obtaining assistance from the UNDP. Similar cooperation was being rendered to other countries and territories in the Caribbean.

In Colombia, the activities aimed at controlling reinfestations in the area bordering on Venezuela had met with some success in 1970. However, the reinfestations in the port districts of Barranquilla and Cartagena did not receive the necessary attention, although the Government had since increased the allotments for the campaign and requested PAHO to cooperate in restructuring the entire program and obtaining equipment and insecticides.

The general situation in the Americas could be summarized in the following terms: of the 11,800,000 km² which had constituted the original *A. aegypti* infested area, 8,400,000 km² were still free of the mosquito. Of the 44 countries and territories of the originally infested area, 13 had achieved eradication, 18 were conducting intensive campaigns, 7 were in the preparatory or organizational phase, and 6 had not undertaken campaigns, or had interrupted them.

The serious problem of resistance of the vector to chlorinated insecticides had caused delays and difficulties in certain countries and territories but was gradually being solved satisfactorily with the use of phosphorus insecticides. The Organization continued to attach high priority to research on new insecticides and was planning to test new products in the field in Jamaica.

The principal difficulties confronting the campaigns were shortages of budgetary funds and staff, organizational and administrative shortcomings, problems of personnel, and reinfestations.

In compliance with Resolution XXIII,² approved by the Directing Council at its XIX Meeting (1969), the Director called a meeting of a Study Group on the Prevention of *Aedes aegypti*-Borne Diseases. The report of the Group, which met in February 1970, appeared in Addendum I to Document CE64/4.³ In addition, a cost-benefit study of programs for the prevention of *A.*

¹See Annex 3.

²Official Document PAHO 99, 72-73.

³Mimeographed document.

aegypti-borne diseases was presented as Addendum I⁴ to Document CSP18/13.

In regard to surveillance, some countries had expanded and intensified their activities in that field, while others, which had achieved eradication, had discontinued them or reduced them to so limited a scale that they offered small assurance that a reappearance of the vector could be discovered. The Organization was attempting to cooperate as effectively as possible in that respect.

Dr. Arreaza Guzmán (Assistant Director, PASB) noted that paragraph 1-b of the operative part of the aforementioned Resolution XXIII provided for the hiring of an organization, independent if necessary, to present a study on cost-benefit aspects of the prevention of *A. aegypti*-borne diseases in the Americas. In compliance with that resolution, the Organization had signed a contract with a well-known and very experienced firm, Robert L. Nathan Associates, Inc., of Washington, D. C., to which the Bureau extended the necessary advice on purely technical aspects.

The report contained some mistakes but those did not affect its basic import. He noted in that regard that the Organization had begun the *A. aegypti* eradication campaign throughout the Americas in 1947 and that the problem of eradication and reinfestation from the neighboring countries had been raised by Bolivia as far back as the XI Pan American Sanitary Conference (1942). The report made reference to setbacks encountered after the early successes and to the high cost of the program. It underscored such problems as financial limitations, administrative rigidity, poor labor relations, sociocultural factors, and the resistance of the vector to insecticides. In view of the difficulties encountered, many countries resorted to new, often improvised, methods which did not produce satisfactory results.

Referring to the long-range research activities mentioned in the report, the speaker called attention to the statement that successful long-range research on *A. aegypti* eradication would be of little importance if countries such as Brazil, Mexico, and Trinidad and Tobago failed to take action against reinfestation in the years immediately ahead. He interpreted the statement to mean that there was no need for a cost-benefit study if it merely were to conclude that maintenance of eradication in those countries would be beneficial from the standpoint of public health as well as from the economic and social points of view.

In Chapter I of the study, "Background and Purpose of the Study," reference was made to dengue and

yellow fever, and in relation to the new problems of eradication it is pointed out that the United States of America had not succeeded in eradicating *A. aegypti* from many parts of its territory despite the expenditure of \$54,000,000.

Chapter II, "Elements of Cost-Benefit Analysis," was obviously educational in its intent, since it was directed to professionals who had had no special training in the difficult techniques of cost-benefit analysis.

Chapter III, "Promising Lines of Research Activity," examined the following alternatives: using the cheapest available procedure for reducing *A. aegypti* to a sufficiently low level to avoid the spread of yellow fever or dengue; eradicating the vector on a national scale; exercising the necessary surveillance to detect and prevent reinfestation if the vector could be eliminated; and eradicating the vector on a hemisphere-wide scale.

Another important feature of the report was the suggestion that consideration be given to appropriate international action, especially measures by still-infested countries to avoid reinfestation of those that were free of the mosquito.

Chapter IV, "Subjects suggested by the Study Group," indicated the desirability of analyzing the results contained in the report itself in the light of the topics suggested by the Study Group on the Prevention of *Aedes aegypti*-Borne Diseases.

Chapter V, "Functional Requirements for Suggested Cost-Benefit Studies," noted the fundamental importance of determining the exact costs, which were unknown. It added that maintenance of eradication had first priority, followed by prevention of reinfestation and of exportation of the vector.

Finally, it was estimated that the cost of hiring the entire team and covering its administrative expenses would be approximately \$300,000 per year for three years.

Dr. Bica (Brazil) commended the Director and Dr. Calheiros for the excellent report presented. In view of the fact that greater emphasis had been placed during the last three or four years on the failures than on the successes of the campaign, he believed it advisable to stress the positive results during 1969 and 1970, including: the initiation of the program in Guadeloupe, French Guiana, the Cayman Islands, and Martinique; reorganization of the campaigns in Barbados, Guyana, St. Lucia, and Surinam; preparations for the attack phase in Antigua, the Netherlands Antilles, Grenada, and Montserrat; and the program being organized in Dominica, Jamaica, and St. Vincent. All of that showed the interest of the Caribbean countries and territories,

⁴Mimeographed document.

and the speaker expressed the belief that PAHO should provide technical and material assistance to those countries because if the problem could be resolved in that area, and the reinfestation eliminated in Brazil and the buffer zone in Venezuela extended to the Colombian border, eradication could be considered complete after so many years of efforts. Furthermore, if the United States Government decided to establish a protective area along its border with Mexico, the extensive shaded area in the map contained in the report would be reduced to a few dark spots.

The speaker then referred to certain aspects of the *A. aegypti* problem in Brazil. The country finished eradicating the mosquito in 1955 and was officially declared free of the vector in 1958; however, in July 1967 reinfestations occurred in the city of Belém, Pará, and subsequent investigation revealed the presence of the mosquito in 35 localities located in 18 municipalities of the State of Pará within a 200-km radius of Belém. In August 1969, the cities of São Luis and Ribamar in the State of Maranhão were also found to be reinfested. An *A. aegypti* eradication campaign was immediately begun in both states, with an appropriation of \$400,000 allotted during that same month, followed by another allocation of \$600,000 for 1970. A further amount of \$800,000 would be added in 1971.

The results of the campaign thus far were as follows: the infestation index in Belém, initially 5.6 per cent, had been reduced to less than 1 per cent; that for São Luis had been reduced from an initial 2.9 to 0.7 per cent; and the index for Ribamar, initially 3 per cent, had been brought down to zero. The international airports at Belém and São Luis, as well as the entire port district, were free of the mosquito.

The yellow fever control program in Brazil included, in addition to *A. aegypti* control, surveillance against reinfestation in other parts of the country, vaccination of population groups exposed to jungle yellow fever, and intensified viscerotomy activities.

Citing the report presented by his country's Delegation to the XV Pan American Sanitary Conference, the speaker noted the reference in it to the effect that following the inspection of an area of 8,270,297 km²—almost the entire country—an area of 5,358,822 km² had been classified as presumably infested. *A. aegypti* had been found in 63 per cent of the area inspected. The eradication work was based on the use of petroleum in 81 per cent of the municipalities and of DDT in the other 19 per cent; 617,021,537 houses were visited during the campaign. Brazil spent close to \$250,000,000 on its campaign, equivalent to about \$500,000,000 at present costs. Moreover, eliminating

the vector from the Hemisphere had cost millions of hours of work devoted to treating millions of houses. Safeguarding that enormous investment in money and human effort was a matter of vital importance not only for Brazil but for all the countries in the Americas which had achieved eradication and could only maintain it if the remaining foci were eliminated without delay. The Government of Brazil attached the highest priority to that program and hoped to be able to again eliminate the mosquito entirely from its territory within three years. But in order for it to remain free of the disease it was necessary that the neighboring countries carry their programs to a successful completion in compliance with the international agreements.

Dr. Ferro (Colombia) congratulated the Director and Dr. Calheiros for their reports and supplementary comments. In Colombia the eradication campaign carried out between 1951 and 1957 had eliminated the mosquito from almost the entire country, the exception being the city of Cúcuta. In 1957, surveillance activities were started in the cities along the border with Venezuela and seaports and international airports. In the 1967 budget, provision was made for reinspecting, as part of the campaign, a third of the 12,000 localities considered to be positive; unfortunately, it was not possible to do that work because reinfestation occurred in most of the localities having a common border with the neighboring Venezuelan States of Táchira and Zulia. In the second half of 1969, the ports of Barranquilla and Cartagena were found to be reinfested, with an index of more than 50 per cent. Faced with that situation, the Government allotted appropriate resources and PASB immediately dispatched Baytex and Abate as well as working equipment and vehicles. At the present time, the situation was evolving favorably along the Venezuelan border and work was proceeding in the Caribbean coastal area for the purpose of defining the reinfested area and attacking the existing foci. That was being done with the assistance of the communities and municipal health authorities.

Eradication in Colombia offered good prospects of success, because of the Government's firm intention of combating reinfestation and because of sound central and regional organization, administrative autonomy and flexibility, suitable resources, and appropriate legislation. However, while there was no doubt that the investment being made was worthwhile, since the absence of *A. aegypti* would keep the country free of urban yellow fever and dengue, the question arose whether all of those efforts would not be rendered unavailing or have to be continued indefinitely because

of the increase in international travel and the absence of eradication campaigns in other countries located within the same area of epidemiological influence of the vector. In view of that risk, the Conference should establish guidelines or authorize the Director of PASB to establish, after the pertinent studies were made, an appropriate policy that would consider the interest of all the countries affected.

Dr. Hyronimus (France) described the situation in the French territories in the Americas. French Guiana was declared free of *A. aegypti* in 1958 but was later reinfested and had to resume its eradication campaign, with limited results thus far. In Martinique, eradication was almost reached in 1956, but reinfestation then took place and eradication had still to be attained in spite of the enormous amounts of money spent. The campaign was being carried out with new phosphorus insecticides and was expected to yield excellent results. Guadeloupe had yet to achieve eradication, owing to the lack of public cooperation. Reinfestations often came from abroad as in the case of French Guiana.

The questions then arose: How could contamination of one country by another, especially through shipments of merchandise, be prevented? Moreover, when could eradication be said to be complete and final, considering that a few mosquitoes were enough to cause reinfestation? In spite of that, the campaign should proceed, and considerable amounts should be invested in it, since although cases of yellow fever were very rare, the presence of dengue caused much damage to the tourist industry and the economy in general.

The speaker wondered how much longer it would be necessary to continue the fight against *A. aegypti* in order to obtain final results throughout the Hemisphere. He also wondered whether there might not be other procedures, apart from insecticide-spraying programs, that could be used to control the mosquito by preventing its proliferation, and what was the present status of studies being made on that matter.

Dr. Aguilar Rivas (El Salvador) recalled the impressive work done by Dr. Fred L. Soper and by all those who over a period of 23 years had fought or continued to fight against *A. aegypti*. For geographic, social, and economic reasons, no country could achieve eradication through its own unaided efforts. Another problem was the high cost of the campaigns, which was particularly serious for countries whose natural wealth was not very great.

The *A. aegypti* problem, at least in some countries, involved different risks from those presented by, for instance, influenza, since in the case of yellow fever it

was possible to take some efficient preventive measures. A developing country, lacking the necessary resources, could hardly expect to meet with total success in its efforts to eliminate the vector.

Eradication problems had been made more difficult by the growing interdependence of countries, and only history would be able to assess the scope of an enterprise as important as *A. aegypti* eradication in the Americas, a region constituting a mosaic of countries whose development was in many cases still incipient.

Dr. Alvarez Gutiérrez (Mexico) said that the cost-benefit study was extremely important not only because of its technical contribution to the *A. aegypti* program but also because the economic considerations it included could induce some of the countries to begin or strengthen their campaigns.

He said that he shared the concern expressed by the Delegate of Colombia for those countries which experienced frequent reinfestations because of factors beyond their control, and requested that the Organization repeat its recommendations that countries that did not have an adequate program take the necessary steps for their own benefit and that of the countries exposed to reinfestation.

Dr. Martínez Rodríguez (Cuba) said that some 6,000 men would be needed to carry out the eradication program throughout his entire country and that manpower demands for agricultural and livestock development prevented making available a contingent as large as that. An experimental program was therefore being carried out in the Province of Havana and, if successful, would be extended to the whole country.

The speaker said he was pleased with the broad terms in which the recommendations to the Governments were couched, since that would allow each country to adapt the recommendations to its particular characteristics and needs.

Dr. Bica (Brazil), considered that the cost-benefit study on the prevention of *A. aegypti*-borne diseases did not provide sufficiently reliable data to afford a basis for an objective determination of goals. He also felt that the study was not responsive to the Executive Committee's decision that an independent organization be hired to perform the study defined by the multi-disciplinary group. The cost-benefit study proposed that a group of experts be convened to design programs for obtaining valid statistical data on the cost-effectiveness of various *A. aegypti* control and other programs; to explore ways and means of surmounting obstacles to the programs, such as financial restrictions, etc. He did not believe that a study group was needed in order to arrive

at conclusions as simple as those. Moreover, the report contained such technical errors as the following: "Explore the potential of 17D vaccine to give greater protection against yellow fever, particularly jungle yellow fever," as if there were any difference, and the statement that if such countries as Brazil, Mexico, and Trinidad and Tobago failed to resolve the problem of reinfestation from the economic point of view, that situation would seriously impair the concept of *A. aegypti* eradication, a statement that could be interpreted to mean that those countries were responsible for the present situation.

The speaker did not consider it necessary to have another study group, since all the meetings of that kind had reached the conclusion that eradication was feasible and since the funds that would be required to establish the group could be better used in cooperating with the interested countries in eradicating the vector. What was really important, he said, was for the countries to give eradication its proper priority and to solve the administrative problems. As for methods, the ones which had already given good results could continue to be used, but that would not preclude the possibility of obtaining better ones.

Dr. Orellana (Venezuela) pointed out that the position of the Directing Council at its XIX Meeting had been based on a recognition of the need to redefine the *A. aegypti* problem on a hemisphere-wide basis, revise it along epidemiological lines, and redouble the efforts for eradication as the only solution. The problem had been focused from an economic point of view because there was the general question as to whether it was worth spending so much money to combat a danger which at certain times appeared to be only potential. The important thing was to determine whether it was advisable to perform a cost-benefit study for health activities. In the case of *A. aegypti*, the problem was complex. The cost would be that of eradicating a vector, and the benefit would be the elimination of one disease—yellow fever—which had little importance as a cause of death, and of another—dengue—which had little significance as a health problem. Although the study could provide certain collateral benefits—knowledge of methodology, application of special techniques, possible alternatives, and determination of costs—it would certainly not alter the prevailing opinion. The only way to combat diseases transmitted by *Aedes aegypti* was to eradicate the species, and he shared the opinion of Dr. Bica that the recommendations made to the Organization should conform to the views of impartial specialists, which basically favored maintaining and strengthening the campaigns to eradicate the vector,

disposing of trash in such a way as to prevent the formation of breeding grounds, and conducting general research.

Dr. Rabinovich (Argentina) said that while his country had eradicated the mosquito since 1966, it continued to maintain a surveillance service at a cost of \$80,000 per year which had made it possible to discover a focus on the outskirts of Buenos Aires in 1968. The reinfestation occurred in warehoused tires which had probably been transported by sea.

The speaker agreed with the views expressed by Dr. Bica and Dr. Orellana and stressed that no study to determine the cost-benefit ratio in the eradication of *A. aegypti* ought to be made until adequate research was done on methodology.

Dr. Henry (Trinidad and Tobago) said that he had not intended to speak on the item since he had nothing original to contribute to the discussion. However, in view of the references by the Secretariat and the Brazilian Delegate to the status of eradication programs in Trinidad and Tobago, and because of any inferences that might be drawn from the mention of Trinidad in connection with reinfestation on page 4 of the cost-benefit study (Document CSP18/13, Addendum I), he wished to stress his country's record of achievement in *A. aegypti* eradication. A yellow fever outbreak in 1954 had been promptly suppressed. An eradication program had been started in 1959 and had proved successful by the following year. Unfortunately, reinfestation had occurred since then and was still a problem, but the country was spending 250,000 Trinidad and Tobago dollars annually to keep itself free of *A. aegypti*. The results had been readily apparent in 1963 and 1964, when a wave of dengue had swept the Caribbean, and Trinidad and Tobago had been the only country to escape it.

He wished to congratulate the Bureau on the *A. aegypti* documentation presented to the Conference. It testified to the Organization's concern to see the vector eradicated.

*The session was suspended at 10:55 a.m.
and resumed at 11:25 a.m.*

Dr. Ehrlich (United States of America) said that the Conference should provide guidance as to the action which the Organization should take with regard to *A. aegypti* eradication and the control of *A. aegypti*-borne diseases. In particular, it should decide on its long-term policy in that field—for the next five or 10 years, for instance—so that Governments which were considering

their own policies should be able to fit them into a strategy for the Hemisphere. The fundamental question was whether it was wise for the Organization to continue to spend money on the present *A. aegypti* program.

At its XIX Meeting, the Directing Council had adopted Resolution XXIII in which it requested the Director to sponsor a complete in-depth study of the strategy and methods of preventing the diseases transmitted by *A. aegypti*. That resolution had been inspired by recognition of the fact that many changes had occurred since the program had first been approved and that countries which were now considering what action they should take at the national level needed an objective appraisal of the existing strategy for the Hemisphere and a knowledge of the alternatives to it. The Delegation of the United States of America had hoped that the report before the Committee (CSP18/13 and Addendum I) would provide the information required. Unfortunately that was not so, although the report did give a clearer understanding of the complexity of the problem and suggested a course of action.

In his view, the only course open to the Conference, was to study the recommendations contained in the report and to urge that the results of the study be carried out as speedily as possible. He was aware that that would create difficulties for the Governments that were still pondering their *A. aegypti* policy, but no valid decision could be taken on the Organization's long-term policy until the necessary information was available. In the meantime, neighboring countries could support each other's efforts to deal with infestation and reinfestation on a bilateral basis, as was the case with the United States of America and Mexico.

Dr. Frazer (United Kingdom) said that for many years the Conference had instructed the Director to take specific action with regard to *A. aegypti*, but it had not provided the funds for him to do it. Instructions of that kind were not very helpful. If the same amount of money had been spent on the eradication of *A. aegypti* as on the eradication of malaria, the former would no longer be a problem.

Speaking of Bermuda, about which no information was given in the document, he said that *A. aegypti* had been eradicated and that constant surveillance was maintained. That was directed essentially at the domestic environment; inspectors visited all parts of the island to make sure that there were no spots in which mosquitoes could breed. That action was supported by a sound health education program to enlist the cooperation of the population.

Dr. Bica (Brazil) recalled that by Resolution XXIII adopted by the PAHO Directing Council at its XIX Meeting, the Director of PASB had been instructed to designate a multidisciplinary group, apart from continuing the assistance to programs under way, to examine the present strategy for prevention and control of *A.-aegypti*-borne diseases in the Americas. The assignment was carried out by a working group selected by the Director from among outstanding figures in various public health disciplines in the Americas. The group showed in its report that eradication of the vector would be feasible and practical when 18 countries and territories of the Americas achieved that goal. One of its recommendations was that the Organization continue to encourage and advise those countries that were not carrying out eradication programs and that the systems of surveillance in countries that had attained eradication be strengthened.

He said he was not in favor of performing a study such as that suggested by the firm of Robert R. Nathan Associates, Inc., because, in the first place, it would involve the expenditure of close to one million dollars that could be used for eradication in the countries and territories of the Caribbean, and in the second place, it would presuppose a postponement of any decision by the Organization in regard to the program.

Dr. Ehrlich (United States of America), replying to the Delegate of Brazil, agreed that the study group had stated that the eradication of *A. aegypti* had been proven feasible but that that was not the point. The Directing Council's aim in adopting Resolution XXIII had been to initiate a reexamination of the basic premise on which the present program was based and a consideration of alternative means of preventing *aegypti*-borne diseases at potentially less cost and more effectively. Second, one million dollars was indeed a substantial sum; the Organization should make sure that, if it proceeded with the studies, the work would be done as economically as possible. Third, he did not agree that the studies would benefit only a small number of countries. The maintenance of eradication in certain countries prevented reinfestation of other countries and was therefore of interest to the entire Hemisphere.

Dr. Calheiros (Regional Adviser on *Aedes aegypti* Eradication, PASB) thanked the delegates for their kind remarks about the report. Referring to the question raised by the Delegate of France, he said that the problem of surveillance to prevent the exportation of *A. aegypti* was admittedly very complex. The *International Health Regulations* recommended that the infested

countries maintain free of *A. aegypti* not only their sea and airports but also a "protective area" extending for a distance of 400 meters from the limits of port and airport areas. The *Regulations* also recommended that uninfested countries inspect the ships and aircraft arriving at their ports or airports. As for merchandise, legislation prohibiting the export of certain products clearly identified as responsible for the introduction of *A. aegypti* in countries free of the mosquito could help the latter to remain uninfested. Educational methods were an important means of getting the general public to accept the methods used in the campaign. The Study Group, in its report, noted the importance of socio-cultural factors in relation to the problems of *A. aegypti* control or eradication and proposed the study of new motivations that would help to overcome resistance. Regarding the biological or chemical methods that could be used for eradication, the Study Group felt that those used thus far had not proven to be effective, although they could possibly yield very promising results over a period of 5 to 10 years. PAHO and also WHO were keeping in contact with such organizations and institutions as the Ohio State University, which served as an International Reference Center for the Diagnosis of Diseases of Vectors, and the Institute of Biology of Notre Dame University, for genetic studies. In addition, WHO had established a center in Bangkok for research on *A. aegypti* control methods and a similar center at Dar-es-Salam, Tanzania, for applied genetics studies on culicidae.

Dr. Horwitz (Director, PASB) said that if the vector were eradicated, history would judge the Organization much more favorably than otherwise. In the latter event, it would be blamed, first of all, for defaulting on the moral commitments assumed in its Governing Bodies, and then, for the many years that would be lost before the mistake could be recognized. The very distinguished experts in the Group headed by Professor William C. Reeves had said that the procedures being used were adequate. That did not mean, in view of the spiraling growth of science, that efforts should not continue to be made to develop better alternatives for achieving the same end, since ways should be found to prevent the diseases transmitted by that vector.

The immediate practical question, and the one on which clear instructions were needed from the Conference, was what should be done pending the performance of the research on possible alternatives. Assuming that the recommendations of the report prepared by Robert R. Nathan Associates, Inc. were put into practice, it would take three years to have any certainty about the results of that research. But

meanwhile it would be necessary to determine what measures the Governments and the Bureau should take.

Dr. Horwitz agreed with Dr. Bica that the report presented was in error in not emphasizing that the fundamental problem lay with the countries that were exporting *A. aegypti*. Asking a Government to refrain from harming its neighbors was no attempt against its sovereignty. A Government could fail to take action against a given health problem provided it did not thereby impair the interests of its neighbors.

The least that could be expected from the conference was that it urge those countries that for any reason had not begun their program to take some action to avoid exporting the vector, a task that did not seem impossible. It had once been proposed that if a new and modernized Pan American Sanitary Code were drawn up it include certain sanctions against a country that created problems for its neighbors. While it was not necessary to go so far, it was necessary to support those Governments that were attempting to eradicate the vector or control reinfestation and to urge those that had done so to strengthen their surveillance activities. When Dr. Frazer compared the investments in *A. aegypti* with those in malaria, he was referring no doubt to the investment made by the Hemisphere as a whole and not only by the Organization. The malaria program now required an annual investment of at least US\$60 million, not counting the cost of caring for imported cases, and of those, the Organization was investing \$2.5 million per year.

As for the financing of the cost-benefit studies, the Director recalled that the Directing Council had agreed that it would be based on voluntary contributions. It was possible that the studies suggested by Robert R. Nathan Associates could be done at a substantially lower cost.

The Director requested that the resolution to be adopted contain clear instructions on the procedure to be followed. He expressed confidence in the efforts already in progress and in those being made by the Caribbean countries and territories that were participating in the undertaking.

Dr. Mohs Villalta (Costa Rica, Rapporteur) requested a clear decision of the Conference as to whether or not the Director was authorized to carry out the study in question, so as to know whether that point should be included in the relevant draft resolution.

Dr. Orellana (Venezuela) suggested that the Director be instructed to seek voluntary contributions for performing the study and that efforts be made to reduce the cost of the study.

Dr. Bica (Brazil) reiterated that he did not think that the cost-benefit study on eradication of the vector was necessary. He had no objection to studies directed to improving the present methods, provided that meanwhile the work continued to be carried out in accordance with currently available procedures.

Dr. Allwood Paredes (El Salvador), referring to the Director's remarks on possible sanctions against countries permitting the exportation of *A. aegypti*, expressed the view that that could be interpreted as a stain on the reputation of those countries which, through inaction, were responsible for exporting diseases to their neighbors.

Dr. Baird (Guyana) said that the studies should be continued so that all the alternatives to the present program could be defined. Thought should, however, be given to the cost of the studies, which should be carried out at the lowest possible cost. In the meantime, the countries which had not yet initiated *A. aegypti* programs should be encouraged to do so.

Dr. Horwitz (Director, PASB) said that he appreciated Dr. Allwood Paredes' remarks because they gave him the opportunity to clarify the meaning of his words. If the sciences of communications had anything to teach, it was that language often lost its intended meaning as it passed through the brain. Perhaps the greatest merit of Beckett, the gift that won him the Nobel Prize, was the great economy with which he used words in his writings.

Dr. Horwitz made it clear that while in his earlier statement he had referred to the possibility, suggested

once, that a new Pan American Sanitary Code include sanctions against countries which, by not making proper use of scientific knowledge, impaired the interest of their neighbors, he was fully aware that such a code did not exist, and that in any case it could not be put into effect without first being approved by the parliaments and Governments of all the countries in the Hemisphere. He emphasized the hope that action as extreme as that would never be taken and his confidence in the determination of the Governments to take steps to avoid a situation detrimental to the interest of their neighbors, a situation which after 23 years ought to have come to an end.

Dr. Wells (Barbados) said that the studies should be continued, but only if the Director could find sources of financing for them outside the regular budget of the Organization.

Dr. Hyronimus (France) said that he agreed with the statement of the Delegate of Brazil because the study, if carried out in the manner suggested in the report, would lead to a loss of time and money, regardless of where the funds for its financing were obtained. He believed that PAHO should continue to study without resorting to special funds.

The Chairman asked the Rapporteur to prepare a draft resolution embodying the views expressed during the discussion.⁵

The meeting rose at 12:15 p.m.

⁵See p. 245.

SIXTH SESSION

Wednesday, 7 October 1970, at 3:00 p.m.

Chairman: Dr. Alcides Almada (Paraguay)

Item 21: Resolutions of the World Health Assembly of Interest to the Regional Committee (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to recommend to the Conference that it take note of the resolutions of the World Health Assembly of interest to the Regional Committee.¹

Item 22: Control of Cigarette Smoking (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the draft resolution on the item.

Decision: It was unanimously agreed to request the Conference to recommend to the Governments that they intensify and coordinate the efforts of health authorities, scientific associations, and the community to combat tobacco consumption; to commend PASB on its initiative in planning a survey on the characteristics of the smoking habit in eight cities in Latin America, and to request the Director to take such measures as may be necessary to ensure that the study is undertaken as soon as possible, subject to the financial possibilities of the Organization; to promote similar surveys in all the countries in the Region interested in controlling cigarette smoking; to request the Director to establish a clearinghouse for receiving and transmitting information concerning smoking and health in order to promote and facilitate an exchange of experiences and educational materials among agencies in the Region interested in the control of smoking, and to request the Director to report to the XX Meeting of the Directing Council on the action proposed and its financial implications for the Organization.²

¹See tenth plenary session p. 138.

²See tenth plenary session, p. 138.

Dr. Wells (Barbados) suggested that in operative paragraph 2 of the English text of the draft resolution on the control of cigarette smoking, the last line reading "financial possibilities of the Organization" be changed to "financial resources of the Organization."

Item 25: Man-Environment Relationships (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the draft resolution on the item, the text of which was as follows:

The XVIII Pan American Sanitary Conference,

Having considered the Director's special report on man-environment relationships (Document CSP18/10) and having reviewed Resolutions WHA23.59 and WHA23.60 of the Twenty-Third World Health Assembly;

Recognizing that rapid population growth and accelerating technological advances in urbanizing societies are creating unprecedented impacts on man's total environment and that the speed, magnitude, and complexity of these forces intensify traditional problems and create a host of new stresses;

Bearing in mind that the characteristic which distinguishes health ministries from other agencies in the environmental field is their focus on the health and well-being of peoples and the significance of environmental change to man; and

Observing with satisfaction the aggressive and effective measures taken by the Governments to strengthen national institutions and to meet the goals in the Charter of Punta del Este related to a quality human environment,

Resolves:

1. To commend the Director on the report on man-environment relationships (Document CSP18/10) and on his initiative to keep Governments informed on evolving problems of environmental health.

2. To recommend to the Director:

(a) That the Organization intensify its program of assistance to Governments in developing new or more effective approaches and techniques for controlling environmental hazards.

(b) That the Organization continue its activities to collaborate with Governments in the strengthening of the continental networks for education, training, and research; to develop and implement practical systems for monitoring of environmental pollution; and to improve the organization and administration of environmental services.

(c) That the Organization continue to give special attention in its programs to the health needs of rural peoples, with emphasis on community organization, self-help concepts, and

revolving-fund mechanisms to support mass-approach techniques for providing water supplies, sewerage services, housing, and related environmental improvements.

(d) That he continue his commendable efforts, in collaboration with both bilateral and multilateral international agencies, for the purpose of making available financial and technical support to assist Governments in providing a healthful environment.

3. To request the Director to develop, for submission to the XX Meeting of the Directing Council, environmental health projections for the 1970 decade, including specific and realistic proposals with long-range goals and the design of programs that the Organization and the Governments might undertake to monitor pollution trends and to implement essential control and remedial measures.

Dr. Sáenz Sanguinetti (Uruguay) proposed the insertion of the words "physical and mental" at the end of the second preambular paragraph of the resolution.

Decision: The draft resolution as amended was unanimously approved.³

Item 24: Multinational Centers (*conclusion*)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the following draft resolution:

The XVIII Pan American Sanitary Conference,

Having studied Document CSPI8/22 and annexes containing guidelines for the establishment and operation of multinational centers recommended by the Executive Committee at its 64th Meeting; and

Recognizing the value of multinational centers for dealing with health problems of interest to several countries,

Resolves:

1. To approve the following general guidelines for the establishment and operation of multinational centers:

(a) For the purpose of these guidelines, a multinational center shall be defined as an institution or center administered by international staff and supported to a significant degree by international funds, which provides services for all the countries in the Region, or a group of them in a particular area.

(b) The establishment and operation of multinational centers shall be based on the priorities arising out of the planning of the PAHO/WHO program. Under this system, each country's appraisal of its health problems shall determine the extent and nature of the international assistance that will best serve to support the health programs of the Member Countries.

(c) Where the solution of a country's health problems requires services of a standard and capacity not available within the country, it shall endeavor to obtain such services from institutions in other countries. PAHO/WHO shall continue to support these institutions with a view to improving the services to the countries in which they are situated and to countries that do not have sufficient resources to organize similar institutions.

(d) Where there are no suitable national institutions to deal with problems of common interest, multinational centers will be planned and developed in consultation with the Governments in order to make maximum use of PAHO/WHO assistance.

(e) In their own or related fields, multinational centers should support, assist, and supplement the programs of the countries and should promote international cooperation for the solution of common problems.

(f) In view of the fact that multinational centers are institutions and are created only when there are no adequate national institutions, international financial assistance is regarded as a long-term obligation. Nevertheless, each multinational center should be reviewed regularly in planning the program and in the light of its importance in relation to the needs of the participating countries.

(g) In planning a multinational center, the Director shall seek financial and other support from extra-budgetary sources, in addition to the regular budget. The host Government should provide premises and, as far as its resources permit, also contribute supplies, personnel, and funds. The choice of a location should take into account the resources of the potential host Government as well as any other factors affecting the services rendered to countries.

(h), Proposals for multinational centers shall continue to be submitted as part of the PAHO/WHO program and budget to the Executive Committee and to the Directing Council or the Conference, for consideration and approval.

2. To thank the Director for his report on the program and activities of the existing multinational centers.

Dr. de Caires (United States of America), referring to the first sentence of operative subparagraph 1 (c) of the proposed resolution, said he thought that when a country's health problems required services not available within the country, it should try to improve its own national health center before seeking help from other countries. So far as he remembered, when the question was discussed in the Executive Committee, that had been the general view held.

Dr. Arreaza Guzmán (Assistant Director, PASB) proposed that the subparagraph in question be amended as follows: "Where the solution of a country's health problems requires services of a standard and capacity not existing in a country, PAHO/WHO will collaborate with the health authorities with a view to strengthening the national institutions in order to meet the needs of the country but resorting, in cases where this is not possible, to national institutions of other countries with sufficient resources."

Decision: The proposed resolution as amended was unanimously approved.⁴

³See tenth plenary session, p. 137.

⁴See tenth plenary session, p. 137.

Item 19: *Aedes aegypti* (continuation)

Dr. Mohs Villalta (Costa Rica, Rapporteur) read the following draft resolution on the item:

The XVIII Pan American Sanitary Conference,

Having examined the report of the Director on the status of *Aedes aegypti* eradication in the Americas (Document CSP18/13);

Considering the reports of the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases, of the Scientific Advisory Committee on Dengue Surveillance in the Americas, and the proposed cost-benefit study of programs for the prevention of *Aedes aegypti*-Borne diseases prepared by a firm of consultants;

Taking into account Resolution XXIII of the XIX Meeting of the Directing Council and Resolution VII of the 64th Meeting of the Executive Committee;

Bearing in mind the fact that the extensive areas of the Hemisphere that are still infested by *A. aegypti* are a potential source of reinfestation for the countries and territories already free of the vector and endanger the success of the continent-wide campaign; and

Aware of the dangerous situation caused by the reappearance of dengue fever and the continuing threat of the "urbanization" of the virus of yellow fever in the Americas;

Resolves:

1. To recommend to the countries and territories already free of *Aedes aegypti* that they strengthen their surveillance activities against reinfestation.

2. To request countries that had already achieved eradication of the vector and were subsequently reinfested to adopt measures designed to achieve the definitive elimination of *Aedes aegypti*.

3. To urge the Governments of the countries and territories still infested with *Aedes aegypti* to take the necessary steps, pursuant to the resolution approved at the I Meeting of the Directing Council (Buenos Aires, 1947) and the pledge made by those countries to eradicate the vector from the Hemisphere, to achieve that objective as soon as possible and to assign the highest priority to the adoption of measures that will ensure that the vector is not exported to countries free of it.

4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council, subject to the receipt of a sufficient amount of voluntary contributions to cover the estimated costs of those studies.

5. To request the Director to submit to the 66th Meeting of the Executive Committee a report on the status of the proposed cost-benefit study.

Dr. Wells (Barbados) said, with reference to operative paragraph 4, that he thought the general feeling, when the matter was discussed, had been that the Director should carry out the studies without increasing the budget, rather than by obtaining funds from voluntary sources.

Dr. de Caires (United States of America) said that the fact should be faced that, if the studies were financed from the regular budget as it existed at present, some

projects would have to be reduced or postponed. According to his recollection of the discussion on the matter, the view had been that studies should, if possible, be carried out within the resources of the Organization, presumably, from savings in existing projects, rather than by cutting deeply into the budget, and, if that were not possible, then the Director should be authorized to seek outside funds.

In the cost-benefit study (CSP18/13), reference had been made to improving measures for preserving countries that were at present free from reinfestation by making them more effective and cheaper. Dealing with reinfestation was a costly business, and the improvement of methods of preventing it should constitute a part of any study made.

Dr. Mohs Villalta (Costa Rica, Rapporteur) pointed out that the draft resolution indicated that the study was to be made in the cheapest possible way, leaving it to the Director to decide what way would be cheapest. Moreover, operative paragraph 2 stressed the importance of the countries free of the vector taking measures to prevent reinfestation.

Dr. Wells (Barbados) considered that funds for the studies ought to come out of savings made by the Organization, or from voluntary contributions, not from voluntary contributions only.

Dr. Arreaza Guzmán (Assistant Director, PASB) proposed that operative paragraph 4 of the draft resolution be amended as follows to reflect the suggestions of the participants:

"4. To authorize the Director to take such measures as may be necessary for carrying out the studies recommended by Resolution XXIII of the XIX Meeting of the Directing Council, placing particular emphasis on those relating to the improvement of methods for preventing reinfestation of countries free of *Aedes aegypti*, seeing to it that these studies are carried out in the cheapest possible way, and seeking to obtain a sufficient amount of voluntary contributions.

Dr. de Caires (United States of America) said that the change suggested met his point. The cost-benefit study had stated that there might be cheaper ways of ascertaining whether reinfestation had occurred, and of eliminating it if it had; a reference to the possibility of using such cheap ways should perhaps be included in the resolution.

The Chairman announced that the Rapporteur would amend the draft resolution in the manner suggested and that it would subsequently be submitted for approval by the participants.⁵

The session rose at 4:00 p.m.

⁵See tenth plenary session, p. 143.

4. ANNEXES

Annex 1

ANNUAL REPORT OF THE CHAIRMAN OF THE EXECUTIVE COMMITTEE¹

Presented by Dr. Victorio V. Olguin (Argentina), Chairman of the 63rd and 64th Meetings of the Executive Committee

Pursuant to Rule 14 of the Rules of Procedure of the Executive Committee, I have the honor to submit to the XVIII Pan American Sanitary Conference the annual report on the activities of the Executive Committee from October 1969 to the present date, the period during which the 63rd and 64th Meetings were held.

63rd Meeting of the Executive Committee

The 63rd Meeting of the Executive Committee of PAHO was held in the Headquarters Building, Washington, D.C., on 10 October 1969, immediately following the XIX Meeting of the Directing Council. In the course of the meeting the following new representatives took office: Dr. Robert L. Baird (Guyana), Dr. David Tejada-de-Rivero (Peru), Dr. Rogelio Valladares (Venezuela), and Dr. Daniel Orellana (Venezuela).

The following representatives also attended: Dr. Victorio V. Olguin (Argentina); Dr. Manuel Angel Cortés Vargas (Costa Rica); Dr. Ignacio Avila Cisneros (Mexico); Dr. Orontes Avilés (Nicaragua); Dr. Mervyn U. Henry (Trinidad and Tobago); and Dr. Abelardo Sáenz Sanguinetti (Uruguay).

Dr. Victorio V. Olguin, Representative of Argentina, was elected Chairman of the Committee, and Dr. Abelardo Sáenz Sanguinetti, Representative of Uruguay, was elected Vice-Chairman. Dr. Manuel Angel Cortés Vargas, Representative of Costa Rica, was re-elected Rapporteur. The Director of the Pan American Sanitary Bureau, Dr. Abraham Horwitz, acted as Secretary ex officio of the Committee.

The Committee turned its attention immediately to the resolutions of interest to the Executive Committee, approved by the XIX Meeting of the Directing Council, XXI Meeting of the Regional Committee of WHO for the Americas.

Dr. Abraham Horwitz, Director of PASB, in

discussing the resolutions, emphasized the importance of Resolution XIII (Provisional Draft of the Proposed Program and Budget Estimates of the Pan American Health Organization for 1971). Referring to Resolution XXVII (Long-Term Planning and Evaluation), he stressed its great importance for the future of the Organization's programs and confirmed the Council's recommendation that Governments should be asked to actively participate in the joint planning process.

He then commented on Resolution XXIII (*Aedes aegypti*), Resolution XVII (Malaria Eradication), and Resolution XIX (PAHO Regional Library of Medicine), and laid special emphasis on the importance of Resolution XXXVI (Financing of the Textbook Program—Pan American Health and Education Foundation).

The date was then set for the next meeting of the Executive Committee, and it was agreed that it should begin on 29 June 1970 and continue as long as necessary.

Dr. Orontes Avilés (Nicaragua) suggested that it would be useful to define the functions of the Chairman of the Executive Committee in the meetings of the Directing Council and the Conference, since Rule 14 of the Rules of Procedure of the Executive Committee was not sufficiently clear on the matter. He also suggested that a careful study be made of the Rules of Procedure with a view to amending them to make them more effective.

64th Meeting of the Executive Committee

The 64th Meeting of the Executive Committee of the Pan American Health Organization was held in the Headquarters Building of the Organization from 29 June to 9 July 1970.

In accordance with the convocation of the Director of the Bureau, the following representatives attended the meeting: Dr. Victorio V. Olguin (Argentina); Dr. Edgar Mohs Villalta (Costa Rica); Dr. Robert L. Baird

¹Document CSP18/15 (22 August 1970).

(Guyana); Dr. Antonio Campos Salas (Mexico); Dr. Orontes Avilés (Nicaragua); Col. José Rodríguez Santa María (Perú); Dr. Mervyn U. Henry (Trinidad and Tobago); Dr. Abelardo Sáenz Sanguinetti and Dr. José Saralegui (Uruguay); and Dr. Rogelio Valladares and Dr. Daniel Orellana (Venezuela).

The following observers were also present: Mr. Henri B. de Coignac (France); Mr. Corneille W.J. Jonckheer, Mr. Hans E. Th. E. Mathon, and Dr. Johannes Th. M. Gielen (Kingdom of the Netherlands); Mr. Robert B. Allen, Dr. Robert de Caires, Dr. Paul Ehrlich, Jr., and Mr. Edward B. Rosenthal (United States of America); Dr. Jesse D. Perkinson, Mr. José A. Tijerino, and Mrs. Alzora Eldridge (Organization of American States); Mr. Humberto Olivero (Inter-American Development Bank); Dr. Leo J. Gehrig and Dr. José González (International Hospital Federation); and Dr. Clyde V. Kiser (Milbank Memorial Fund).

Dr. Abraham Horwitz, Director of the Bureau, served as Secretary *ex officio*.

In accordance with Rules 9 and 11 of the Rules of Procedure, the Officers of the Committee were as follows: Chairman, Dr. Victorio V. Olguín (Argentina), and Vice-Chairman, Dr. Abelardo Sáenz Sanguinetti (Uruguay).

In the absence of the Rapporteur, Dr. Manuel Angel Cortés Vargas, (Costa Rica), the Committee elected Dr. Daniel Orellana (Venezuela) Rapporteur *pro tempore*, pursuant to Rule 11 of the Rules of Procedure.

The Committee held 17 plenary sessions and a closing session, and made a thorough and detailed study of the following items:

Rules of Procedure of the Governing Bodies of PAHO

The Committee studied the proposed amendments to the Rules of Procedure of the Executive Committee and those of the Pan American Sanitary Conference, and decided that the proposed changes would facilitate the conduct of business of the meetings of the Governing Bodies. It therefore resolved to approve the amendments to the Rules of Procedure of the Executive Committee, and recommended to the XVIII Pan American Sanitary Conference that it give favorable consideration to the proposed changes in its Rules of Procedure.

Date of the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas

Bearing in mind that the Director had requested by letter of 9 April 1970, and had obtained the agreement

of the members of the Committee to the opening of the XVIII Pan American Sanitary Conference on 28 September 1970, the Committee resolved to confirm its approval of that date, and agreed that provisionally it should run until 9 October 1970.

Financial Report of the Director and Report of the External Auditor for 1969

The Committee made a careful study of both the reports, which point out that although in 1969 there was a marked deficit in the collection of quota contributions, it was offset by payments of arrears received in the first half of 1970, so that the Organization continued to be in a sound financial situation. It also expressed its satisfaction with the beneficial effect of the financial policy over the past decade, of not spending, on the average, at a higher level than income, while maintaining the Organization's country projects and programs unimpaired. It therefore resolved to transmit the reports to the XVIII Pan American Sanitary Conference, recommending their approval. It nevertheless considered it necessary to draw the attention of Governments once more to the desirability of paying their quotas as promptly as possible within the fiscal year, and thanked the External Auditor for his report.

Report on the Collection of Quota Contributions

The Committee noted that in the first six months of 1970 an unusually high percentage of quotas in arrears had been received, exceeding the amount of the deficit for 1969, although five countries remained more than two years in arrears. It stressed the importance of prompt and full payment of quota contributions for the financing of the authorized program and budget and maintaining the Organization in a sound financial position. It therefore resolved to thank those Governments which had already made payments in 1970, and to urge all Governments to pay remaining balances of arrears and current year quotas as soon as possible. It requested the Director to inform the Governments of any balances due and to request Governments whose quotas were two or more years in arrears to try to devise some financial scheme to enable them to pay the outstanding balances within a reasonable time. It also resolved to request the Director to inform the Member and Participating Governments, as early as possible in each fiscal year, of the scale of quota contributions in accordance with his program and budget estimates for the succeeding year, on the understanding that the figures were provisional until such time as the Directing

Council or the Pan American Sanitary Conference took a decision on the matter.

Proposed Program and Budget Estimates of the Pan American Health Organization for 1971

The Committee devoted 11 sessions to a detailed and exhaustive examination of the proposed program and budget estimates of the Organization prepared by the Director pursuant to Article 14-C of the PAHO Constitution. It also took careful account of the recommendation of the Ministers of Agriculture at their III Meeting (Buenos Aires, Argentina, April 1970), that the XVIII Pan American Sanitary Conference approve for 1971 an additional appropriation of US\$300,000 to cover the needs of the Pan American Zoonoses Center, on the understanding that the Ministries of Agriculture of the Governments of the Organization would increase their financial contribution in accordance with the scale of quotas.

After a lengthy discussion, the Executive Committee recognized that the programs presented were soundly conceived public health projects calculated to benefit the health of the peoples of the Continent. It therefore resolved to submit to the Conference, with the recommendation that it give it favorable consideration, the proposed program and budget estimates of PAHO for 1971, in the amount of \$15,537,331, comprising the sum of \$15,237,331 originally proposed by the Director plus the \$300,000 recommended by the Ministers of Agriculture.

Proposed Program and Budget Estimates of WHO for the Region of the Americas for 1972, and Provisional Draft of the Proposed Program and Budget Estimates of PAHO for 1972

The Committee duly took note of the proposed program and budget estimates of WHO for the Region of the Americas for 1972, and the provisional draft of the proposed program and budget estimates of PAHO for 1972, and resolved to transmit them to the XVIII Pan American Sanitary Conference with its endorsement.

III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control

The Committee studied the Final Report of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control, held in April 1970 at Buenos Aires, Argentina. It recognized the importance of those disease problems for nutrition and

health in the Americas and the vital need for collaboration of national health services and ministries of agriculture throughout the Continent in their control. It therefore resolved to recommend to the XVIII Pan American Sanitary Conference that it approve the recommendations of the III Inter-American Meeting, confirming its support of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center which make a valuable contribution to more effective control of animal diseases as a supportive measure for improving human health in the Hemisphere.

Smallpox Eradication

The Committee had before it a full report on the present status of the smallpox eradication campaign in the Americas. It resolved to reaffirm that smallpox eradication continued to have a high priority, and reiterated the need for the countries of the Hemisphere to continue their efforts toward its definitive eradication.

Aedes aegypti

The Committee was fully informed of the steps taken pursuant to Resolution XXIII of the XIX Meeting of the Directing Council, including the final report of the PAHO Study Group on the Prevention of *Aedes aegypti*-Borne Diseases and the measures taken to carry out a cost-benefit study for the evaluation of programs for the prevention of diseases transmitted by the vector. The Committee resolved to thank the experts and consultants of the Study Group for their valuable contribution, and requested the Director to submit to the XVIII Pan American Sanitary Conference a report on the present status of the problem of *Aedes aegypti*-borne diseases and to prepare a detailed preliminary study on the cost-benefit relationship in programs for the prevention of those diseases.

Nursing

In its discussion of the PAHO program and budget estimates for 1971, the Committee gave special consideration to nursing as an essential component of health programs. The analysis of the problem, pointed out, among other things, the decided shortage of nursing personnel in most of the countries, which was aggravated by poor geographic distribution and inefficient use of their skills and training. It therefore resolved to recommend to the Governments that they make a thorough study of their nursing needs and resources, which should in fact be an integral part of any national

health plan. It also requested the Director to continue supporting the Organization's nursing programs and, to that end, to endeavor to increase the number of fellowships, seminars, and courses for training this personnel.

Long-Term Planning and Evaluation

The Committee took note of the steps taken by the Director pursuant to Resolution XIV, approved by the Executive Committee at its 61st Meeting, Resolution XXVII of the XIX Meeting of the Directing Council on long-term planning and evaluation, and Resolution WHA23.59 of the Twenty-Third World Health Assembly on the General Program of Work Covering a Specific Period. It recognized that joint programming of the assistance needed by Governments for dealing with their priority health programs would undoubtedly help to make more effective use of PAHO resources and also increase the benefit of the programs to the population. It therefore resolved to urge the Governments to continue to collaborate actively with the Organization to improve the procedure, as part of economic and social development planning, and requested the Director to bear in mind the studies made in drawing up the Organization's future programs and budgets and to submit a full report to the XVIII Pan American Sanitary Conference on what had been done.

Health Legislation

The Committee considered the report prepared pursuant to the recommendation of the Special Meeting of Ministers of Health of the Americas and Resolution XVIII of the XIX Meeting of the Directing Council, which described and analyzed the most significant aspects of the health legislation of the countries of the Americas in the last 20 years. The Committee considered that the report would be very valuable for countries wishing to revise and bring up to date their health laws and regulations, and would help to arouse greater interest in the teaching of health legislation in law schools and schools of health sciences. It resolved to recommend to the Director that he give the document the widest possible distribution throughout the Hemisphere, and suggest to the Governments that they study the advisability of promoting the revision of their health laws and regulations to bring them into line with the new situations created by national development. It also recommended to the Director that he continue the necessary studies for the modernization of the Pan American Sanitary Code and promote the meeting of interdisciplinary study groups to discuss legal matters

and the unification of the basic principles of health legislation in the Hemisphere.

Multinational Centers

The Committee examined the preliminary draft guidelines for multinational centers prepared by the Director pursuant to Resolution XXXVII of the XIX Meeting of the Directing Council, and resolved to recommend to the XVIII Pan American Sanitary Conference the adoption of the general guidelines for the establishment and operation of multinational centers contained in Resolution XIX, where it also requested the Director to submit to the Conference a report on the program and activities of the existing multinational centers.

Assistance in Emergencies

The Committee heard a lengthy and moving statement by the Representative of Peru concerning the disaster which occurred in his country on 31 May 1970. It took particular note of the destruction of buildings and facilities for health services, and of the Organization's contribution to the efforts of the Peruvian Government to relieve the situation of the inhabitants of the devastated area. It also recognized the advisability of coordinating the national and international resources that might be available for emergency assistance in such situations, and resolved to express to the Government of Peru its deep sympathy with that valued Member Country of the Organization on the occasion of the disaster.

Other Matters

The Committee also studied and approved other matters of interest to the Organization, as follows:

1. Amendments to the Staff Rules of the Pan American Sanitary Bureau (Resolution XIV).
2. Representation of the Executive Committee at the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas. It appointed Dr. Orontes Avilés as its alternate representative to replace Dr. Victorio V. Olguín, Chairman of the Committee, in the event of his being unable to attend (Resolution XVII).
3. Provisional agenda of the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas (Resolution XVIII).
4. PAHO Award for Administration (Resolution XX).

Annex 2

XVIII REPORT ON THE STATUS OF MALARIA ERADICATION IN THE AMERICAS¹

Introduction

The Director of the Pan American Sanitary Bureau has the honor to present to the XVIII Pan American Sanitary Conference the XVIII Report on the Status of Malaria Eradication in the Americas in 1969.

A coordinated campaign for the eradication of malaria from the Hemisphere was proposed by the XIV Pan American Sanitary Conference (Santiago, Chile, 1954) and this concept was accepted as a world-wide objective in 1955 by the Eighth World Health Assembly in Mexico City, Mexico. The application of attack measures through house spraying with residual insecticides was launched between 1956 and 1959 in all countries in the Americas where malaria was a problem. While beneficial results have been achieved in all the countries, the degree of progress in eradication activities has been variable. In some countries malaria eradication has been achieved, but malaria transmission continues to occur in all or in parts of the original malarious areas.

To solve various administrative, operational, and technical problems that had affected normal development of some programs, the Second Meeting of the PAHO Advisory Committee on Malaria Eradication was held in Washington, D.C., from 3 to 5 March 1969. A careful analysis of every aspect of malaria eradication was made to seek new avenues for study and action not only in the field of malaria eradication, but also to determine its role as an integral part of the health sector and in the over-all national economic development plan.

The delay in the achievement of the final objective in some countries in the Americas, as well as in other parts of the world, was also reflected in the discussions and decisions at the Twentieth and Twenty-First World Health Assemblies. Needs for re-examination of the global strategy of malaria eradication were stressed and the Director-General was requested to study the best way for carrying out such procedures. At the Twenty-Second World Health Assembly (Boston, Massachusetts, U.S.A., July 1969), the Director-General of WHO presented a report on the re-examination of the global

strategy of malaria eradication, based on results of studies carried out in previous years in some countries in this Hemisphere and in other parts of the world. Subsequently, the Assembly recommended² that "...the Governments of the countries with programs under way revise them in cooperation with the Organization and the other assisting agencies with a view to adapting them to a strategy calculated to give optimum results..." The proposed new strategy is searching for practical means to assist countries in designing more precisely a plan of action in accordance with their specific epidemiological, economic, social, and health organizational characteristics. The resolution made 1969 very significant in that it reaffirmed the objective of global malaria eradication and proposed concepts for the development of the strategy for the future.

This report comprises four chapters. The first contains information on the general status of the program and country-by-country summaries of progress. The second describes special technical problems which have arisen and the measures that are being applied to combat them. The third summarizes research currently under way aimed at finding new or improved methods of overcoming technical problems and improving the effectiveness of the basic operations of malaria eradication programs. The last refers to international and bilateral assistance and cooperation provided to the programs.

The data presented are taken from answers to an annual questionnaire received from each country and from periodic statistical reports submitted to PASB by most of the programs. This information is supplemented by data from special technical reports of research projects.

I. STATUS OF MALARIA ERADICATION PROGRAMS

General Picture

Of the 491,483,000 inhabitants of the Americas, 176,325,000 (36 per cent) live in the originally

¹Document CSP18/7 (3 August 1970).

²Resolution WHA22.39. *Off. Rec. Wld Hlth Org.* 176, 18-19.

malarious areas distributed among 34 political units (23 countries and 11 territories). Of those, 119,744,000 (67.9 per cent) live in the areas in consolidation and maintenance phases, leaving 56,375,000 persons (32.0 per cent) in the areas in attack phase located among 21 political units (in part or in the whole of 18 countries and 3 territories) as of the end of December 1969. Because of certain problems related to civil unrest, a small area in South America with 206,000 (0.1 per cent) continues to have no protection from malaria infection.

Of the 176,325,000 inhabitants living in the originally malarious areas, 58,603,000 reside in countries and other political units where malaria eradication had been achieved with or without specific efforts prior to the initiation of the coordinated malaria eradication campaign in 1957 (countries or territories where malaria eradication had been achieved before 1957 include Chile, Martinique, Puerto Rico, United States of America, and Virgin Islands, USA). Of the 117,722,000 in countries where active malaria eradication programs have been undertaken, some 52 per cent live in areas where transmission has been interrupted and virtually all of the remainder received some degree of protection

Maps 1 and 2³ show the geographic extension according to the different phases of the program as of December 1968 and 1969. Table 1 shows the population and area by phase in the countries with active malaria eradication programs after 1957.

As can be seen from the table, there was a reduction in the originally malarious area in 1969 in comparison with that in 1968, and also a slight decrease in extent of areas in consolidation and maintenance phases. The over-all reduction in the originally malarious areas is due to the withdrawal of Barbados from the malarious area at the request of the Government, and changes in Brazil, Cuba, French Guiana, and Honduras, resulting from a reappraisal of the extent of the originally malarious area. Thus, there has been a reclassification of some areas previously classified as in maintenance phase to nonmalarious areas. On the other hand, there was a net gain of 0.4 per cent in the population figures for the areas in consolidation and maintenance phases in 1969 in relation to 1968.

Table 2 shows the evolution of the programs by phase and year since the initiation of the coordinated campaign. The population living in the areas in consolidation and maintenance phases increased by 1.5 million in 1969 as compared to 1968.

³All maps, graphs, and tables mentioned appear at the end of this annex.

Table 3 summarizes the present status of eradication in all countries and territories included in the originally malarious areas, in relation to past achievements and future prospects of eradicating malaria under existing conditions.

Considering the Hemisphere by its regions, North America is entirely in the maintenance phase. At the request of the Government of the United States of America, the Organization, with the collaboration of the U.S. Center for Disease Control, prepared a report which is to be presented to the next meeting of WHO Expert Committee on Malaria (October 1970) for certification of the United States, Puerto Rico, and the Virgin Islands as having achieved malaria eradication before 1957. The registration of these areas, having a population of 67,598,000, will make a total of 11 political units in this Hemisphere (4 countries and 7 political units) in which malaria eradication is certified by PAHO/WHO.

The five countries of Central America continued their second year activities of a coordinated three-year plan. There was a further reduction in malaria incidence in Costa Rica and El Salvador, but an increase was observed in Honduras and Nicaragua. Guatemala maintained its 1968 status. British Honduras was approaching the end point of malaria transmission, while Mexico showed slight deterioration. Panama initiated its three-year plan in July 1969. In the Caribbean area malaria transmission continued only in Haiti and in an adjacent area in the Dominican Republic. In the other countries and territories of Middle America, malaria-free status was satisfactorily maintained.

In South America, Argentina, Guyana, and Paraguay made considerable progress and show good prospects of achieving eradication within a short period of time. In Brazil and Surinam a marked reduction of malaria incidence was observed, while the rest of the countries showed a slight increase in the number of malaria cases.

The present status of malaria eradication in the three regions is shown in Graph 1 by phase and by region in terms of population.

Current extent of the problem

Table 4 gives the over-all information on number of slides examined and number of malaria cases found since 1958. The increase in number of cases in 1969 over 1968 is primarily due to problems in Ecuador, Colombia, Honduras, and Mexico, which are described in the country summaries.

Table 5 gives the number and distribution of blood

slides examined and positives detected in each country by program phase. During the year, 12,161,178 blood slides were examined and 323,314 malaria cases found in the Americas.

In the area in maintenance phase, which involves 14 political units with 72,757,000 inhabitants, 4,113 cases were reported, of which 120 were autochthonous. Of these, the United States of America had 80.7 per cent of the total cases reported, none of which was classified as autochthonous. Venezuela had 86.7 per cent of all autochthonous cases (Table 6).

In the area in consolidation phase which includes a part or all of 16 countries or other political units with a population of 46,987,000, 3,865,186 blood smears were examined with 21,120 positive for malaria parasites, giving an Annual Blood Examination Rate (ABER) of 8.2 per cent and an Annual Parasite Incidence (API) of 0.45 per 1,000 inhabitants, respectively. However, the API for the cases originating in the areas (autochthonous and introduced) is 0.1 per 1,000. Of the 11,727 cases epidemiologically investigated, 4,028 were autochthonous (34.3 per cent), 129 introduced (1.1 per cent) and the rest (64.6 per cent) imported, induced, and relapses (Table 7).

In the area in attack phase, 7,544,771 blood slides were examined, of which 296,064 were found to be positive, giving a slide positivity rate of 3.9 per cent. The ABER is 13.4 per cent, and the API is 5.3 per 1,000 inhabitants. In addition, there were 339,663 blood slides examined and 2,020 cases found in the non-malarious area which are assumed to have their origin in the attack phase area. Of the malaria cases found in the attack and nonmalarious areas, *Plasmodium falciparum* infections represent 26.9 per cent, *P. vivax* 73.0 per cent, and *P. malariae* 0.1 per cent of the total (Tables 5 and 8).

There are 19 countries and 4 political units which have areas in attack and/or consolidation phase with a total population of 103,568,000. In analyzing programs from technical, operational, administrative, and financial viewpoints, the total population can be grouped under six categories (Table 9).

Tables 10 and 11 show the status of malaria eradication in each country in terms of population and geographic extension by phase of program. In addition, the distribution of population in the originally malarious areas is illustrated in Graph 2 by phase of program. The progress and the present status of each program is briefly summarized in the following paragraphs. The statistical data indicating the results of the main eradication activities are presented in the country tables.

Argentina

The malarious area of Argentina is confined to the northern part of the country and is the southern limit in the Americas where malaria transmission occurs. The vector, *Anopheles darlingi* is very responsive to DDT residual house spraying and malaria eradication is quite feasible with application of classic attack methods. In the past, insufficient financing and inadequate administrative flexibility caused a series of difficulties in obtaining a sufficient spraying coverage. In addition, there was a problem of importation of cases from Paraguay where the eradication program was not initiated until the middle of 1968. However, with the improvement of financing in the last three years and the initiation of the program in Paraguay, the malaria situation in the area in attack phase (907,000 inhabitants) has been greatly improved. The number of cases was reduced from 1,512 in 1967 to 418 in 1968 and to only 69 in 1969. Of the latter, 18 were classified as relapses and 35 as imported, thus interrupting transmission.

However, a problem does exist in maintaining adequate malaria surveillance in the areas in consolidation (432,000 inhabitants) and in maintenance (1,648,000 inhabitants) phases. It has been the Government policy to integrate the surveillance program in the general health activities. During the year, outbreaks were observed in limited foci of the area in consolidation phase where 136 autochthonous cases were located.

Bolivia

Considerable progress was achieved during the early stages of the program. Unfortunately, budgetary limitations during the past few years necessitated a reduction in field operations and resulted in increased transmission in both areas under attack and in consolidation. In 1969, the spraying cycles were not completed. In November, however, the Government declared malaria as a public health problem of national emergency, thus hopefully assuring adequate financing in the future and the possible intensification of necessary field activities. Malaria eradication is feasible if adequate funds are made available.

Brazil

In 1967, the Federal Government established malaria eradication as a priority program and since then has maintained great interest in the campaign. However, because of financial difficulties there was a reduction of

11.6 per cent of the 1969 malaria budget, and as a result the program completed only 80 per cent of the spraying coverage planned for that year. This budget reduction mainly affected the operations of the second semester and necessitated the establishment of priorities so as to minimize the impact of reduced operations on the gains achieved in the area in advanced stage of attack.

Chloroquine resistant strains of *P. falciparum* appear to be widespread in the country. There is no evidence of the malaria vectors having developed physiological resistance to the insecticide used (DDT). It seems realistic to assume that eradication is within sight in a great portion of the northeast and the coast where some 80 per cent of the population of the malarious area in Brazil reside. However, some difficulties are expected in the south where malaria is transmitted by mosquitoes of the sub-genus *Kerteszia*. In the Amazon region, some progress has already been achieved in relatively densely populated areas adjacent to the main rivers, but a new approach may be required to attack the problems in sparsely populated areas of the interior.

During 1969 the areas in consolidation phase and in maintenance continued to make progress with only limited foci detected in the northeast which responded well to remedial measures. The population in the area in consolidation was increased by more than one million. In the area in attack phase, the number of cases was reduced from 79,588 in 1968 to 55,503 in 1969.

For the first time, a primary division of the country—the State of Rio de Janeiro—entered the consolidation phase where a plan to integrate the Malaria Eradication Service and the general health services is now being implemented.

Colombia

As the malaria eradication program progresses in Colombia the fertile lowlands of the Andean valleys become inhabitable, resulting in an expansion of organized and/or unorganized colonization. There are six such areas which have been responsible for 80 per cent of all malaria cases detected in the country. The population in these areas totals 700,000, of which 206,000 are living in the area where all the malaria eradication field activities had to be suspended in the last two years because of serious social unrest. Under the present situation, malaria transmission in the area of colonization can only be maintained at a low level of intensity to permit the agricultural and economic development of the country. The Government is fully aware of the importance of malaria problems in relation to the economic development of the country and has given adequate priority to the program.

Malaria transmission in the rest of the attack area with 3 million inhabitants can be interrupted, but continuous application of attack measures will be necessary as long as the problems in the six colonization areas continue. The consolidation area (8.6 million inhabitants) is subjected to constant importation of cases, but re-establishment of endemicity is unlikely to occur.

Costa Rica

Since the initiation of the three-year plan in January 1968, the program in Costa Rica has made remarkable progress. Transmission has been practically interrupted except for two small areas, one on the frontier with Panama and the other in an area of new colonization. The continuation of the current efforts is expected to achieve complete interruption of transmission in a short period of time. The local health services are relatively well organized, but coverage in the rural area is insufficient to maintain a good surveillance. A plan is being made to overcome this problem.

Cuba

All of the originally malarious area are presently in consolidation. The last autochthonous case was registered in June 1967 and an effective malaria surveillance program has been integrated into the general health activities.

Dominican Republic

Malaria transmission has been interrupted in the entire country except for one focus on the border. A surveillance system within the general framework of the health services is being organized in areas of consolidation and maintenance. However, it is considered essential to maintain insecticide protection in the localities bordering Haiti as long as malaria exists in that country.

Ecuador

The new seven-year plan of operations was initiated in the middle of 1968 but, owing to a series of administrative and financial difficulties, no progress was observed in 1969; on the contrary, the number of diagnosed cases increased from 37,043 in 1968 to 50,957 in 1969. This increase is attributed to the interruption or reduction of attack measures in the three previous years. To date, there is no evidence of any serious technical problems. However, future

progress is dependent upon resolving financial, administrative, and operational problems.

El Salvador, Guatemala, Honduras, and Nicaragua

The programs of these four countries have followed a very similar trend of progress, and above all have their major problems in common. Their three-year plans (1968-1970), which were prepared under the same administrative and ecological considerations, were initiated in January 1968. The principal attack measure has been DDT residual spraying. In those areas where the vector is resistant to DDT (in varying degrees), mass drug administration has been added as a supplementary measure.

In these four countries the problems of vector resistance to DDT and low acceptance of mass drug treatment on the part of the population continued to be the main obstacles for further progress. Although malaria incidence has been reduced or maintained at more or less the same level since the initiation of the three-year plan, it is unlikely that malaria transmission would be interrupted by the end of 1970 as originally expected. Alternative attack measures were sought during the year and after a series of studies made by the Government and PAHO, it was concluded that the change of insecticides in the problem areas would be the most practical way to improve the current situation. Appropriate action was taken to make the change in 1970. As for the number of cases, the following differences were observed in 1969 as compared with 1968:

Country	Malaria cases	
	1968	1969
El Salvador	35,831	25,299
Guatemala	10,407	10,494
Honduras	15,666	29,584
Nicaragua	8,250	16,043

Guyana

Malaria transmission has been practically interrupted in the interior where medicated salt has been in use. However, in view of the reinfection in 1965 after the suspension of medicated salt, it was considered necessary to continue this measure for two more years. During 1969 a total of 25 cases of malaria were found in the country, of which only three were classified as autochthonous.

A continuing problem in Guyana is the need for health services in the interior to assume the responsibility of surveillance activities when the program enters

consolidation phase. Establishment of some health posts, using the existing malaria personnel and voluntary collaborators, is being considered.

Haiti

In 1969, a total of 5,005 malaria cases were identified as compared to 2,562 in 1968. Failure to interrupt transmission was attributed to lack of consistency in application of attack measures together with operational difficulties. These factors were taken into consideration in preparing the future plan of work. In a concentrated focus where the vector is resistant to DDT, a drainage system is under construction and larvicide is being applied in breeding areas. Since the program is primarily dependent upon assistance from national and international agencies, prospects of eradication are dependent upon their continuing support.

Mexico

At the beginning of 1969 the Government approved a new plan of operations with the objective of achieving complete interruption of malaria transmission in six years. However, no additional funds were allocated to carry out the proposed plan of intensified field activities. The program continued its "transitional period" activities as carried out in previous years in trying to prevent further deterioration. Despite the efforts, however, malaria incidence increased in 1969. It is hoped that adequate funds will be obtained in 1970 for the program to carry out its new plan of operations.

Panama

The three-year plan similar to those of the Central American countries was initiated in April 1969, and the first spraying cycle under the new plan began in July. The program has a good possibility of success if operational and administrative problems can be overcome. The vector, *A. albimanus*, is susceptible to DDT. The Government has given a high priority to the program and adequate financing has been assured through 1972.

Paraguay

Since the initiation of the new plan of operations in September 1968, the spraying coverage has been satisfactory and good results have been obtained. The Government assigned a high priority to the program and has given assurances of sufficient financing until eradication is achieved. A total of 10,307 cases were

identified in 1969, as compared to 20,743 cases in 1968.

Peru

The malaria situation in the country has shown progress and at present 74 per cent of the population of the originally malarious areas are in consolidation and maintenance phases. Malaria transmission has been interrupted in the valleys of the coastal plains and in those of the southern part of the Andes. It still continues at a low level, however, in the valleys of the northern Andean and Amazon regions.

If the financial difficulties are solved, the prospects for the eradication of malaria are good. In this respect, the Government has allocated the necessary funds for 1970 and has given assurances of continued support until 1974.

Venezuela

In Venezuela, 94.4 per cent of the population of the originally malarious area is presently in maintenance phase and the rest in attack phase. In the maintenance area 104 autochthonous cases were identified in 1969, but 89 of them were from the Municipality of Libertad in the southwestern part of Zulia State. The focus is located in an area adjacent to areas under attack. The situation in the rest of the area in maintenance continues to be satisfactory.

In the area in the attack phase, the number of cases increased from 5,555 in 1968 to 7,933 in 1969. Taking into account only autochthonous and introduced cases, 69.5 per cent were registered in the western part of the country and the remaining 30.5 per cent in the southern part. Efforts are being made to develop attack measures to solve the problem of persistent transmission in the areas where the current measures are only partially effective.

British Honduras

The program in British Honduras made considerable progress between 1957 and 1963 when the entire malarious area entered the consolidation phase. The subsequent importation of cases and lack of an efficient surveillance system resulted in the re-establishment of transmission and 60 per cent of the malarious area of the country returned to attack phase in 1967. However, at present, transmission has been practically interrupted. Although eradication is quite feasible, the maintenance of malaria-free status will require continuation of some attack measures as long as malaria exists in the neighboring countries.

French Guiana

At present, 92 per cent of the 43,000 inhabitants live in areas in consolidation. The populated coastal zone is practically free of malaria transmission though occasional foci occur as a result of importation of cases from the interior. To solve this problem, spraying of houses with DDT was reinstated in the coastal area. In the interior, spraying operations were supplemented by distribution of amodiaquinized salt, covering a population of more than 3,000 persons. The program has received adequate support from the Government and eradication of malaria from the country is feasible.

Surinam

Of the total population in the originally malarious areas of the country, nearly 85 per cent live in the coastal area and are in consolidation. The remaining population, however, is constituted mainly of groups whose cultural patterns have prevented the program from achieving adequate coverage with insecticides. As an alternative attack measure, amodiaquinized salt was used to protect this segment of the population. The slide positivity rate was reduced from 12 per cent in 1968 to 3 per cent in 1969. Though acceptance of medicated salt was good at the beginning, it has been better in the last two years. Nevertheless, the privately owned stock of plain salt still continues to prevent the acceptance of amodiaquinized salt by some of the inhabitants.

It is believed that the current attack measures will eventually obtain the objectives of the program to which the Government is giving high priority and adequate financial support.

Field Operations

Residual spraying with insecticides was carried out as the principal attack measure in all malaria eradication projects except for those in Guyana, French Guiana, and Surinam, where this measure was supplemented by the distribution of medicated salt. In the programs in Central America, Panama, and Haiti, mass drug administration was used as a complementary measure in the areas where the vector is partially resistant to DDT or malaria transmission is persistent. In some areas in Guatemala, Honduras, El Salvador, and Nicaragua where the vector is highly resistant to DDT, residual house spraying with this insecticide was discontinued in July 1969. The results of spraying operations are summarized in the country tables by spraying cycle.

During the year, a total of 14,264,304 residual spray

applications of insecticides were made. As noted in Table 12, the percentage of houses sprayed in relation to those planned for spraying varied by program and by cycle.

Comparative figures for 1968 and 1969 of the overall personnel resources of the programs are presented in Table 13 and more detailed figures, by program, in Tables 14 through 17. The number of spraymen was considerably decreased in 1969 in relation to 1968. This difference is due mainly to the reduction of spraying activities in Brazil in the second half of 1969 and to the fact that in 1968 in Mexico, the number of spraymen included evaluators, while in 1969 they were reported separately. The increase in the number of spraying personnel in Ecuador was the result of expanded operations which had not been possible in the previous years because of financial difficulties. The initiation of the three-year plan in Panama is reflected by the increase of all field personnel, but especially in the categories of spraymen and evaluators.

Table 18 summarizes means of transport by country and type. Under each type of transport, the number of units is recorded in accordance to their field usage. UNICEF continued to provide spare parts for repairs and maintenance.

Table 19 shows the distribution of the blood smears collected from active case detection activities and from the passive network. The vast bulk of the smears produced by the passive network continues to come from voluntary collaborators, and a small percentage from the general health services and medical profession. As can be seen, the passive network obtained 34.3 per cent of the total blood smears examined, and 63.3 per cent of the total malaria cases in the Region.

Coordination of Activities between General Health Services and Malaria Eradication Programs

The countries with malaria eradication programs in advanced stages have given special attention to promoting the participation of the general health services in malaria surveillance activities and to orienting malaria personnel in other health programs for the purpose of eventually integrating all health activities.

In Brazil the State of Rio de Janeiro paved the way for the integration of the malaria services into general health frameworks with initiation of a plan in June 1969. The two series were completely integrated under the health officers of the State, and are carrying out activities related to vaccination, sanitation, vital statistics, etc., in addition to malaria surveillance.

In Cuba the responsibility of malaria surveillance is

completely in the hands of the general health services, which have maintained the malaria-free status effectively.

In Peru the general health services have assumed the responsibility for malaria surveillance in the coastal area where malaria eradication had been achieved. The malaria personnel were transferred to the general health services and given orientation in other health activities. During 1969, preparatory arrangements were made to expand the integrated activities in the Departments of Cuzco, Madre de Dios, Apurimac and Puno, where malaria transmission had been interrupted. The activities will be completely integrated in 1970, when these areas will be transferred to the maintenance phase.

Similar activities were being undertaken in Argentina, Bolivia, Colombia, Costa Rica, and Ecuador. Even in those countries with programs in attack phase, efforts were made to promote the participation of the general health services in the case-detection activities.

To coordinate the above-mentioned activities, PAHO has had an intercountry project since 1966 which provides advisory services to interested countries.

Budget

The expenditures of the Governments for malaria eradication in 1969 and their budgets for 1970 are presented program-by-program in Table 20. There were 10 programs which received AID assistance to supplement local costs. This assistance was provided through loans to nine countries and in the form of a grant to one (Haiti). The same programs are expected to receive assistance in 1970.

The global national expenditures for 1969 totaled \$46,166,000, while the budgets approved at the beginning of the year amounted to \$51,492,000. The difference is reflected mainly by budget reductions in Brazil, Ecuador, and Nicaragua during the year. For 1970, a total of \$49,360,000 was tentatively approved for local costs.

The contributions of Governments and of the assisting agencies to the malaria eradication programs in the Americas is shown in Graph 3. As can be seen, total expenditures for malaria declined in 1969 following a steady increase since 1961. The decrease in expenditures is due to budget reductions in the countries noted above. It can also be seen (Graph 3) that beginning in 1966, AID has gradually increased its assistance in the form of loans to supplement Government funds.

Table 21 summarizes the estimated budgetary and personnel requirements of PAHO/WHO for support of malaria eradication programs through 1972.

II. SPECIAL TECHNICAL PROBLEMS

General Status

As previously reported, the most widely recognized technical problem has been the physiological resistance of the vector to the insecticides commonly in use, i.e., DDT and dieldrin. This problem, observed initially in Pacific coast areas of El Salvador, Guatemala, Honduras, Mexico, and Nicaragua, has now gradually extended to interior regions. Recently, this problem was also identified in a limited foci in Haiti. Expansion of resistance has been noticed especially in El Salvador and Nicaragua. In Nicaragua, the vector became resistant to malathion, which was used as an alternative insecticide in areas of high resistance to dieldrin and DDT.

More difficult to quantify, but undoubtedly of considerable importance as contributing causes of persistent malaria transmission, are problems of relatively high man-vector contact and low vector-insecticide contact originating from vector behavior alone or in combination with human habits.

In Panama, for the first time in Middle America, the chloroquine-resistant strain of *P. falciparum* was reported in some localities. Further investigation is under way to determine the degree of resistance and its geographic extension. The distribution of the chloroquine-resistant strains of *P. falciparum* currently known in the Americas is shown in Map 3.

Other problems related to human ecology continued to adversely affect the rate of progress of the eradication programs in the Americas. These include populations living in relatively inaccessible areas such as in isolated localities in the Amazon Basin; migration of laborers such as in cotton growing areas in Central America; and colonization of new lands for agricultural development. Such factors, together with anthropological differences, contribute to difficulties in protecting populations by residual house spraying.

Activities for Solving Technical Problems

1. Use of Alternative Insecticides

Since 1961, malathion has been in use in Nicaragua as an alternative insecticide in the area of high vector resistance to dieldrin and DDT, and has been supplemented by mass drug administration in localities of high endemicity. This combination of measures has not been effective in interrupting malaria transmission under the conditions prevailing in the country. Furthermore, the vector was also found to be resistant to malathion early in 1969.

Several meetings were held among the Governments of Central America and the assisting international agencies to consider the use of OMS-33 (Baygon) as an alternative insecticide. In view of the good results obtained in the cooperative field trial in El Salvador conducted by that Government and the PAHO/WHO Research Team, agreement was reached to try this insecticide in the areas in the Central American countries where the vector is highly resistant to DDT and dieldrin.

2. Larviciding

Larviciding activities were continued in Nicaragua in eight localities (cities or towns) with a total population of 391,737. Operational problems related to supervision and discovery of potential breeding places made it difficult to treat the areas adequately. Larviciding in combination with drainage showed promise in attacking a focus in Haiti.

3. Mass Drug Administration

Since the beginning of 1968, mass drug administration has been applied as a supplementary measure to DDT house spraying in the Central American countries where malaria transmission has been persistent. Costa Rica was able to maintain a high percentage (more than 90 per cent) of acceptance of drugs by the population every 15 days and, as a result of the combined measures, succeeded in virtually interrupting transmission. However, in the other four countries of Central America where only about 50 per cent accepted the drugs, the same combination of attack measures was merely able to maintain the incidence at a relatively low level (Table 22).

In Panama, mass drug administration began in September 1969 in two main foci of persistent malaria transmission, Barú with 23,566 inhabitants and Los Lagos with 4,884. In both areas, an average of 90 per cent of the population was treated in each cycle between September and December. In the area of Barú, where the positivity rate was 0.5 per cent in the initial survey, no additional cases were found after the fourth cycle of treatment. On the other hand, in the area of Los Lagos, the reduction of positivity rate was from 28.1 per cent at the time of the initial survey to only 9.1 per cent at the end of December. In the latter area it is suspected that *P. falciparum* might be resistant to chloroquine.

In Colombia, mass drug administration was carried out in the area of Bajo Cauca-Nechi between August and December, using the combination of chloroquine

and pyrimethamine at 14-day intervals. An average of 80 per cent of the people were treated in each cycle and the positivity rate was reduced from 40.1 per cent in the initial survey to 14 per cent at the end of October.

In summary, mass drug administration, as a complementary measure, was effective in Costa Rica and Barú, Panama, where the population coverage was more than 90 per cent, malaria parasites were susceptible, and the potential for transmission was not high. In areas where these conditions are partially or totally lacking, the distribution of antimalaria drugs merely reduced the number of malaria cases.

III. RESEARCH

Research activities in malaria eradication continued to be oriented toward the solution of problems encountered by the country programs.

Within the limited resources available, the Organization has sponsored and conducted research to try to solve those problems. In addition, it has maintained liaison with other research agencies such as the Central American Research Station of the USPHS Center for Disease Control, in El Salvador, for the purpose of exchanging information and coordinating research activities.

These activities can be classified, according to fields of research, into the following categories:

Evaluation of Insecticides

Evaluation of OMS-33 (Baygon). A large-scale field trial was conducted in El Salvador for the purpose of evaluating the carbamate insecticide OMS-33. Between April 1966 and February 1969, under projects AMRO-0209 and AMRO-0216, an area of about 250 km² on the southeast Pacific coast of El Salvador (with a population of 16,500 inhabitants) was sprayed with OMS-33 50 per cent wettable powder at a dosage of 2 g/m² of technical material in quarterly cycles. This trial included epidemiological evaluation, although the main purpose was to study the insecticide application from the entomological, toxicological, and operational points of view. The results indicate that transmission might have been completely interrupted in the whole area if no influence from the surrounding malarious areas had occurred. The occasional transmission which occurred in some parts of the area can be attributed to the considerable movement of population. The high rate of renovation of walls and roofs and the shorter duration of the insecticidal effect during the dry season were also contributory factors.

OMS-33 has a considerable air-borne insecticidal effect which can be detected even outside the sprayed houses. This effect will not only be very useful in areas where houses have no or very rudimentary walls, but may lead to an economy of the insecticide by partial spraying of the houses. During 1969 a field trial was carried out to test this hypothesis by partial spraying of houses with OMS-33 at several dosages. The results led to the selection of an average dosage of 60 g/house every 35 days to be tested on a large scale in 1970.

The intradomestic spraying of OMS-33 has a pronounced effect on other arthropods. Consequently, it might be of wide public health importance.

The Central American Malaria Research Station initiated some studies on the effect of exterior treatment of houses with OMS-33 at 2 g/m² and DDT at 4 g/m² which suggests that biting densities of *A. albimanus* in the OMS-33 treated houses were reduced for six to eight weeks after spraying. Further studies of this method of application will be carried out in 1970.

Studies of other insecticides. Previous entomological observations in Colombia seem to indicate that the addition of small quantities of BHC to normal doses of DDT considerably increased the killing effect on *A. darlingi*. As a result, the malaria eradication program in this country initiated a comparative study in July of the effects of four spraying schemes: (a) semestrial cycle of DDT 2 g/m²; (b) semestrial cycle of DDT 2 g/m², plus BHC 0.1 g/m²; (c) trimestrial cycle of DDT 1 g/m²; and (d) trimestrial cycle of DDT 1 g/m², plus BHC 0.1 g/m².

The Central American Malaria Research Station initiated a village scale trial on carbaryl (OMS-29) which will continue in 1970.

Ultra-low-volume application of insecticide. Preliminary studies were carried out by the Central American Research Station in collaboration with the malaria project in El Salvador. An area of 3,000 acres in the coastal plains was treated by three initial weekly applications followed by successive ones at 17 or 18 day intervals. Malathion concentrate (technical) at a rate of 3 fluid ounces per acre was applied using a C-47 aircraft flying 160 mph at 125 ft altitude. Despite adequate insecticide distribution as shown by dye cards, mortality of *A. albimanus* was considered unsatisfactory. Susceptibility tests confirmed that the anopheline population was moderately to highly resistant to malathion.

Investigations in Chemotherapy

Evaluation of cycloguanil pamoate. This project was carried out between 1967 and 1969 in a new

settlement area on the Pacific coast of Guatemala with a population of about 12,000 inhabitants and an area of 230 km². It has constituted an independent activity of the malaria eradication service which is financially and technically assisted by PAHO/WHO.

During the experiment the population received four intramuscular injections of cycloguanil pamoate at six-month intervals, the last being completed in February 1969. While the coverage in each cycle ranged from 74 to 81 per cent, a longitudinal study of a sample of the population showed that the proportion receiving repeated treatments was much less than expected; this is considered to be due mainly to the high turnover of the population. In addition, the age and sex distribution of treated persons indicated high avoidance of treatment by some groups, especially adult males. There was no evidence of generalized allergic reactions, although more than half of the subjects had some localized pain when walking or tenderness to pressure.

Epidemiological observations showed that the results obtained in the trial area were similar to those observed in the surrounding areas under mass distribution of chloroquine, i.e., decrease in parasite incidence after the first treatment followed by levelling from there on. The final report of the trial is in preparation.

Response of P. falciparum to chloroquine. Between March and May 1969 a field study was conducted in Brazil to determine whether the sensitivity of *P. falciparum* to chloroquine could be assessed by a simple *in vitro* method (described by Rieckmann *et al.*, 1968) under field conditions. The study was carried out in Cuiaba, Mato Grosso. A comparative study was completed in 30 patients in whom the *in vitro* test was followed by the standard WHO *in vivo* test of susceptibility to chloroquine. The *in vitro* findings suggested that all cases were infected with chloroquine resistant strains of *P. falciparum*, and was confirmed by the *in vivo* test except for two cases that showed a susceptible response; the two persons had a previous history of recent repeated episodes of fever.

This study suggests that the *in vitro* test is a practical method for determining the presence of chloroquine resistant parasites. It may also provide a more accurate means for assessing or comparing sensitivity than the *in vivo* test, since its results are much less influenced by the immunity status of the patient. It is necessary, nevertheless, to study further the *in vitro* tests to determine the level of response of susceptible parasites.

Study on the response of P. vivax to single dose treatment. The following drugs, or drug associations, were studied in Brazil in relation to the immediate response of *P. vivax* to a single dose treatment, its

relapse rate, and latent period: (a) chloroquine at base dose of 10 mg/kg; (b) association of pyrimethamine 0.85 mg/kg and sulfadoxine 24 mg/kg; (c) association of chloroquine 5 mg (base) kg pyrimethamine 0.85 mg/kg, primaquine 0.50 mg/kg, and sulfadoxine 10 mg/kg.

Scheme (b) produced a very slow immediate response and therefore was considered inadequate. Schemes (a) and (c) gave similar immediate responses, of clearance of 2/3 to 3/4 of parasitemias in 48 hours and a similar relapse rate, but the latent period was significantly longer with scheme (c) than (a).

Radical cure for P. vivax. A trial of a three-day administration of chloroquine, primaquine, and pyrimethamine as a possible radical cure of *P. vivax* was carried out in Colombia. The results are being analyzed.

Mass radical treatments for elimination of residual foci of malaria. This project, which will be carried out as an incidental research activity by the malaria eradication program of Bolivia, has as its objective the study of the possibility of using a combination of chloroquine-primaquine-pyrimethamine as a three-day treatment to eliminate residual foci in the Andean valleys in the southern part of the country. The plan of operations was prepared and signed in 1969 and work will start in 1970.

Studies on mass drug administration. The Central American Malaria Research Station carried out comparative field trials of mass drug administration of pyrimethamine and primaquine versus amodiaquine and primaquine in one area of El Salvador, and amodiaquine base and primaquine versus amodiaquine hydrochloride and primaquine in another area. None of these drug combinations seem to improve drug acceptance and a detailed study is being made to ascertain the anthropological factors that may influence drug acceptance, and the possibility of counteracting them through a health education program in the schools.

Amodiaquine base and primaquine were also used as mass drug administration in a small area in Costa Rica with good results.

Entomological Studies

Vector behavior. Studies were carried out by the malaria projects in Brazil, Colombia, El Salvador, and Venezuela to determine behavioral factors that may influence the man-vector and vector-insecticide contacts.

Vector ecology. Studies of the seasonal ecology and resting habits of various anophelines were carried out by several malaria projects and the Central American

Research Station. The Research Station also studied estuarine breeding places in El Salvador to determine the influence of variations in salinity vector breeding.

Vector genetics. The Organization collaborated in a study of the cytogenetics of South America anophelines, especially of the subgenera *Nyssorhynchus* and *Kerteszia*. This study is being carried out by Professor J. B. Kitzmiller of the University of Illinois.

Parasitological Studies

Field study of diagnostic methods. A field study was initiated to compare the relative diagnostic values of microscopic examination of thick blood films and fluorescent antibody techniques. The study will be carried out by the malaria eradication program of the State of São Paulo (Brazil) in cooperation with the Institute of Tropical Medicine of the University of São Paulo and the Organization. The necessary equipment was provided by PAHO. The Institute has started to produce malaria antigens.

Characterization of strains of malaria in Central America. The Central American Malaria Research Station, in collaboration with the U. S. National Institutes of Health, has inoculated human plasmodia in *Aotus* monkeys for further studies on their relapse patterns and other characteristics of these parasitic strains.

Investigation of the Economic Effects of Malaria

This project is being carried out in eight local areas in east Paraguay to estimate the economic impact of malaria on 320 selected agricultural families and 15 small rural industries. During the period of study investigations will be made to determine if there are any differences in the economic development between those affected and those little or not affected by the disease. Planning of the project began in March 1968. Field collection of data started in September of that year and will continue for 18 months.

IV. INTERNATIONAL COOPERATION

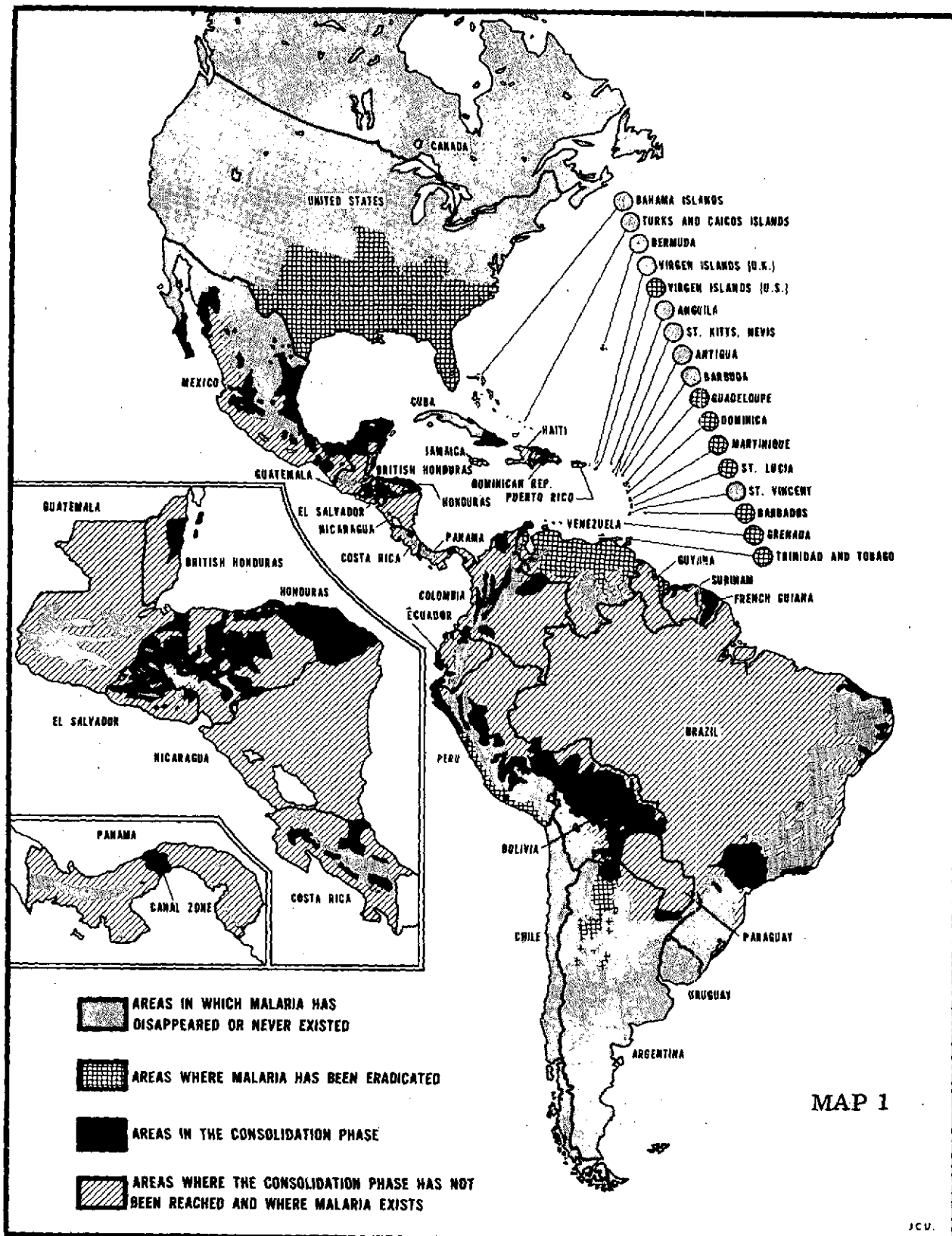
Table 23 summarizes the malaria personnel by professional discipline in each malaria eradication

project. It also includes those assigned to interzone, intercountry, and research projects. Due to limitations of funds, the total number of PAHO/WHO personnel was somewhat reduced in 1969 especially in the category of sanitary inspectors. Studies are being carried out to review the needs for advisory services in each project and to reorganize the distribution of PAHO/WHO personnel in accordance with the status of the program and the availability of national technical personnel.

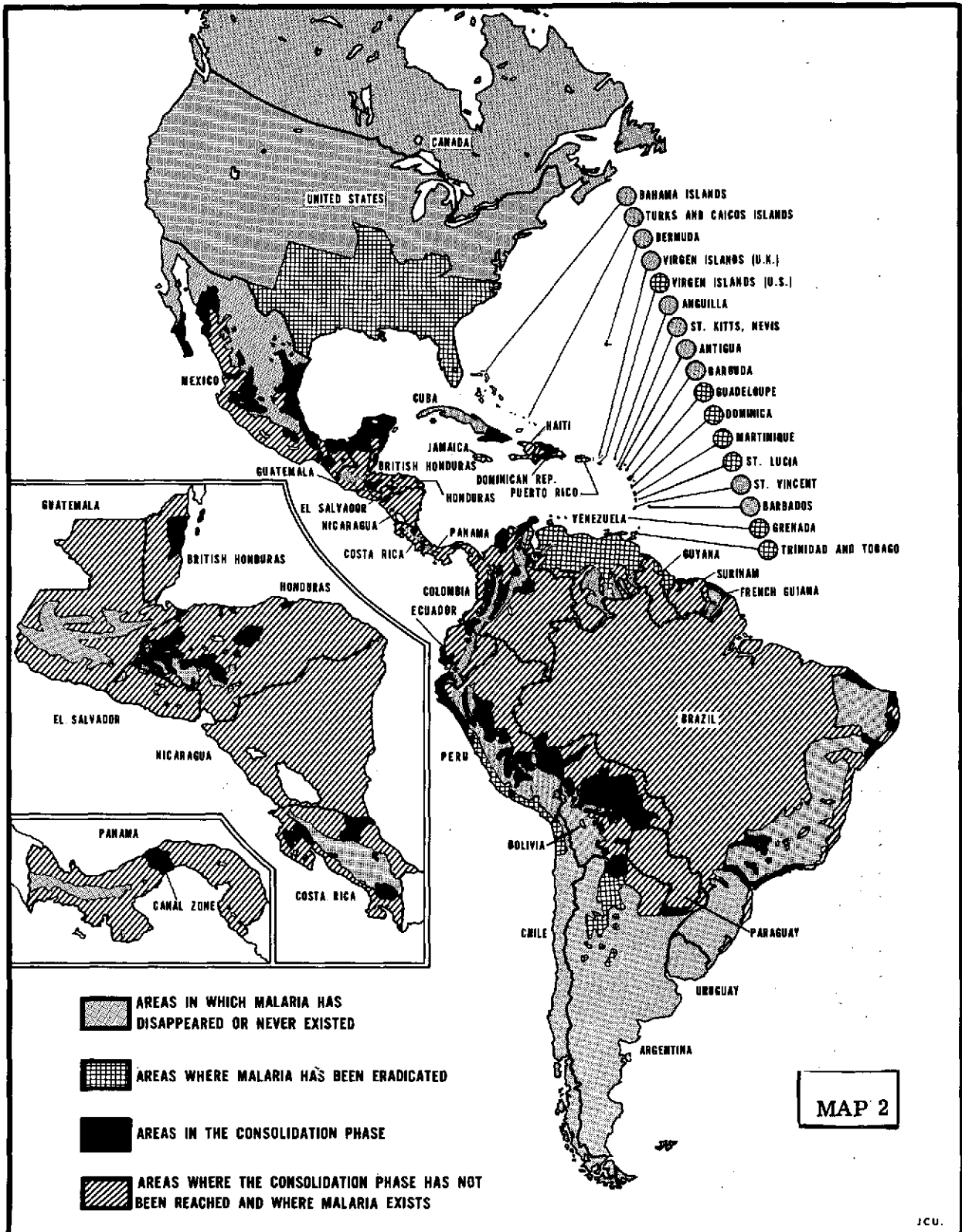
Medical supplies furnished annually by PAHO/WHO from 1958 through 1969 are shown in Table 24. In addition to the medical supplies, the Organization provided a few vehicles and small quantities of laboratory and entomological supplies during 1969.

There is no training center for malaria eradication personnel directly sponsored by PAHO/WHO. However, under the auspices of the Government of Venezuela, its training center in Maracay continues to hold an international malaria training course every year, starting in November and terminating in March of the following year. The Government of Venezuela, in addition to providing training facilities, gives six fellowships every year to candidates sent by PAHO/WHO. The fellowships provide stipends and local traveling expenses. PAHO pays international travel and other expenses not covered by the Government. For trainees in excess of those assisted by the Government, PAHO provides complete fellowship assistance. For the course of 1968-1969, PAHO arranged to send 9 trainees (Argentina 1, Bolivia 2, Colombia 3, Honduras 1, Paraguay 1, and Peru 1). For the 1969-1970 course, 11 trainees (Bolivia 1, Colombia 3, Ecuador 1, El Salvador 2, Guatemala 1, Haiti 1, and Honduras 2) were sent.

Assistance provided by PAHO/WHO, UNICEF, and AID (USA) during 1969, and their estimated contributions for 1970, are shown in Table 25. The proportion of the national and international contributions to the malaria eradication programs in the Americas is illustrated in Graph 3. Although the international contributions in terms of dollar values are relatively small in comparison with the national expenditures, their catalytic effect in promoting the increase of manpower, the provision of essential materials from abroad, and the complementary payments of local costs are essential to the progress of the malaria eradication programs.



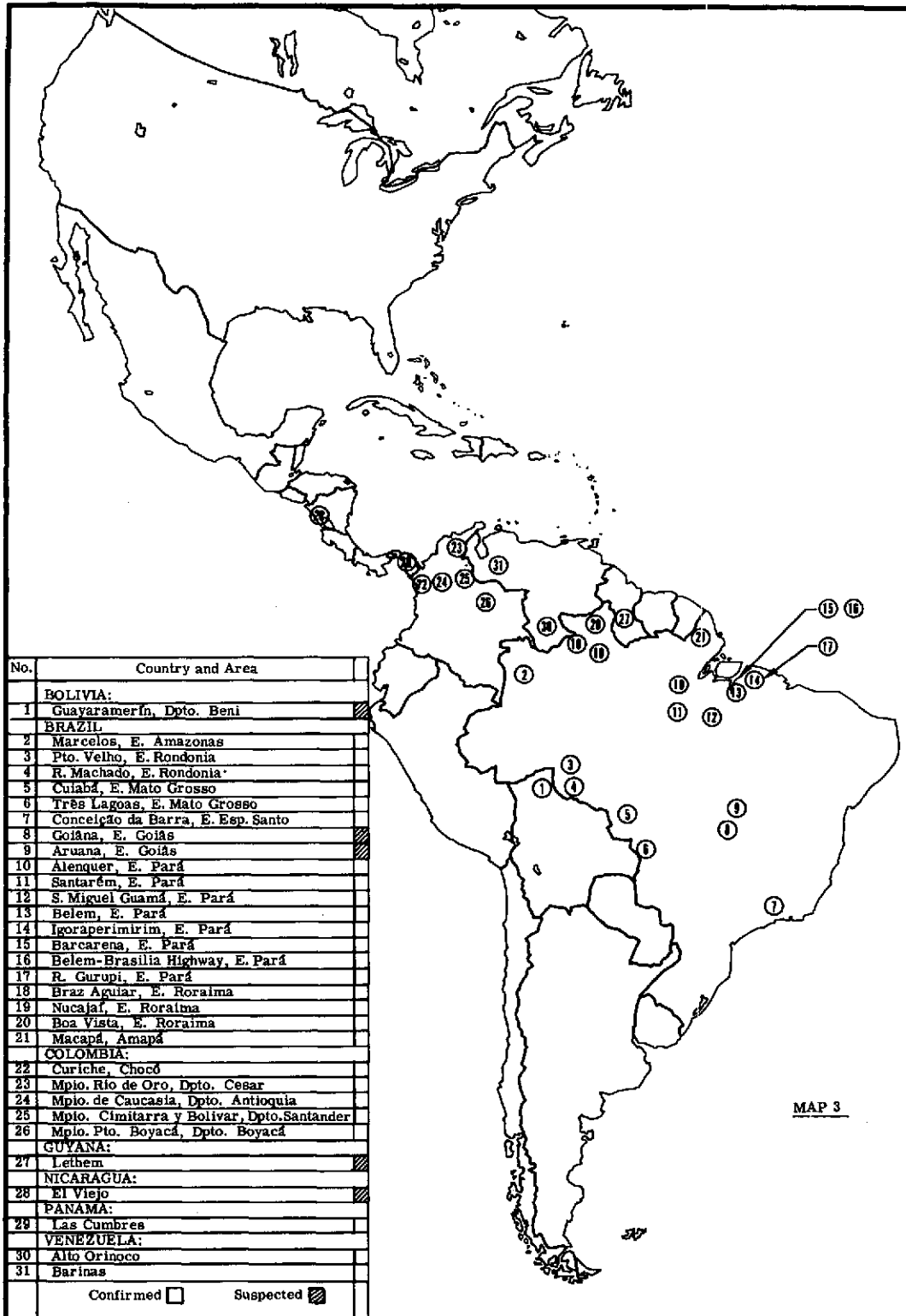
STATUS OF THE MALARIA ERADICATION PROGRAM IN THE AMERICAS, 31 DECEMBER 1968



STATUS OF THE MALARIA ERADICATION PROGRAM IN THE AMERICAS, 31 DECEMBER 1969

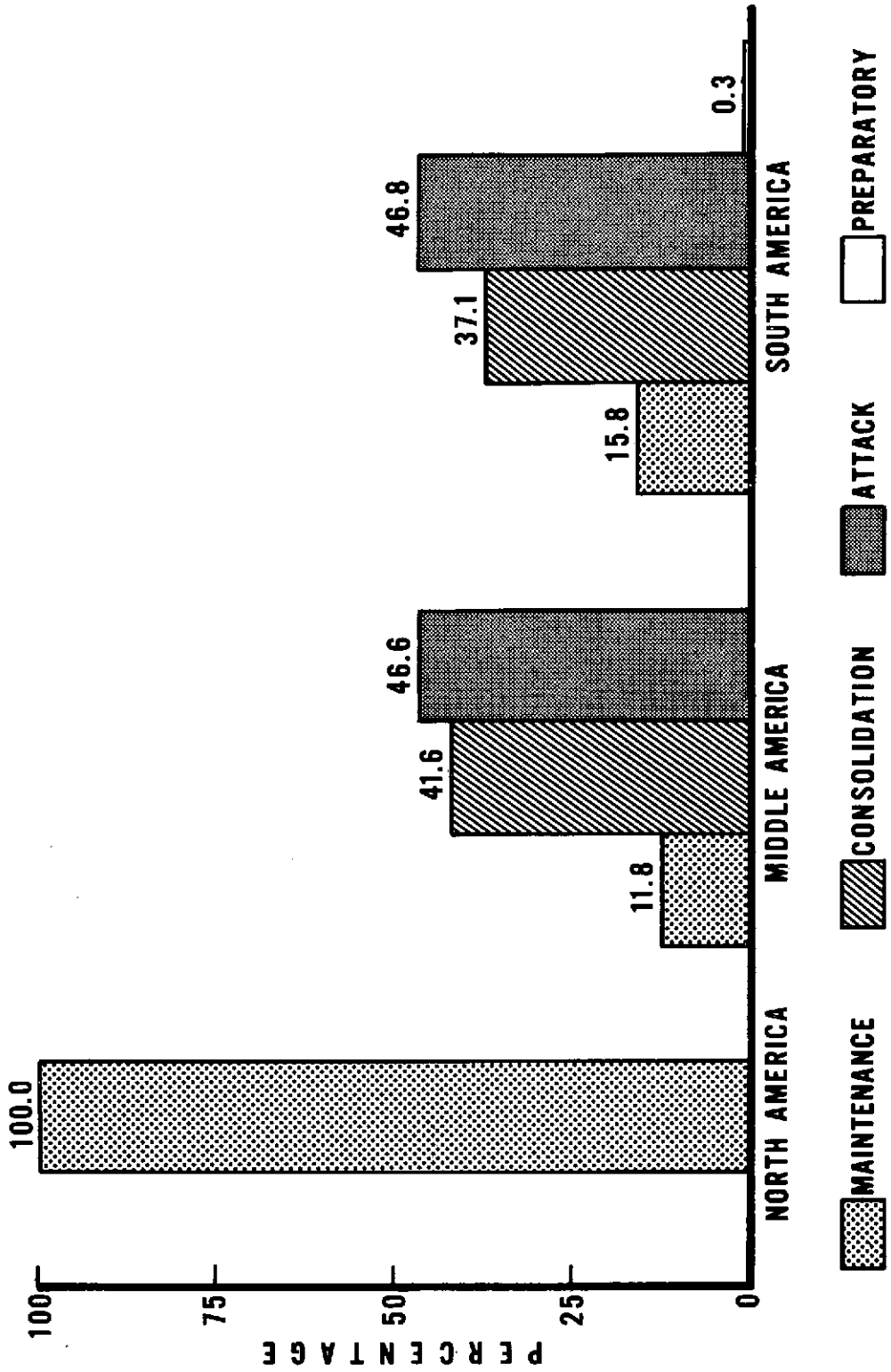
Map 3

**AREAS WHERE CASES OF FALCIPARUM "RESISTANT" TO FOUR AMINOQUINOLINES
HAVE BEEN NOTIFIED**



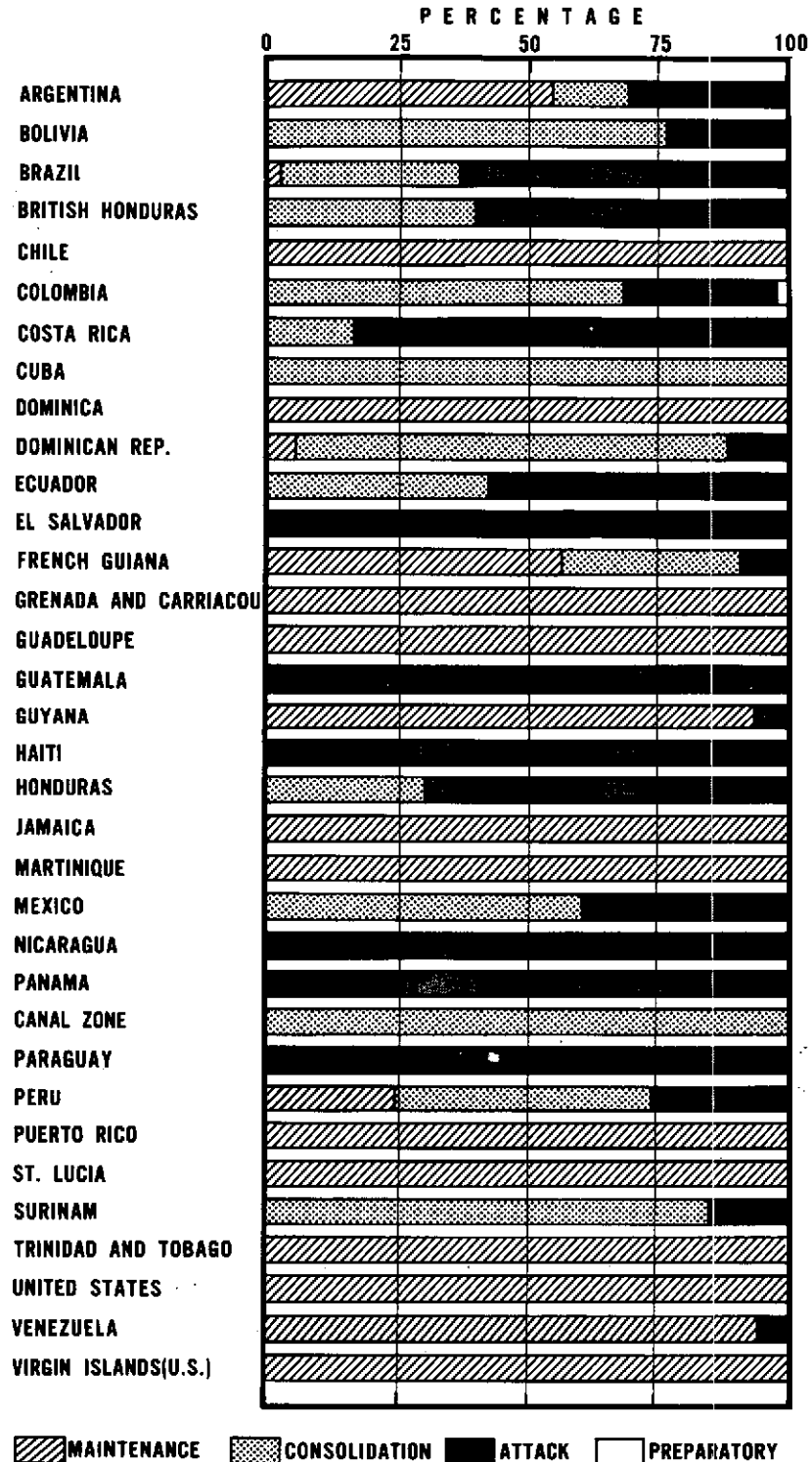
MAP 3

Graph 1
STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY REGION, 1969
POPULATION BY PHASE AS A PERCENTAGE OF ORIGINALLY MALARIOUS AREA



Graph 2

DISTRIBUTION OF POPULATION IN THE ORIGINALLY MALARIOUS AREAS OF THE AMERICAS BY PHASE OF THE PROGRAM, 1969



Graph 3

MALARIA ERADICATION IN THE AMERICAS EXPENDITURES, 1957-1969

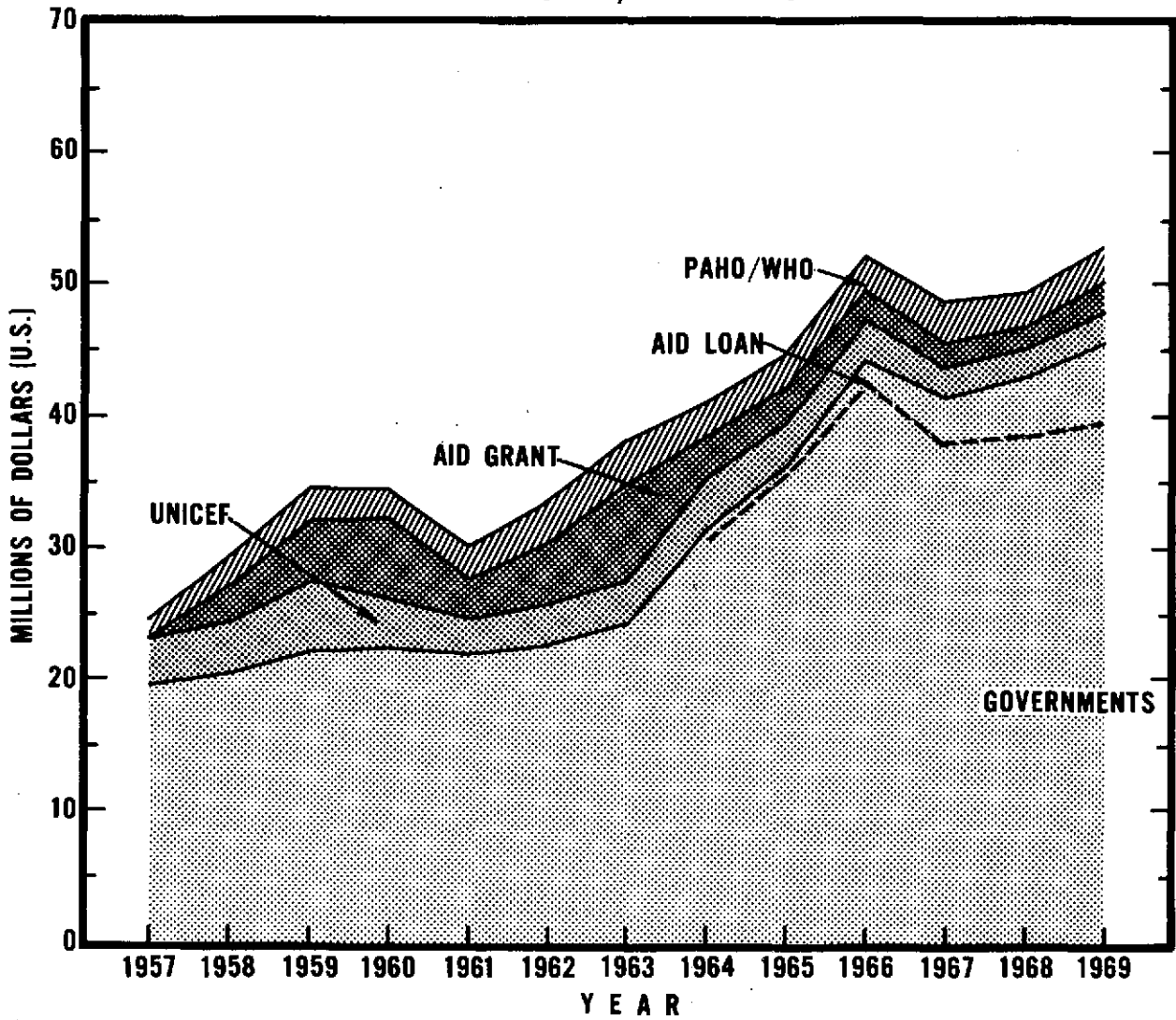


Table 1
COMPARISON OF 1968 AND 1969 POPULATION AND AREA BY PHASE
IN COUNTRIES WITH PROGRAMS ACTIVE AFTER 1957

Phase	1968		1969	
	Total	%	Total	%
A. Population in thousands:				
1. Maintenance phase	14 059	12.1	14 154	12.0
2. Consolidation phase	45 812	39.4	46 987	39.9
3. Attack phase	56 234	48.3	56 375	47.9
4. Preparatory phase or not yet started	217	0.2	206	0.2
Total	116 322	100.0	117 722	100.0
B. Area in Km²:				
1. Maintenance phase	720 832	5.4	720 392	5.4
2. Consolidation phase	2 112 056	15.9	1 876 563	14.1
3. Attack phase	10 444 843	78.4	10 667 988	80.3
4. Preparatory phase or not yet started	47 000	0.3	24 626	0.2
Total	13 324 731	100.0	13 289 569	100.0

Table 2
EVOLUTION OF MALARIA ERADICATION IN THE
AMERICAS, BY PHASE 1958-1969
(Population in thousands)

Year	Originally malarious areas					Total population
	Maint. phase	Consolid. phase	Attack phase	Prep. phase or program not yet started	Total	
1958	52 866	1 996	46 196	34 351	135 409	387 276
1959	52 856	9 349	56 292	27 423	145 920	394 606
1960	54 363	10 101	53 400	25 722	143 586	400 500
1961	56 979	17 879	39 021	33 413	147 292	416 008
1962	59 299	30 424	49 276	14 743	153 742	427 919
1963	56 546	33 901	31 910	29 664	152 021	434 950
1964	57 414	32 277	34 426	34 525	158 642	447 666
1965	60 975	34 731	38 575	12 108	146 389	455 527
1966	69 760	36 128	43 369	17 212	166 469	463 649
1967	70 720	41 581	44 766	12 834	169 901	474 868
1968	72 441	45 812	56 234	217	174 704	484 664
1969	72 757	46 987	56 375	206	176 325	491 483

Table 3
TENTATIVE CLASSIFICATION OF THE MALARIA ERADICATION PROGRAMS IN RELATION TO PROSPECT OF ERADICATION AND COUNTRIES OR TERRITORIES WHERE ERADICATION HAS ALREADY BEEN ACHIEVED, 1969
(Population in thousands)

Country or other political unit	Eradication achieved	Good prospect of eradication			Not making satisfactory progress			Progress dependent upon funds and new attack measures to solve tech. problems
		Early eradication quite sure	Early eradication, if current progress continues	Some administrative and/or operational problems, but making progress	Progress dependent upon receiving funds	Serious administrative and/or operational problems		
Argentina	1 648	-	-	1 339	-	-	-	-
Bolivia	-	-	-	-	1 529	-	-	-
Brazil	804	-	29 817	-	-	5 000	-	-
Chile	159	-	-	-	-	-	-	-
Colombia	-	-	8 580	-	-	3 183	-	700
Costa Rica	-	-	520	-	-	-	-	-
Cuba	-	2 805	-	-	-	-	-	-
Dominican Republic	212	3 930	-	-	-	-	-	-
Ecuador	-	-	-	-	-	-	-	-
El Salvador	-	-	-	-	-	3 030	-	2 913
Guatemala	-	-	-	-	-	-	-	2 292
Guyana	678	45	-	-	-	-	-	-
Haiti	-	-	-	-	-	3 580	-	-
Honduras	-	-	-	-	-	-	-	2 113
Jamaica	1 530	-	-	-	-	-	-	-
Mexico	-	-	-	-	19 139	-	-	3 617
Nicaragua	-	-	-	-	-	-	-	1 872
Panama	-	-	1 360	-	-	-	-	-
Paraguay	-	-	1 922	-	-	-	-	-
Peru	1 133	-	-	-	3 457	-	-	-
Trinidad and Tobago	970	-	-	-	-	-	-	-
United States	55 692	-	-	-	-	-	-	-
Venezuela	6 711	-	-	-	-	169	-	230
British Honduras	-	122	-	-	-	-	-	-
Canal Zone	-	50	-	-	-	-	-	-
Dominica	18	-	-	-	-	-	-	-
French Guiana	25	-	19	-	-	-	-	-
Grenada	36	-	-	-	-	-	-	-
Guadeloupe	293	-	-	-	-	-	-	-
Martinique	207	-	-	-	-	-	-	-
Puerto Rico	2 487	-	-	-	-	-	-	-
St. Lucia	96	-	-	-	-	-	-	-
Surinam	-	-	-	235	-	-	-	-
Virgin Islands (U. S.)	58	-	-	-	-	-	-	-
Total	72 757	6 952	42 218	1 574	24 125	14 962	13 737	7.8
%	41.3	4.0	23.9	0.9	13.7	8.5		

Table 4
SUMMARY OF CASE DETECTION IN THE AMERICAS, 1958-1969

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
1966	11 731 451	333 245	2.8
1967	11 609 226	369 341	3.2
1968	12 522 696	282 773	2.3
1969	12 161 178	323 314	2.7

Table 5
CASE DETECTION BY COUNTRY AND PHASE OF PROGRAM, 1969

Country or other political unit	Total		Attack phase		Consolidation phase		Maintenance phase		Non-malarious areas	
	Slides examined	Positive cases	Slides examined	Positive cases	Slides examined	Positive cases	Slides examined	Positive cases	Slides examined	Positive cases
Argentina	159 178	247	40 027	69	41 693	165	77 458	13	-	-
Bolivia ^{a)}	167 287	3 957	119 108	2 980	47 662	933	-	-	517	44
Brazil	2 139 885	56 951	1 366 430	55 503	693 280	773	21 495	5	58 680	670
Colombia	767 866	39 435	344 925	33 938	416 280	5 100	-	-	6 661	397
Costa Rica	202 362	688	170 498	631	31 572	9	-	-	292	48
Cuba	746 827	3	-	-	506 846	-	-	-	239 981	3
Dominican Republic	629 695	124	178 177	105	395 013	11	56 360	8	145	0
Ecuador	421 650	50 957	256 852	44 038	164 798	6 919	-	-	-	-
El Salvador	858 916	25 299	858 916	25 299	-	-	-	-	-	-
Guatemala	521 336	10 494	516 264	10 329	-	-	-	-	5 072	165
Guyana	70 121	25	47 966	18	-	-	22 155	7	-	-
Haiti	686 167	5 005	686 167	5 005	-	-	-	-	-	-
Honduras	591 544	29 584	431 719	28 306	158 649	1 266	54 227	-	1 176	12
Jamaica	54 227	0	-	-	-	-	-	0	-	-
Mexico	2 524 060	52 126	1 475 917	46 463	1 026 330	5 383	-	-	21 813	280
Nicaragua	498 119	16 043	498 119	16 043	-	-	-	-	-	-
Panama	94 596	5 938	94 596	5 938	-	-	-	-	-	-
Paraguay	129 509	10 307	128 927	10 246	-	-	-	-	582	61
Peru	263 344	3 168	143 047	2 849	94 647	309	25 645	9	5	1
Trinidad and Tobago	42 272 ^{b)}	5	-	-	-	-	42 272	5	-	-
United States of America	1 572 ^{b)}	3 315	-	-	-	-	1 572	3 315	-	-
Venezuela	468 158	8 660	154 479	7 640	-	-	311 811	727	1 868	293
British Honduras	12 194	28	10 725	27	1 469	1	-	-	-	-
Canal Zone	31 876	158	-	-	31 876	158	-	-	-	-
Dominica	2 779	0	-	-	-	-	2 779	0	-	-
French Guiana	7 000	52	680	12	185	20	6 135	20	-	-
Grenada ^{c)}	980	0	-	-	-	-	980	0	-	-
Guadeloupe	17 412	0	-	-	-	-	16 598	0	814	-
Puerto Rico	4	4	-	-	-	-	4	4	-	-
St. Lucia	12 048	0	-	-	-	-	12 048	0	-	-
Surinam	38 194	741	21 232	625	14 905	70	-	-	2 057	46
Total	12 161 178	323 314	7 544 771	296 064	3 625 205	21 117	651 539	4 113	339 663	2 020

a) November. b) Only those examined at NCDC. c) June.

Table 6
 EPIDEMIOLOGICAL EVALUATION IN AREAS UNDER MAINTENANCE PHASE IN MALARIA
 ERADICATION PROGRAMS, 1969

Country or other political unit	Number of slides examined	Total No. of positive cases	Species of parasite				Origin of infections					Unclassified or not investigated
			<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>	Autochthonous	Relapsing	Imported		Induced	Introduced	
								from abroad	from areas within country			
Argentina	77 458	13	-	13	-	1	-	1	3	-	7	1
Brazil	21 495	5	1	4	-	-	-	4	4	-	-	1 ^{a)}
Dominican Republic ...	56 360	8	8	-	-	-	-	8	8	-	-	-
Guyana	22 155	7	1	6	-	-	1	5	1	-	-	-
Jamaica	54 227	0	-	-	-	-	-	-	-	-	-	-
Peru	25 645	9	-	7	-	2	-	4	-	1	-	2
Trinidad and Tobago ..	42 272	5	3	-	-	2	-	5	-	-	-	-
United States of America ^{b)}	1 576 ^{c)}	3 319 ^{d)}	479	2 640	28	-	-	3 318	-	-	-	1
Venezuela	311 811	727	77	647	3	104	12	151	341	3	114	2 ^{a)}
Dominica	2 779	0	-	-	-	-	-	-	-	-	-	-
French Guiana	6 135	20	4	16	-	13	2	-	5	-	-	-
Grenada and Carriacou ..	980 ^{e)}	0	-	-	-	-	-	-	-	-	-	-
Guadeloupe	17 412 ^{f)}	0	-	-	-	-	-	-	-	-	-	-
St. Lucia	12 048	0	-	-	-	-	-	-	-	-	-	-
Total	652 353	4 113	573	3 333	35	120	15	3 484	362	4	121	7

a) Cryptic case.

b) Including Puerto Rico and Virgin Islands.

c) Includes only those slides examined at NCDC.

d) Including 9 cases P. ovale, 76 mixed infections and 87 without species diagnosed.

e) January-June.

f) Including 814 slides taken in non-malarious areas.

Table 7
 EPIDEMIOLOGICAL EVALUATION IN AREAS IN CONSOLIDATION PHASE IN MALARIA
 ERADICATION PROGRAMS, 1969

Country or other political unit	Population (thousands)	No. of slides examined	Total No. of positive cases	API Total (a)	API Local (b)	Species of parasite				Origin of infections					Unclassified or not investigated
						<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>	Autochthonous	Relapsing	Imported		Induced	Introduced	
											from abroad	from areas within country			
Argentina	432	41 693	165	0.4	0.3	-	165	-	136	16	5	-	-	2	6
Bolivia	1 174	47 662	933	0.8	0.4	100	833	-	463	13	4	33	-	-	420
Brazil (Excl. São Paulo)	6 380	554 881	252	0.04	0.01	100	150	2	63	2	-	60	2	-	125
Brazil (São Paulo)	5 758	138 399	521	0.1	0.02	210	311	-	100	-	-	376	2	16	27
Colombia	8 560	416 280	5 100	0.6	0.05	2 855	2 245	-	457	-	37	3 302	5	8	1 291
Costa Rica	87	31 572	9	0.1	0.01	-	9	-	1	1	3	1	-	-	3
Cuba	2 805	746 827(c)	3(c)	0.0	0	-	3	-	-	1	1	-	1	-	-
Dominican Republic ...	3 443	395 013	11	0.0	0	2	-	9	2	8	-	-	1	-	-
Ecuador	1 294	164 798	6 919	5.3	0.4	468	6 451	-	479	40	1	2 567	2	88	3 742
Honduras	648	158 649	1 266	2.0	0.9	229	1 037	-	552	60	33	95	-	-	526
Mexico	13 017	1 026 330	5 383	0.4	0.1	3	5 367	13	1 511	281	1	374	5	11	3 200
Peru	2 256	94 647	309	0.1	0.08	-	308	1	180	9	2	93	-	-	25
British Honduras	49	1 469	1	0.02	0	-	1	-	-	-	-	1	-	-	-
Canal Zone	50	31 876	158	3.2	0.9	43	115	-	45	12	101	-	-	-	-
French Guiana	15	185	20	1.3	1.1	9	11	-	17	-	-	3	-	-	-
Surinam	199	14 905	70	0.4	0.1	68	2	-	22	1	-	15	-	4	28
Total	46 987	3 865 186	21 120	0.4	0.1	4 087	17 008	25	4 028	444	188	6 920	18	129	9 393

a) Total number of cases founded in the area, by 1 000 inhabitants. b) Number of cases originated in the areas (autochthonous and introduced), by 1 000 inhabitants.
 c) Including 296 981 slides examined and the three cases from non-malarious areas.

Table 8

EPIDEMIOLOGICAL EVALUATION OPERATIONS IN ATTACK PHASE AND
NON-MALARIOUS AREAS, 1969

Country or other political unit	Slides examined			Species found		
	Total	Positive		<u>P. falci- parum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
Argentina	40 027	69	0.2	-	69	-
Bolivia ^{a)}	119 625	3 024	2.5	716	2 308	-
Brazil	1 425 110	56 173	4.0	31 035	24 989	149
Colombia	351 586	34 335	9.8	21 237	13 081	17
Costa Rica	170 790	679	0.4	-	679	-
Dominican Republic	178 322	105	0.06	104	1	-
Ecuador	256 852	44 038	17.1	3 849	40 183	6
El Salvador	858 916	25 299	2.9	1 955	23 344	-
Guatemala	521 336	10 494	2.0	202	10 291	1
Guyana	47 966	18	0.04	14	4	-
Haiti	686 167	5 005	0.7	4 999	1	5
Honduras	432 895	28 318	6.5	5 144	23 174	-
Mexico	1 497 730	46 743	3.1	46	46 591	106
Nicaragua	498 119	16 043	3.2	2 673	13 370	-
Panama	94 596	5 938	6.3	4 106	1 832	-
Paraguay	129 509	10 307	8.0	1 591	8 716	-
Peru	143 052	2 850	2.0	22	2 791	37
Venezuela	156 347	7 933	5.1	1 821	6 046	66
British Honduras	10 725	27	0.3	-	27	-
French Guiana	680	12	1.8	7	5	-
Surinam	23 289	671	2.9	666	4	1
Total ^{b)}	7 643 639	298 081	3.9	80 187	217 506	388

a) November.

b) Slides examined in Cuba and Guadeloupe from their non-malarious areas are not included in this table, as the two countries do not have area in attack phase. They are included in Tables 6 and 7.

Table 9
 TENTATIVE CLASSIFICATION OF THE MALARIA PROGRAMS IN RELATION
 TO PROSPECT OF ERADICATION, 1969

Categories	Population (in thousands)	
	Total	%
Early eradication quite sure	6 952	6.7
Early eradication, if current progress continues	42 218	40.8
Some administrative and operational problems, but making progress	1 574	1.5
Progress dependent upon receiving funds	24 125	23.3
Serious administrative and operational problems	14 962	14.4
Progress dependent upon financial support and new attack measures to solve serious technical problems ...	13 737	13.3
Total	103 568	100.0

Table 10
 STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY POPULATION, 1969
 (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	
		Total	%	Total	%	Total	%	Total	%	Total	%
Argentina	23 440	2 987	12.7	1 648	55.2	432	14.5	907	30.3	-	-
Barbados	253 ^{a)}	-	-	-	-	-	-	-	-	-	-
Bolivia	4 822	1 529	31.7	-	-	1 174	76.8	355	23.2	-	-
Brazil	89 684	35 621 ^{b)}	39.7	804	2.2	12 138	34.1	22 679	63.7	-	-
Canada	21 007 ^{a)}	-	-	-	-	-	-	-	-	-	-
Chile	9 351 ^{a)}	159 ^{c)}	1.7	159 ^{c)}	100.0	-	-	-	-	-	-
Colombia	21 049	12 463	59.2	-	-	8 580	68.8	3 677	29.5	206	1.7
Costa Rica	1 705	520	30.5	-	-	87	16.7	433	83.3	-	-
Cuba	8 210	2 805	34.2	-	-	2 805	100.0	-	-	-	-
Dominican Republic	4 175	4 142	99.2	212	5.1	3 443	83.1	487	11.8	-	-
Ecuador	5 580	3 030	54.3	-	-	1 294	42.7	1 736	57.3	-	-
El Salvador	3 322	2 913	87.7	-	-	-	-	2 913	100.0	-	-
Guatemala	5 008	2 292	45.8	-	-	-	-	2 292	100.0	-	-
Guyana	723	723	100.0	678	93.8	-	-	45	6.2	-	-
Haiti	4 790	3 580	74.7	-	-	-	-	3 580	100.0	-	-
Honduras	2 421	2 113	87.3	-	-	648	30.7	1 465	69.3	-	-
Jamaica	1 913	1 530	80.0	1 530 ^{d)}	100.0	-	-	-	-	-	-
Mexico	45 860	22 756	49.6	-	-	13 817	60.7	8 939	39.3	-	-
Nicaragua	1 872	1 872	100.0	-	-	-	-	1 872	100.0	-	-
Panama	1 417	1 360	96.0	-	-	-	-	1 360	100.0	-	-
Paraguay	2 331	1 922	82.5	-	-	-	-	1 922	100.0	-	-
Peru	13 172	4 590	34.8	1 133	24.7	2 256	49.1	1 201	26.2	-	-
Trinidad and Tobago ...	1 125	970	86.2	970 ^{d)}	100.0	-	-	-	-	-	-
United States of America	200 831	55 692	27.7	55 692	100.0	-	-	-	-	-	-
Uruguay	2 818 ^{e)}	-	-	-	-	-	-	-	-	-	-
Venezuela	9 550	7 110	74.5	6 711 ^{f)}	94.4	-	-	399	5.6	-	-
Antigua	62 ^{a)}	-	-	-	-	-	-	-	-	-	-
Bahamas	144 ^{a)}	-	-	-	-	-	-	-	-	-	-
Bermuda	52 ^{a)}	-	-	-	-	-	-	-	-	-	-
British Honduras	122	122	100.0	-	-	49	40.2	73	59.8	-	-
Canal Zone	50	50	100.0	-	-	50	100.0	-	-	-	-
Dominica	70	18	25.7	18 ^{d)}	100.0	-	-	-	-	-	-
Falkland Island	2	-	-	-	-	-	-	-	-	-	-
French Guiana	44	44	100.0	25	56.8	15	34.1	4	9.1	-	-
Grenada and Carriacou	106	36	34.0	36 ^{d)}	100.0	-	-	-	-	-	-
Guadeloupe	335	293	87.5	293	100.0	-	-	-	-	-	-
Martinique	333	207	62.2	207	100.0	-	-	-	-	-	-
Montserrat	15	-	-	-	-	-	-	-	-	-	-
Netherland Antilles	215 ^{a)}	-	-	-	-	-	-	-	-	-	-
Puerto Rico	2 799	2 487	88.8	2 487	100.0	-	-	-	-	-	-
St. Kitts, Nevis, Anguilla	61	-	-	-	-	-	-	-	-	-	-
St. Lucia	112	96	85.7	96 ^{d)}	100.0	-	-	-	-	-	-
St. Pierre and Miquelon	5	-	-	-	-	-	-	-	-	-	-
St. Vincent	95	-	-	-	-	-	-	-	-	-	-
Surinam	365	235	64.4	-	-	199	84.7	36	15.3	-	-
Virgin Islands (U. K.) ..	9 ^{e)}	-	-	-	-	-	-	-	-	-	-
Virgin Islands (U. S.) ..	58 ^{e)}	58	100.0	58	100.0	-	-	-	-	-	-
Total	491 483	176 325	35.9	72 757	41.3	46 987	26.6	56 375	32.0	206	0.1

a) Population and Vital Statistics Report, United Nations, Oct. 1969. b) The decrease is due to a reappraisal of the extent of the malarious area. c) 1967 figures. d) Population in areas where eradication of malaria has been certified by PAHO. e) 1968 figures. f) Includes an area with 5 014 502 inhabitants where eradication of malaria has been certified by PAHO.

Table 11
 STATUS OF MALARIA ERADICATION IN THE AMERICAS, BY AREA, 1969
 (Area in Km²)

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	
		Total	%	Total	%	Total	%	Total	%	Total	%
Argentina	4 024 458	349 051	8.7	111 661	32.0	79 624	22.8	157 766	45.2	-	-
Barbados	430	-	-	-	-	-	-	-	-	-	-
Bolivia	1 098 581	821 346	74.8	-	-	424 364	51.7	396 982	48.3	-	-
Brazil	8 511 965	6 886 784 ^{a)}	81.0	1 056	0.01	169 719	2.5	6 716 009	97.5	-	-
Canada	9 221 016	-	-	-	-	-	-	-	-	-	-
Chile	741 767	55 287	7.5	55 287	100.0	-	-	-	-	-	-
Colombia	1 138 914	970 849	85.2	-	-	114 832	11.8	831 391	85.7	24 626	2.5
Costa Rica	50 900	35 446	69.6	-	-	8 451	23.8	26 995	76.2	-	-
Cuba	110 422	35 801	32.4	-	-	35 801	100.0	-	-	-	-
Dominican Republic	48 442	47 562	98.2	4 909	10.3	33 394	70.2	9 259	19.5	-	-
Ecuador	291 906	175 462	60.1	-	-	27 797	15.8	147 665	84.2	-	-
El Salvador	21 149	19 300	91.3	-	-	-	-	19 300	100.0	-	-
Guatemala	108 889	80 350	73.8	-	-	-	-	80 350	100.0	-	-
Guyana	215 025	215 025	100.0	39 437	18.3	-	-	175 588	81.7	-	-
Haiti	27 750	19 100	68.8	-	-	-	-	19 100	100.0	-	-
Honduras	112 088	101 351	90.4	-	-	16 855	16.6	84 496	83.4	-	-
Jamaica	11 428	10 028	87.7	10 028	100.0	-	-	-	-	-	-
Mexico	1 967 183	1 150 000	58.5	-	-	575 767	50.1	574 233	49.9	-	-
Nicaragua	127 358	118 358	92.9	-	-	-	-	118 358	100.0	-	-
Panama	75 650	69 840	92.3	-	-	-	-	69 840	100.0	-	-
Paraguay	406 752	406 552	99.9	-	-	-	-	406 552	100.0	-	-
Peru	1 285 216	961 172	74.8	84 497	8.8	327 685	34.1	548 990	57.1	-	-
Trinidad and Tobago	5 605	5 444	97.1	5 444	100.0	-	-	-	-	-	-
United States of America	9 359 781	2 309 601	24.7	2 309 601	100.0	-	-	-	-	-	-
Uruguay	186 926	-	-	-	-	-	-	-	-	-	-
Venezuela	912 050	600 000	65.8	461 259	76.9	-	-	138 741	23.1	-	-
Antigua	280	-	-	-	-	-	-	-	-	-	-
Bahamas	11 396	-	-	-	-	-	-	-	-	-	-
Bermuda	53	-	-	-	-	-	-	-	-	-	-
British Honduras	22 965	22 965	100.0	-	-	4 307	18.8	18 658	81.2	-	-
Canal Zone	1 432	1 432	100.0	-	-	1 432	100.0	-	-	-	-
Dominica	751	152	20.2	152	100.0	-	-	-	-	-	-
Falkland Island	11 961	-	-	-	-	-	-	-	-	-	-
French Guiana	90 000	20 700	23.0	200	0.09	7 500	36.2	13 000	62.8	-	-
Grenada and Carriacou	342	103	30.1	103	100.0	-	-	-	-	-	-
Guadeloupe	1 779	1 136	63.9	1 136	100.0	-	-	-	-	-	-
Martinique	1 080	300	27.8	300	100.0	-	-	-	-	-	-
Montserrat	84	-	-	-	-	-	-	-	-	-	-
Netherland Antilles	961	-	-	-	-	-	-	-	-	-	-
Puerto Rico	8 896	8 896	100.0	8 896	100.0	-	-	-	-	-	-
St. Kitts, Nevis, Anguilla	396	-	-	-	-	-	-	-	-	-	-
St. Lucia	603	510	84.6	510	100.0	-	-	-	-	-	-
St. Pierre and Miquelon	240	-	-	-	-	-	-	-	-	-	-
St. Vincent	389	-	-	-	-	-	-	-	-	-	-
Surinam	163 820	163 750	99.9	-	-	49 035	29.9	114 715	70.1	-	-
Virgin Islands (U. K.)	174	-	-	-	-	-	-	-	-	-	-
Virgin Islands (U. S.)	344	344	100.0	344	100.0	-	-	-	-	-	-
Total	40 379 597	15 663 997	38.8	3 094 820	19.8	1 876 563	12.0	10 667 988	68.1	24 626	0.1

a) The decrease is due to a reappraisal of the extent of the malarious area.

Table 12
SUMMARY OF HOUSES SPRAYED WITH RESIDUAL INSECTICIDES, BY COUNTRY AND BY CYCLE, 1969

Country or other political unit	1st Cycle			2nd Cycle			3rd Cycle			4th Cycle			Total sprayings
	Houses planned	Houses sprayed	% sprayed	Houses planned	Houses sprayed	% sprayed	Houses planned	Houses sprayed	% sprayed	Houses planned	Houses sprayed	% sprayed	
Argentina	64 705	46 404	71.7	45 571	38 355	84.2	-	-	-	-	-	-	84 759
Bolivia	23 881	14 715a)	61.6	28 189	23 035a)	81.7	-	-	-	-	-	-	37 750
Brazil (Federal)	4 079 989	3 601 762	88.3	2 222 487	2 266 725	102.0	-	-	-	-	-	-	5 868 487
Brazil (São Paulo)	22 522	20 628	91.6	22 246	18 628	83.7	-	-	-	-	-	-	39 256
Colombia (2 cycles)	463 187	397 427	85.8	464 692	451 315	97.1	-	-	-	-	-	-	848 742
(4 cycles)	18 691	18 164	97.2	19 343	18 958	98.0	23 785	22 259	93.6	23 609	22 996	97.4	82 377
Costa Rica	73 537	68 123	92.6	74 725	69 299	92.7	-	-	-	-	-	-	137 422
Dominican Republic	77 006	71 818	93.3	68 036	64 371	94.6	-	-	-	-	-	-	136 189
Ecuador	321 655	308 631	96.0	352 330	290 198	82.4	-	-	-	-	-	-	598 829
El Salvador	334 576	328 778	98.3	335 126	346 004	103.2	-	-	-	-	-	-	674 782
Guatemala	379 477b)	350 848b)	92.5	382 532c)	307 125c)	80.3	-	-	-	-	-	-	657 973
(6 542d)	-	5 477d)	83.7	-	-	-	-	-	-	-	-	-	5 477
Guyana	595 000e)	549 869e)	92.4	-	-	-	-	-	-	-	-	-	549 869
Haiti	191 937	195 462	101.8	171 288	164 954	96.3	-	-	-	-	-	-	360 416
Honduras	1515 935	1526 901f)	100.7	407 363	609 871f)	149.7	-	-	-	-	-	-	2 136 772
Mexico	183 385	165 772	90.4	165 444	154 829	93.6	-	-	-	-	-	-	320 601
Nicaragua	208 154	183 546	88.2	215 369	196 003	91.0	-	-	-	-	-	-	379 549
Panama	314 102b)	311 000b)	99.0	317 805c)	313 917c)	98.8	-	-	-	-	-	-	624 917
Paraguay	48 821	49 959	102.3	49 268	49 607	100.7	-	-	-	-	-	-	99 566
Peru (2 cycles)	22 832	23 585	103.3	22 831	24 181	105.9	23 717	26 643	112.3	-	-	-	74 409
(3 cycles)	68 262	63 325	92.8	59 771	43 287	72.4	-	-	-	-	-	-	106 612
Venezuela (2 cycles)	37 833	35 494	93.8	38 250	36 783	96.2	38 473	36 384	94.6	-	-	-	108 661
(3 cycles)	77 474	73 873	95.4	78 153	66 481	85.1	78 874	71 595	90.8	79 460	65 254	82.1	277 203
(4 cycles)	-	-	-	-	-	-	-	-	-	-	-	-	-
British Honduras	10 127	9 060	89.5	11 127	10 533	94.7	-	-	-	-	-	-	19 593
French Guiana	28 105c)	26 861c)	95.6	-	-	-	-	-	-	-	-	-	26 861
Surinam	14 550	3 935	27.0	14 550	3 297	22.7	-	-	-	-	-	-	7 232
Total	9 182 285	8 451 417	92.0	5 566 496	5 567 756	100.0	164 849	156 881	95.1	103 069	88 250	85.6	14 264 304

a) Includes 5 937 houses sprayed in focal attack. b) First complete cycle of 1969, from April to September. c) Second cycle started in October and ended in March 1970. d) Figures for entire year, not separated by cycle. e) Only one spraying cycle during the year. f) Includes houses sprayed once a year, and focal sprayings in Consolidation phase.

Table 13

PERSONNEL EMPLOYED IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS
31 DECEMBER 1968 AND 1969, BY CATEGORY

(Part-time personnel in parentheses)

	Title	1968	1969
SPRAYING OPERATIONS	Engineers	96 (1)	93
	Spraying Chiefs	350 (2)	305
	Sector Chiefs	611	1 298
	Squad Chiefs	1 923	2 393
	Spraymen	13 048 (80)	10 554 (85)
	Draftsmen	214	214 (1)
	SUB-TOTAL	16 242 (83)	14 857 (86)
EPIDEMIOLOGICAL OPERATIONS	Physicians	256 (7)	207 (4)
	Entomologists	38 (16)	80
	Entomologist Assistants	212 (3)	244
	Statisticians and Statisticians' Assistants	249	260
	Evaluation Inspectors	943 (1) ^{a)}	912 (1) ^{a)}
	Evaluators	6 843 ^{a)}	7 739 ^{a)}
	Microscopists	1 064 (88)	1 064 (6)
SUB-TOTAL	9 605 (115)	10 506 (11)	
ADMINISTRATION AND OTHERS	Administrators	222	156 (1)
	Administrative Assistants	1 250	1 697
	Accountants	76	43
	Disbursing Officers	100	58
	Storekeepers	114	75
	Storekeepers's Assistants	391	82
	Secretaries	379 (2)	374
	Others	1 684 (1)	1 373 (63)
SUB-TOTAL	4 216 (3)	3 858 (64)	
TRANSPORT	Transport Chiefs, Mechanics and Assistant Mechanics ..	709	828
	Drivers	1 838 (2)	1 538
	Motorboat Operators	485 (2)	436
	Boatmen	318	322
	SUB-TOTAL	3 350 (4)	3 124
GRAND TOTAL		33 413 (205)	32 345 (161)

a) Includes personnel with same category from the mass drug treatment program.

Table 14

PERSONNEL EMPLOYED IN SPRAYING OPERATIONS IN MALARIA ERADICATION PROGRAMS
IN THE AMERICAS - 31 DECEMBER 1969

(Part-time personnel in parentheses)

Country or other political unit	Total	Engineers	Sanitariums or Spraying Chiefs	Sector Chiefs	Squad Chiefs	Spraymen	Draftsmen
Argentina	96	2	1	5	16	59	13
Bolivia	48 (81)	-	9	24	-	15 (81)	-
Brazil	7 881	32	80	661 ^{a)}	1 107	5 935	66
Colombia	1 180	8	25	84	290	758	15
Costa Rica	150	-	2	27	30	88	3
Dominican Republic	70	1	2	-	10	57	-
Ecuador	603	2	-	50	99	450	2
El Salvador	488	1	6	21	86	372 ^{b)}	2
Guatemala	514	1	11 ^{c)}	33 ^{a)}	79	386 ^{b)}	4
Guyana	12	-	1	-	4	7	-
Haiti	45	1	4	22	3	15	-
Honduras	237	-	8	8	35	185	1
Mexico	1 427	35	119	194	329	724	26
Nicaragua	353	1	7	23	55	264 ^{b)}	3
Panama	327	1	8	31	49	228	10
Paraguay	472	2	8	42	89	325	6
Peru	230	4	-	32	38	150	6
Trinidad and Tobago	92	-	1	1	2	88 ^{b)}	-
Venezuela	521	2	-	32	58	374	55
British Honduras	19 (5)	-	1	-	3 (1)	15 (4)	-
French Guiana	77	-	11	3	8	55	-
Surinam	15	-	1	5	3	4	2
Total	14 857 (86)	93	305	1 298	2 393 (1)	10 554 (85)	214

a) Performing activities as evaluation inspectors.

b) Includes personnel from the larviciding program.

c) Includes 8 Chiefs of zone with functions as spraying supervisors and drug distributors.

Table 15
 PERSONNEL EMPLOYED IN EPIDEMIOLOGICAL EVALUATION OPERATIONS IN MALARIA ERADICATION
 PROGRAMS IN THE AMERICAS - 31 DECEMBER 1969
 (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	194	2	1	3	2	30	134 ^{a)}	22
Bolivia	111	8	4 ^{b)}	2	6	3	79 ^{a)}	13
Brazil	2 467	51	48	48	103	(c)	1 926	291
Colombia	1 022	13	3	1	3	123 ^{a)}	824 ^{a)}	55
Costa Rica	170	2	-	3	2	9 ^{a)}	134 ^{a)}	20
Cuba	261	-	-	-	-	-	200	61
Dominican Republic	214	2	1	3	4	26	142	36
Ecuador	195	9	2	6	4	-	141	33
El Salvador	744	6	1	10	12	113	541	61
Guatemala	513 (3)	4	1	11	6	23 ^{a)}	437 ^{a)}	31 (3)
Guyana	34 (1)	(1)	-	-	3	-	25	6
Haiti	354	10	-	10	11	217 ^{a)}	59	46
Honduras	505	3	-	7	17	61 ^{a)}	353 ^{a)}	64
Jamaica	66	3 ^{d)}	1	35	1	14	-	12
Mexico	1 708	54	1	8	14	89	1 408	126
Nicaragua	692	3	9	29	15	78 ^{a)}	516 ^{a)}	50
Panama	183	1	1	5	7	14	135	20
Paraguay	86	5	2	5	12	-	45	17
Peru	295	5	4	1	25	15	222 ^{a)}	23
Trinidad and Tobago	121	2	1	39	1	1	70	7
Venezuela	489	21	2	16	9	85	298	58
British Honduras	11 (1)	(1)	-	-	-	1	9	1
Dominica	9 (1)	(1)	-	-	-	4	4	1
French Guiana	7	1	1	2	-	1	-	2
Guadeloupe	7 (4)	1 (1)	-	-	-	-	-	(3)
St. Lucia	3 (1)	-	-	-	-	1 (1)	1	1
Surinam	45	1	-	-	3	4	30	7
Total	10 506 (11)	207 (4)	80	244	260	912 (1)	7 739	1 064 (6)

a) Includes personnel with same category from mass drug distribution activities.

b) Including 38 malar-iologists.

c) Performing activities as Sector Chiefs also.

d) 2 Scientific Officers.

Table 16
 PERSONNEL EMPLOYED IN ADMINISTRATIVE AND OTHER SERVICES IN MALARIA ERADICATION PROGRAMS
 IN THE AMERICAS - 31 DECEMBER 1969
 (Part-time personnel in parentheses)

Country or other political unit	Total	Adminis- trators	Adminis- trative Assistants	Accountants	Disbursing Officers	Storekeepers	Storekeepers' Assistants	Secretaries	Other
Argentina	111	5	70	-	5	3	6	1	21
Bolivia	57	7	3	1	1	1	2	7	35
Brazil	1 904	76	1 231	1	1	-	-	45	550
Colombia	303	19	20	6	15	20	7	81	135
Costa Rica	43	2	3	1	5	2	3	4	23
Dominican Republic	44	1	4	1	-	2	2	2	32
Ecuador	105	5	1	5	7	3	4	20	60
El Salvador	78	1	15	-	1	2	4	8	47
Guatemala	107	1	3	5	3	1	4	21	69
Guyana	23	-	-	-	1	1	-	1	21
Haiti	121	7	4	3	4	5	5	9	84
Honduras	71	2	22	1	-	1	2	7	36
Jamaica	23	1	2	-	-	1	1	3	15
Mexico	511	12	259	3	12	13	20	122	70
Nicaragua	78	7	11	6	-	7	8	13	26
Panama	77	2	17	3	-	1	2	8	44
Paraguay	48	1	6	1	3	1	3	3	30
Peru	79	4	23	5	-	7	5	14	21
Trinidad and Tobago	50	1	1	1	-	2	2	1	42
Venezuela	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
British Honduras	4	1	-	-	-	-	-	2	1
Canal Zone	(36)	-	-	-	-	-	-	-	(36) ^{b)}
Dominica	(1)	(1)	-	-	-	-	-	-	-
French Guiana	3	-	-	-	-	-	-	2	1
Puerto Rico	(27)	-	-	-	-	-	-	-	(27) ^{b)}
Surinam	18	1	2	-	1	2	2	-	10
Total	3 858 (64)	156 (1)	1 697	43	58	75	82	374	1 373 (63)

a) Services performed by personnel of the "Dirección de Malariaología y Saneamiento Ambiental", in charge of different programs of environmental sanitation.

b) Performing different activities of malaria control.

Table 17

PERSONNEL EMPLOYED IN TRANSPORT SERVICES IN MALARIA ERADICATION PROGRAMS
IN THE AMERICAS - 31 DECEMBER 1969
(Part-time personnel in parentheses)

Country or other political unit	Total	Transport Chiefs, mechanics and assistant mechanics	Drivers	Motorboat operators	Boatmen
Argentina	83	30	46	-	7
Bolivia	21	-	9	7	5
Brazil	1 458	365	794	119	180
Colombia	445	98	98	195	54
Costa Rica	25	11	14	-	-
Dominican Republic	40	18	22	-	-
Ecuador	81	10	48	-	23
El Salvador	158	41	117	-	-
Guatemala	71	19	52	-	-
Guyana	19	1	5	7	6
Haiti	43	23	12	2	6
Honduras	81	17	63	1	-
Jamaica	37	4	33	-	-
Mexico	151	120	18	13	-
Nicaragua	113	20	74	18	1
Panama	16	10	5	1	-
Paraguay	92	13	74	5	-
Peru	86	22	25	38	1
Trinidad and Tobago	10	-	10	-	-
Venezuela	(a)	(a)	(a)	(a)	(a)
British Honduras	2	2	-	-	-
French Guiana	19	1	7	1	10
St. Lucia	1	-	1	-	-
Surinam	72	3	11	29	29 ^{b)}
Total	3 124	828	1 538	436	322

a) Services performed by personnel of the "Dirección de Malaria y Saneamiento Ambiental" in charge of different programs of environmental sanitation. b) Also function as spraymen and medicated salt distributors.

Table 18
MEANS OF TRANSPORT IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS, 1969

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	
	a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b		a	b
Argentina	2	3	59	50	30	11	7	3	-	-	46	14	5	-	-	-	-	-	-
Bolivia	-	-	3	4	34	8	1	1	-	-	25	23	23	10	-	-	95	-	11
Brazil	66	12	329	74	706	162	48	2	2	1	710	100	339	137	-	-	3 000	61 c)	5
Colombia	10	3	132	8	157	12	19	2	1	143	-	-	175	38	134	11	1 503	95 d)	8 d)
Costa Rica	1	-	18	1	15	-	4	-	19	14	107	42	19	14	16	-	44	2	-
Cuba	-	-	9	10	50	17	-	-	-	-	-	-	-	-	-	-	-	-	-
Dominican Republic	1	-	72	-	2	-	6	-	129	-	-	-	-	-	-	-	71	-	-
Ecuador	2	-	31	14	40	15	6	2	40	-	-	-	30 d)	-	-	-	300	50 e)	20 e)
El Salvador	1	-	52	6	31	8	7	-	119	10	7	1	10	-	6	-	-	-	-
Guatemala	2	-	41	-	37	-	5	-	100	-	200	-	11	-	1	-	-	-	-
Guyana	1	-	1	-	6	2	-	-	6	2	10	-	11	-	3	-	-	-	-
Haiti	-	-	-	54	-	60	-	-	-	-	-	-	-	2	-	-	-	-	-
Honduras	3	1	33	18	35	14	8	2	51	18	10	35	3	1	-	-	209	-	-
Jamaica	-	2	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexico	4	15	243	214	246	151	14	9	-	-	-	-	21	-	-	-	2 202	30 e)	13 e)
Nicaragua	2	-	29	6	30	8	11	1	40	12	5	-	-	16	-	-	-	-	-
Panama	2	-	30	25	23	10	10	1	56	-	-	-	29	15	-	-	-	-	-
Paraguay	2	-	77	11	3	12	18	2	21	3	3	-	13	8	-	-	-	-	-
Peru	2	-	48	-	18	-	66	-	-	3	-	-	118	-	12	-	-	-	-
Trinidad and Tobago ..	-	2	-	-	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	6	-	137	-	93	-	35	-	18	-	333	-	124	-	-	-	635	36 f)	-
British Honduras	1	4	1	7	-	-	1	-	-	-	2	-	7	2	-	-	-	-	-
Canal Zone	-	-	28 g)	-	-	-	-	-	-	-	-	-	28 g)	-	-	-	-	-	-
Dominica	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French Guiana	1	-	1	-	8	-	-	-	-	-	-	-	3	-	-	-	-	-	6 e)
Guadeloupe	-	-	-	-	-	-	2	16 g)	-	-	-	-	-	-	-	-	-	-	-
St. Lucia	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Surinam	1	-	1	2	1	-	6	2	15	-	5	-	12	12	-	-	-	-	-
Total	110	42	1 349	504	1 571	528	274	40	616	91	1 606	314	944	95	377	13	8 059	285	52

a) In good condition. b) In bad condition. c) Airplanes. d) Canoes. e) Out-board motors. f) Fogging machines. g) Part-time.

Table 19
COMPARATIVE RESULTS OF ACTIVE AND PASSIVE CASE DETECTION IN MALARIA ERADICATION PROGRAMS IN THE AMERICAS, 1969

Country or other political unit	Active case detection				Passive case detection				Total			
	Average number of evaluators	Bloods slides			Average number of notification posts	Average of notification producing slides per month	Blood slides		Average of slides per month per notification post	Blood slides		
		Examined	Positive	Per cent			Examined	Positive		Per cent	Examined	Positive
Argentina	130	74 174	168	0.2	47.5	1 020	209	85 004	79	0.09	159 178	247
Bolivia ^{a)}	82	135 723	2 371	1.7	150.5	2 610	419	31 564	1 586	5.0	167 287	3 957
Brazil	1 749	1 599 274	18 780	1.2	76.2	21 755	8 395	540 611	38 171	7.1	2 139 885	56 951
Colombia	743	481 438	18 762	3.9	54.0	9 967	5 262	286 428	20 673	7.2	787 866	39 435
Costa Rica	127	188 062	337	0.2	123.4	1 191	255	14 300	351	2.5	202 362	688
Cuba	213	171 565	0	0	67.2	2 053	469	575 162	3	0.0	746 827	3
Dominican Republic	141	410 243	81	0.02	242.5	481.4	2 373	219 432	43	0.01	629 695	124
Ecuador	113	88 145	1 721	2.0	65.0	5 737	3 763	333 505	49 236	14.8	421 650	50 957
El Salvador	104	539 767	5 391	1.0	432.5	2 588	2 141	319 149	19 908	6.2	858 916	25 299
Guatemala	88	305 268	5 709	1.9	289.1	3 808	2 173	216 068	4 785	2.2	521 336	10 494
Guyana	19	47 113	13	0.03	206.6	175	26	23 008	12	0.05	70 121	25
Haiti	96	513 911	3 463	0.7	446.1	6 556	2 620	172 256	1 542	0.9	686 167	5 005
Honduras	141	337 338	13 140	3.9	199.4	2 822	1 909	254 206	16 444	6.5	591 544	29 584
Jamaica	...	44 389	0	0	-	...	...	9 838	0	0	54 227	0
Mexico	1 986	2 170 042	29 520	1.4	95.9	43 542	5 758	354 018	22 606	6.4	2 524 060	52 126
Nicaragua	162	316 692	7 837	2.5	162.9	3 279	1 652	181 427	8 206	4.5	488 119	16 043
Panama	42	66 962	3 457	5.2	132.9	1 913	230	27 634	2 481	9.0	94 596	5 938
Paraguay	37	18 452	605	3.3	41.6	2 186	1 118	111 057	9 702	8.7	129 509	10 307
Peru	160	159 643	1 666	1.0	83.1	5 341	1 427	103 701	1 502	1.4	263 344	3 168
United States of America	-	-	-	-	-	...	...	1572 ^{b)}	3 315	-	1 572	3 315
Trinidad and Tobago	70	15 997	0	0	19.0	...	...	26 275	5	0.02	42 272	5
Venezuela	307	236 057	5 465	2.3	64.1	2 284	696	232 101	3 195	1.4	488 158	8 660
British Honduras	10	8 007	7	0.09	66.7	129	43	4 187	21	0.5	12 194	28
Caral Zone	...	1 654	2	0.1	...	...	...	30 222	156	0.5	31 876	158
Dominica	2	2 222	0	0	92.6	26	3	557	0	0	2 779	0
French Guiana	-	-	-	-	-	10	...	7 000	52	0.7	7 000	52
Grenada ^{c)}	-	-	-	-	-	...	...	980	0	0	980	0
Guadeloupe	...	17 320	0	0	...	...	...	92	0	0	17 412	0
Puerto Rico	...	-	-	-	...	...	...	4	4	100.0	4	4
St. Lucia	2	12 048	0	0	502.0	...	...	-	-	-	12 048	0
Surinam	32	28 400	293	1.0	74.0	77	10	9 794	448	4.6	38 194	741
Total	6 456	7 990 006	118 788	1.5	103.1	123 889	40 951	4 171 172	204 526	5.0	12 161 178	323 314

... No information.
a) November. b) Includes only those slides examined at NCDC. c) June.

Table 20

**NATIONAL EXPENDITURES 1968-1969 AND BUDGET 1970
FOR MALARIA ERADICATION IN THE AMERICAS**

(In thousands of U. S. dollars)

Country	National expenditures 1968	National Expenditures 1969			National Budget, 1970		
		Internal financing	Loans AID	Total	Internal financing	Loans AID	Total
Argentina	1 008	879	-	879	296 ^{a)}	-	296 ^{a)}
Bolivia	316	296	-	296	362	-	362
Brazil	14 435 ^{b)}	13 374	1 901	15 275	14 762	1 850	16 612
Colombia	2 968	3 531	-	3 531	3 446	-	3 446
Costa Rica	736 ^{c)}	534	299	833	491	274	765
Cuba	1 213	1 000	-	1 000	1 000	-	1 000
Dominican Republic ..	782	782	-	782	782	-	782
Ecuador	1 126 ^{d)}	852	550	1 402	853	550	1 403
El Salvador	1 403 ^{e)}	868	697	1 565	868	780	1 648
Guatemala	1 657 ^{f)}	982	577	1 559	978	485	1 463
Guyana	75	102	-	102	95	-	95
Haiti	1 622 ^{g)}	35	1 100 ^{h)}	1 135	35	1 400 ^{h)}	1 435
Honduras	1 228 ⁱ⁾	833	443	1 276	775	502	1 277
Jamaica	297 ^{j)}	297 ^{j)}	-	297 ^{j)}	297 ^{j)}	-	297 ^{j)}
Mexico	6 042	6 628	-	6 628	6 869	-	6 869
Nicaragua	1 845 ^{k)}	641	1 270	1 911	1 344 ^{l)}	1 003 ^{m)}	2 347
Panama	647	662	171	833	771	726	1 497
Paraguay	492 ⁿ⁾	384	521	905	574	440	1 014
Peru	902	733	-	733	1 145	-	1 145
Trinidad and Tobago	415	450	-	450	559	-	559
Venezuela	5 245	5 068	-	5 068	5 604	-	5 604
British Honduras	98	120	-	120	125	-	125
French Guiana	205	292	-	292	270	-	270
Surinam	275	294	-	294	319	-	319
Total	45 027	39 637	7 529	47 166	42 620	8 010	50 630

a) Does not include personnel salaries. b) Includes \$194 484 from AID loan. c) Includes \$255 101 from AID loan. d) Includes \$515 515 from AID loan. e) Includes \$803 160 from AID loan. f) Includes \$509 440 from AID loan. g) Includes \$1 587 000 from AID grant. h) AID grant. i) Includes \$875 926 from AID loan. j) Includes general mosquito control program. k) Includes \$1 200 215 from AID loan. l) Includes \$580 457 not yet approved. m) \$573 695 from AID loan and \$429 289 in negotiation. n) Includes \$70 431 from AID loan.

Table 21

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION PROGRAMS
IN THE AMERICAS^{a)}

	1969 ^{b)}	1970 ^{c)}	1971 ^{c)}	1972 ^{c)}
TOTAL COST	43 957 778	50 972 252	50 672 898	52 493 993
GOV. AND OTHER SOURCES	41 351 000	48 395 500	48 188 770	50 068 570
PAHO/WHO PORTION:				
Personnel costs and travel	2 169 094	1 976 177	1 954 762	1 854 595
Supplies and equipment	396 991	475 800	427 586	473 670
Fellowships	16 531	26 400	23 800	21 000
Grants and others	24 162	98 375	77 980	76 158
SUB-TOTAL PAHO/WHO	2 606 778	2 576 752	2 484 128	2 425 423

SOURCES OF PAHO/WHO FUNDINGS

SOURCE	1969 ^{b)}	1970 ^{c)}	1971 ^{c)}	1972 ^{c)}
PAHO-Reg.	641 246	876 458	1 036 458	1 233 432
PAHO-SMF	1 142 862	1 111 991	873 410	664 070
WHO-Reg.	793 377	492 303	478 260	479 921
WHO-TA	29 293	96 000	96 000	48 000
TOTAL	2 606 778	2 576 752	2 484 128	2 425 423

PAHO/WHO PERSONNEL

CATEGORY	1969	1970	1971	1972
Medical Officer	38	34	33	34
Sanitary Engineer	12	10	9	9
Entomologist	8	6	6	5
Parasitologist	2	2	2	2
Epidemiologist	1	1	1	1
Economist	1	1	1	1
Statistician	-	1	1	1
Programmer Analyst	1	-	1	1
Adm. Methods Officer	4	4	3	2
Assistant Engineer.....	1	1	1	-
Laboratory Adviser	1	1	1	1
Sanitary Inspector	42	28	23	12
Other	17	16	15	16
TOTAL	128	105	97	85

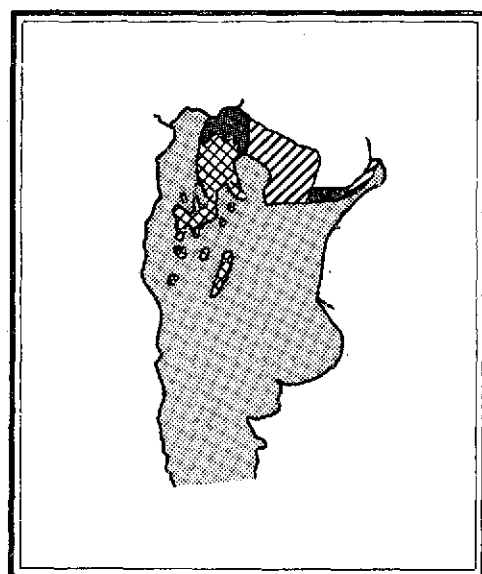
a) Figures shown include all malaria eradication country projects, AMRO projects, supporting personnel in Zone offices and Malaria Eradication Department. They do not include activities in countries or territories entirely in maintenance phase, nor those of Venezuela.

b) Expenditures.

c) Estimated requirements.

ARGENTINA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	23 440	4 024 458
Non malarious areas	20 453	3 675 407
Originally malarious areas		
Maintenance phase	1 648	111 661
Consolidation phase	432	79 624
Attack phase	907	157 766
Preparatory phase	-	-
Total originally malarious areas	2 987	349 051

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	94	96
Evaluation operations	2	192	194
Administrative and other	-	111	111
Transport	-	83	83
Total	4	480	484

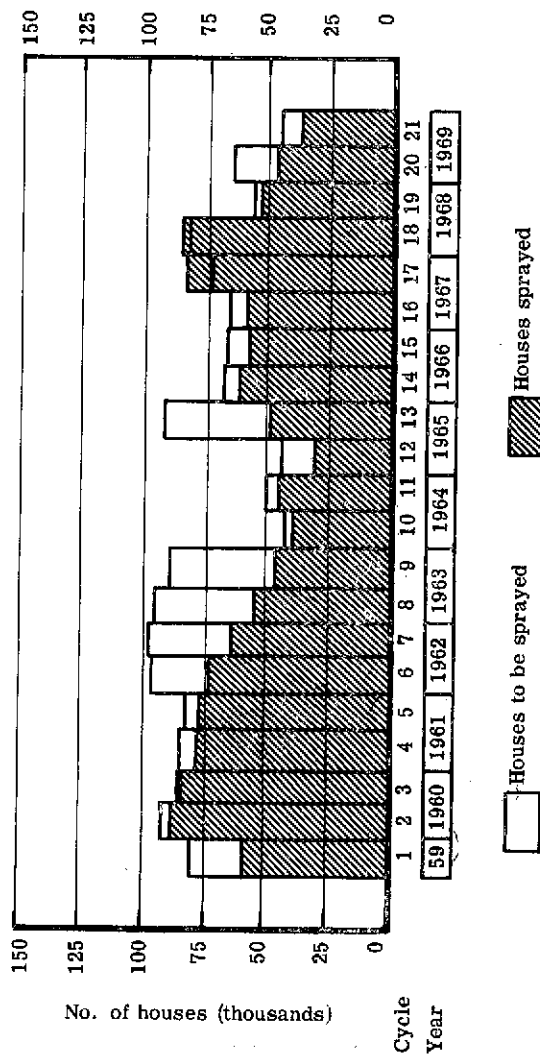
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	37	64	64	165
Two-wheel vehicles	-	58	2	60
Boats	-	-	5	5
Animals	-	-	-	-
Other	-	-	-	-
Total	37	122	71	230

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 man/day
			Planned	Sprayed	Planned	Protected		
1st	Aug. 59-Jun. 60	1st	81 619	57 995 ^{a)}	288 768	205 189	263	...
		2nd	92 438	88 079 ^{a)}	347 012	330 733	255	...
2nd	Jul. 60-Jul. 61	3rd	84 011	84 929 ^{a)}	323 610	327 209	305	...
		4th	84 077	76 991 ^{a)}	308 142	282 178	334	...
3rd	Aug. 61-Jun. 62	5th	81 906	75 734 ^{a)}	303 290	280 425	383	...
		6th	96 249	73 027	341 780	259 379	349	...
4th	Jul. 62-Jun. 63	7th	97 908	63 967	351 098	229 432	353	...
		8th	95 552	54 742 ^{a)}	318 288	182 273	329	...
5th	Jul. 63-Jun. 64	9th	90 333	46 627	317 972	164 420	320	...
		10th	43 572	39 430	135 574	122 685	324	...
6th	Jul. 64-Jun. 65	11th	50 322	44 972	172 313	153 995	302	...
		12th	43 927	30 236	138 809	95 417	302	15.7
7th	Jul. 65-Jun. 66	13th	90 224	48 428	327 495	175 788	416	21.1
		14th	66 853	60 220	217 492	195 913	366	19.2
8th	Jul. 66-Jun. 67	15th	65 304	57 484	227 149	199 949	403	12.0
		16th	65 340	58 707	228 690	205 885	462	20.8
9th	Jul. 67-Jun. 68	17th	72 836	83 306	...	292 874	473	21.5
		18th	82 490	83 866	412 000	290 444	481	23.0
10th	Jul. 68-Jun. 69	19th	55 730	54 382	278 000	194 479	454	23.3
		20th	64 705	46 404	207 060	160 922	468	...
11th	Jul. 69-Dec. 69	21st	45 571	38 355	157 190	137 817	479	...

a) Some houses were sprayed once a year.



ARGENTINA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
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
1966	89 065	300	0.3	-	300	-
1967	111 917	1 512	1.4	-	1 511	1
1968	61 601	418	0.7	-	418	-
1969	40 027	69	0.2	-	69	-

CONSOLIDATION PHASE AREAS

Year	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						
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>		
						from abroad	from areas within country								
1959 a)	911	9 491 a)	2.5	51	-	32	-	-	19	-	-	-	-	-	-
1960 b)	929	14 438	1.5	26	-	14	-	-	12	-	-	-	-	-	-
1961 b)	1 276	44 395	3.5	17	2	5	-	-	10	-	-	-	-	-	-
1962 b)	1 542	39 675	2.6	23	10	5	-	1	7	-	-	-	-	3	-
1963 b)	1 584	60 742	3.8	11	-	6	-	2	1	-	-	-	-	2	-
1964 c)	1 648	41 926 c)	5.1	10	-	7	-	-	2	-	-	-	-	10	-
	627	24 415 d)	7.8	1	-	-	-	-	-	-	-	-	-	1	-
1965	449	92 658	20.6	41	-	8	-	3	7	-	-	-	-	38	-
1966	454	71 346	15.7	56	1	26	-	1	-	-	-	-	-	56	-
1967	387	82 208	21.2	53	1	1	-	-	-	-	-	-	-	52	-
1968	423	75 300	17.8	126	-	6	-	-	-	-	-	-	-	126	-
1969	432	41 693	9.7	165	16	-	-	-	2	-	-	-	-	165	-

a) August-December. b) Including maintenance phase area. c) First semester includes maintenance phase. d) Includes one cryptic case.

ARGENTINA (Cont.)

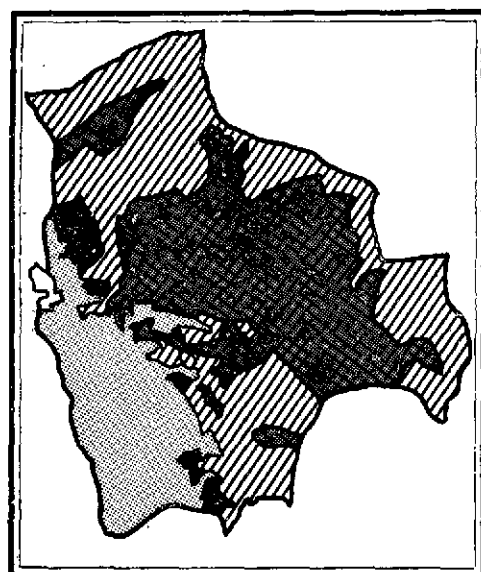
MAINTENANCE PHASE AREAS

Year	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					
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>	
1964 ^{a)}	1 021	12 698 ^{a)}	2.5	-	-	-	-	-	-	-	-	-	-	-	-
1965	1 356	32 351	2.4	-	-	-	-	-	-	-	-	-	-	-	-
1966	1 381	50 870	3.7	55	4	1	7	2	1	-	53	2	-	-	-
1967	1 477	65 210	4.4	55	1	1	1	2	-	1 ^{b)}	54	1	-	-	-
1968	1 631	103 958	6.4	35	-	-	7	-	-	1	35	-	-	-	-
1969	1 648	77 458	4.7	13	-	1	3	-	7	1	13	-	-	-	-

a) July-December. b) Cryptic case.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

BOLIVIA



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>4 822</u>	<u>1 098 581</u>
Non malarious areas	<u>3 293</u>	<u>277 235</u>
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	<u>1 174</u>	<u>424 364</u>
Attack phase	<u>355</u>	<u>396 982</u>
Preparatory phase	-	-
Total originally malarious areas	<u>1 529</u>	<u>821 346</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	48 (81)	48 (81)
Evaluation operations	9	102	111
Administrative and other	-	57	57
Transport	-	21	21
Total	9	228 (81)	237 (81)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	2	36	13	51
Two-wheel vehicles	-	47	31	78
Boats	14	16	3	33
Animals	29	66	-	95
Other	24	24	24	72
Total	69	189	71	329

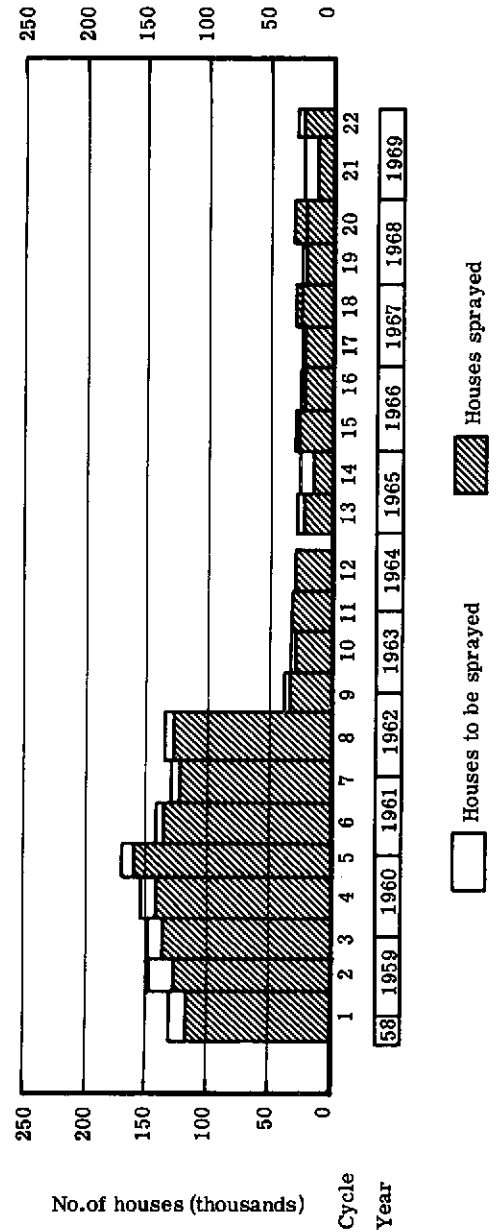
(Part-time personnel in parentheses)

BOLIVIA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed								Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT				Dieldrin				Planned	Protected	DDT	Dieldrin	
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed	Sprayed						
									Cycle	Planned	Sprayed			
1st	Sep. 58-Aug. 59	131 444	116 572	10 910	1st	6 365	10 910	627 362	556 190	362	115	8.3		
2nd	Sep. 59-Aug. 60	148 200	129 119		2nd	11 331	12 268	691 820	627 210	331		7.0		
		147 263	136 601					695 521	634 859	319	118	7.6		
3rd	Sep. 60-Aug. 61	153 514	142 536					692 274	660 185	309		7.2		
		169 690	159 952					742 902	700 295	331		7.6		
4th	Sep. 61-Sep. 62	142 210	134 173					612 356	577 743	329		7.5		
		129 600	124 623					546 005	524 986	353		7.9		
5th	Oct. 62-Sep. 63	135 474	128 898					551 785	525 005	359		8.6		
		32 561	34 469					124 643	131 962	408		6.0		
6th	Oct. 63-Sep. 64	32 361	28 893					110 578	98 727	428		5.9		
		32 361	32 160					123 923	123 152	533		5.3		
7th	Jan. 65-Dec. 65	28 536	27 509					101 503	97 855	547		5.6		
		26 941	24 634					96 020	87 799	557		5.3		
8th	Jan. 66-Dec. 66	27 130	29 752					94 987	57 671	575		4.1		
		27 130	23 839					97 375	106 787	588		4.7		
9th	Jan. 67-Dec. 67	24 161	24 733a)					100 023	87 890	617		4.6		
		24 992	30 254a)					86 980	82 565a)	654		4.9		
10th	Jan. 68-Dec. 68	24 156	20 861a)					89 971	90 813a)	584		4.5		
		21 387	32 353a)					80 075	79 631a)	543		6.1		
11th	Jan. 69-Dec. 69	23 861	14 715a)					70 897	95 240a)	609		4.7		
		28 189	23 035a)					84 112	55 933a)	513		7.4		

a) Includes emergency sprayings.



BOLIVIA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	150 800	845	0.6	136	709	-
1966	133 735	1 005	0.8	188	817	-
1967	113 500	811	0.7	95	716	-
1968	97 986	1 170	1.2	288	882	-
1968 ^b)	119 625	3 024	2.5	716	2 308	-

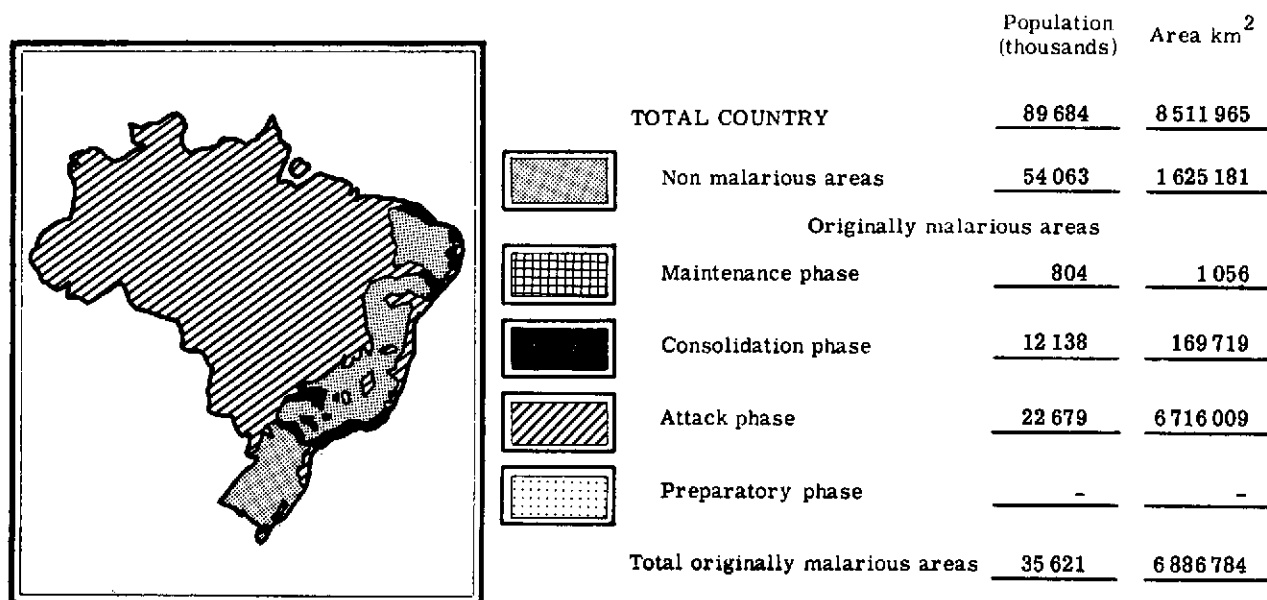
CONSOLIDATION PHASE AREAS

Year	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				
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
						Autogenous	from abroad							from areas within country
1961	461	11 975	2.6	14	1	5	7	-	-	14	-	-	
1962 ^c)	759	18 131 ^c)	3.2	21	-	2	19	-	-	21	-	-	
1963 ^c)	1 179	58 587 ^c)	7.4	104	18	-	73	-	2	100	4	-	
1964	1 141	66 207	5.8	452	154	5	21	-	-	430	20	2	
1965	1 173	119 954	10.2	96	50	8	22	-	-	92	2	2	
1966	1 202	126 410	10.5	368	209	-	59	-	-	342	26	-	
1967	1 214	101 037	8.3	631	269	1	26	-	-	526	105	-	
1968	1 245	89 639	7.2	828	499	13	52	-	-	644	184	-	
1968 ^b)	1 174	47 662	4.4	933	463	13	33	-	-	833	100	-	

a) September-December. b) November. c) January-September. d) Includes 1 congenital case.

BRAZIL

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	32	7 849	7 881
Evaluation operations	102	2 365	2 467
Administrative and other	3	1 901	1 904
Transport	-	1 458	1 458
Total	137	13 573	13 710

TRANSPORT FACILITIES^{a)}

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	1 397	1 397
Two-wheel vehicles	-	-	810	810
Boats	-	-	476	476
Animals	-	-	3 000	3 000
Other	-	-	5	5
Total	-	-	5 688	5 688

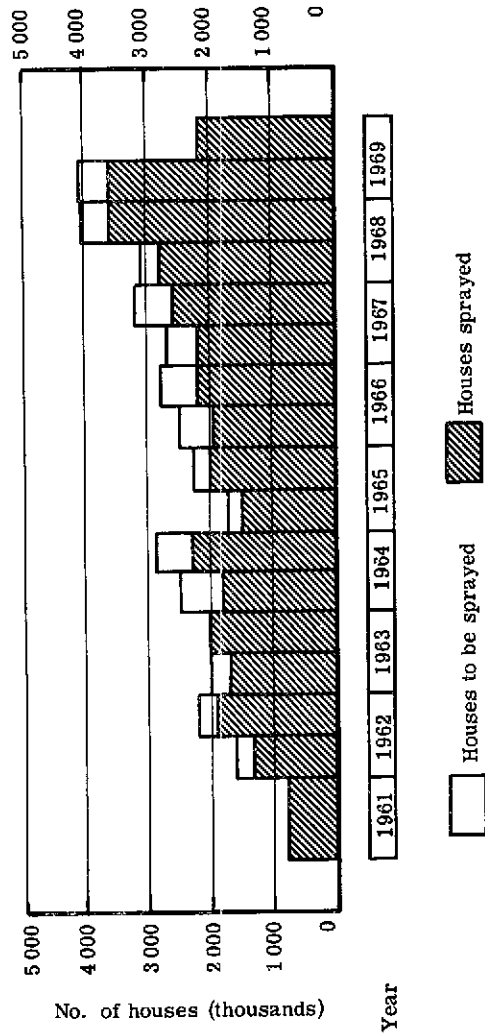
a) Transport facilities are used in epidemiological evaluation and spraying operations activities.

BRAZIL (Excl. São Paulo)

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 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	...
(a)	Jul. 62-Dec. 62	...	2 292 000	1 960 858	9 724 956	8 317 433	420	...
(a)	Jan. 63-Jun. 63	...	2 062 265	1 726 289	8 574 698	7 178 751	407	...
(a)	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
(a)	Jul. 64-Dec. 64	...	2 993 954	2 350 055	12 310 241	9 662 834	419	7.7
(a)	Jan. 65-Jun. 65	...	1 798 354	1 588 551	7 361 157	6 488 902	414	7.7
(a)	Jul. 65-Dec. 65	...	2 388 893	2 092 159	9 364 460	8 201 391	413	7.6
(a)	Jan. 66-Jun. 66	...	2 556 302	1 925 160	9 829 492	7 402 533	408	7.8
(a)	Jul. 66-Dec. 66	...	2 800 000	2 241 208	10 900 000	8 724 032	389	7.4
(a)	Jan. 67-Jun. 67	...	2 741 666	2 276 072	10 323 308 ^{c)}	8 833 213	421	7.7
(a)	Jul. 67-Dec. 67	...	3 244 299	2 673 073	12 328 336 ^{c)}	10 459 348	447	7.4
(a)	Jan. 68-Jun. 68	...	3 187 958	2 820 339	12 434 919	10 931 796	439	7.5
(a)	Jul. 68-Dec. 68	...	4 077 323	3 682 956	15 899 767	14 721 063	453	7.3
(a)	Jan. 69-Jun. 69	...	4 079 989	3 601 762	...	14 279 724	438	7.6
(a)	Jul. 69-Dec. 69	...	2 232 487	2 266 725	...	8 906 772	437	7.7

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 PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	1 549 679	108 687	7.01	51 007	57 573	107
1966 ^{b)}	1 493 309	106 655	7.14	57 349	49 060	246
1967	1 516 120	100 919	6.66	56 681	44 014	224
1968 ^{c)}	1 336 101	79 154	5.92	43 232	35 687	235
1969	1 390 046	55 799	4.01	30 866	24 785	148

CONSOLIDATION PHASE AREAS

Year	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					
					Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	P. falciparum	P. vivax	P. malar-iae	
						Autochthonous	from abroad							from areas within country
1965	1 439	132 231	9.2	70	1	1	-	60	-	-	8	14	56	-
1966 ^{d)}	2 541	162 102 ^{d)}	8.5	228	54	7	-	98	-	-	69	34	194	-
1967	6 000	426 185	7.1	586	171	65	-	157	3	4	186	209	377	-
1968 ^{c)}	5 926	537 347	9.1	1 148	261	11	4	542	3	17	310	591	556	1
1969	6 380	554 881	8.7	252	63	2	-	60	2	-	125	100	150	2

MAINTENANCE PHASE AREAS

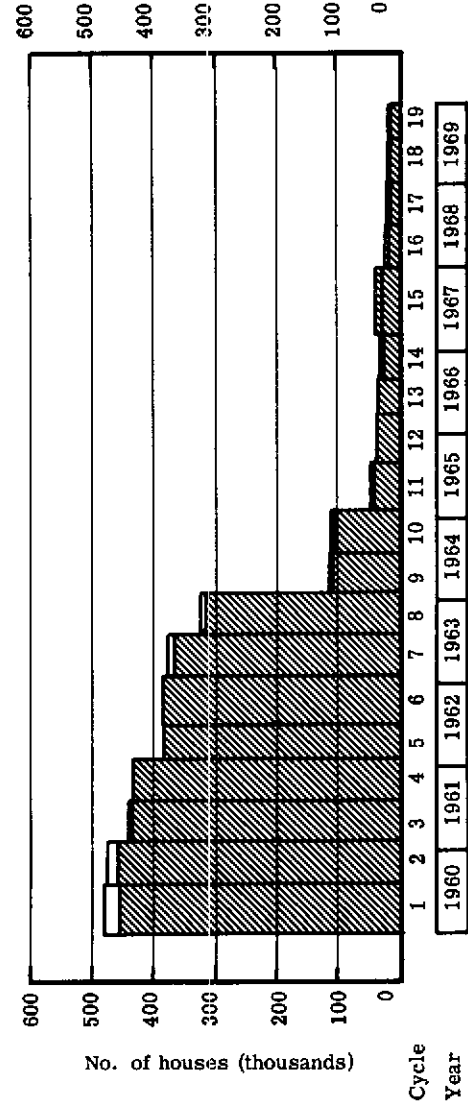
1966 ^{d)}	733	22 161 ^{d)}	4.0	7	-	-	-	7	-	-	-	3	3	1
1967	756	23 588	3.1	9	1	-	-	8	-	-	-	2	7	-
1968 ^{c)}	780	19 690	2.5	10	-	-	-	10	-	-	-	-	10	-
1969	804	21 495	2.7	5	-	-	-	4	-	-	1 ^{e)}	1	4	-

a) Includes 1 005 undifferentiated mixed infections from Espírito Santo Sector. b) Includes 4th quarter for areas in consolidation and maintenance phases. c) Data for last 2 months not separated by phase. d) January-September. e) Cryptic case.

BRAZIL (S3o 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 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	316 231	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-Mar. 66	11th	43 711	43 313	171 413	169 855	436	8.3
		12th	36 050	35 766	139 550	138 459	412	7.8
7th	Mar. 66-Jan. 67	13th	35 646	33 407	134 850	126 375	405	8.1
		14th	32 523	29 923	123 424	114 484	393	7.8
8th	Jul. 66-Jun. 67	15th	32 450	42 379	123 310	142 370	388	8.6
		16th	22 252	23 910	...	170 314	426	8.5
9th	Jan. 68-Jun. 68	17th	22 252	18 292	...	77 154	401	9.3
		18th	22 522	20 628	86 000	67 973	441	8.0
10th	Jul. 68-Jul. 69	19th	22 246	18 628	80 000	62 515	408	8.8



BRAZIL (Sgo Paulo) (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

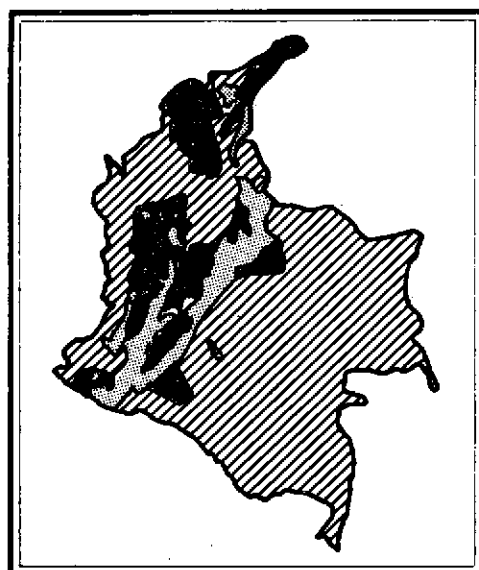
Year	Slides examined		Species found			
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1960	114 622	8 297	7.2	66	8 230	1
1961	208 502	7 276	3.5	258	7 015	3
1962a)	370 667	3 689	1.0	227	3 459	3
1963a)	384 993	2 207	0.6	427	1 778	2
1964	227 608	1 295	0.6	235	1 060	-
1965	52 554	858	1.6	140	717	1
1966	37 502	758	2.0	108	650	-
1967	90 194	1 067	1.2	269	796	2
1968	65 264	434	0.7	205	229	-
1969	35 064	374	1.1	169	204	1

CONSOLIDATION PHASE AREAS

Year	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					
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae	
						Autogenous	from abroad							from areas within country
1964	2 183	307 014	14.1	476	21	15	-	402	-	9	29	69	407	-
1965	3 766	140 491	3.7	691	29	3	-	599	6	10	44	112	579	-
1966	3 974	139 865	3.5	982	295	9	2	622	2	5	47	234	747	1
1967	5 152	95 383	1.9	261	43	1	-	199	2	13	3	105	154	2
1968	5 152 ^{b)}	123 277	2.4	578	99	1	4	426	1	1	46	261	317	-
1969	5 758	138 399	2.4	521	100	-	-	376	2	16	27	210	311	-

a) Data for entire State, not separated by attack or consolidation phase. b) 1967 population.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

COLOMBIA

	Population (thousands)	Area km ²
TOTAL COUNTRY	21 049	1 138 914
Non malarious areas	8 586	168 065
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	8 580	114 832
Attack phase	3 677	831 391
Preparatory phase	206	24 626
Total originally malarious areas	12 463	970 849

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	8	1 172	1 180
Evaluation operations	13	1 009	1 022
Administrative and other	18	285	303
Transport	-	445	445
Total	39	2 911	2 950

TRANSPORT FACILITIES

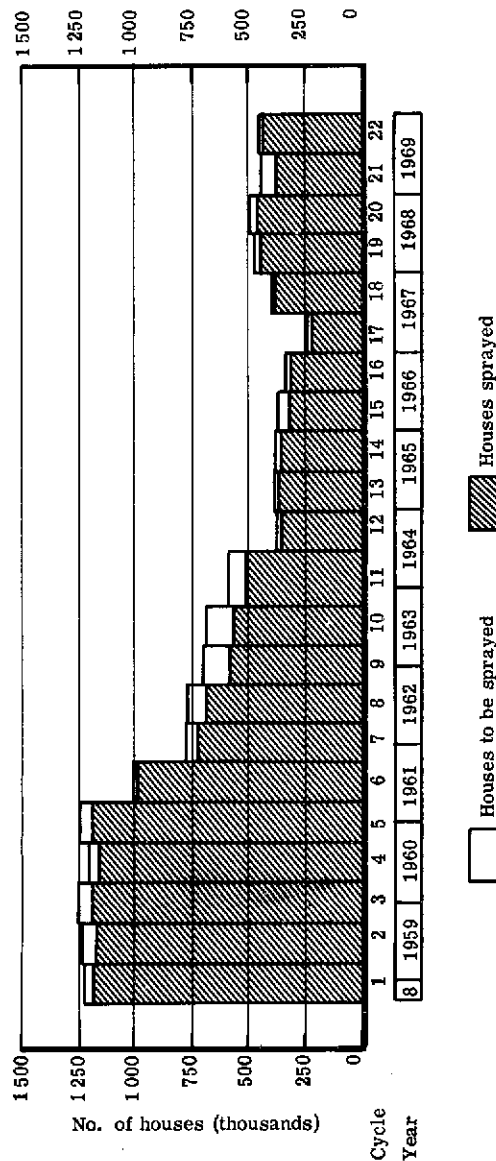
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	100	53	190	343
Two-wheel vehicles	1	126	19	146
Boats	149	133	66	348
Animals	703	711	89	1 503
Other	47	37	19	103
Total	1 000	1 060	383	2 443

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 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 501a)	5 320 016	4 788 305	402	9.3
4th	Oct. 61-Sep. 62	7th	796 056	738 459a)	3 997 793	3 708 400	408	8.9
		8th	739 339	693 315a)	3 923 049	3 449 630	421	8.8
5th	Oct. 62-Sep. 63	9th	701 762	586 740b)	3 440 739	2 876 514	435	8.4
		10th	690 726	576 540b)	3 363 145	2 806 950	459	7.9
6th	Oct. 63-Dec. 64	11th	582 580	508 501b)	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
8th	Jan. 66-Dec. 66	15th	375 005	339 962	1 705 523	1 546 160	572	5.3
		16th	342 605	337 266	1 577 353	1 552 673	590	5.4
9th	Jan. 67-Dec. 67	17th	343 363	340 212	1 545 133	1 543 350	595	5.3
		18th	409 174	401 683	1 923 118	1 895 349	534	5.3
10th	Jan. 68-Dec. 68	19th	484 075	449 431	2 294 006	2 120 499	567	5.4
		20th	502 051	467 461c)	2 375 849	2 285 575	455	5.3
11th	Jan. 69-Dec. 69	21st	463 187	397 427d)	2 141 790	1 813 709	529	5.5
		22nd	464 692	451 315d)	2 146 877	2 088 882	532	5.5

a) Some houses were sprayed in annual cycles. b) Some houses were sprayed in cycles of one, three and four times a year. c) Beginning September some houses were sprayed with 1 g. per m². d) In addition, 82 377 houses were sprayed in quarterly cycles and 34 988 houses in consolidation phase.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
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	174 664	14 729	8.4	9 591	5 125	13
1966	293 472	17 538	6.0	10 392	7 135	11
1967	391 566	22 416	5.7	13 167	9 188	61
1968	477 495	24 869	5.2	14 798	10 050	21
1969	351 586	34 335	9.8	21 237	13 081	17

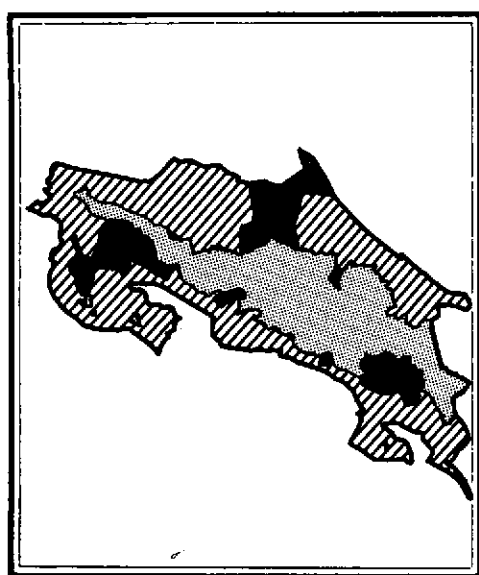
CONSOLIDATION PHASE AREAS

Year	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			
					Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malar-iae</u>
						tochtho-nous	from abroad							from areas within country
1962 ^{a)}	3 027	70 250 ^{a)}	3.1	147	48	-	72	5	-	18	99	48	-
1963	5 305	120 814	2.3	450	83	-	279	7	7	73	262	188	-
1964	6 653	178 468	3.0	1 214	224	1	774	-	27	188	578	635	1
1965	7 071	316 044	4.5	3 548	464	13	2 129	8	4	928	2 002	1 543	3
1966	8 193	362 425	4.4	4 597	1 007	23	2 477	3	22	1 062	2 120	2 475	2
1967	8 127	435 945	5.4	4 217	1 274	26	2 075	4	31	804	2 459	1 756	2
1968	7 803	381 362	4.9	2 464	419	22	1 609	2	14	393	1 166	1 294	4
1969	8 680	416 280	4.9	5 100	457	37	3 302	5	8	1 291	2 855	2 245	-

a) April-December.

COSTA RICA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	1 705	50 900
Non malarious areas	1 180	15 454
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	87	8 451
Attack phase	433	26 995
Preparatory phase	-	-
Total originally malarious areas	520	35 446

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	150	150
Evaluation operations	3	167	170
Administrative and other	5	38	43
Transport	-	25	25
Total	8	380	388

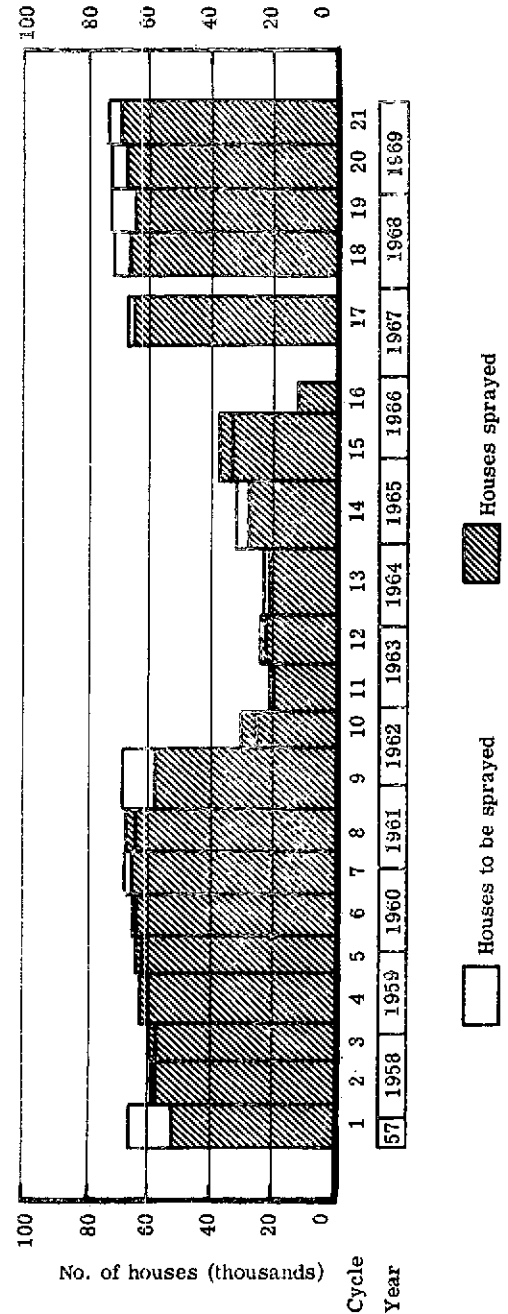
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	30	2	7	39
Two-wheel vehicles	151	31	-	182
Boats	40	9	-	49
Animals	24	20	-	44
Other	2	-	-	2
Total	247	62	7	316

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 man/day
			Planned	Sprayed	Planned	Protected		
1st	Jul. 57-Aug. 58	1st	67 059	53 297	331 070	263 123	464	5.1
		2nd	58 641	58 634	287 634	287 537	419	7.4
2nd	Sep. 58-Sep. 59	3rd	58 858	60 800	282 930	292 856	465	6.9
		4th	60 413	63 063	290 405	303 151	531	7.1
3rd	Oct. 59-Sep. 60	5th	63 259	63 884	302 568	305 586	512	8.6
		6th	64 057	66 961	302 926	316 629	475	9.3
4th	Oct. 60-Sep. 61	7th	68 300	66 242	317 185	307 601	473	9.4
		8th	65 567	68 277	307 903	320 603	485	9.2
5th	Oct. 61-Dec. 62	9th	69 643	58 910	332 545	281 295	492	8.8
		10th	26 075	30 684	120 753	142 102	508	9.6
6th	Jan. 63-Feb. 64	11th	21 582	21 443	99 300	99 083	509	8.6
		12th	22 764	24 003	105 260	110 988	526	8.2
7th	Mar. 64-Oct. 65	13th	23 046	22 098	107 413	102 996	610	8.0
		14th	32 623	29 827a)	186 395	170 422	727	6.1
8th	Nov. 65-Nov. 66	15th d)	34 288	38 823b)	210 665	194 338	116c)	7.0
		16th e)	...	13 024e)	...	58 826	118c)	7.4
9th	Apr. 67-Nov. 67	17th	67 940	67 323	...	311 829	633	6.3
		(f)	...	10 640	...	48 812	594	7.3
10th	Jan. 68-Dec. 68	18th	72 549	66 751	340 980	327 111	546	5.5
		19th	73 229	65 867	361 972	325 927	542	5.4
11th	Jan. 69-Dec. 69	20th	73 537	68 123g)	366 279	344 390	560	6.8
		21st	74 725	69 299g)	374 106	350 340	554	6.4

a) In addition 3 573 houses were sprayed with dieldrin. b) With dieldrin; plus 5 660 emergency sprayings with dieldrin and 1 532 with DDT. c) Dieldrin. d) Operations suspended. e) With dieldrin; plus 1 396 emergency sprayings with DDT. f) Emergency sprayings. g) Does not include local sprayings.



COSTA RICA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined		Species found			
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
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	1 889	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	1 845	1.9	1	1 845	-
1966	121 696	2 594	2.1	1	2 593	-
1967	128 486	4 349	3.1	-	4 349	-
1968	115 889	1 156	1.0	-	1 156	-
1969	170 790	679	0.4	-	679	-

CONSOLIDATION PHASE AREAS

Year	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						
					Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malar-iae</u>		
						from abroad	from areas within country								
1962 ^{a)}	230	52 594 ^{a)}	45.7	101	-	15	4	12	-	51	19	-	101	-	-
1963	255	133 375	52.3	371	244	45	-	7	-	10	65	-	371	-	-
1964	294	75 345	25.6	646	351	19	2	16	-	1	257	10	636	-	-
1965	263	102 724	39.1	717	196	3	-	4	-	2	512	3	714	-	-
1966	276	128 439	46.5	453	154	7	4	13	-	49	226	-	453	-	-
1967	151	25 623	17.0	94	41	-	-	16	-	-	37	-	94	-	-
1968	156	26 140	16.8	35	11	5	-	10	-	8	1	-	35	-	-
1969	87	31 572	36.3	9	1	1	3	1	-	-	3	-	9	-	-

a) Started in July 1962.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

CUBA

	Population (thousands)	Area km ²
TOTAL COUNTRY	8 210	110 422
Non malarious areas	5 405	74 621
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	2 805	35 801
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	2 805	35 801

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	-	261	261
Administrative and other	-	-	-
Transport	-	-	-
Total	-	261	261

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	67	19	86
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	67	19	86

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 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	1 944 986	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	454 823	423 361	2 283 531	2 125 145	248	9.1
	Oct. 64-Dec. 65	6th	460 484	431 349	2 289 065	2 127 888	238	9.2
4th	Apr. 65-Nov. 66	7th	467 312	438 527	2 315 390	2 172 753	240	8.9
	Oct. 65-Feb. 67	8th	417 596	320 363	2 084 221	1 569 778	245	8.9
5th	Apr. 66-Sep. 67	9th	194 000	165 865	747 372	812 739	239	8.4
	Jan. 67-Dec. 67	10th	...	34 949	...	246 334	220	8.5
6th	May. 67-Jul. 67	11th a)	...	8 378	...	37 051	223	6.6
	Nov. 67-Dec. 67	12th a)	...	2 191	...	10 171	225	8.2
7th	Jan. 68-Jul. 68	(b)	-	5 174	-	25 945	-	-
-	Jan. 69-Dec. 69	(b)	-	5 273	-	26 015	-	-

a) Cycle not yet finished. b) Focal sprayings.

CUBA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS a)

Year	Slides examined			Species found			
	Total No.	Positive		P. falciparum	P. vivax	P. malariae	
		Number	Percentage				
1960 ^{b)}	28 791	1 325	4.6	197	1 128	-	
1961 ^{b)}	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	-	
1966 ^{c)}	465 199	27	0.01	1	26	-	
1967	365 239	41	0.01	10	21	10	

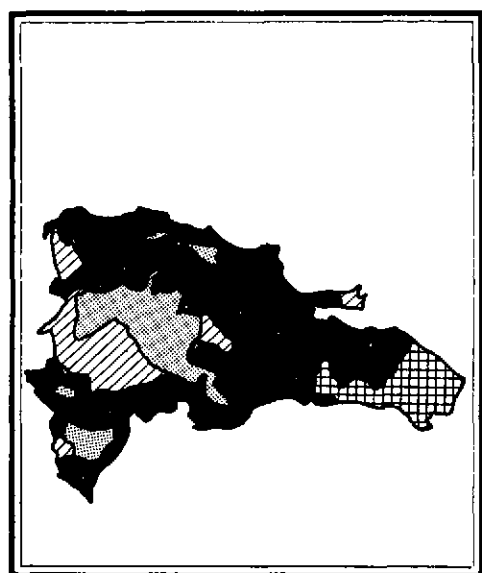
CONSOLIDATION PHASE AREAS

Year	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				
					Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	P. falciparum	P. vivax	P. malariae
						Autochthonous	from abroad							from areas within country
1966 ^{d)}	5 488 ^{e)}	236 464 ^{e)}	5.2	9	-	3	5	1	-	-	4	4	1
1967	2 649	520 075	19.6	5	-	4	1	-	-	-	-	5	-
1968	2 734	834 107 ^{f)}	30.5	4 ^{f)}	-	-	4	-	-	-	-	4	-
1969	2 805	746 827 ^{g)}	26.6	3 ^{g)}	-	-	1	-	1	-	-	3	-

a) All areas previously in attack phase transferred to consolidation in 1968. b) Pre-eradication survey. c) Includes information for November and December for areas in consolidation phase. d) January-October. e) Including the non-malarious area and the area that passed into consolidation phase in September. f) Including 239 296 slides and four cases taken in non-malarious areas. g) Including 296 981 slides and three cases taken in non-malarious areas.

DOMINICAN REPUBLIC

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>4 175</u>	<u>48 442</u>
Non malarious areas	<u>33</u>	<u>880</u>
Originally malarious areas		
Maintenance phase	<u>212</u>	<u>4 909</u>
Consolidation phase	<u>3 443</u>	<u>33 394</u>
Attack phase	<u>487</u>	<u>9 259</u>
Preparatory phase	<u>-</u>	<u>-</u>
Total originally malarious areas	<u>4 142</u>	<u>47 562</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	69	70
Evaluation operations	2	212	214
Administrative and other	1	43	44
Transport	-	40	40
Total	4	364	368

TRANSPORT FACILITIES

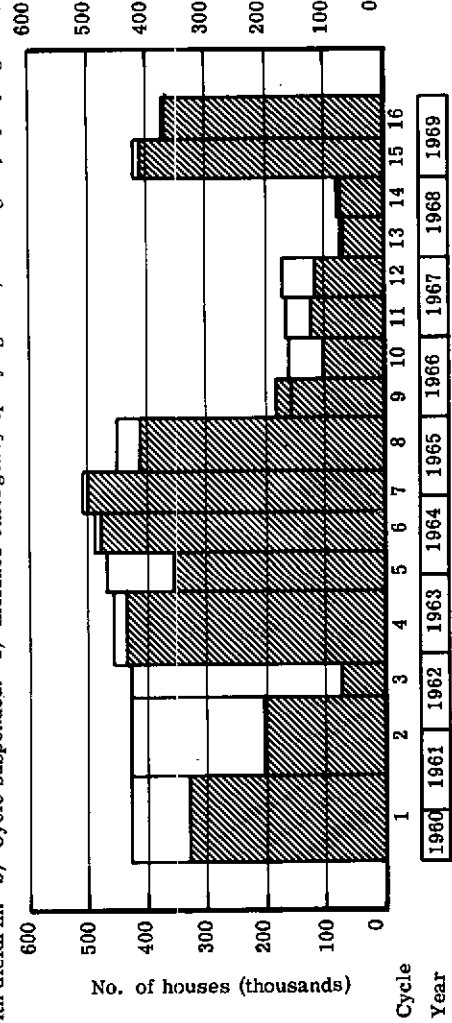
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	14	33	34	81
Two-wheel vehicles	-	129	62	191
Boats	-	-	-	-
Animals	-	71	-	71
Other	-	-	-	-
Total	14	233	96	343

DOMINICAN REPUBLIC (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 man/day
		Twice a year		Once a year		Planned	Protected				
		Cycle	Planned	Sprayed	Cycle			Planned	Sprayed		
3rd ^{a)}	Mar. 60-Mar. 62	1st	428 615	332 944	-	-	2 206 080	1 713 612	495	9.0	
		2nd	428 615	204 531	-	-	2 241 656	1 093 459	472	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	462 900	438 706	-	-	2 530 674	2 398 328	468	8.2	
		5th	472 000	359 653	-	-	2 428 110	1 850 166	475	8.4	
5th	Apr. 64-Mar. 65	6th	490 000	480 537	-	-	2 316 181	2 271 494	449	9.8	
		7th	510 575	500 343	-	-	2 315 764	2 269 357	355	10.5	
6th	Apr. 65-Jun. 66	8th	450 215	411 193	-	-	2 104 080	1 921 727	357	10.0	
		9th	68 444	68 056	-	89 312	728 974	856 077	335	10.4	
7th	Jul. 66-Jun. 67	10th	72 769	77 956	-	89 312	778 783	497 333	339	9.5	
		11th	80 772	78 252	-	87 038	671 240	573 884	348	10.6	
8th	Jul. 67-Jun. 68	12th	83 802	80 271	-	87 038	683 360	520 388	363	10.3	
		13th	73 726	71 011	-	-	346 512e)	336 423	346	11.1	
9th	Jul. 68-Jun. 69	14th	79 143	72 675	-	1 093d)	371 972e)	347 189	344	10.5	
		15th	77 006	71 818	-	-	347 189	341 660	365	10.5	
10th	Jul. 69-Dec. 69	16th	68 036	64 371	-	-	307 016	311 958	352	9.9	

a) Previous coverage with dieltrin. b) Cycle suspended. c) Includes emergency sprayings. d) Emergency sprayings. e) Estimated.



DOMINICAN REPUBLIC (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined		Species found		
	Total No.	Positive	P. falciparum	P. vivax	P. malariae
		Number				Percentage
1958a)	17 784	2 676	15.0		
1959	28 721	3 743	13.0	1 767	8
1960	20 337	5 540	27.2	1 949	8
1961	21 946	2 523	11.5	1 164	1
1962	19 742	548	2.8	271	2
1963	73 352	386	0.5	256	1
1964	121 211	321	0.3	201	17
1965	205 836	84	0.04	41	5
1966	438 291	422	0.1	196	19
1967	604 888	117	0.02	61	2
1968	213 503	17	0.008	2	-
1969	178 322	105	0.06	104	1

CONSOLIDATION PHASE AREAS

Year	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					
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
							from abroad	from areas within country						
1966	319	66 839	21.0	7	4	1	1	1	-	-	1	6	-	
1967	371	97 632	26.3	10	-	1	9	-	-	-	10	-	-	
1968	3 321	386 692	11.6	1	-	1	-	-	-	-	-	-	1	
1969	3 443	395 013	11.5	11	2	8	-	-	1	-	2	-	9	

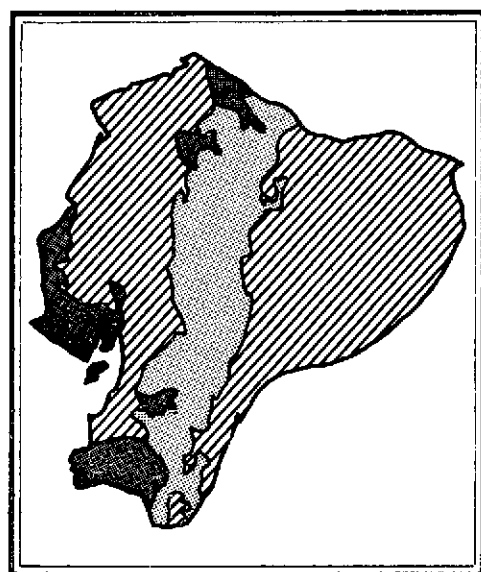
MAINTENANCE PHASE AREAS

1968	208	55 007	26.4	3	-	1	2	-	-	-	2	1	-
1969	212	56 360	26.6	8	-	-	-	8	-	-	8	-	-

a) June-December.

ECUADOR

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>5 580</u>	<u>291 906</u>
Non malarious areas	<u>2 550</u>	<u>116 444</u>
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	<u>1 294</u>	<u>27 797</u>
Attack phase	<u>1 736</u>	<u>147 665</u>
Preparatory phase	-	-
Total originally malarious areas	<u>3 030</u>	<u>175 462</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	601	603
Evaluation operations	9	186	195
Administrative and other	-	105	105
Transport	-	81	81
Total	11	973	984

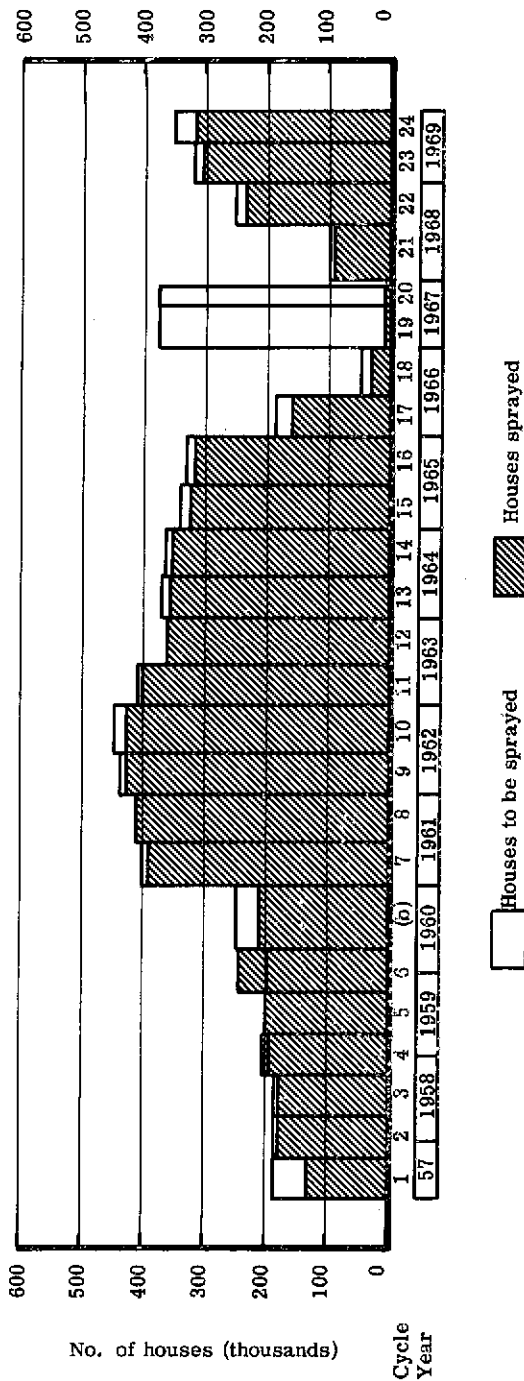
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	43	4	63	110
Two-wheel vehicles	-	39	38	77
Boats	-	-	51	51
Animals	-	-	300	300
Other	-	-	70	70
Total	43	43	522	608

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			Planned	Protected	DDT	Dieldrin	
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed					
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	48 104	50 089	2nd	280 832	144 069	1 047 229	1 078 629	490	123	6.9
3rd	Apr-59-Mar-60	4th	48 391	83 018	3rd a)	72 370	127 348	980 474	1 092 450	436	169	8.5
(b)	Apr-60-Dec-60	5th	76 577	72 370	6th	76 577	97 780 a)	949 386	952 664	399	119	9.3
4th	Jan-61-Dec-61	6th	251 768	227 411	-	260 539	136 542a	995 761	1 128 111	403	122	8.8
5th	Jan-62-Dec-62	7th	403 989	394 246	-	-	-	1 016 387	918 151	424	-	8.9
6th	Jan-63-Dec-63	8th	413 951	412 008	-	-	-	1 954 095	1 907 065	446	-	8.4
7th	Jan-64-Dec-64	9th	438 027	428 269	-	-	-	1 897 137	1 888 183	502	-	8.5
8th	Jan-65-Dec-65	10th	448 716	428 329	-	-	-	2 069 240	2 023 097	529	-	8.4
9th	Jan-66-Dec-66	11th	400 362	409 722	-	-	-	2 119 734	2 023 430c)	557	-	8.2
10th	Jan-67-Oct-67	12th	363 437	363 304	-	-	-	2 360 935	2 416 436	581	-	8.2
11th	Jan-68-Jan-69	13th	374 284	362 930	-	-	-	1 553 330	1 552 883	602	-	8.2
12th	Feb-69-Dec-69	14th	367 377	357 206	-	-	-	1 829 500	1 774 020	620	-	7.8
		15th	343 390	328 679	-	-	-	1 606 760	1 562 305	630	-	7.9
		16th	330 691	316 519	-	-	-	1 484 330	1 430 345	627	-	7.5
		17th	186 363	160 869d)	-	-	-	1 453 023	1 390 756	570	-	7.7
		18th	47 478	33 934	-	-	-	783 316	676 293	480	-	7.4
		19th	375 411	8 524e)	-	-	-	193 473	138 300	484	-	7.3
		20th	375 411	6 308e)	-	-	-	...	43 856	519	-	6.2
		21st	96 429	91 588f)	-	-	-	...	37 359	547	-	6.1
		22nd	254 234	239 429f)	-	-	-	412 868	391 841	551	-	5.8
		23rd	321 655	308 631e)	-	-	-	1 247 637	1 103 686	479	-	6.8
		24th	352 330	290 198e)	-	-	-	1 496 262	1 405 607	573	-	7.4
					-	-	-	1 527 804	1 307 265	591	-	7.5

a) Cycle suspended. b) Emergency spraying. c) Estimated. d) Not included 21 533 supplementary house-spraying. e) Not included focal sprayings. f) Not included 39 527 houses sprayed in consolidation areas.



ECUADOR (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found			
	Total No.	Positive		P. falciparum	P. vivax	P. malariae	P. malariae
		Number	Percentage				
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	160 840	3 731	2.3	178	3 553		-
1966	151 467	4 315	2.8	177	4 138		-
1967a)	147 476	9 077	6.2	688	8 389		-
1968	198 791	32 383	16.3	3 878	28 493		12
1969	256 852	44 038	17.1	3 849	40 183		6

CONSOLIDATION PHASE AREAS

Year	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				
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
						from abroad	from areas within country						
1963	927	86 778	9.4	97	-	-	97	-	-	6	90	1	
1964	1 053	140 497	13.3	382	36	-	198	-	9	136	369	-	
1965	1 288	179 287	13.9	448	72	6	278	1	18	53	423	-	
1966	1 327	160 354	12.1	661	128	-	224	-	23	279	432	-	
1967a)	1 336	142 184	10.6	1 688	147	-	429	-	10	1 101	1 420	-	
1968	1 376	151 392	11.0	4 660	190	-	1 369	-	8	3 090	4 342	-	
1969	1 294	164 798	12.7	6 919	479	1	2 587	2	88	3 742	6 451	-	

a) Figures for November not separated by phase.

EL SALVADOR

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	3 322	21 149
Non malarious areas	409	1 849
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	-	-
Attack phase	2 913	19 300
Preparatory phase	-	-
Total originally malarious areas	2 913	19 300

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	487	488
Evaluation operations	6	738	744
Administrative and other	2	76	78
Transport	-	158	158
Total	9	1 459	1 468

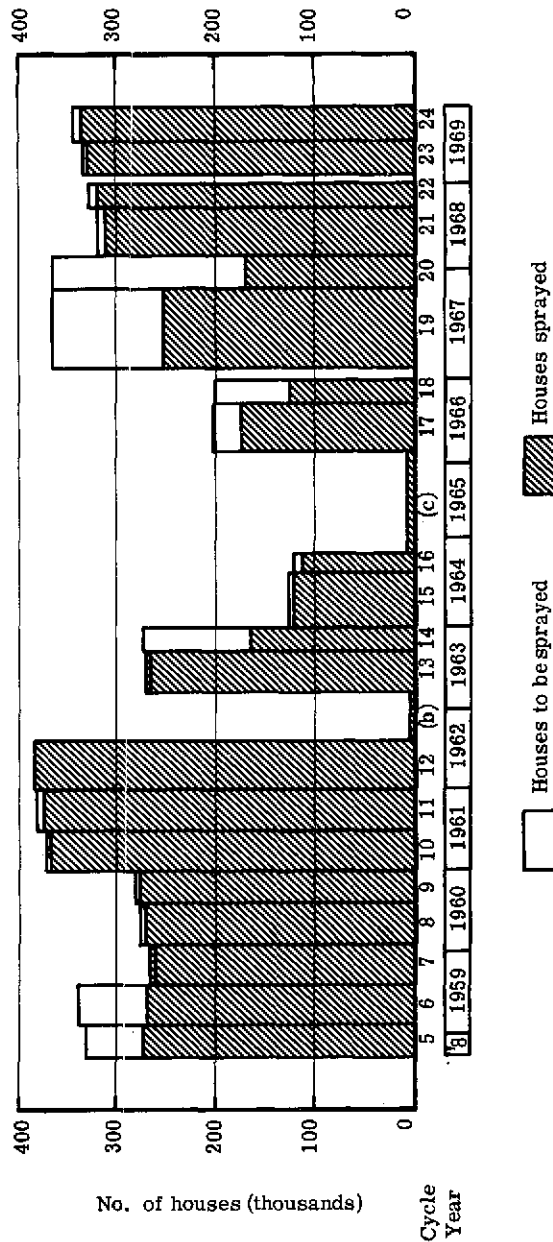
TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	49	8	48	105
Two-wheel vehicles	-	27	110	137
Boats	1	-	5	6
Animals	-	-	-	-
Other	-	-	-	-
Total	50	35	163	248

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 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	251 102 278 991	265 361 276 050	1 237 362 1 289 775	1 237 537 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	330 283 387 944	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 1 65 666	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-Feb. 66	(c)	-	6 396	-	...	-	-
9th	Mar. 66-Dec. 66	17th 18th	203 812 203 812	175 158 126 954	939 492 1 26 953	807 413 578 583	602 562	8.1 8.7
10th	Feb. 67-Jan. 68	19th 20th	366 344 366 343	252 243 180 101	1 685 182 1 465 372	1 146 489 770 012	596 551	8.4 8.9
11th	Feb. 68-Dec. 68	21st 22nd	318 723 324 888	314 565 318 408	1 441 928 1 454 112	1 402 421 1 409 950	588 562	8.6 9.4
12th	Feb. 69-Dec. 69	23rd 24th	334 576 335 126	328 778 346 004	1 603 839 1 714 893	1 443 932 1 995 751	575 513	8.4 9.2

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		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	194 089	15 433	7.9	2 556	12 873	4
1963	238 791	17 846	7.5	1 879	15 962	5
1964	350 843	26 857	7.4	2 661	23 195	1
1965	506 442	34 070	6.7	2 186	31 884	-
1966	533 047	68 562	12.9	10 703	57 859	-
1967	535 494	82 960	15.5	7 226	75 734	-
1968	692 671	31 526	4.5	968	30 558	-
1969	858 916	25 299	2.9	1 955	23 344	-

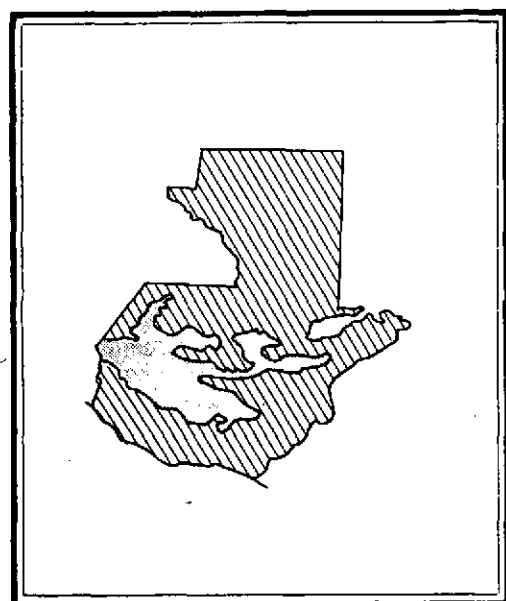
CONSOLIDATION PHASE AREAS

Year	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					
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
							from abroad	from areas within country						
1968 ^{a)}	505 ^{a)}	112 640	22.3	4 305	487	592	47	773	-	-	55	4 250	-	

a) Beginning 1969 this area was brought to attack phase.

GUATEMALA

STATUS OF MALARIA PROGRAM AT DECEMBER 1989



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>5 008</u>	<u>108 889</u>
Non malarious areas	<u>2 716</u>	<u>28 539</u>
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	-	-
Attack phase	<u>2 292</u>	<u>80 350</u>
Preparatory phase	-	-
Total originally malarious areas	<u>2 292</u>	<u>80 350</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	514	514
Evaluation operations	4	509 (3)	513 (3)
Administrative and other	1	106	107
Transport	-	71	71
Total	5	1 200 (3)	1 205 (3)

TRANSPORT FACILITIES

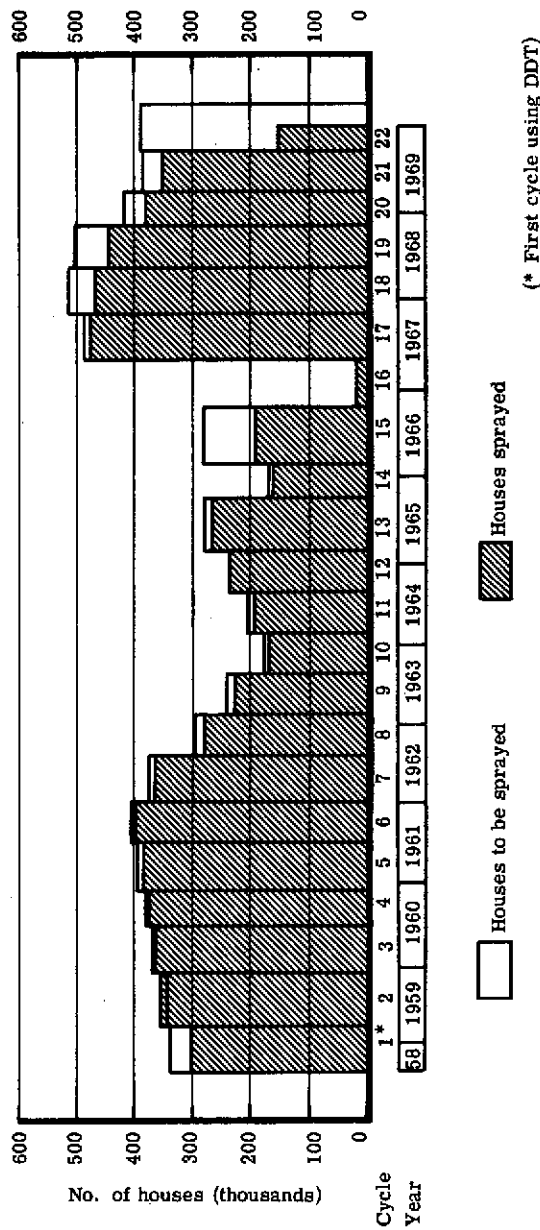
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	44	-	41	85
Two-wheel vehicles	-	55	245	300
Boats	6	2	3	11
Animals	-	-	-	-
Other	-	-	-	-
Total	50	57	289	396

(Part-time personnel in parentheses)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT		Dieldrin		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
1st	Aug. 56-Aug. 57	-	-	-	308 097	306 306	1 361 175	1 353 121	-	117	8.4	
2nd	Sep. 57-Sep. 58	-	-	-	321 975	331 090	1 422 165	1 462 510	-	117	8.5	
3rd	Oct. 58-Oct. 59	1st	341 000	301 329	-	-	1 482 670	1 310 317	427	-	8.8	
4th	Nov. 59-Nov. 60	2nd	342 586	357 104	-	-	1 481 342	1 544 144	542	-	7.5	
5th	Dec. 60-Dec. 61	3rd	373 641	368 269	-	-	1 460 936	1 439 781	541	-	7.1	
6th	Jan. 62-Jan. 63	4th	377 381	378 636	-	-	1 554 816	1 660 207	560	-	8.1	
7th	Feb. 63-Jan. 64	5th	386 588	386 737	-	-	1 815 183	1 769 971	588	-	7.8	
8th	Feb. 64-Jan. 65	6th	406 807	393 090	-	-	1 737 473	1 678 906	557	-	7.9	
9th	Feb. 65-Mar. 66	7th	375 000	368 135	-	-	1 562 625	1 534 089	553	-	7.5	
10th	Apr. 66-Feb. 67	8th	291 490	280 687	-	-	1 185 781	1 141 867	589	-	7.5	
11th	Feb. 67-Mar. 68	9th	243 511	231 824	-	-	949 936	904 382	537	-	7.6	
12th	Apr. 68-Mar. 69	10th	175 000	171 061	-	-	642 950	628 563	502	-	8.0	
13th	Apr. 69-Dec. 69	11th	205 686	193 780	-	-	748 945	705 594	510	-	8.1	
		12th	239 819	239 859	-	-	1 060 576	1 060 758	508	-	8.0	
		13th	281 102	268 636a	-	-	1 067 260	1 019 937	506	-	8.2	
		14th	165 071	162 100b	-	-	697 340	685 083	523	-	8.3	
		15th	282 310	192 058	-	-	1 039 183	706 972	557	-	7.8	
		16th	478 038	488 963	-	-	...	129 536	542	-	7.7	
		17th c)	511 193	467 976	-	-	1 912 152	1 778 666	550	-	7.7	
		18th	500 444	443 408	-	-	1 891 414	1 793 133	531	-	7.8	
		19th	416 861	378 313	-	-	1 814 885	1 727 243	545	-	7.7	
		20th	379 477	350 848	-	-	1 499 045	1 439 806	544	-	7.6	
		21st	382 532	148 731	-	-	1 346 643	1 354 349	535	-	7.7	
		22nd d)			-	-	1 348 215	556 700	503	-	7.7	

a) 115 204 houses were sprayed in annual cycles and 3 908 in emergency sprayings. b) Includes 5 791 houses sprayed in emergency sprayings.
 c) First cycle of 3-Year Plan. d) Cycle not yet finished.



GUATEMALA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
1956a)	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
1966	352 046	21 371	6.1	3 189	18 179	3
1967	439 192	19 684	4.5	1 377	18 306	1
1968	492 940	10 407	2.1	360	10 047	-
1969	521 336	10 494	2.0	202	10 291	1

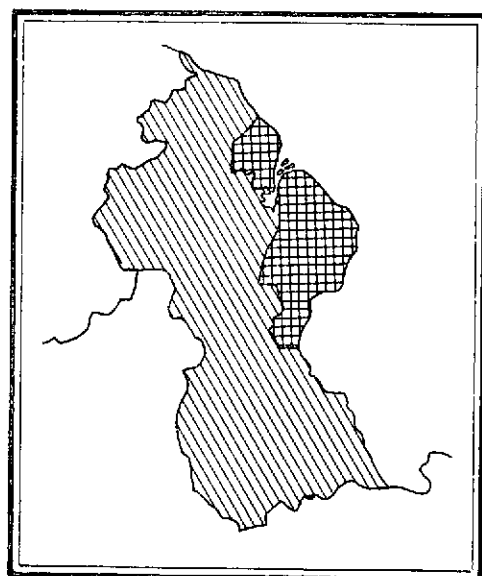
CONSOLIDATION PHASE AREAS

Year	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					
					Autochthonous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
							from abroad	from areas within country						
1962	591	48 370	9.3	213	2	-	-	100	-	62	151	-		
1963	1 234	132 149	10.7	2 846	178	142	-	554	-	897	1 945	4		
1964	1 057	121 797	11.5	3 160	154	335	-	511	1	710	2 444	6		
1965	887	138 550	15.6	2 742	296	272	-	111	-	260	2 481	1		
1966b)	845	24 393 ^{c)}	11.5	674	81	29	1	9	-	38	636	-		

a) August-December. b) Beginning April, consolidation areas reclassified to attack phase. c) January-March.

GUYANA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>723</u>	<u>215 025</u>
Non malarious areas	-	-
Originally malarious areas		
Maintenance phase	<u>678</u>	<u>39 437</u>
Consolidation phase	-	-
Attack phase	<u>45</u>	<u>175 588</u>
Preparatory phase	-	-
Total originally malarious areas	<u>723</u>	<u>215 025</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	12	12
Evaluation operations	(1)	34	34 (1)
Administrative and other	-	23	23
Transport	-	19	19
Total	(1)	88	88 (1)

TRANSPORT FACILITIES

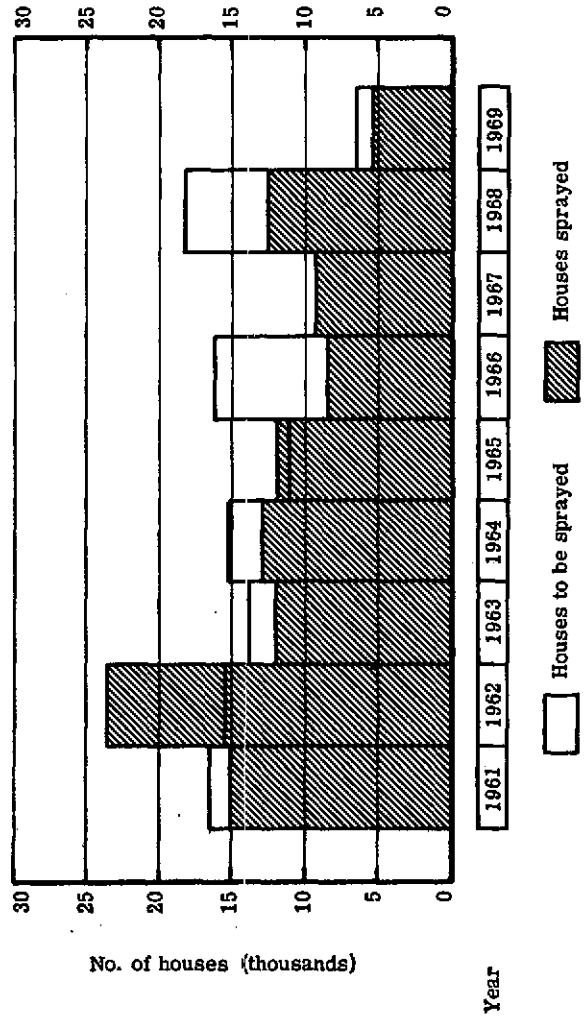
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	7	3	10
Two-wheel vehicles	-	15	3	18
Boats	-	3	11	14
Animals	-	-	-	-
Other	-	-	-	-
Total	-	25	17	42

(Part-time personnel in parentheses)

GUYANA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)	Average houses sprayed per man/day
		Once a year		Twice a year		Planned	Protected				
		Cycle	Planned	Sprayed	Cycle			Planned	Sprayed		
...	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	8.3	
...	Jan. 63-Sep. 63	...	6 726	4 270	...	7 218	7 961	68 123	59 542	7.3	
...	Jan. 64-Dec. 64	...	6 563	5 408	...	4 236	5 280	63 243	54 986	4.3	
...	Jan. 65-Dec. 65	...	6 358	4 361	...	2 341	2 759	46 000	47 467	4.6	
...	Feb. 66-Dec. 66	...	8 217	7 18	...	3 889	4 633	70 362	36 256	4.3	
...	Feb. 67-Dec. 67	...	-	-	...	...	5 075	...	20 972	6.2
...	Jan. 68-Dec. 68	-	-	-	...	12 304	7 084	35 053	35 053	6.5	
...	Feb. 69-Dec. 69	-	-	-	...	5 979	5 414	27 723	22 606	5.8	
...	Feb. 69-Dec. 69	-	-	-	...	6 542	5 477	32 033	22 971	5.8	



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1958	1 520	51	3.36	23	8	20
1959	3 754	176 ^a	4.68	53	100	13
1960	3 674	263 ^a	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	-
1966	14 098	17	0.12	15	2	-
1967	21 389	175	0.82	145	29	1
1968	32 064	44	0.14	20	24	-
1969	47 966	18	0.04	14	4	-

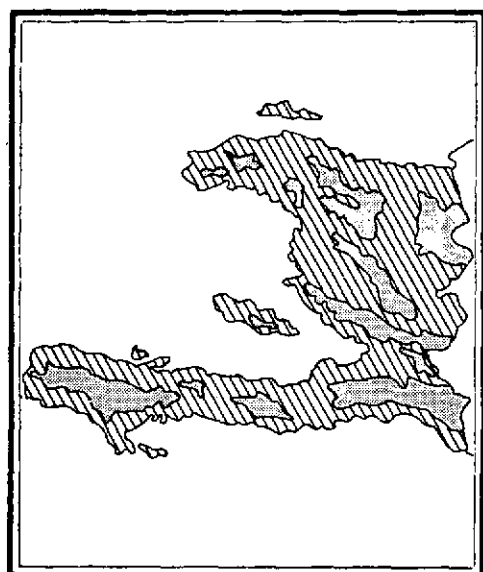
CONSOLIDATION PHASE AREAS

Year	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					
					Relapsing	Imported		Induced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae		
						Autogenous	from abroad						from areas within country	
1965	26	15 500	59.6	1	-	-	-	-	-	-	1	-	-	
1966	30	22 141	73.8	882	...	...	...	...	...	...	...	882	-	-
MAINTENANCE PHASE AREAS														
1968	430	1	0.0	-	-	-	-	-	-	-	-	-	-	-
1959	460	-	0	-	-	-	-	-	-	-	-	-	-	-
1960	494	-	0	-	-	-	-	-	-	-	-	-	-	-
1961	515	1 374	0.3	13	-	1	12	-	-	-	1	12	-	-
1962	556	21 088	3.8	21	3	-	1	-	-	-	-	21	-	-
1963	572	15 475	2.7	3	2	1	-	-	-	-	1	2	-	-
1964	589	20 094	3.4	2	-	2	-	-	-	-	2	-	-	-
1965	602	23 057	3.8	2	-	1	-	-	-	-	2	-	-	-
1966	627	17 430	2.8	11	...	...	...	...	...	...	1	10	-	-
1967	637	12 774	2.0	-	-	-	-	-	-	-	-	-	-	-
1968	658	23 153	3.5	17	-	-	17	-	-	-	7	10	-	-
1969	678	23 155	3.3	7	1	5	1	-	-	-	1	6	-	-

a) Includes undifferentiated mixed infections.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

HAITI



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>4 790</u>	<u>27 750</u>
Non malarious areas	<u>1 210</u>	<u>8 650</u>
Originally malarious areas		
Maintenance phase	<u>-</u>	<u>-</u>
Consolidation phase	<u>-</u>	<u>-</u>
Attack phase	<u>3 580</u>	<u>19 100</u>
Preparatory phase	<u>-</u>	<u>-</u>
Total originally malarious areas	<u>3 580</u>	<u>19 100</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	44	45
Evaluation operations	10	344	354
Administrative and other	-	121	121
Transport	-	43	43
Total	11	552	563

TRANSPORT FACILITIES

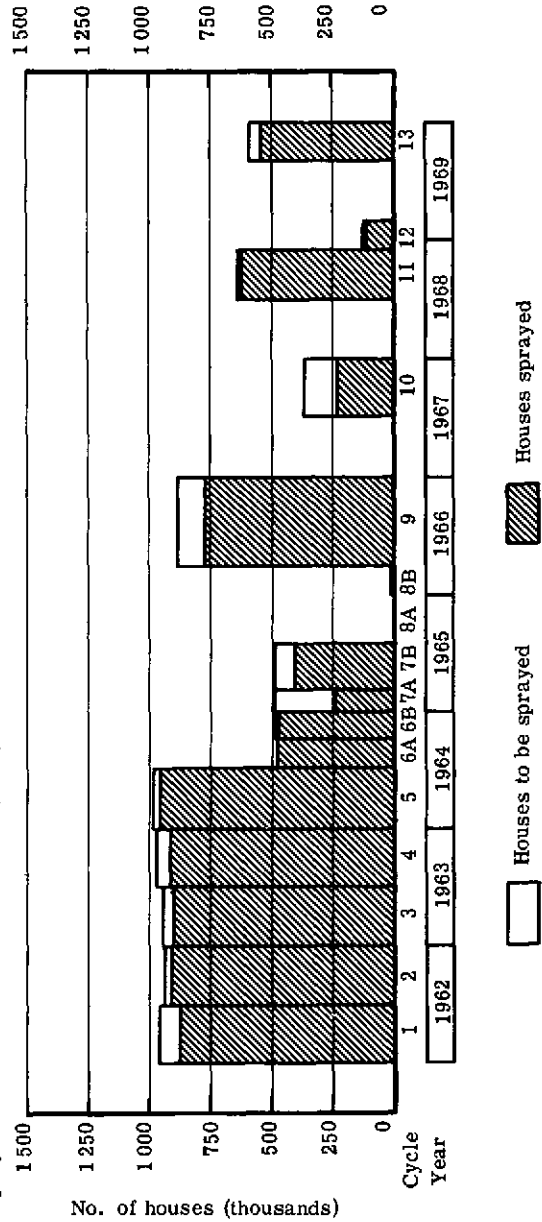
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	87	12	27	126
Two-wheel vehicles	-	-	-	-
Boats	2	-	-	2
Animals	-	-	-	-
Other	-	-	-	-
Total	89	12	27	128

HAITI (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 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
4th	Jan. 65-Jan. 66	6th B b)	465 260	455 353	1 446 450	1 446 458	122	17.5
		7th A b)	465 907	246 414	1 447 900	765 795	119	18.3
5th	Jan. 66-Jan. 67	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
6th	Feb. 66-Dec. 66	8th B d)	8 178	8 048	27 951	27 508	254	14.2
		9th	865 000	772 513	2 881 920	2 573 852	237	14.8
7th	Jul. 67-Dec. 67	10th	360 049	233 513	...	720 525	295	15.8
		11th	647 728	639 286	2 452 000	2 188 271	258	14.8
8th	Aug. 69-Dec. 69	12th	124 814	121 119	452 000	271 305	234	16.6
		13th	595 000	549 869	1 617 000	1 685 059	294	15.2

a) 10 016 houses were sprayed with dieldrin. b) Quarterly cycles, using DDT 1g/m². c) Quarterly cycles, using DDT 2 g/m². d) Annual cycles.



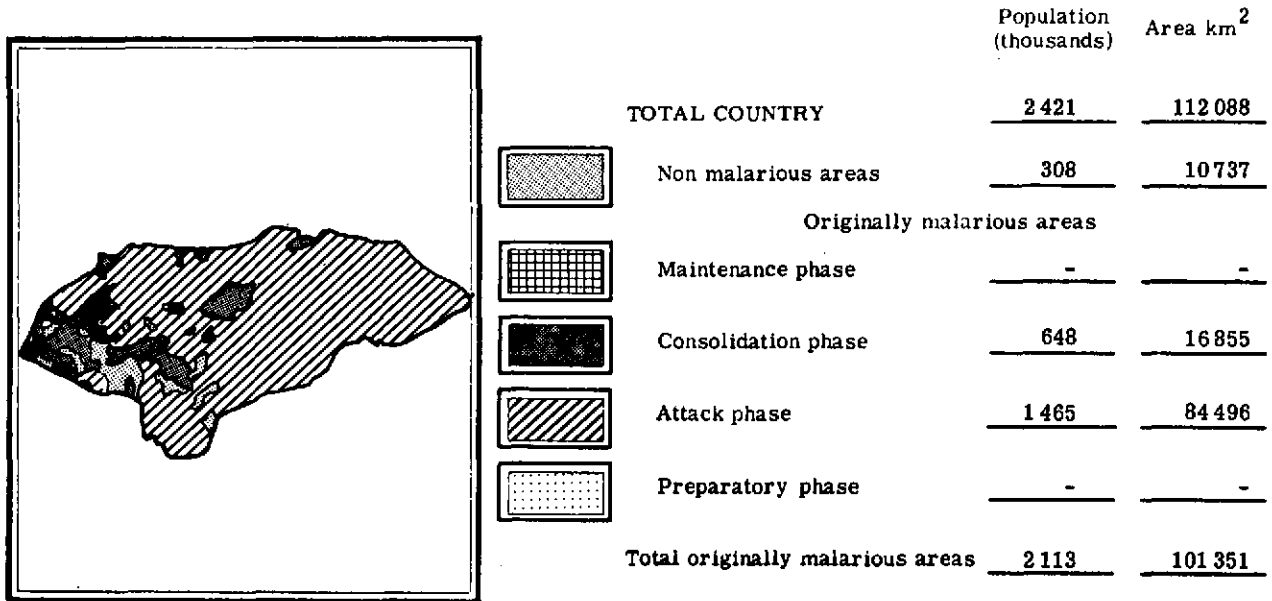
HAITI (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
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
1966	2 239 469	8 378	0.4	8 208	35	135
1967	1 343 796	4 871	0.4	4 840	3	28
1968	1 173 905	2 562	0.2	2 556	3	3
1969	686 167	5 005	0.7	4 999	1	5

HONDURAS

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	236	237
Evaluation operations	3	502	505
Administrative and other	31	40	71
Transport	-	81	81
Total	35	859	894

TRANSPORT FACILITIES

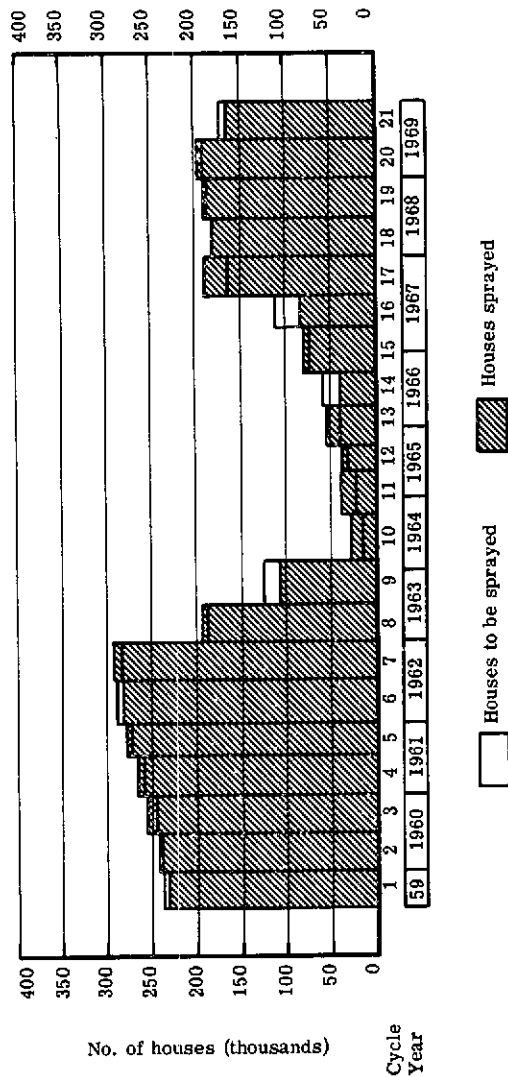
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	72	22	19	113
Two-wheel vehicles	71	43	-	114
Boats	-	-	4	4
Animals	-	177	32	209
Other	-	1	-	1
Total	143	243	55	441

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		Planned	Protected	DDT	Malathion			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
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	264 699	-	-	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	781 085	712 355	404	440	10.5	
		10th	14 851	27 719	2nd	17 471	18 286	171 805	240 031	343	343	
6th	Sep. 64-Jun. 65	11th	21 502	37 818	3rd	23 274	23 614	328 950	425 513	567	550	
		12th	30 377	35 603	4th	22 039	24 997	137 790	161 522	474	411	
7th	Jul. 65-Jun. 66	13th	38 035	54 654	5th	-	-	182 636	262 338	464	-	
		14th	59 178	38 187	-	-	-	291 630	188 187	481	-	
8th	Jul. 66-Jun. 67	15th	76 185	79 491	-	-	-	375 410	391 701	441	-	
		16th	113 469	83 915	-	-	-	544 651	410 160	490	-	
9th	Jul. 67-Jun. 68	17th	184 594	189 567	-	-	-	806 510	1 015 946	500	-	
		18th	181 273	181 190	-	-	-	891 863	891 903	475	-	
10th	Jul. 68-Jun. 69	19th	186 143	186 861	-	-	-	915 823	918 403	482	-	
		20th	191 937	195 462	-	-	-	977 310	932 976	449	-	
11th	Jul. 69-Dec. 69	21st	171 288	184 954	-	-	-	856 440	795 210	349	-	

a) Emergency spraying with DDT.



HONDURAS (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

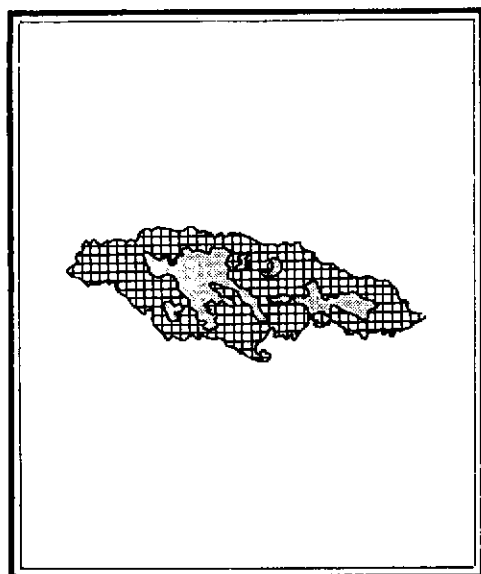
Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1958a)	14 183	906	6.4	339	567	-
1959	66 391	6 675	10.1	3 170	3 504	1
1960	109 677	5 517	5.0	1 737	3 780	-
1961	164 965	4 334	2.6	861	3 472	1
1962	229 666	5 747	2.5	597	5 150	-
1963	168 647	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	-
1966	165 563	13 299	8.0	1 146	12 153	-
1967	296 498	14 324	4.8	832	13 492	-
1968	359 674	13 337	3.7	3 897	9 440	-
1969	432 895	28 318	6.5	5 144	23 174	-

CONSOLIDATION PHASE AREAS

Year	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						
					Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	P. falciparum	P. vivax	P. malar-iae		
						toctho-nous	from abroad							from areas within country	
1962 ^{b)}	46	9 989 ^{b)}	43.4	3	1	-	2	-	-	-	-	-	-	-	-
1963	941	95 484	10.1	356	51	1	84	-	-	43	19	337	-	-	-
1964	1 631	131 896	8.1	1 281	258	-	143	-	-	169	37	1 244	-	-	-
1965	1 518	196 538	13.0	1 870	222	32	111	-	-	495	22	1 848	-	-	-
1966	1 563	195 239	12.5	3 816	193	16	156	-	-	2 273	58	3 758	-	-	-
1967	1 091	169 100	15.5	1 828	223	47	304	-	-	440	40	1 788	-	-	-
1968	1 124	225 022	20.0	2 329	147	31	242	-	-	894	384	1 945	-	-	-
1969	648	158 649	24.5	1 266	60	33	95	-	-	526	229	1 037	-	-	-

a) Incomplete information. b) July-December.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

JAMAICA

	Population (thousands)	Area km ²
TOTAL COUNTRY	1 913	11 428
Non malarious areas	383	1 400
Originally, malarious areas		
Maintenance phase	1 530	10 028
Consolidation phase	-	-
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	1 530	10 028

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	3	63	66
Administrative and other	-	23	23
Transport	-	37	37
Total	3	123	126

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	12	26	38
Two-wheel vehicles	-	-	-	-
Boats	-	-	2	2
Animals	-	-	-	-
Other	-	-	-	-
Total	-	12	28	40

JAMAICA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined		Species found			
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
1958	56266	205	0.4	199	-	6
1959	39726	371	0.9	352	-	19
1960	136123	133	0.1	122	-	11
1961	153237	23	0.02	16	-	7

CONSOLIDATION PHASE AREAS

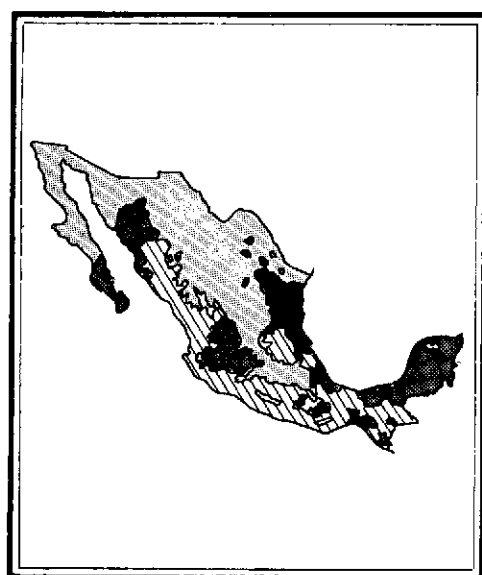
Year	Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections				Species of parasite					
					Au-tochthonous	Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
							from abroad	from areas within country						
1960 ^{a)}	313	48 411 ^{a)}	30.9	2	-	2	-	-	-	-	-	2		
1961	761	139 664	18.4	8	1	7	-	-	-	-	-	8		
1962	1 282	246 592	19.2	2	-	-	1	-	1	-	-	1		
1963	1 309	185 459	14.2	3	-	3	-	-	-	-	-	3		
1964	1 365	134 824	9.9	1	-	1	-	-	-	-	-	1		
1965 ^{b)}	1 432	24 443 ^{b)}	6.8	1	-	1	-	-	-	-	-	1		

MAINTENANCE PHASE AREAS

1965	1 432	53 854	5.0	2	-	1	1	-	-	-	-	-	2
1966	1 471	123 799	8.4	2	-	-	2	-	-	-	-	2	-
1967	1 500	122 007	8.1	2	-	-	2	-	-	-	-	1	1
1968	1 530	99 581	6.5	2	-	-	2	-	-	-	-	1	1
1969	1 530	54 227	3.5	0	-	-	-	-	-	-	-	-	-

a) Consolidation phase began in July 1960. b) January-March.

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

MEXICO

	Population (thousands)	Area km ²
TOTAL COUNTRY	45 860	1 967 183
Non malarious areas	23 104	817 183
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	13 817	575 767
Attack phase	8 939	574 233
Preparatory phase	-	-
Total originally malarious areas	22 756	1 150 000

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	35	1 392	1 427
Evaluation operations	55	1 653	1 708
Administrative and other	2	509	511
Transport	-	151	151
Total	92	3 705	3 797

TRANSPORT FACILITIES

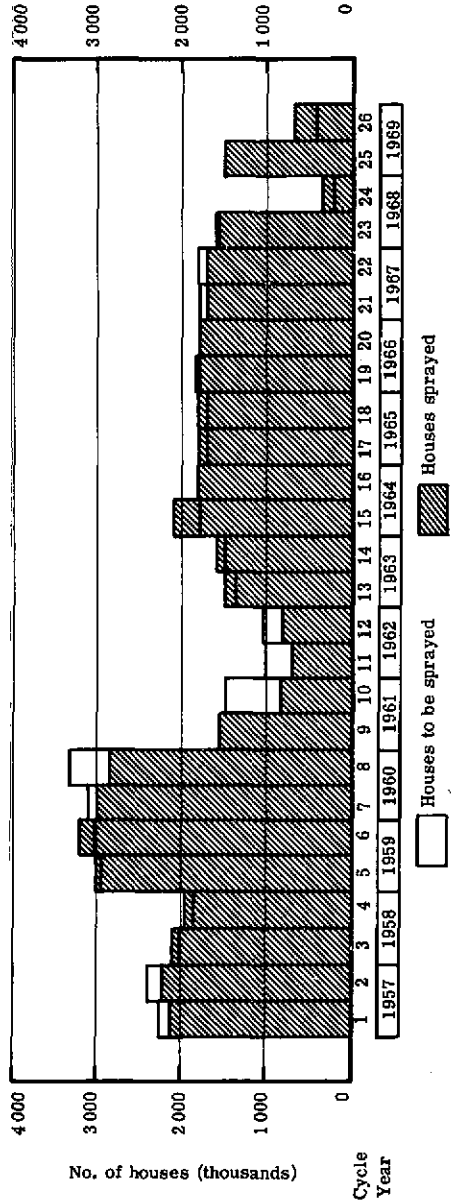
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	412	338	146	896
Two-wheel vehicles	-	-	-	-
Boats	21	-	-	21
Animals	1 535	667	-	2 202
Other	-	-	-	-
Total	1 968	1 005	146	3 119

MEXICO (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT		Dieldrin		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
1st	Jan. 57-Dec. 57	1st	2 292 841	2 143 023	1st	2 19 662	10 464 526	10 802 292	495	99	9.3	
2nd	Jan. 58-Dec. 58	2nd	2 434 486	2 258 952	(a)	459 064	11 113 428	12 597 171	417	-	9.9	
3rd	Jan. 59-Dec. 59	3rd	2 060 985	2 103 570	2nd	686 914	12 545 513	12 531 599	402	110	10.3	
4th	Jan. 60-Dec. 60	4th	1 869 911	1 971 557	3rd	666 939	11 362 506	11 212 496	424	113	10.5	
5th	Jan. 61-Dec. 61	5th	2 973 820	3 050 952	4th	321 520	14 452 905	14 505 650	434	112	10.8	
6th	Jan. 62-Dec. 62	6th	3 018 184	3 219 340	-	160 136	14 226 160	14 814 270	434	118	10.4	
7th	Jan. 63-Dec. 63	7th	3 177 380	3 027 089	(a)	68 977	14 163 856	13 301 924	369	94	10.9	
8th	Jan. 64-Dec. 64	8th	3 376 695	2 869 083	-	1 000	14 681 870	12 481 041	247	83	11.1	
9th	Jan. 65-Dec. 65	9th	1 575 106	1 582 503	-	-	6 571 342	6 602 052	356	-	11.2	
10th	Jan. 66-Dec. 66	10th	1 575 106	852 287	-	-	6 409 106	3 468 283	414	-	10.5	
11th	Jan. 67-Dec. 67	11th	1 036 386	783 060(b)	-	-	4 151 927	3 135 873	514	-	8.6	
12th	Jan. 68-Dec. 68	12th	1 036 386	825 082	-	-	4 070 924	3 241 041	517	-	8.9	
13th	Jan. 69-Dec. 69	13th	1 477 793	1 551 297(b)	-	-	5 686 547	5 868 938	512	-	8.6	
14th	Jan. 69-Dec. 69	14th	1 477 793	1 606 125(b)	-	-	5 572 757	6 056 473	...	-	8.7	
15th	Jan. 69-Dec. 69	15th	1 808 906	2 190 136(c)	-	-	6 869 682	8 317 653	486	-	8.7	
16th	Jan. 69-Dec. 69	16th	1 808 906	1 848 155(c)	-	-	6 770 916	6 917 988	476	-	8.7	
17th	Jan. 69-Dec. 69	17th	1 770 934	1 824 675(c)	-	-	6 278 670	6 469 365	423	-	9.4	
18th	Jan. 69-Dec. 69	18th	1 770 934	1 812 043(c)	-	-	5 949 098	6 087 346	408	-	9.3	
19th	Jan. 69-Dec. 69	19th	1 842 180	1 874 530(d)	-	-	6 482 447	6 556 302	420	-	9.4	
20th	Jan. 69-Dec. 69	20th	1 842 180	1 639 992(d)	-	-	6 202 620	6 195 335	410	-	9.1	
21st	Jan. 69-Dec. 69	21st	1 814 243	1 781 299(d)	-	-	6 350 024	6 586 286	407	-	9.2	
22nd	Jan. 69-Dec. 69	22nd	1 814 243	1 734 073(d)	-	-	6 350 024	6 217 836	405	-	9.2	
23rd	Jan. 69-Dec. 69	23rd	1 613 582	1 611 594	-	-	7 331 050	6 088 368	412	-	9.2	
24th	Jan. 69-Dec. 69	24th	2 35 852	361 518	-	-	1 563 867	946 966	397	-	8.8	
25th	Jan. 69-Dec. 69	25th	1 515 995	1 526 901(e)	-	-	5 685 501	5 028 887	482	-	9.3	
26th	Jan. 69-Dec. 69	26th	407 363	609 871(e)	-	-	1 544 842	1 415 511	551	-	8.6	

a) Included in DDT column. b) Including houses sprayed once and three times a year. c) Including houses sprayed once, three and four times a year. d) Including houses sprayed once and three times a year, and some sprayed with BHC. e) Includes houses sprayed once a year and focal sprayings in consolidation areas.



MEXICO (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	787 301	8 559	1.09	44	8 506	9
1966	862 882 ^{a)}	10 054 ^{a)}	1.17	79	9 966	9
1967	796 135	13 515	1.70	41	13 468	6
1968	1 418 672	22 486	1.59	232	22 134	120
1969	1 497 730	46 743	3.12	46	46 591	106

CONSOLIDATION PHASE AREAS

Year	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						
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae		
						from abroad	from areas within country								
1958	59	4 449	7.5	-	-	-	-	-	-	-	-	-	-	-	-
1959	59	6 560	11.1	-	-	-	-	-	-	-	-	-	-	-	-
1960 ^{b)}	70	4 058 ^{b)}	7.7	-	-	-	-	-	-	-	-	-	-	-	-
1961	11 721	7 459 07	6.4	3 114	1 248	387	446	12	90	931	3 004	19	91	3 004	19
1962	15 592	1 240 130	7.9	4 367	1 211	3	487	2	642	1 597	4 577	17	43	4 577	17
1963	16 830	1 122 103	6.7	3 835	1 514	1	73	5	390	1 358	3 634	18	183	3 634	18
1964	12 740	833 491	6.5	1 683	914	2	78	4	11	267	1 595	5	83	1 595	5
1965	12 985	808 202	6.2	1 554	601	9	30	-	21	595	1 527	1	26	1 527	1
1966	12 794	709 154	5.5	1 158	579	6	132	2	2	206	1 155	2	1	1 155	2
1967	13 357	675 708	5.1	1 648	716	17	336	2	15	211	1 642	3	3	1 642	3
1968	13 574	988 165	7.3	3 554	2 128	3	407	15	8	613	3 535	15	4	3 535	15
1969	13 817	1 026 330	7.4	5 383	1 511	1	281	5	11	3 200	5 367	13	3	5 367	13

a) Including 58 269 slides with 188 positives from non-malarious areas adjoining areas under attack phase. b) January-September.

NICARAGUA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>1 872</u>	<u>127 358</u>
Non malarious areas	-	<u>9 000</u>
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	-	-
Attack phase	<u>1 872</u>	<u>118 358</u>
Preparatory phase	-	-
Total originally malarious areas	<u>1 872</u>	<u>118 358</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	351	353
Evaluation operations	4	688	692
Administrative and other	1	77	78
Transport	-	113	113
Total	7	1 229	1 236

TRANSPORT FACILITIES

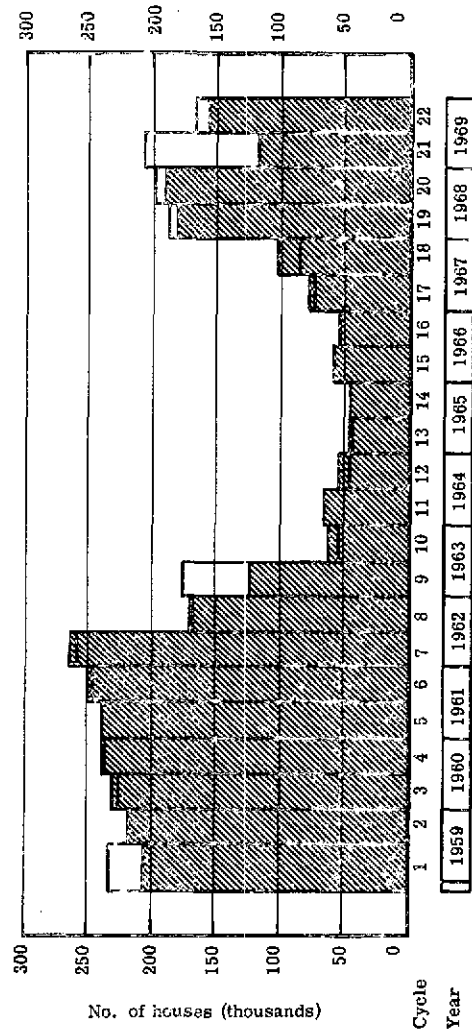
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	1	86	87
Two-wheel vehicles	-	-	57	57
Boats	-	-	47	47
Animals	-	-	-	-
Other	-	-	43	43
Total	-	1	233	234

NICARAGUA (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT		Malathion		Planned	Protected	DDT	Malathion			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
1st	Nov. 58-Dec. 59	223 220	205 930	-	-	1 244 452	1 148 052	401	-	9.2		
2nd	Jan. 60-Dec. 60	218 312	218 645	-	-	1 202 244	1 204 139	325	-	10.3		
3rd	Jan. 61-Dec. 61	226 831	230 478	-	-	1 232 373	1 252 160	376	-	9.4		
4th	Jan. 62-Dec. 62	237 553	239 078	-	-	1 275 185	1 283 375	396	-	8.9		
5th	Jan. 63-Dec. 63	237 062	239 375	-	-	1 244 338	1 256 399	403	-	9.5		
6th	Jan. 64-Dec. 64	248 739	249 063	(a)	5 079	1 289 708	1 314 866	396	410	9.2		
7th	Jan. 65-Dec. 65	259 760	259 743	(a)	5 372	821 913	827 823	440	399	9.3		
8th	Jan. 66-Dec. 66	163 746	164 623	(a)	5 958	863 654	618 999	465	420	9.0		
9th	Jan. 67-Dec. 67	170 580	115 023	(a)	9 320	11 356	279 693	306 925	471	439	9.0	
10th	Jan. 68-Dec. 68	65 151	55 884	(a)	9 445	12 098	337 680	307 741	491	473	8.3	
11th	Jan. 69-Dec. 69	34 088	37 139	(a)	11 375	16 925	187 460	223 046	493	409	7.7	
12th	Jan. 70-Dec. 70	32 752	33 998	(a)	14 817	12 653	206 178	202 201	476	429	7.9	
13th	Jan. 71-Dec. 71	33 124	30 010	(a)	11 343	14 953	189 793	191 910	436	425	8.5	
14th	Jan. 72-Dec. 72	39 458	38 452	(a)	18 844	18 239	275 688	269 086	423	362	8.3	
15th	Jan. 73-Dec. 73	35 806	36 783	(a)	16 447	16 447	261 914	255 149	420	380	8.3	
16th	Jan. 74-Dec. 74	59 766	56 652	(a)	19 203	17 634	379 051	376 386	414	374	8.4	
17th	Jan. 75-Dec. 75	67 305	85 065	(a)	19 203	17 081	415 238	518 110	410	375	8.3	
18th	Jan. 76-Dec. 76	167 410	166 684	(a)	19 702	16 168	787 899	932 662	429	384	8.2	
19th	Jan. 77-Dec. 77	178 831	171 831	(a)	20 756	19 735	862 107	964 796	403	282	8.8	
20th	Jan. 78-Dec. 78	183 385	165 772	(a)	17 378	12 173	876 178	847 580	416	391	8.3	
21st	Jan. 79-Dec. 79	165 444	154 829	(a)	1 429	1 429	779 082	796 541	478	259	7.1	

a) The date of the cycles of malathion are in agreement with the cycles of DDT, although the malathion cycles are of four months.



EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	-
1966	197 472	13 895	7.0	2 045	11 850	-
1967	269 575	16 321	6.1	2 353	13 968	-
1968	411 544	8 250	2.0	479	7 771	-
1969	498 119	16 043	3.2	2 673	13 370	-

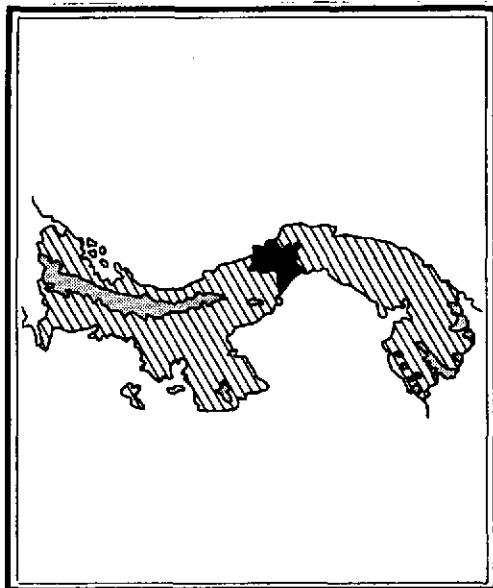
CONSOLIDATION PHASE AREAS

Year	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				
					Relapsing	Imported		Induced	Intro-duced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
						Autogenous	from abroad							from areas within country
1962 ^{a)}	515	18 994 ^{a)}	7.4	159	13	-	50	-	1	38	26	132	1
1963	668	62 511	9.4	966	39	-	230	1	3	199	478	488	-
1964	695	74 543	10.7	1 819	140	-	364	1	1	659	506	1 313	-
1965	730	68 945	9.4	1 605	221	-	458	-	6	352	154	1 451	-
1966 ^{b)}	665	57 036	8.6	1 752	90	-	143	-	-	915	83	1 669	-

a) July-December. b) In 1967, consolidation areas reclassified to attack phase.

PANAMA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	1 417	75 650
Non malarious areas	57	5 810
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	-	-
Attack phase	1 360	69 840
Preparatory phase	-	-
Total originally malarious areas	1 360	69 840

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	326	327
Evaluation operations	1	182	183
Administrative and other	5	72	77
Transport	-	16	16
Total	7	596	603

TRANSPORT FACILITIES

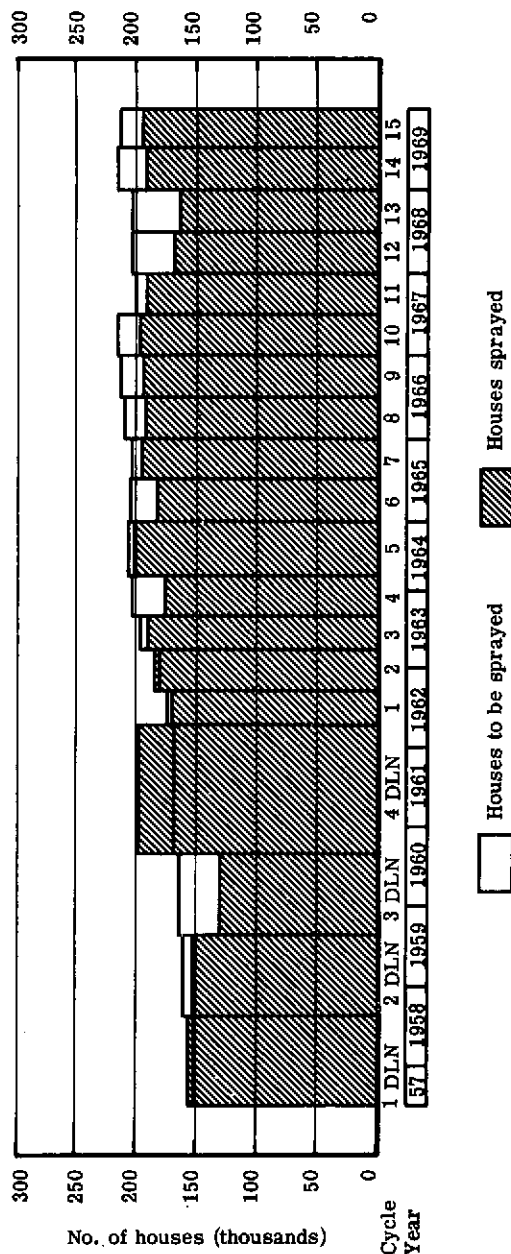
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	84	5	12	101
Two-wheel vehicles	-	52	4	56
Boats	42	3	-	45
Animals	-	-	-	-
Other	-	-	-	-
Total	126	60	16	202

PANAMA (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		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Sprayed							
1st	Aug. 57-Aug. 58	-	-	-	152 957	155 963	659 856 a)	671 824 a)	-	119	6.5	
2nd	Sep. 58-Aug. 59	-	-	-	161 700	154 636	697 574	667 095	-	145	6.9	
3rd	Sep. 59-Aug. 60	-	-	-	165 102	131 270	707 462	562 514	-	129	7.3	
4th	Sep. 60-Apr. 62	-	-	-	172 121	199 265	722 392	836 229	-	138	6.8	
5th	May 62-Apr. 63	1st	175 822	174 779	(b)	1 101 c)	710 918	711 983	490	63	8.1	
		2nd	182 784	184 355	(b)	1 192 c)	714 320	726 944	510	103	8.8	
6th	May 63-Apr. 64	3rd	197 379	193 960	(b)	1 024 c)	733 060	724 166	477	77	8.9	
		4th	205 165	176 912	(b)	1 268 c)	771 827	670 310	455	71	9.3	
7th	May 64-Jun. 65	5th	209 126	201 976	(b)	1 078 c)	750 420	728 633	440	77	9.0	
		6th	206 495	193 650	1 332	1 867 c)	724 980	647 164	421	77	9.0	
8th	Jul. 65-Jun. 66	7th	205 050	196 902	1 105	1 133 c)	730 020	701 266	421	73	8.8	
		8th	211 390	193 629	...	1 249	710 101	654 648	416	71	7.4	
9th	Jul. 66-Jun. 67	9th	215 450	196 258	1 250	1 315	720 552	664 620	428	83	7.5	
		10th	217 620	197 700	-	-	761 670	712 459	432	-	8.0	
10th	Jul. 67-Jun. 68	11th	201 950	194 832	-	-	706 825	649 039	431	-	8.3	
		12th	205 148	168 479	-	-	759 048	584 220	436	-	7.5	
11th	Jul. 68-Jun. 69	13th	207 214	165 285	-	-	766 692	563 486	423	-	7.0	
		14th	208 154	183 546	-	-	749 354	644 757	434	-	7.6	
12th	Jul. 69-Dec. 69	15th	215 369	196 003	-	-	755 945	757 402	495	-	7.1	

a) Estimated. b) Included in DDT column. c) Sprayed twice a year with 0.3 g/m².



PANAMA (Cont.)

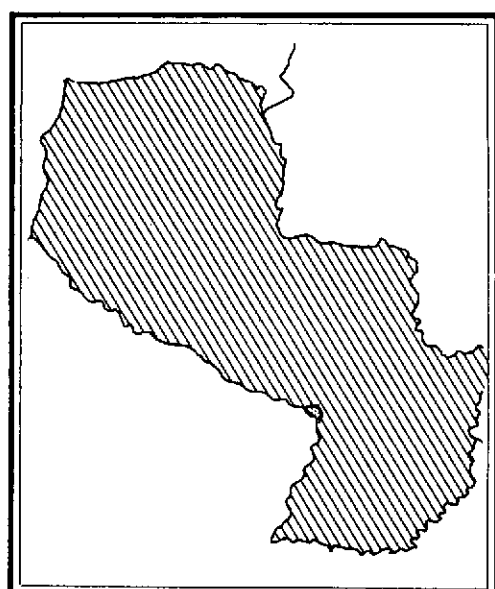
EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1957a)	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	-
1966	97 525	3 664	3.8	919	2 744	1
1967	88 614	2 697	3.0	527	2 170	-
1968	63 211	1 625	2.6	495	1 130	-
1969	94 596	5 938	6.3	4 106	1 832	-

a) August-December.

PARAGUAY

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>2 331</u>	<u>406 752</u>
Non malarious areas	<u>409</u>	<u>200</u>
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	-	-
Attack phase	<u>1 922</u>	<u>406 552</u>
Preparatory phase	-	-
Total originally malarious areas	<u>1 922</u>	<u>406 552</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	470	472
Evaluation operations	5	81	86
Administrative and other	2	46	48
Transport	-	92	92
Total	9	689	698

TRANSPORT FACILITIES

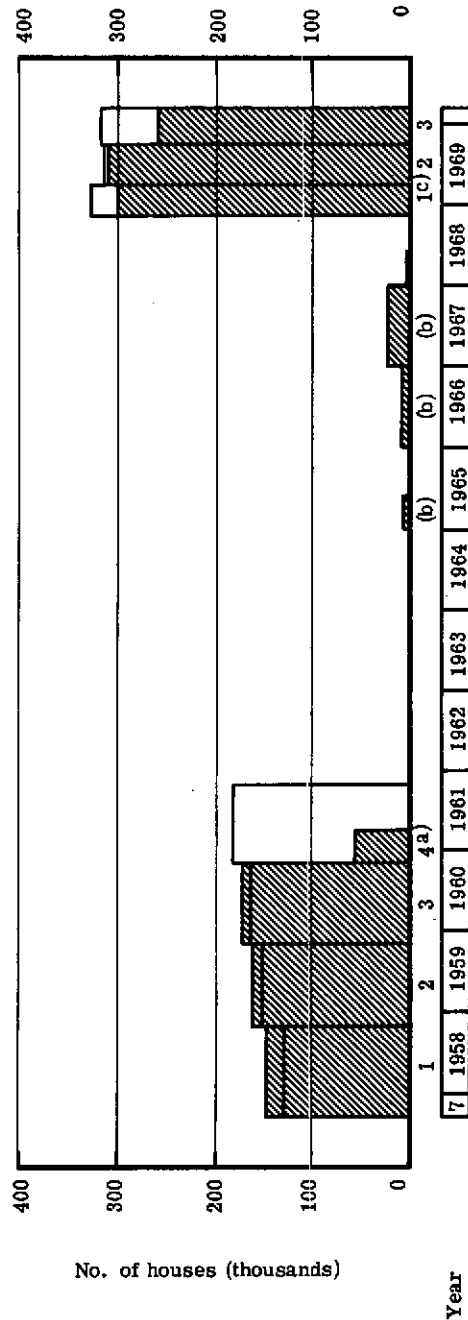
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	94	4	27	125
Two-wheel vehicles	-	21	6	27
Boats	6	7	8	21
Animals	-	-	-	-
Other	-	-	-	-
Total	100	32	41	173

PARAGUAY (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	Protected	DDT	Dieldrin		
		Planned	Sprayed	Planned	Sprayed							
1st	Nov. 57-Oct. 58	-	-	128 902	148 626	1st	638 190	747 541	-	105	10.9	
2nd	Nov. 58-Oct. 59	-	-	150 033	161 261	2nd	749 115	805 232	-	111	14.3	
3rd	Nov. 59-Oct. 60	-	-	183 586	171 086	3rd	807 460	844 515	-	118	11.7	
4th ^{a)}	Nov. 60-Mar. 61	-	-	181 097	56 656	4th ^{a)}	898 060	280 982	-	138	8.1	
(b)	Jan. 65-May. 65	-	-	-	5 709	-	-	27 213	-	129	6.6	
(b)	Jan. 66-Dec. 66	-	-	-	6 993	-	-	-	-	126	6.9	
(b)	Jan. 67-Dec. 67	-	-	-	12 359	-	-	70 227	534	134	6.7	
1st ^{c)}	Oct. 68-Sep. 69	330 000	304 100	-	-	-	1 500 000	1 384 606	472	-	8.2	
		314 102	311 000	-	-	-	1 430 000	1 461 027	448	-	9.1	
2nd	Oct. 69-Feb. 70	317 805	260 388	-	-	-	1 397 988	1 163 210	475	-	9.3	

a) Program suspended, new program being planned. b) Emergency spraying. c) New coverage started in October 1968. d) Cycle not yet finished.



PARAGUAY (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found			
	Total No.	Positive		P. falciparum	P. vivax	P. malariae	
		Number	Percentage				
1958	14 359	526	3.7	...	...	...	...
1959	11 379	641	5.6	1	640	1	1
1960	47 045	1 165	2.5	5	1 159	-	-
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	1
1965	82 848	6 732	8.1	115	6 616	1	1
1966	131 293	33 026	25.1	717	32 309	-	-
1967	164 444	50 304	30.6	6 636	43 668	-	-
1968	113 770	20 743	18.2	794	19 949	-	-
1969	129 509	10 307	8.0	1 591	8 716	-	-

STATUS OF MALARIA PROGRAM AT DECEMBER 1969

PERU



	Population (thousands)	Area km ²
TOTAL COUNTRY	13 172	1 285 216
Non malarious areas	8 582	324 044
Originally malarious areas		
Maintenance phase	1 133	84 497
Consolidation phase	2 256	327 685
Attack phase	1 201	548 990
Preparatory phase	-	-
Total originally malarious areas	4 590	961 172

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	4	226	230
Evaluation operations	9	286	295
Administrative and other	10	69	79
Transport	1	85	86
Total	24	666	690

TRANSPORT FACILITIES

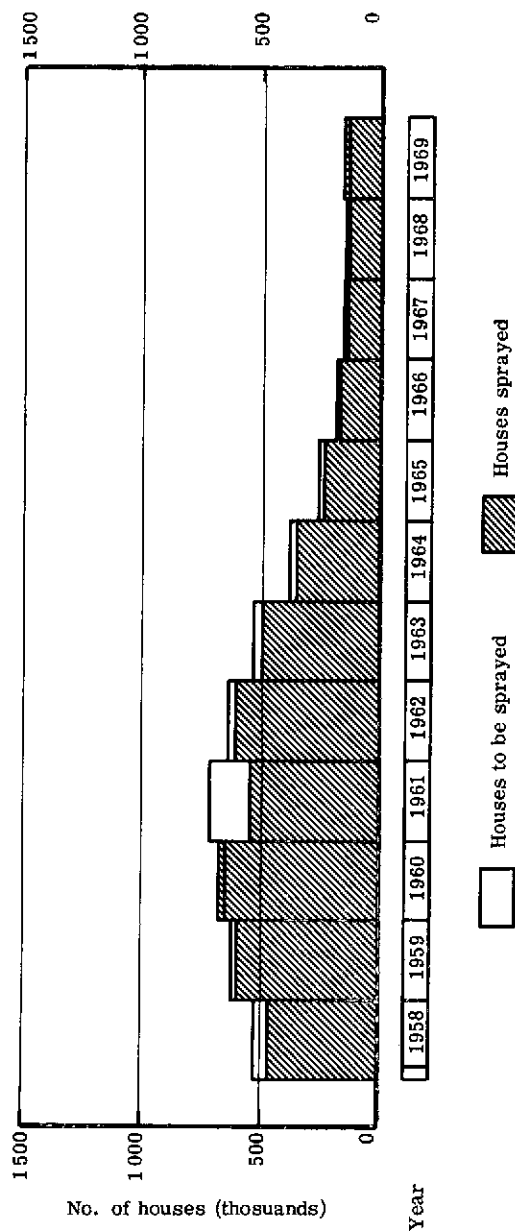
Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	30	61	43	134
Two-wheel vehicles	-	-	-	-
Boats	31	67	32	130
Animals	-	-	-	-
Other	-	-	-	-
Total	61	128	75	264

PERU (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		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
1st	Nov. 57-Oct. 58	1st + 2nd	527 081	286 764a) 79 266b)	1st	(c)	122 120	2 054 035	1 867 208	426	115	7.8
2nd	Jan. 59-Dec. 59	(d)	637 241	271 065e)	2nd	(c)	341 804	2 886 064	2 775 694	424	118	8.4
3rd	Jan. 60-Dec. 60	(d)	654 825	447 848e)	3rd	(c)	234 643	3 209 952	3 345 726	468	95	8.4
4th	Jan. 61-Dec. 61	(d)	714 740	534 037e)	4th	(c)	25 005	2 826 797	2 210 988	410	109	7.9
5th	Jan. 62-Dec. 62	(d)	646 982	627 327e)	-	-	-	2 354 405	2 283 960	465	-	8.7
6th	Jan. 63-Dec. 63	(d)	537 112	500 218e)	-	-	-	1 885 800	1 756 286	459	-	8.1
7th	Jan. 64-Dec. 64	(d)	357 805	379 184e)	-	-	-	1 182 617	1 253 290	473	-	7.9
8th	Jan. 65-Dec. 65	(d)	264 319	240 003e)	-	-	-	860 017	780 901	507	-	7.2
9th	Jan. 66-Dec. 66	(d)	190 613	186 109e)	-	-	-	610 379	595 958	523	-	6.6
10th	Jan. 67-Dec. 67	(d)	169 436	162 433e)	-	-	-	559 139	545 895	517	-	6.7
11th	Jan. 68-Dec. 68	(d)	150 780	153 893e)	-	-	-	507 634	546 434	584	-	5.9
12th	Jan. 69-Dec. 69	(d)	167 489	173 975	-	-	-	611 117	601 630	506	-	6.3

a) Sprayed once a year. b) Sprayed twice a year. c) Included in DDT column. d) Owing to different spray cycle in 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		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	0.5	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
1966	266 237	1 785	0.7	32	1 663	90
1967	198 340	2 689	1.4	105	2 512	72
1968	129 951	1 970	1.5	51	1 875	44
1969	143 052	2 850	2.0	22	2 791	37

CONSOLIDATION PHASE AREAS

Year	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								
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae			
							from abroad	from areas within country									
1959	14	1 378	9.8	-	-	-	-	-	-	-	-	-	-	-	-	-	
1960	15	7 277	48.5	5	-	1	-	4	-	-	1	-	1	4	-	-	
1961	47	13 760	29.3	1	-	-	1	-	-	-	-	-	-	-	-	-	-
1962	864	71 330	8.3	20	1	12	1	4	1	-	16	1	83	4	3	4	4
1963	2 199	168 727	7.7	87	6	51	3	3	9	-	83	1	316	4	4	4	4
1964	2 204	186 205	8.4	321	45	25	2	2	37	3	316	1	349	4	5	5	5
1965	2 334	165 388	7.1	367	50	6	1	1	100	-	233	13	349	2	2	2	2
1966	1 962	138 634	7.1	233	39	14	1	1	92	-	78	-	233	-	-	-	-
1967	1 992	112 753	5.7	80	1	6	-	-	10	4	31	-	78	2	2	2	2
1968	2 184	85 336	3.9	34	6	9	1	1	7	-	31	1	31	2	2	2	2
1969	2 256	94 647	4.2	309	9	93	2	-	25	-	308	-	308	1	1	1	1

a) November 1957-October 1958. b) Includes undifferentiated mixed infections.

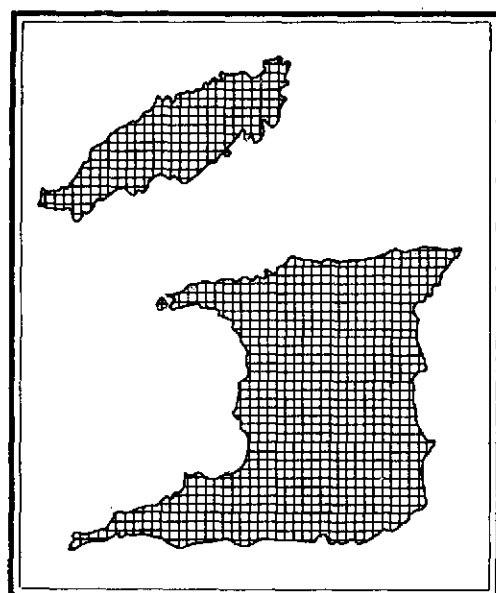
PERU (Cont.)

MAINTENANCE PHASE AREAS

Year	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			
					Autochthonous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
							from abroad	from areas within country						
1963	43	8 581	20.0	4	-	1	1	2	-	-	2	2	-	2
1964	43	8 256	19.2	-	-	-	-	-	-	-	-	-	-	-
1965	46	6 260	13.6	2	-	-	-	2	-	-	-	-	-	2
1966	1 044	20 032	1.9	7	-	1	3	1	-	2	2	5	-	2
1967	1 058	30 738	2.9	3	-	-	2	1	-	-	-	1	-	2
1968	1 112	31 829	2.9	6	-	-	1	2	-	-	-	5	-	1
1969	1 133	25 645	2.3	9	2	4	-	1	-	-	-	7	-	2

TRINIDAD AND TOBAGO

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	1 125	5 605
Non malarious areas	155	161
Originally malarious areas		
Maintenance phase	970	5 444
Consolidation phase	-	-
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	970	5 444

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	91	92
Evaluation operations	11	110	121
Administrative and other	2	48	50
Transport	-	10	10
Total	14	259	273

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	2	8	-	10
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	2	8	-	10

TRINIDAD AND TOBAGO (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined		Species found			
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
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

Year	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					
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
							from abroad	from areas within country						
1958	160	21 279	13.2	2	-	-	2	-	-	2	-	-		
1959	160	361	0.2	5	-	5	-	-	-	4	1	-		
1960	185	17 612	9.5	2	-	2	-	-	-	1	1	-		
1961	197	11 602	5.9	1	-	1	-	-	-	1	-	-		
1962	877	120 967	13.8	1	-	1	-	-	-	-	1	-		
1963	828	108 388	13.1	0	-	-	-	-	-	-	-	-		
1964	822	82 038	10.0	3	-	2	-	-	-	-	1	2		

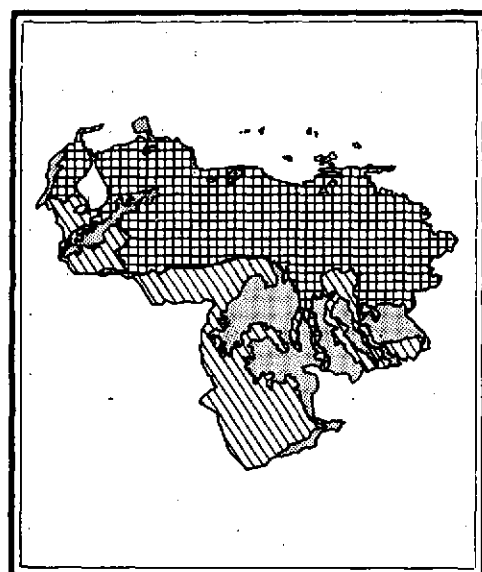
MAINTENANCE PHASE AREAS

1965a)	846	58 922a)	7.6	2	-	2	-	-	-	-	2	-	-
1966	872	89 156	10.2	40	38	1	-	-	-	-	1	-	39
1967	872	74 255	8.5	0	-	-	-	-	-	-	-	-	-
1968	885	65 757	7.4	5	-	1	4	-	-	-	4	-	1
1969	970	42 272	4.4	5	-	-	5b)	-	-	-	3	-	2

a) January-November. b) One imported relapsing case.

VENEZUELA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	<u>9 550</u>	<u>912 050</u>
Non malarious areas	<u>2 440</u>	<u>312 050</u>
Originally malarious areas		
Maintenance phase	<u>6 711</u>	<u>461 259</u>
Consolidation phase	-	-
Attack phase	<u>399</u>	<u>138 741</u>
Preparatory phase	-	-
Total originally malarious areas	<u>7 110</u>	<u>600 000</u>

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	2	519	521
Evaluation operations	24	465	489
Administrative and other	(a)	(a)	(a)
Transport	(a)	(a)	(a)
Total	26	984	1 010

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	127	144	-	271
Two-wheel vehicles	36	315	-	351
Boats	36	88	-	124
Animals	300	335	-	635
Other	36 ^{b)}	-	-	36
Total	535	882	-	1 417

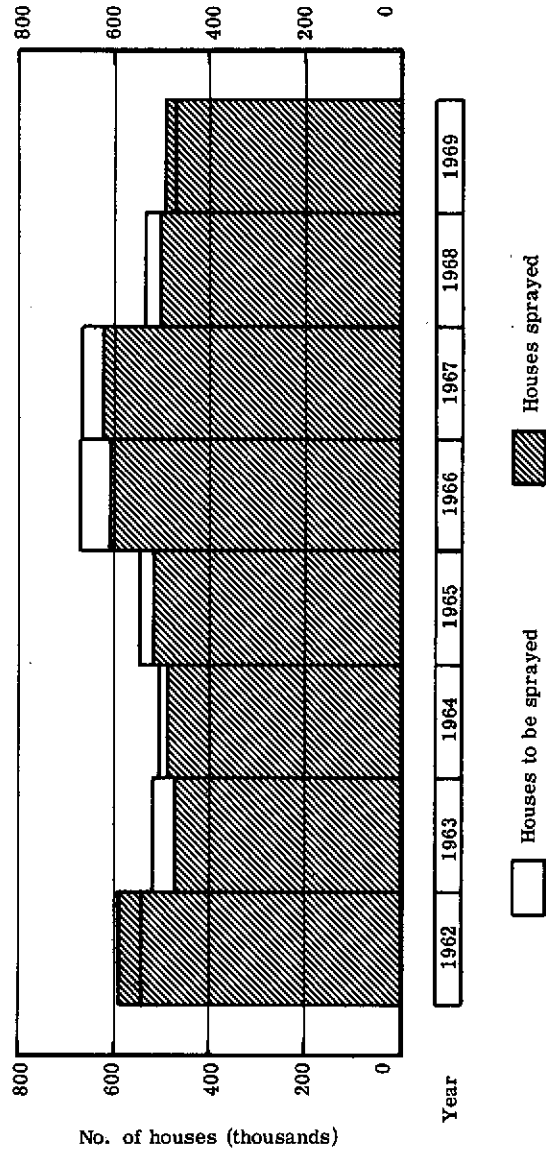
a) Services performed by personnel of the "Dirección de Malariología y Saneamiento Ambiental" in charge of different programs of environmental sanitation.

b) Fogging machines.

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT			Dieldrin			Planned	Protected	DDT	Dieldrin	
		Cycle	Planned	Sprayed	Cycle	Planned	Sprayed					
...	Jan. 62-Dec. 62	...	595 757	510 287 ^{a)}	...	(b)	29 782	2 305 330	2 024 180	365	218	6.6
...	Jan. 63-Dec. 63	...	526 626	475 753 ^{a)}	...	(b)	4 112	2 155 390	1 964 197	368	274	7.0
...	Jan. 64-Dec. 64	...	505 250	490 884 ^{a)}	...	(b)	(b)	2 069 353 ^{d)}	2 010 365	384	...	7.3
...	Jan. 65-Dec. 65	...	553 218 ^{d)}	522 616 ^{a)}	...	-	-	2 279 763 ^{d)}	2 153 429	422	-	7.0
...	Jan. 66-Dec. 66	...	676 336	611 665 ^{a)}	...	-	-	2 825 556	2 554 844	399	-	6.7
...	Jan. 67-Dec. 67	...	675 556	623 926 ^{a)}	...	-	-	2 837 335	2 578 451	373	-	7.2
...	Jan. 68-Dec. 68	...	543 874	505 452 ^{a)}	...	-	-	...	2 039 352	465	-	6.3
...	Jan. 69-Dec. 69	...	477 090	492 476 ^{a)}	...	-	-	1 744 475	1 996 617	479	-	6.8

a) Including houses sprayed twice, three and four times a year. b) Included in DDT column. c) Including houses sprayed with BHC or lindane. d) Estimated.



VENEZUELA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1958	269 448	975a)	0.4	60	901	4
1959	232 710	765a)	0.3	92	646	14
1960	247 429	1 346a)	0.5	165	1 163	6
1961	230 336	1 175a)	0.5	68	1 075	21
1962	172 280	883b)	0.5	53	812	14
1963	153 406	2 194b)	1.4	80	2 083	20
1964	141 977	3 948b)	2.8	451	3 486	4
1965c)	267 227	3 448	1.3	152	3 294	2
1966c)	294 602	3 935	1.3	465	3 431	39
1967	249 057	4 281	1.7	940	3 323	18
1968d)	201 568	5 555	2.8	1 511	3 989	55
1969	156 347	7 933	5.1	1 821	6 046	66

CONSOLIDATION PHASE AREAS

Year	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					
					Autogenous	Relapsing	Imported		Induced	Intro-duced	Not investi-gated and unclassi-fied	P. falciparum	P. vivax	P. malar-iae
							from abroad	from areas within country						
1958	469	69 614	14.8	50	-	-	27	-	-	23	-	2	46	2
1959	685	101 878	14.9	45	-	-	37	-	1	7	-	2	43	-
1960	291	93 047	32.0	112a)	-	2	31	45	1	33	-	-	108	2
1961	174	64 923	37.3	57	-	4	15	9	-	29	-	-	57	-
1962	150	93 646	62.4	74a)	-	1	29	7	-	37	-	22	51	-
1963	102	61 724	60.5	89a)	-	-	32	7	-	50	-	26	62	-
1964	99	58 605	59.2	74	-	-	15	9	-	50	-	-	74	-
1965e)	132	41 227e)	41.6	20	-	-	11	3	-	6	-	10	10	-
1966e)	67	31 766e)	63.2	33	-	-	14	9	-	10	-	6	27	-
1967	37	27 772	75.1	34	-	-	16	2	-	16	-	3	31	-

a) Includes undifferentiated mixed infections. b) Includes undifferentiated mixed infections and unclassified species of parasites.
 c) Data for last quarter, not separated by phases. d) In 1968 areas in consolidation were reclassified to attack phase. e) January/September.

VENEZUELA (Cont.)

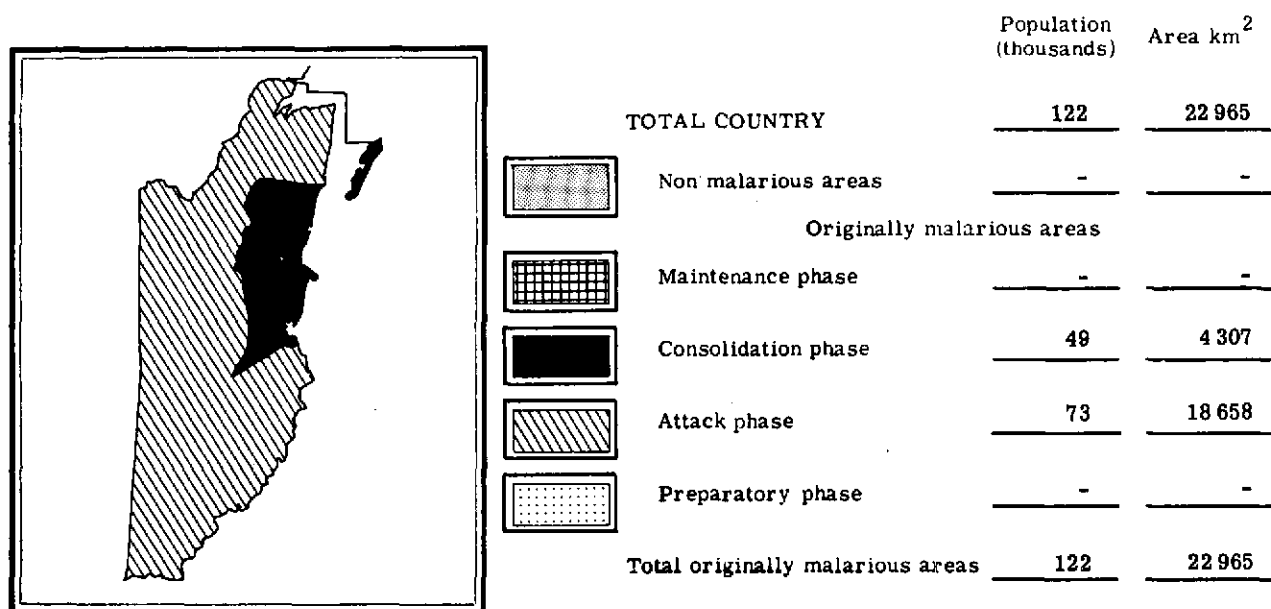
MAINTENANCE AND NON-MALARIOUS AREAS

Year	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					
					Autogenous	Relapsing	Imported	Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae	
						from abroad	from areas within country							
1958	4720	145 654	3.1	113a)	-	-	79	5	28	1	6	100	6	6
1959	5097	169 189	3.3	101a)	-	-	87	6	7	1	14	73	9	9
1960	6092	224 193	3.7	216a)	-	6	44	4	70	-	14	197	4	4
1961	7111	305 252	4.3	522a)	-	11	52	4	333	-	13	498	5	5
1962	7410	282 314	3.8	253a)	-	5	52	2	110	-	5	244	3	3
1963	7701	284 814	3.7	570	-	-	79	3	202	-	6	562	2	2
1964	7973	317 731	4.0	1862a)	-	1b)	180b)	1b)	339b)	-	12	1846	2	2
1965d)	8205	236 588d)	3.8	1875	-	-	81	5	984	-	70	1780	25	25
1966d)	8500	274 727d)	4.3	1502c)	-	-	110	1	588	-	42	1454	6	6
1967	8772	373 853	4.3	942	-	1	79	3	248	-	77	861	4	4
1968	6545b)	325 885b)	5.0	180b)	-	-	42b)	2b)	32b)	1b)	20b)	155b)	5b)	5b)
1969	6711b)	311 811b)	4.6	727b)	-	12b)	151b)	3b)	114b)	2e)	77b)	647b)	3b)	3b)

a) Includes undifferentiated mixed infections. b) Maintenance phase only. c) Including one cryptic case. d) January-September. e) Cryptic cases.

BRITISH HONDURAS

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	19 (5)	19 (5)
Evaluation operations	(1)	11	11 (1)
Administrative and other	-	4	4
Transport	-	2	2
Total	(1)	36 (5)	36 (6)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	4	5	5	14
Two-wheel vehicles	-	-	2	2
Boats	-	5	4	9
Animals	-	-	-	-
Other	-	-	-	-
Total	4	10	11	25

(Part-time personnel in parentheses)

BRITISH HONDURAS (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 man/day
			Planned	Sprayed	Planned	Protected		
(a)	Jun. 66-Dec. 66	...	...	6 447	...	30 889	426	10.0
...	Ene. 67-Dec. 67	1st-2nd	...	15 820	...	48 213	399	7.6
...	Ene. 68-Jun. 68	3rd	10 720	10 297	70 450	45 167	463	7.5
...	Ago. 68-Dec. 68	4th	10 720	5 375	70 450	24 802	489	6.8
...	Ene. 69-Dec. 69	5th 6th	10 127 11 127	9 060 10 533	72 316 72 316	41 541 47 081	508 506	7.1 7.8

a) New coverage started.

BRITISH HONDURAS (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	-
1967a)	12 959	358	2.8	160	198	-
1968	10 690	39	0.4	1	38	-
1969	10 725	27	0.3	-	27	-

CONSOLIDATION PHASE AREAS

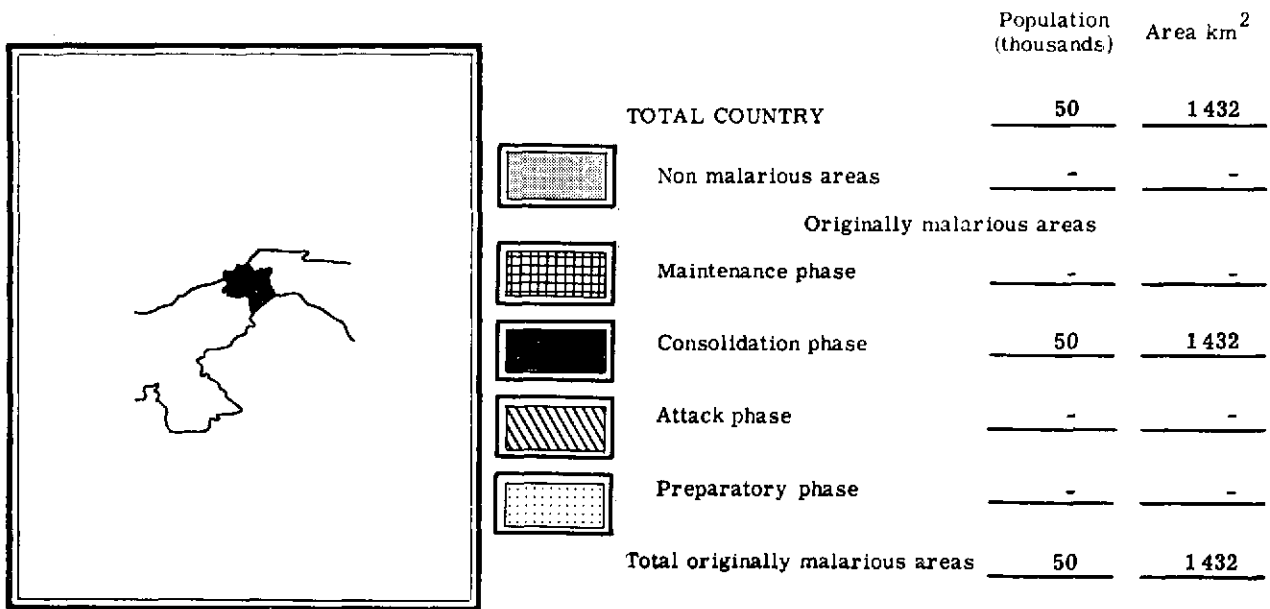
Year	Estimated population in the area (thousands)	No. of slides examined	% of population sampled (annual rate)	Total No. of positive cases	Origin of infections				Species of parasite					
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
							from abroad	from areas within country						
1962 ^{b)}	100	6 661 ^{b)}	16.0	18	10	7	1	-	-	-	18	-	-	
1963	100	13 085	13.1	17	17	-	-	-	-	-	17	-	-	
1964	104	11 826	11.4	35	32	2	1	-	-	-	35	-	-	
1965	105	10 787	10.3	206	200	-	4	-	-	-	188	18	-	
1966	107	13 920	13.0	552	551	-	1	-	-	-	260	292	-	
1967	46	1 814	3.9	17	8	-	2	6	-	-	10	7	-	
1968	48	1 581	3.3	-	-	-	-	-	-	-	-	-	-	
1969	49	1 469	3.0	1	-	-	-	1	-	-	-	1	-	

a) At the beginning of 1967 all areas were brought back to attack phase, with the exception of Belize District. b) August-December.

c) Cryptic case.

CANAL ZONE

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	-	-	-
Administrative and other	-	(36)	(36)
Transport	-	-	-
Total	-	(36)	(36)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	(2)	(2)
Two-wheel vehicles	-	-	-	-
Boats	-	-	(4)	(4)
Animals	-	-	-	-
Other	-	-	-	-
Total	-	-	(6)	(6)

(Figures in parentheses are to be considered as part-time)

CANAL ZONE (Cont.)

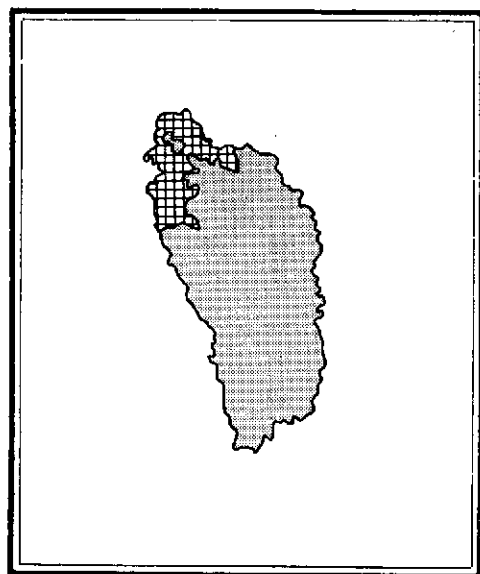
EPIDEMIOLOGICAL EVALUATION OPERATIONS, CONSOLIDATION PHASE AREAS

Year	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				
					Autogenous	Relapsing	Imported	Induced	Introduced	Not investigated and unclassified	<i>P. falciparum</i>	<i>P. vivax</i>	<i>P. malariae</i>		
							from abroad	from areas within country							
1960	41	2 656	6.5	27	27	-	-	-	-	-	-	3	24	-	-
1961	41	5 984	14.6	25	25	-	-	-	-	-	-	2	23	-	-
1962	44	677	1.5	18	18	-	-	-	-	-	-	-	18	-	-
1963	47	21 008	44.7	22	-	1	16	-	-	-	5	2	20	-	-
1964	50	26 228	52.5	21	7	3	1	10	-	-	-	-	21	-	-
1965	50	24 024	48.0	38	1	7	29	-	-	1	-	6	32	-	-
1966 ^a)	50	23 434 ^a)	51.1	71	26	4	41	-	-	-	-	1	70	-	-
1967	50	29 762	60.0	111	87	8	16	-	-	-	-	7	104	-	-
1968	50	22 367	44.7	89	70	8	10	-	-	-	-	5	94	-	-
1969	50	31 876	63.8	158	45	12	101	-	-	-	-	43	115	-	-

a) January-November.

DOMINICA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	70	751
Non malarious areas	52	599
Originally malarious areas		
Maintenance phase	18	152
Consolidation phase	-	-
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	18	152

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	(1)	9	9(1)
Administrative and other	-	(1)	(1)
Transport	-	-	-
Total	(1)	9(1)	9(2)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	1	-	1
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	1	-	1

(Part-time personnel in parentheses)

DOMINICA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	0	-	-	-	-

CONSOLIDATION PHASE AREAS

Year	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					
					Autogenous	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae	
						from abroad	from areas within country							
1963	14	16 775	119.8	-	-	-	-	-	-	-	-	-	-	-
1964	14	16 154	115.4	-	-	-	-	-	-	-	-	-	-	-
1965	15	9 894	66.0	-	-	-	-	-	-	-	-	-	-	-

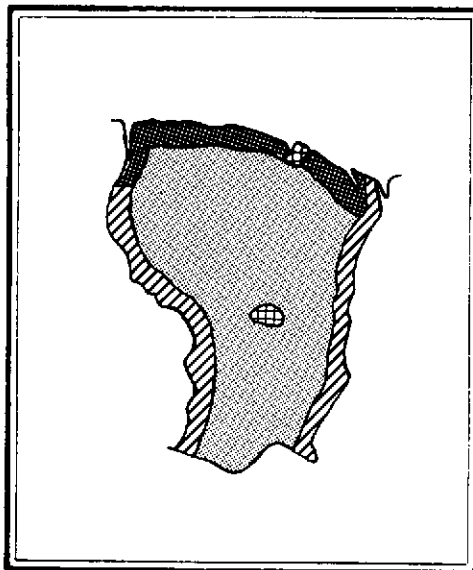
MAINTENANCE PHASE AREAS

1966	17	6 634	39.0	-	-	-	-	-	-	-	-	-	-	-
1967	18	3 571 ^b	19.8	-	-	-	-	-	-	-	-	-	-	-
1968	18	5 197	28.9	-	-	-	-	-	-	-	-	-	-	-
1969	18	2 779	15.4	-	-	-	-	-	-	-	-	-	-	-

a) June-December. b) Does not include information for July, August and September.

FRENCH GUIANA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	44	90 000
Non malarious areas	-	69 300
Originally malarious areas		
Maintenance phase	25	200
Consolidation phase	15	7 500
Attack phase	4	13 000
Preparatory phase	-	-
Total originally malarious areas	44	20 700

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	77	77
Evaluation operations	2	5	7
Administrative and other	-	3	3
Transport	-	19	19
Total	2	104	106

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	10	10
Two-wheel vehicles	-	-	-	-
Boats	-	3	6	9
Animals	-	-	-	-
Other	-	-	-	-
Total	-	3	16	19

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		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
...	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	...	...
...	Jan. 66-Dec. 66	...	2 117	2 500	...	8 912	6 932 ^{a)}	44 433	38 000	...	...	...
...	Feb. 67-Dec. 67	...	3 886	845	...	10 574	8 081 ^{a)}	...	...	...	...	...
...	Feb. 68-Dec. 68	...	3 000	2 977	...	11 000	10 487 ^{b)}	46 400	...	...	...	...
...	Feb. 69-Dec. 69	...	(c)	(c)	...	28 105 ^{c)}	26 861 ^{c)}	43 500 ^{c)}	43 500 ^{c)}	...	...	...

a) Includes houses sprayed with DDT once a year, malathion and actidrine. b) Sprayed with malathion once a year. c) Includes houses sprayed with DDT, malathion and dieldrin.

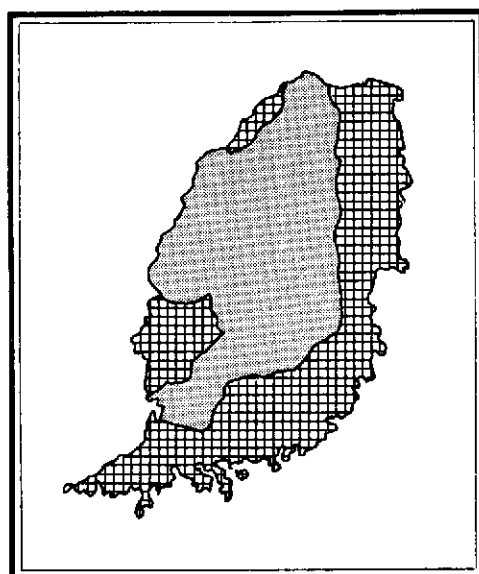
FRENCH GUIANA (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS

Year	Slides examined			Species found		
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
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	-
1966	6 180	12	0.2	8	4	-
1967	9 811	25	0.3	19	6	-
1968	7 132	50	0.7	35	14	1
1969	7 000	52	0.7	20	32	-

GRENADA AND CARRIACOU

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



(Island of Carriacou in Maintenance phase, not shown in the Map)

	Population (thousands)	Area km ²
TOTAL COUNTRY	106	342
Non malarious areas	70	239
Originally malarious areas		
Maintenance phase	36	103
Consolidation phase	-	-
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	36	103

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	-	-	-
Administrative and other	-	-	-
Transport	-	-	-
Total	-	-	-

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	-	-
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	-	-	-

GRENADA AND CARRIACOU (Cont.)

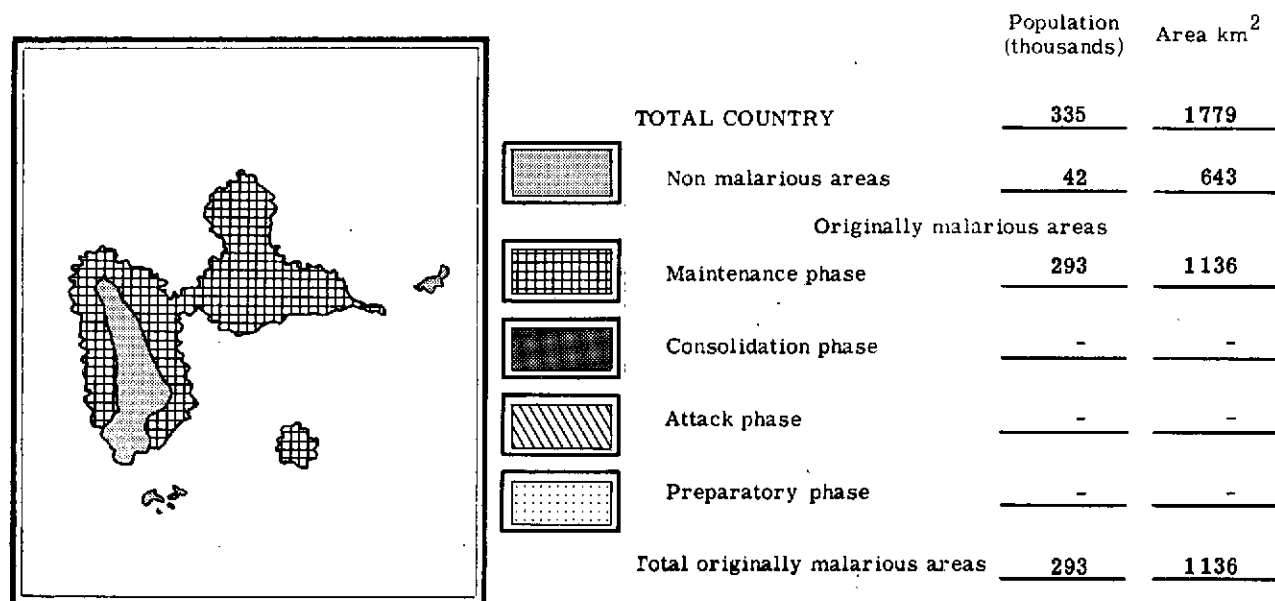
EPIDEMIOLOGICAL EVALUATION OPERATIONS, MAINTENANCE PHASE AREAS

Year	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					
					Autochthonous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae		
1962	37	1 996	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-
1963	37	56	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
1964	39	517	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	32	1 085	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	32	1 263	3.9	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	34	1 200	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	34	218	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
1969a)	36	980a)	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-

a) January-June.

GUADELOUPE

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	1(1)	6(3)	7(4)
Administrative and other	-	-	-
Transport	-	-	-
Total	1(1)	6(3)	7(4)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	2(1)	-	2(1)
Two-wheel vehicles	-	-	-	-
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	2(1)	-	2(1)

(Figures in parentheses are to be considered as part-time)

GUADELOUPE (Cont.).

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined			Species found		
	Total No.	Positive		<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>
		Number	Percentage			
1958	1 150	3	0.26	-	-	3
1959	3 903	-	0	-	-	-
1960 a)	4 450	2	0.04	...	...	...

CONSOLIDATION PHASE AREAS

Year	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						
					Autogenous	Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	<u>P. falciparum</u>	<u>P. vivax</u>	<u>P. malariae</u>	
							from abroad	from areas within country							
1958	129	4 887	3.8	-	-	-	-	-	-	-	-	-	-	-	-
1959	133	3 691	2.8	-	-	-	-	-	-	-	-	-	-	-	-
1960	145	7 080	4.9	-	-	-	-	-	-	-	-	-	-	-	-
1961	186	11 857	6.4	-	-	-	-	-	-	-	-	-	-	-	-
1962	66	11 196	17.0	-	-	-	-	-	-	-	-	-	-	-	-

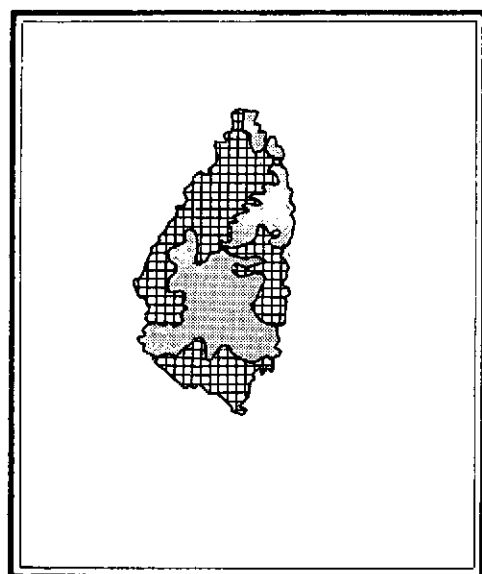
MAINTENANCE PHASE AREAS

1961	58	2 407	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-
1962	187	5 239	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-
1963a)	260	17 170a)	8.8	1	-	1	-	-	-	-	-	-	-	-	-	-
1964	298b)	21 831c)	7.3	-	-	-	-	-	-	-	-	-	-	-	-	-
1965	300b)	33 512c)	11.2	-	-	-	-	-	-	-	-	-	-	-	-	-
1966	312b)	32 022c)	10.3	-	-	-	-	-	-	-	-	-	-	-	-	-
1967	287	17 882c)	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-
1968	289	14 018c)	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-
1969	335b)	17 412c)	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-

a) January-September. b) Includes population of areas originally non-malarious. c) Includes slides taken in non-malarious areas.

ST. LUCIA

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	112	603
Non malarious areas	16	93
Originally malarious areas		
Maintenance phase	96	510
Consolidation phase	-	-
Attack phase	-	-
Preparatory phase	-	-
Total originally malarious areas	96	510

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	-	-	-
Evaluation operations	-	3 (1)	3 (1)
Administrative and other	-	-	-
Transport	-	1	1
Total	-	4 (1)	4 (1)

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	1	-	1
Two-wheel vehicles	-	1	-	1
Boats	-	-	-	-
Animals	-	-	-	-
Other	-	-	-	-
Total	-	2	-	2

(Part-time personnel in parentheses)

ST. LUCIA (Cont.)

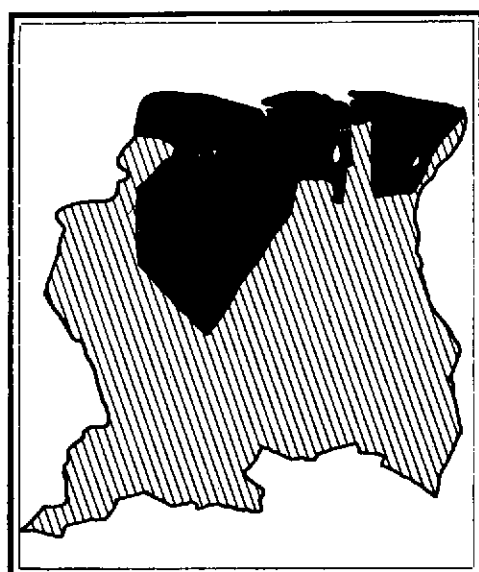
EPIDEMIOLOGICAL EVALUATION OPERATIONS, MAINTENANCE PHASE AREAS

Year	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						
					An- tochtho- nous	Relaps- ing	Imported		Induced	Intro- duced	Not investi- gated and unclassi- fied	P. falciparum	P. vivax	P. malar- iae			
							from abroad	from areas within country									
1962 ^{a)}	82	5 059 ^{a)}	24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
1963	82	15 136	18.5	7	2	-	-	-	-	-	-	-	-	-	-	7	
1964	84	13 368	15.9	4	4	-	-	-	-	-	-	-	-	-	-	4	
1965	87	11 201	12.9	-	-	-	-	-	-	-	-	-	-	-	-	-	
1966	93	3 452	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
1967
1968	96	6 771	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
1969	96	12 048	12.6	-	-	-	-	-	-	-	-	-	-	-	-	-	

a) October-December. b) Uncertain origin.

SURINAM

STATUS OF MALARIA PROGRAM AT DECEMBER 1969



	Population (thousands)	Area km ²
TOTAL COUNTRY	365	163 820
Non malarious areas	130	70
Originally malarious areas		
Maintenance phase	-	-
Consolidation phase	199	49 035
Attack phase	36	114 715
Preparatory phase	-	-
Total originally malarious areas	235	163 750

PERSONNEL

Activity	Professional	Non professional	Total
Spraying operations	1	14	15
Evaluation operations	1	44	45
Administrative and other	1	17	18
Transport	-	72 ^{a)}	72 ^{a)}
Total	3	147	150

TRANSPORT FACILITIES

Type	Spraying Operations	Evaluation Operations	Mixed or other operations	Total
Four-wheel vehicles	-	-	13	13
Two-wheel vehicles	-	20	-	20
Boats	-	-	24	24
Animals	-	-	-	-
Other	-	-	-	-
Total	-	20	37	57

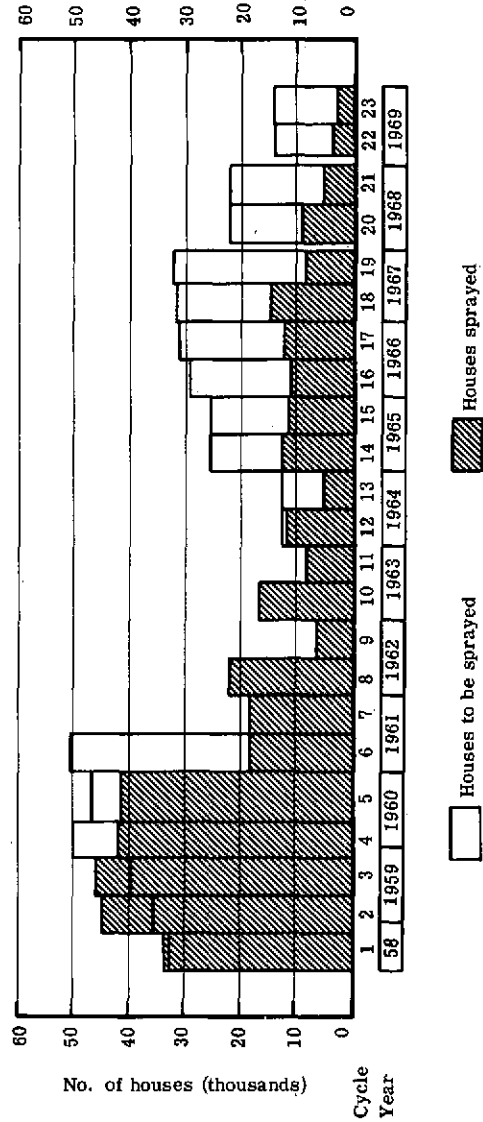
a) Also function as spraymen and medicated salt distributors.

SURINAM (Cont.)

SPRAYING OPERATIONS

Year of total coverage	Date	Houses sprayed						Inhabitants directly protected		Insecticide used per house (g. technical)		Average houses sprayed per man/day
		DDT		Dieldrin		Planned	Protected	DDT	Dieldrin			
		Cycle	Planned	Sprayed	Cycle					Planned	Sprayed	
1st	May 58-Apr. 59	32 722	31 299	31 299	1st	(a)	2 554	152 422	310	58	5.8	
		35 340	40 211	4 930	2nd	(a)	8 342	150 334	318	60	6.9	
2nd	May 59-Apr. 60	39 683	37 563	37 563	3rd	(a)	4 713	172 694	274	58	8.0	
		50 024	37 445	4 571	4th	(a)	4 571	158 143	250	57	7.8	
3rd	May 60-Jun. 61	46 537	36 861	16 298	5th	(a)	2 187	172 233	263	65	6.2	
		50 652	16 298	15 533	6th	(a)	1 320	138 229	211	56	6.0	
4th	Jul. 61-Jun. 62	18 485	15 533	12 984	7th	(a)	1 320	47 746	211	54	5.7	
		22 351	12 984	6 397	8th	(a)	...	57 732 ^{b)}	-	-	...	
5th	Jul. 62-Jun. 63	...	16 681	8 458	9th	(a)	...	...	-	-	...
		...	16 681	8 458	10th	(a)	...	...	-	-	...
6th	Jul. 63-Jun. 64	12 824	5 603	5 603	11th	(a)	6 605	29 300	175	61	6.5	
		12 824	5 603	5 603	12th	(a)	4 708	28 693	217	62	6.3	
7th	Jul. 64-Jun. 65	25 648	1 813	10 969	13th	(a)	10 969	52 873	191	66	7.8	
		25 648	1 813	1 813	14th	(a)	(a)	58 279	25 260	...	...
8th	Jul. 65-Jun. 66	29 486	1 488	1 488	15th	(a)	10 384	55 919	164	84	6.4	
		31 546	3 662	3 662	16th	(a)	8 975	73 953	29 625	76	6.3	
9th	Jul. 66-Jun. 67	31 950	3 320	3 320	17th	(a)	11 754	...	37 096	179	6.5	
		32 542	1 774	6 837	18th	(a)	7 319	...	16 239	149	6.3	
10th	Jul. 67-Jun. 68	22 406	2 277	2 277	19th	(a)	4 033	54 981	17 200	141	5.0	
		22 406	1 653	1 653	20th	(a)	3 595	54 981	9 719	169	5.1	
11th	Jul. 68-Jun. 69	14 550	340	340	21st	(a)	3 595	36 250	3 314	181	5.3	
		14 550	399	399	22nd	(a)	2 898	36 250	2 202	61	6.1	
12th	Jul. 69-Dec. 69	14 550	399	399	23rd	(a)	2 898	36 250	2 202	61	6.1	

a) Included in DDT column. b) Estimated.



SURINAM (Cont.)

EPIDEMIOLOGICAL EVALUATION OPERATIONS, ATTACK PHASE AREAS

Year	Slides examined		Species found			
	Total No.	Positive		P. falciparum	P. vivax	P. malariae
		Number	Percentage			
1958a)	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
1966	28 374	2 882	10.2	2 831	8	43
1967	16 991	1 761	10.4	1 741	1	19
1968	22 284	1 530	6.9	1 517	1	12
1969	23 289	671	2.9	666	4	1

CONSOLIDATION PHASE AREAS

Year	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				
					Relapsing	Imported		Induced	Introduced	Not investigated and unclassified	P. falciparum	P. vivax	P. malariae
						from abroad	from areas within country						
1961	225	14 894	6.6	26	-	-	26	-	-	-	23	-	3
1962	240	19 025	7.9	22	1	-	21	-	-	-	17	-	5
1963	240	38 861	16.2	33	-	-	33	-	-	-	28	3	2
1964	253	53 369	21.1	38	-	-	38	-	-	-	35	1	2
1965	262	20 366	7.8	74	-	-	74	-	-	-	69	-	5
1966	277	7 411	2.7	51	-	-	49	-	-	2	47	3	1
1967	281	8 488	3.0	25	1	-	24	-	-	-	25	-	-
1968	303	13 055	4.3	25	-	4	17	-	-	4	24	1	-
1969	199d)	14 905d)	7.5	70d)	22	-	15	-	-	4	68	2	-

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. d) Consolidation phase only.

Table 23

PAHO/WHO FULL-TIME PROFESSIONAL AND TECHNICAL STAFF ASSIGNED TO COUNTRY, INTER-COUNTRY, AND INTER-ZONE MALARIA ERADICATION PROGRAMS IN THE AMERICAS, FROM 1967 TO MAY 1970*

Country or other political unit	Medical Officers			Sanitary Engineers			Sanitary Inspectors			Entomologists			Others			
	1967	1968	1969	1970	1967	1968	1969	1970	1967	1968	1969	1970	1967	1968	1969	1970
	Argentina	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Bolivia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Brazil	5	5	4	4	1	1	1	1	4	5	5	4	4	2	2	2
Colombia	2	1	2	2	1	1	1	1	3	4	3	1	1	1	1	1
Costa Rica	1	1	1	1	-	-	-	-	1	2	1	1	-	-	-	-
Dominican Republic ..	1	1	1	1	-	-	-	-	1	1	1	-	-	-	-	-
Ecuador	-	1	1	1	1	1	1	1	2	3	3	2	2	-	-	-
El Salvador	2	2	2	2	1	1	1	1	2	2	2	1	-	-	-	-
Guatemala	2	2	2	2	1	1	1	1	2	2	2	1	1	1	1	1
Guyana	-	-	-	-	-	-	-	-	2	2	1	1	-	-	-	-
Haiti	2	1	1	1	1	1	1	1	4	3	3	2	-	-	-	-
Honduras	1	1	1	1	1	1	1	1	1	2	1	1	-	-	-	-
Mexico	1	1	2	2	-	-	-	-	1	1	1	1	-	-	-	-
Nicaragua	2	2	2	2	1	1	1	1	2	4	2	2	-	-	-	-
Panama	1	1	1	1	1	1	1	1	3	3	1	1	1	1	1	1
Paraguay	-	1	1	1	1	1	1	1	2	2	2	2	-	-	-	-
Peru	1	1	1	1	1	1	1	1	3	3	2	1	-	-	-	-
British Honduras	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-
Surinam	1	1	-	-	-	-	-	3	3	1	1	1	-	-	-	-
Inter-zone and inter-country projects ...	9	8	9	10	1	1	1	1	-	-	-	2	2	2	2	1
Total	33	32	33	33	10	10	9	9	47	46	30	25	7	7	4	5
													13	7	7	6

* As of 31 December of each year.

a) Three administrative officers and one assistant engineer. b) Two administrative officers. c) Laboratory technician. d) One statistician, two administrative officers, two entomological assistants, one entomological aide, one programmer analyst, and one health educator. e) Two statisticians and two administrative officers. f) One economist, one programmer analyst, two administrative officers, and one laboratory technician. g) One economist, two administrative officers, and one laboratory technician.

Table 25

INTERNATIONAL CONTRIBUTIONS TO MALARIA ERADICATION PROGRAMS IN THE AMERICAS
1969 AND ESTIMATED 1970

(U. S. dollars)

Country or other political unit	Date of initiation of total coverage	1969				1970 (estimated)			
		PAHO	WHO and WHO/TA	UNICEF (a)	AID (USA) (fiscal year) ^b	PAHO	WHO and WHO/TA	UNICEF (a)	AID (USA) (fiscal year) ^b
Argentina	Aug. 1959	22 842	-	20 000	-	26 273	-	-	-
Bolivia	Sep. 1958	60 121	-	33 000	-	45 316	-	42 000	-
Brazil	Aug. 1959	194 489	123 454	-	13 000	340 232	-	-	30 739
Colombia	Sep. 1958	181 391	-	572 000	-	151 757	-	503 000	-
Costa Rica	Jul. 1957	21 823	35 357	38 000	-	-	44 601	(c)	-
Cuba	1962	-	10 150	-	-	-	3 000	-	-
Dominican Republic ...	Jun. 1958	55 242	-	20 000	-	23 973	-	(c)	-
Ecuador	Mar. 1957	57 199	21 154	394 000	-	44 856	24 000	302 000	-
El Salvador	Jul. 1956	32 665	85 358	238 000	6 000	36 373	73 344	(c)	-
Guatemala	Aug. 1956	46 527	86 257	234 000	-	51 816	49 443	(c)	-
Guyana	Jan. 1947	54 898	-	7 000	-	32 128	-	(c)	-
Haiti	Jan. 1962	87 743	13 782	264 000	1 718 000	98 675	-	292 000	1 393 000
Honduras	Jul. 1959	19 402	46 714	151 000	14 000	-	59 239	(c)	-
Mexico	Jan. 1957	112 877	8 139	-	-	170 197	48 000	-	-
Nicaragua	Nov. 1958	30 349	91 932	118 000	8 000	28 528	78 049	(c)	-
Panama	Aug. 1957	33 959	69 665	138 000	-	43 601	24 000	(c)	-
Paraguay	Oct. 1957	100 607	-	201 000	55 000	89 602	-	225 000	42 608
Peru	Nov. 1957	99 741	-	48 000	-	70 289	-	101 000	-
British Honduras	Feb. 1957	14 932	-	4 000	-	17 628	-	-	-
French Guiana	Sep. 1963	15 988	-	-	-	6 000	-	-	-
Surinam	May 1958	92 157	-	10 000	-	32 128	-	-	-
Inter-country projects and general services		449 356	230 708	-	491 756 ^d	679 077	184 627	-	509 239 ^d
Total		1 784 108	822 670	2 490 000	2 305 756	1 988 449	588 303	1 465 000	1 975 586

a) Rounded to the nearest hundred; shipping cost not included. b) AID loans are shown in Table 20. c) Requirements covered by funds previously allocated. d) Includes the Regional Office for Central America and Panama, the Regional Evaluation Office, and the Central America Malaria Research Station.

Annex 3

AEDES AEGYPTI¹

At its 64th Meeting (Washington, D.C., June-July 1970), the Executive Committee examined the report of the Director of the Bureau on the status of *Aedes aegypti* eradication in the Americas (see Appendix). In Resolution VII,² the Committee approved the steps taken by the Director and requested him to submit to the XVIII Pan American Sanitary Conference a report on the present status of the problem of *Aedes aegypti*-borne diseases in the Hemisphere and a preliminary study on the cost-benefit relationship in programs for the prevention of those diseases.

Therefore, the report of the Study Group³ on the

Prevention of *Aedes aegypti*-borne Diseases is herewith presented to the Conference. As for the cost-benefit relationship in prevention programs, staff of the firm selected to carry out the study visited a number of countries along with a specialist consultant to ascertain and analyze the situation on the spot.

The respective report⁴ and conclusions will be submitted to the Governments for consideration.

By way of additional information, Document PAHO/ACMR 9/16,⁵ Surveillance of Dengue in the Americas, is also attached as it is closely related to the problem of *Aedes aegypti*.

¹Document CSP18/13 (6 August 1970).

²Official Document PAHO 103, 53.

³Document CE64/4, Addendum I, mimeographed.

⁴Document CSP18/13, Addendum I, mimeographed.

⁵Mimeographed document.

Appendix

STATUS OF AEDES AEGYPTI ERADICATION IN THE AMERICAS¹

The Directing Council of PAHO, at its I Meeting (Buenos Aires, Argentina, 1947), called upon the Pan American Sanitary Bureau to solve the problem of urban yellow fever in the Americas through the eradication of *Aedes aegypti*.

At the time PASB received those instructions, *A. aegypti* had already been eradicated from Bolivia and from a large part of the territory of Brazil. With the exception of Canada, however, all the other countries and territories in the Hemisphere were infested by the mosquito to a greater or lesser extent.

The mosquito has been eradicated in the following countries and territories and at present are considered to be free of it: Argentina, British Honduras, Bermuda, Bolivia, the Canal Zone, Chile, Costa Rica, Ecuador, Guatemala, Nicaragua, Paraguay, Peru, and Uruguay. Brazil, El Salvador, Honduras, Mexico, and Panama, which had also completed eradication, were reinfested recently. The problem persists in the extreme northern part of South America, in the United States of America, and in the Caribbean area.

The presence of *A. aegypti* in those areas, in addition

to the risk of diseases transmitted by the vector to which the infested countries and territories are exposed, has been the cause of the frequent reinfestations that have occurred in the Hemisphere and is endangering the very success of the continental eradication program.

The PAHO Governing Bodies, seriously concerned by that situation, in successive resolutions have called upon the countries and territories still infested to complete the eradication of *A. aegypti* as soon as possible, since the success of the continental program can only be assured if the present sources of reinfestation in the Americas are rapidly eliminated.

The XVII Pan American Sanitary Conference approved Resolution XIX,² which instructed the Director of the Bureau to take all necessary measures to intensify and accelerate the continent-wide campaign, and to study and put into practice appropriate systems for ensuring that *A. aegypti* eradication was carried out, simultaneously and in a coordinated manner, in all the infested areas.

In implementation of the resolutions of the Governing Bodies, in the last three years the Organization has

¹Document CE64/4 (28 May 1970).

²Official Document PAHO 74, 76-77.

undertaken a number of activities for the coordination, stimulation, and acceleration of eradication, including the following:

(a) The Conference on *Aedes aegypti* in the Americas (Washington, D.C., 3-5 April 1967), attended by representatives of almost all the countries in the Americas, who made a complete review of the continental eradication program.

(b) The Study Group on *Aedes aegypti* Eradication (Washington, D.C., 6-12 April 1967) which made an in-depth study of the obstacles to the advance of the campaign, discussed measures to be taken to overcome those difficulties and plans for simultaneous and coordinated campaigns in infested countries and territories, and formulated a set of recommendations on the organization and maintenance of proper surveillance services in areas already free of the mosquito.

(c) The Study Group on Laboratory Colonies of *Aedes aegypti* (Washington, D.C., 17-19 July 1967), attended by recognized authorities in that field, who recommended ways and means of eliminating colonies as well as the basic criteria for the maintenance of colonies considered to be essential.

(d) Advisory services to countries and territories, including assistance with the planning, organization or reorganization of their campaigns, training of personnel, and evaluating programs.

(e) Limited supplies of equipment, insecticides, vehicles, and materials as an incentive to certain infested or reinfested countries and territories.

(f) The Study Group on the Prevention of *Aedes aegypti*-borne Diseases (Washington, D.C., 9-14 February 1970), which thoroughly reviewed the strategy for the prevention of *A. aegypti*-borne diseases, methods used and available for their control or eradication, and defined the fundamental aspects to be taken into consideration in a cost-benefit study of different situations.

Encouraging developments that occurred in 1969 and in early 1970 were the initiation of the program in Guadeloupe, French Guiana, Martinique, and the Cayman Islands and the reorganization of the campaigns in Barbados, Guyana, St. Lucia, and Surinam. The program was nearing completion of preparations for the attack phase in Antigua, Netherlands Antilles, Grenada, and Montserrat, and a campaign to be undertaken in Dominica, Jamaica, and St. Vincent was being organized.

Although these developments indicate progress, much remains to be done before the continent-wide eradication program is completed. It is therefore necessary for the countries to meet the administrative and financial conditions of the programs so to ensure the proper development of the whole process leading to the eradication of *Aedes aegypti*, as defined by the Study Group in 1967.³ Basically, these conditions are as follows:

(a) A firm decision on the part of the Government to eradicate the mosquito, and to assume the responsibility that eradication involves.

(b) Sufficient funds to cope uninterruptedly with the personnel, supply, and equipment requirements of the campaign, until such time as the eradication of the vector is achieved.

(c) Appropriate organization, on a national scale, to enable the campaign to perform its activities in a uniform and coordinated manner throughout the country.

(d) Administrative independence and flexibility, whereby the campaign can handle its budget without bureaucratic interference; establish conditions of employment of its staff; fix salary scales and per diem allowances; engage, transfer, discipline, or dismiss its personnel without delay or difficulty.

(e) Legal provisions giving the campaign authority to quickly enforce its decisions, and to adopt without delay the necessary measures to eradicate the mosquito.

The efforts, both of the Governments and of the Organization, with respect to the campaigns in countries and territories where the *A. aegypti* problem still exists, are summarized below.

Barbados. The results achieved up to 1967 were limited by various obstacles, the chief ones being insufficient funds, which made it impossible for the campaign to recruit sufficient personnel to cover the infested areas of the country adequately; the large number of houses that were neither inspected nor treated, or were only partially inspected and treated; and the incomplete or inadequate treatment of many potential breeding places.

In 1968, after a complete review of the program, the Government decided to increase the funds allotted to the campaign, and to adopt the other necessary measures to ensure the complete eradication of the vector over a period of three years.

During the first half of 1969, the reorganization and expansion of the campaign was completed, and at present activities are being carried out in accordance with the plan of operations. However, there is a very serious problem of closed houses which, in some cycles, amounted to 10 per cent of those scheduled for treatment. The Government is attempting to solve this problem with the technical assistance of PAHO.

Brasil. Brazil completed its eradication campaign in 1955 and was declared free of the vector in 1958; however, in 1967 it was discovered that the city of Belém, capital of the State of Pará, at the mouth of the Amazon, was reinfested, as were other localities in the neighborhood.

As a result of this reinfestation, the Government took the necessary measures to delimit the affected part, so as to prevent the vector from being carried to other parts of the country; to reinforce surveillance services in the most exposed localities; and to eliminate the mosquito from the reinfested areas.

To investigate the extent of the problem, inspections were carried out in 1967 and 1968 in 111 localities in the State of Pará, all situated in the sphere of influence of Belém, as well as in the city itself. Of these localities,

³The report of the Study Group was published in *Official Document PAHO 84*, pp. 361-373.

35 were found to be infested, although in most of them the infestation level was still very low.

The eradication campaign has been resumed and, as a result of the strong support and adequate financing given to it by the Government, the mosquito has already been eliminated in 16 of the above-mentioned 35 localities, but the city of Belém itself and the other 19 localities continue to be positive.

In August 1969, four localities in the State of Maranhão (the town of São Luis, Anil, Ribamar, and Tirirical) were found to be reinfested. That area is also situated in the northeastern part of the country, and is rather close to the focus of reinfestation in Pará. The campaign was promptly resumed to eliminate that new focus.

In addition to the two areas mentioned above, the surveillance service in Brazil, which has substantially increased its activities since the discovery of the Pará reinfestation, has not yet discovered *A. aegypti* in any other part of the country.

Colombia. Cúcuta, in the area bordering on Venezuela, and five other localities in the northeastern region, continue to be infested. The reinfestations in Riohacha, Carraipia, Papayal, El Molino, and Distracción were eliminated.

In the second half of 1969, the ports of Barranquilla and Cartagena were found to be reinfested. These reinfestations are now being dealt with.

Cuba. The results obtained by the campaign up to 1967 were limited, mainly because of reinfestations in the work areas caused by the reintroduction of the vector from provinces not covered by the program.

To meet this situation, the Government decided to incorporate the activities of the eradication campaign into those of the general health services, and to expand it in such a way that eradication activities would be undertaken simultaneously in all the infested areas of the country.

This expansion of the campaign meant increasing the field personnel strength to approximately 4,200 persons, but the Government, after studying the matter, reached the conclusion that it would be impossible to take on personnel for the campaign on such a scale owing to the demand for labor for other activities regarded as vital to the development of the country. The Ministry of Public Health therefore decided to try to find new ways of solving the problem, essentially by employing volunteers supplied by workers' organizations for the application of insecticide, and by using specialized campaign staff and health service personnel for the training and supervision of volunteers and the evaluation of treatments.

In view of the novelty of these new methods and the difficulties likely to be encountered by a mosquito eradication campaign based on such procedures, the Ministry decided to try out the program in one of the provinces before extending it to the entire country. For

this experimental plan, it selected the Province of Havana, the population of which is slightly more than 2 million and in which there are approximately 630,000 dwellings.

The experiment was begun early in 1968, and by July a complete evaluation had been made. As a result, the Government decided to continue the experiment until December 1969, before extending the program to the rest of the country. This work is still going on at the present time.

In 1969, it was found that the strain of *A. aegypti* found in the Province of Havana, primarily in the city of Havana, was resistant to chlorinated insecticides. Therefore, beginning in 1970, phosphorous insecticides will be used.

Dominican Republic. The eradication campaign was suspended in 1962 and has not yet been resumed.

El Salvador. The eradication campaign was completed in 1957 and in 1960 the country was declared free of *A. aegypti*. However, in June 1965 an area of the city of San Salvador was found to be infested. Later investigations disclosed that the reinfestation covered the entire city and its surroundings and that many other areas in the country had already been reinfested.

Eradication operations were resumed in July 1965, but, owing to a shortage of funds for the campaign, activities have so far been limited to the city of San Salvador and the airport of Ilopango, and the results achieved in these two localities have not been satisfactory.

Guyana. This country, after having been free of *A. aegypti* for several years, was found to be extensively reinfested in 1962. The Government reactivated the eradication campaign in 1965, but, because of lack of funds, activities were restricted to Georgetown.

The results obtained in the campaign up to 1968 were not satisfactory. Despite the treatments carried out in Georgetown, the infestation index remained high, the reason being serious administrative difficulties and the resistance of the mosquito to the insecticide used.

In view of the situation the Government decided early in 1969 to completely reorganize the campaign. During the first six months of that year, the Government substantially increased the budget of the campaign, decided to change the insecticide, and undertook the training of sufficient personnel to satisfy the needs of the program. At the present time, the campaign is being satisfactorily conducted, and the initial results are very promising.

Honduras. The country completed the *A. aegypti* eradication campaign in 1959, and in that same year, after a special inspection carried out with the assistance of PAHO, the country was declared free of the vector at the XI Meeting of the Directing Council of the Organiza-

tion.⁴ Since then a surveillance service has been set up in the country and has been regularly inspecting the localities most exposed to reinfestation.

Up to February 1968, the mosquito had not been found in the course of any of these inspections. But toward the end of March and early in April, the localities of San Pedro Sula and Puerto Cortés, situated on the northern coast of the country, were found to be reinfested, probably by *A. aegypti* carried by road from El Salvador or by boat, in the form of eggs, from the United States of America. Following this discovery, surveillance operations were increased in other localities exposed to reinfestation, and investigations carried out showed that further reinfestation had occurred in six localities close to San Pedro Sula and Nueva Ocotepeque, in the southwest region of the country close to the El Salvador frontier.

In view of these reinfestations, the Government immediately resumed the eradication campaign in the country, but because of a shortage of funds, work has begun only in the town of San Pedro Sula and several other neighboring localities and the results obtained so far are limited. PAHO is providing assistance in the form of insecticides and spray pumps.

Haiti. The campaign was suspended in 1958 and has not yet been resumed.

Jamaica. Eradication activities were suspended in 1961, and since then the *A. aegypti* campaign has been limited to control measures in international ports and airports.

The Government is in the process of organizing a nationwide campaign and has already prepared a preliminary draft of a plan of operations, and has made the necessary budgetary provision. To obtain the additional funds needed, the Government is preparing an application for submission to the United Nations Development Program.

There is a good possibility that the program will begin in the second half of 1970.

Mexico. The country completed its eradication campaign in 1961 and was declared free of the mosquito in 1963, at which date a surveillance service was organized and has been regularly inspecting the localities most exposed to reinfestations. Since then, the problem in Mexico has been limited to the reinfestations which have occurred in the areas bordering the United States of America.

Between 1965 and July 1969, the following reinfestations were discovered at the dates given:

Nuevo Laredo, Tamaulipas (June 1965)
 Nuevo Laredo, Tamaulipas (February 1967)
 Atlende, Coahuila (June 1967)

Nuevo Laredo, Tamaulipas (June 1968)
 Piedras Negras, Coahuila (September 1968)
 Sabinas, Coahuila (October 1968)
 Agujita, Coahuila (May 1969)
 Nueva Rosita, Coahuila (July 1969)

With the exception of that in Nueva Rosita, all these reinfestations were small and localized and were quickly eliminated. In October 1969, Matamoros, in the State of Tamaulipas, was found to be reinfested.

According to the information available, the reinfestations on the Mexican side of the border were due to *A. aegypti* introduced from the United States of America. The results of inspections made in other parts of Mexico have so far been negative.

Panama. *A. aegypti* eradication was completed in 1955 and in 1958 the country was declared free of the vector. For financial reasons, the Government has not established a regular surveillance service; nevertheless, from time to time a small sample of localities exposed to reinfestation has been inspected.

Up to March 1969, those inspections proved negative, but during that month, while investigating a sample in the city of Colón, on the Caribbean coast, inspectors from the general health services, working in conjunction with a PAHO inspector, found a number of foci of *A. aegypti* in one of the suburbs of the town (Pueblo Nuevo).

The suburb is situated at the extreme eastern end of Colón, where there is a wharf and a dock where small craft coming from various Caribbean ports frequently tie up. These craft have probably been responsible for introducing the mosquito.

Because of this reinfestation, the Government, with the assistance of PAHO and of the health authorities of the Canal Zone, resumed the eradication campaign in the country, on the basis of a plan of operations providing for the elimination of the mosquito in Colón, investigation of all the other Panamanian localities exposed to reinfestation, and intensification of surveillance operations against a further introduction of the vector. The Government is making strenuous efforts to eliminate the focus and to implement the entire action plan.

Trinidad and Tobago. The island of Trinidad is presumed to be free of the vector, except for Port-of-Spain, where it is still found in the port area and in small craft coming from other Caribbean ports that are still infested. The reinfestations discovered in the city in the past six years are attributed to these sources. Efforts have been made throughout this period to prevent such craft from transporting *A. aegypti*, but so far it has not been possible to solve the problem.

The island of Tobago continues to be regarded as free of the mosquito.

United States of America. The campaign begun in 1964 has from the outset only partially covered the

⁴Resolution XIII. Official Document PAHO 32, 21.

infested area which includes all or part of the territory of the 10 states in the southeastern part of the country, as well as Puerto Rico and the Virgin Islands. Up to 1968, the results obtained by the campaign in those areas were very limited because of inadequate coverage.

The Government therefore asked PAHO to appoint a group of experts to make an evaluation of the program and to suggest ways and means of improving it. This evaluation was completed in May 1968, and in August the report of the group of experts, recommending the measures they felt should be adopted to make the program a success, was submitted to the Government.

In spite of this, the budget for the program during the fiscal year 1968-1969 was drastically cut, so that at the end of 1968 campaign activities had to be reduced still further. Subsequently the Government decided to terminate the program, and since July 1969 eradication operations in the country itself, and in Puerto Rico and the Virgin Islands, have stopped completely.

Venezuela. Activities are still concentrated in the western region, primarily in the area bordering Colombia. The Government has not yet decided to expand the campaign to provide complete coverage of the infested area.

France

French Guiana. This department was declared free of *A. aegypti* in 1958, but in 1963 the capital, Cayenne, was found to be reinfested. A survey made by the Government in 1964 showed that the reinfestation had spread throughout the city and its surroundings and that various localities in the interior were also positive.

The Government reactivated the campaign in 1969, but the results obtained so far are limited.

Guadeloupe. The campaign was suspended in 1962, but was reactivated at the end of 1969.

Martinique. Up to 1968, the *A. aegypti* campaign was limited to control measures. In 1969 the Govern-

ment initiated an eradication campaign, but so far the results have been limited.

St. Martin. The French part of the island continues to be regarded as free of *A. aegypti*, but no recent information on the situation is available.

The Netherlands

Aruba, Bonaire, Curaçao, Saba, St. Eustatius, and St. Martin. *A. aegypti* was eliminated and reintroduced several times in Aruba and Bonaire. Up to 1968, control activities were conducted in Curaçao.

The whole of the Netherlands Antilles is in the final stage of the preparatory phase of the campaign.

Surinam. Up to mid-1969 the results obtained by the campaign were limited. However, in the second half of the year, the campaign was reorganized, its budget increased, and a well-qualified medical director appointed. Effective disciplinary measures with respect to field personnel were also adopted. It is expected that better results will be obtained in 1970.

United Kingdom

The campaign is in the final stage of the preparatory phase in Antigua, Grenada, and Montserrat. In St. Lucia, the campaign is being reorganized.

Surveys made on Gran Cayman in 1966 and 1968 showed that the island was negative. However, the mosquito was found on the island of Cayman Brac. The Government initiated a campaign on that island at the beginning of 1970.

Dominica and St. Vincent are endeavoring to organize campaigns. The Bahamas are continuing with limited control activities.

The Virgin Islands, Turks and Caicos Islands, St. Kitts, Nevis, and Anguilla are all infested, and no campaigns are in operation.

Annex 4

SMALLPOX ERADICATION¹

Introduction

In successive resolutions, the Governing Bodies of the Organization have impressed on the countries of the Hemisphere the need to definitively eliminate smallpox from the Americas, an objective that was endorsed in the Declaration of the Presidents of America (Punta del Este, Uruguay, 1967).

Similarly, the World Health Organization, from its Third World Health Assembly onward, has emphasized the problem of smallpox in the world and at its Twentieth Assembly² urged countries to intensify their efforts to eradicate the disease in the shortest possible time.

To achieve this objective, the countries of the Region have redoubled their efforts through active vaccination campaigns with a view to raising the immunity level of the population while organizing epidemiological surveillance services and seeking to develop maintenance programs.

The World Health Organization and the Pan American Health Organization have spared no effort to

assist countries in their endeavor to eradicate the disease which is endemic in one country only at the present time.

The Problem of Smallpox in the Americas

During the five-year period 1965-1969, 22,389 cases of smallpox were reported in the Americas (Table 1). In 1969, 7,381 cases were reported, all in Brazil except for three in Uruguay, of which one was indigenous and two imported from Brazil. During the past three years all the other countries of the Hemisphere have been free of smallpox. The last case in Argentina occurred in 1967, and there have been no cases in Colombia, Paraguay, or Peru since 1966.

The number of cases recorded in Brazil in 1969 (7,378), more than double the number for 1968, was the result of the better surveillance services organized in the country, speedier reporting, and more up-to-date information published regularly in the Campaign Epidemiological Bulletin. Figure 1 shows smallpox cases reported by four-weekly periods in 1967, 1968, and 1969.

Table 1—Reported Cases of Smallpox in the Americas, 1965-1970*

Country	Year						Total
	1965	1966	1967	1968	1969	1970	
Argentina	15 ^a	21	23 ^a	—	—	24 ^b	83
Bolivia	—	—	—	—	—	—	—
Brazil	3,269	3,518	4,353	3,580	7,378	1,211	23,309
Chile	—	—	—	—	—	—	—
Colombia	149 ^c	8 ^d	—	—	—	—	157
Ecuador	—	—	—	—	—	—	—
French Guiana	—	—	—	1 ^e	—	—	1
Paraguay	32	5	—	—	—	—	37
Peru	18	13	—	—	—	—	31
Uruguay	1 ^e	—	—	2 ^a	3 ^a	—	6
Total	3,484	3,565	4,376	3,583	7,381	1,235	23,624

*Provisional until 30 June 1970.

^aIncludes imported cases.

^bOne imported.

^cIncludes 68 confirmed cases.

^dConfirmed cases only.

^eImported case.

¹Document CSP18/9 (18 August 1970).

²Resolution WHA20.15. *Off. Rec. Wld Hlth Org.* 160, 8.

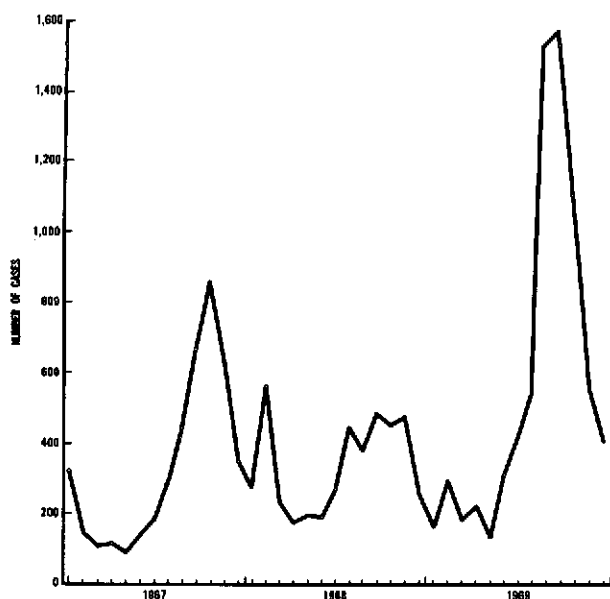


Fig. 1. Reported cases of smallpox by periods of four weeks, Brazil, 1967, 1968 and 1969.

Difficulties Noted

a) *Financing.* This continues to be the principal reason why some countries have been unable to carry out eradication campaigns. The absence of budgetary funds has forced them to postpone or reduce approved operational plans.

b) *Inadequate maintenance programs.* Another important difficulty is the absence of permanent health services to provide for the maintenance of protection of the population at a high level. The low level of coverage for children under five years constitutes a potential danger if the disease should be reintroduced as a result of endemic foci.

c) *Inadequate epidemiological surveillance.* Insufficient attention is given to epidemiological surveillance, and too little is done to ensure that contacts of all suspected cases are vaccinated. Inadequate supervision of a population group to be vaccinated and of the number of "takes" can lead to inaccurate data, as occurred in the case of a country in which the coverage by the vaccination teams was reported as being 100 per cent when in actual fact it was no more than 50 per cent.

d) *Lack of administrative continuity.* In a majority of the countries, the lack of administrative continuity delays and interrupts programs, reducing their efficiency and jeopardizing their success. The repeated replacement of officials in charge of eradication campaigns and constant changes in operational and logistic plans have an unfavorable effect on the conduct of programs and make it necessary to extend them for a number of years,

thereby greatly increasing their cost.

e) *Availability of freeze-dried vaccine.* The use of vaccine of low potency and little stability in some countries has reduced the efficiency of efforts to maintain a high immunity level in the population, with the result that a new coverage of the entire area has been necessary. For this reason, the Organization has urged all countries to replace glycerinated with freeze-dried vaccine, in conformity with the minimum requirements of the World Health Organization. Only freeze-dried vaccine is accepted by PAHO/WHO both for the attack phase and for maintenance programs. Special care is given to the distribution of vaccines to countries free of smallpox.

The Organization has assisted all countries interested in the production of smallpox vaccines and has entered into agreements with them for the supply of freeze-drying equipment. Up to the present such equipment has been made available to Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Uruguay, and Venezuela.

Notwithstanding the technical advisory services provided by the Connaught Laboratories of Toronto, Canada, technical, financial, and other difficulties continue to prevent some of the countries producing freeze-dried vaccines from meeting the minimum requirements set by WHO for approval of the vaccine. Two of those countries have not yet met WHO standards. A freeze-dried vaccine bank established at Rio de Janeiro, Brazil, covers the requirements of other countries when necessary.

Results Obtained

a) *Vaccine production.* Each year the production of vaccine increases. All the countries, with the exception

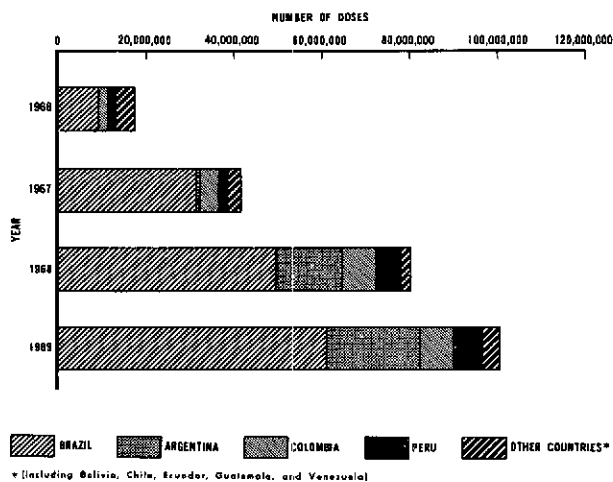


Fig. 2. Production of smallpox vaccine in the Americas, 1966-1969.

Table 2—Production of Freeze-Dried Smallpox Vaccine in the Americas, 1966-1969

Country	Year				Total
	1966	1967	1968	1969	
Argentina	—	560,000	14,944,800	21,427,850	36,932,650
Bolivia	1,800,000	400,000	—	230,000	2,430,000
Brazil	9,386,200	31,331,900	49,482,650	61,000,000	151,200,750
Chile	36,500	693,000	1,962,000	3,950,000	6,641,500
Colombia	2,535,000	4,504,502	7,992,200	7,586,500	22,618,202
Ecuador	2,019,800	1,559,740	—	—	3,579,540
Guatemala	—	—	263,300	—	263,300
Peru	1,033,100	2,220,000	5,848,750	6,527,200	15,629,050
Venezuela	747,000	624,000	—	—	1,371,000
Total	17,557,600	41,893,142	80,493,700	100,721,550	240,665,992

of Mexico, Uruguay, and Venezuela, produce only freeze-dried vaccine. These three countries, however, already possess freeze-drying equipment, and it is expected that they will very shortly begin their production. Table 2 and Figure 2 show data on the production of freeze-dried vaccine between 1966 and 1969 by country.

b) *Diagnostic laboratories.* As a result of the courses that were formerly conducted at the Adolfo Lutz Institute in São Paulo, Brazil, with the assistance of the Center for Disease Control of the United States of America, 18 laboratories in 13 countries were equipped to diagnose smallpox cases. The last to come into service was the one at Asunción, Paraguay, in 1969. Figure 3 shows the location of these laboratories and of the above-mentioned Center, which acts as reference laboratory.

c) *Maintenance and surveillance.* Since 1967 Brazil has been the only country on the American Continent in which smallpox continues to be endemic. In 1968 only one case was reported in French Guiana and two in Uruguay, both imported. In 1969 two imported cases were reported in Uruguay, giving rise to one indigenous case. The Organization continues to actively assist countries so that they may organize and maintain effective maintenance programs, with a minimum of 20 per cent of the total population vaccinated and with special emphasis on children under five years of age. Epidemiological surveillance must be rigorously continued, particularly for as long as endemic foci continue to exist in the Hemisphere. Surveillance investigation following a reported case in the Municipality of Horizontina, State of Rio Grande do Sul, Brazil, made it possible to uncover 24 cases in Colonia Alicia, Province of Misiones, Argentina. Only one imported case was responsible for an outbreak of 23 new cases pointing out the importance of maintenance programs against smallpox, particularly in areas bordering endemic areas.

Table 3 shows the smallpox vaccinations administered between 1966 and 1969 by countries with agreements with PAHO/WHO on smallpox eradication. Table 4 presents data on the maintenance program in Middle America for 1966 to 1969.

PAHO/WHO Participation

The Organization has signed agreements for the conduct of eradication programs with 11 countries of the Hemisphere. Argentina, Bolivia, Brazil, Chile, Colom-



Fig. 3. Laboratories for the diagnosis of smallpox in the Americas.

Table 3—Smallpox Vaccinations Administered in Countries That Have Eradication Agreements with PAHO/WHO, 1966-1969

Country	Year				Total
	1966	1967	1968	1969	
Argentina	1,249,904	2,441,629	323,952	453,468	4,468,953
Bolivia	1,037,883	1,141,991	212,116	295,355	2,687,345
Brazil	5,672,377	6,595,646	12,257,757	21,864,352	46,390,132
Chile	1,473,797	2,030,000	923,047	821,837	5,248,681
Colombia	1,626,576	3,965,141	5,543,507	3,280,096	14,415,320
Cuba	78,718	48,365	39,673	9,435	176,191
Ecuador	749,130	358,465	931,192	742,700	2,781,487
Paraguay	162,852	167,158	168,408	214,870	713,288
Peru	411,025	2,091,182	964,215	1,028,184	4,494,606
Uruguay	213,900	243,300	302,351	442,531	1,202,082
Venezuela	1,081,088	1,449,795	1,388,665	1,243,164	5,162,712
Total	13,757,250	20,532,672	23,054,883	30,395,992	87,740,797

Table 4—Smallpox Vaccination Maintenance Achieved in Middle America, 1966-1969

Country	1966	1967	1968	1969
Barbados	7,516	10,865	10,626	13,095
Costa Rica	54,148	673,364 ^a	14,859 ^a	23,929
Cuba	78,632	113,489	39,673 ^a	...
Dominican Republic	40,773	108,642	8,716 ^a	36,217
El Salvador	440,618	269,207	78,932	...
Guatemala	266,026	437,576	121,295 ^a	...
Guyana	...	...	...	15,275
Haiti	262,854	338,024	446,506	224,070
Honduras	106,732	186,105	156,869	...
Jamaica	70,613	92,587	39,004	50,093
México	2,442,984	3,244,116	3,674,081	1,649,033 ^b
Nicaragua	195,094 ^a	93,503 ^a	52,233	...
Panama	55,700	42,153	44,935	64,883
Trinidad and Tobago	13,869 ^a	...	...	15,275

^aTaken from the *Annual Reports of the Director of the Pan American Sanitary Bureau (1966, 1967, and 1968)*.

^bOnly first semester of 1969.

bia, Cuba, Ecuador, Paraguay, Peru, Uruguay, and Venezuela. In those that have completed the first phase of the campaign with minimal initial protection for 80 per cent of the population, emphasis is laid on the need for maintenance and surveillance activities within the limits of each country's budgetary resources.

Between 1967 and 1969 the assistance provided by PAHO/WHO to the countries of the Americas amounted to US\$2,248,692 for the following:

a) Advisory services in epidemiology and statistics, with a view to furnishing guidance on and assistance in the organization and the conduct of vaccination campaigns and their evaluation and to providing similar aid with the organization of epidemiological maintenance and surveillance programs. Some changes in technical

personnel were necessary as the result of the expiration of the contracts of the regional adviser on statistics, of two Zone advisers on epidemiology, and of a Zone statistician.

b) Advice on methods of production of smallpox vaccine and training of production personnel. Experts from the Connaught Laboratories continued to give assistance to the countries producing freeze-dried vaccines and to those that wanted to replace glycerinated with freeze-dried vaccines. Samples of the vaccine produced are regularly sent to Toronto for potency and stability tests and other technical requirements.

c) Award of short-term fellowships for directors of eradication campaigns to enable them to study the most efficient campaign methods on the spot. In 1969

directors of programs in Argentina, Ecuador, and Paraguay received fellowships. Other short-term fellowships were awarded to laboratory technicians responsible for vaccine production in Brazil, Ecuador, Mexico, and Peru.

d) Supplies and equipment for various laboratories engaged in vaccine production and smallpox diagnosis, vehicles, launches and jet injectors, refrigerators for vaccines, and other supplies required for field activities in smallpox eradication campaigns.

Current Status of Programs in the Continent

The falling behind of some campaigns as the result of budgetary difficulties and the consequent modifications in plans of operations make it difficult to determine the targets that should be set for the next few years. The current status of programs in countries in the maintenance phase or in the course of intensive vaccination campaigns is as follows:

Argentina. The original plan of operations provided for a term of three years commencing in 1968 and ending in 1970, with a vaccination target of 15,600,933 persons in 14 of the 24 provinces of the country.

The campaign began in 1968 in the northeastern region, especially in Misiones, as a result of an outbreak in the neighborhood of San Javier (Province of San Javier), which was the result of cases imported from Brazil. In addition, vaccination programs were initiated in Corrientes, Formosa, Chaco, and Jujuy, but as a result of budgetary difficulties field activities were suspended until March 1969, except in Corrientes, where routine vaccinations continued.

The situation did not substantially change in 1969. The campaign was extended to the provinces forming the Patagonian Region (Chubut, Santa Cruz, and Tierra del Fuego); in the central region activities were confined to San Luis. There were no activities in any of the provinces of the northeastern region. At the end of the year the Government made available 85,000,000 pesos to 12 provinces. Administrative problems made cooperation between the central and provincial authorities difficult, and as a result only 453,468 persons were vaccinated in 1969. If to this number are added the 323,952 vaccinations administered in 1968, actual coverage is seen to represent only 14.23 per cent of the coverage planned.

Nevertheless, the production of freeze-dried vaccine rose from 560,000 doses in 1967 to 14,944,800 in 1968 and 21,427,850 in 1969, enough to meet the needs of the program as well as to provide assistance to other countries and to the vaccine bank established at Rio de Janeiro, Brazil.

Bolivia. On completion of the attack phase in 1969, an attempt was made to integrate the activities with the health units so as to carry out the maintenance phase, but unfortunately this was unsuccessful for administra-

tive reasons and because of lack of supervision. Since then maintenance has been carried out vertically in a joint smallpox and tuberculosis program, with a monthly output of 32,707 vaccinations. By the end of 1969, 295,355 vaccinations had been administered, barely 52 per cent of the target program for 1969.

The attack phase was completed in 1969 with an 81.1 per cent coverage of the national population, and evaluation is now being introduced as a routine program activity.

The regular production of freeze-dried vaccine fell to 230,000 doses in 1969 for budgetary reasons. The vaccine used in the program came from the PAHO vaccine bank.

Brazil. The only country in the Hemisphere with smallpox began the second stage of its vaccination program on 30 November 1966 in the State of Alagoas, followed by Paraíba in February 1967 and later in the same year by the western central region and the State of Rio de Janeiro.

Table 5 shows vaccinations carried out at various stages of the campaign. Between 1962 and 1966, 6,400,000 persons were vaccinated; in 1967, when the Smallpox Eradication Campaign was organized, 6,600,000 persons were vaccinated, a number that was almost doubled in 1968 with 12,200,000 vaccinations. In 1969 the annual target set was exceeded for the first time, and 21,864,352 vaccinations were carried out. Figure 4 shows the vaccinations administered by four-weekly periods in 1968-1969. In addition to the vaccinations carried out by the Campaign, 3,949,037 maintenance vaccinations were administered by the regular health services.

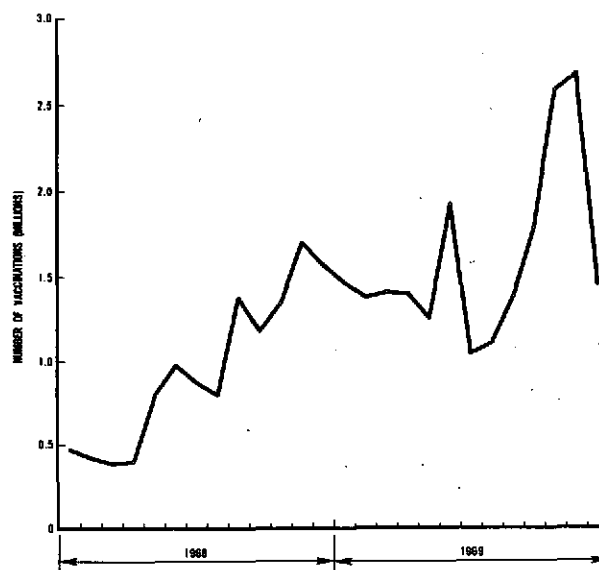


Fig. 4. Vaccinations administered in the attack phase by periods of four weeks, 1968-1969.

Table 5—Smallpox Eradication Campaign in Brazil.
Vaccinations Administered in the Attack Phase 1962-1966, 1967, 1968, and 1969
(Data Subject to Amendment)

Federal units	Estimated population ^a	1962-1966 ^b	1967 ^c	1968	1969	Grand total
<i>Northeast</i>						
Maranhão ^d	3,615 ^e	—	—	1,106,633	1,186,059	2,292,692
Piauí ^d	1,438	980,044	326,170	—	—	1,306,214
Ceará ^d	3,914	—	2,528,610	1,180,433	—	3,709,043
Rio Grande do Norte ^d	1,312	954,812	—	—	—	954,812
Paraíba ^d	2,287	—	1,525,083	794,501	—	2,319,584
Pernambuco ^d	4,817	3,837,202	—	—	—	3,837,202
Alagoas ^d	1,420	—	1,263,293	—	—	1,263,293
Fernando de Noronha ^d	2	—	—	1,240	—	1,240
Sergipe ^d	864	665,776	—	—	—	665,776
Bahia ^d	7,054	—	—	1,355,157	2,193,609	3,543,766
<i>Southeast</i>						
Minas Gerais	11,735	—	—	995,926	5,241,195	6,237,121
Espírito Santo ^d	1,537	—	—	—	1,455,393	1,455,393
Rio de Janeiro ^d	4,678	—	69,698	3,483,458	396,595	3,949,751
São Paulo	17,186	—	—	1,693,341	5,943,675	7,637,016
<i>South</i>						
Paraná	7,723	—	—	—	3,338,199	3,338,199
Rio Grande do Sul	6,728	—	—	—	1,132,218	1,132,218
<i>West Central</i>						
Goiás ^d	2,865	—	507,878	1,613,237	—	2,121,115
Federal District ^d	410	—	374,914	—	—	374,914
Total		6,437,834	6,595,646	12,223,926	20,886,943	46,144,349

^aEstimated population (in thousands) on 1 July 1969; Brazilian Statistical Yearbook (1969); Brazilian Institute of Statistics, Rio de Janeiro.

^bState vaccinations administered in association with the former Smallpox Eradication Campaign of the Ministry of Health and regarded as epidemiological surveillance and maintenance areas.

^cThe total figure for Alagoas includes 452,093 vaccinations carried out in December 1966.

^dCompleted.

^ePopulation of the State according to the smallpox eradication campaign census was 2,419,396 inhabitants.

In those states where the attack phase has been completed, the incidence of the disease fell by 84.8 per cent and epidemiological surveillance and containment activities have been organized. All reported or suspected cases were investigated, such investigations including laboratory tests, but no indigenous cases were found.

The areas that are at present in the attack phase comprise the States of Bahia, Minas Gerais, Paraná, Rio Grande do Sul, and São Paulo, where nearly 50 per cent of the population live. The intensification of reporting procedures and of systematic investigation has produced a significant increase in the number of smallpox cases, in addition to those discovered by the vaccination teams when they enter areas in which there have previously been no reported cases. For example, the ratio of reported to probable cases rose to 1:40 in the State of Paraná, where 16 out of 18 reported cases were confirmed, resulting in a total of 637 reported cases. This explains the increase to 7,378 known smallpox cases in 1969, 71.2 per cent more than those recorded in 1968.

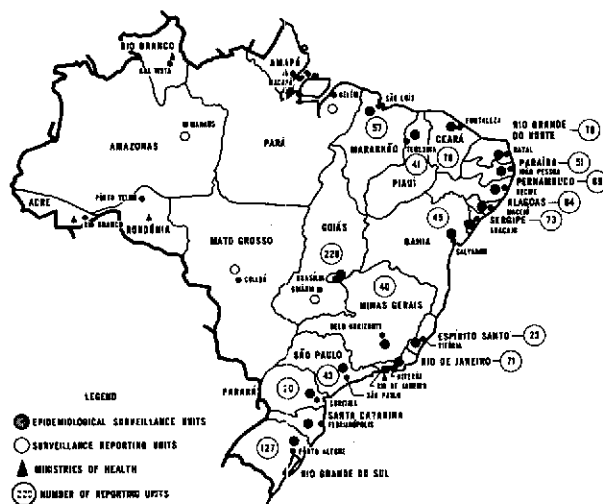


Fig. 5. Epidemiological surveillance status of the organization of the reporting system, Brazil, June 1970.

Table 6—Reported Smallpox Cases and Deaths, Brazil, 1956-June 1970

Year	Population ^a	No. of cases	Incidence rates ^b	No. of deaths	Ratio of cases to deaths (%)
1956	26,646	4,718	17.7	55	1.2
1957	27,313	2,661	9.7	36	1.4
1958	30,694	2,190	7.1	72	3.3
1959	29,467	4,840	16.4	93	1.9
1960	45,371	6,561	14.5	173	2.6
1961	67,952	8,526	12.5	143	1.7
1962	73,087	9,763	13.4	165	1.7
1963	76,409	6,467	8.5	163	2.5
1964	76,211	3,168	4.2	69	2.2
1965	78,587	3,417	4.3	45	1.3
1966	77,492	3,623	4.7	29	0.8
1967	86,580	4,514	5.2	70	1.6
1968	89,376	4,372	4.9	38	0.9
1969 ^c	90,892	7,377	8.2	37	0.5
1970 ^d	93,551	1,211	1.3	...	...

^aEstimated population of reporting areas.^bPer 100,000 inhabitants.^cProvisional data.^dThrough June 1970.

...Data not available.

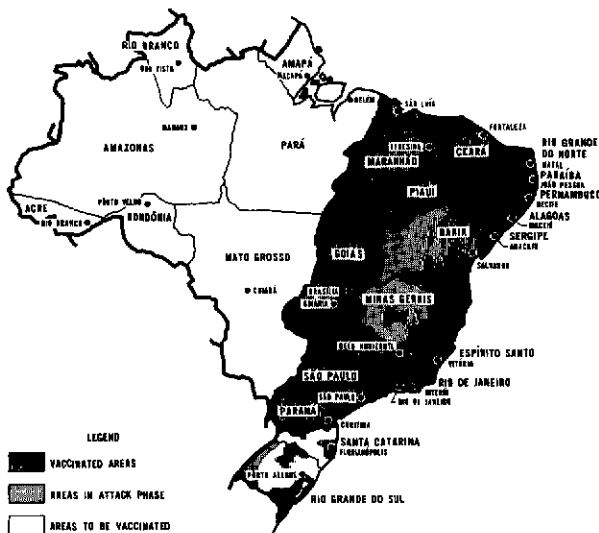


Fig. 6. Vaccination program, Brazil, June 1970.

The reporting system improved considerably after the publication of the Weekly Bulletin. In December 1969 weekly reports were being received from all Brazilian states except one. This is the result of a publication that, for the first time, provides regular reports on the epidemiological surveillance of a disease in the country. Table 6 shows reported cases, incidence rates, and the ratio of reported cases to deaths in the 1956-1970 period. Figure 5 shows the distribution of 220 reporting units already organized in several states of Brazil where the attack phase is either completed or in progress.

By 30 June 1970, 66,658,686 persons had been vaccinated, i.e., about 72 per cent of the estimated total population of the country of 93,551,000. The ratio of "takes" consistently remained at over 90 per cent. Coverage fluctuated between 75 and 90 per cent for children under five years of age, between 90 and 95 per cent for schoolchildren, and between 70 and 85 per cent for the 15-44 year age group. These data are based on field evaluations made by specially trained groups in accordance with the handbook prepared for this purpose, using sampling methods. Each evaluation group

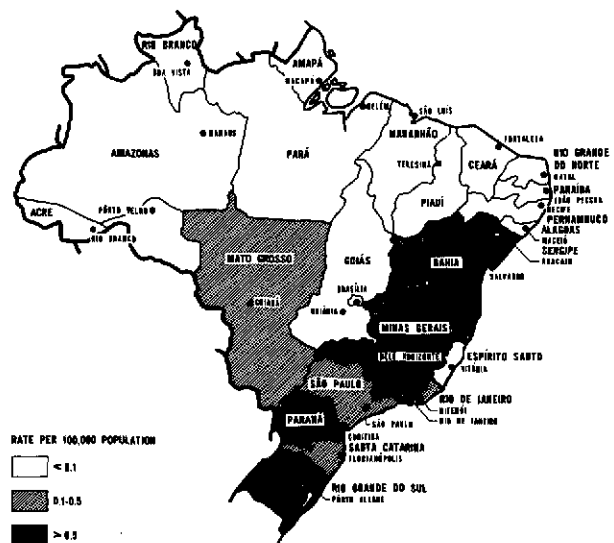


Fig. 7. Epidemiological situation, Brazil, January-June 1970.

consists of two persons who visit urban and rural areas seven to 10 days after the vaccination teams have moved out. When the dwellings that are to be examined for the evaluation have been drawn by lot, the vaccination coverage of all residents, especially first vaccinations of children under five years of age, is checked. Since 1968, when the training of evaluators was first organized, courses have been held in 10 Brazilian states. Notwithstanding this, field inspection of evaluators should be made at least once a year, in addition to the regular supervision activities.

Up to 1969, epidemiological surveillance was virtually nonexistent. During the year two courses were organized, one in epidemiology at the Emilio Ribas Hospital at São Paulo and one in epidemiology and epidemiological surveillance at Rio de Janeiro for physicians of the Special Public Health Service Foundation who would be responsible for epidemiological surveillance in different states.

The production of freeze-dried vaccine has presented problems with respect to both quantities and stability but an attempt is being made to solve them with guidance from the Connaught Laboratories and the National Bacteriological Laboratory of Sweden, in the latter case with regards to production of egg vaccine of which Brazil is the only producer in the Americas.

The estimated cost of the program in 1970 is NCr\$17,000,000 (approximately US\$3,700,000) to cover the vaccination of a minimum of 30,000,000 persons and to undertake epidemiological surveillance programs as well as the production of adequate quantities of vaccine. Figure 6 shows the sequence of vaccination programs in the various regions of Brazil up to 30 June 1970. Figure 7 presents the epidemiological situation of smallpox in Brazil as of 30 June 1970.

Chile. Smallpox has not been present in Chile since 1959. The maintenance program continues, and measles and smallpox vaccines are now being combined. Using this technique, 821,837 persons were vaccinated in 1969. New freeze-drying equipment was sent to the National Institute of Health at Santiago in 1969.

Colombia. The large-scale vaccination campaign continues in Colombia, and in 1969, 3,280,096 persons were vaccinated, representing 96 per cent of the target program for the year. The campaign began in 1967, and up to the present 63.7 per cent of the population has been covered, with maintenance activities reaching about 29.5 per cent. Evaluation techniques have been introduced to increase the low coverage of children under five years of age that had been noted in some provinces. The "take" rate was 92.8 per cent in primary vaccinations and 79.2 per cent in revaccinations.

The production of smallpox vaccine continues to meet the country's needs, providing an average monthly

output of 742,000 doses of good quality vaccine. In 1959, 6,586,500 doses were distributed, a proportion of which was delivered to the Organization's vaccine bank.

Colombian and Venezuelan experts meet annually to discuss common problems of protection against smallpox and the action that needs to be taken with respect to epidemiological surveillance and maintenance.

The central laboratory for smallpox diagnosis has examined 60 specimens from suspected cases under investigation, all with negative results.

Ecuador. This country, free of smallpox since 1964, is continuing its program of vertical maintenance, in the absence of an infrastructure providing effective coverage of susceptible persons. In 1969, 530,618 persons were vaccinated, with 95 per cent of primary vaccinations having taken. The "take" rate among revaccinations was found to be low, but this defect was corrected by supervisory action in the field. Evaluation of vaccination activities was introduced as a routine part of the program, with epidemiological surveillance at sea and airports.

The vaccine produced at the National Institute gave rise to problems of potency and stability. A new technician is being trained, and it is expected that in the course of 1970 the country will be able to produce all the vaccine it needs to meet its own requirements. In this year a new phase in the coverage of the population against smallpox will be introduced, with special emphasis on children under five years of age.

The Zone statistician for the smallpox project was located in Ecuador.

Paraguay. Budgetary difficulties made it impossible to start the program as planned, and a new operational plan has been prepared which will provide funds for the program in 1970 from the national lottery. Personnel have been trained and guidelines and procedures formulated; the program chief has visited Brazil on a fellowship from the Organization to observe the campaign being conducted in that country.

The smallpox diagnostic laboratory has finally come into service and made tests of samples sent after the investigation of an outbreak in Torocuary. These showed negative smallpox reactions. The general health services vaccinated 214,870 persons in 1969. Equipment, vehicles, and supplies for the program were furnished to the Government by the Organization.

Peru. As a result of the reorganization of the Ministry of Health and of budgetary limitations, the programmed monthly output of 320,000 vaccinations was not achieved. Average monthly vaccinations amounted to 65,398, and by December 1969, 598,584 persons had been vaccinated, 96.8 per cent of primary vaccinations and 73.2 per cent of revaccinations having taken. The official responsible for the laboratory producing smallpox vaccines visited the Connaught

Laboratories with the assistance of a fellowship from the Organization. The vaccine produced amounted to 6,527,200 doses and is of very good quality.

Uruguay. The plan of operations drawn up in 1968 provides for the vaccination of the country's population over a period of two years, but the eradication project has suffered from the effect of the country's financial situation. In 1969, 442,531 persons in seven departments were vaccinated, and from the outset of the program in 1967 activities covered 11 of the 19

departments in the country. Coverage is generally low and is due to government regulation prohibiting the vaccination of persons possessing a certificate of vaccination issued since 1967. Only glycerinated vaccine has been employed since the production of freeze-dried vaccine has not yet begun, although the Organization has provided the Ministry of Health with freeze-drying equipment.

In 1969 three cases of smallpox were reported, two imported from Brazil and one indigenous, which had been in contact with the imported cases.

Annex 5

CONTROL OF CIGARETTE SMOKING¹

Report on Measures Taken in the Americas to Control the Advertising

Extent of the Problem

If any reasonable doubt existed in regard to the seriousness of the health hazard of cigarette smoking, it has been dissipated by the evidence accumulated over the last 20 years.² The list of diseases occurring most frequently in inveterate cigarette smokers includes various forms of cancer (lung, larynx, lips, oral cavity, esophagus, bladder, and other urinary organs), chronic bronchitis, emphysema, coronary heart disease, cirrhosis of the liver, and stomach ulcer. Approximately one-third of the deaths occurring in men between 35 and 60 years of age are "excess" in the sense that they would not have occurred if cigarette smokers had the same death rate as non-smokers. It has also been estimated that in the United States of America life expectancy in young men who are heavy smokers (more than two packs a day) is reduced by approximately eight years, the risk being greatest in those who began smoking earliest.

A survey conducted by the National Center for Health Statistics of the U.S. Public Health Service has shown that workers smoking at least one pack of cigarettes a day spend a third more time away from their jobs because of illness than those who never smoke. This

"excess" of time lost from work represents 20 per cent of annual absenteeism for reasons of illness in workers between 17 and 44 years of age.³

In Latin America, as communicable diseases are being controlled and life expectancy is increasing, chronic diseases are emerging as a serious public health problem. This was brought out in the study of the patterns of urban mortality⁴ conducted by the Pan American Health Organization early in the last decade in 12 large cities. Taking the 10 Latin American cities studied as a whole, 20 per cent of all the deaths occurring in males between 35 and 64 years of age were attributable to diseases related to the cigarette-smoking habit. The investigation also showed that the 10 cities appeared to constitute three groups: La Plata, São Paulo, and Caracas were ahead with 33.4, 28.9, and 28.5 per cent, respectively; Bogotá, Lima, Cali, Mexico City, Riberão Preto, and Santiago (Chile) came next with 20.6, 17.3, 16.0, 15.6, 15.3, and 15.0 per cent, respectively, while Guatemala, with 9.7 per cent, was in the enviable last place.

The contribution of tobacco to the economy and the tax revenue of many Latin American countries cannot be ignored, but these advantages certainly lose some of their value in the face of the harm done by loss of wages,

¹Document CSP18/12 (14 August 1970).

²"Smoking Disease: A Self-Inflicted Injury." Lecture given by Sir George Godber at the Ninety-Seventh Annual Meeting of the American Public Health Association, Philadelphia, Pennsylvania, 11 November 1969. Published in the *American Journal of Public Health*, Vol. 60, No. 2, February 1970.

³*The Facts about Smoking and Health*. USPHS Publication 1712, Revised January 1970.

⁴Puffer, Ruth Rice and G. Wynne Griffith. *Patterns of Urban Mortality*. Scientific Publication PAHO 151, 1967.

prolonged incapacitation, cost of lengthy medical care, and above all the damage in terms of human life.

PAHO and WHO Resolutions

Clearly the problem is reaching a point where it urgently calls for vigorous action to prevent morbidity and mortality associated with the smoking habit from attaining the high levels observed today in many of the more developed countries. It was the recognition that cigarette smoking contributes substantially to premature deaths from lung cancer, coronary diseases, chronic bronchitis, and chronic respiratory insufficiency that led the Directing Council of PAHO at its XIX Meeting (October 1969) to adopt a resolution⁵ calling for an inquiry into the measures being taken in the Region for the control of cigarette smoking. Similar reasons led to the adoption of a resolution⁶ by the Twenty-Third World Health Assembly (May 1970), which called the attention of all Members and Associate Members to the report submitted to the Director-General by two eminent experts, and urged the need for examining the advantages of implementing some of its recommendations.⁷

Survey Procedure

In compliance with the instructions given him by the Council in the afore-mentioned resolution, at the beginning of 1970 the Director of PASB requested the health authorities of all the Member and participating Governments to transmit to him "any pertinent information about the measures that have been adopted and activities that have been carried out by official agencies and private institutions in your country to control cigarette smoking." The letter containing the request referred to "an account of programs for the same purposes which are being planned, as well as any other suggestion for more effective activities against the smoking habit."

The replies received up to the beginning of March made it possible to compile information, incomplete at times but definitely valuable, on the present situation in 17 Member Countries and Canada. An ad hoc questionnaire was then sent to all the Member States at the end of March with a view to supplementing this information. The questions asked in the questionnaire were formulated with a view to assembling data on the following points: (1) whether there are legal controls over the production, sale, advertising, and smoking of cigarettes; (2) the extent and status of campaigns or programs to combat the smoking habit; (3) the future policy planned

by the health authorities in regard to this problem: and (4) the trends in tobacco consumption over the last two decades.

Information Compiled

The questionnaire evoked replies from 24 countries, 13 of which had already replied to the request made at the beginning of the year, while the other 11 replies were additional to the initial list. All of them were helpful in collecting and analyzing the data from a total of 28 countries.

In six countries the government authorities exercise some control over tobacco growing and processing, but it should be pointed out that the regulation is ordinarily in the hands of the ministries of finance, commerce, or agriculture, and apparently there are no standards governing tar and nicotine content of the product offered for sale.

Eight countries furnished information on the consumption of tobacco over the last few decades; six gave specific data on the sale of cigarettes. In all instances increases were recorded in cigarette smoking, varying from 8 to 113 per cent for the last 10 years and between 59 and 188 per cent for the last 20 years. This increase coincides with a drop in the sale of cigars at a rate fluctuating between 9 and 62 per cent over the last decade. These figures are based on the collection of taxes and do not take account of illegal imports and home-made cigarettes, which can be presumed to account for a fairly high percentage of consumption in some countries.

Only one country reported the existence of regulations governing the sale of cigarettes, and these refer only to the payment of taxes and the need to obtain a license for the sale of cigarettes. It can be assumed that the sale of tobacco is also subject to tax and requires a license in all the other countries. Restrictions on smoking in public places exist in 14 countries of the Region. The provisions are mainly dictated by the need to prevent fire, and in most cases they only cover public transport vehicles and certain places of public entertainment such as movies and theaters. In Mexico a program has recently been started restricting cigarette smoking in the hospitals and other medical institutions belonging to the three entities responsible for most of the medical care given to the public. The report from the United States of America shows a decline in cigarette smoking in public places and states that this is due to increased concern for the comfort of non-smokers, but it points out that the trend is attributable more to educational effort than to any coercive measures.

During the first four months of 1970, the Governments of Argentina, Panama, Peru, and the United States of America, have adopted legal restrictions on the advertising of cigarettes.

⁵Resolution XXXIV. *Official Document PAHO 99*, 82.

⁶Resolution WHA23.32. *Off. Rec. Wld Hlth Org.* 184, 15-16.

⁷Fletcher, C.M. and D. Horn. "Smoking and Health". *WHO Chronicle*, Vol. 24 (8), August 1970, pp. 345-370.

In Argentina, all advertising of cigarettes on television and radio and in cinemas has been prohibited for a year. The pertinent law also provides that cigarette manufacturers, importers, and merchants must submit a quarterly statement of the sums spent on publicity and promotion of cigarettes. A bill approved by the Congress of the United States of America bans all advertising of cigarettes on radio and television as of 1971, and the warning "Cigarette smoking may be hazardous to your health" which since 1965 has had to be printed on all cigarette packages for sale within the country will be replaced by "Warning: the Surgeon General has determined that cigarette smoking is dangerous to your health," as being more forceful.

The Government of Panama has enacted a decree which provides that any advertisement for cigarettes shall include a warning on the dangers of smoking, and all local manufacturers of cigarettes are required to print on packs and cartons "Warning: smoking is dangerous to health."

A Supreme Decree of the Peruvian authorities prohibits any advertisement for cigarettes which simultaneously fails to alert the public on the health hazards inherent in smoking, and all advertising by radio and television is banned from 8:00 p.m. onward. Cigarette manufacturers are also required to print on cigarette packs and cartons the warning: "May be injurious to health."

The Canadian authorities have hitherto relied essentially on propaganda to combat cigarette smoking and on voluntary restrictions self-imposed by the tobacco industry and advertisers in the face of community pressure, e.g., not to advertise before 9:00 p.m. Both the national and private television companies make short anti-smoking announcements as a public service, and have been doing so since 1967. In 1969 the Canadian Broadcasting Corporation decided to suspend all advertising of tobacco, and its example was soon taken up by other private companies. While the possibility of adopting legislation restricting the advertising of cigarettes still further is being considered, the Government continues to emphasize educational programs designed both to help cigarette smokers to give up the habit and to prevent youngsters at school from acquiring it. Other activities include surveys on the extent of smoking and the motivation for taking it up, publication of periodic analyses of the content of tar and nicotine residues in cigarettes. All these activities have the strong support of private organizations such as the Canadian Cancer Society and the Canadian Medical Association.

Among the activities promoted and supported by the U.S. Public Health Service are surveys on the extent of the smoking habit and studies on public motivations and attitudes, the organization of clinics for smokers wishing to break the habit, educational programs in schools and through the mass communication media, and the establishment of the National Clearinghouse for

Smoking and Health. In all these efforts the health authorities have had valuable collaboration from the public through the American Cancer Society and the American Heart Association. Professional organizations such as the American Medical Association and the American Public Health Association also contribute substantially to the campaign against cigarette smoking. The last-named has on several occasions publicly taken a more and more vigorous stand against cigarette smoking and has promoted the foundation of the National Inter-Agency Council on Smoking and Health, in which 30 organizations interested in public education are involved, and the periodic distribution of the *Medical Bulletin on Tobacco* in 500,000 copies.

In addition to Canada and the United States of America, four other countries of the Region have indicated that they are undertaking educational programs to combat cigarette smoking. Data collected in a previous survey on health education to combat cancer makes it possible to add several other countries to this list, but it should be pointed out that programs of this kind are still very limited in their scope and influence. A total of 14 countries are definitely planning the organization of activities to combat cigarette smoking through programs which place the emphasis on educational activities and in some instances the adoption of restrictive controls on cigarette advertising.

Finally, it should be pointed out that the concerted efforts of health authorities, private non-profitmaking organizations, and professional associations in Canada and the United States of America over the last few years are beginning to show positive results, since the latest surveys indicate a steady falling off in cigarette consumption since 1966.

Survey on the Smoking Habit in Latin America

The investigation on patterns of urban mortality carried out by PAHO in the early 1960's in 10 cities of Latin America and two in English-speaking countries made it clear that diseases connected with smoking are a serious public health problem in many of the countries of the Region. PAHO is convinced that any program designed to reduce the incidence of these diseases (including cancer of the respiratory system, coronary disease, chronic bronchitis, and chronic respiratory insufficiency among the most important) should have as one of its objectives a substantial reduction in the actual consumption of cigarettes by the population. Clearly also, to ensure that activities designed to achieve this objective have a real chance of success it is essential to plan them on the basis of a reliable estimate of the extent of the habit and accurate information on the attitude of the general public toward cigarette smoking and its effect on health. For this reason, PAHO decided

to carry out the necessary studies to obtain such basic information. Since the budgetary situation would not allow an investigation embracing all the countries of the Region, and including both urban centers and rural areas, it was felt that it would be best to limit the survey for the time being to eight cities in Latin America where the above-mentioned investigation recorded highly reliable mortality rates which could be correlated with the findings of the survey.

It may be mentioned that the American Cancer Society has made an initial grant of US\$7,500 for planning the survey, and it is quite possible that it will contribute substantially to its financing at the operative

stage. At the present time, negotiations are going on with the United Nations Development Program (Technical Assistance) for additional funds.

The survey will be carried out on a representative sample of the population of the cities selected, and the analysis of the findings will provide information on the prevalence of smoking and the social, cultural, and demographic characteristics of smokers. The investigation undertaken will thus help the health authorities in the countries of the Region to formulate policies and programs on the use of tobacco, and will also indicate what should be the starting point for a correct evaluation of the effectiveness of control programs.

Annex 6

LONG-TERM PLANNING AND EVALUATION¹

Pursuant to Resolution XXVII² of the XIX Meeting of the Directing Council, the Director submitted to the 64th Meeting of the Executive Committee Document CE64/8 on long-term planning and evaluation (Appendix 1). With reference to this item, the Committee adopted Resolution XV³, in which it approved the report of the Director of PASB on the steps taken to plan and evaluate PAHO/WHO assistance to the countries, and urged the Governments to continue to use the procedure adopted; recommended to the Director that the program and budget estimates of the Organization reflect the importance assigned to the critical areas in which priority assistance from PAHO/WHO is needed, and that the projects for the Americas that will be included in the Fifth General Program of Work of WHO for the period 1973-1977, be based on joint programming by the Governments of the Region and the Organization. The Committee also recommended to the Member Countries that they continue their efforts to develop and improve health planning as a part of economic and social development planning; and requested the Director to submit to the XVIII Pan American Sanitary Conference a report on the planning of PAHO/WHO assistance to the countries, including additional studies designed to improve the procedure.

In compliance with the request contained in that resolution, it may be stated that the planning of assistance to the countries has continued to be based on an analysis of the information received, especially the preliminary proposals submitted by the countries to the Organization and deriving from the joint delimitation of critical areas requiring priority assistance from PAHO/WHO. Thus country recommendations are being examined, and zonal and regional projects are being prepared. The information has also been used as a basis for the formulation of the Fifth Program of Work proposed by the Region of the Americas to the World Health Organization.

The next step involves a series of consultations with the countries to determine which joint projects will be carried out beginning in 1972, depending on the resources available to the Organization. If this cycle is to be continued without interruption, it will mean verifying and supplementing the information available and periodically analyzing the extent to which the targets established for the particular period have been attained.

With regard to method, it should be pointed out that weaknesses and inconsistencies which appeared at this preliminary stage are being carefully studied so that once the obstacles have been satisfactorily overcome, the process will be gradually perfected.

Table 1 of the Appendix is based on information received up to 15 June 1970, and summarizes the status of long-term planning and evaluation at that date. Table 2 summarizes the situation as of 1 August 1970.

¹Document CSP18/16 (21 August 1970).

²Official Document PAHO 99, 76.

³Official Document PAHO 103, 58.

Appendix

LONG-PLANNING AND EVALUATION¹

In accordance with the provisions of operative paragraph 6 of Resolution XXVII of the XIX Meeting of the PAHO Directing Council, the Director has the honor to submit to the Executive Committee a summary of activities promoted and carried out to 15 June 1970 regarding long-term planning and evaluation.

Background

The purpose of long-term planning of the PAHO/WHO cooperative activities with the countries is found in Resolutions WHA21.49 and WHA22.53, adopted at the Twenty-First and Twenty-Second World Health Assemblies,² respectively. The latter placed special emphasis on the desirability of integrating and continuing such activities within the context of over-all strategy during the Second Development Decade of the United Nations.

In turn, in Resolution XIX,³ the XVIII Meeting of the PAHO Directing Council instructed the Director to review existing procedures and to prepare a joint planning process. At its XIX Meeting, the Council examined in detail the report of the Director on "Long-Term Planning and Evaluation" (Documents CD19/14 and CE61/14,⁴ as well as Resolution XIV⁵ of the 61st Meeting of the Executive Committee in which it requested the Council to urge the countries to collaborate in implementing the proposed long-term procedure. The above-mentioned meeting of the Directing Council adopted Resolution XXVII, the operative part of which reads as follows:

1. To approve the report of the Director on long-term planning and evaluation as well as the proposed method for making four-year projections of the assistance activities of the Organization.
2. To urge Member Countries to actively participate in the joint planning process based on the proposed methods.
3. To recommend to the Director that he prepare long-term plans and the corresponding budget estimates for PAHO/WHO assistance activities at both the country and the regional level,

bearing in mind the guidelines and stages proposed by the World Health Assembly in Resolution WHA22.53 and in conformity with national health plans, the needs of the countries, and the objectives of the Governments.

4. To bring to the attention of the Governments Resolution XXVI approved at the present meeting on strengthening program and project evaluation procedures in order to improve long-term planning.

5. To recommend to the Director that, in the course of long-term planning, he endeavor to strengthen liaison with agencies of the Inter-American System and other agencies involved in the social and economic development of the Region.

6. To request the Director to report to the 64th Meeting of the Executive Committee on progress in implementing the planning process, including the participation of Member Countries.

Purposes

According to the provisions of the aforesaid resolutions of the Governing Bodies of the Organization, the basic objective of the proposed procedure, known as "Quadrennial Projections of PAHO/WHO Activities," is to provide an instrument for improving the Organization's collaboration with countries by means of a continuing process of joint programming.

The process has the following features:

- It entails joint action with the health authorities of the countries.
- Programs are projected and adjusted annually for four-year periods.
- It is based on prevalent health problems, national and regional health policies, available resources, and external cooperation policy defined by the countries.

Development of the Process

1. *Preliminary test.* In August 1969 the proposed process was submitted to a preliminary field test in Guatemala. Consequently, it was possible to identify the areas in which the process required further development, to adjust and give specific form to headings which were originally excessively detailed and, finally, to confirm the feasibility of joint application, that is, with national personnel and PAHO/WHO staff. Subsequently the appropriate modifications were introduced and plans were prepared for implementing the process in accordance with the provisions of the Directing Council resolution.

¹Document CE64/18 (19 June 1970).

²*Off. Rec. Wild Hlth Org.* 164, 24 and 176, 26-27.

³*Official Document PAHO* 93, 56-57.

⁴*Official Document PAHO* 100, 295-306.

⁵*Official Document PAHO* 96, 14-15.

2. *Joint action.* In order to carry out the above-mentioned plans, the Director of PASB sent a note to the Governments which, in addition to mentioning the purposes of the exercise, emphasized the need for implementation through joint action of health personnel designated by the appropriate Ministry and PAHO/WHO staff. He specifically recommended the organization of a joint group which would be responsible for the process. As this happened to be one of the points emphasized during consideration of the topic by the 61st Meeting of the Executive Committee as well as the XIX Meeting of the Directing Council, PAHO/WHO staff were instructed to provide maximum cooperation to the Governments to ensure that the activity would be carried out specifically as provided by the Governing Bodies of PAHO/WHO.

3. *Application in the countries.* As most of the countries immediately expressed their support of this measure in view of experience gained in the preliminary test and on the basis of joint action by local and international personnel, the process was initiated in February and March. With some slight variations it consisted of the following:

a) Analysis and discussion of activities to be carried out by national and Organization personnel in preparing the projections.

b) Compilation and processing of basic information for general diagnosis of the health situation in each country and of the structure of the health sector, including identification of major problems and availability of resources.

c) Establishment of an image of change at the end of a 10-year period and determination of the action required in order to bring about such changes.

d) Definition and identification of critical areas within over-all problems and activities in which external cooperation is required.

e) Preparation of a portfolio of proposed projects based on critical areas in which PAHO cooperation is considered necessary. Some may pertain to current projects, others to new problems or activities, and still others may aim at reorientation and even termination of existing projects.

f) Selection of projects to be implemented during the quadrennium on the basis of real availability of budgetary resources of the country as well as the Organization.

g) Establishment of terms of reference for subsequent evaluation.

Up to 15 June, on the basis of the interest shown in this activity by the health authorities of most of the countries, it was possible to obtain basic information from 21 countries, and the required data for the quadrennial projection from 17 countries (Table 1). It should be emphasized that, in some instances, this exercise has furthered the planning process at the national level and

is facilitating broader work relations between national health personnel and Organization staff.

4. *Plan to be followed.* The material received is being reviewed and processed in the Headquarters of the Organization in order to prepare an over-all projection of PAHO/WHO cooperation with the countries during the 1972-1975 period. It is expected that this phase will be completed in July if pertinent information can be obtained from the countries. In addition to analysis of the data received, this phase entails the development of a typology of countries as well as the preparation of regional projects and an initial draft quadrennial budget.

It should be pointed out that, in this phase, the bases necessary for organization of regional activities and resources should be established. The marked differences observed in countries of the Region with regard to their respective development processes have emphasized the need to classify them according to their socioeconomic and health characteristics.

It is expected that this will permit establishment of a frame of reference that will facilitate analysis of problems which affect the health situation. The aforesaid analysis entails many difficulties, including the fact that, frequently, the required data are incomplete and sometimes only available with regard to certain countries and for different periods. In addition to being unreliable, the quality of the information varies widely from country to country. Furthermore, the criteria for defining and compiling data vary. On the other hand, the difficulty of evaluating the general situation of a given country on the basis of analysis of numerous different indicators is still another factor that must be considered. In order to overcome these obstacles, the economic and social indicators applied may be handled so as to permit the establishment of profiles of development which may provide a graphic idea of the essential characteristics of the countries.

By means of the proposed typology, countries with the most homogenous characteristics are grouped. In turn, such groups differ sufficiently among themselves so as to permit identification of various levels of development. In other words, each group represents a given level of economic and social development. Aspects pertaining to levels and structure in the areas of health, education, environment, economics, and demography are considered.

Specifically, the proposed typology will be useful in determining the frame of reference for regional analysis of health problems in relation to development. It will also facilitate preparation, evaluation, and readjustment of PAHO regional cooperation with the countries, orientation designed to formulate the various types of health plans, and analysis of behavioral relations of the health sector with the other components of development by types of countries.

5. *Preparation of regional projects.* In preparing regional projects—an integral part of quadrennial projections—the plan adopted for country and inter-zonal projects is used. Nevertheless, because of their particular characteristics, it is necessary to adopt an over-all approach to the problems to be solved and to the resources required for implementation. On the basis of data obtained from the countries, in order to identify and handle problems at the regional level it is necessary to apply development and health typologies in determining which groups of countries are sufficiently homogenous and affected by common and specific problems. Such problems are analyzed in relation to the regional and world policies that the countries have established in this regard.

It is expected that, during this phase, an initial approximation to a four-year work plan will be

available. Such an approximation should be revised and adjusted for the first time during the second half of the current year. The approximation would include the budgetary implications of the plan.

As this is a dynamic process, the verification of data, health policy changes—at both the national and regional levels—and the availability of resources, together with the results achieved in relation to the objectives, will determine the modifications and adjustments that will have to be introduced in the aforementioned work program on a continuing basis.

In view of the present stage of development of the process, it is planned to submit to the XVIII Pan American Sanitary Conference a complete report on the program, including a preliminary presentation of the model projection applied to the group of countries regarding which information will be available in July.

Table 1—*Present Status of Four-Year Projections of PAHO Assistance to the Countries (Information of 15 June 1970)*

Country	PAHO country activities at national level					PAHO activities at central level	
	Basic information			Projection			
	Being compiled	Obtained	Sent to PAHO	Being prepared	Sent to PAHO	Analysis of basic information	Preparation of regional projection
Argentina	x						
Barbados		x	x	x	x	x	x
Bolivia		x	x	x	x	x	x
Brazil	x						
Chile		x	x			x	
Colombia		x	x	x	x	x	x
Costa Rica		x	x	x	x	x	x
Cuba	x						
Dominican Republic		x	x	x	x	x	x
Ecuador		x	x	x	x	x	x
El Salvador		x	x	x	x	x	x
French Antilles and Guiana ^a							
Guatemala		x	x	x	x	x	x
Guyana		x	x	x	x	x	x
Haiti		x	x	x	x	x	x
Honduras		x	x	x	x	x	x
Jamaica		x	x	x	x	x	x
Mexico	x						
Nicaragua		x	x	x	x	x	x
Panama		x	x	x	x	x	x
Paraguay		x	x	x	x	x	x
Peru		x	x	x	x	x	x
Surinam and Netherlands Antilles ^b		x	x	x	x	x	x
Trinidad and Tobago		x	x	x	x	x	x
United Kingdom ^c	x						
Uruguay		x	x			x	
Venezuela		x	x	x	x	x	x

^aFrench Antilles and Guiana: French Guiana, Guadeloupe, Martinique, St. Bartholomew, St. Martin.

^bNetherlands Antilles: Aruba, Bonaire, Curaçao, Saba, St. Eustatius, St. Martin.

^cUnited Kingdom: Bahamas, Bermuda, Cayman, Turks and Caicos, Virgin Islands, West Indies (Anguilla, Antigua, Barbuda, Dominica, Grenada, Montserrat, Nevis, St. Kitts, St. Lucia, St. Vincent).

Table 2—Present Status of Four-Year Projections
of PAHO Assistance to the Countries
(Information of 1 August 1970)

Country	PAHO country activities at national level					PAHO activities at central level	
	Basic information			Projection		Analysis of basic information	Preparation of regional projection
	Being compiled	Obtained	Sent to PAHO	Being prepared	Sent to PAHO		
Argentina	x						
Barbados		x	x	x	x	x	x
Bolivia		x	x	x	x	x	x
Brazil		x	x	x	x	x	x
Chile		x	x			x	
Colombia		x	x	x	x	x	x
Costa Rica		x	x	x	x	x	x
Cuba	x						
Dominican Republic		x	x	x	x	x	x
Ecuador		x	x	x	x	x	x
El Salvador		x	x	x	x	x	x
French Antilles and Guiana ^a							
Guatemala		x	x	x	x	x	x
Guyana		x	x	x	x	x	x
Haiti		x	x	x	x	x	x
Honduras		x	x	x	x	x	x
Jamaica		x	x	x	x	x	x
Mexico	x	x					
Nicaragua		x	x	x	x	x	x
Panama		x	x	x	x	x	x
Paraguay		x	x	x	x	x	x
Peru		x	x	x	x	x	x
Surinam and Netherlands Antilles ^b		x	x	x	x	x	x
Trinidad and Tobago		x	x	x	x	x	x
United Kingdom ^c	x						
Uruguay		x	x	x	x	x	x
Venezuela		x	x	x	x	x	x

^aFrench Antilles and Guiana: French Guiana, Guadeloupe, Martinique, St. Bartholomew, St. Martin.

^bNetherlands Antilles: Aruba, Bonaire, Curaçao, Saba, St. Eustatius, St. Martin.

^cUnited Kingdom: Bahamas, Bermuda, Cayman, Turks and Caicos, Virgin Islands, West Indies (Anguilla, Antigua, Barbuda, Dominica, Grenada, Montserrat, Nevis, St. Kitts, St. Lucia, St. Vincent).

Annex 7

PAHO AWARD FOR ADMINISTRATION¹

At its 61st Meeting, the Executive Committee, after examining the proposal submitted to it in Document CE61/3 (Appendix 1), and bearing in mind the importance of fostering a high level of competence in the administration of health services, gave its approval, in Resolution XX,² to an annual award in the amount of US\$400 to be called the "PAHO Award for Administration." The resolution also authorized the Director to appoint a Committee to establish the rules for the Award and for the selection of the winner.

During its 64th Meeting, the Executive Committee, acting in accordance with a recommendation of the Director of the Bureau (Appendix 2) and prompted by considerations of economy, appointed a working party consisting of the Representatives of Trinidad and Tobago, Uruguay, and Venezuela to establish the conditions of the Award.

After examining the report of the working party, the Committee approved Resolution XX,³ in which it approved the procedure and the proposed award criteria, and instructed the Director of the Bureau to submit it to the XVIII Pan American Sanitary Conference.

In compliance with operative paragraph 2 of that resolution, the Director has the honor to submit for consideration by the Pan American Sanitary Conference the following procedure and criteria approved by the 64th Meeting of the Executive Committee.

A. Procedure for the Award of the PAHO Award for Administration

1. To contribute to the improvement of the administration of health programs, the Pan American Health Organization has established a PAHO Award for Administration, which will be awarded annually and will consist of a diploma and the amount of US\$400.

2. The Award will be granted one year to the candidate who has performed the most outstanding work in health administration, and the next year to a person who has made an outstanding contribution in the form of research, studies, or essays on health administration.

3. Candidates for the Award, by reason of outstanding work in health administration, must be submitted in odd years, and those who are candidates by reason of written works must be submitted in even years.

4. The Chairman of the Executive Committee of PAHO will appoint an Award Committee consisting of three representatives of countries Members of the Executive Committee, who will discharge their duties during their term of office as representatives of their country on the Executive Committee.

5. The candidates will be presented by the Governments of the Member Countries of PAHO through their Ministries of Health.

6. Proposals concerning candidates will be made to the Director of PASB and will be accompanied by the curriculum vitae and the documentation supporting the quality of the work done, or three copies of the written work which it is proposed to reward, as the case may be.

7. The Director of PASB will send copies of the documentation submitted to the members of the Award Committee 30 days before the date of the opening of the first annual meeting of the Executive Committee so that the Award Committee can meet and decide on the Award during the meeting of the Executive Committee.

8. The announcement of the winner of the Award will be made during the meeting of the Directing Council or the Pan American Sanitary Conference. The delivery of the Award will be agreed upon with the Government that proposed the candidate.

9. These general rules and the Award criteria annexed thereto will be reviewed at any time deemed appropriate taking into account the experience gained. The amendments approved by the Executive Committee will be submitted to the Directing Council or the Pan American Sanitary Conference.

B. Criteria for the Award

1. Effect of the activity of the candidate in improving health administration. For example:

- a) Contribution to the preparation or the execution of a national, regional, or provincial health plan.
- b) Contribution to the coordination or strengthening of health service agencies.
- c) Display of dedication to duty and esprit de corps.

¹Document CSP18/8, Rev. 1 (8 September 1970).

²Official Document PAHO 96, 18.

³Official Document PAHO 103, 61-62.

- d) Introduction of the teaching of administration into health programs.
- e) Methods of evaluation and application of administrative methods.
- f) Contribution to the establishment of an efficient personnel system.
- g) Contribution to the establishment of the program budget.
- h) Design or introduction of an accounting system.

2. Value of a written work by reason of the feasibility of applying its contents to improving administration in the sector, including the field of training. Examples: (a) model program of administrative training in medical health or sanitary engineering schools, etc.; (b) a model of the personnel system for the sector; and (c) a manpower development program adapted to a health plan.

Appendix 1

PAHO AWARD FOR ADMINISTRATION¹

The Director of the Pan American Sanitary Bureau is pleased to present for consideration of the Executive Committee a proposal for establishment of an annual award for administration as explained in this document.

In 1968, Dr. Stuart Portner, former Chief of Administration of PASB, served as a member of the Committee of Experts for the Study of Administrative and Financial Procedures of the Pan American Union. At his request the honorarium for this service, amounting to US\$9,200 was paid to PAHO. Dr. Portner has expressed a desire that an award, equivalent approximately to the interest that could be earned from investment of this amount, should be given in recognition of achievement in better administrative management in the field of health in the Americas.

The Executive Committee may wish to consider

establishing an annual award of US\$400 to be given to an outstanding practicing public health official or a worthy student preparing a thesis on administration in health. To assure a simple procedure for making such an award the Executive Committee may consider authorizing the Director to appoint an award committee composed of not less than three nor more than five members.

Bearing in mind the general objectives of this award, the Award Committee should have considerable flexibility in determining criteria and selection procedures. It might, for example, divide the award between a student and a public health official. It might also decide to give a monetary award to a worthy student and an honorary award to an outstanding practicing public health official.

If the Executive Committee is in favor of this proposal it may wish to approve an authorizing resolution.

¹Document CE61/3 (23 April 1969).

Appendix 2

PAHO AWARD FOR ADMINISTRATION¹

At its 61st Meeting (1969), the Executive Committee, in Resolution XX, approved the creation of the PAHO Award for Administration. The Director was authorized to appoint a Committee to establish the conditions of the Award and to select the recipient.

The Award Committee has not been selected for reasons of economy. On the one hand, it is essential to have adequate geographic representation. On the other hand, it is not justified to expend an amount which

would be in excess of the Award (\$400) to convene a Committee. Therefore, the Director proposes that three members of the Executive Committee, designated by the Chairman, should serve as the Award Committee.

If the Director's suggestion is agreeable to the Executive Committee, the Award Committee, with such assistance as it may desire from the Secretariat, will establish the conditions of the Award. Subsequently, nominations would be invited, and the Award Committee convened during a subsequent meeting of the Executive Committee to select the recipient.

¹Document CE64/11 (1 June 1970).

Annex 8

GENERAL PROGRAM OF WORK OF THE PAN AMERICAN HEALTH ORGANIZATION/ WORLD HEALTH ORGANIZATION FOR THE PERIOD 1973-1977¹

Introduction

Economic goods have value as long as man, whatever his geopolitical situation, has the right and the ability to enjoy them and put them to work for his own development and welfare and the survival of the species. It is universally accepted that health, the essence of well-being, can only be comprehended in its entirety within a social and economic framework. Consequently, a study of the social and economic environment is indispensable in a survey of the health situation. Such knowledge, as comprehensive as possible and as profound as necessary, is essential to planning the activities that will produce, or help to produce, a lasting improvement in health.

Generally speaking, the programs of work of the Pan American Health Organization have their source in the programs of the Governments, and these are based on regional health policies decided upon by the Governing Bodies. These programs are so formulated as to assure effective coordination with the other agencies of the Inter-American System and of the United Nations.

Since 1952, the World Health Organization, in accordance with the instructions of its Governing Bodies, has developed a succession of working programs for specific periods, generally of five years' duration. The purposes and objectives are based on a set of principles, which are applied with considerable flexibility so as to adapt PAHO's cooperation to scientific and technical progress and to changes occurring in health problems at the national, regional, and world levels.

The requests from Governments for more and more specialized technical cooperation and the limited funds available to meet them make it necessary to strengthen administrative efficiency *pari passu* with measures for increasing the availability of funds. To that end, a permanent over-all evaluation of problems and programs is needed. This will lead to the adoption of methods and strategies that will assure the appropriateness and timeliness of such cooperation and its maximum efficiency.

In the last 10 years the interest of the Governments of Latin America in the continuous study of health and

its development within the framework of the social and economic environment has been highly significant. The Act of Bogotá, the Charter of Punta del Este, the Declaration of the Presidents of America, and the recommendations made in the meetings of Ministers of Health of the Americas have expressed this interest and served as a guide for the PAHO/WHO programs of cooperation.

The experience acquired and the growing possibility of arriving at a useful understanding of health problems—of their scope, depth, and importance—are giving to planning a degree of excellence not only as regards better organization and utilization of available resources but also the creation of new ones.

In adopting the recommendation for longer-term planning, it was considered appropriate and necessary to review former procedures and design a system practical and firm, but sufficiently flexible to be adapted to varying conditions of health and disease in the Americas.

The system by which the PAHO/WHO cooperative activities will be planned in this Region has been given the name "Four-Year Projections of the Activities of the Organization in the Americas" and is aimed at meeting the requirements indicated above. This system is based on a joint and continuous effort by national health authorities and officials of the Organization to plan the cooperation required from the Organization for tackling priority health problems in the various countries and also for fulfilling its international responsibility. The system consists of five main stages, which follow one another in an unending series.

In the first stage a useful knowledge of existing health conditions in a socioeconomic environment is acquired, thus establishing the baseline situation. The second consists in identifying main problem areas of high priority based on knowledge acquired in the first stage. The third stage entails the selection of activities which must be carried out to solve or reduce the problems identified in the second stage. The fourth stage, which gave rise to the program of work presented in this document, consists of indicating the so-called critical fields in which the Governments desire PAHO cooperation, and the objectives and goals to be accomplished in a given period of time. This stage leads to the preparation of a set of PAHO/WHO projects (for a

¹Document CSP18/28 (25 September 1970).

country, Zone, or Region), which may serve as a basis for the formulation of the appropriate budget. The fifth stage completes the cycle. It includes periodic evaluation which, beginning again with the first stage, enables the necessary readjustment to be made in the subsequent program.

On this first occasion, only readily available or recent information was utilized, thus avoiding laborious retrospective studies and special investigations. The task was a difficult one, but the interest shown by the Governments at all levels was most encouraging. The first fact that this investigation brought to light was the lack of comprehensive information on the problems most closely related to the well-being of man in the Americas. Most of the statistics that came to hand expressed total or average situations and phenomena as if they were uniformly distributed among the population. This is very far from reality. This is true when we are dealing with a single country, but becomes much more serious when we are considering an entire region or its geographic and political subdivisions.

Moreover, the differences among the countries of the Americas as regards level of development are very marked. The health situation itself, the general features of which are common to most of the countries, presents great variations when examined in the light of their social and economic environment. To study these differences the data supplied were analyzed and an attempt was made to sketch individual profiles of development which show graphically the characteristics of each country, and thus be able to arrange them in reasonably homogeneous groups.

Data were assembled from 26 countries and territories of the Americas on the many varied denominators included within the health-environment ratio. From these, 21 interrelated indicators were selected to represent the principal fields of development. Basic importance was given to life expectancy as an over-all indicator, and four of the most significant indicators were selected for each one of the following entities: (1) structure and resources for health; (2) the environment; (3) educational levels and structures; (4) economic levels and structures; and (5) population structure. On this basis it was possible to make a preliminary classification of the countries in accordance with their stage of development.

On the other hand, it was found that in some cases countries and territories, although belonging to the same group with similar levels of development, had a different historical and cultural background or a special political structure (not identified by the indicators). This made it necessary to devise an additional grouping of countries and territories.

There were many obstacles and limitations that impeded the attainment of conclusive results in this first attempt. Despite this fact, the grouping selected can be accepted on a provisional basis and taken as a starting

point for future corrections. The results of this first attempt at classification should therefore be interpreted with reserve. It should be understood that its primary purpose was to provide the foundation for a program to give relevance to the PAHO/WHO cooperative effort.

We are thus complying with Resolution XIV² adopted by the Executive Committee in its 61st Meeting, with Resolution XXVII³ of the XIX Meeting of the PAHO Directing Council, both on long-term planning and evaluation, and with Resolution WHA23.59⁴ adopted by the Twenty-Third World Health Assembly on the General Program of Work for a Specific Period.

In accordance with the relevant part of Resolution XV⁵ of the 64th Meeting of the Executive Committee, the General Program of Work for the Period 1973-1977, herewith presented for the consideration of the XVIII Pan American Sanitary Conference, if approved, will be submitted to the Director-General for inclusion in the Fifth Working Program of the World Health Organization.

Program

The basic information obtained through the system of four-year projections and the information periodically supplied by the Governments on their problems of greatest importance were analyzed in the light of the declarations and recommendations on health in the Act of Bogotá and the Charter of Punta del Este and in the final reports of the meetings of Chiefs of State and Ministers of Health of the Americas.

The results of this study make it possible to orient the work of PAHO/WHO toward two large areas of cooperation: the infrastructure of the sector, and the health services complementing each other systematically balanced from their very conception and with a single goal. The first field of cooperation stresses administration in its broadest sense, that is to say, as a dynamic process seeking continuously to understand health phenomena, to invigorate knowledge, ability, and attitude, and to utilize resources, adapting them to constant changes in health problems.

The second field of cooperation deals with the production of services in the form of specific activities to meet the most significant problems of the community, satisfy the demands of the most needy "consumers," and direct the services toward the places which have the greatest need.

A. Infrastructure of the Health Sector

A rational and solid sectoral infrastructure is an essential requirement to assure the efficiency, effec-

²Official Document PAHO 96, 14-15.

³Official Document PAHO 99, 76-77.

⁴Off. Rec. Wld Hlth Org. 184, 32-33.

⁵Official Document PAHO 103, 58.

tiveness, and timeliness of health services. For the purposes of this program it is considered that infrastructure is made up of two large components: (1) administration and (2) resources.

1. Administration

Problems of an administrative nature are present to a greater or lesser degree in all of the countries. These problems have proved to be the principal obstacles to the production of services which are adequate in quality, quantity, and coverage. Weakness in management is considered to be one of the characteristics of general underdevelopment. Although there is no doubt that the elimination of structural or functional deficiencies in the system is not enough in itself to raise the development of a country to the desired level, it is also recognized that rational administrative reform can increase the efficiency of a service immediately and substantially, eliminate stagnation, and lead to a gradual and orderly achievement of objectives.

The agencies in charge of health in most of the countries have recognized the importance of the problem, and the progress achieved in solving these problems is worthy of note. PAHO/WHO will continue to cooperate in this field of activity, both by strengthening and expanding regional and Zone projects and by reinforcing the health administration component in all projects, regardless of their primary purpose and sphere of activity.

Health administration cannot be independent of public administration in general, and the condition of the latter is always reflected in the condition of the former. Moreover, the improvement of the health infrastructure complements national administrative reform and often stimulates it.

1.1 Organization. There have been marked changes in the last two decades, caused primarily by administrative inflexibility in confronting the rising demand for services, especially for institutional medical care. These changes have resulted in a proliferation of government, para-government, and private agencies in the health field. In most of the countries coordination among these agencies is weak, and unnecessary duplication of efforts and resources is often observed.

The social pressures for achieving better standards of living and the urgent need of bridging the gap separating the countries of the world into two major categories of development are factors which, among others, change the value and concept of many health problems and consequently the organization created for solving them.

PAHO/WHO will continue to cooperate with the Governments in the great task of reorganizing the various agencies of the public and private sectors so that, while respecting their individuality, it will become possible to achieve integration of efforts and services,

provide for regional distribution, and procure the informed participation of the community at all levels.

Although the problems of organization are common to all the countries, each one of the countries has individual characteristics which appear when these problems are analyzed through national parameters of an ideological, traditional, sociocultural, legal, technical, and economic nature. Consequently, the terms of this cooperation must be studied carefully with the Governments so that PAHO/WHO cooperation can be used to promote, support, and strengthen the methods which each country considers most appropriate to achieve the desired improvement.

1.2 Information. The imperative need to substitute, or at least support, intuition by a profound understanding of the phenomena, actions, and reactions that affect health and fall outside its scope, gives a high place to information in the processes of planning, production, and supervision of services. The term information in this sense means the planned development of a system of communication, recording, processing, and analysis of data, in order to build up a body of knowledge useful for the determination of policies, the formulation of plans and programs, and the evaluation and selection of operational techniques and strategy, as well as to control the operations themselves.

The efforts and achievements of the countries of Latin America in the last few years in the field of statistics are noteworthy, particularly as regards the recording and processing of data on vital and health statistics. There is a growing trend toward improving these activities in quality and coverage. The hope thus arises that in the near future all the countries of Latin America will have complete, reliable, and comparable statistics to provide better and more thorough knowledge not only in the health sector itself but also in the framework of general development, as well as information concerning changes brought about by health plans and programs.

PAHO/WHO will continue to assist in the structural and functional strengthening of statistical units in the countries in order to consolidate and expand the achievements already obtained. It will place particular emphasis on the development of systems of input, analysis, and output of statistics as the primary ingredient to produce a continuous flow of essential information, promoting at the same time its creative use in the dynamic process of planning. The special studies on mortality and human reproduction have proved to be good examples. PAHO/WHO will continue to stimulate and promote this development. Particular attention will be devoted to strengthening national institutions for research and training in vital and health statistics endeavoring to enable them to give multinational or regional scope to their services. The use of the electronic computer in health programs will continue to be

promoted according to the needs and possibilities of each country. PAHO/WHO will continue to support national electronic data processing centers such as the Computer Center for Health recently created in Argentina, so that their coverage will be extended to the multinational level. In addition to the internal services which it provides to the Organization, the Computer Science Section set up at Headquarters acts as a regional cooperative project through which advice is provided to the countries, together with training for national and international personnel, on systems analysis, data processing, and programming, primarily with regard to (a) administrative and health statistics systems; (b) hospital information systems; and (c) application of research in those national or multinational investigation and training projects in which PAHO/WHO participates.

1.2.1 Information on health and sickness. A system of information on the health-sickness phenomenon is fundamental for the planning, implementation, and evaluation of measures for the prevention of disease and the promotion and restoration of health.

The strengthening and consolidation of this information will continue to be a matter of priority for PAHO/WHO. In each country, according to its needs, the Organization will stimulate the planning and operation of systems of epidemiological intelligence and surveillance with respect to communicable diseases as well as to those non-communicable diseases which are of epidemiological interest. PAHO/WHO will cooperate with the Governments in carrying out comprehensive epidemiological studies and will promote measures that make for the efficiency and widespread dissemination of the reporting of communicable diseases and of medical records that provide more accurate knowledge of the structure of mortality and morbidity.

PAHO/WHO will orient with increasing concern the work on epidemiological surveillance at the local, national, and regional levels to prevent the introduction of new diseases, the reappearance of diseases which have already been eradicated, and the recrudescence of those which have been brought under control.

1.2.2 Information on activities and resources. "Program inventories" must be kept up to date to show, within a general information system, the progress of work and the resources used. The Organization will continue to promote and assist with the development of practical systems of periodic reporting which would include, in addition to numerical data on activities, the recording of achievements made toward the objectives and targets of each program. It will also cooperate in the design and application of analytical methods for evaluating the effectiveness of various combinations of resources brought into play for tackling a problem.

1.3 Research. In the last few years there has been a growing interest on the part of the Governments in the development of research as an essential source and

complement of the information system in the processes of planning, operation, and teaching. The general purpose of PAHO/WHO cooperative work is to increase the capability of the peoples of the Americas to raise their health standards and protect themselves against disease. The objectives of this work are, among others, to strengthen the existing capacity for biomedical and administrative research and to promote coordination of the research work which national and international agencies are carrying out or sponsoring in these fields.

For this purpose PAHO/WHO will continue vigorously to support the development of multinational programs in various subjects.⁶ Epidemiological and administrative research programs will be the subject of particular attention, and the Organization will support and stimulate their inclusion in the regular activities of health services.

The Organization will continue to support the dissemination and exchange of information and reports in the Americas. It will also continue to support the work done by individual research workers and their education and training in fields relevant to the health problems of the Region. It will continue to assist in the implementation of national studies on human resources for health and education in health sciences as a foundation for the planning of education, training, and better utilization of health personnel.

1.4 Planning and programming. All the countries of Latin America have complied, each one on its own terms, with the urgent need for planning and programming health activities through the establishment of administrative mechanisms which put into effect, using political and technical criteria, processes aimed at (a) the identification of major health problems; (b) the determination of their relative priority; and (c) the rational assignment and utilization of existing and acquired resources, as well as the creation of new resources.

Experience has shown that this process can only be implemented when it is included from the very beginning in the framework of general development planning with a sense of wholeness, as an enterprise which really integrates all levels of administration and as a self-supporting exercise capable of being improved.

In most of the countries of Latin America the goals of health planning and the implementation of this process have been jeopardized by the weakness of the infrastructures. This weakness is the cause of low levels of productivity.

PAHO/WHO will pay particular attention to research, training, and exchange of information in this field. It will continue to collaborate in consolidating and strengthening, in content and coverage, the national health plans which are already in operation, and in

⁶See Document RD 49/5(9)-R, *Research in Progress*, 1970.

formulating policy and strategy for the development of the planning process in countries where it has not been started or is not yet in the operational stage. It will place renewed emphasis on the joint planning of regional health programs as an integral part of over-all development plans in river basins and border areas, in areas of multinational geopolitical interest, as well as in industrial and agricultural nuclei of development.

The Pan American Health Planning Program, a multinational center created with the assistance of the United Nations Development Program, will have the functions of training, research, and exchange of information. It will promote the decentralization of research. It will stimulate and support the development of research that contributes to the creation and application of planning techniques which supplement the present methodology of health planning. The Program will make a particular effort to include in its teaching activities the principles and practice of continuing education, thus assuring a solid preparation for key personnel so that they in turn can promote intensive training programs in their own countries.

1.5 Evaluation. Program evaluation is the last link in the chain of activities involved in the administrative process and gives it renewed vigor. Evaluation provides the impulse which prevents stagnation of effort and which guides the distribution of resources for their better utilization.

Through its cooperative projects at various levels PAHO/WHO will encourage the formulation of precise objectives for each program, identification of appropriate criteria and indicators which make it possible to measure progress and determine and interpret the degree of success achieved, and the creation and operation of practical mechanisms assuring the dynamic character of the evaluation and fostering inclusion of its results and recommendations in the general administrative process. Cooperation will continue to be given to the Governments in carrying out special studies for program and project evaluation, particularly those projects which are or may become the subject of international cooperation in the field of health as a part of general development.

1.6 Legislation. Every individual and community has a right to health. This right is recognized and protected by law. The law in turn imposes on the individual and the community the duty to abstain from violating this right as well as to cooperate in its exercise. Integrated services for individual and community health, based on scientific principles constantly updated and executed by a capable, community-minded staff, work satisfactorily only when based on a solid sectoral infrastructure, supported by laws that are comprehensive and relevant to the health situation.

The recognition of health as a social benefit and its inclusion among social rights guaranteed by the Government are expressed in the constitutions of most of the

countries of Latin America. Basic laws and regulations are in effect in all of these countries. Their volume, content, applicability, and terminology vary considerably from one country to another. Progress in science and technology, the development of health programs within the framework of national socio-economic development, and the trend toward multinational economic integration pose various problems of a legal nature. These problems require revision of national laws to bring them up to date and amplify them so that, besides satisfying the requirements of each country, they may be included in a uniform inter-American system of health legislation.

In cooperation with the various Governments, PAHO/WHO made a preliminary study⁷ of the current status of basic health laws in the Americas and their development over the past 20 years (1948-1968). The results of that study will serve as a guide for the Organization's program of work in this field. PAHO will continue to assist the Governments in studies for updating and amplifying their laws and regulations along rational lines. When the study has been analyzed, a decision will be made as to whether there should be changes in the present Pan American Sanitary Code to give it greater dynamism and flexibility.

2. Resources for Health

The complexity of the technology applied to human health and improvement of the environment, the ever-increasing cost of health activities, together with the growing social and institutional demand for goods and services of high quality, available to all, require a rational allocation and more adequate utilization of human, technical, material and financial resources to assure successful completion of priority programs integrated within the framework of general development.

The cooperation of PAHO/WHO in this critical field of health development will be directed more strongly toward the study of problems related to resources and the best methods to confront these problems. This assistance will be geared primarily to national efforts and their coordination with multinational programs of technical and financial assistance.

2.1 Human resources. Man is at once the source and the goal of all health activities. The results of a health program, no matter how good its design and organization and the availability of techniques, facilities, and money, cannot be any better than the results achieved by the dedication, intelligence, and training of the coordinated team that implements the program. Significant changes can only be obtained through programs of integrated medical care and sanitation when the educational and training institutions identify with the desired

⁷Mimeographed document CSP18/21.

changes and produce men and women who know how and where to do what is needed.

In all the countries of Latin America there is, to a greater or lesser degree, a shortage and poor distribution of personnel qualified in the various branches of health work. The needs and demands for services increase *pari passu* with progress in the science and technology of health, but at a much greater pace than the human resources required to satisfy them. It is evident that current programs for training and utilization of health personnel have to be more consistent with the development plans and programs of the sector and with the general trend of development.

The Governments have recognized the seriousness of this situation and in the last few years have been adopting vigorous measures to achieve better identification of the problem and its characteristics in order to tackle it in a rational and efficient way. Also committed to this task are the universities and training centers which are now undergoing an interesting process of educational and administrative reform. These changes cannot be overlooked by the health authorities.

Among the areas of cooperation of PAHO/WHO, human resources for health will continue to be given high priority because of the effective contribution it makes to the pool of talent, the most valuable resource for development.

The planned training and utilization of health personnel require will and effort from two main sources: a source within the sector itself and an extrasectoral source. Complete coordination between the two and adequate communications are required for this planning. Above all, it is necessary to develop attitudes of solidarity in the institutions and individuals to assure efficiency and prevent duplication and waste. PAHO/WHO will support the plans which the Governments develop for these purposes according to the individual circumstances of each country. In all cases it will promote coordination between the agencies in charge of health and the institutions responsible for training personnel, in particular with the universities teaching health sciences. In close cooperation with the inter-American and United Nations agencies, it will encourage the efforts of the Governments to improve undergraduate education and introduce general concepts of public health into the curricula of institutions outside of the health sector.

PAHO/WHO will continue to contribute to the progress of studies on human resources as regards their quantity and quality, interdisciplinary ratio, geographic distribution of personnel, sources of training, teaching content, methods of study, and the efficiency of teamwork. It will enhance its cooperation in the promotion and strengthening of new educational structures that integrate the widely dispersed facilities for educating and training students in various areas and at

different levels with a multidisciplinary and comprehensive insight into national health problems. It will continue to cooperate with training centers in strengthening their programs of research, education, and services not only with respect to their administration, in the broad concept of this term, but also as regards teaching techniques and equipment and the relationships between teacher and student and between the two and the national community.

In order to achieve greater dissemination and better utilization of both national and international cooperative resources, renewed attention will be given to the development of multinational centers for specialized training, research, and the dissemination of information, promoting at the same time the decentralization of training and research in accordance with the needs and capabilities of the countries of the Region.

At the national level, assistance to institutions for professional training will be directed toward strengthening the teaching of community health, administration, and behavioral sciences, their incorporation in the curriculum, and the introduction of epidemiology into the teaching of clinical sciences. PAHO/WHO will encourage joint planning by health authorities and universities of systems of continuing education, particularly for the benefit of personnel working outside large cities. It will also promote the development of experimental programs from which may emerge practical methods applicable to other countries.

Renewed attention will be devoted to national programs for the development and training of health personnel in the intermediate and auxiliary categories designed to meet needs identified by studies on human resources and in accordance with the absorption capacity of each country. Development of programs of this type is necessary in all fields, particularly in nursing, where proper utilization of the very small number of professional nurses has been seriously hindered by the general shortage, both in quantity and level of training, of intermediate and auxiliary personnel.

Collaboration in the training of key personnel for research, teaching, and administration of health services and in certain specialized disciplines through the PAHO/WHO fellowship program has contributed to the strengthening of health institutions in the Americas. The evolution of national training resources and needs is reflected in changes in the fields of study in which Governments are requesting fellowships. In order to be in the best position to meet these requests, PAHO/WHO will continuously evaluate its fellowship program both as regards the appropriate utilization of the knowledge acquired and as regards the quality of facilities offered by the centers at which fellows are trained. This will also make it possible to make arrangements to explore new forms and fields of international training for which

facilities at the national level have not yet been developed.

2.2 Technical resources. Scientific progress has increased the availability of new techniques of varied complexity both for the development of the infrastructures and for the provision of health services. Money and other resources are needed to put these techniques into practice. Furthermore, general development plans, regardless of the extent of their orientation toward social development, necessarily impose a limit on the proportion of funds allocated to the health sector. This makes it necessary to formulate a flexible health policy. In addition to establishing the order of priority which should be given to the problems, this policy involves the adoption of methods that are determined by the nature of the problems themselves and the operational capacity of the country.

PAHO/WHO will collaborate with the Governments in the selection of techniques whose complexity is compatible with the resources available for implementing them and in the selection of the strategy for their wide application. The Organization will stimulate and support operations research and cost-effect analyses, as well as activities for developing new methods and exchange of information on the experience acquired.

2.3 Material resources. The same considerations hold true with regard to the rational use of the facilities, equipment, and transportation which are necessary to adapt the infrastructure to meet the requirements of integration and regionalization.

PAHO/WHO will collaborate with the Governments, primarily through regional projects, in the training of key personnel for plant maintenance, simplification of equipment, and dissemination of information on selected sources of low-cost materials, particularly for teaching and health education. The administration and methods of financing the program for the provision of textbooks to medical schools promise to show ways to develop self-financed programs for the provision of equipment and materials in other fields. Within its financial limitations, PAHO/WHO will continue to allocate funds for supplies and equipment which are not readily obtainable in the countries for the basic purpose of supporting that local training which is implicit in every cooperative project.

2.4 Financial resources. Financing of the health sector in the Americas is one of the most complex problems. The level of over-all development and the status and functioning of the sectoral infrastructure impart certain features to the problem in each country. These characteristics have to be thoroughly studied in order to find practical methods for dealing with them. Population increase and rising aspirations, as well as the emergence of new problems and the need to finance the resources in the infrastructure, require the mobilization of more and more financial resources. In order to better

utilize the eventual increase in financial resources, it is essential to plan and develop the maximum internal effort by means of institutional coordination, establishment of priorities, increased productivity of existing resources, and their planned assignment to selected socioeconomic groups and geographic regions, the selection being determined by national development policy.

The collaboration of PAHO/WHO in the strengthening of the health infrastructure will favor compliance with the requirements of budget and program organization, justifying and supporting the rational increase and utilization of internal and external financial resources. Because of the difficulty of increasing public investment in the health sector, it is necessary to investigate new sources and forms of financing in the community itself and in other development sectors. The Organization will continue to promote revision of the credit policies that guide foreign financing, as regards its mechanisms and destination, the latter being oriented toward the development of sectoral infrastructures and broad health programs of national and multinational interest.

The experience obtained in the last few years in promoting the use of credit resources from inter-American and bilateral development institutions for health purposes has been very encouraging. Consequently, there are great possibilities of expanding the use of these resources, at the same time attempting to ensure that new national and international sources give to the financing of the health sector the priority that it deserves.

B. Health Services

The collaboration of PAHO/WHO in the strengthening of the sectoral infrastructure accompanies the efforts by the Governments throughout the basic process of administration and operational management and in the production and utilization of resources leading to the establishment of policies for coordinated provision of health services adequate in regard to quality, scope, and continuity. In the final process of production and provision of services, PAHO/WHO will continue to collaborate in the preparation, consolidation, and expansion of programs for (1) integrated medical care to the individual and community, and (2) the preservation and improvement of the environment.

1. Comprehensive Medical Care

Integrated medical care is obtained by the timely and harmonious application of efforts and resources that will lead to the provision of services related to the promotion, protection, and restoration of health and rehabilitation, with a comprehensive and balanced approach and for highly social ends.

Life expectancy and the structure of mortality and morbidity help to provide a panoramic view of the situation prevailing in this field and determining the content and coverage of medical care programs.

The progress achieved by the countries in the last decade in the process of integration and improvement of their health services is gratifying. According to the data on deaths by age group supplied by the countries of the Region—excluding Canada and the United States of America—it is estimated that from 1960 to 1969 life expectancy by 2.6 years in South America and by 1.5 in the rest of the countries.

The death rate of children 1 to 4 years of age decreased by more than 90 per cent, although it remains high in some countries, with figures ranging from 18.7 to 33 per 1,000. The fall in infant mortality has been slower and there are still areas in the interior of many countries where infant mortality exceeds 100 per 1,000 live births. The mortality and morbidity of children under 5 years of age continues to be one of the principal problems in most of the countries of the Americas.

The preliminary results of the Inter-American Investigation of Mortality in Childhood show that the mortality rates in all ages in the cities studied are less than those of the rest of the area of the participating countries. The same situation may exist in all of the countries, and this would show that, despite the efforts made and the progress achieved in Latin America, approximately 65 per cent of the population living in areas which are geographically and functionally remote from the centers of economic and technical concentration still do not receive the medical care they need.

The PAHO/WHO program of cooperation for improving integrated medical care services will give greater emphasis to the development of national health systems that include all specialized activities within services effectively integrated, regionalized, and coordinated. Special stress will also be laid on the proper utilization and greater productivity of existing resources, bearing in mind that coordination of these resources, together with the efficiency of the services, are essential factors to assure the success of a health plan or program.

The Member Countries are experiencing ever increasing difficulty in promoting programs for building hospitals and other health facilities. Their high cost requires a very careful evaluation of the real needs, and it will frequently be preferable to orient the program toward outpatient medical care, which requires a smaller investment of capital. A program of hospital remodeling and maintenance would give the final touch to the system of physical facilities needed for carrying out the health program at the local level.

1.1 Communicable diseases. In the period 1956-1966 in most of the American countries, mortality in children under 5 years of age from infectious and parasitic diseases declined considerably. In Latin America the

death rate for infectious diseases dropped by 48 per cent; that for diseases of the digestive tract, usually gastroenteritis, by 44 per cent; and that for respiratory diseases, principally pneumonia and influenza, by 26 per cent. Nevertheless, infectious and parasitic diseases still account for 30 to 66 per cent of deaths from all causes and in all age groups in Latin America, excluding Argentina, Cuba, and Uruguay.

Moreover, the prevalence or incidence of many of the traditional communicable diseases is still high, while other diseases are taking on increasing epidemiological importance. Despite the efforts made, malaria and smallpox have not yet been eradicated from the Hemisphere. Even though reporting is not complete, the incidence of venereal diseases is clearly on the increase; and the areas affected by Chagas' disease, hemorrhagic fevers, encephalitis, and onchocerciasis, among others, are more extensive and the situation in the areas in which leprosy, sylvatic plague, and other infectious and parasitic disease are endemic is little changed.

It is estimated that at least three-fourths of the mortality and morbidity caused by this group of diseases could have been prevented. Techniques of proven effectiveness and relatively low cost are now available for protection against and control of the vast majority of these diseases, and the number and quality of trained personnel has been gradually increased, thanks to the emphasis that has been placed on national and international education and programs. What is needed now is to strengthen the decision-making process and develop or strengthen smoothly operating administrative mechanisms for rapidly and methodically achieving objectives and targets of comprehensive medical care programs for the eradication or control of communicable diseases.

PAHO/WHO will devote increasing attention to communicable disease eradication and control programs in the Hemisphere, as well as to programs for the control of those diseases of regional or national epidemiological importance that have the greatest bearing on the over-all development of the countries. It will lay emphasis on the strengthening of epidemiological reporting and surveillance and on bringing epidemiological and ecological studies up to date. It will continue to assist in the promotion of techniques and resources for the production of antigens, sera, and vaccines. It will encourage and foster the evaluation of on-going programs, the coordination of resources, review of techniques, and the adaptation of strategy to the general and epidemiological conditions prevailing in each country. The strategy of malaria eradication is being revised to this end, in conformity with Resolution WHA22.39 of the Twenty-Second World Health Assembly.⁸ Special attention will be given to ensure that immunizing agents are available

⁸Off. Rec. *Wld Hlth Org* 176, 18-19.

and potent and that the level of immunity necessary to protect the population is attained.

1.2 Non-communicable diseases. As a result of health factors which have lengthened life expectancy and changed the population structure, as well as of cultural and environmental changes stemming from rapid urbanization and increased industrialization, non-communicable diseases, particularly chronic and degenerative diseases, are acquiring more and more epidemiological importance in all the countries of the Americas.

As early as the beginning of the last decade it was noted that malignant neoplasms and cardiovascular diseases were responsible for 53 per cent of all deaths in Uruguay, 46 per cent in Cuba, 38 per cent in Argentina, and between 20 and 30 per cent in Venezuela, Chile, and the State of São Paulo, Brazil. In addition, the Inter-American Investigation of Mortality,⁹ covering 12 cities of the Americas, revealed that these and other chronic diseases, such as diabetes, mental diseases, bronchitis, gastric and duodenal ulcers, alcoholism, cirrhosis of the liver, and gall bladder conditions, accounted for two-thirds of all deaths in persons between 15 and 74 years of age. The protracted—sometimes permanent—disability caused by this group of diseases, in addition to affecting health, limits an individual's opportunities for social and economic improvement and thereby restricts his contribution to the general development of the community.

PAHO/WHO will continue to encourage and support the development of regional and national programs for epidemiological research as well as for training specialized personnel. It will assist in the study and dissemination of techniques and in the formulation of strategy for the inclusion of techniques for early diagnosis within the regular programs of the health services. Through the regional centers for research and training in medical care administration, it will foster a wider use of administrative methods and procedures for the more rational management and utilization of facilities for diagnosis, rehabilitation, and treatment of patients suffering from this group of illnesses.

1.3 Maternal and child health and population dynamics. For women in the child-bearing age, children, and adolescents, a special approach to comprehensive medical care is needed. This is because of the greater risks to which these groups are exposed; they are especially vulnerable and more dependent on the social and economic environment. The value of the available information is limited by under-reporting of cases of disease and deaths associated with child-bearing and childhood; moreover, this information by itself would not give a true picture of the size, depth, and scope of

these increasingly complex problems, which are to be found in all countries, whatever their state of development.

These groups, taken together, constitute the human potential, understood in the holistic sense; of this adolescents are an inseparable part, sharing as they do the many problems inherent in the continuous physical, physiological, and cultural development of the child. Furthermore, the "youthfulness" of the population in most of the countries renders the dependence of these groups an increasing burden on the family and society. This burden is not expected to diminish in the near future; rather it will tend to increase if mortality rates continue to decline and birth rates remain high.

Most of the Governments of the Americas are interested in the study of population dynamics and in determining their own national population policies. Participation of the health authorities in the formulation and execution of such policies is unavoidable and calls for the strengthening of health infrastructures with respect to administrative procedures and the creation and utilization of resources, as well as a revision and organization of their maternal and child health programs as part of comprehensive medical care services.

PAHO/WHO, through its cooperative projects for the general strengthening of health infrastructures, and specific projects in nutrition, mental health, dental health, and planning of health education, will encourage and continue to support programs for the improvement of both the content and techniques and strategy of maternal and child health care. It will help the Governments to set up intrasectoral multidisciplinary mechanisms as well as machinery for coordination with agencies in other sectors, so as to give continuity to these services and fill in acknowledged gaps in the care of preschool children and adolescents.

With regard to population dynamics, PAHO/WHO will continue to help the Governments with studies of human ecology and genetics; psychological, sociological, and physiological aspects of reproduction; demography; operations research; and such other studies as will contribute to the formulation of the population policies that each Government, by its own decision, may consider it desirable to introduce. It will also continue to assist universities and other educational agencies in the training of personnel at all levels. The Organization will foster the coordination of health research and service activities carried out in this field by other international or bilateral organizations.

1.4 Nutrition. Man's initiative and capacity to organize the production and consumption of the foods he requires to maintain his health and assure his physical and mental development have been a major factor in his cultural, social, and economic history. And it is the level of availability, consumption, and utilization of foods that determines the extent of nutrition problems. Thus

⁹*Patterns of Urban Mortality.* Scientific Publication PAHO 151.

it is that such problems present varying characteristics in the Americas, since they are related in each country to the economic and social conditions of the urban and rural population, its cultural traditions, and the greater or lesser availability of nutritional resources.

Progress has clearly been made in the application of criteria and techniques for the diagnosis and treatment of nutritional diseases. However, health protection and promotion in this field have not been sufficiently emphasized, mainly because arrangements for ensuring the supply of foods adequate in nutritional content are, for the most part, beyond the possibilities of direct action by the health sector. This, in turn, is a result of the lack of specific food and nutrition policies that reconcile the priority biological needs of the population with the countries' requirements for economic development. The nutrition problem in its broadest sense is a multisectoral problem and requires coordinated and harmonious action by the agencies of government, and active community participation.

The following major targets have been established for the PAHO/WHO assistance program for the period covered herein: (a) effective inclusion of well-defined activities for the improvement of food and nutrition as part of the regular programs of comprehensive medical care, especially those in the area of maternal and child health; and (b) formulation and implementation of national food and nutrition policies in all the countries of the Region. The Organization will continue to assist in the establishment and development of the Nutrition Data Retrieval and Analysis Center for Latin America. The same applies to the training of specialized personnel in this field and the evaluation and revision of food and nutrition programs developed by national and multinational institutions. PAHO/WHO will do this work through the Institute of Nutrition of Central America and Panama, the Caribbean Food and Nutrition Institute, and other multinational programs. The aim in each case will be to ensure that research, teaching, and service activities contribute in a coordinated and harmonious manner to the formulation of policies and to the satisfaction of needs as required for their effective implementation.

PAHO/WHO will continue to assist the Governments in reviewing and adopting techniques and strategies to strengthen the programs for iodization of salt, enrichment of cereals, and marketing of low-cost foods with a high protein content. Renewed attention will be given to studies that will lead to the incorporation, from the outset, of food and nutrition programs in regional projects for the development of certain geographic areas or water basins, such as those of the Andean region and northwestern Argentina, and the basins of the River Plate, the Magdalena River in Colombia, the Lerma River in Mexico, and the Santa Lucía River in Uruguay.

1.5 Dental health. The high incidence and prevalence of caries and periodontal disease is a reminder that in most of the countries of the Region problems of dental health are an important area that needs to be included in the programs of comprehensive medical care. These problems, with their social and economic repercussions, affect large population groups and are closely related to the problems of nutrition and maternal and child health. Despite the advances made in the last two decades in the area of dental health techniques and methods, particularly with respect to protection and promotion of dental health, the health infrastructures of most of the countries have not been correspondingly strengthened to permit the adaptation of these methods and techniques and their use within the health plans and programs.

PAHO/WHO will continue to encourage and sponsor studies aimed at the formulation and development of comprehensive programs including education and training of personnel at all levels and at the adoption of techniques, equipment, and materials of recognized practical value that will permit larger and better operational coverage, and at their effective integration into the national health plans and programs. In the field of dental materials, the Organization will continue to develop the programs of the Center established in Caracas. In collaboration with the dental schools and health authorities, it will continue to encourage and sponsor pilot programs such as the one in progress in Zulia, Venezuela, for the formulation and application of model systems of dental care directed to widening the coverage of services and establishing operational strategies in keeping with the economic situation and available resources. PAHO/WHO will continue to encourage the development of fluoridation programs.

1.6 Mental health. The Governments share the worldwide concern over the increased prevalence of mental diseases, principally psychoses, neuroses, and drug addiction, and the resulting loss in terms of death and total or partial disability. Many of the countries in the Region have yet to formulate a mental health policy. The provision of mental care is usually unrelated to the general health programs and is very limited in its coverage, being restricted to hospital services which, for the most part, are of the custodial type. This situation is made even worse by the relative scarcity and inadequate performance of the services for mental patients, particularly those for children and adolescents, and by the extremely short supply of psychiatrists, nurses, and other professionals specially trained for mental health work.

Some of the countries have shown a keen interest in improving the quality of their psychiatric facilities and services; in instituting community services for psychotherapy, work therapy, rehabilitation, and the like; in carrying out epidemiological surveys on attitudes; in transcultural psychiatry; and in the general trend of mental disease in the community.

PAHO/WHO will continue to assist the Governments in formulating their national policies for mental health and in strengthening health infrastructures for the effective incorporation of community mental health and psychiatric services into their general programs at all levels.

2. Preservation and Improvement of the Environment

The progress of science and technology toward better utilization of natural resources and production of new by-products has profoundly affected every sector of economic and social development, particularly the health sector. The impressive advances made in the last decade by the countries of Latin America and the Caribbean in the field of sanitation and sanitary facilities, especially water supply and sewerage services, are seriously threatened by the growth of cities and shanty towns, industrial expansion, and population increase, all of which combine to give new dimensions to the problems of environmental health, the solution of which requires intensive efforts and the harmonious, concerted application of multidisciplinary resources.

In recent years, PAHO/WHO, while continuing to concern itself with the traditional fields of water supply and sewerage services, veterinary public health, vector eradication and control, and drug control, has also given increasing attention to air and water pollution, development of river basins, and industrial health, among other problems.

PAHO/WHO will continue to assist the Governments through the Pan American Sanitary Engineering and Environmental Sciences Center in Lima, Peru, and through its regional, Zone, and country projects, in the consolidation and strengthening of national sectoral infrastructures, both in general administration and in the development of human, technical, and financial resources required for the success of the programs. Special emphasis will be placed on strengthening of sanitary engineering and sanitation units in the ministries of health and in educational institutions, so as to assure proper performance of the regulatory teaching, and operational functions assigned to these institutions.

At the multinational and national levels, PAHO/WHO will continue to assist the Governments and international and bilateral lending institutions in the formulation of investment plans and the design of new sanitary engineering and sanitation programs, in the prompt mobilization of supplementary external financing, and in efforts to ensure the rapid and optimum use of investments made in this field.

2.1 Water supply and sewerage. Water ranks with food and clothing among the essential needs of man. The availability of this element, indispensable to life, has been a determining factor in the settlement of communities and the development of culture and civilization. An adequate amount of water of good quality is

an inalienable right of every human being. The Governments of the Americas have on repeated occasions stated that in health programs, high priority should be given to water supply and sewerage services. One of the goals set by the signatory Governments of the Charter of Punta del Este was to provide water and sewerage services for 70 per cent of the urban population and 50 per cent of the rural population within the 10-year period from 1961 to 1971.

The combined efforts and resources of the national water and sewerage agencies and the international, technical, and financial organizations have grown at a very encouraging rate in the last 10 years. The target for the supply of water to the urban population was reached in most of the Latin American and Caribbean countries and, indeed, substantially exceeded in some. This does not hold true for the population in the rural areas, where the problems, mainly financial and economic, are greater. However, the provision of water supplies to small communities was sharply stepped up, thanks to the active interest of the authorities, the financial assistance provided by national and international organizations, and, above all, the establishment and development of responsive cooperative agencies and practical administrative methods in which effective participation of the beneficiary communities is assured from the planning stage. The establishment of national revolving funds administered by the community has given excellent results in community development work in the rural areas.

As regards sewerage services, the progress has not been as great, and the countries have progressed only about two-thirds of the way to the goals established. Of the 64 million rural inhabitants to be benefited according to the established target, only 3 million now have this service.

PAHO/WHO will assist the Governments in consolidating advances already made and in reinforcing their water supply and sewerage programs and services, especially in rural areas. It will encourage the application of the methods and procedures originally designed for water supply to the organization of sewerage services and others involving the health and well-being of the community. These methods include the disposal or treatment of refuse and solid wastes. To meet the infrastructure needs that must be satisfied if these programs are to be strengthened and expanded, PAHO/WHO will continue to assist in the organization, special studies, and training of qualified personnel, and in the mobilization of technical and financial resources, both national and multinational, including those available from international lending institutions, for the purpose of enabling each country to develop, according to its own policies and organization, the machinery best suited for ensuring effective coordination of its resources and efforts.

2.2 Development of river basins. Programs for the integrated development of river basins in Latin America and the Caribbean continue to receive increasing attention from the Governments and the international technical assistance agencies. It is in programs of this kind that the need to coordinate multidisciplinary efforts and resources at a national or multinational level becomes most urgent. The projects involve a wide variety of sanitary engineering and sanitation aspects, including, among others, research or the biochemical properties of surface and ground waters, determination of urban and rural water needs for household consumption and for industry, and establishment and operation of national water-quality control programs. Systems for the treatment of household and industrial wastes, for the control of pollution of surface and ground waters, and for the prevention of ecological conditions favoring the breeding and multiplication of vectors of such diseases as schistosomiasis, onchocerciasis, dengue fever, yellow fever, and malaria, are an integral part of water resources development programs. The health authorities must participate actively in the planning and development of the programs, so that they will be prepared to cope with the health problems deriving from urbanization, industrialization, land settlement, and housing, and with the occupational hazards which are among the natural consequences of river basin development.

PAHO/WHO is participating in various regional and national programs aimed at either integrated development (River Plate and Amazon Basins, Santa Lucía River Basin in Uruguay, the Guayas in Ecuador, and the Huallaga, Chiriyacu, and Nieva Rivers in Peru), or at the solution of specific problems, as in the Lerma River project in Mexico.

PAHO/WHO will continue to provide Governments and international institutions that are working together on the development and strengthening of sectoral infrastructures with assistance in organization, research and information, planning and evaluation, and training of personnel involved in the health component of those programs, as well as in the studies of water pollution problems at all levels.

2.3 Industrial hygiene and air pollution. Rapid industrialization, particularly in the larger cities, is characteristic of economic development in most of the countries in the Region and has contributed during the last decade to the worsening of pre-existent socio-economic problems and the creation of new ones whose effect on health is becoming more and more evident. Inadequate health and safety conditions at work sites, air pollution, and the mushrooming of extremely unhealthy shantytowns around the cities are among the problems to which high priority is being devoted in the countries' over-all development programs and which are being studied by the health authorities in most of them.

PAHO/WHO's program of work for 1973-1977 envisages increased efforts to assist the Governments in strengthening and expanding studies in these fields and in developing multidisciplinary programs for dealing with the problems. Special attention will be given to the maintenance and expansion of the Pan American Air Pollution Surveillance Network. Continued assistance will be given to the programs of research, teaching, and advisory services at the Institute of Occupational Health and Air Pollution Research in Santiago, Chile. PAHO/WHO will continue to foster the development of national institutions devoted to research and training in these fields, in order to place them in a position to serve other countries. It will also encourage effective coordination among the public health and labor authorities and the universities in the planning and development of activities leading to the setting up of standards and the improvement of health conditions in places of work, as well as in the study and control of hazards arising from the use of equipment and work materials and from toxic products, dust, smoke, aerosols, gases, and vapors.

One of the most important aspects of environmental health is the emergence of problems connected with the handling of radioactive materials. PAHO/WHO will continue to collaborate with specialized international agencies and within the national research and teaching institutions in the study of problems and accidents arising from the handling, misuse, and inadequate disposal of radioactive materials, which are being increasingly emphasized in medical diagnosis and treatment, industrial research, and food preservation. It will also cooperate in the training of specialized personnel and in familiarizing the health personnel with these new areas of knowledge.

2.4 Control of the quality of drugs and processed foods. The pharmaceutical industry has grown considerably in the last few years in Latin America. According to a study recently made by PAHO/WHO in cooperation with the Governments, the countries now have approximately 2,150 establishments for the manufacture of drugs, their combined production supplying approximately 90 per cent of consumption in Latin America. To ensure that safe and effective products are available, constant research is necessary on the immediate and late effects of the drug concerned, as is continuing supervision throughout the manufacturing process. The supervision must be underlined by a well-defined national policy, appropriate legislation, and regulations to facilitate enforcement.

PAHO/WHO will continue to assist the Governments with the formulation of drug control policies and the organization and strengthening of health structures, including general administration and development and use of resources. It will encourage and support programs for regionalization and coordination of research and training activities in institutions such as the Specialized

Analyses Laboratories at the University of Panama and the proposed multinational Pan American Drug Quality Institute in Uruguay; the costly technological resources in this field can then be used on a cooperative basis, thereby ensuring that maximum use is made of them and their benefits are widely shared.

The food-processing industry, like the drug industry, has developed at a rapid rate in the countries of the Region. Technological advances have brought a number of changes in the production, protection, storage, preservation, and processing of foods of animal and vegetable origin that need to be taken into account in sanitation programs. However, food control programs and the formulation and application of health standards have not kept pace with these changes in most of the countries.

As an integral part of over-all development, this field, which is closely allied to nutrition and health in general, will receive renewed attention and support from PAHO/WHO through pertinent regional or country programs. As in other fields, PAHO/WHO will emphasize, in its assistance activities, the strengthening of all aspects of the health infrastructure as a basis for the gradual and balanced development of food quality control programs.

2.5 Veterinary public health. Reference has been made to the important contribution of the veterinary public health services in the fields of zoonoses control, quantitative and qualitative improvement in the supply of animal protein, and food hygiene in general. This contribution has encompassed both the investigation of problems and of technologies for their solution and the training of the professional and technical personnel of the health team. Reinforcement of the over-all activities of the Pan American Foot-and-Mouth Disease and Zoonoses Centers will help to strengthen coordination between the health sector and the other development sectors, as well as to promote national research and teaching programs.

Effective inclusion of programmed veterinary public health services in a system of national and multinational regionalization embracing the regular health programs at all levels is one of the most important needs of almost all the countries of Latin America and the Caribbean. To satisfy this need, it will be necessary to strengthen the machinery for the coordination of the government agencies responsible for the provision of services and the educational and training institutions.

PAHO/WHO, through the Pan American Foot-and-Mouth Disease and Zoonoses Centers and its regional, Zone, and country projects, will continue to assist the Governments in strengthening the infrastructure required for the operation of veterinary public health services, mainly in the fields of information, research, and planning, as well as in the development and rational, coordinated use of resources. It will also increase its assistance to schools of veterinary medicine and edu-

cational institutions for the health sciences in general, with a view to coordinating their teaching programs and resources and revising their curricula, thereby ensuring integrated provision of services in their particular fields and within the general context of social and economic development.

2.6 Housing. In all communities of the Americas there are population groups living in dwellings that do not meet the most fundamental requirements of human habitation. In spite of the efforts being made in all the countries to solve this problem, which is of far-reaching social and political importance and undoubtedly affects health conditions, the problem continues and is made more acute each day by the effects of population growth and by rapid urbanization and industrialization. The proportion of the population of the Americas living under conditions which are undesirable from every point of view grows larger day by day. Because of implications of the housing problem for the epidemiology of certain diseases (whether communicable, as in the case of Chagas' disease, or non-communicable, as in certain mental diseases), its relationship to environmental sanitation, and its dependence on other economic and social factors, it is necessary to increase the participation of the health authorities in housing programs, as well as concerted multidisciplinary action by all sectors of general development.

Through the Pan American Sanitary Engineering and Environmental Sciences Center and through its regional and Zone projects, PAHO/WHO will continue to assist the Governments in fostering interinstitutional coordination with a view to regional or national studies of housing and urban development problems, the formulation and dissemination of basic urbanization standards, and the conduct of pilot programs such as those in operation in Colombia, Ecuador, Peru, and Venezuela for the improvement of rural housing.

PAHO/WHO will place emphasis on the mobilization of national and international loan funds for the strengthening and expansion of housing and urban development programs and on the study of financing arrangements which, like the system of revolving funds, can be geared to economic conditions of each community, particularly in rural areas.

3. Supplementary Services

If comprehensive medical care services and services for environmental improvement and preservation are to be provided, supplementary services to enhance their quality and specific value and ensure the enlightened participation of the individual and the community will be needed.

3.1 Health laboratories. The development of health laboratories should proceed hand in hand with the development of general health services, as part of the

sectoral infrastructure and in line with the over-all characteristics and systems of a country. PAHO/WHO will continue to concentrate its assistance to Governments in the following two fields: (1) planning, development, and strengthening of national systems of health laboratories at the local, intermediate, and central levels; and (2) improvement and expansion of the production of biological products, sera, vaccines, and antigens to meet the requirements of national or multinational priority programs. In the first of these fields, it will place the emphasis on strengthening central laboratories to enable them to serve as the hub of a national system in matters of research, training, standardization, reference, and supervision.

As regards the production of biological products, PAHO/WHO will continue to foster multinational arrangements for the establishment or strengthening of regional reference and production laboratories, thus helping to enlarge the network of laboratories now serving this purpose in Argentina, Brazil, Canada, Guatemala, Mexico, the United States of America, and other countries.

3.2 Health education. Health education could not but be part of the general process of educational revision and reform in which the American countries are now engaged. Health education is an essential component of health sector activities. It has the dual role of influencing the demand for and the supply of services in line with individual and collective needs within the context of general development and of fostering behavioral patterns and attitudes that tend to ensure maximum acceptance and utilization of those services. At the same time, it serves as an instrument for community organization and for the mobilization of the valuable resources that a well-informed community can contribute to health activities planned for its direct benefit. Health education, conceived as a continuing educational effort by each and every health worker at every level, requires the supervision and guidance of specialized units capable of providing the members of the health team with educational material of a type and content suited to the sociocultural characteristics of the community and the requirements of the health program to be carried out.

PAHO/WHO's work program for 1973-1977 calls for continued assistance to the Governments in: (a) reinforcing of sectoral infrastructures for strengthening or reorganization of their central health education units, for the inclusion of health education in planning and evaluation, and for the training of specialized personnel; (b) fostering studies and research on community behavior and attitudes in the field of health and on education techniques and materials; (c) reviewing the health aspect of curricula for various levels of general education and in teacher-training centers; and (d) establishing or strengthening mechanisms for coordinating the education and health sectors, agricultural

extension, community development, social work, and others whose field of activity affords opportunities for health education. It will also promote the development of a system for the regional exchange of experience with a view to keeping the health personnel up to date in this field, and it will continue to assist in the design and application of a model for evaluating the educational component of health programs.

4. Final Considerations

The technical and administrative structure of the Organization in the Americas has, in the course of its history, undergone a series of adaptations to changes in the Hemisphere's problems, in accordance with the instructions of its Governing Bodies. The existing structure supports the general and special services provided at the regional, Zone, and national levels, for the purpose of carrying out specific health programs, their continuous evaluation, and the dissemination of scientific and public information. It makes provision for close cooperation and coordination with the agencies of the Inter-American System and of the United Nations, besides facilitating a constant exchange of views with the Member Governments and exercise by the Governing Bodies of their supervisory role. Lastly, the structure in question meets administrative needs with respect to budget and finance, administrative management, and personnel. All this takes place within the framework of an internal programming process reflected year by year in the presentation of program budgets.

As an initial result, the system of quadrennial projections introduced jointly by the Governments and the Organization has made possible a methodical review of health problems in the Americas as a whole and more realistic appreciation of the specific problems affecting each individual country or common to particular groups of countries. This knowledge has been used in preparing the program of work which is presented here, and which inevitably is still of a general character. The improvement and continuity of the system will, with the cooperation of the Governments, gradually lead to the acquisition of more accurate information on health problems and their prevalence in the various countries. This in turn will enable the Organization to define more clearly the form and emphasis of its programs and to make in its structure the adjustments dictated by the needs of efficiency.

Summary

At its 64th Meeting, the Executive Committee of PAHO, in Resolution XV, recommended to the Director of the Pan American Sanitary Bureau "that the program and budget estimates of the Organization reflect the importance assigned to the critical areas in which priority assistance from PAHO/WHO is needed" and that

"the projects for the Region of the Americas that will be included in the Fifth General Program of Work of the World Health Organization for the period 1973-1977, be based on joint programming by the Governments of the Region and the Organization."¹⁰

The General Program of Work of PAHO/WHO for the Period 1973-1977, which is submitted for the consideration of the XVIII Pan American Sanitary Conference, has been formulated with due regard to the recommendations quoted above. The critical areas in which assistance will be concentrated were determined by analyzing the results obtained in the first attempt at joint programming called "quadrennial projection," interpreting them in the light of the declaration and recommendations concerning health included in the important policy decisions which the Governments of the Americas adopted by common consent during the 1960's.

Efforts have been made to identify, first, the priority health problems which require the assistance of PAHO/WHO and, secondly, the resources and development capacity of the countries as a guide to the content of assistance in each individual case. An attempt has also been made to expand assistance programs designed to strengthen national institutions capable of extending their sphere of action so as to contribute, in specific aspects of research, teaching, and services, to the development of regional or multinational programs. The aim is to encourage by this means new patterns of regional cooperation, in which the solidarity of the countries of the Americas will find expression in the pooling of resources so that they can be turned to the best possible account in solving common health problems.

In the interests of a methodical approach, the critical fields of assistance are divided into two major groups: (a) those connected with the infrastructure of the sector as the underpinning for health functions and activities; and (b) those relating to specific activities directly focused on man or his environment. Throughout the program, stress is laid on the decisive influence that the operational quality of the infrastructure exerts upon the efficiency of the service.

In every case, an effort will be made to adapt the content and method of assistance to the general level of economic and social development, and to the historical, cultural, and political characteristics peculiar to each country or common to groups of countries. Without neglecting traditional health problems at the national, regional, and world levels, or failing to hold itself in readiness to help countries in emergency situations, PAHO/WHO will place particular emphasis on the subjects listed below, as being of outstanding importance

in relation to the two major fields of assistance previously mentioned:

1. Improvement of health service institutions and of administrative methods and procedures. Design and operation of flexible mechanisms for internal and intrasectoral coordination, as well as for coordination with extrasectoral agencies concerned with health.

2. Improvement of the collection, processing, analysis, and dissemination of health statistics, with particular regard to their relevance to the definition of problems and their usefulness as pointers to possible solutions. Establishment of comprehensive information systems to support the formulation and evaluation of plans and programs, as well as the process of operational and budgetary control.

3. Continuation of the research program already in progress, with renewed emphasis on the promotion and sponsorship of research projects in the fields of epidemiology, administration, and technology. Strengthening of regional biomedical reference and communication centers as well as institutions for the training of research workers.

4. Invigoration of national and multinational planning procedures, especially with respect to the definition and application of operational policies and strategies, the reform of the infrastructure, and the effective integration of health programs into economic and social development plans, whether of an over-all character or centering upon agricultural, industrial or river-basin development at the national or multinational levels. Formulation and development of long-term national health plans, so that the health sector may be in the best possible position to play its full part in regional and world plans for the Second Development Decade, which began in 1970.

5. Revision of each country's legislation in order to bring it up to date in terms of support for the implementation of health plans and programs and their regional harmonization.

6. Strengthening and expansion of studies on human resources, in all disciplines and at all levels, as a basis for policies and strategies relating to the rational preparation and training of health personnel of various types as required by health plans. Every available means will be used to foster closer links between the health and university authorities, so that all institutions concerned with health sciences and with the functions of research, teaching, and service, may participate smoothly and in a coordinated manner in planning in general as well as in the programming of activities in specific fields.

7. Application of the findings of technological research to the selection of techniques and equipment, with a view to adapting these to each country's requirements and to the conditions imposed by its economic and social characteristics. Programming of the

¹⁰Official Document PAHO 103, 58.

use and sociogeographic distribution of installed capacity in relation to sectoral policy and strategy.

8. Studies on sources, uses, and mechanisms of financing, both internal and external, and application of their findings to the development or reform of financing systems for the efficient implementation of health plans and programs.

9. Establishment or strengthening of structures, administration, and resources for the closer integration of and wider coverage by medical services. Application of the principles of internal, national, state, or provincial regionalization on the most effective lines, and provision of suitable facilities for the administration of services at the central, intermediate, and local levels. It is hoped that in this way a better geographic distribution of resources will be ensured, together with a true extension of comprehensive medical care services, as regards both quality and coverage, to the rural population.

10. Encouragement and support of decisions to step up programs for the eradication or control of communicable diseases, on the basis of the evaluation of programs already under way, and the consequent overhauling of infrastructures, more efficient administration, and the more appropriate allocation and use of resources. Effective incorporation of epidemiological research and information systems into planning at all levels, and improvement of epidemiological surveillance activities.

11. Promotion and sponsorship, in health institutions and research and teaching centers, of studies and medical care programs in the field of noncommunicable diseases of epidemiological and socioeconomic importance, especially chronic and degenerative diseases, occupational diseases, and others related to industrial development and urbanization.

12. Improvement of the quality and coverage of specific comprehensive medical care services for those population groups with which maternal and child health services are concerned. Strengthening of school health services and promotion and expansion of studies on health problems among adolescents.

Adjustment of the structures of basic health services, especially those concerned with maternal and child care, so that they may be best fitted to meet the health needs entailed by such family planning measures as each Government may, on its own initiative, decide to adopt.

13. Establishment and development of national food policies in the context of the nutritional requirements of the population in general and of mothers and children in particular. Promotion and coordination of the inflow of resources from the several sources of external aid, in such a way as to ensure that their administrative and use will be consistent with the food policies established in each country.

14. Intensification of basic sanitation programs and of activities relating to water supply and sewage disposal

facilities (especially for the rural population), on the basis of updating of the targets established for the 1960's.

15. Strengthening of studies and programs bearing on water conservation and pollution control, both in respect of existing sources and systems, and in relation to national and multinational plans for the over-all development of river basins. Promotion and sponsorship of epidemiological studies, including relevant questions of social anthropology, starting at the preinvestment stage and continuing throughout the planning and development process.

16. Encouragement and support of the definition of national policies on air pollution, ionizing radiation, and housing, and on health problems arising out of urbanization, accelerated industrial development, and the formation of shanty towns, policies which will find expression in priority programs for research as well as for the education and training of health personnel.

17. Organization or strengthening of national and regional technico-administrative systems to control the quality, efficacy, and dangers of the pharmaceutical and biological products at the disposal of the medical profession and of the general public.

18. Strengthening of the sectoral infrastructure and of mechanisms for coordination with related institutions in the agricultural, industrial, and business sectors, with a view to the formulation of effective food hygiene programs.

19. Establishment and improvement of veterinary public health services in ministries of health, and their coordination with ministries of agriculture in order to strengthen zoonoses control programs and the implementation of food policies designed to increase available animal protein supplies.

20. Programming and development of national health laboratory networks, as part of the sectoral infrastructure, through which health services at the local, intermediate, and central levels can be given that support diagnosis, research, and training that is essential for the efficiency of specific health activities focused on man and his environment.

PAHO/WHO will continue to collaborate with national laboratories producing biological products and to sponsor external assistance arrangements designed to promote the development and strengthening of regional production and reference laboratories.

21. Design and application of a model for the evaluation of the education component in the various health programs. Revision and updating of the health education content in the curricula of primary and secondary schools and of training centers for primary schoolteachers.

22. Promotion and sponsorship of conferences, seminars, working groups, and other meetings for the updating of scientific information on general and special

health topics. Constant improvement and programmed diversification of PAHO publications in the fields of scientific communication, teaching materials, and bibliography. Continuation of public information activities through the fullest possible use of the communications media available at Headquarters and in the various Zones and countries.

23. Strengthening of the quadrennial projections for

the formulation of long-term assistance programs and those covering specific periods, as well as the annual review of projects.

24. To carry out the proposed general program, PAHO will bring into play the whole of its administration and resources, introducing whatever changes are necessary to ensure the efficient implementation of this program.

Annex 9

FINANCING OF THE TEXTBOOK PROGRAM— PAN AMERICAN HEALTH AND EDUCATION FOUNDATION¹

Introduction

Pursuant to Resolution XXXVI² approved by the Directing Council at its XIX Meeting, the Director of PASB has taken action to:

1) Continue negotiations with the Inter-American Development Bank (IDB) for a loan to finance the textbook program.

2) Activate the Pan American Health and Education Foundation.

3) Continue interim financing of the program on a limited scale.

The latest information on these activities is presented in this document for the consideration and action of the Pan American Sanitary Conference.

Gradual Implementation of the Textbook Program

The interest and enthusiasm among medical schools has continued at a high level. The Organization is gradually implementing the textbook program, pending larger scale financing, as authorized by the Directing Council at its XVII Meeting,³ using existing funds in the Special Fund for Health Promotion, as well as income from the sale of books. Of the 22 titles projected for full operation, four books (pathology, biochemistry, physiology, and pharmacology) have been purchased and distributed, and one on pediatrics has been purchased for distribution starting in November 1970. Of 137 medical schools, 103 have signed agreements and 102 are participating in the program. Two thirds of the first four

books issued have been sold; 80 per cent of the sales have been for cash, and the total received as of 22 September 1970 is \$160,000. The pathology and biochemistry books have been re-ordered and partially distributed.

Three more books on internal medicine, anatomy, and histology) have been selected. Selections will soon be made on four additional books (on microbiology, parasitology, gynecology and obstetrics, and general surgery). The purchase and distribution of these seven titles depend on additional financing.

A description of the textbook program has been given wide circulation in a recent issue of the *Gazette*.

Cooperation with IDB—Financing Textbooks

Cooperation between the PAHO and the IDB covers a broad range of activities, thus recognizing the mutual interdependence between health and economic and social well being of the peoples of the Americas. In addition to specific fields for investment, such as water supply, foot-and-mouth disease, and zoonoses, production of biologicals, hospital construction, and the textbook program, the health aspects of a large variety of economic development projects are being studied. For this purpose a high level technical staff member of PAHO has been assigned to the IDB to analyze health aspects of investment proposals under consideration by the Bank.

With respect to the textbook program, the proposed loan to be made to the Pan American Health and Education Foundation has already passed the various required stages of consideration and is now before the Board of Directors of the Bank. Information has been provided by PASB to clarify all points raised in the informal Board review, and the loan proposal is on the

¹Document CSP18/29 (20 September 1970).

²Official Document PAHO 99, 84.

³Official Document PAHO 82, 78-79.

schedule for formal action at the next meeting of the Board in early October 1970. The loan, when approved, will be subject to certain agreements and guarantees discussed later in this document.

Pan American Health and Education Foundation (PAHEF)

As explained in the document⁴ presented to the XIX Meeting of the Directing Council, the loan from the IDB for the textbook program will be made to the Pan American Health and Education Foundation. Bearing this in mind, the Council, in Resolution XXXVI mentioned above, gave its support and approval to the activation of the Foundation.

Early in 1970 the incorporators of the Foundation named the Board of Trustees (nine members), who elected as President Dr. Abel Wolman, Professor Emeritus, Department of Environmental Engineering Science, Johns Hopkins University. Obviously, the immediate need was to have trustees readily available for meetings. It is planned, however, to enlarge the Board on a gradual basis to about 25, to include members from countries throughout the Americas.

The objectives of the Foundation of promoting and assisting in programs to improve health, to educate and train health workers, and to advance research, are identical with those of the Pan American Health Organization. Consequently, it is expected that most of the programs of PAHEF will be carried out jointly with PAHO. This cooperative relationship has been set forth in a general agreement which provides the following two essential points:

1. PAHEF will consider the financing of projects proposed by PAHO, and will seek the technical advice and approval of PAHO on all projects.
2. PAHO and PAHEF will undertake joint projects, as mutually agreed in joint plans of operation.

The Textbook Loan

The textbook program will be a joint PAHO/PAHEF project. The joint plan and the respective commitments are set forth in an agreement as shown in the Appendix. The content and presentation of this agreement has been approved by officials of the IDB and fulfills one of the requirements for the proposed loan by the Bank to the Foundation. Following are the essential elements of the agreement:

1. PAHEF shall establish a capital revolving fund on

a gradual basis to reach approximately \$2,000,000 in five years. To establish this fund, PAHEF shall contract a loan with the IDB. At the end of the repayment period (20 years) there will be a revolving fund of approximately \$2,000,000 to carry on the textbook program indefinitely.

2. PAHO shall contribute \$120,000 annually during the first five years, primarily in terms of cost of personnel and consultants. In years 6 through 25 PAHO shall contribute \$100,000 annually from the Special Fund for Health Promotion. (The amounts mentioned in this paragraph already are provided in the PAHO budget for the textbook program under project AMRO-6000.)

3. PAHEF will purchase the selected books and arrange for their delivery to the schools as needed.

4. PAHO, on behalf of PAHEF, in cooperation with the respective schools, will be responsible for operation of the program at the local level and shall transmit the income from sales to PAHEF.

In addition to the agreement explained above, the textbook loan requires a guarantor. For this purpose, arrangements have been made with The Riggs National Bank of Washington, D.C., to issue a Letter of Credit in favor of the IDB on behalf of PAHEF in the amount of \$2,040,000, to be drawn upon in case of any default in loan payments.

The XVII Pan American Sanitary Conference, in 1966, approved Resolution XV⁵ authorizing the financing of the textbook program by a loan. Instead of contracting a loan, the guarantee arrangement described requires PAHO to deposit collateral for the Letter of Credit. For this purpose the Organization intends to deposit collateral on a gradually increasing basis over a five-year period to match the increasing level of the loan. In future years, the collateral will be decreased as the principal of the loan is reduced. The collateral will be provided in the form of a mortgage on the Governor Shepherd Building, together with securities as needed. Since the textbook program will have assets in the form of cash or unsold books equal to, or greater than, the size of the loan, the Director believes that the risk is minimal and that it is financially sound to deposit this collateral.

Although the financial liability of the Organization in depositing collateral would be essentially the same as contracting a loan, according to the legal requirements of The Riggs National Bank, a new resolution is needed to authorize the deposit of collateral. Accordingly, it is hoped that the Conference will approve a resolution to this effect.

⁴Document CD19/16, Addendum (mimeographed).

⁵Official Document PAHO 74, 71-72.

Appendix

AGREEMENT BETWEEN THE PAN AMERICAN HEALTH AND EDUCATION FOUNDATION AND THE PAN AMERICAN HEALTH ORGANIZATION FOR A PROGRAM OF TEXTBOOKS FOR MEDICAL STUDENTS

THE PAN AMERICAN HEALTH AND EDUCATION FOUNDATION, a non-profit organization located in the District of Columbia of the United States of America, hereafter referred to as "the Foundation," and

THE PAN AMERICAN HEALTH ORGANIZATION, hereafter referred to as "the Organization,"

DESIRING to plan and carry out a joint program of textbooks for medical students in the Americas,

AGREE to this Plan of Operations containing the objectives, plan of action, and respective functions and obligations of the parties.

PART I

Objectives

The objective of the textbook program is to improve the quality and quantity of medical education by promoting the use in all medical schools of the best available textbooks in the respective disciplines. This activity is part of a larger program of medical education to improve the health and welfare of the peoples of the Americas. This joint project is one of the means by which the two parties hope to achieve these broad objectives, and consists of a plan for selection of the best available medical textbook in each subject and for mass purchase and sale of these books.

PART II

Plan of Action

The program will be developed in progressive stages with the goal of reaching full operation within a period of six years. Flexibility will be maintained to permit readjustments as may be necessary or desirable as a result of periodic evaluations of the project. The plan of action is presented in greater detail below:

1. The goal of the plan is to provide textbooks for approximately 22 disciplines. The number of books to be acquired will be increased each year until the goal is reached at the end of the sixth year.

2. The project will be carried out with schools of medicine whose participation will be the subject of a written agreement under which the schools, in addition to accepting the objectives of the program, undertake to nominate outstanding medical educators to serve on committees to select books and to administer the program within their respective schools for ordering, receiving, safekeeping, and selling the textbooks and for transmitting the proceeds.

3. Selection committees will be composed of outstanding medical educators in the respective disciplines to review the number and quality of textbooks in relation to medical education requirements in the respective schools. The committees are responsible for recommending textbooks which meet the requirements. They are also responsible for making recommendations on ways of meeting the need in relation to disciplines where adequate textbooks do not exist. Among books recommended by the selection committees, a final selection will be made by the Director of the Pan American Sanitary Bureau, taking into account the economic factors reflected by quotations from publishing houses for the respective books.

4. Selected books will be purchased from publishing houses in quantities necessary to meet the requirements for one to three years, depending on prices quoted for mass purchases. Supplies of books will not be purchased for more than three years, since it may reasonably be expected that a revision of the book would occur by the end of that time. The contract with the publisher will include provision for warehousing and for shipping to the respective schools. The distribution will be based on orders from schools.

5. The textbooks remain the property of the Foundation until sold; the school will be responsible for their receipt, safekeeping, and sale to students. The proceeds from the sales will be transmitted to the Organization, together with corresponding reports. Sales will be made at prices established by the Foundation on a cash basis or time payment plan. Provision may also be made for rental of books. Book prices will be expressed in the local currency of each country, but will be based on costs in dollars. Consequently, the price schedules in local currency will be readjusted as necessary according

to variations in exchange rates. The Organization will use its "book" rate of exchange for the purpose of making payments in U.S. dollars as required in Part IV, Paragraph 5 of this Agreement.

6. Book prices will be established to yield a return equivalent to actual cost, including such elements as publishers' purchase price, warehousing, mailing charges, loss and damage, interest on capital revolving fund, nonpayment on time sales, exchange loss, and operating costs.

PART III

Responsibilities and Functions of the Foundation

The Foundation shall undertake the functions and responsibilities outlined below:

1. The Foundation shall establish a capital revolving fund to finance the operation of the medical textbook program. The size of the fund shall be increased according to the requirements of the textbook program, and at the end of five years should reach approximately \$2,000,000. It is understood that the Foundation, in order to establish this revolving fund, shall contract a loan with the Inter-American Development Bank (IDB), to be repaid over a twenty-year period starting with the sixth year of the loan. The Foundation shall be responsible for the payment of interest, service charge, fee, and principal on this loan. Income derived from sales of the books, from the contribution to the program from the Special Fund for Health Promotion (financed primarily by the W. K. Kellogg Foundation), and from other sources, shall be utilized to repay the principal, interest, and other charges without diminishing the size of the revolving fund, in order that at the end of the repayment period there will be a revolving fund of approximately \$2,000,000 to carry on the textbook program indefinitely. The Foundation shall devote all income and resources mentioned above exclusively to the textbook program.

2. The Foundation shall be responsible for determining, in consultation with the Organization, the number of books to be provided as well as the prices and conditions under which sales will be made. The Foundation shall be responsible for entering into contracts with publishers for books to be delivered at the schools.

3. To carry out these responsibilities and functions, the Foundation shall provide the following personnel: an Executive Director; a medical officer, Chief of the Textbook Program; and a secretary. Other personnel may be added if future operational requirements so indicate.

PART IV

Responsibilities and Functions of the Organization

The Organization shall undertake the following responsibilities and functions:

1. The Organization shall contribute \$120,000 annually toward the operating cost of the first five years' program. This will be primarily in terms of cost of personnel and consultants. As a part of the contribution, the Organization will devote to this project the services of its staff and organizational structure related to policy-making, technical standards, administration, and field representation. In years 6 through 25, the Organization shall pay to the Foundation the amount of \$100,000 in cash annually as a contribution to the program from the Special Fund for Health Promotion, mentioned in Part III, Paragraph 1 above.

2. The Organization shall amend existing agreements with schools and shall provide in new agreements for recognition of the role of the Foundation in the program. The Organization will use its good offices to facilitate contacts and visits to schools by officers or representatives of the Foundation as may be desired.

3. The Organization shall, in coordination with the Foundation, select the textbooks, designate the selection committees, and arrange for the meetings and reports of such committees. The final designation of the committees and selection of the books shall be the responsibility of the Director of the Pan American Sanitary Bureau.

4. The Organization, on behalf of the Foundation in cooperation with the respective schools, shall be responsible for operation of the program at the local level. This will include advice and assistance in administration, provision of a manual of procedures, information on price schedules, and receipt of the proceeds of sale, together with the corresponding reports. The Organization shall arrange for shipment of the books in such a manner as to facilitate their entry without payment of customs.

5. The Organization, on behalf of the Foundation, shall collect the payments for the textbooks and be responsible for paying to the Foundation the income from the sales of such books in U.S. dollars. The Organization shall make every effort to require that the textbooks be sold at the U.S. dollar equivalent price established by the Foundation for such textbooks, and shall, whenever necessary, require the readjustment of the price of such textbooks in local currency to reflect revisions in exchange rates in relation to U.S. dollars. The Organization may suspend sales in a particular country if conditions are such as to make it impossible to follow the above procedure. Although the above should minimize losses through currency adjustments, any such loss will be charged to the operation of the textbook program.

6. The Organization shall maintain separate accounts for its participation in the program, which accounts shall be made available for external audit.

7. In addition to the general services of its office of Finance and Accounts, the Organization shall provide, against reimbursement by the Foundation, one adminis-

trative assistant, one accountant, one assistant accountant, and one clerk specifically assigned to this activity. The latter two posts are already provided. The other posts will be added as work load requirements develop.

8. The Organization shall provide to the Foundation such reports and information as it may require, or as may be needed to meet the reporting requirements of IDB.

PART V

General Provisions

1. The Foundation and the Organization will review the progress of the program, and at least annually will make an evaluation. Based on this evaluation and by mutual consent of the parties, this Agreement may be amended.

2. This Agreement may be terminated by either of the contracting parties by means of written notice to the other party six months in advance. Should the Agreement be terminated, the parties shall carry out their responsibilities with respect to books already purchased, unless modified by mutual consent.

3. Notwithstanding the provisions of Paragraphs 1 and 2 above, this Agreement shall not be amended nor terminated without the prior written approval of IDB.

4. Any dispute between the parties hereto arising out of or relating to this Agreement which cannot be settled by negotiation or other agreed mode of settlement shall be submitted to arbitration at the request of either party. Each party shall appoint one arbitrator, and the two arbitrators so appointed shall appoint the third who shall be the chairman. If within 30 days of the request for arbitration either party has not appointed an arbitrator, or if within 15 days of the appointment of two arbitrators the third arbitrator has not been appointed, either party may request the Secretary General of the Organization of American States to appoint an arbitrator. The procedure of the arbitration shall be fixed by the arbitrators, and the expenses of the arbitration shall be borne by the parties as assessed by the arbitrators. The arbitral award shall contain a statement of the reasons on which it is based and shall be accepted by the parties as final adjudication of the dispute.

IN WITNESS WHEREOF, the undersigned, representatives of the parties, have signed this agreement:

FOR THE PAN AMERICAN HEALTH ORGANIZATION

FOR THE PAN AMERICAN HEALTH AND EDUCATION FOUNDATION

Director, Pan American Sanitary Bureau

President

At Washington, D.C., on 17 July 1970

At Washington, D.C., on 17 July 1970



Annex 10

MULTINATIONAL CENTERS¹

At its 64th Meeting, the Executive Committee adopted Resolution XIX² on this item, the second operative paragraph of which requested the Director to submit "a report on the program and activities of present multinational centers."

In implementation of that resolution, the Director is pleased to submit to the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of the World Health Organization for the Americas, reports on the following multinational centers: Pan American Foot-and-Mouth Disease Center; Pan American Zoonoses Center; Institute of Nutrition of Central America and Panama; Caribbean Food and Nutrition Institute; and Pan American Health Planning Center.

¹Document CSP18/22 (6 September 1970).

²Official Document PAHO 103, 60-61.

Pan American Foot-and-Mouth Disease Center

Background

Foot-and-mouth disease, in addition to being the main animal disease in the countries affected by it, is a constant menace to the other countries of the Hemisphere which are at present free from it. The chief factors concerning the disease and its effects may be summarized as follows:

- 1) Its highly contagious nature and the rapidity with which it spreads among cattle, pigs, sheep, and other cloven-hoofed animals.
- 2) The economic losses suffered by agriculture as a consequence of the disease.
- 3) The setbacks it causes to the production of animal protein, and the relationship between these lower production levels and the serious problem of protein malnutrition among the growing population of the Americas.
- 4) The losses suffered by the national economies because of the closing of export markets, since countries free of foot-and-mouth disease cannot run the risk of importing animals or products of animal origin from areas attacked by the disease.

In recent years the effects of the disease on the economy and development of countries which are largely dependent on stock raising have been fully recognized, together with the urgent need for national and multinational control campaigns. The major economic significance of the disease, coupled with the

complex and difficult control measures entailed, were the principal reasons for establishing the Pan American Foot-and-Mouth Disease Center in 1951 at the request of certain countries of the Organization of American States (OAS).

Purpose and Objectives

Purpose

The initial purpose was to provide the countries with technical assistance and a diagnosis and virus-typing service. However, it was realized from the start that the assistance to be furnished by a Center serving the entire Continent could and ought to be on a much wider scale than routine assistance and diagnostic work. The purpose of the Center was accordingly extended to include the provision of assistance to countries affected by the disease, in their efforts to control it, and to the countries free from it, in the implementation of their preventive measures, through research and training programs and technical advisory services.

Objectives

To fulfill the above-mentioned purpose, the Center is divided into three main divisions (Research, Training, and Field Advisory Services), with the following objectives:

Research

1) Identification and study of the strains of foot-and-mouth and vesicular stomatitis viruses which cause outbreaks in rural areas, together with those used in the production of vaccines and in checking of their effectiveness by means of typing and subtyping.

2) Study of new foot-and-mouth vaccine and improvement of inactivated and modified live virus vaccines already available with a view to obtaining better and longer-lasting immunity.

3) Preparation and maintenance of a collection of strains of various foot-and-mouth disease virus subtypes considered of epidemiological importance and adapted by the Frenkel method to cell cultures and newborn rabbits, for dispatch to, and vaccine production in, countries needing them during emergencies.

4) Study of new methods for checking the effectiveness of foot-and-mouth disease vaccine and standardization, simplification, and adaptation of those already available to the conditions of the Hemisphere.

5) Study of the problems related with the consequences of the disease, such as the survival of this virus and the study of carriers, on trade in meat and meat products.

6) Studies of the basic nature of the biological and physiochemical characteristics of the foot-and-mouth disease and vesicular stomatitis viruses.

7) Provision of advisory services to national foot-and-mouth disease research centers.

Training

1) Organizing and conducting international seminars.

2) Organizing and conducting national courses.

3) Participation of its specialists in seminars, courses, and meetings organized by other national or international institutions.

4) Provision of fellowships for individual training.

5) Supplying available information on the epizootiology of the vesicular diseases.

6) Distribution of updated bibliography of all works published on subjects related to these diseases.

Field Advisory Services

1) Encouragement and cooperation for the planning, execution, and evaluation of national foot-and-mouth disease control programs.

2) Study of technical and administrative methods for the control of foot-and-mouth disease through demonstration pilot areas.

3) Provision of advisory services to the countries in the preparation of credit applications related to foot-and-mouth disease campaigns for submission to international credit agencies.

4) Promotion of intercountry coordination by means of meetings and bilateral, regional, or multinational

agreements on the control and prevention of foot-and-mouth disease.

5) Provision of advisory services on organizing and conducting prevention programs in the area free from the disease.

6) Field studies on the most effective means of prevention, control, and evaluation of the national campaigns.

7) Establishment of a hemisphere-wide surveillance system of animal vesicular diseases, including the summarizing, compiling, analysis, and publication of epidemiological data.

Administrative Development and Present Organization

Budgetary Resources

The Center began operations in 1951 as an OAS Technical Cooperation Program project, with the Pan American Sanitary Bureau as administering agency, and continued in this form up to 30 June 1968. From that date it was made a regular PAHO program, financed by a system of contributions by the Member Countries of that Organization, in accordance with the recommendations and resolutions adopted at the meetings of the Inter-American Economic and Social Council (IA-ECOSOC), Viña del Mar, Chile, June 1967; the Inter-American Committee on the Alliance for Progress (CIAP), Rio de Janeiro, Brazil, September-October 1967; and the Directing Council of PAHO, Port-of-Spain, Trinidad and Tobago, October 1967.

The Center's budget for 1970 in US\$1,320,716. The Government of Brazil, in addition to its normal contribution, provides special assistance toward the upkeep of the buildings and grounds and the wages of 25 men employed in this work. The amount of this assistance for 1970 was Cr. 208,600.

The budget for 1971, submitted for the consideration of the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control, and approved at the 64th Meeting of the Executive Committee (Washington, D.C., 29 June-10 July 1970), is US\$1,405,034. Table 1 shows the breakdown of the 1971 budget according to the different activities of the Center.

Table 2 summarizes the growth of the Center's budgetary resources from its foundation up to 1970, including the forecasts for 1971, with reference to the origin of the respective funds.

Personnel

The Center's personnel consists of 26 international technicians, 122 local officials, and 25 workmen. The distribution of the international technicians and the local professionals is as follows:

Office of the Director

Director	1
Administrator	1

Field Advisory Services

Chief	1
Epidemiologists	2
Biostatistician	1
Administrative Methods Consultant	1
Vaccine Production and Control Consultant	1
Area Consultants	5

Research

Chief	1
Virologist	1
Serologists	3
Research Officers	3
Biochemist	1
Immunologist	1
Chief Research Assistant	1
Research Assistants	4

Training

Chief	1
Technical Officer, Publications	1

Premises and Equipment

The Center occupies the premises that were transferred to it at the start by the Brazilian Government. These are located some 30 km to the north of Rio de Janeiro, in the state of that name. The Government of

Brazil has since provided further premises to permit the expansion of programs.

At present the Center occupies a site of approximately 450,000 m², some of which are distributed as follows:

Director's office, administration, technical assistance, and training	750
Laboratories	2,500
Animal quarters	2,000
Stables and isolation quarters for large animals	3,000
Workshops and generating plants	200
Stores	900
Garage	600

The Center has all the equipment necessary for the functional and efficient operation of all the laboratories and sections, including audiovisual and printing equipment.

Administrative and Technical Organization

The organization of the Center comprises the Director's office and four Departments dealing, respectively, with research and diagnosis, training, field advisory services, and administrative matters, as may be seen from the organizational chart.

The research and diagnosis activities are carried out by the headquarters group of laboratories, with its diagnosis and reference, inactivated vaccines, modified live virus vaccines, virus survival, and general research sections. Some of these activities are carried out jointly with the countries concerned.

Table 1—Pan American Foot-and-Mouth Disease Center
Breakdown of Budget for 1971

	Office of Director	Research	Training	Field services	Adminis- tration	Common services	Meetings	Total	Percentage of the total
Salaries and allowances	66,980	635,806	53,535	262,281	53,306			1,071,908	76.3
Duty travel	5,945	17,328	2,435	38,478			39,000	103,186	7.3
Fellowships			44,766					44,766	3.2
Short-term consultants			2,972				2,000	4,972	0.4
Supplies and equipment		96,017	14,600	1,000	1,815	28,000		141,432	10.1
Contractual services		2,700	2,970		1,100	20,000	9,000	35,770	2.5
Publications			3,000					3,000	0.2
Total	72,925	751,851	124,278	301,759	56,221	48,000	50,000	1,405,034	
Percentage of total	5.2	53.5	8.8	21.5	4.0	3.4	3.6		100.0

Table 2—Breakdown by Year of the Center's Funds in US\$

Year	Organization of American States	Pan American Health Organization	Agency for International Development	National Research Council	US Department of Agriculture	Ministry of Agriculture of Brazil	Total
1951	165,341.87					10,000.00 ^a	175,341.87
1952	198,410.24					10,000.00 ^a	208,410.24
1953	267,407.00				19,600.00	10,000.00 ^a	297,007.00
1954	212,712.23					10,000.00 ^a	222,712.23
1955	196,462.53					10,000.00 ^a	206,462.53
1956	219,421.00					10,000.00 ^a	229,421.00
1957	231,060.84					10,000.00 ^a	241,060.84
1958	256,911.88					12,464.64	269,376.52
1959	323,129.00					6,201.40	329,330.40
1960	382,124.92					12,880.21	395,005.13
1961	520,633.00					10,337.65	530,970.65
1962	537,808.00		134,365.00			11,092.25	683,265.25
1963	603,900.00		93,265.00			26,038.76	723,203.76
1964	632,105.00		132,100.00			9,842.21	774,047.21
1965	800,128.00		40,845.00	7,967.00		27,325.82	876,265.82
1966	975,382.61		8,000.00	5,745.00		28,870.00	1,017,997.61
1967	781,466.00		200,000.00	3,442.13		18,174.34	1,003,082.47
1968		625,871.00	133,009.00			29,373.17	788,253.17
1969		1,202,836.00				24,096.38	1,226,932.38
1970		1,320,716.00				45,151.51	1,365,867.51
1971		1,405,034.00					1,405,034.00

^aEstimated figures.

The Training Department handles the fellowships, the organization of training courses and other scientific meetings, the library, and the publication and information services.

The field advisory services are organized by the technical staff at the Rio de Janeiro headquarters and through the consultants in different countries. Advice is provided on epidemiological matters, administrative methods, statistics, and the planning and evaluation of foot-and-mouth disease control campaigns.

The Administrative Department operates through the finance, personnel, supplies, and general services sections.

Description of the Main Activities

Field Advisory Services

Through its central services and the area consultants, the Center's Technical Assistance Branch carries out the following activities:

Promoting, advising, and supporting the planning, organization, and implementation of national programs for the control or prevention and eradication of foot-and-mouth disease.

Determining of problem areas in the foot-and-mouth disease programs and cooperation in finding solutions.

Promotion of coordination between countries, by means of visits, meetings, and regional or multinational agreements for the control and prevention of foot-and-mouth disease.

Cooperation with the countries concerned in the preparation of applications for financial assistance for campaigns against foot-and-mouth disease, for submission to international credit agencies.

Gathering, compiling, analyzing, and publishing epidemiological data concerning animal vesicular diseases in the Americas.

Developing a system of epidemiological surveillance of animal vesicular diseases in the Americas.

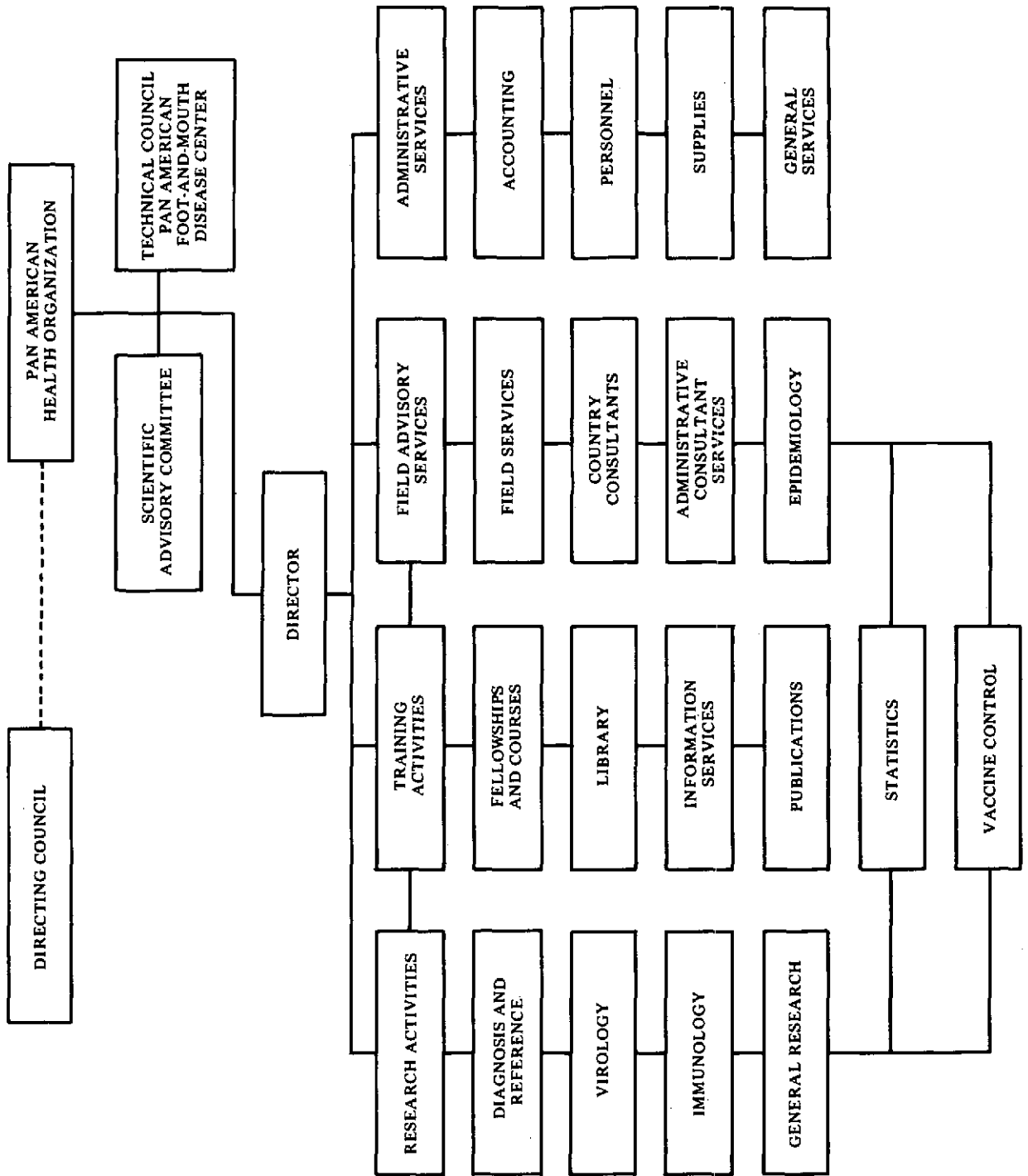
Since 1961 the national foot-and-mouth disease programs have been increasing and have been consolidated at a constant rate. In that year just one country (Venezuela) carried out a vaccination campaign that could be termed nationwide in scope, while nine years later there are programs under way in Argentina, Brazil, Chile, Paraguay, and Uruguay.

The campaign in Argentina is the world's largest in terms of the number of cattle involved; it has reached 45 million head vaccinated three times yearly since 1968 and represents 90 per cent of all cattle in the area covered by the campaign.

The Brazilian program, started in 1965, shows considerable progress, the targets set having been reached. In 1966, 25 million cattle were vaccinated three times a year, in the country possessing the largest number of cattle in the Hemisphere, estimated at 80 million head. In April 1970 the State of Rio Grande do Sul completed the vaccination of its entire herd (12 million cattle).

Chile embarked upon a national-scale program in May 1970, for which it obtained the financial support of the

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER



Inter-American Development Bank (IDB). Paraguay, which has also obtained an IDB loan for the same purpose, has a control program under way in the southern part of the country, where approximately 1.5 million cattle, representing about a quarter of Paraguay's total estimated herd, are located. Uruguay's program, started in 1968, covers the entire country and provides for the regular vaccination of all of its 8 million cattle.

In this way, approximately 70 million cattle, representing about 90 per cent of all cattle in the area, are kept under systematic vaccination (every four months) in the part of the Continent comprising Argentina, Chile, Paraguay, Uruguay, and the Brazilian State of Rio Grande so Sul.

Argentina recently obtained a loan of US\$10 million from IDB for the completion and refinement of its campaign. Brazil's project, also organized with the cooperation of the Center, was concluded a short while ago and approved by IDB, while the projects of Bolivia, Colombia, Ecuador, Peru, and Venezuela are under study.

The cooperation of the IDB in foot-and-mouth disease programs will undoubtedly prove a major factor in boosting their effectiveness in coming years.

Intercountry coordination has been a policy of the Center ever since its foundation. Those in charge of operations are fully aware that only national-scale campaigns, integrated first at the regional and subsequently at the hemispheric level, will produce results. In this respect the following agreements may be listed:

The Inter-American Animal Health Agreement, signed at Rio de Janeiro, Brazil, in 1967, by Argentina, Brazil, Chile, Paraguay, and Uruguay. Its executive commission, the Regional Animal Health Technical Commission, has achieved real progress in its efforts toward regional integration. Bolivia has recently become a party to this Agreement, and it is hoped that Peru will also do so shortly. Bilateral agreements between Argentina and Chile, Argentina and Paraguay, Brazil and Paraguay, Brazil and Uruguay, and Colombia and Ecuador represent further steps toward this integration. Others under study are between Brazil and Argentina, Ecuador and Peru, Bolivia and Peru, and Brazil and Guyana with Venezuela. It is also likely that in the near future a planned "Bolivarian Animal Health Organization" will link Colombia, Ecuador, and Venezuela. In the area free from the disease there is in operation an Agreement between the International Regional Organization for Health in Agriculture and Livestock (OIRSA) and Mexico, Central America, and Panama for a protection program for the Darién area in Panama, while the Chocó Agreement between Colombia and the OIRSA countries is under study with a view to a prevention campaign for that department of Colombia. With the support of an OIRSA-Panama-PAHO Agreement dating from 1964, a Center consultant is working in the area.

At present, new agreements are under study by the countries of the free area (North America, Mexico, Central America, and Panama) for joint efforts against a possible outbreak of foot-and-mouth disease. The Center cooperates with the Governments in the promotion, study, and implementation of those agreements and attends all international or regional meetings at which problems connected with foot-and-mouth disease are discussed.

Training

Through this branch of its activities the Center provides the veterinarians and other technicians of the government services responsible for the control or prevention of foot-and-mouth disease, with further training for the exercise of their functions. Its plans cover both the field aspects (planning, organization, and evaluation of campaigns; prevention programs for the free countries; epizootiological studies of outbreaks), and the laboratory aspects (diagnosis, typing, and subtyping of viruses; methods of vaccine production and control).

The Center's library supplies interested persons and institutions in Latin America, as well as the Center's professional staff, with the necessary bibliographical information regarding foot-and-mouth and other vesicular diseases and provides copies of the works listed to those requesting them.

For this purpose the Center possesses a collection of books and receives around 200 specialized journals. Summaries of the works of greatest interest are published in the Center's *Cuadernos*, which came out monthly from 1960 to 1966, when publication had to be suspended because of financial difficulties. Only one number appeared in 1967; another was published early in 1970; and the necessary steps are being taken to bring publication up to date and to resume issue in a periodical and regular form.

Each number of *Cuadernos* is produced in a pressrun of 1,000 copies which are distributed to institutions in all countries of the Americas, 13 in Europe, 4 in Asia, and 4 in Africa.

The *Epizootiological Report on Foot-and-Mouth Disease and Vesicular Stomatitis*, a publication which first appeared at the close of 1969 and which has been issued monthly since January 1970, is compiled from the material processed by the Field Assistance Branch from the information it obtains from the different countries. This report, which summarizes the epizootiological movement of vesicular diseases in Central and South America, is sent out to the governmental authorities and official laboratories of all countries of the Hemisphere.

Training fellowships at the Center. Since its foundation and up to the end of 1969, the Center received 542

veterinarians from 11 countries of the Americas, almost all of them as fellowship holders, who attended courses or received individual training (Table 3).

Table 3—Number of Professionals, by Country, Trained at the Center, 1951-1969

Argentina	55
Bahamas	2
Barbados	1
Bolivia	17
Brazil	152
Canada	1
Chile	21
Colombia	54
Costa Rica	11
Cuba	7
Dominican Republic	5
Ecuador	26
Egypt	1
El Salvador	7
French Guiana	2
Guatemala	10
Guyana	6
Haiti	1
Honduras	8
Jamaica	4
Martinique	2
Mexico	12
Netherlands Antilles	2
Nicaragua	6
Panama	20
Paraguay	20
Peru	19
Surinam	2
Trinidad and Tobago	3
United States of America	13
Uruguay	27
Venezuela	25
Total:	542

International courses and seminars. Up to the present, the Center has held 25 courses and seminars at the international level.

National courses and seminars. National courses were first organized in 1968 and up to the present there have been four: in Asunción, Paraguay (9-14 September 1968); in Salvador, Bahia, Brazil (7-11 April 1969); in Pôrto Alegre, Rio Grande do Sul, Brazil (19-21 November 1969); and in Asunción, Paraguay (25-30 May 1970). All or nearly all of the veterinarians engaged in the local programs took part in these courses.

Participation by the Center in regional and national courses. At the request of institutions organizing courses, seminars, or congresses at which subjects connected with foot-and-mouth disease are discussed, the Center has undertaken to handle such matters. In 1969 it assisted in this way with courses in applied epide-

miology given at the School of Public Health, Medellín, Colombia, and the School of Medicine of San Marcos University, Lima, Peru. The Center also took part in the National Congress on Veterinary Medicine and Zootechnics held in Lima, Peru, in July 1970, and is preparing the round table on foot-and-mouth disease at the 3rd Pan American Congress on Veterinary Medicine and Zootechnics, (Santiago, Chile, end of September 1970).

Research

The Center acts as a reference laboratory for the Americas, in close collaboration with the World Reference Laboratory, for the typing and subtyping of the foot-and-mouth disease and vesicular stomatitis viruses. Since its establishment, it has examined about 10,000 samples of vesicular diseases from 18 different countries of the Hemisphere, either free of the disease or not. Up to 1969 these studies had enabled identification of 17 new subtypes of foot-and-mouth disease virus (12 type A Vallée, 1 type O Vallée, and 4 type C Waldmann) and, for the first time in the world, two subtypes of the vesicular stomatitis virus (types Indiana II and III).

During 1969 the Center received 652 samples for diagnosis from 18 countries, including those of the area free of the disease. It should be stressed that swift diagnosis of all samples from this area is of vital importance for the application of the health policy most suited to the area's interest. The serious repercussions that may ensue from a foot-and-mouth disease outbreak underscore the urgency of early diagnosis. In 1969, 41 of the 652 samples received by the Center were from the free area.

The Center provides the sera and reference and reference virus for the national diagnosis and control laboratories. In 1969, 1,224 ml of reference sera were supplied, sufficient material for approximately 600,000 complement-fixing tests.

Regarding inactivated vaccines, it should be noted that, since to the present it is necessary to vaccinate cattle three times a year, immunization of the entire South American herd would call for a production of the order of 450 million doses, or an increase of 40 per cent compared with present production.

Any improvement in the length of the immunity afforded by the inactivated vaccines, which constitute from 96 per cent to 98 per cent of all vaccines used in South America, would have a favorable repercussion on the campaign costs (30 per cent or more). This is why the Center is actively continuing research on new cell lines susceptible to the foot-and-mouth disease virus, in an endeavor to obtain more economical sources for the production of the antigen; new inactivants which give a better guarantee regarding the innocuousness of the vaccines produced, without affecting their antigenic immunizing qualities; and new adjuvants which make it

possible to obtain more potent vaccines. The foregoing, coupled with the fact that no vaccine which confers adequate immunity upon swine is available commercially, together with the need to learn more about the behavior of the vaccines in sheep, were the reasons for the experiments now being carried out in cooperation with the U.S. Department of Agriculture's Plum Island Animal Disease Laboratories, using a vaccine inactivated with an oil as an adjuvant. The results obtained show that this vaccine gives a good immunity for about one year to sheep receiving their first vaccination with it. The results with swine and cattle are highly promising, and this research is being actively pursued.

The modified live vaccines have been one of the Center's major contributions to the battle against foot-and-mouth disease. Through the years it has gained considerable experience in this field, for it has applied around 50 million doses of monovalent vaccine in different countries since 1962, especially in Venezuela.

The Center has available strains of the O₁ Campos, A₂₄ Cruzeiro, and C₃ Rezende strains, while the modification of other strains is nearing completion.

The Center pays particular attention to the problems that foot-and-mouth disease can cause for the livestock and meat products trade. In this connection, it has carried out a study of carriers, in cooperation with the Governments of Brazil and Venezuela, which has enabled the latter country (which has so far been free of the type C virus) to import Zebu breeding stock from Brazil. Thus the risk of introducing the virus has been limited and an important commercial transaction was made possible.

Another line of research worthy of special mention consists of the cross-immunity tests with different virus strains. Recently, for instance, it has been possible to demonstrate that the subtype C Rezende produces a good immunity to the subtype C Tierra del Fuego. The practical conclusion to be drawn from this is highly important, since the subtype C Rezende is the one which has been used up to the present in vaccine production, and in the event of outbreaks caused by the C Tierra del Fuego subtype the current vaccines may be used without the strain having to be changed.

In addition to the research referred to, the Center has been working on studies connected with research on new cell lines which offer susceptibility to the foot-and-mouth disease virus, the production of interferon in cell cultures and susceptible animals, studies on genetic markers which may characterize the virulent and attenuated strains of foot-and-mouth disease viruses, and others. Research is also being carried out on the influence on these characteristics of the passage of the virus into cultures *in vitro* and into cattle, while studies have also been started on the effects of polyionic substances on the production of plaques of some strains

of the vesicular stomatitis virus. New techniques for obtaining plaques in tissue cultures and new immunological studies for the detection of antibodies are under study.

Applicational or Control Programs in Collaboration with the Governments

Applying a method developed in its laboratories, the Center cooperated with Brazil and Venezuela in the study already referred to for the detection of possible carriers among two batches of cattle sold to Venezuela by Brazil. Of the total of 250 animals involved, 36 were found to be carriers.

In 1964 the Center planned and participated actively in a serologic survey on the island of Tierra del Fuego, in collaboration with the Chilean and Argentine Governments, in order to verify the absence of foot-and-mouth disease and thus to support the livestock products export market of the island, which belongs to both countries. The methodology developed by the Center proved to be sufficiently effective for Argentina to extend this type of study later to other parts of Patagonia.

In a joint effort with Argentina, Chile, and Peru, the Center is studying the epidemiological problems connected with the exportation of cattle from the first of those three countries to the consumer markets of the other two, and providing advisory services regarding the technical regulations which govern this trade.

For five years (1964 to 1968) the Center supplied Bolivia with the vaccine needed for the development of a pilot foot-and-mouth disease control plan at Cochabamba designed to demonstrate techniques and train Bolivian personnel. This experience is being utilized at the moment for the planning of a nation-wide program. During the same period, demonstration plans of the same type were set up in Chile, Colombia, and Ecuador.

Argentina, Brazil, Chile, Colombia, and Paraguay have benefited particularly from direct assistance from the Center for the establishment of official foot-and-mouth disease vaccine control organizations and systems, by means of the planning, execution, and provision of biological elements and through the training of many of the professional staff required.

The Center has worked on a joint basis with Colombia, Panama, and Central American countries to promote, study, work out, and implement a foot-and-mouth disease prevention program in the Colombia-Panama border area. It was put into practice between 1964 and 1968 and is now under review.

For the countries of the area free from foot-and-mouth disease, a Plan of Action in the Event of a Foot-and-Mouth Disease Outbreak and a corresponding Procedures Manual have been prepared. At the same time a study was made of the resources available in Central America and Panama for the implementation of

a prevention program and the eventual eradication of any outbreak of the disease. The Center's consultant, based in Panama, is engaged mainly on the consolidation of these activities.

The Center has cooperated with Colombia, Ecuador, and Venezuela on the study and planning of animal quarantine stations, one of which (Venezuela) is in full operation.

The Center is acting as a link between Brazil, Guyana, and Venezuela for a foot-and-mouth disease control and prevention program in the border region between the three countries. On two occasions (1961 and 1969), besides direct technical advice in the field, it has provided Guyana with the vaccine necessary for the eradication of outbreaks of the disease in the southern part of the country. Similar field advisory services plus direct assistance in the form of laboratory services were given to Argentina in 1967, to Colombia in 1967 and 1970, and to Chile in 1970, to eradicate outbreaks which occurred in the areas free of the disease in those countries.

Direct Services to Governments

In addition to replies of a scientific or technical nature to questions put to the central services or area consultants, the Center provides the countries with

various supplies. During the first six months of 1970, 37,000 doses of foot-and-mouth vaccine were sent to Colombia, Guyana, and Paraguay; various virus subtypes were dispatched to different countries; 170 ml of hyperimmune sera was sent to Argentina, Bolivia, Brazil, Chile, Colombia, and the Plum Island Laboratories in the United States of America, as well as hemolytic sera to Brazil, Peru, and Venezuela.

List of Works Published

Since its foundation the Center's technical staff have published 81 research articles in various scientific reviews in Europe and the Americas. A complete listing of these works is available in mimeograph form.

This is a summary of the work carried out by the Pan American Foot-and-Mouth Disease Center, in the knowledge that a better understanding of the disease in its scientific and technical aspects and its economic and social repercussions, together with the perfecting of the measures employed against it, intensification of the campaigns organized by the countries concerned, and better coordination between them, cannot but bring about a distinct reduction in the losses caused by it and contributed, in the last analysis, to the improvement of living standards in Latin America.

Pan American Zoonoses Center

The Pan American Zoonoses Center (CEPANZO) owes its origin to a resolution passed by the III Special Meeting of the Inter-American Economic and Social Council (CIES) (Caracas, Venezuela, February 1953).¹ The Pan American Sanitary Bureau (PASB) was asked to carry out this project, which started in August 1956, with joint financing by PAHO/WHO/TA and the Argentine Government. The Center was set up in Azul, Buenos Aires Province, Argentina, in 1957; between then and 1966 it gradually expanded its laboratories, experimental field, research tasks, and training activities and started to provide technical assistance in zoonoses control to the Argentine Government and to the countries of the Hemisphere.

The size of the problem posed by zoonoses, from both the economic and the health point of view, together with the limited ability of CEPANZO to meet the requests for technical assistance, led the Government

of Argentina to provide it with new facilities in Ramos Mejía (Buenos Aires Metropolitan Area), increase the contribution made toward its support, and submit to United Nations Development Program (UNDP) a proposal for the "Reinforcement of the Pan American Zoonoses Center in Ramos Mejía and Azul." This project is currently being executed, over the five-year period 1967-1971. The Plan of Operations is progressing satisfactorily, having already reached and even surpassed the goals set in the working program.

The contribution made by UNDP has enabled the Center to greatly expand its country programs, and has gained it a reputation as a leading center for the study and control of zoonoses. A Special Mission appointed by the Director of PASB recently visited 15 Latin American countries to collect information on the needs of each in the field of zoonoses control; everywhere this Mission found a unanimous desire that the Center expand its technical assistance program on a regional scale, and received pledges of financial support.

¹Resolution 5/53. *Annals of the OAS*; Vol. V (2), 1953, p. 130.

Resolution II² approved by the III Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control (Buenos Aires, Argentina, 14-17 April 1970), reaffirmed the intention of the countries to support a proposal to UNDP to increase financial assistance to the Center, in the form of a regional project. To maintain the continuity of the present project, it is hoped that the regional project will start on 1 January or 1 February 1972.

Purpose

The purpose of the Center is to provide countries with technical assistance in support of zoonoses control programs.

Objectives

1) Training of professional and technical staff in control and laboratory aspects in the following fields: brucellosis, rabies, tuberculosis, hydatidosis, leptospirosis, food hygiene and microbiology, and breeding and handling of laboratory animals.

2) Technical assistance in (a) planning, execution, and evaluation of control programs, (b) preparation of loan applications to the Inter-American Development Bank and other financial agencies for zoonoses control, (c) epidemiological research, (d) preparation of biological agents (vaccines, sera, antigens), and (e) conducting of diagnostic tests to check the quality of biological agents.

3) Laboratory services, taking the following forms: (a) supply of strains for the preparation of vaccines, sera, and antigens and also for microbiological typing and testing of potency; (b) supply of reference antigens, vaccines, and allergens; (c) supply of sera for identification and microbiological typing; (d) supply of marked sera for immunofluorescence testing; (e) gamma globulins for research projects; and (f) receipt of biological agents for reference testing in quality control.

4) Research, including: (a) projects to evaluate and improve biological products and to develop simplified diagnostic tests, improved microbe typing techniques, improved methods of treatment, and ecological and epidemiological studies; and (b) cooperation with national scientific institutes in the study of regional pathology in the zoonoses field and of problems resulting from the development of control programs.

5) Technical and audiovisual information, as follows: (a) publication of a quarterly bulletin; (b) publication of the *Rabies Epidemiological Surveillance Bulletin*, and starting the publication of a similar service for brucel-

losis, tuberculosis, and hydatidosis; (c) publication of technical notes; (d) publication of a new series of scientific publications in the form of monographs; (e) bibliographic research for national scientific institutes; and (f) lending of films, slides, and filmstrips.

6) Intercountry coordination in the following fields: (a) uniform Pan American standards on diagnosis, production of biological agents and their control; (b) standard procedures for zoonoses control; (c) criteria for microbiological examination of foodstuffs of animal origin; (d) standards for crossborder trade in animals and products of animal origin; (e) intercountry coordination of zoonoses control activities; (f) coordination of epidemiological research of general interest; and (g) epidemiological surveillance of zoonoses.

Administrative Development and Present Organization

When the Plan of Operations of the project for the "Reinforcement of the Pan American Zoonoses Center in Ramos Mejía and Azul" was signed with the UNDP, WHO was appointed as executing agency. Both technically and administratively, the Center comes directly under the Department of Human and Animal Health of PAHO Headquarters. With the growth in numbers and fields of activity of the staff, the Center was divided into two technical departments and an administrative section: (a) Laboratories Department; (b) Technical Services and Training Department; and (c) Administrative Section. Each of the departments is subdivided in turn (see organizational chart).

The Center currently has a staff of 19 international experts, supported by 73 local personnel, 8 of them university graduates. Of the total staff, 80 work in Ramos Mejía, in the Center's headquarters, and the remaining 12 in Azul.

Funds are obtained from a variety of sources. The budget for 1970 is as follows:

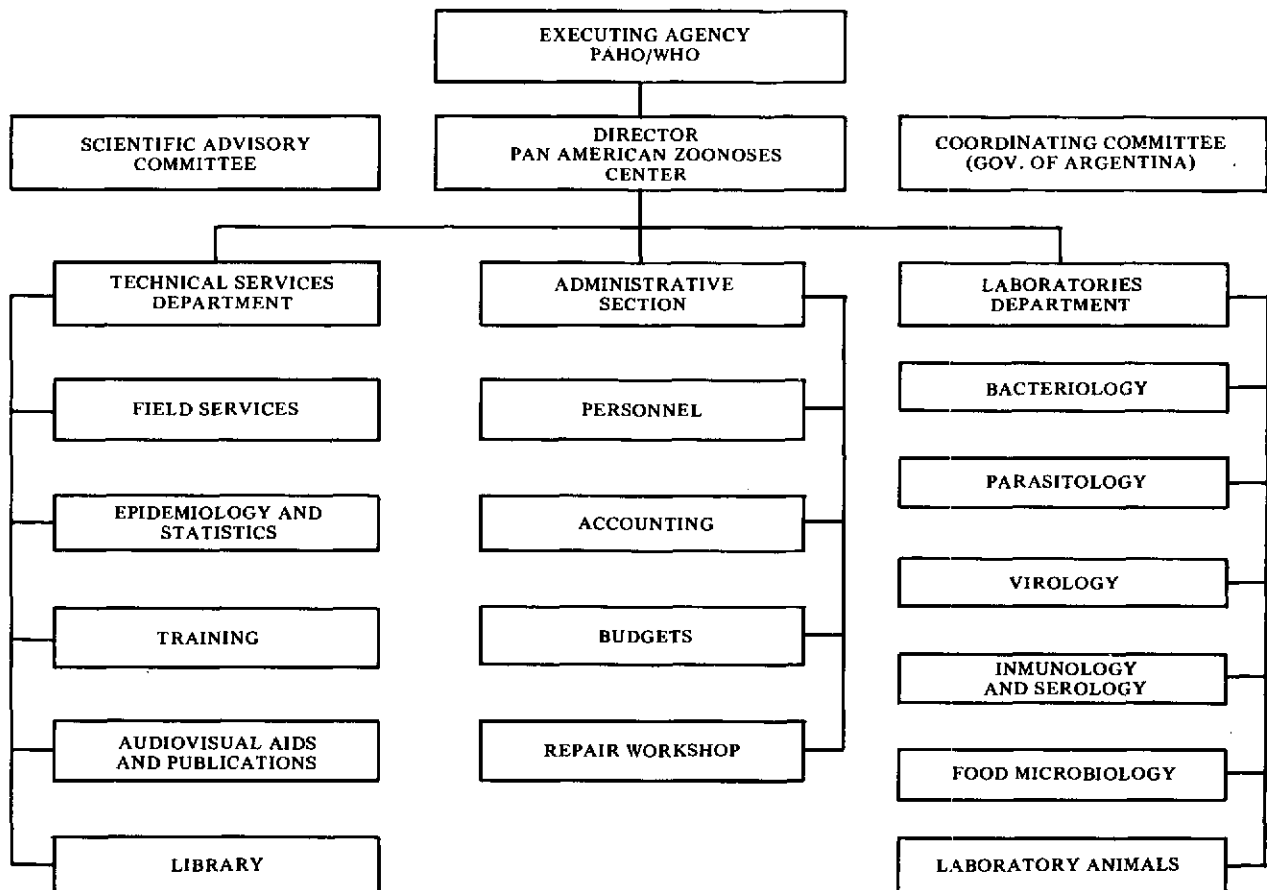
Argentine Government	US\$277,313
UNDP	462,556
PAHO	153,402
WHO	73,270
Total	US\$966,541

The Argentine Government has made available to the Center two stories with a total of 64 rooms in the National Institute of Health, Ramos Mejía, near Buenos Aires. In Azul, 300 km from Buenos Aires, the Center has a building and an experimental field of 150 hectares.

The main activities are carried out in Ramos Mejía, and the facilities in Azul are now used for field studies and experiments and as animal rooms. The Government of Argentina is to construct additional facilities in Ramos Mejía for the Center's expanded program of

²Scientific Publication PAHO 218, 10-11.

PAN AMERICAN ZONOSSES CENTER



activities, and a new building is being specially designed at an approximate cost of US\$2 million.

As a result of the contribution from the UNDP, the Center now has modern equipment with which to conduct its laboratory and field projects, carry out its training and information programs, and provide services to the countries.

Technical Assistance

While all the Center's activities could be regarded as technical assistance, only those services to countries are included under this heading which are directly concerned with problems in this sector, whether conducted in the laboratory or in the field. Table 1 summarizes activities during the period 1962-1966 and in 1967-1969 and the first half of 1970.

Training Activities

The Center is the only institution in Latin America devoted to the training of professional staff in control of, and research into, zoonoses. This activity has

expanded steadily from 1967 onward, with special attention being paid to the fields of brucellosis, tuberculosis, rabies, hydatidosis, and leptospirosis, together with food hygiene and microbiology and the breeding and handling of laboratory animals.

Training activities over the past three and a half years can be summarized as follows: (a) 8 international courses and/or seminars attended by 196 professionals from practically every Latin American country; (b) 11 national courses (204 professionals from six countries); (c) participation in 13 regional and national courses in five countries; (d) 60 professionals from 17 countries given individual training; and (e) 11 Argentine researchers appointed to the Center.

Research

The Center has carried out an extensive research program, both in the field and in the laboratory, comprising a total of 54 projects (11 field projects and 43 laboratory projects), on problems of interest to the countries.

Table 1—Technical Assistance and Applied Programs

Year	Zoonosis	Type of assistance	Countries assisted
1962-1966	Rabies	Diagnosis, production, and control of vaccines and sera	Argentina, Chile, Colombia, Paraguay, Peru, Uruguay
	Rabies	Control of canine rabies	Argentina, Uruguay
	Rabies	Ecology and control of vampire bats	Argentina
	Brucellosis	Control in cattle	Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala
	Brucellosis	Control in goats	Peru
	Tuberculosis	Control in cattle	Chile, Colombia, Costa Rica, Ecuador, Guatemala
	Leptospirosis and anthrax Miscellaneous Miscellaneous	Administration and evaluation of vaccine Control programs Advice on control and prophylaxis	Argentina, Paraguay Guatemala, Panama Nine countries
1967	Brucellosis	Survey among humans	Panama
	Rabies	Vaccine production	Colombia, Cuba, Mexico, Venezuela
	Rabies	Border control	Brazil, Uruguay
	Hydatidosis	National control program	Uruguay
	Tuberculosis	Control among cattle	Argentina
	Miscellaneous	Methods of control	Cuba
	Rabies	Control among dogs	Argentina, Uruguay
1968	Rabies	Control among cattle	Argentina, Brazil, Uruguay
	Brucellosis	Control among cattle	Argentina, Bolivia
	Brucellosis	Control among goats	Peru, Mexico
	Hydatidosis	Control	Argentina, Uruguay
	Tuberculosis	Control among cattle	Argentina
1969	Hemorrhagic fever	Control	Bolivia
	Rabies	Control among cattle	Argentina, Bolivia
	Rabies	Vaccine production	Brazil
	Rabies	Control among cattle	Argentina
	Rabies	Ecology and control of vampire bats	Argentina
	Rabies	Epidemiological surveillance	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, Venezuela, and Central America
	Brucellosis	Control among cattle	Argentina, Bolivia, Mexico
	Brucellosis	Serodiagnosis; production of vaccine Rev. 1	Mexico
	Hydatidosis	Control	Argentina, Uruguay
	Tuberculosis	Control among cattle	Argentina
	Encephalitis	Control among horses Breeding and handling of laboratory animals	Paraguay Argentina, Venezuela
1970 (first half year)	Hydatidosis	Epidemiological research	Bolivia
	Hydatidosis	National program	Argentina, Peru, Uruguay
	Hydatidosis	Serological diagnosis	Argentina
	Tuberculosis	Qualitative control of tuberculin and BCG	Argentina
	Miscellaneous	Breeding and use of laboratory animals Organization of the microbiological control of foodstuffs of animal origin	Argentina, Brazil, Costa Rica, Cuba Argentina, Chile, Colombia, Guatemala, Uruguay
	Brucellosis	Control programs	Brazil

Year	Zoonosis	Type of assistance	Countries assisted
	Brucellosis	Vaccination of goats	Peru
	Brucellosis	Diagnosis; production and use of vaccines (strain 19, 45/20, Rev. 1)	Chile, Ecuador, El Salvador, Mexico, Paraguay
	Brucellosis	Control of antigens	Chile, Venezuela
	Rabies	Control among cattle and dogs	Argentina
	Rabies	Control of vaccines	Twelve countries
	Rabies	Control among dogs	Brazil, Chile, Peru

Field Investigations

Of the 11 field research projects carried out, 2 were concerned with rabies, 2 with brucellosis, 1 with leptospirosis, 3 with hydatidosis, 2 with tuberculosis, and 1 with hemorrhagic fever.

The most significant results obtained from this group of projects were:

1) In an area in which bovine rabies is enzootic, a high percentage of the vampire bats were found to contain antirabies serum antibodies in significant quantities in the absence of rabies virus.

2) Examination of the saliva of apparently healthy vampire bats captured in northern Argentina revealed rabies virus in 3 per cent of the 1,500 specimens examined.

3) Treatment of dogs infected by *E. granulosus* with two doses of bunamidine administered at six-week intervals is effective to a significant extent.

4) In the northern section of Argentine Patagonia, 15.5 per cent of the foxes are infected by *E. granulosus*. Of 696 Patagonian animals examined, 49 reacted positively to Casoni's test, but only 11 to the hemagglutination, latex, or immunoelectrophoresis tests.

5) For the intradermal administration of tuberculin in cattle, the neck area is to be preferred to the anal-caudal fold as it is more sensitive.

6) PPD tuberculin is more potent than old Koch tuberculin and can be applied to both sites (neck and anal-caudal fold).

7) Inactivated 45/20 vaccine (*Brucella abortus*) causes agglutinins detectable for a short period to appear in a limited number of cattle, together with much more persistent complement-fixing antibodies.

8) Biological control of Bolivian hemorrhagic fever was attempted through selective destruction of *Calomys callosus* (reservoir in the domestic environment of the Machupo virus).

9) In a study of various species of wild animals in the Argentine pampas, leptospirae could be isolated only in the vizcacha (*Lagostomus maximus*). A high incidence of brucellosis infection was found among foxes; little or no infection was found, however, among herbivorous species.

Laboratory Investigation

The following are some of the projects carried out:

Zonoses	Object of investigation	No. of projects
Rabies	Evaluation of diagnostic methods	5
	Evaluation of bovine vaccines	2
	Study of passive immunity	1
	Study of suckling mouse brain vaccine immunity	4
	Study of immunity patterns in humans	2
Brucellosis	Typing of brucellae	3
	Studies of diagnostic methods	3
	Immunological studies	1
Hydatidosis	Anti-equinococcosis treatment in dogs	4
	Immunological studies	6
	Biological studies on <i>E. granulosus</i>	3
Tuberculosis	Evaluation of tuberculins for cattle	1
	Typing of mycobacteria of different origins	3
Salmonellosis	Investigation of salmonellae in abattoirs through the work process	2

The most significant results and those that are most important from the practical angle are given below:

a) Rabies

• The most sensitive method for isolating street virus is the tissue culture BHK-21 with the addition of DEAE-Dextran. This is much more sensitive than suckling mouse inoculated I.C. In its turn, a suckling mouse is more sensitive than a weaned mouse or an adult.

• The corneal test (ante-mortem diagnosis) has a sensitivity of 42 per cent and is 97 per cent specific.

• Sixty five per cent of the tongues of rabid dogs with virus in the brain show virus in the taste buds of the tongue.

• Current vaccines have markedly different powers of producing immunity among humans, and CRL (Fuenzalida-Palacios) vaccine is superior to other types. The immunogenic power of CRL vaccine for use in cattle is increased when $A_1(OH)_3$ is added; the opposite is the case with modified live virus type vaccines.

• The practice of giving cattle a booster shot 30 days after vaccination is not justified, as it does not result in a permanent increase in the antibody count.

- The most appropriate way to inoculate dogs with CRL vaccine is intramuscularly.

- For pre-exposure immunization of humans, three subcutaneous doses of CRL vaccine a day, on the average, gives highly satisfactory results; a booster of one half dose given after one to three years rapidly produces a high antibody count.

- In humans, post-exposure vaccination with different doses of CRL vaccine (14, 7, and 3 doses a day) produces a degree of seroneutralizing antibody response proportional to the number of doses administered. Patients between 5 and 24 years of age show a proportionately higher serological response than older people.

b) *Brucellosis*

- For the serologic diagnosis of epididymitis among rams (*B. ovis*), the Center has developed a high-sensitivity, high-specificity, practical, and low-cost diffusion method in agar gel (92-100 per cent agreement with complement fixing).

- Strain 19 of *B. abortus* used in vaccination may be differentiated from field strains by the presence of mitomycin C (0.1-1.0 micrograms/ml) in culture medium.

- Standardized agglutinating antigens, *abortus* and *suis*, always give the same result with any antiserum. Standardized *melitensis* antigen is more sensitive with *melitensis* antiserum. Consequently, the routine method of standardizing cannot be applied to *melitensis* antigen.

- Evaluation trials with various vaccines for goats (Rev. 1 and *B. abortus* 45/20) and pigs (INTA, Rev. 1, cell walls) are in progress.

c) *Hydatidosis*

- Bunamidine (50 mg/kg) is effective against *Echinococcus granulosus* in dogs. It acts as a teniacide and is tolerated better than arecoline (teniafuge) when a repeat dose is required. Its ovicidal effect is under study.

- The organic compound Dowco 217, administered in a dose of 80 mg/kg, proved promising for the treatment of equinococcosis in dogs; 4,4'-diisothiocyanate was found to be ineffective.

- Immunization of meriones with hydatid liquid does not have any effect on the development and growth of *E. granulosus*. This trial was carried out to evaluate the "biological treatment" of hydatidosis victims.

- The latex agglutination test, using Boerner slides, was found to be very useful, practical, sensitive, and specific for the diagnosis of hydatidosis in humans.

- Antigen fractions are being isolated from the hydatid liquid, in order to improve diagnosis in humans and in animals.

d) *Tuberculosis*

- PPD tuberculin prepared with *Mycobacterium bovis* gives a better distinction between tuberculous and nontuberculous cattle, both in comparative tests and in simple tests.

- A study carried out in a Buenos Aires abattoir showed that *M. bovis* is the major source of infection among hogs. Other mycobacteria play a secondary role, and efforts to control infection should be directed principally to the eradication of bovine tuberculosis.

- A study into mycobacterial contamination of liquid milk in Buenos Aires showed that the pasteurization processes were being well supervised.

e) *Salmonellosis (Food microbiology)*

- Out of 100 horses slaughtered, 27 were found to be carriers and 55 strains were isolated. Twenty seven of these were typed as belonging to 6 serotypes, the most widespread being the serotype *S. good*, with 25 strains.

- Step-by-step study of the processing of meat in an abattoir has shown where the faults lie and how the hygiene of the final product can be improved. This study will serve as a model for application in another abattoir.

Laboratory services

Laboratory services rendered to the countries of Latin America include assistance in the standardization and evaluation of biological reagents essential for epidemiological investigations. In addition, many reagents are produced at the Center and distributed to the countries. Other services are those related to reference diagnosis, control of vaccines, and typing of strains of various mycobacteria.

Technical Information and Publications

The Center's informational activities take the form of a number of publications, prepared and issued by the Center itself.

a) *Quarterly Bulletin Zoonosis*

Some 2,500 copies are printed in Spanish and English and it contains epidemiological reports from the countries and summaries of scientific work in the field of zoonosis. It is distributed to all the countries of the Americas, while a limited number of copies also find their way to other continents.

b) *Monthly Bulletin of Rabies Epidemiological Surveillance*

It contains a compilation, tabulation, and analysis of data on human and animal rabies in the Americas and

provides data for corrective action in rabies control programs. It is published in 1,500 copies every month, in Spanish and English.

c) *Technical Notes*

These contain detailed descriptions of diagnostic techniques, vaccine and antigen production methods, preventive measures, and guides for sanitary inspectors.

To date 11 have been published in Spanish on, brucellosis (3), rabies (4), leptospirosis (1), and food microbiology (3).

d) *Other activities*

In addition, the Center has compiled in a 487-page volume the papers and discussions of the *First Inter-*

national Seminar on Rabies in the Americas (PAHO Scientific Publication 169), in Spanish.

To complete this summary of the Center's informational activities, mention should be made of its library service, specializing in the zoonoses and related sciences. Its stock of publications (books and periodicals) now number 2,363; it has annual subscriptions to 63 scientific journals, while a further 350 periodic publications are received by way of exchange or donation. The library has a photocopying service for reproducing scientific articles and papers, and undertakes any bibliographical research the countries may require.

The results of the Center's scientific work are published in leading journals in the Americas and Europe. As of 31 July 1970 more than 100 papers had been published, many of which had also been issued in English and French. The complete list of papers is available in mimeograph form.

Institute of Nutrition of Central America and Panama (INCAP)

Background

In 1946, delegates from the five countries of Central America (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua) and Panama attended a conference with representatives of the Pan American Sanitary Bureau and the W.K. Kellogg Foundation to discuss the possible establishment of a cooperative organization for the study of human nutrition: the Institute of Nutrition of Central America and Panama. The idea was put forward by the two bodies referred to, in response to the interest expressed by different countries in the area.

The Institute was to be provided with central laboratories and highly qualified personnel and would work actively on all the nutritional problems of the member countries. The Kellogg Foundation would contribute funds for study fellowships in other countries for the professionals who would make up the Institute's key staff and for the purchase of basic equipment. PASB would provide the technical management and would act as its administering agency.

The creation of the Institute was agreed upon by the representatives of the countries; the offer by the Government of Guatemala to erect the building necessary to house it received unanimous acceptance, and PASB was requested to undertake the administration of the Institute. Once the necessary specialist personnel had been trained and the basic equipment and administrative structure were available, INCAP was officially inaugurated on 16 September 1949.

Purpose and Objectives

The specific objectives set for the Institute were: (1) to study the nutritional problems of the area; (2) to seek means of solving these problems; and (3) to assist the member countries to make such solutions effective.

Specifically, the purpose for which INCAP was created was to collaborate with the Governments in their efforts to improve the nutritional status of the population of the Central American area.

Administrative Development and Present Organization

Shortly after the inauguration of INCAP, and in view of the fact that the period of the original agreement establishing the Institute was nearing expiry, a meeting was held in Tegucigalpa, Honduras, in December 1949 that was attended by all the Directors of Public Health of the member countries. This meeting resulted in the "Tegucigalpa Protocol," which established the main guidelines for INCAP's future development. It contained, *inter alia*, two major new features:

1) The formation of a Technical Advisory Committee, composed of leading nutritionists and specialists in related disciplines, whom the Director of PASB would appoint annually to study INCAP's program and to advise on the technical problems connected with its work.

2) The official establishment, by each member government, of a field unit for nutritional work at the national level and which would comprise, as a minimum, one physician, one nutritionist, and one laboratory technician.

By 1951 the activities and services of INCAP had expanded to such an extent that the short-term agreements on which it had been based up until then were no longer adequate, and it was obvious that a permanent working basis had to be established. In 1953 the Basic Agreement was approved by the Council of INCAP and, following ratification by the member Governments, it became effective as of 1 January 1955. Through this Agreement INCAP acquired permanent legal capacity in the member countries, with all the privileges and immunities usual for an international organization. It was laid down that the Institute's Council would be its highest authority and that this would be formed by one representative from each member country and one PASB representative. It was agreed that PASB would continue as administering agency and that the Advisory Committee would continue to meet annually for the purposes previously stated.

As mentioned, during the period between the foundation of INCAP in 1946, and as a preliminary step, physicians, biochemists, and nutritionists of the Central American region were sent on a training program in the United States of America, with fellowships from the Kellogg Foundation. By 1949 the first professionals had completed their initial training in different nutrition-related disciplines and were able to be incorporated fully into their activities, using the basic laboratory equipment and the initial library facilities already provided as a further valuable contribution by the Kellogg Foundation.

During the early years the trained professional staff grew with the increasing demand of the work, while technicians were also successfully trained in the different disciplines and functions which had been entrusted to INCAP. The training of personnel to work in its headquarters was one of the Institute's main initial concerns, since it was considered indispensable to have a staff of scientists with the best possible training in the various disciplines required by the range of nutritional problems, if the responsibilities of the Institute were to be effectively met.

Budgetary Resources

INCAP has the following sources of income to insure the functioning of its over-all work program:

a) The Institute's regular budget, which is based on the annual contributions of the six member countries. These have been rising progressively from the initial figure of US\$8,500 up to the present level, approved by

the Governments, of US\$62,424 per country. The total under this head is currently US\$374,544 annually.

b) Resources of the PAHO regular budget: the funds from this source have also been increasing steadily on the basis of the contribution that INCAP has been making to the other countries of the Region outside Central America. During 1970 PASB assigned to INCAP the sum of US\$549,282.

c) Resources from various subsidies granted by groups and institutions with an interest in nutrition, such as U.S. National Institutes of Health (NIH); the Williams-Waterman Fund of the Research Corporation; the Nestlé Foundation; the Josiah Macy, Jr., Foundation; the Nutrition Foundation; and other non-profit-making bodies. In 1970 these grants totaled US\$929,568.

Broken down by type of expenditure, INCAP's total income is applied as follows:

	1970
Personnel services	US\$1,044,761
Short-term consultants	17,050
Duty travel	76,647
Supplies and equipment	179,851
Fellowships	69,950
Common services for all programs	465,135
Total	US\$1,853,394

Personnel

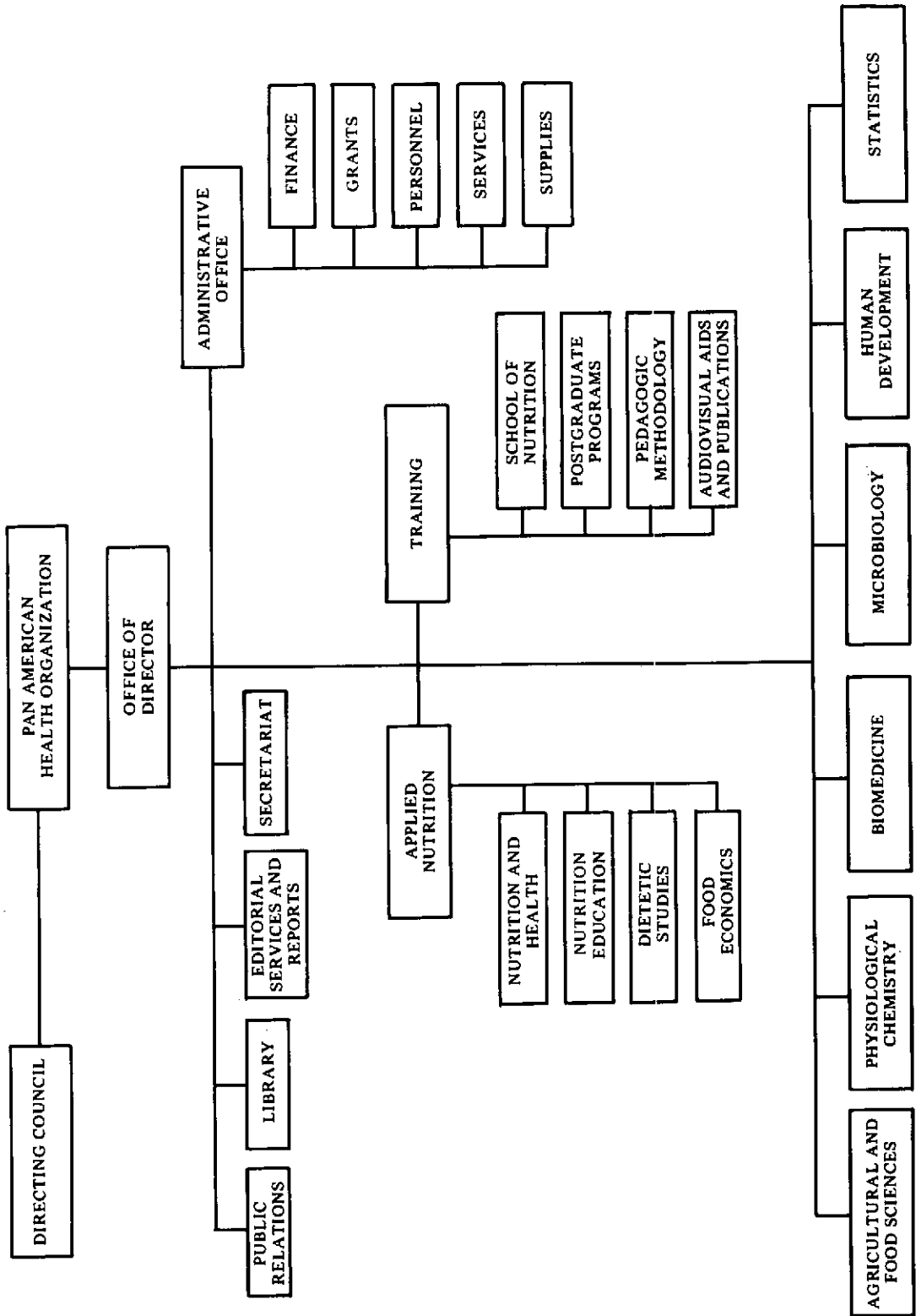
To date the Institute has a total of 47 professionals, for the greater part Central Americans, who are highly trained in the following fields: 10 physicians who have followed specialized courses in public health, pediatrics, nutrition, internal medicine, physiology, or pathology; 9 biochemists who have specialized in agricultural and food chemistry, clinical biochemistry, or animal nutrition; 2 microbiologists, one with a D.Sc. degree; 3 statisticians; 1 anthropologist; 2 psychologists; 3 nutritionists, one with a doctor's degree in education; 1 dietician; 1 holder of a degree in pedagogy; 1 specialist in animal breeding; 1 agronomist; and 1 civil engineer.

The list of professional staff also includes experts in library administration, editorial work, audiovisual aids, and other functions of a technical nature, together with administrative personnel. Altogether, with its technical and auxiliary personnel, INCAP has at present a total of 209 skilled and dedicated employees.

Premises and Equipment

INCAP's main buildings were erected by the Government of Guatemala. In addition, using its own resources, the Institute has had various small annexes built to satisfy the requirements of the progressive expansion of its activities. In general, all these units include offices of

INSTITUTE OF NUTRITION OF
CENTRAL AMERICA AND PANAMA (INCAP)



the Director's staff and other administrative services, and laboratories provided with excellent equipment for work connected with physiological chemistry, agricultural and food sciences, clinical research, and microbiology. Facilities are available for studies on experimental animals, while there is also a central clinic with facilities for metabolic studies on hospitalized children, and a modern and well-equipped physiology laboratory. The Institute further has statistical laboratories with all the necessary equipment for the mechanical processing of data, a spacious auditorium, conference rooms, and classrooms, an audiovisual aids service, print shops, photographic, mechanical and carpentry workshops, storerooms, cafeteria, and so on. The library, one of the most complete in Latin America on nutrition and related disciplines, has a valuable collection of scientific journals, textbooks, and other reference material.

Then there are the various field stations for epidemiological research among rural populations, a rural training center for the students who take part in its teaching programs, and an experimental farm. The latter is in fact another greatly appreciated contribution by the Government of Guatemala and is considered of inestimable value for conducting experimental projects designed for the improvement and biological evaluation of basic foodstuffs, and also for the utilization of domestic fowls, pigs, sheep, and cattle in nutritional and other experiments. For this reason, it has been laid out in the best way possible, both as regards physical facilities and equipment.

As for major equipment, the Institute has available automatic spectrophotometers, fluorometers, microscopes, refrigerated centrifuges, an ultracentrifuge, analytical scales, Kjeldahl digestion and distillation apparatuses, an automatic amino acid analyzer, equipment for gas-chromatographic analysis, freeze-dryers, an ultrasonic apparatus, a water distiller with sterility control, autoclaves, Warburg apparatuses, respirometers with Clark electrodes, incubators for bacteria and virus cultures, apparatuses for taking anthropometric measurements, a complete physiology laboratory, a set of 500-milliamperes X ray equipment with image intensifier, and electronic data-processing equipment.

Description of the Principal Activities

Technical Assistance

Diagnosis of the Problem. When the Institute began operations, very little was known about the dietetic habits and nutritional deficiencies of the region, or about the composition of the local foods. Its initial work was accordingly devoted to these three topics. In order to carry out a task of this magnitude and to ensure the benefits which should be derived from it for the countries involved, personnel were recruited from the

public health departments of the area and formed into small groups which were termed Field Units for Nutrition Studies.

In this way the first epidemiological studies designed to orient INCAP regarding the main nutritional problems prevailing in the area were carried out and the results used for establishing priorities for action. These studies took the form of dietetic and clinico-nutritional surveys, together with laboratory and other tests.

The first investigations revealed that the diets in the area were deficient in good quality protein, iodine, vitamin A, and other essential nutrients. These deficiencies showed up in a marked retardation of growth and development in children, which resulted in turn in adults who were shorter and lighter than those in more highly developed regions of the world. There was a high prevalence of endemic goiter, clinical signs of other nutritional deficiencies, intestinal parasites, and anemia.

INCAP realized that, on account of its multifaceted nature, the nutritional problem in Central America and Panama would have to be approached from a large number of different angles. This called for the application of three basic activities: research, education, and advisory services. These were the factors which served as guidelines to the Institute in drawing up the working program which has been maintained up to the present day, with the immediate incorporation of such variants as are required by the results of its own work, the needs of the member countries, and the recommendations of its directing and advisory bodies.

In order to gain a more thorough knowledge of the problem of malnutrition, especially in children, its characteristics, causes, and effects, clinical and epidemiological studies of the serious forms were initiated. These served as a basis for subsequent work on the same problem, with a view to devising more suitable means for its treatment and prevention. As noted in a later section, INCAP has devoted particular attention to this matter because it considers it to be one of the most serious public health problems of the area.

At the same time as the surveys, INCAP biochemists started intensive studies of the foods consumed in the Isthmus, collecting samples of native foods which were then analyzed in their laboratories in order to determine their chemical composition. In this way a table was drawn up containing data on the composition of all the foods analyzed, which has been revised and expanded over the years. The fourth edition, the one at present in use, includes a total of 565 foods. It was distributed originally to the member countries, but it has now been placed at the disposal of the other countries of Latin America and interested persons and organizations in many other parts of the world.

Tables of foods in portions and common measures for use in hospitals and other institutions have also been prepared.

In 1961, after nearly two years of work, all these data were incorporated in the *Table of Foodstuff Compositions for Use in Latin America*, which has been published in English and Spanish. This represents the result of a joint project by INCAP and the Interdepartmental Committee on Nutrition for National Defense (ICNND) of the U.S. National Institutes of Health (now known as the Office of International Research, or OIR), with the cooperation of all the nutrition institutes and departments of Latin America.

With a view to evaluating the results of the first food surveys, a *Table of Nutritional Recommendations* was also prepared, adapted to the weights of the inhabitants and the temperature of the Central American environment. This first appeared in 1953, and various modifications have since been introduced, the last of them in 1969. This revision was made in view of the new knowledge regarding the utilization of nutritive substances by the human body and because the latest reports of the FAO/WHO Committees of Experts on Nutrition and of the National Research Council (USA) indicated that the dietetic levels recommended for certain nutrients should be corrected.

Advisory Services and Applied Programs. In order to carry out the applied programs in the countries, based on INCAP's studies, and with its advice, the Field Units originally established to collaborate in the epidemiological studies referred to were officially designated nutrition sections, or departments, in all the national public health services. The respective national programs were expanded, with the consequent increase in personnel, which made them more effective.

Nutrition Education. One of the applied nutrition activities to which the Institute has paid special attention from the beginning has been the nutrition education programs. INCAP's cooperation with the responsible agencies in this field comprises the preparation of basic reference material for carrying out such activities, and the training of the personnel required, first the training of senior personnel from the countries at headquarters, then collaborating in the training of local personnel at the national level.

Enrichment of Foods. The survey findings also indicated that the prevalence of endemic goiter in the region was alarming and constituted a serious public health problem. A practical process that could be used in the area for the iodization of salt was required, since the use of potassium iodide had been found not to be advisable with moist, unrefined salt. Intensive research revealed that potassium iodate could be used effectively for this purpose. At present the iodization of salt is obligatory, or shortly to be made obligatory, in all countries of the area. In addition, means have been found to enrich wheat flour with vitamins and minerals in all member countries.

Inclusion of Nutrition in Health Activities at the Local Level. In view of the seriousness of the problem of malnutrition, especially in children, INCAP has advocated the incorporation of nutritional activities in the regular local level health programs. Particularly worthy of mention is the progress achieved with the care of children suffering from protein-calorie malnutrition of all degrees, ranging from third-degree malnutrition to those with subclinical malnutrition. Today many of them receive adequate medical care in hospitals, while others—depending on what seems to be required—are given outpatient care in health centers, or semi-outpatient care by the nutritional education and recuperation services which function, with certain variations, in several of the member countries. In connection with the latter, it should be noted that they deal not only with the treatment of the affected children but also, and especially, with the education of the mothers regarding nourishment. Their immediate objective is the rehabilitation of the child, but the primary purpose of these services is to ensure that no new cases of malnutrition occur in the families concerned.

Establishment of National Food and Nutrition Policies. In view of the planning being done by the countries of the Isthmus to speed up their social and economic development, and the fact that improvement of the nutritional status of their populations is one of the essential requirements for achieving this objective, and considering moreover that the correction of the population's nutritional problems calls for coordinated multisectoral action, INCAP deemed it imperative that the countries should endeavor to define national food and nutrition policies as fundamental components of their national development policies.

They had to have the necessary bases for drawing up such policies and for the preparation of programs to be derived from it. One of these bases was the need to have an updated diagnosis of the situation at the national level, including an analysis of the main factors responsible for the existing nutritional deficiencies. This resulted in the nutritional survey which, with the assistance of the member Governments and the OIR, covered the six countries of the Isthmus. In this way an up-to-date and accurate diagnosis of the area's nutritional problems was developed, on the basis of which an extensive series of preventive and corrective actions was formulated. Clear and detailed reports of the surveys carried out in each country were prepared, and these reports were then submitted to the Ministers of Health for further transmittal to the competent authorities of the other sectors and organizations with responsibilities concerning, or interest in, the solution of the area's nutrition problem. In this manner, further emphasis was given at the national level to the need for coordinated multisectoral action, and introduction of the measures

required to define national food and nutrition policies in each of the six countries was speeded up.

Training

Since it was aware that the shortage of professional and technical personnel properly trained in nutrition and related disciplines was one of the factors which held back the applied nutrition programs, from the very start of its operations INCAP devoted a large part of its efforts to overcoming this obstacle. For this reason, and within the limits of its possibilities, it has contributed to the training of area personnel at various levels through its teaching program.

In the beginning, INCAP's efforts were limited to assistance with the in-service training of personnel through short courses specifically oriented for staff of the health, agriculture, and education ministries participating in the applied nutrition programs. This included the training of key personnel at the Institute's headquarters, and later in the field in each country with participation by local personnel previously trained at the Institute.

Later, short specialist courses were established which were attended not only by Central American staff but also by professionals from the rest of the Hemisphere and other parts of the world.

Through the years INCAP decided that the time had come to set up a full-scale training program, on an academic basis, and accordingly reorganized its instructional plan, establishing the Instruction Division. The negotiations with Guatemala's San Carlos University on this matter culminated in the signing of an agreement in 1964 for the academic regulation of the courses given by the Institute. The training program today includes:

- 1) The Nutrition School, whose four-year curriculum leads to a degree in nutrition granted by the School of Chemistry and Pharmacy of the University.
- 2) A one-year course in public health with emphasis on nutrition and maternal and child health, and leading to an M.Sc. degree. This is a postgraduate course specifically designed for physicians and other professionals interested in acquiring such knowledge.
- 3) Training of a tutorial type intended to provide practical instruction in the different areas of nutrition work which are INCAP's particular field.

Fellows trained at the Institute. To date, a total of approximately 1,160 persons have participated in INCAP's instructional programs. Of this number, a total of 118—most of them from Central America and Panama—prepared their theses at the Institute prior to going on for a university degree. They were able to use as a basis for this purpose, special projects assigned to them in different fields, such as agricultural chemistry, microbiology, physiological chemistry, clinical nutrition, psychology, and many others, which they carried out

under the direction and supervision of the responsible professionals.

INCAP participation in national, regional, and international courses and seminars. It would be impossible to give a full listing here of all the courses and seminars of this type in which INCAP's professional staff have taken part. It is sufficient to point out that they are constantly taking an active part in congresses, courses, seminars, round tables, and symposia on nutrition and related topics. In addition, they frequently visit the member countries for the specific purpose of assisting in the conduct of courses at the request of the authorities, and to give lectures or run seminars for various groups of personnel, such as nurses, schoolteachers, students, hospital staff, and medical associations.

Research

Broadly speaking, INCAP's research program has passed through three main stages: (1) epidemiological studies to ascertain the region's nutritional problems, to determine their magnitude, and to establish the causative factors; (2) the search for solutions to the problems found; and (3) the development of an appropriate methodology, taking into account the particular situation of the area or population sector concerned.

INCAP's epidemiological research has revealed the area's major nutritional problems to be protein-calorie deficiency, endemic goiter, lack of vitamin A and riboflavin, and nutritional anemias.

The results of a number of INCAP's studies have already been put into practical application in the Central American countries and Panama, and also in other countries outside the area. The following are particularly worthy of mention:

Improvement of food availability. Up to the present, the greatest efforts in seeking solutions have been concentrated on the problem that looms largest: the deficiency of high-grade protein. As a consequence, the Institute is studying means of improving food availability and is exploring the possibility of more efficient utilization of the member countries' natural resources.

With this guiding principle, the Institute directed its research toward developing vegetable mixtures based on native foods which, because of their high biological value and low cost, could be used to supplement the people's usual diets. One example of the results of this work is Incaparina. This is the name given by INCAP to all the vegetable-based flours developed in its laboratories with a protein content not lower than 25 per cent and containing proteins of adequate nutritive value for human nourishment. It is intended that these flours should be used as supplements to the regular diets where there are protein deficiency problems. The mixtures have accordingly been prepared in such a way that the inhabitants of each particular area concerned can accept

Table 1. Number of Persons, by Country, Who Have Participated in INCAP's Training Programs during the Period 1950-1970

Origin	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	Jan.-June 1970	Total
INCAP Member Countries																						
Costa Rica	1	1	1	1	2	-	1	2	2	-	4	4	2	-	3	-	7	10	10	9	6	66
El Salvador	2	2	6	2	2	1	-	1	3	3	4	4	4	9	1	9	6	13	12	12	10	106
Guatemala	2	6	7	5	1	4	2	7	6	4	10	8	6	3	14	33	10	19	31	46	29	253
Honduras	1	1	3	4	1	-	-	2	1	3	1	3	2	2	-	2	4	11	11	8	6	66
Nicaragua	-	-	-	-	3	3	1	2	5	2	2	4	1	2	5	2	7	11	7	9	7	73
Panama	1	-	3	2	-	1	-	3	1	2	4	4	2	3	-	2	7	10	8	13	14	80
Other Countries of the Americas																						
Argentina	-	-	2	-	-	-	1	2	2	-	1	-	4	3	3	-	7	2	-	1	1	29
Barbados	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
British Honduras	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2
Bolivia	-	-	-	-	-	-	-	1	2	1	1	1	4	5	-	2	2	2	-	-	-	21
Brazil	-	-	-	6	1	-	2	2	2	1	3	3	1	4	5	4	2	5	2	1	-	44
Canada	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	-	3	7
Chile	-	1	-	-	-	-	-	3	-	2	1	1	-	-	4	-	2	1	-	-	-	15
Colombia	-	-	-	-	1	3	-	-	-	2	4	6	2	9	12	5	3	2	-	-	1	50
Cuba	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Ecuador	1	1	5	2	1	-	2	-	-	3	1	1	4	-	-	-	-	-	-	-	-	21
United States	-	1	2	-	-	2	5	6	8	7	6	2	6	4	14	15	6	14	12	29	15	154
Surinam	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Haiti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	1	-	-	-	5
Jamaica	-	2	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	5
Mexico	-	-	-	-	-	-	-	5	-	1	1	1	3	-	1	-	2	-	-	-	-	13
Paraguay	-	-	-	-	-	-	1	-	-	1	1	-	-	-	1	1	1	-	-	-	-	6
Peru	1	3	1	1	-	-	-	-	-	1	1	-	-	2	2	-	2	3	-	1	1	18
Puerto Rico	-	-	-	-	-	-	-	-	-	2	-	1	-	1	2	-	-	-	-	1	-	7
Dominican Republic	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	4	-	1	1	-	10
Trinidad and Tobago	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2
Uruguay	-	-	-	-	-	-	-	-	-	1	1	-	2	-	-	2	2	1	-	-	-	9
Venezuela	-	-	-	-	-	-	-	1	-	1	3	1	1	1	-	-	5	5	2	-	-	19
Other Regions of the World																						
Europe	-	-	-	-	-	-	2	1	1	-	-	-	1	1	3	1	1	4	1	1	-	17
Africa	-	-	-	-	-	-	2	1	2	-	1	-	1	1	3	5	-	3	3	3	3	28
Asia	-	2	-	-	-	1	3	3	4	4	4	4	2	-	-	1	1	-	-	-	-	25
Australia	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	4
Total	9	18	33	23	12	16	22	42	42	35	55	48	49	56	78	87	83	118	101	135	96	1158

them in the dietetic pattern of the area. Incaparina is today being commercially produced and distributed in Guatemala, Panama, and Colombia and will soon be marketed in the other member countries. Furthermore, INCAP's pioneer work in this field has stimulated and guided the development of products based on the same principles in many other countries, both in Latin America and outside it.

The studies designed to produce means to increase and make more efficient the production of foodstuffs of animal origin should also be mentioned here. The results of one such study led to the preparation of milk substitutes for feeding young calves, something of particular importance for milk producers and of no mean economic and nutritional interest for the countries.

The manner in which the calves responded to the different substitutes tested, clearly showed the superiority of the formulas known by the name of Ternerina. These are already in use, and commercial-scale production has been started in Costa Rica with every success. The promising results with Ternerina are such that plans are being made for it to be used in other interested countries.

INCAP has also made special efforts on behalf of the pig-raising industry, and today its cottonseed-based formulas permit the raising and fattening of pigs more economically and effectively than with the protein concentrates formerly imported into the area for that purpose.

Another field to which the Institute has paid particular attention has been the study of locally available grasses, fodders, and industrial by-products which can be used in animal feeds, with a view to selecting those of greatest nutritional value and determining at the same time the most efficient ways of making use of them. These studies have resulted in the preparation of the first *Table of Composition of Grasses, Fodders, and Other Feeds of Central America and Panama*. This table summarizes the analyses of around 4,000 samples corresponding to 153 different products; it is thought that it will be of considerable assistance both to commercial producers of animal foodstuffs and to stock farmers who normally use their own facilities to mix feeds.

Iodization of salt. The method developed for iodizing raw, moist salt with potassium iodate instead of potassium iodide has proved to be a practical and effective means for the prevention and eradication of endemic goiter in areas where common cooking and table salt is not refined.

Methodology for dietetic and nutritional studies. On the basis of the experience gained with numerous dietetic and clinico-nutritional surveys it has carried out in Central America and Panama, INCAP has devised an appropriate and practical methodology for such studies.

Methods for treating and preventing protein-calorie malnutrition. The clinical and epidemiological studies carried out by the Institute have made it possible to establish the bases for adequate treatment for the different forms and degrees of protein-calorie malnutrition, and for formulating the necessary preventive programs.

The Institute's studies in this field have placed special emphasis on the effect of the synergical relationship between nutrition and infections. These studies have resulted in significant observations demonstrating the importance of environmental sanitation and the adoption of specific protective measures against various infectious diseases, both in the prevention programs and in nutritional rehabilitation programs.

Effects of subclinical malnutrition. Under this heading, INCAP has sought to clarify the effects of malnutrition on the growth and physical and mental development of children, and on the capacity for physical labor of adult men. The Institute's essential concern has been to establish the true magnitude and importance of the damage caused by nutritional deficiencies to the human being, and in all stages of life.

The conclusions drawn from these longitudinal-type studies regarding children and adults will obviously have repercussions of quite exceptional importance for the member countries.

Applied or Control Programs in Cooperation with the Governments

The following are especially deserving of mention:

- 1) Commercial development of vegetable-based mixtures under the name of Incaparina.
- 2) Commercial development of the Ternerina formulas for calf-feeding.
- 3) Introduction of new, genetically improved, varieties of corn for cultivation in the Central American area.
- 4) Inclusion of nutrition as a subject in the curricula of primary and teacher-training schools, together with the preparation of the recommended study program for this purpose and the instructional materials required.
- 5) Preparation of an extensive series of pamphlets on various nutrition education topics, taking due account of the problems that it is desired to correct and the resources and limitations in each area, for adaptation to the local conditions prevailing in the different countries.
- 6) Preparation of filmstrips, manuals, posters, slides, and so on, for instruction in nutrition to be given to primary and secondary schoolteachers, home economics instructors, nurses, agricultural extension service staff, and other personnel who can contribute directly or indirectly toward the education of the population in nutrition matters.

7) Preparation of a book entitled *Nutrition in the School* which the member countries are already using and which, with the appropriate modifications as regards idiomatic expressions and local customs, has been printed for each country concerned, for use at the national level.

8) Introduction of nutrition as a subject for study at university level, beginning with the schools of medicine.

Direct Services to Governments

In addition to the advisory and cooperation programs concerning instructional activities, the above services

also include analyses of foodstuffs for human or animal consumption, together with analyses of raw materials to determine their nutritive value.

List of Works Published

To date INCAP has published a total of 1,004 scientific works in Spanish and English, 6 monographs, 31 works of a joint nature, and 31 on miscellaneous subjects. To these must be added the Institute's information bulletin and technical documents and reports of various types. The complete list of works is available in mimeograph form.

Caribbean Food and Nutrition Institute

The Caribbean Food and Nutrition Institute (CFNI) was established by an agreement coming into effect on 1 January 1967 signed by the following: the Government of Jamaica, the Government of Trinidad and Tobago, the University of the West Indies (UWI), the Pan American Health Organization/World Health Organization (PAHO/WHO), and the Food and Agriculture Organization (FAO).

This initial agreement was of five years' duration, ending on 31 December 1971. The Institute serves the English-speaking islands of the Caribbean and Guyana (excluding Puerto Rico, Netherlands Antilles, and the U.S. Virgin Islands). It is hoped that at the time this agreement is renewed, other Governments of the area besides those of Jamaica and Trinidad and Tobago will be signatories, contributing to the financial resources of the Institute and designating their representatives as members of the Institute's Policy Committee. The Williams-Waterman project of the Research Corporation of New York provides substantial financial support to the Institute.

The primary functions of the Institute, quoted from the agreement establishing the Institute, are:

1) To identify, assess, and define the food and nutrition problems of the Caribbean, especially those of the vulnerable groups, and to recommend priorities in programs for their solution.

2) To assess the economic, social, and agricultural factors which influence the production of foods for local use, and levels of production, consumption, import, export, and utilization of food, in order to assist Governments in establishing a sound food and nutrition policy for the improvement of the health of the population and economic development of the area.

3) To assess the resources, facilities, and services

available and to promote the coordination of these for the effective solution of the food and nutrition problems.

4) To provide basic training in food and nutrition and in the methods applied in field operations, as appropriate, for personnel of various levels engaged in health, agriculture, education, social welfare, and related services and for community leaders engaged in programs of education and extension designed to reach both rural and urban families.

5) To support existing advisory services to Governments in the planning and implementation of the food and nutrition programs.

6) To establish methodology for the evaluation of various programs for nutritional improvement for use by Governments.

7) To assist in determining the need for further applied research and training of personnel in nutrition.

8) To strengthen, support, and develop those programs being promoted by Governments, universities, or private institutions.

9) To assist in preparing appropriate literature and teaching aids for use in food and nutrition programs and to serve as a source of technical information on all aspects of nutrition.

The main office of the Institute is situated on the University of the West Indies campus in Jamaica. In 1968 the Trinidad office, situated on the University of the West Indies campus in Trinidad, became operational. Currently the international staff consists of the following:

At the Jamaica Center: Director (PAHO/WHO); Deputy Director (FAO); medical nutritionist (PAHO/WHO); nutritionist (FAO); research fellow (Research Corporation); medical nutritionist (PAHO/WHO,

Rockefeller Foundation financed); statistician (PAHO/WHO, Rockefeller Foundation financed); sociologist (PAHO/WHO, Rockefeller Foundation financed) and associate expert (FAO) (to arrive September 1970).

At the Trinidad Center: Food policy and planning expert and Officer-in-charge (FAO); nutritionist/dietitian (PAHO/WHO); and nutrition educator (PAHO/WHO) (being recruited).

The Director, assisted by the Deputy Director, is responsible directly to PAHO/WHO and to FAO, and through the annual Policy Committee meeting to all the signatories of the agreement, for the administration and conduct of the affairs of the Institute.

The formal governing body of the Institute is the annual Policy Committee, on which the five signatories of the agreement are represented. The Research Corporation, as principal grantor, also sends an observer. This Committee reviews both program and budget for the past, current, and coming year. In addition, a Technical Advisory Committee has been convened annually so far, consisting both of local experts from the Governments and the University and some experts from outside the area and from the international agencies. This Committee reviews the activities from the technical standpoint. It is particularly useful in giving selected local technical officers, for example, the Government Nutrition Officers of Jamaica and Trinidad, the opportunity to comment on and to help shape CFNI's program. In respect to the day-to-day administration of the Institute, the Director is responsible to PAHO/WHO Headquarters in Washington and FAO Headquarters in Rome.

Table 1 presents the actual 1967-1971 and proposed 1972-1976 budgetary resources of the Institute. The Rockefeller Foundation and the United Kingdom Freedom from Hunger Campaign grants are for specific programs (see below), but these programs themselves are

in accordance with the functions outlined above, and the staff and resources proceeding from these grants are completely integrated within the Institute and play a helpful role in accomplishing its purposes.

The building in which the Institute is housed in Trinidad is on the whole satisfactory, particularly in respect to an excellent seminar or lecture room holding up to 100 people. The main center in Jamaica, however, is still housed in refurbished wooden buildings originally erected for refugees in the Second World War. Though fairly satisfactory until now, they do not include a lecture room and are grossly overcrowded. A request for assistance for a permanent building was submitted to the Canadian Government in 1967. This building would suffice for the Institute's needs for the foreseeable future, but it has not been successful in obtaining the sum required (US\$480,000, according to the latest estimate of the architects and surveyors in February 1970).

The equipment consists of three vehicles, equipment for nutrition surveys, and the usual office equipment. There is need for more sophisticated printing equipment which would enable the Institute to help to meet the present unfulfilled needs in the area for technical and educational material concerning nutrition. The Institute's bimonthly newsletter of approximately 70 pages is still produced by mimeograph although 2,500 copies of each issue are currently required.

Principal Activities of the Institute, 1967-1970

Technical Assistance

The nutrition surveys carried out in Barbados, Trinidad, St. Vincent, and Jamaica are included under "Research Activities."

In late 1969, arising from a Technical Group Meeting

Table 1—Actual and Proposed Sources of CENI Funding, 1967-1976
(In U.S. dollars)

	Year	PAHO/WHO	FAO	Research Corporation and/or Other Sources	Governments	Unfinanced*	Rockefeller Foundation	UK Freedom from Hunger Campaign	Total
1st quinquennium	1967	38,821	33,000	88,850	20,810	—	—	—	181,481
	1968	68,765	66,000	118,400	20,810	—	—	—	273,975
	1969	103,186	66,000	72,150	20,810	—	—	—	262,146
	1970	122,356	68,800	109,900	20,810	—	64,000	—	385,866
	1971	133,392	72,000	71,250	20,810	—	64,000	36,000	397,452
2nd quinquennium	1972	145,531	72,000	114,703	—	50,810	64,000	36,000	483,044
	1973	158,004	72,000	162,830	—	50,810	—	36,000	479,644
	1974	173,594	72,000	131,140	—	50,810	—	—	427,544
	1975	189,753	72,000	153,481	—	50,810	—	—	466,044
	1976	207,529	72,000	99,205	—	50,810	—	—	429,544

*This column represents modest increases in the allocations of the Governments of Jamaica and Trinidad and Tobago plus proportionate support from other Governments in the area served by CFNI. It is labelled "Unfinanced" because these matters are currently being discussed, and would not be confirmed until the signing of an agreement for the second five years.

on Protein Foods for the Caribbean, convened by CFNI in Georgetown, Guyana, a team of international experts in food technology, marketing, and agricultural economics from FAO and PAHO toured the area for the purpose of reporting on the feasibility of locally producing and marketing high-protein, low-cost foods for young children, or suggesting alternative strategies. The team was under the direction of the Nutrition Division, FAO, used CFNI as the base of its activities and as a main source of information and discussion, and was partly funded by the Agency for International Development (AID) of the United States of America.

In two other matters so far CFNI has also followed this pattern of attempting to solve technical problems, often made more complex by the physical separation and particular historical background of the islands, by convening and funding Technical Group meetings. At these meetings, which have specific tasks, the local workers in the particular field can meet together, with the assistance of CFNI staff and PAHO and FAO staff in the area and sometimes also with a small number of experts from outside the area. After presenting and hearing papers on the subject and after discussion, the appropriate conclusions are reached. The task of the Technical Group meeting mentioned above was to produce the recommendations which led to the expert team and its report, which in turn will lead hopefully to greater availability of more suitable foods for the young child.

Technical Group meetings convened by CFNI in December 1968 and June 1970 dealt with Young Child Feeding in the Contemporary Caribbean. These were attended by most of the specialist pediatricians and nutritionists of the area, and by obstetricians and maternal and child health personnel. They fulfilled in two stages their appointed task of producing agreed and authoritative guidelines for teaching on the subject, based on modern knowledge and recent research, much of it undertaken by or with the help of CFNI, as to the actual situation regarding infant feeding in the area. These guidelines will shortly be published and widely distributed by the Institute.

Likewise, a Technical Group meeting on Food and Dietary Services, whose task will be to produce recommendations as to the form and content of training, will take place in Barbados in November 1970. The maintenance of satisfactory hospital and other institutional food services is a considerable problem to many Governments in the area, mainly because of a severe shortage of trained staff at all levels. CFNI's nutritionist-dietitian has been able, since her appointment in 1969, to begin to render assistance in this matter.

Another form of technical assistance has been the help given by the food policy and planning expert to Governments in compiling the food balance sheets of Barbados for 1966 and of Guyana for 1967.

CFNI has also produced an interim food composition table for the Caribbean. Mainly a compilation from a variety of sources, some analyses have also been necessary which CFNI has had carried out with the help of FAO. The interim version at present circulating for comment and amendment will be finalized and published in 1971, along with material concerning the proper use of the tables in dietetics, institutional catering, and agricultural economics.

In addition, CFNI has on various occasions and for particular purposes published tables of cost of foods in relation to their nutrient values, i.e., cost of a specific quantity of protein or calories in the form of particular foods.

Finally, the Institute is responsible for disseminating technical and educational material widely through the area to as many as possible of those in health, education, agriculture, and community development whose work is related to nutrition. This function is at present partly fulfilled by its training programs and seminars (see below) and partly by the publication six times a year (beginning in January 1968), of *Cajanus*, the Institute's newsletter. Each issue contains four or five articles, keeping a balance between health and agricultural aspects of nutrition and between articles of purely local interest and origin and of worldwide relevance. It also has news and opinion features, book reviews, and so forth. The newsletter is so written as to be readable by intermediate personnel and the educated layman, and aims to avoid incomprehensibility because of technical jargon. Its postal circulation is currently 1,800, three-quarters of it to the area served by CFNI, and it is also widely used in CFNI's teaching. A formal readers' evaluation at the end of its first year of publication was useful and favorable.

The complete list of works published by CFNI staff is available in mimeographed form.

Training Activities

Fellows trained at CFNI. The principal training activity at the Institute has been the biennial course for the Diploma in Community Nutrition (DCN). This course, lasting one academic year, was conducted for the first time in 1969 and is due to be held again in 1971 and 1973. Thirty-one students, 29 from the area and two from the Philippines, began the course, and 28 obtained the Diploma. This is awarded by the University of the West Indies on the results of an examination and a report on the three-month research project which the individual student completes in his own country after his nine-month course. The participants were sent by almost all the 14 Governments which CFNI serves, and were either graduates or intermediate-level personnel with the appropriate professional qualifications plus at least five years' experience. The class, the course and the teachers alike represented an interdisciplinary cross-section of

agriculture, public health, education, and community development, and among the class were teachers of home economics, public health nurses, public health inspectors, agricultural extension officers, community development workers, and two physicians. The courses consisted of three months of lectures, seminars, and field visits in Jamaica; two weeks of field visits in other islands; a month working in the Barbados National Food and Nutrition Survey, gaining experience in each section of the Survey (medical examination, socioeconomic and food consumption surveys); and six weeks of lectures and field visits in Trinidad, prior to taking the examination and dispersing to their home countries to carry out their three-month research project.

Contact is maintained by CFNI with the DCN graduates through meetings and correspondence, and PAHO/WHO and FAO field staff also assist in supporting the graduates in their work back home. Some have moved to specifically nutrition posts; others have returned to their previous posts, their usefulness enhanced by their training.

In addition, there have been several visiting fellows from universities overseas, who have been attached to the Institute for varying lengths of time as part of their training, or on sabbatical leave. Some have made important contributions, particularly to the study of infant feeding practices and locally-held concepts of malnutrition.

One FAO associate expert is at present attached to CFNI.

International courses and seminars. Five international seminars and workshops have been held (other than the Technical Group meeting described above), which have been organized, financed, and conducted by CFNI since its inception. A total of 230 participants have attended the seminars. Because of the DCN course, CFNI's activities in this field tend to be concentrated in alternate years (1968, 1970, and so on).

National courses and seminars. By agreement between CFNI, the PAHO Zone Office, and the FAO Area Office, national courses and seminars (as opposed to regional or inter-island) are the primary responsibility of PAHO and FAO regular staff not attached to CFNI so far as international agency assistance is concerned. (In the case of FAO, this distinction will largely disappear when their nutritionist/home economist stationed in Trinidad becomes formally attached to the Institute in the near future. In organizing courses and seminars, CFNI works closely with the FAO Area and PAHO Zone officers; thus the activities are really joint ones, and it is not always possible or accurate to label them solely as activities of CFNI or of PAHO or FAO staff.) CFNI has in the past, with the agreement of their PAHO and FAO colleagues, organized small ad hoc one-day seminars, usually unidisciplinary and for specific purposes. Five of

this type of seminars have been held with 154 participants.

Participation by CFNI in regional and national courses. CFNI participates regularly with university and government staff in training courses for medical students (in Jamaica) and for agricultural students (in Trinidad) and in the course for nursing administrators and the advanced nursing course (in Jamaica). It also frequently takes part on an ad hoc basis in short courses for public health inspectors, public health nurses, and teachers (i.e., summer refresher courses) and for volunteers (i.e., Peace Corps). The participation in the teaching of medical students takes the form of lectures to the students of preventive medicine in their fourth year and two discussion sessions with each group (7-10 in number) of medical students during their five-week clerkship in preventive medicine in their fifth or sixth year. The participation in the teaching of agricultural students takes the form of a two-day seminar every year in April for students in their final year for B.Sc. in agriculture and students taking the diploma in tropical agriculture at the UWI School of Agriculture in Trinidad. Several days of the courses for senior nurses are occupied by lectures from CFNI staff.

Research Activities

One of the principal functions of the Institute is to assist Governments in the definition of the nutrition problems of their countries and in the assessment of the complex social, economic, and agricultural factors which influence nutrition and food availability, and to recommend, on the basis of these joint researches, practices in programs for the solution of the problems. Since its establishment, the Institute has evolved a program on food and nutrition surveys. All of it is supported by computer facilities for statistical analysis. CFNI is greatly assisted in the development of this resource by the three-year grant from the Rockefeller Foundation for a "Population Nutrition Unit" (medical nutritionist, statistician, and sociologist), whose main duties are in this field and include exploration of the relationship between population dynamics and nutrition. The various parts of this program, of a complete National Food and Nutrition Survey, are as follows:

Anthropometric examination	(individuals)
Clinical examination	(individuals)
Biochemistry and hematology	(individuals)
Dental examination	(individuals)
Inquiries on income and expenditure, including food prices	(families)
Inquiries on infant and young child feeding practices	(families)
Inquiries on knowledge and beliefs about nutrition and health	(families)
Surveys of food production in the home, garden or small farms	(families)

Food balance sheets	(families)
Food economics (cost-nutrient value of foods)	(families)
Food consumption	(families)
Food consumption, vulnerable groups	(individuals)

Surveys other than those on a small scale for a limited research purpose (i.e., preparation for a Technical Group meeting) are always joint efforts of the Government and CFNI, often also with the assistance of a department of the UWI. A Government may wish all parts of the above program to be included in the national survey, as was the case in the Barbados National Food and Nutrition Survey in May 1969. Alternatively, it may desire only a limited part, as in the case of the Trinidad Food Consumption Survey in February and May 1970, which was a food consumption survey among a small national sample of 1,000 families. The Jamaica pilot nutrition survey in early 1970 included only anthropometry, clinical examination, and hematology and was limited to infants, preschool children, and pregnant and lactating women in nine areas where a previous all-island survey had been carried out in 1964; one of its main objectives was to detect if there had been any substantial change over the past six years. The national nutrition survey of St. Vincent, undertaken with CFNI assistance in November 1967, included all the parts of the program outlined above except biochemistry and/or hematology and food consumption.

As of July 1970, 12 nutrition surveys had been carried out in the various islands by or with the help of CFNI, since its inception. In all cases involving nationwide samples, the results have been made available to the Governments. In respect to the Barbados National Food and Nutrition Survey, the results were discussed in detail at meetings with Government officials and technical officers and the draft recommendations were amended by the Government. The results and the recommendations are being published by PAHO/WHO with the permission of the Government. The Barbados Government has already begun to put some of the recommendations into effect. The results of the St. Vincent survey were also presented and discussed, with recommendations, with the Government officers on two occasions. The results of the nutrition survey among children under five years of age and pregnant and lactating women in Jamaica were presented to the Minister of Health and officers of his Ministry and discussed at a recent meeting. The results of the Trinidad and Tobago National Food Consumption Survey, which ended only in April 1970, are still being analyzed.

With reference to the surveys not on nationwide samples, or not covering the whole scope of the subject, many of these were undertaken in connection with the two Technical Group meetings on Young Child Feeding and/or as DCN student research projects. The results of all surveys have been presented either directly to the

Government or indirectly through officers attending the meetings. It is difficult to evaluate the usefulness of these surveys, as even purposeful, united, and scientifically-based attempts to modify infant feeding and make it more fully relevant to local circumstances must necessarily have gradual results.

Finally, several small research projects not included in the above account deserve mention.

1) Comprehensive bibliographies of scientific work on nutrition over the last 20 years have been compiled, both general and for the Caribbean area, by the research fellow. These will be published in the near future.

2) The research fellow has also collaborated with the Medical Research Council unit at the UWI on studies of anthropometry and total body potassium.

3) A study on the possible benefits of acidification in the preparation of the infant milk formula was undertaken jointly with the Department of Microbiology at the UWI. The project was funded by the Nestlé Company. The results were inconclusive and did not justify recommending acidification.

4) CFNI collaborated with the Department of Research and Control of the Government of St. Lucia, a Rockefeller Foundation-funded unit mainly concerned with schistosomiasis in a study of the effects of nutrition on liver enlargement in affected schoolchildren. The results were interesting, demonstrating that good nutritional status was significantly associated with prospects for regression of the liver to normal size. Hopefully this study may lead to special efforts to improve the nutritional status of children affected or at risk.

5) An in-depth study of motivation and performance in respect to lactation was carried out by CFNI with the help of sociologists and psychologists in Montserrat. The results will shortly be ready for publication.

Among CFNI's future plans for research are a multipartite national nutrition survey of Guyana, jointly with the Government of that country. Exploratory discussions are also taking place with the Governments of Grenada and the Bahamas.

Applied or Control Programs Carried Out in Conjunction with the Governments

Apart from its contribution to official nutrition programs by means of research and teaching, the Institute is collaborating actively in the early stages of the Jamaica maternal and child health program. Its collaboration in this respect consists of advice on nutritional assessment, norms, and standards, and of evaluation of the nutritional components of this program.

The Freedom from Hunger Campaign grant (United Kingdom), involving an evaluation of a nutrition education program aimed specifically at mothers and children,

will also give CFNI an opportunity to engage in an operational research type of field work in Jamaica, the details of which will be arranged so as to fit in closely with the Government's maternal and child health program.

Other Services

CFNI does not have laboratories and therefore does not supply services of this type. Its services in respect to technical information (the newsletter, food composition

tables, nutrient-cost of foods, assistance with food balance sheets, arranging for analysis of foods) have been mentioned earlier. CFNI's services in computer analysis of data related to nutrition are available to all Governments of the area with reference to any nutrition-related research and not only that conducted by or with the help of CFNI. These services have already been provided partially to the groundwater survey in Jamaica in 1968-1969, and are being provided for a study of infant feeding conducted by the Nutrition Unit of the Ministry of Health of Jamaica.

Pan American Health Planning Program

Background

The joint training program in health planning has been conducted since 1962 by PAHO and by the Latin American Institute for Economic and Social Planning (ILPES).

In 1967 a number of countries of the Hemisphere submitted to the United Nations Development Program (UNDP) a request for the establishment of a multinational center that would continue and expand training programs and promote and undertake research, collect and disseminate information, and strengthen the advisory services being provided by PAHO/WHO to the Governments. All these activities would be directed to the improvement of health planning procedures in the countries of the Americas.

In January 1968 the Governing Council of UNDP approved the request to establish the Pan American Health Planning Program. It also made funds available so that the Program could be established and begin its activities in that year.

In July 1970, on the signature of the agreement between the countries, the UNDP (Special Fund), and the World Health Organization, formal recognition was given to the activities of the Program.

Aims and Objectives

The aims of the Program are to:

- 1) Contribute to the establishment, implementation, and improvement of health planning procedures in the countries of the Region.
- 2) Provide for a better understanding of the problems of the health sector in the context of economic and social development as a basis for the development and improvement of approaches, methods, and techniques to be used in the health planning process.

The objectives of the Program are to be achieved primarily through action in the fields of training, research, and information.

Administrative Growth and Present Organizational Structure

PAHO/WHO, as executing agency for the Program, is responsible for its organization and operation. It is performing this function through a principal technical adviser and through the divisions of training and research.

The Program's headquarters is at Santiago, Chile, a location that enables it to remain in continuous contact and association with ILPES, also a participant in the project.

The Program is being financed with grants from the Special Fund of UNDP, with counterpart contributions in kind from the participating Governments, and with PAHO/WHO contributions on behalf of the Governments, both for local operating expenses and project costs. Grants and contributions for the duration of the agreement are as follows:

a) Grant from the Special Fund of:		\$1,982,400
Contribution from the Special Fund	\$1,755,600	
PAHO/WHO contribution on behalf of the Governments for local operating expenses	226,800	
b) Counterpart contribution in kind by the Governments		1,119,000
c) PAHO and WHO contribution on behalf of the Governments for project costs		906,700

The program's permanent staff consists of a principal technical adviser, two division chiefs, five professionals (training, research, and statistical officers), three secretaries, and a driver-messenger. For the period of duration of the agreement, 216 short-term consultant-months have been allowed. The agreement also provides for 189 months of services by the PAHO/WHO Zone and short-term consultants who advise countries on health planning activities.

The Program's physical accommodation forms part of the United Nations building in Santiago, Chile. It shares with ILPES and the Economic Commission for Latin America (ECLA) classroom and seminar facilities. It utilizes the administrative and financial services of these bodies and of their facilities for the reproduction of documents, translation, and general services. The space occupied by the Program is extremely limited, and the need for this expansion is urgent.

The Program possesses one bus and one station wagon for the transportation of students during courses.

As for equipment, it has been acquiring adding machines, typewriters, reproduction equipment, and so on, within the limits stipulated in the agreement or otherwise approved.

Description of Activities

Between 1962 and 1969, at eight international courses, a total of 272 officials from different countries of the Americas have been trained, the majority of whom now hold positions of responsibility in some way associated with the promotion and development of national health planning procedures.

In 1969, a 16-week course was held at the Institute's headquarters and was attended by 28 officials from 14 countries. It was organized jointly by PAHO and the Institute. The teaching staff consisted of experts from the Institute and from ECLA on economic and social development, and from PAHO on health, and health development and planning. The course program provided 450 hours of instruction under three general headings: health and development in Latin America; methodology of health planning; and health planning procedures and an analysis of the situation in Latin America.

Since 1968 the Program has been engaged in the following research projects:

Linc model: This is a logical multisectoral model, which is to include the principal variables in the health sector. The aim is to determine the modifications of such variables that will result from various health policies. A scaled-down version of this model, programmed at the Computer Department of the Central University of Venezuela, has been completed with a view to demonstrating the operation and use of models of this kind and providing opportunities for training personnel.

Typologies of health policies: A procedure has been designed, making use of an electronic computer, for the classification of countries according to a group of selected indicators. The results obtained are being analyzed and compared with classifications based on different criteria adopted by other researchers.

The Program is also collaborating in the research project into the demand for services and their utilization being undertaken by the Government of Chile.

A number of studies have been undertaken, such as:

- 1) Review of the methodology of health planning and preparation of a methodological model.
- 2) Studies on health policy in association with the Social Affairs Division of ECLA.
- 3) Studies on investment projects, in association with the Projects Division of ILPES.
- 4) Studies connected with problems of food and nutrition, environmental sanitation, and mental health in the context of health planning procedures.

To date, the Program has prepared the following papers:

- 1) *Modelo metodológico* (Methodological Model), including the complete processing of the data from the local health area, applying the CENDES/PAHO planning methodology.
- 2) *Esquema para el estudio de la política de salud* (Framework for the Study of Health Policy), outlining the concept of the political structure of health and its components.
- 3) *Elementos analíticos para el estudio de la política de salud* (Analytical Data for the Study of Health Policy), outlining the work undertaken by a working party and presenting systematically the various types of analysis and a synoptical table.
- 4) *Lista tentativa de indicadores para tipología de políticas de salud* (Tentative List of Indicators for the Typology of Health Policies).
- 5) *Esquema de flujo en el sistema político de salud* (Flow Patterns in the Political Structure of Health).
- 6) *Encuesta sobre política de salud* (Inquiry into Health Policy), covering its study in the countries of Latin America.
- 7) *Financiamiento de salud* (Financing of Health), a paper prepared with a view to analyzing financing problems in the health sector.
- 8) *Política alimentaria y nutricional y planificación de la salud* (Food and Nutrition Policy and Health Planning), which seeks to show how the health sector can exercise, through planning, a guiding influence on food and nutrition policies.
- 9) *Nutrición y planificación de la salud* (Nutrition and Health Planning), proposing a way in which nutrition can be integrated into health planning procedures.
- 10) *Saneamiento ambiental y planificación de la salud* (Environmental Sanitation and Health Planning),

outlining the problems of environmental sanitation and how they should be tackled in health planning.

11) *Incorporación de la salud mental en la metodología CENDES/OPS* (Inclusion of Mental Health in the CENDES/PAHO Methodology).

12) *Proyectos de inversión para salud* (Investment Projects in Health), presenting an approach to the study of this subject.

13) *El modelo vinculador, bases para su formulación* (The Linc Model and Bases for its Formulation), describing the variables in the health sector to be included in the scope of research with the Linc model.

14) *El enfoque del modelo vinculador* (The Linc Model Approach), describing how this model is to operate and the results it is hoped to obtain through experiments with various strategies of decision.

15) *Modelo vinculador* (The Linc Model), describing briefly the indicators, the instrumental and external variables, and the processes of calculation required for the experiment.

16) *Recursos humanos* (Human Resources), indicating those factors that should be taken into account in studying human resources, the economic implications of supply and demand, and the political implications of decisions to program such resources.

17) *Adiestramiento de planificadores de la salud en América Latina* (Training of Health Planners in Latin America), a document WHO was requested to prepare for the Committee of Experts on the Training of Health Planners and which describes the problems encountered in training health planners in Latin America.

Annex 11

ASSISTANCE FOR THE MEDICAL REHABILITATION OF THE AREA AFFECTED BY THE EARTHQUAKE OF 31 MAY 1970¹

During the 64th Meeting of the Executive Committee, the Representative of Peru submitted Document CE64/17 (see Appendix 1) which described the medical rehabilitation problems in the area affected by the earthquake that struck Peru on 31 May 1970. It also included data on the loss of human and physical resources and on other aspects of the health infrastructure in the disaster area, as well as the need to reconstruct them, for which purpose the assistance of the Pan American Sanitary Bureau would be necessary.

The Executive Committee adopted Resolution XXI,² in which it refers to the statement by the Representative of Peru and the report of the Director on the steps taken by the Bureau in connection with the emergency. In the operative part, in addition to expressing to the Government of Peru its sincere regrets on the occasion of the disaster affecting that country, the Committee decided to transmit Document CE64/17 to the XVIII Pan American Sanitary Conference for its consideration.

¹Document CSP18/24 (4 September 1970).

²Official Document PAHO 103, 62.

Appendix 1

ASSISTANCE FOR THE MEDICAL REHABILITATION OF THE DISASTER AREA¹

As is well known, the physical facilities of the health infrastructure have been almost completely destroyed in the disaster area, and we have lost 30 medical and paramedical workers employed by the Ministry of

Health and 26 persons belonging to the Yungay Charity Hospital. There is also a problem of replacing the medical staff in the area to allow them to recover their emotional balance, since many of them will not be able or will not wish to return to their former places of employment.

¹Document CE64/17 (29 June 1970)

The result is a dislocation of human resources in the

*Present Condition of the Health Establishments in Existence in Hospital Area No. 4 (Del Santa)
and No. 5 (Huarás) before the Earthquake*

No.	Location	Population		Type of establishment			Ownership		Present conditions
		District	Accessible	General hospital	Health center	Medical post	Health post		
<i>Hospital Area No. 4 (Del Santa)</i>									
1	Chimbote	162,740	149,202	85 beds				Min. Health	Damaged and not functioning properly
2	Jimbe	5,304	769					Rented	Destroyed
3	Macate	6,365	369					On loan	Destroyed
4	Moro	3,288	891					On loan	Destroyed
5	Santa	14,109	4,078					Charity hosp.	Destroyed
6	Casma	11,339	6,668	70 beds		1		Charity hosp.	Destroyed
7	Casma			25 beds				Min. Health	Unfit for use
8	Pariacoto	1,959	726					Rented	Destroyed
9	Huarmey	15,574	7,818	25 beds				Min. Health	In need of repair
10	Oeros	3,157	1,433			1		Rented	Destroyed
11	Nepeña	9,102	1,074					On loan	Destroyed
12	Samancos	3,925	2,186					On loan	Destroyed
13	Cabana	3,730	2,468			1		Charity hosp.	Destroyed
14	Conchucos	5,330	4,468					Rented	Unfit for use
15	Pallasca	4,477	2,153					Rented	Unfit for use
16	Lacabamba	1,385	653					-	Unfit for use
17	Tauca	5,330	4,253					Rented	Unfit for use
18	Santa Rosa	2,132	454					On loan	Unfit for use
	Total	259,246	189,663	4 hosp. 205 beds		3			
<i>Hospital Area No. 5 (Huarás)</i>									
1	Huarás	65,317	48,988	150 beds				Min. Health	Matter under investigation
2	Cajamarquilla	1,988	1,490					Rented	Destroyed
3	Jangas	3,535	3,535					On loan	Destroyed
4	Olleros	2,785	2,785					On loan	Destroyed
5	Taricá	3,924	3,924					On loan	Destroyed
6	Carhuas	9,458	9,458	30 beds				Charity hosp.	Destroyed (transf. to Min. of Health)
7	Marcará	3,762	3,762					On loan	Destroyed
8	Vicos	1,880	1,880	60 beds				On loan	Destroyed
9	Caráz	12,205	9,154		1			Charity hosp.	Destroyed
10	Caráz							Charity hosp.	Destroyed
11	Huaylas	6,163	4,622	70 beds				On loan	Destroyed

midst of the destruction of physical resources, both of which need to be replaced. That is the reason for requesting the active assistance of the Pan American Sanitary Bureau in conducting training courses for technicians, nurses, and auxiliary workers and in replacing 700 hospital beds that have been destroyed in approximately 15 urban centers and as many health centers, 30 medical posts, and 80 health posts.

At this time it is impossible for us to give an accurate estimate of the assistance needed for the complete rehabilitation of the affected area; consequently, any assistance would be of benefit.

Therefore it is proposed:

1. To approve the inclusion in the provisional agenda prepared by the Director of PASB for the XVIII Pan American Sanitary Conference, XXII Meeting of the Regional Committee of WHO for the Americas, of the proposal of the Government of Peru, expressing its deep appreciation to each and every Government for the moral and material support they provided on the occasion of the earthquake of 31 May 1970.

2. That PAHO do everything possible to provide the maximum support for the medical rehabilitation of the affected area, in accordance with studies made by its experts in the light of the data that will be provided at an opportune time.

Appendix 2

PAN AMERICAN HEALTH ORGANIZATION RELIEF ACTIVITIES IN PERU¹

The Earthquake

General Considerations

The cataclysm that struck the Republic of Peru in the afternoon of Sunday, 31 May 1970, was of unexpected extent and exceeded that of all other catastrophes in the recent history of the Hemisphere.

The Government of Peru, rising above the tragedy, entrusted to the Ministry of Health the initial task of dealing with emergency operations. These primarily concerned the dead, the injured, and homeless families, and especially the rehabilitation of the infrastructure so as to make it possible to assist the injured and to take preventive measures to circumscribe the potential consequences of the disaster. By that is meant the conditions favoring the spread of communicable diseases when control procedures and practices are disorganized or interrupted.

The data given below are taken from the speech made by General Edgardo Mercado Jarrín, the Minister of Foreign Affairs of Peru, to the VI Special Session of the Plenary Committee of the Economic Commission for Latin America (ECLA); the report made to that meeting by Mr. Carlos Quintana, Executive Secretary of ECLA, on the results of the ECLA/ILPES (Latin American Institute for Economic and Social Planning) mission to Peru after the earthquake; and the reports received almost without interruption from the Zone Office in Lima.

As a result of the total interruption of communications immediately following the disaster, the enormous difficulties in repairing the massive damage to the roads giving access to the devastated region, the unfavorable climatic conditions, and the almost complete destruction or disorganization of the local transportation system, to obtain accurate information about what had happened was, and continues to be, a very complicated task and, despite the efforts made, that information is still incomplete. Therefore, a considerable part of the information below is subject to verification and correction, although such correction will not basically change the over-all picture of the situation.

Affected Area

According to official information, the affected area measures 83,000 km² and is situated in the Department of Ancash (the most affected), the Department of La Libertad, and to the north of the Department of Lima. This region extends from the coast up to the central Cordillera and comprises two mountain ranges parallel to the above-mentioned Cordillera Central—the Cordillera Blanca and the Cordillera Negra—the intermediate valleys, the Callejón de Huaylas, the Marañón River canyon, and the area between the Cordillera Negra and the coast. The epicenter was approximately 350 km northeast of Lima and about 50 km from the fishing port of Chimbote toward the east. The most heavily stricken area is in the Callejón de Huaylas, one of the most important and best known seismic areas of Peru. The intensity of the earthquake varied but in some places reached Grade 8 on the Richter Scale. The

¹Document CSP18/24, Annex II.

destruction produced by the earthquake itself was multiplied by the mudslides, rock falls, mud, water, and stones coming down from the northern summit of the Nevado de Huascarán, burying the villages of Ranrahirca and Yungai and destroying everything in their path.

Affected Population and Houses Destroyed

According to official estimates, the population affected by the earthquake numbers 1,971,000 persons, divided into two groups: one comprises 926,000 persons and is located in areas of complete or almost complete destruction; the other in an area of partial destruction and comprises 866,000 persons. The distribution of the population is shown in the following table, which is based on the above-mentioned report of the Minister of Foreign Affairs:

	<i>Population</i>	<i>Area (km²)</i>
Ancash coast	213,600	10,900
Huaylas canyon	248,900	10,137
Conchucos canyon	127,800	7,112
Marañón slope	265,300	12,762
Pativilca basin	70,800	9,589
Total	926,400	50,500

The extent of the destruction is exemplified by what happened in the Callejón de Huaylas, in the Santas River Basin, where some localities were completely buried, and in the remainder it is estimated that not less than 80 per cent of the buildings were destroyed.

Victims

According to official estimates, the number of dead exceeds 50,000. The whereabouts of a further 20,000 persons is not known. There are more than 20,000 orphans or homeless children, and the number of injured is approximately 150,000.

Steps Taken

Immediate Steps

As soon as the first news arrived, the Organization, through the Chief of the Zone IV Office (in Lima) put at the disposal of the health authorities of the country the local staff and equipment and those which could be supplied through its Headquarters.

The first direct telephone conversation with the Zone Chief was on Monday, 1 June, early in the morning. At that time little was known of what had happened because communications with the disaster area had been interrupted. We were informed that the President of Peru and the Minister of Public Health had gone to the devastated area.

The Zone Chief reported that in the afternoon and evening of the previous day he had already been helping the national authorities to organize emergency measures and had sent a first request for urgently needed medicines and biological products that were not available locally. These supplies were immediately acquired and dispatched on Tuesday, 2 June.

On the same morning of 1 June, we contacted Dr. Luis Alvarado, the Permanent Representative of Peru to the Council of the Organization of American States, (OAS), who reiterated the request of his Government for technical and material assistance. On the same afternoon, the Inter-American Emergency Aid Committee of the OAS, of which PAHO is a member, met under the Chairmanship of Mr. Galo Plaza, the Secretary General, who was informed of the steps already taken. The Committee decided to designate one of the OAS staff members in Lima to form a joint mission with the Zone Office personnel to obtain information to guide the Committee concerning the most effective steps it could take.

Together with instructions to the PASB Zone Office to take part in this mission, we confirmed our instruction that it should continue to ascertain, in conjunction with the national authorities, what supplies had the highest priority, so that the action taken could be as specific and effective as possible. These instructions were particularly important because, as soon as the American Continent and the rest of the world became aware of the catastrophe, aid from a number of countries began to be mobilized. As was to be expected, the initial supplies sent were medicines and aid for the injured and the homeless.

Direct contact with the authorities enabled us to concentrate shipments on critical supplies that were not available at that time in Peru and which do not usually form part of gifts made spontaneously, or at least do not arrive immediately after the catastrophe when they are most needed.

The Secretary General of the OAS also instructed his Representatives in Lima to coordinate his work with that of the Zone Office, *inter alia*, in connection with requests. In accordance with forecasts after the first dispatch, the greatest demand was for typhoid vaccine which was obtained very rapidly from the Brazilian authorities, through the Zone V Office, who immediately sent to Peru a first consignment of 250,000 doses of typhoid vaccine, as well as sera and antitoxins. After several discussions with the Ministry of Health, a request was made, also through the OAS channel, for measles vaccine. At this point, more than a week after the earthquake, the Ministry of Health had already received a considerable amount of drugs and medicines from various sources, but these did not include measles vaccine, and an epidemic of the disease was feared among the child population with its consequences in terms both of morbidity and of mortality.

In addition to measles vaccine, a high priority was given to syringes and disposable hypodermic needles. Most of these supplies were bought with funds made available by the Inter-American Emergency Aid Committee, which assigned US\$100,000 for the purchase of medical supplies. The World Health Organization also made funds available for this purpose. The supplies were dispatched in due course and made available to the health authorities.

Local Coordination of Activities with National and International Agencies

Experience has shown how many difficult and complicated organizational problems are involved in relief operations in an emergency of this kind. Their complexity is of course in direct relation to the magnitude of the disaster; in this case, it exceeded by far anything the participants had previously known. For that reason, a detailed description of the travel undertaken by the PAHO staff will not be given, but merely a general outline of what followed after action was taken. Even so, the account will be limited to matters relating most closely to the health sector, which is where PAHO participated most directly.

When the Chief of the Zone IV Office immediately got in touch with the authorities, he offered his services without restriction. Since traditionally there is a very close relationship, advantage is taken of this opportunity to reiterate the spirit with which the Organization serves the countries, and to express to the authorities its regrets over what happened.

Immediately, pertinent staff members cooperated with national personnel in all the tasks in which their participation could be useful and they continue to do so. The Minister of Health was designated by the Government as being responsible for emergency relief activities, which assured decided support from the health sector from the outset.

Specifically, the Zone Chief, in the discharge of his duties, coordinated his work with that of the Government and of other international agencies.

With respect to the United Nations System, the Zone Chief was in constant and daily contact with the Resident Representative, Mr. Anthony Balinski, kept the lines of information open, and served as the technical representative of the health sector with the specialized United Nations group. He also assisted the authorities of UNICEF, which supplied equipment for medical care facilities and services, radio equipment, sprayers, and insecticides.

The Zone Office also took a part in the briefing of the staff members of international agencies that were sent to Peru after the earthquake. Special mention should be made of Mr. Tony Hagen, Personal Representative of the Secretary General of the United Nations, and Mr. Raúl Prebisch, who was appointed by the

Secretary General at the end of June as Coordinator to determine how the United Nations could help Peru with short-, medium-, and long-term rehabilitation programs. The PAHO technical staff also gave advice, based on the information available to them and their knowledge of the terrain, to a group of geological experts sent by UNESCO and, in general, made themselves available to all groups working with the United Nations in the area.

As for the Inter-American System, the Zone Chief immediately contacted and maintained constant liaison and an open channel of information with the OAS Representatives in Peru through their Director, Mr. Germán Aramburú Lecaros. Following the decision of the Inter-American Emergency Aid Committee, the above-mentioned joint PAHO/OAS commission began work.

Furthermore, it was decided to transfer an epidemiologist, who was a specialist in health campaigns, from Zone VI. He worked closely with the authorities in conducting the preventive vaccination campaign in the devastated areas.

Another important activity worth mentioning is the work done by the staff of the Pan American Sanitary Engineering and Environmental Sciences Center, not only in dealing with rehabilitation of water services but also in programming the rehabilitation and reconstruction of houses under the Ministry of Housing. Two members of the Center, an architect specializing in housing and city planning, and another architect who is a specialist in rural housing and physical planning, were attached, at the request of the Government, to the Reconstruction Commission established by the President of the Republic, under the responsibility of the Minister of Housing.

In addition to these more or less permanent activities, the Zone Chief and his staff helped to coordinate the activities of various bilateral groups assisting in the relief operations.

Activities at the Central Level

On receipt of the first news of the catastrophe it was decided to centralize activities relating to the emergency in the Office of the Director and to use the Liaison and Public Relations Office as the focal point. In view of the high priority of this operation, frequent communication was maintained by telephone and telex, especially in the early weeks, with the Zone Office, from whom written reports began to be received as soon as the details were available. The Supply Office of Headquarters naturally gave the highest priority to requests for the purchase of drugs and medicines. Other departments at Headquarters, particularly the Departments of Communicable Diseases and of Engineering and Environmental Sciences, were standing by to provide the necessary advice on various phases of this operation.

As a member of the Inter-American Emergency Aid

Committee, the Director attended all the meetings convened and presided over by the Secretary General of the OAS, Mr. Galo Plaza, at which the most effective way of providing aid with the funds available was discussed. General Edgardo Mercado Jarrín, the Minister of Foreign Affairs of Peru, attended one of the meetings of the Committee held during the OAS General Assembly and was informed by the Director of the Bureau of the activities undertaken by it in connection with the earthquake.

Representing WHO, the Regional Director attended, as an observer, the VI Special Meeting of the Plenary Committee of the Economic Commission for Latin America, which was held in New York from 22 to 23 June 1970. That meeting discussed the situation in Peru following the disaster as well as international aid. The Executive Secretary of the Commission submitted a report and the recommendations of the ECLA/ILPES mission ordered by Mr. Raúl Prebisch, the Executive Director of ILPES. That report discussed the economic and social conditions in the affected regions and gave a preliminary analysis of the harm caused by the earthquake as well as recommendations concerning rehabilitation activities that might be undertaken in the affected areas by United Nations agencies and other international aid agencies. At that meeting the Minister of Foreign Affairs of Peru made the previously mentioned speech. The action gave rise to a number of technical and administrative activities that were conducted through Headquarters and were closely coordinated with those of OAS agencies serving the Inter-American Aid Committee. In due course, WHO in Geneva was asked for, and provided, a financial contribution.

Dr. Charles L. Williams, Jr., Deputy Director of PASB, visited Peru from 8 to 13 June. The Director wished to have first-hand information and also to satisfy the request of Dr. Jesse L. Steinfeld, the Surgeon General of the United States of America, who asked for a PAHO staff member to accompany a group which had been especially sent by the U.S. Public Health Service to assist in the emergency. This group of public health officials consisted of Dr. David Sencer, Director of the Center for Disease Control, Atlanta, Georgia; Mr. Leonard Board, International Health Officer; and Dr. Robert Price, Deputy Director of the Division of Emergency Health Services.

Dr. Williams was able to provide this group with considerable help and advice and to facilitate the coordination of its work with that of the authorities and international agencies. With respect to the activities of PAHO, he supervised and confirmed the arrangements made and again expressed to the Peruvian authorities the

interest and resolve of the Organization to provide the maximum possible assistance in the emergency.

Future Activities

Regardless of the degree of importance assigned to the aid provided by the Organization in the emergency, there is no doubt that the next immediate step, that is to say, aid with rehabilitation and reconstruction work, is of much greater importance and would be done over a long period. The main forms of this activity may be summarized as follows:

- 1) Assistance to health authorities, to the extent they deem it necessary, in planning the rehabilitation and reconstruction of the devastated areas. In that connection, work would be carried out with the authorities in reviewing the over-all assistance program in order to tailor it to the new needs arising from the consequences of the catastrophe. For that purpose, PAHO has the staff of the Zone Office in Lima, the intercountry program advisers stationed in that office, the staff of the Pan American Sanitary Engineering and Environmental Sciences Center, as well as personnel from other areas and from Headquarters. To this must be added staff that will be assigned to specific programs in accordance with new lines of work established by the health authorities.

- 2) Aid in the form of activities which PAHO must carry out as part of the United Nations emergency relief program. By decision of the Secretary General of the United Nations, this program will be coordinated by Mr. Raúl Prebisch. In this connection, PAHO will assist the health authorities of Peru in formulating whatever programs they consider necessary which may be financed with the funds of the UNDP and the U.N. Special Fund.

- 3) Similar assistance in the case of programs in which the health sector will take part and which may be financed by OAS funds.

- 4) Collaboration with Peruvian authorities other than the health authorities, for example, the Ministry of Housing, particularly in connection with plans for the rehabilitation and reconstruction of water supply and sewage disposal services in the larger localities and in programs for the construction of new communities, which may possibly replace those destroyed by the earthquake. In the meantime, this group is helping with programs now being carried out in the so-called "Operación Techo," the purpose of which is to provide emergency shelter for the homeless in areas in which climatic conditions are harsh, particularly in the rainy and the cold seasons.

Annex 12

ASSISTANCE IN THE EVENT OF DISASTERS EXCEEDING THE OPERATING CAPACITY OF THE AFFECTED COUNTRY¹

During the 64th Meeting of the Executive Committee, the Representative of Peru introduced Document CE64/16 (see Appendix 1), which deals in general terms with the problems arising from the national emergency following the catastrophe of 31 May 1970. It also made special reference to the difficulties in using the aid offered and dispatched to Peru by other countries and by international agencies.

The Executive Committee adopted Resolution XXI,² in which it referred to the statement of the Representative of Peru and the report of the Director concerning the steps taken by the Bureau in the emergency; in addition, it decided to transmit Document CE64/16 to the XVIII Pan American Sanitary Conference for its consideration.

¹Document CSP18/26 (3 September 1970).

²Official Document PAHO 103, 62.

Appendix 1

ORGANIZATION OF REGIONAL ASSISTANCE IN THE EVENT OF DISASTERS EXCEEDING THE OPERATING CAPACITY OF THE AFFECTED COUNTRY¹

As a result of the cataclysm that occurred on 31 May 1970 in the area of Peru in which an earthquake was followed by mud-slides, causing death and destruction, the affected region was divided geographically into three areas: the coastal area, the Callejón de Huaylas, and the eastern slope of the Andes or the Callejón de Conchucos.

In the two last-mentioned areas the problem was aggravated by the destruction of all means of communication and transportation; however, it was possible to utilize a few amateur radio operators who served as liaison between the devastated regions and the rest of the country.

Medical and other assistance efforts were initially held up because of lack of suitable transportation, the only service to the Callejón de Huaylas and Conchucos being by means of helicopters. This was the situation for the first four days in the Callejón de Huaylas but not in the towns, villages, and hamlets in the Andes, for which, because of their isolation and difficult topography, medical care supplied by air transport had to be authorized.

This situation gave rise to many medical care, housing, shelter, food, and transportation problems, which exceeded the capacity to provide emergency assistance of the Peruvian Government, which was faced with the urgent and imperative need to satisfy the requirements of more than 500,000 persons in the Andean region alone.

Once aware of the misfortune, the countries of the Hemisphere immediately provided generous technical and material assistance and thus helped Peru to bind up its wounds. This assistance, which is in every way invaluable, initially gave rise to an accumulation of medical personnel in the city of Lima. Unable to move to the affected areas, these persons, who had generously come to help, felt frustrated when they found that their assistance was not being used.

Therefore, it is proposed that there be included in the provisional agenda prepared by the Director of the Bureau for the XVIII Pan American Sanitary Conference, the proposal of the Government of Peru requesting that experts in catastrophes (earthquakes, mud-slides, etc.) designated by PAHO study and prepare a proposal for the establishment of an agency capable of dealing with human disasters, in which each country will participate and its contribution duly coordinated.

¹Document CE64/16 (29 June 1970).

Appendix 2

NATIONAL AND INTERNATIONAL EMERGENCY RELIEF¹

As a result of experience with natural disasters and their consequences—the destruction of property and loss of life, mutilation, disease, and human suffering—national and international agencies specifically designed to cope with these circumstances have been established. Although they often entail great destruction of property, natural catastrophes take on the character of extreme emergency largely because of harm to human beings, which must be immediately dealt with. In some instances this harm is direct: deaths, injuries, helplessness, or other forms of immediate physical damage; in others the harm is indirect and primarily the consequence of the interruption of basic community services, but takes on the same emergency character.

The nature of the emergency depends not only on the magnitude of the disaster but also in large measure on pre-disaster preparedness and planning. An appropriate use of previous experience, good organization and pre-disaster planning, a clear definition of objectives, priorities, and responsibilities will help to mitigate the consequences of disasters, reduce the initial confusion, moderate their material and psychological impact, and, in general, ensure that relief operations are conducted rationally and economically without unnecessary expense, non-productive duplication of effort, and other preventable consequences.

National Assistance

To ascertain the situation throughout the world, the International Committee of the Red Cross sent a questionnaire to 136 countries asking whether they had a national pre-disaster aid plan. Up to February 1970, 96 countries had replied, 95 of which stated that they had such a plan or were preparing one. In other words, a number of countries do not yet have such a plan or are in the very early stages of preparing one.²

The existence of these national emergency relief plans depends on easily identifiable factors:

1) The priority attached to these problems is a prime consideration. In countries situated in areas prone to frequent natural disasters, some of which are virtually expected events each year in a specified season, emergency relief is an obligatory part of the government program.

2) Other important factors are the degree of progress achieved, the economic and social development of the

country, and the natural development of technico-administrative agencies which are incorporating precautions for more or less frequent problems and even for problems which are expected to be infrequent.

3) A final factor of considerable importance is the disaster experience of certain countries in which, because they did not have a properly prepared national organization, it was not possible to make maximum use of the resources of the country itself and those afforded received in the form of aid from other countries or international mechanisms. Mention may also be made of the experience of having to make a great effort to solve problems relating to the shipment to the country of unnecessary articles of all kinds, instead of essential articles.

This last-mentioned aspect may be even more important than that which is undoubtedly assigned to it by those who have had experience with disasters of some magnitude, especially because of the frustrations resulting from the accumulation of material and human resources that are the result of a generous effort of solidarity and which do not fulfill a sufficiently useful function for various reasons. Indeed material resources of all kinds are frequently duplicated, resulting in the accumulation of some items which are not always the most necessary or the most critically needed and the lack of some which are exceedingly necessary. There may also be a difference of opinion about what the priorities should be. It is necessary to take into account the fact that an emergency consequent upon disaster is by its very nature an extremely dynamic phenomenon in which every hour has its problem and its possible solution under penalty of transferring and multiplying the problem of the next hour, and the most critical moments are in the early hours and days before all the details are known.

The mobilization of strongly motivated local and national resources requires a time period which will be increasingly shorter and less significant in proportion to the way in which the country is prepared for emergencies and has plans which can be put into effect immediately. External assistance, when necessary, requires more time to be put into effect, and it is here that the evidence of the advantages of previous planning is really overwhelming. When there is a good national plan, the human and material resources available are known and the request for aid can be very specific, so as to prevent the squandering of the fraternal effort that comes from abroad by any means of transport and which is already insufficient supply, is not needed, or has a very low priority.

¹Document CSP18/26, Annex II.

²Assistance in Cases of Natural Disaster. Interim Report of the Secretary General. 49th Session of the U.N. Economic and Social Council. Document E/4853, 12 May 1970.

The same applies to human resources. It is possible and sometimes happens that the transfer of technical personnel, particularly in the health sector (physicians, nurses) is very generous but without the actual needs having first been ascertained. Furthermore, a good preparation would make it possible to request very specific aid in well-defined fields, thus preventing the unplanned mobilization of health personnel and making possible a more flexible administration of accommodation, transportation, and services supporting such health teams as might arrive from abroad.

The countries face the problem of emergency situations caused by natural disasters with very varying mechanisms. Their establishment is influenced by geographic extent, characteristics of the political division of the country, density and concentration of population, degree of economic and social development, and the greater or lesser frequency of natural phenomena; these factors, in turn, condition the accumulation of more or less experience in solving their consequences. Usually, however, in most countries, the health agencies, national defense agencies, the army, the police, interministerial groups and committees for emergency relief, and even government organizations specifically intended for dealing with emergencies have an outstanding part to play in emergency aid. In general, these activities are supported by a variety of semiprivate or private organizations, which support the action of the Government. These consist of civil defense committees, associations for the solution of emergency situations, and other community agencies interested in the problem.

A traditional nongovernmental organization in all countries is the Red Cross, which, in addition to its national resources can, when circumstances so require, call on the League of Red Cross Societies coordinated by its International Committee. All these agencies are specifically devoted to action in emergencies, and in some countries the conduct of these activities has reached a very high level.

As has been said many times, natural disasters cannot be prevented, but it is possible to prevent a considerable part of their consequences by the means of proper preparation and previous planning. This applies in particular to disasters connected with hurricanes, cyclones, and floods, and even in large measure to the consequences of earthquakes, volcanic eruptions, droughts, and the effects of some agricultural and livestock pests. In the countries that are the most advanced in this sector, there are very developed organizations which concern themselves with the investigation of means of promoting and implementing preventive and protective measures, conducting educational campaigns so that the public is prepared for these circumstances, and organizing mechanisms capable of detecting the early manifestations of disasters. Modern technology makes it possible to use extraordinary

resources such as aviation, satellites designed to register meteorological phenomena, high altitude photography, and meteorological networks.

International Assistance

Nongovernmental Organizations

The nongovernmental organization with the longest history is the League of Red Cross Societies. Despite the fact that the Red Cross has always been primarily interested in armed conflicts and their consequences, that is to say, disasters caused by man, since 1951 it has redefined its functions and formalized its responsibility in emergencies caused by natural disasters. Despite this relatively recent formalization, the Red Cross Societies in all countries have a praiseworthy history of participation whenever one of these circumstances has arisen. The League has given special attention to preparing for disasters and to stimulating the preparation of national plans for dealing with these emergencies. Together with all the international mechanisms which take part, the League is also interested in conducting various types of coordination to make action more effective when the circumstances so require it.

Intergovernmental Organizations

In the Hemisphere, the most important action in this field has been taken by the Organization of American States, through the establishment of the Inter-American Emergency Aid Fund. This Fund was established by the Second Special Conference at Rio de Janeiro, Brazil, in November 1965. In Article II of its Statutes it is stated that "the Fund is intended to supply, without considerations of a political nature, aid, which shall be exclusively social in character, in the form of food, medical equipment, and medicines and other types of material, technical, and financial assistance, both in kind and in services, to the Member State of the Organization that is threatened by, or has suffered from, or is in an emergency situation, whatever its origin."

On 28 May 1968, the Council of the OAS approved the Statutes of the Fund. They provide for the establishment of a Committee to operate the Fund, consisting of the Secretary General of the OAS, the Chairman of the Inter-American Committee on the Alliance for Progress, and the Director of the Pan American Sanitary Bureau. The Fund began operations on 22 July 1969. Among its powers and duties is that of receiving applications for assistance from Member States, deciding whether they are in conformity with the purposes of the Fund, deciding upon the manner of granting such assistance, and adopting pertinent measures and the concluding of agreements to expedite the efficient and rapid mobilization of available goods, resources, and services. In all

matters relating to health, the Fund uses the Pan American Sanitary Bureau as its agent.

During the emergency caused by the earthquake in Peru, the work of the Fund was of considerable importance, especially in the health sector, where it made it possible to use funds for the purchase of medicines and medical equipment in the amount of about US\$100,000.

Bilateral Aid Arrangements

Perhaps the oldest form of disaster assistance has been, and still is, bilateral aid of one country to another. The progress in communications, air transportation facilities, and development of sea and land routes has made this emergency aid possible, not only as in the past from the nearest countries, but also from the most distant parts of the world. In terms of volume of aid and money, this assistance is of major importance for the emergency itself. While the most prosperous countries, the most developed and best organized, have traditionally provided invaluable disaster assistance, the less prosperous and less economically developed countries, by making considerable efforts, have made a substantial contribution to the alleviation of the consequences of disasters in other countries. Many forms of aid from individual initiative and private groups of various types which are organized in countries as a result of a feeling of solidarity toward other human beings in distress and which express their interest through contributions in kind or in cash, sometimes in considerable amounts, make a substantial contribution to the government action.

The United Nations Specialized Agencies

United Nations emergency aid must be considered from several standpoints. One of these is immediate aid under the authority of the Secretary General, who is authorized to use in any year up to US\$150,000, with a ceiling of US\$20,000 per country, whenever he considers it necessary. These funds are handled by the Resident Representative in each country. The Secretary General also has the responsibility for the general coordination of activities of the United Nations and, in this sense, may call on existing agencies.

A very important part of the work is carried out through the specialized agencies, programs, and funds. For example, an important sector of the activities of the World Food Program is devoted to emergency food assistance.

The United Nations Childrens Fund (UNICEF) undertakes considerable assistance activities in disaster areas and has special mechanisms for doing so. In accordance with its Statutes, its assistance is primarily directed at mothers and children, and it always

endeavors to coordinate its work with that of other sources of aid.

The United Nations Food and Agriculture Organization (FAO), in addition to its participation in the World Food Program, undertakes activities related to disaster planning and preparedness, including those to avert a lack of food which may occur in various regions of the world as a consequence, *inter alia*, of natural disasters.

WHO has an important function because of the very nature of its activities. Its work is primarily aimed at providing assistance and support in such areas as the health infrastructure, communicable diseases control, emergency restoration of health services (primarily community water supplies), and all activities relating to environmental changes that might affect health. It always works in close relation with the health authorities of the countries affected and coordinates its actions in this field with those of other agencies of the United Nations, such as UNICEF and FAO, and with non-governmental organizations such as the League of Red Cross Societies and its International Committee. The Organization has considerable experience since it is practically the rule that it participates in emergency activities which involve harm to human beings. This experience bears out the difficulties in establishing uniform procedures for dealing with emergency situations and the need for pre-disaster planning at the national level in order to reduce their effects to a minimum. It has prepared a Guide to Sanitation in Natural Disasters which will be published in 1970 and will be extremely valuable since the destruction of, or damage to, sanitation services, water supplies, and sewage disposal occurs almost without exception in these situations. It is the policy of the Organization to advise on activities to make countries prepared for emergencies. WHO may also make use of its Emergency Fund and has at its disposal an extremely valuable asset, namely its technical personnel working in the countries, which may be immediately mobilized if it is on the spot, or may be rapidly moved to provide service in the affected country.

In this Hemisphere the program of WHO forms part of a single program with the activities of the Pan American Health Organization. Through the Inter-American System, PAHO has access to the activities of the Inter-American Emergency Aid Fund and participates directly as far as health is concerned. Because of its structure and the characteristics of its operation, PASB can give technical assistance without delay. In the recent emergency in Peru this was clearly exemplified since it had, in the country, Zone IV personnel, physicians, nurses, and public health engineers, and in addition, the personnel of the Pan American Sanitary Engineering and Environmental Sciences Center, which also has its headquarters in Lima. This technical personnel was supplemented by the transfer of an

epidemiologist specializing in health campaigns from Buenos Aires to Lima to provide services in the area affected.

Summary

National and international experience is available in dealing with emergency problems which it is necessary to cope with as a consequence of natural disasters. Preparation for disasters has been the motive of many varied efforts which have taken the form of national programs and international activities.

National organizations devoted to preventing disasters vary in accordance with the characteristics of each country and range from detailed, planned structures which operate at a high level of efficiency, to very tentative activities for the planning of future structures.

National governmental organization is supplemented by private and semi-private activities.

Since natural disasters frequently exceed for one or another reason the capacity of the country and of its structures to handle the emergency, use has been made of a series of mechanisms, and some international institutions designed to cope with these circumstances by providing or channeling assistance to afflicted countries have been established.

Foremost among nongovernmental organizations by reason of its long tradition is the League of Red Cross Societies.

Among the intergovernmental organizations in the Hemisphere, mention must be made of the Inter-American Emergency Aid Fund which began operations in May 1968.

Another important aspect is bilateral aid from country to country, which in some cases has achieved very considerable characteristics and volumes.

The international mechanism with the widest coverage is that of the United Nations and its specialized agencies. This action is conducted in large measure through specialized agencies or other structures such as the World Food Program or UNICEF.

All the above-mentioned mechanisms reach their maximum effective utilization when there is an appropriately prepared national structure to cope with the circumstances, either with its own resources or by orienting, channeling, and handling in the most practical manner possible the resources which may be obtained from sources outside the country through any of these mechanisms.

The foregoing shows that there are international, intergovernmental, and bilateral agencies designed to handle the problems arising from emergencies caused by natural disasters. These agencies have already shown their ability to act in many circumstances and to improve their methods of work in the light of their accumulated experience. All these external assistance agencies operate best when there is a national structure to absorb this assistance and provide the infrastructure enabling the best possible use of it to be made. Although it is clear that any approach to the control of emergencies must be, by its very nature, multidisciplinary, the health sector, insofar as it involves the most urgent aspects for the protection of human beings, takes on in emergencies a predominant role and dominates most of the activities in the early hours. This extreme urgency in the health sector makes it very necessary for there to be proper prior planning.

Two well-defined lines of action arise from the foregoing: (1) in respect to external assistance, there are already in existence agencies for providing it, and it is the responsibility of all to improve them and make them ever more suited to their function; and (2) the continuing improvement of organization and planning at the national level to cope with emergencies, which at this moment has a high priority.

In our opinion, it is obvious that the whole system revolves, and must continue to revolve, around a well-planned, well-organized, satisfactorily equipped structure with definite plans. The improvement of these national structures, or the creation of them if they do not exist, is the immediate task before the Governments, and PAHO has a definite role to play in cooperating with them in that respect.

INDEX

- Ablack, R. Kenneth (Trinidad and Tobago), 6
- Acha, Pedro N. (PASB), 7, 165-167
- Achter, I. R. (World Federation of Occupational Therapists), 9
- Acres, S. E. (Canada), 7
- Act of Bogotá, 19, 84
- Administration, PAHO award (item 34), 128, 165, 189 annex, 401-402
- Aedes aegypti* (item 19), 37-38, 135-137, 143-150, 235-242, 245
annex, 380-384
- Agency for International Development (USA), 24, 35, 37, 57, 70, 175, 180, 214, 231
- Agenda of the Conference
adoption (item 4), 27-28
text, 12
- Aguilar Rivas, Alberto (El Salvador), 4, 114, 116, 194, 238
- AID (*see* Agency for International Development)
- Alarcón, Carlos J., *Panel Member, Technical Discussions*, 11
- Alderegüla Valdés-Brito, Jorge (Cuba), 4, 188, 202
- Allen, Robert B. (United States of America), 6
- Alliance for Progress, 84
- Almada, Alcides (Paraguay) *Vice-Chairman, Committee II*, 6, 10, 214-215, 216, 219, 220, 223, 243, 245
- Alvarez Gutiérrez, Ramón (Mexico), *Rapporteur of the Conference and of the General Committee*, 5, 10, 25, 26, 27, 29, 30, 50, 95, 111, 112-113, 113, 113-114, 114, 114-115, 126, 126-127, 127, 127-128, 128-129, 129, 129-130, 130, 130-131, 131, 131-132, 133, 134, 134-135, 135-136, 137, 137-138, 138, 139, 139-140, 140, 140-141, 141, 142, 143, 144, 146, 146-147, 147, 148, 148-149, 149, 151, 156, 159, 160, 161, 164, 165, 194, 195, 207, 238
- Allwood Paredes, Juan (El Salvador), 4, 212-213, 242
- Angus, Erwin R. (Jamaica), 5
- Annual Report of the Director of PASB, 1969 (item 10), 32-49, 111
- Araya Borge, Carlos (PASB), 165
- Argentina
comments on
communicable diseases, 55
environmental sanitation, 55
health education, 55
human resources, 55-56
medical care, 56
nursing, 56
nutrition, 55
rural health programs, 55
statistics, 55
delegation, 3
- Arreaza Guzmán, Alfredo (Assistant Director, PASB), 7, 26, 27, 28, 29-30, 30, 31, 50, 82-83, 86, 87, 93, 94, 95, 95-96, 111-112, 112, 116, 123, 150, 209, 223, 225, 228, 236, 244, 245
- Assessments, Member and Participating Governments, 130-131, 132, 204
- Aujoulat, L. P. (International Union for Health Education), 8
- Avilés, Orontes (Nicaragua), *Secretary, Committee on Credentials*, 5, 10, 27, 30, 32, 41-42, 85, 94
- Baird, Robert L. S. (Guyana), 5, 25, 77-78, 216, 228, 242
- Barbados
comments on
education and training, 102-103
environmental sanitation, 103
immunization programs, 102
medical care, 102, 103
nutrition, 103
delegation, 3
- Barrenechea, Juan José (PASB), 7, 196-197
- Bica, Alfredo N. (Brazil), *Delegate, General Committee, Moderator, General Session of the Technical Discussions*, 3, 10, 11, 25, 26, 29, 30, 47-48, 75-77, 91, 115, 116, 120, 124, 136, 139, 144-145, 145, 146, 147, 148, 150, 168, 184, 185, 202, 211, 221, 233, 236-237, 238-239, 240, 242
- Boletín de la Oficina Sanitaria Panamericana*, 52,
- Bonhomme, Arthur (Haiti), 5
- Bolivia
comments on
communicable diseases, 102
health structure, 101
research, 102
delegation, 3
- Brito Bastos, Nilo Chaves de (Brazil), 3, 46
- Bravo, Alfredo L. (PASB), 7
- Brazil
comments on
communicable diseases, 76-77
health organization, 75
delegation, 3
- Brooks, Earl D. (PASB), 7
- Brown, William J., *Panel Member, Technical Discussions*, 11
- Broyelle, Jeanne (France), 4, 233
- Brubaker, Merlin (PASB), *Technical Secretary, Working Party II, Technical Discussions*, 11
- Budget (*see* Program and budget)
- Burney, L. E. (Milbank Memorial Fund), 8
- Burton, Carlisle Archibald (Barbados), 3, 156, 159, 192
- Bustos, Jorge (Chile), 3
- Calheiros, Lelio (PASB), 235-236, 240-241
- Callin, Arthur E., *Panel Member, Technical Discussions*, 11
- Campos Vidal, Jorge del (Peru), 6
- Campos Salas, Antonio (Mexico), *Panel Member, Tech-*

- Campos Salas, Antonio (*cont.*)
nical Discussions, 5, 11, 32, 46, 64-67, 90-91, 122, 227, 229
- Canada
 official observers, 7
 participation in PAHO, 48-49, 112-113
- Canadian International Development Agency, 192
- Canales, Carlos H. (Nicaragua), 5, 162
- Cancer, 59, 79, 107
- Candau, M. G. (Director-General, WHO), 7, 15, 17-19, 87-90, 90, 91, 92, 92-93
- CARE, 97
- Caribbean Food and Nutrition Institute, 36-37, 61, 103, 174
- Caribbean Health Ministers Conference, 103, 109
- CARITAS, 97
- Central American Bank for Economic Integration, 176
- Central American Institute for the Production of Biologicals, 172
- Central University of Venezuela, 40, 174
- Céspedes, Antonio (Bolivia), 3
- Chang Sing Pang, J. I. S. (Kingdom of the Netherlands), 5
- Charter of Punta del Este, 18, 19, 20, 32, 35, 37, 43, 52, 65, 67, 84, 98, 105, 118
- Chiarini, André (France), 4
- Chichizola Guimet, Carlos (Peru), 6
- Chiefs of State, meeting, 43
- Chile
 comments on
 demographic growth, 52
 mortality, 52
 national health system, 52
 tuberculosis, 52
 delegation, 3
- Cholera (item 37), 87-93, 113
- Chrisman, Alan (League of Red Cross Societies), 8
- Cigarette smoking, control, (item 22), 138, 225-229, 243
 annex, 393-396
- Coll, Héctor A. (PASB), 7, 160-161, 164, 164-165
- Colombia
 comments on
 coordination, 96
 education and training, 96-97
 immunization campaigns, 97
 medical care, 97
 planning, 96
 research, 97
 delegation, 3-4
- Colombian Association of Medical Schools, 84, 96
- Committees of the Conference
 Committee I
 composition, 10
 election of Vice-Chairman and Rapporteur, 155
 précis minutes, 155-208
 Committee II
 composition, 10-11
 election of Vice-Chairman and Rapporteur, 209
 précis minutes, 209-245
- Commonwealth Fund, 41
- Communicable diseases, 53-54, 57-58, 58, 62, 65, 68, Communicable diseases (*cont.*)
 70, 71-73, 74, 76-77, 77-78, 79, 80, 81, 82, 97, 99, 102, 106
- Computer Center for Health (Argentina), 176
- Connaught Laboratories (Canada), 91
- Constitution of PAHO
 application of Article 6-B, 27, 95
- Cortez Jefferson, Luz (International Planned Parenthood Federation), 8
- Costa Rica
 comments on
 communicable diseases, 80
 education and training, 80
 environmental sanitation, 81
 infectious and parasitic diseases, 80-81
 maternal and child care, 81
 medical care, 80
 mortality, 80
 delegation, 4
- Credentials, Committee on
 composition, 10
 establishment (item 2), 26
 reports, 31, 112
- Crevenna, Theo R. (OAS), 7
- Cuba
 comments on
 human resources, 62
 maternal and child care, 62-63
 population dynamics, 62
 training, 64
 delegation, 4
- Cuesta, Ernesto (ECLA), 8
- de Cairns, Robert (United States of America), *Moderator, Working Party I, Technical Discussions*, 6, 11, 25, 168, 181, 181-182, 217, 222-223, 224, 225, 227, 230, 233, 244, 245
- Declaration of the Presidents of America, 18, 67
- Delegations and other participants, 3-9
- Delmás, Ramón P. (Paraguay), 5, 27, 150
- Dental Materials Center (Venezuela), 46
- Díaz-Coller, Carlos (PASB), 7
- Díaz-Granados, José Ignacio (Colombia), 3, 26, 27, 30, 47, 84-85, 86, 96-97
- Díaz Nuila, José Mario (El Salvador), 4
- Directing Council of PAHO
 place of XX Meeting, 142-143
 selection of topic for Technical Discussions during (item 17), 123-125, 127
- Director, PASB
 address by, 23-24
 election of (item 12), 82-87, 113-114
 presentation of annual and quadrennial reports, 32-41
- Dominican Republic
 comments on
 demographic growth, 99
 health manpower, 100
 malaria eradication, 99-100
 medical care, 100
 nutrition, 100
 population dynamics, 100
 delegation, 4

- Drobny, Abraham (PASB), 7
- ECLA (*see* Economic Commission for Latin America)
- Economic Commission for Latin America (ECLA), 8, 31, 49, 173
- Ecuador
delegation, 4
- Education and training, 33-34, 39-40, 64, 69, 71, 80, 82, 98, 102-103
(*see also* Health manpower)
- Eldridge, Alzora H. (OAS), 7, 188-189
- Ehrlich, S. Paul, Jr. (United States of America), *Member, General Committee, Chairman, Committee I*, 6, 10, 115, 115-116, 119-120, 125, 136, 143, 143-144, 145, 146, 148, 155, 156, 160, 163, 165, 167, 168, 177, 179, 180-181, 182, 182-183, 183, 184, 185, 186, 187, 188, 189, 191, 192, 196, 197, 198, 200, 202, 204, 208, 239-240, 240
- Election of Director, PASB (*see under* Director, PASB)
- El Salvador
comments on
communicable diseases, 81, 82
education and training, 82
environmental sanitation, 82
health structure, 81-82
mortality, 81
delegation, 4
- Environmental sanitation, 35, 55, 59, 67, 69, 81, 82, 99, 103, 109
- Esguerra-Barry, Roberto (UNICEF), 8
- Esquivel, José Renán (Panama), *President of the Conference and Chairman, General Committee*, 5, 10, 25, 26, 26-27, 27, 27-28, 28, 29, 30, 31, 32, 41, 42, 43, 44, 45, 46, 47, 48, 49, 74, 75, 77, 78, 80, 81, 82, 83, 84, 85, 86, 87, 90, 91, 92, 93, 94, 95, 96, 97, 99, 100, 104, 106, 107, 109, 111
- Esquivel, Víctor Manuel (El Salvador), 4, 25, 26, 81-82
- Executive Committee
annual report of the Chairman (item 8), 31-32, 95
annex, 249-252
election of three Member Governments (item 13), 93-95, 113
representative, 7
- Export-Import Bank, 35
- External Auditor, report (*see* Financial Report of the Director and Report of the External Auditor)
- FAO (*see* Food and Agriculture Organization)
- Ferro-Vargas, Carlos A. (Colombia), 4, 215, 222, 237-238
- Final Report, approval and signature, 151
- Financial Report of the Director and Report of External Auditor (item 15), 139-140, 157-159, 187
- Fish, Marjorie (World Federation of Occupational Therapists), 9
- Fogerty International Center (USA), 53
- Food and Agriculture Organization of the United Nations (FAO), 8, 31, 34, 96, 97, 103, 174
- Foot-and-mouth disease and zoonoses control, III inter-American meeting (item 32), 128-129, 165-168
- Fougy, Fritz I. (Haiti), 5
- France
comments on
Aedes aegypti, control, 106
alcoholism, 106
leprosy, 106
malaria, 106
population dynamics, 106
schistosomiasis, 106
tuberculosis, 106
delegation, 4
- Frazer, Simon N. (United Kingdom), 6, 46-47, 92, 109, 142, 145-146, 156, 189, 194, 202, 204, 206-207, 207, 208, 240
- Frazier, Charles P. (International Council on Alcohol and Addictions), 8
- Funds, PAHO
Community Water Supply, 157
Emergency Procurement, 157-158
Special Malaria, 157, 158
Special, for Health Promotion, 157
Working Capital, 157
- Gama e Silva, Mathias Joaquim da (Brazil), 3
- García Gutiérrez, José Luis (PASB), 7, 193-194, 194-195
- García, Juan César, *Panel Member, Technical Discussions*, 11
- García Madrigal, José Francisco, (Cuba), 4
- García Martín, Guzmán (PASB), 7, 209-211, 217-219, 224
- Gehrig, Leo J. (International Hospital Federation), 8
- General Committee
composition, 10
establishment (item 6), 30
reports, 31, 50, 87, 160, 179, 198, 204
- General program of work, PAHO/WHO, 1973-1977 (item 35), 116-123, 126-127
annex, 403-419
- Gielen, J. Th. M. (Kingdom of the Netherlands), 5, 25, 26, 78-80, 92
- Godoy Jiménez, Adán (Paraguay), *Vice-President of the Conference and Vice-Chairman, General Committee*, 5, 10, 25, 30, 31, 45-46, 50, 52, 54, 56, 56-58, 58, 60, 61, 64, 67, 69, 71, 73, 92, 94, 112, 113, 114, 116, 126, 129, 136, 136-137, 139, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 151-152
- González Gálvez, Everardo (Panama), 5, 26, 30, 44, 97-99, 192, 216
- González, José (International Hospital Federation), 8
- Guatemala
comments on
administrative reorganization of health services, 71
communicable diseases, 71-73
education and training, 71
health statistics, 73
social security programs, 71
water supply, 73
delegation, 4
- Guédez Lima, Pedro (Venezuela), *Rapporteur, Working Party I, Technical Discussions*, 6, 11, 216-217, 228

- Guthe, Thorstein, *Panel Member, Technical Discussions*, 11
- Gutteridge, F. (WHO), 7
- Guyana
 comments on
 communicable diseases, 77-78
 human resources, 77
 medical care, 77
 statistics, 78
 delegation, 5
- Haiti
 delegation, 5
- Hayes, Walter (UN), 8
- Health Conditions in the Americas, 1965-1968*, 32, 35, 38, 39, 110, 113, 169, 225
- Health education, 53, 55
- Health legislation (item 26), 141, 189-191, 204-205
- Health manpower, 38-39, 53, 55-56, 60, 61, 62, 67, 68, 74, 77, 78, 79, 99, 100, 105
- Health statistics, 55, 69-70, 78
- Henry, Mervyn U. (Trinidad and Tobago), *Rapporteur, Committee on Credentials*, and of the *General Session, Technical Discussions*, 6, 10, 11, 25, 31, 46, 74-75, 91-92, 112, 129, 139, 217, 228, 239
- Herrera, Felipe (IDB), 7, 15, 19-23, 24
- Hewlett, Augustus H. (International Council on Alcohol and Addictions), 8
- Hollis, Mark D. (PASB), 7, 231-233
- Honduras
 comments on
 budget, 69
 communicable diseases, 70-71
 education and training, 69
 environmental sanitation, 69
 hospital construction, 70, 71
 planning, 69
 statistics, 69-70
 delegation, 5
- Horwitz, Abraham (Director, PASB), *Secretary ex officio of the Conference*, 7, 10, 15, 23-24, 32-41, 50-51, 86-87, 91, 110-111, 116, 116-119, 122-123, 124, 125, 144, 145, 147, 147-148, 148, 149, 150, 168-177, 181, 183, 192-193, 195-196, 197, 202, 233-234, 241, 242
 (see also Director, PASB)
- Hospital Maintenance and Engineering Center (Venezuela), 40, 59
- Hospitals, 59, 68, 70, 71, 79
- Howard, Lee M. (United States of America), 6
- Hyronimus, Raymond G. (France), 4, 42-43, 106-107, 144, 148, 156, 163, 181, 238, 242
- IA-ECOSOC (see under Organization of American States)
- IDB (see Inter-American Development Bank)
- INCAP (see Institute of Nutrition of Central America and Panama)
- Inter-American Development Bank (IDB), 7, 18, 24, 31, 35, 38, 39, 41, 49, 55, 56, 84, 141-142, 166, 172, 180, 198, 200
- Inter-American Development Bank (*cont.*)
 address by the President, 19-23
- Institute of Nutrition of Central America and Panama (INCAP), 36, 39, 71, 174
- Institute of Social Security and Services for Government Workers (Mexico), 66
- Inter-American Investigation of Mortality in Childhood, 173
- International Confederation of Midwives, 8, 112
- International Council on Alcohol and Addictions, 8, 112
- International Council of Nurses, 8, 31
- International Dental Federation, 8, 31
- International Federation of Gynecology and Obstetrics, 8, 112
- International Fertility Association, 8, 112
- International Hospital Federation, 8, 112
- International Planned Parenthood Federation, 8, 112
- International Union for Health Education, 8, 112
- International Union against the Venereal Diseases and the Treponematoses, 8, 112
- Jamaica
 comments on
Aedes aegypti eradication, 61
 immunization, 61
 malaria, 60-61
 maternal and child health, 60
 nutrition, 61
 training, 61
 water supply, 61
 delegation, 5
- Jobe, Eugene V. (World Medical Association), 9
- Joly, Daniel José (PASB), 225-226, 229
- Juricic, Bogoslav (Chile), *Moderator, Working Party II, Technical Discussions*, 3, 11, 116, 120-121, 139, 149, 155, 161-162, 181, 182, 184, 191, 194, 197, 200, 202, 207
- Kingdom of the Netherlands
 comments on
 communicable diseases, 79
 hospitals, 79-80
 human resources, 78-79
 mortality, 78, 79
 delegation, 5
- Kist, F. W. (Kingdom of the Netherlands), 5
- Kushner, Daniel H. (International Fertility Association), 8
- Lannon, E. R. (PASB), 7, 155-156, 157-158, 158, 159, 159-160, 177-179, 185, 186, 187, 188
- Larrea Alba, Jr., Luis (PASB), 7
- Latin American Center for Medical Administration (Argentina), 175, 230
- Latin American Center for Perinatology and Human Development (Uruguay), 69, 174
- Latin American Institute for Economic and Social Planning (Chile), 167, 173
- Layton, Basil D. B. (Canada), 7, 48-49, 139
- League of Red Cross Societies, 8, 112
- Llopis, Alvaro (PASB), *Technical Secretary, General*

- Llopis, Alvaro (*cont.*)
Session of the Technical Discussions and of Working Party I, 11
- Long-term financial indicators (item 33-b), 140-141, 196-197, 205-206
- Long-term planning and evaluation (item 33-a), 140, 193-196, 205, annex, 396-400
- Lutchman, Solomon S. (Trinidad and Tobago), 6
- Main Committees
 establishment (item 6), 30
- Malaria eradication, status of (item 18), 37, 134-135, 209-215, 216-219, 223-224, 231
 annex, 253-379
 Special Fund, 157, 158, 178
- Man-environment relationships (item 25), 34, 137-138, 231-234, 243-244
- Marchand Stens, Luis (Peru), 6, 25, 26, 27, 30, 31, 48, 107-109, 116, 161, 163, 165, 207, 208
- Martínez Junco, Heliodoro (Cuba), 4, 61-64, 73, 91, 93, 161, 227
- Martínez, Marcos (Paraguay), 6
- Martínez Narváez, Gregorio (Mexico), 5, 217
- Martínez Rodríguez, Ramón (Cuba), 4, 213, 221-222, 230, 238
- Martins da Silva, Mauricio (PASB), 7
- Maternal and child health, 57, 60, 62-63, 68, 81
- Mathon, Hans E. Th. E. (Kingdom of the Netherlands), 5
- Mayz Lyon, José de Jesús (Venezuela), *Vice-President of the Conference and Vice-Chairman, General Committee*, 6, 10, 25, 30, 31, 46, 50, 56, 58-60, 84, 94
- Medical care, 56, 59, 66, 74, 77, 80, 97, 98, 100, 102, 103, 105
- Medical rehabilitation assistance, Peru (item 31), 128, 164-165, 189
 annex, 453-459
- Medical research, PAHO advisory committee, 173
- Mérida de León, Julio César (Guatemala), 4, 216, 229
- Mexico
 comments on
 communicable diseases, 65-66
 education and training, 64
 environmental sanitation, 67
 health manpower, 67
 medical care, 66-67
 mortality, 65
 nutrition, 67
 population dynamics, 64
 delegation, 5
- Middleton, R. M. (Canada), 7
- Milbank Memorial Fund, 8, 112
- Ministers of Health, Special Meeting, 117, 122, 166
- Mohs Villalta, Edgar (Costa Rica), *Rapporteur, Committee II*, 4, 11, 115, 124, 136, 204, 223-224, 224, 227, 228-229, 231, 241, 243, 243-244, 244, 245
- Moore, Clarence H. (PASB), 7, 198-199, 200, 229
- Moreno Mejía, Bernardo (Colombia), 3
- Mortality, 35, 65, 67, 78, 80, 81, 99, 104-105, 108
- Mucciolo, Genaro A. (Brazil), 3
- Multinational centers (item 24), 137, 229-230, 244
 annex, 424-453
- McKenzie-Pollock, James S. (International Union against the Venereal Diseases and the Treponematoses), 8
- McLaren, Neville K. (Jamaica), 5
- National Family Planning Board, 60
- National Library of Medicine (USA), 41
- Netherlands Antilles (*see under* Kingdom of the Netherlands)
- Nicaragua
 comments on
 environmental sanitation, 105
 health resources, 105
 human resources, 105
 malaria eradication, 105
 medical care, 105
 mortality, 104-105
 nutrition, 105
 delegation, 5
- Norwood, Barbara (ECLA), 8
- Nursing, 39, 56, 129-130, 200-201
- Nutrition, 34, 36, 55, 61, 67, 100, 103, 105
- Nutrition Data Retrieval and Analysis Center, 174
- Observers, 7-9
- Officers of the Conference
 election of President and Vice-Presidents (item 3), 25-26
 election of Rapporteur, 30
- Olguin, Victorio V. (Argentina), *Chairman, Executive Committee*, 3, 7, 31, 156, 157, 158, 159, 160, 162-163, 167-168, 180, 183, 229-230
- Olivero, Humberto (IDB), 7
- Omiste, Jorge (Bolivia), 3
- Orellana, Daniel (Venezuela), 6, 120, 182, 191-192, 239, 241
- Organization of American States (OAS), 7, 31, 34, 38, 97
 address of the Secretary General, 16-17
 Charter, 16
 Inter-American Council for Education, Science and Culture, 16
 Inter-American Economic and Social Council, 16, 49
 Inter-American Emergency Aid Fund, 16, 49, 161, 162, 164, 165
 Permanent Council, 16
- Organization of regional disaster assistance (item 30), 134, 160-164, 188-189, 206-208
 annex, 460-464
- Organizations
 intergovernmental, 8
 nongovernmental, 8
- Orlich, José Luis (Costa Rica), *Vice-Chairman, Committee I*, 4, 10, 46, 80-81, 160, 164, 165
- Ormaechea, Carlos (Bolivia), 3
- Ortiz, Amable (FAO), 8
- Ossio Quezada, Javier (Bolivia), 3
- Oswaldo Cruz Foundation (Brazil), 75

- Panama
 comments on
 communicable diseases, 99
 demographic growth, 98
 environmental sanitation, 99
 health education, 98
 health structure, 98
 human resources, 99
 medical care, 98
 mortality, 99
 planning, 98
 delegation, 5
 Pan American Federation of Associations of Medical Schools, 84
 Pan American Foot-and-Mouth Disease Center, 21, 38, 165, 166, 167, 168, 229
 Pan American Sanitary Engineering and Environmental Sciences Center (Peru), 233
 Pan American Health and Education Foundation, 21, 133-134
 (see also Textbook program, financing)
 Pan American Health Planning Program (Chile), 18, 34, 118, 173, 174
 Pan American Sanitary Conference, XVIII
 agenda, text, 12
 amendments to Rules of Procedure (item 5), 28-30
 committees, 10-11
 convocation, 2
 delegations and participants, 3-9
 election of Rapporteur, 30
 final report, approval and signature, 151
 honorary officers, 15
 officers, 10-11, 25-26
 organization, 1-9
 Pan American Zoonoses Center, 38, 119, 165, 166, 167, 168, 170, 229, 230
 Paraguay
 comments on
 communicable diseases, 57-58
 diarrheal diseases and enteritis, 57
 maternal and child health, 57
 planning, 56
 delegation, 5-6
 Parks, John Louis (International Federation of Gynecology and Obstetrics), 8
 Parra-Gil, Francisco (Ecuador), *Chairman, Committee on Credentials*, 4, 10, 25, 26, 27, 94, 163-164
Patterns of Urban Mortality, 225
 Pereda Chávez, Roberto (Cuba), 4
 Perkinson, Jesse Dean (OAS), 7
 Peru
 comments on
 earthquake catastrophe, 107-108
 mortality, 108
 planning, 108
 delegation, 6
 Pineda, Carlos A. (Honduras), *Rapporteur, Committee I*, 5, 10, 25, 26, 27, 45, 69-71, 125, 157, 158, 183, 184, 185, 186-187, 187, 188, 189, 200-201, 201-202, 202-203, 203, 203-204, 204, 204-205, 205, 206, 208
 Planning, health, 34, 56, 69, 96, 98, 108
 Plaza, Galo (Secretary General, OAS), 7, 15, 16-17
 Population dynamics, 33, 34, 40, 58, 62, 98, 99, 100, 106
 Prindle, Richard A. (PASB), 7
 Program and budget
 PAHO
 proposed (1971) (item 27), 130, 168-179, 179-186, 201-202
 provisional draft (1972) (item 29), 133, 168-179, 179-186, 203
 WHO
 preparation of proposed budget (1973) (item 28-c), 133, 168-179, 179-186, 203-204
 proposed (1972), (item 28-b), 131, 168-179, 179-186, 202-203
 regular (1971) (item 28-a), 131, 168-179, 179-186
 Puffer, Ruth R. (PASB), 7
 Quadrennial Report of the Director of PASB, 1966-1969 (item 9), 32-49, 111
 Quota contributions, collection (item 14), 127, 155-157, 186-187
 Rabinovich, Alfredo (Argentina), *Rapporteur, Working Party II, Technical Discussions*, 3, 11, 93, 116, 122, 124, 125, 145, 147, 182, 197, 205, 207, 209, 211-212, 239
 Ramírez, Víctor Alejo (Paraguay), 6
 Rapporteur, election of, 30
 Regional Library of Medicine (PAHO), 41
 Regional projects for 1971-1972, UNDP funds, 131-132, 203
 Reports of Governments on public health conditions (item 11), 50-73, 74-82, 95-104, 104-110, 114, 126
 Research Foundation (USA), 100
 Ríos, Carlota (PASB), 7, 189-191, 192
 Rísquez Cotton, Alfonso A. (Venezuela), 6
 Robleto Pérez, Alejandro (Nicaragua), 5, 25, 213-214
 Rockefeller Foundation, 34
 Rodrigues, Bichat de A. (PASB), 7, 220-222, 223,
 Rodríguez Castells, Horacio (Argentina), *Member, General Committee, Chairman, Committee II*, 3, 10, 25, 26, 27, 30, 44-45, 50, 54-56, 94, 115, 209, 216, 217, 219, 223, 227
 Rodríguez López, Oscar (Uruguay), 6, 182, 222
 Rodríguez López, Rogelio (Cuba), 4
 Ronco, Angel César (Uruguay), 6, 25, 26, 30, 31, 46, 67-69, 83-84, 95, 163, 202, 207, 231, 234
 Rosenthal, Edward B. (United States of America), 6, 156, 158, 159, 183-184, 184, 185, 187, 187-188, 188, 194, 200, 202
 Rules of Procedure of the Conference (see under Pan American Sanitary Conference)
 Rupp, Nelson W. (International Dental Federation), 8
 Sáenz Sanguinetti, Abelardo (Uruguay), 6, 223, 226-227, 230, 233, 235, 242, 244
 Sagaró Delgado, Bartolomé (Cuba), 4, 142
 Salzman, O. Howard (OAS), 7

- San Carlos University (Guatemala), 71
 Sanjines, Julio (Bolivia), 3, 25, 26, 27, 30, 100-102
 Sarria Olcos, Consuelo H. (Colombia), 4
 Schistosomiasis, 106
 Seixas, Frank (International Council on Alcohol and Addictions), 8
 Siegel, Milton P. (Assistant Director-General, WHO), 7
 Silva, Patricio (Chile), 3
 Smallpox eradication (item 20), 37, 114-116, 220-223, 224
 annex, 385-393
 Staff Rules, PASB, amendments (item 23), 127-128, 159-160, 187-188
 Steinfeld, Jesse L. (United States of America), 6, 15, 17, 45, 53-54
 Sutherland, Dorothy (International Council of Nurses), 8
- Talbot, Sylvia E. (Guyana), *Provisional President of the Conference*, 5, 15, 15-16, 24, 25, 26, 121-122, 124, 144, 147, 194
 Talma, Cuthbert Edwy (Barbados), 3, 25, 30, 102-104
 Tamayo, Marcial (UN), 8
 Technical Discussions
 composition, 11
 of the Conference: "Venereal diseases as a national and international health problem" (item 16), 95, 139
 election of Moderator and Rapporteur, 95
 of the Council (XX), selection of topic (item 17), 123-125, 127
 Textbook program, financing (item 36), 39, 133-134, 198-200
 annex, 419-423
 Tezanos Da'Costa, Francisco Manuel (Dominican Republic), 4, 25, 26, 30, 46, 99-100
 Training (*see* Health manpower)
 Trinidad and Tobago
 comments on
 communicable diseases, 74
 health manpower, 74-75
 medical care, 74
 delegation, 6
- Uclés, José Trinidad (Guatemala), 4, 25, 26, 30, 71-73, 85-86, 93-94
 UNICEF (*see* United Nations Children's Fund)
 United Nations (UN), 8, 31, 34, 162, 165, 231
 Development Decade, 19
 Special Fund, 175
 United Nations Children's Fund (UNICEF), 8, 31, 34, 37, 57, 61, 70, 78, 79, 82, 96, 97, 102, 103, 162, 170, 174, 214, 215, 231
 United Nations Development Program (UNDP), 8, 31, 40, 41, 59, 61, 166-167, 167, 171, 172, 173, 174, 183, 226, 230, 235
 regional projects to be financed with funds of, 131-132, 203
 United Kingdom
 comments on
- United Kingdom (*cont.*)
 environmental sanitation, 109
 family planning, 109
 delegation, 6
 United States of America
 address by the Surgeon-General, 17
 Center for Disease Control, 71, 91
 comments on
 communicable diseases, 53-54
 human resources for health, 53
 medical care, 54
 medical research, 53
 pollution, 54
 delegation, 6
 University of Buenos Aires, 20
 University of Chile, 20
 University of São Paulo, 41
 University of the West Indies, 61, 74, 102, 174
 Urcuyo Maliaño, Francisco (Nicaragua), 5, 104, 104-105
 Uruguay
 comments on
 communicable diseases, 68
 hospital construction, 68
 human resources, 68
 laboratories, 68
 maternal and child health, 68
 mortality, 67-68
 delegation, 6
- Valdivieso, Ramón (Chile), 3, 25, 26, 30, 43-44, 51-52
 Valentine, Edward J. (Jamaica), 5, 25, 26, 30, 60-61, 125, 142
 Valladares, Rogelio (Venezuela), 6, 116, 119, 122, 123, 124, 125, 141-142, 142, 202, 205, 206
 Veintimilla, Hernán (Ecuador), 4
 Velázquez Palau, Gabriel (Colombia), 4
 Venereal diseases, 70
 as a national and international health problem (*see under* Technical Discussions)
 Venezuela
 comments on
 chronic diseases, 58-59
 communicable diseases, 58
 demographic growth, 58
 environmental sanitation, 59-60
 health manpower, 60
 hospitals, 59
 medical care, 59
 delegation, 6
 Vera, Raúl (PASB), 7
 Villarreal, Ramón (PASB), 7, 200
- Warner, Y. (WHO), 7
 Water supply, 61, 69, 73
 Community Water Supply Fund, 157
 Wells, A. Vaughan (Barbados), 3, 90, 136, 145, 148, 149, 149-150, 207, 217, 228, 242, 243, 245
 W. K. Kellogg Foundation, 40, 157, 199
 Widdicombe, Stacey (OAS), 7
 Williams, Charles L., Jr. (Deputy Director, PASB), 7, 28-29, 158, 159, 160, 168, 179, 198, 204

- Wilson, Simon N. (United States of America), 6
Woodville, Lucille (International Confederation of Midwives), 8
Working party, 11
World Bank, 38
World Federation of Occupational Therapists, 9, 31
World Food Program, 36, 162, 174
World Health Assembly resolutions (item 21), 138, 225, 243
World Health Organization (WHO), 7
 address by the Director-General, 17-19
World Medical Association, 8, 31
Yellow fever (*see Aedes aegypti*)
Yepes Parra, Antonio (Colombia), 4, 191
Zañartu, José Ignacio (UNICEF), 8
Zoonoses, 38
-