

directing council

PAN AMERICAN
HEALTH
ORGANIZATION

XX Meeting

regional committee

WORLD
HEALTH
ORGANIZATION

XXIII Meeting

Washington, D.C.
September-October 1971



Provisional Agenda Item 26

CD20/11 (Eng.)
13 August 1971
ORIGINAL: ENGLISH

IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH
DISEASE AND ZONOSSES CONTROL

In compliance with Resolution XIX adopted by the Directing Council at its XVII Meeting, held in Trinidad and Tobago from 2 to 12 October 1967, the Director convened the IV Inter-American Meeting at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control.

The Executive Committee at its 66th Meeting, held in Washington, D.C., from 6 to 16 July 1971, took note of the following documentation of the ministerial meeting:

- Agenda
- List of Participants
- Final Report
- Program and Budget of the Pan American Foot-and-Mouth Disease Center
- Program and Budget of the Pan American Zoonoses Center

The 66th Meeting of the Executive Committee adopted Resolution XVII, which is attached for the consideration of the XX Meeting of the Directing Council, XXIII Meeting of the Regional Committee of the World Health Organization for the Americas.

Annexes

RESOLUTION XVII

IV INTER-AMERICAN MEETING, AT THE MINISTERIAL
LEVEL, ON THE CONTROL OF FOOT-AND-MOUTH DISEASE
AND OTHER ZOOSES

THE EXECUTIVE COMMITTEE,

Having considered the Final Report of the IV Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and other Zoonoses (Document CE66/8);

Recognizing the importance and future implications of the programs for the control of foot-and-mouth disease and other animal diseases being carried out by the Governments with financial assistance from international credit agencies; and

Bearing in mind the need for the Organization to provide the countries with active and efficient technical assistance in formulating, executing, and evaluating these programs, as indicated in the above-mentioned document,

RESOLVES:

1. To request the Director to transmit to the XX Meeting of the Directing Council the Final Report contained in that document.

2. To recommend to the XX Meeting of the Directing Council that it consider approving a resolution along the following lines:

THE DIRECTING COUNCIL,

Having considered the Final Report of the IV Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and other Zoonoses (Document CE66/8);

Bearing in mind the valuable technical assistance with which the Organization has been providing the countries, through the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center, in planning and conducting programs for the control of foot-and-mouth disease and other zoonoses;

Noting the financial assistance being provided by international credit agencies for those programs, which are of vital importance for the health and economy of the countries;

Mindful of the serious human and animal health problems in the Hemisphere being caused by zoonoses; and

Bearing in mind the need to strengthen programs for the development of manpower for programs for the control of foot-and-mouth disease and other zoonoses at all levels,

RESOLVES:

1. To take note of the Final Report of the IV Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and other Zoonoses (Document CE66/8), held pursuant to Resolution XIX of the XVII Meeting of the Directing Council, submitted by the Director of the Pan American Sanitary Bureau.
2. To thank the Ministries of Agriculture for their efforts to control those diseases, which seriously affect food production and have a marked impact on human health and well-being.
3. To note with satisfaction the resolutions relating to programs for manpower development and for program planning and evaluation, which are essential to the efficient conduct of animal health programs.
4. To reaffirm its support of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center and of the programs they are carrying out and to approve Resolutions IV and VI of the IV Inter-American

Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and other Zoonoses (Document CE66/8) concerning the Program and Budget Estimates of those Centers for 1972 and the Preliminary Drafts for 1973.

5. To reaffirm its support of the request of the Governments to the United Nations Development Program that it provide the Pan American Zoonoses Center, as a regional project, with financial assistance.

6. To emphasize the need for the Organization to provide increased technical assistance for the study and conduct of programs for the control of diseases such as Venezuelan equine encephalitis which are emerging as serious health problems.

7. To thank the Governments of Argentina and of Brazil for the technical and financial assistance which they have given to the Pan American Zoonoses Center and the Pan American Foot-and-Mouth Disease Center, respectively.

8. To emphasize that the other resolutions approved by the IV Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and other Zoonoses (Document CE66/8) clearly reflect the activities of the Ministries of Agriculture of the Member Countries for the control of animal diseases affecting the health and economy of the countries of the Hemisphere.



*executive committee of
the directing council*

PAN AMERICAN
HEALTH
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WORLD
HEALTH
ORGANIZATION

CD20/11 (Eng.)
ANNEX II



66th Meeting
Washington, D.C.
July 1971

Draft Agenda Item 15

CE66/8 (Eng.)
10 June 1971
ORIGINAL: ENGLISH

IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH
DISEASE AND ZOOSES CONTROL

In compliance with Resolution XIX, approved by the Directing Council in its XVII Meeting, the Director convened the IV Inter-American Meeting, at the Ministerial level, on Foot-and-Mouth Disease and Zoonoses Control, which was held in Lima, Peru, during 5-7 April, 1971. Representatives from 27 Member Governments participated in the Meeting.

The Director is pleased to present for the consideration of the Executive Committee for relay to the XX Meeting, Directing Council, with recommendations that the Committee consider convenient, the following documents:

- Program Agenda
- List of Participants
- Final Report
- Program and Budget of the
Pan American Foot-and-Mouth Disease Center
- Program and Budget of the
Pan American Zoonoses Center

The documents of technical activities about the different topics can be obtained for your study.

A review of the program will reveal the topics discussed in the IV Meeting, including foot-and-mouth disease; the principal zoonoses, particularly the threatening status of Venezuelan equine encephalomyelitis; and development of human resources and their effect upon the health and economy of the countries.

The Final Report bears out that 20 resolutions were adopted by the Ministers of Agriculture which relate to human resources, financing of animal health programs, animal disease surveillance reporting and eradication, and collaboration between international agencies.

The two principal resolutions that have budgetary implications were examined and adopted:

In Resolution IV, the Meeting expressed its support to the Pan American Foot-and-Mouth Disease Center and recommended to the XX Meeting of the Directing Council of the Organization the approval of the proposed Program and Budget Estimates of the Center for 1972 as specified in Document RICAZ4/5.

After reviewing and evaluating the Document RICAZ4/6, the Meeting approved Resolution VI, in which were stated references to Resolution II of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, Resolution XX of the XVIII Pan American Sanitary Conference, and Resolution XXII of the same Conference, and which resolved to recommend to the XX Meeting of the Directing Council, for its approval, the program and budget of the Pan American Zoonoses Center for 1972 as presented, with the understanding that the Ministries of Agriculture of the Governments of the Organization will increase their financial support in the amount of US\$330,000, to be paid through the regular channel of assessments in current use.

**IV INTER-AMERICAN MEETING ON
FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL**

WORLD HEALTH ORGANIZATION

LIMA, PERU, 5-7 APRIL 1971

RICAZ4/1, Rev.1 (Eng.)
2 April 1971
ORIGINAL: SPANISHDRAFT AGENDADocument Number

1. Preliminary Session: Election of President and Two Vice-Presidents
2. Inaugural Session: Statements by the Minister of Agriculture of Peru and the Director of the Pan American Sanitary Bureau
3. Approval of the Draft Agenda and Program of Sessions RICAZ4/1, Rev.1 and RICAZ4/2, Rev.1
4. Development of Veterinary Manpower: RICAZ4/8,
 - A. Present Situation RICAZ4/10 and
 - B. Projections RICAZ4/21
5. Present Status of Foot-and-Mouth Disease and Other Vesicular Livestock Diseases in the Americas: Preventive and Control Programs. Country Reports RICAZ4/25 and RICAZ4/26
6. Research Program of the Pan American Foot-and-Mouth Disease Center and of the Pan American Zoonoses Center RICAZ4/3 and Add I
7. Program and Budget Estimates of the Pan American Foot-and-Mouth Disease Center RICAZ4/5
8. Program and Financing of the Regional Project for the Strengthening of the Pan American Zoonoses Center RICAZ4/6

Document Number

9. Panel Discussion on Planning and Development of Animal Health Programs:
- Programming, Administration, and Evaluation of Health Campaigns RICAZ4/18
 - Development of Systems for the Reporting and Registration of Cases of Animal Diseases RICAZ4/24
 - Use of Economic Analysis in Animal Health Services RICAZ4/12
 - Guidelines and Criteria for the Preparation and Evaluation of Zoonoses Control Programs: Brucellosis RICAZ4/23
10. Panel Discussion on Venezuelan Equine Encephalomyelitis:
- Properties and Pathogenicity of Venezuelan Equine Encephalitis Viruses RICAZ4/9
 - Epidemiology of Venezuelan Equine Encephalitis. Its Importance for Health and Economic Conditions in the Americas RICAZ4/15
 - Ecology of the Endemic Cycle of Venezuelan Equine Encephalitis Viruses RICAZ4/7
 - Problems and Prospects for the Control of Human and Animal Diseases Caused by Venezuelan Equine Encephalitis Viruses RICAZ4/14



PAN AMERICAN HEALTH ORGANIZATION

CE66/8 (Eng. - Esp.)
ANNEX II
ANEXO II



IV INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZOOSES CONTROL

WORLD HEALTH ORGANIZATION

LIMA, PERU, 5-7 APRIL 1971

RICAZ4/22, Rev. 1
5 abril 1971
ORIGINAL: ESPAÑOL-INGLES

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LISTA DE PARTICIPANTES

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PAN AMERICAN HEALTH ORGANIZATION

CE66/8 (Eng.)
ANNEX III



IV INTER-AMERICAN MEETING ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL

WORLD HEALTH ORGANIZATION

LIMA, PERU, 5-7 APRIL 1971

RICAZ4/30, Rev. 1 (Eng.)
22 June 1971
ORIGINAL: ENGLISH-SPANISH

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FINAL REPORT

The IV Inter-American Meeting, at the Ministerial Level, on Foot-and-Mouth Disease and Zoonoses Control was held at the Hotel Crillon in Lima, Peru, from 5-7 April 1971. The meeting was convened by the Director of the Pan American Sanitary Bureau, pursuant to Resolution XIX approved by the Directing Council of the Pan American Health Organization at its XVII Meeting.

OFFICERS

The heads of delegations met on 5 April to elect the officers of the meeting. The following were elected:

President: General Enrique Valdez Angulo
Minister of Agriculture, Peru

Vice-Presidents: Mr. Ramón Tellaeché Merino
Undersecretary of Livestock
Ministry of Agriculture
and Livestock, Mexico

Dr. Tomás de J. López
Deputy Minister of Agriculture, Colombia

Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, served as Secretary ex officio.

PARTICIPANTS

The following Governments were represented at the meeting: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, 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. Observers from the following international organizations were also present: Food and Agriculture Organization of the United Nations (FAO), Inter-American Development Bank (IDB), Inter-American Institute of Agricultural Sciences (IIAS), International Bank for Reconstruction and Development (IBRD), International Office of Epizootics (IOE), International Regional Agency for Animal Health and Plant Protection (OIRSA), and the Organization of American States (OAS).

PLENARY SESSIONS

The inaugural session was held on 5 April and was presided over by General Enrique Valdez Angulo, Minister of Agriculture of Peru. After welcoming the participants and expressing his appreciation for the honor

conferred upon him, the President stressed the importance of international cooperation in solving the problems posed by animal disease control and livestock development in the countries. He drew attention to the important role played by the livestock industry in Peru and revealed his Government's plans to continue promoting livestock development activities, including animal health.

Next, Dr. Abraham Horwitz, Director of PASB, thanked the Government of Peru for sponsoring the meeting. He stressed that problems of great significance for the Americas would be discussed, such as the program and budget of the Pan American Foot-and-Mouth Disease and Zoonoses Centers, the planning of animal health activities, and the development of human resources to implement the programs. He stated that there could be no viable services without a stable infrastructure, and that the latter was composed, precisely, of human, material, and financial resources; proper programming, administration, and evaluation of activities; and basic and operational research. He stressed the urgency of making profound changes in the structure and approach to teaching, based on a careful analysis of the needs to be met, so that the student might be given a closer view of the real conditions he would have to face. He referred to the renewed concern for ecology, as the reflection of every human being's demand to be identified, to participate in decision-making and not to remain static in the face of the advances of science and technology that shaped his destiny. This would bring about changes in the policies of Governments. Finally, he stated that the recommendations adopted by the meeting would serve as a guide for the work of cooperation of the Organization with the Governments of the Hemisphere.

At the first plenary session, Mr. Ramón Tellaeche Merino (Mexico) acted as President. The Secretary of the meeting explained that the draft agenda had been prepared in accordance with the recommendations of the countries, taking into account the status of foot-and-mouth disease and zoonoses control programs. He indicated that six plenary sessions would be held, at which (1) the countries would present their respective reports on the progress made in their programs and (2) various working documents would be considered.

The draft agenda, submitted by the President, was then unanimously approved.

Dr. Ramón Rodríguez T., Director of the Department of International Relations of the University of Chile, presented a document entitled Manpower Resources in Animal Health. He pointed out that the promotion and maintenance of adequate indices of health in the cattle population depended on the coordinated work of three levels of human resources: high-level specialists engaged in the study of the forms and incidence of animal pathology, professional veterinarians fully qualified to deal with problems in the field, and livestock experts trained to be effective assistants to the professional veterinarians. He indicated the need for each country to establish an animal pathology research institute with a view to obtaining a thorough knowledge of animal health problems.

Dr. Ramón Villarreal, Chief of the Department of Human Resources Development of PASB, presented the document Health and Veterinary Manpower Development. Referring to the difficulties faced by the countries in training health personnel, he stated that in Latin America the solution to those problems centered around three main areas: (1) the planning of human resources for health, which should form an important part of national health plans and be the outcome of a coordinated effort by all the institutions involved in the training and utilization of such personnel; (2) the establishment of an effective linkage between preuniversity education and professional training, which would provide opportunities for utilizing some preuniversity students for auxiliary activities; and (3) the introduction of reforms in curricula and in the administration of schools to facilitate the teaching-learning process and make for better utilization of available human resources.

Dr. Tomás de J. López, Deputy Minister of Agriculture of Colombia, also stressed the importance of human resources in animal health programs. He mentioned the activities being carried out in Colombia to develop such manpower, including research specialists and teachers, veterinarians, and paratechnical personnel. He mentioned the work performed by the Colombian Agricultural and Livestock Institute in close cooperation with the universities, and the facilities offered by the Institute for the practical training of veterinary students. In closing, he presented a draft resolution on human resources in animal health.

Dr. Horwitz emphasized the importance of the study on human resources in health conducted in Colombia some five years ago, which had served as a basis for changes subsequently introduced in the university curricula in that country, and mentioned similar studies made or under way in Argentina, Chile, and Venezuela. He suggested the advisability of conducting studies of the same kind on human resources in animal health.

At the second plenary session, Dr. Oscar Valdez Ornellas, of the Agricultural Projects Analysis Division of the Inter-American Development Bank, reiterated the Bank's interest in livestock disease control activities. He referred to the cooperation extended to Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Venezuela in their foot-and-mouth disease programs, and stated that the Bank assigned high priority to the granting of financial support to increase livestock production and thus help improve human nutrition and strengthen national economies.

Dr. José Emilio G. de Araujo, Director-General of the Inter-American Institute of Agriculture Sciences, congratulated the Pan American Health Organization on its activities in animal health, and said that the Institute wished to increase the cooperation between its livestock programs and the activities of PAHO in this field in the Hemisphere. He remarked that the recommendations adopted at the present meeting would undoubtedly be of great value for the VI Inter-American Conference on Agriculture to be held in Lima in May 1971.

Dr. Ezelino Arteché, Secretary-General of the Ministry of Agriculture of Brazil, after describing the difficulties encountered by the foot-and-mouth disease control program in his country and the support received from IDB, presented a draft resolution thanking the Bank for its financial assistance to the Latin American countries in the development of animal health programs.

The second part of the second plenary session was devoted to presentation of the country reports on the progress of their activities to combat foot-and-mouth disease and other vesicular diseases. In the order in which they registered, the following participants presented reports: Dr. Emilio Matto Cárdenas (Peru), Dr. Juan Pablo Romero (Paraguay), Dr. Jorge Borsella (Argentina), Dr. Evandro Horta Costa (Brazil), Mr. Samuel Goldzveig Markmann (Chile), Dr. Humberto Olmos Colmenares (Venezuela), Dr. Jaime Estupiñán (Colombia), Col. Mario Candia Navarro (Bolivia), Dr. Nelson Magallanes (Uruguay), Mr. Gonzalo Pezantes Reinoso and Dr. Miguel Arévalo (Ecuador), Dr. Jaime del Valle Leandro (Costa Rica), Dr. José Carrillo (El Salvador), Dr. Carlos H. Aguilar Avila (Honduras), and Dr. Rodrigo González Quintero (Nicaragua).

At the start of the third plenary session, the draft resolutions presented at the first and second sessions were submitted for consideration and were unanimously approved.

Dr. James Steele, Assistant Surgeon-General, and Chief, Office of Veterinary Public Health Unit, Center for Disease Control, U.S. Public Health Service, presented the report of the Scientific Advisory Committee on the programs of the Pan American Foot-and-Mouth Disease and Zoonoses Centers. He expressed the Committee's satisfaction at the success attained by the Centers in their educational, research, and advisory activities. Following his presentation, the Representative of Peru submitted a draft resolution on the subject.

Dr. Horwitz suggested that the Scientific Advisory Committee report should be studied in detail by the agriculture and health authorities of each country, as well as by the universities, and he invited the countries to make greater use of the services of the two Centers.

Dr. Mario V. Fernández, Director of the Pan American Foot-and-Mouth Disease Center, presented the program and budget estimates of the Center for 1972 and the provisional estimates for 1973. The Representative of the United States of America congratulated the Organization on the work of the Center, and suggested that the IDB, in view of its interest in the foot-and-mouth disease programs in the countries, might consider the possibility of cooperating in the financing of the research work carried out by the Center. The Representative of Argentina then presented a draft resolution on the subject.

Next, the Representative of Ecuador submitted a draft resolution concerning foot-and-mouth disease vaccines.

The Representatives of Chile, Brazil, and Paraguay stated they would vote for approval of the program and budget estimates of the Pan American Foot-and-Mouth Disease Center.

The second part of the session began with an address by Mr. Don Stoops, Chief of the Livestock Division, Agriculture Projects Department, International Bank for Reconstruction and Development, who stressed the great importance that the Bank assigned to the foot-and-mouth disease problem. He congratulated the countries on their control programs, and the Center on the support it gave those programs.

Dr. Boris Szyfres, Director of the Pan American Zoonoses Center, presented a document relating to the program and financing of the regional project for strengthening the Center. After commending the Center on its excellent work, the Representative of Brazil presented a draft resolution.

The Representatives of the United States of America, Paraguay, Argentina, Chile, Peru, Honduras, and Uruguay also expressed their support of the activities of the Pan American Zoonoses Center.

Dr. Roberto Goic Martinic, of the Pan American Foot-and-Mouth Disease Center, presented a document referring to epidemiological surveillance of this disease. The Representative of Panama submitted a draft resolution on the subject.

Dr. Rubén Lombardo, of the Pan American Zoonoses Center, presented the report on the rabies epidemiological surveillance program, following which the Representative of Trinidad and Tobago submitted a draft resolution on the topic.

Dr. Tomás de J. López (Colombia) presided at the fourth plenary session. Dr. Miguel Santamaría Dávila, President of the Inter-American Livestock Producers Association, took the floor. He stated that the cooperation of livestock producers in foot-and-mouth disease control activities is essential. He announced that the Association was organizing a meeting to be held in Panama in June 1971, and invited the countries and the international organizations to attend it.

The following participants presented reports on the status of foot-and-mouth disease and vesicular disease in cattle: Dr. Gustavo Reta Pettersson (Mexico), Dr. M. B. Proverbs (Barbados), Dr. Pedro Roca (Cuba), Mr. Frank Mulhern (United States of America), Dr. Jean Santucci (France), Mr. Alfredo Gil Spillari (Guatemala), Dr. Frank Mongul (Guyana), Dr. Achille Salvant (Haiti), Dr. L. T. McDonnough (Jamaica), Dr. Leonel Jaen (Panama), Mr. R. Shankar (Kingdom of the Netherlands), Dr. R. H. Ewart (United Kingdom), and Dr. Leonard Vinter Butcher (Trinidad and Tobago).

The pending draft resolutions were then considered. Unanimous approval was given to the resolution expressing appreciation to the Scientific Advisory Committee of the Pan American Foot-and-Mouth Disease and Zoonoses Centers. The draft resolution on the program and budget estimates of the Foot-and-Mouth Disease Center was also approved. In this regard, the Representative of the United States of America explained that he had abstained from voting because his country felt that the budget of the Center formed part of the budget of the Pan American Health Organization and would therefore decide on the matter when the overall budget was discussed by the Directing Council at its XX Meeting. The draft resolution concerning foot-and-mouth disease vaccines was then approved, together with that referring to the program and budget of the Pan American Zoonoses Center. With regard to the latter, the Representative of the United States of America explained that he had again abstained from voting for the same reason given previously.

The remaining draft resolutions were unanimously approved, without discussion.

The fifth plenary session, presided over by Mr. Ramón Tellauche Merino, began with the panel discussion on the topic Planning and Development of Animal Health Programs. Mr. Osvaldo Fernández Balmaceda, Administrative Methods Consultant of the Pan American Foot-and-Mouth Disease and Zoonoses Centers, presented the paper Planning, Administration, and Evaluation of Health Campaigns. He pointed out the need for systematic action in the field of animal health, which called for large investments of resources to solve a wide variety of complex problems. Dr. Vicente Astudillo, Biostatistician of the Foot-and-Mouth Disease Center, presented the document Project for Developing Systems of Animal Disease Notification and Data Registry, which placed emphasis on the role of statistics in animal health services and the importance of improving reporting, data collection, registry, and analysis. A paper on Current Status of Economic Analysis of Animal Health Programs was presented by Dr. William McCallon, Chief Staff Veterinarian, Viral and Parasitic Diseases of Cattle, Animal Health Division, Agricultural Research Service, U.S. Department of Agriculture. Dr. McCallon pointed out that economic analysis had become a powerful tool in the decision-making process and was an essential part of the animal health programs of the countries. The panel concluded with a presentation by Dr. Carroll K. Mingle, Chairman of the PAHO Advisory Committee on Brucellosis, on Guidelines for Preparation and Evaluation of Bovine Brucellosis Programs and Criteria and Principles for the Analysis of Bovine Brucellosis Programs, which described the critical problems encountered in the control and eradication of the disease in the Americas.

The Representatives of Paraguay, Venezuela, and Mexico presented draft resolutions on statistical services, brucellosis control, and planning and evaluation in animal health, respectively. The Representative of Chile submitted a draft resolution on community education and another on structure and administration of animal health services.

Dr. Horwitz stated that the documents just presented would undoubtedly be useful to the Governments as a guide in the development of their animal health programs.

Mr. Tellaeche Merino, speaking as head of the Mexican Delegation, extended an invitation to hold the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control in Mexico in 1972. The Representative of Argentina thanked the Delegate of Mexico for the invitation extended by his Government and presented a draft resolution on the subject.

The second part of the session was devoted to the panel discussion on "Venezuelan Equine Encephalitis," starting with the presentation of the paper Properties and Pathogenicity of Venezuelan Equine Encephalitis Viruses, by Dr. Karl M. Johnson, Middle America Research Unit, National Institute for Allergy and Infectious Diseases, Canal Zone. Dr. Johnson referred to the biological and physical characteristics of the virus of the disease, as well as its antigenic properties, host range, and differential virulence. Dr. Hernando Groot, Chief, Diagnostic Research and Reference Section, National Institute of Health of Colombia, presented the document Epidemiology of the Epizootic Form of Venezuelan Equine Encephalitis and its Impact on the Economies and Health of the Nations of the Americas. He referred to the outbreaks which had occurred in northern South America since 1935 and which spread into part of the Central American area in 1969. He drew attention to the fact that the Venezuelan equine encephalitis virus was present in several countries of the Americas, where it was likely to cause large-scale epizootics. Dr. Gustavo Reta Pettersson (Mexico) presented a paper on Ecology of Endemic Cycles of Venezuelan Equine Encephalitis Virus, prepared by Dr. Pedro Galindo, of the Gorgas Memorial Laboratory in Panama. He mentioned the epidemiological forms in which the virus manifests itself, stating that the disease occurred mostly in low-lying, swampy regions with large populations of rodents and marsupials. He suggested future lines of research to clarify the relationship between the endemic and epizootic cycles of the disease.

Dr. William F. Scherer, Chairman, Department of Microbiology, Cornell University Medical College, New York, presented a paper on Problems and Prospects for Control of Animal and Human Diseases Caused by Venezuelan Equine Encephalitis Viruses. He pointed out that the problems that hampered control of the diseases caused by the virus were due to the lack of knowledge concerning the host involved in both the endemic and epidemic cycles in nature, the relationships and extent of virus interchange between those cycles, and the possibilities of migration and of virulent mutation and/or selection of those viruses in nature.

The Representative of Costa Rica presented a draft resolution on the subject of Venezuelan equine encephalitis, and the Representative of Colombia reported on the activities carried on in his country to deal with the disease.

The Representative of Mexico extended an invitation to the Governments to participate in the round-table conference on this same subject to be held in Mexico City in May 1971.

Dr. Groot mentioned the sequelae that could occur in certain cases of encephalitis in humans, and the uterine infections that could arise.

Dr. Horwitz expressed his thanks to the Government of Venezuela for the cooperation it was giving, through the Veterinary Research Center at Maracay, in the development of programs dealing with Venezuelan equine encephalitis.

The Representative of Ecuador presented a draft resolution.

The Delegate of the United States of America, after thanking the Government of Peru for the facilities provided for holding the IV Meeting, submitted a draft resolution to that effect, which was approved by acclamation.

Next, the Representative of Chile submitted a draft resolution concerning areas free of foot-and-mouth disease.

Before the session was adjourned, several of the pending draft resolutions were considered and approved.

During the sixth plenary session, several topics were suggested for inclusion in the agenda of the V Inter-American Meeting in 1972. The Representative of Paraguay proposed the topic "Bovine Rabies, Epidemiology, and Vaccines;" the Representative of Peru suggested "Bovine Tuberculosis;" and the Director of the Pan American Sanitary Bureau recommended that "Veterinary Medicine and Environmental Factors" be included.

A draft resolution on coordination between FAO and PAHO in animal health activities was then proposed by the Representative of Trinidad and Tobago; it was unanimously approved. The draft resolutions presented at the fifth plenary session were also approved.

The Final Report of the meeting was read in its entirety and was unanimously approved.

At the closing session, held in the evening of 7 April, Dr. Carlos Ruiz Martínez, of the International Office of Epizootics, presented an invitation to the delegations present to attend the next meeting of that Organization, to be held in Paris in May 1971.

The Representative of Bolivia, speaking on behalf of the delegations, pointed out the special significance of the present meeting and expressed appreciation to the Government of Peru for having served as its host and having extended so many courtesies to the participants.

Dr. Horwitz also expressed his pleasure at the outcome of the meeting and once again emphasized the importance of the decisions adopted; they would serve as a guide to the Organization in its work in this field, in which all countries of the Hemisphere had a great interest.

The meeting was closed by General Enrique Valdez Angulo, Minister of Agriculture of Peru, who congratulated the participants on their valuable contribution to the discussions and referred to the importance of the decisions adopted in the course of the meeting, which would serve as a guide to the countries of the Americas in their efforts to implement effective programs for the control of animal diseases affecting their economies and, consequently, the well-being of their peoples.

RESOLUTIONS APPROVED

The following resolutions were approved in plenary session:

RESOLUTION I

HUMAN RESOURCES IN ANIMAL HEALTH

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Having examined the papers presented on "Manpower Resources in Animal Health" (Document RICAZ4/8), "Health and Veterinary Manpower Development" (Document RICAZ4/21), and "Veterinary Manpower in Latin America and the Caribbean Area" (Document RICAZ4/10);

Considering that the health problems affecting the livestock activities of the countries of the Americas are among the factors that have the greatest influence on production and productivity levels, and that these problems, in the face of the rate of growth of the human population and the greater demand for livestock products, have a significant impact on the health and well-being of man - the primary object of economic and social development;

Recognizing the great importance of developing manpower resources for implementing animal health programs at all levels; and

Considering the need to have available properly trained personnel to supplement the efforts that are being made by veterinarians in the field of animal health,

RESOLVES:

1. To recommend to the Governments that they evaluate the current status of human resources in veterinary medicine and estimate future requirements for the proper development of animal health programs.
2. To urge the Governments to take the necessary measures to initiate or to intensify programs for the training of auxiliary personnel, as an integral part of their livestock development and animal health programs.
3. To recommend that the schools of veterinary medicine be requested to participate actively in the training of auxiliary personnel, possibly by including in their regular programs specific courses on different specialized subjects in the animal health field.

4. To recommend to the universities that they revise their teaching programs in veterinary medicine in order to take duly into account the livestock development programs and the more prevalent zoonoses in each country.

5. To recommend to the appropriate international agencies that they give support to countries that are planning to introduce or are initiating special courses on animal health at the intermediate, university, and post-graduate levels.

(Approved at the third plenary session,
6 April 1971)

RESOLUTION II

FINANCIAL COOPERATION OF THE INTER-AMERICAN DEVELOPMENT BANK
FOR ANIMAL HEALTH PROGRAMS

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Bearing in mind the valuable financial assistance given to the countries by the Inter-American Development Bank for the planning and implementation of foot-and-mouth disease and other zoonoses control programs;

Considering that the impetus given to such programs has made it possible to improve the infrastructure of animal health services in the countries;

Recognizing that, for economic and technical reasons, the control of animal diseases should be envisaged from a multinational standpoint and that animal health programs should be Hemisphere-wide in their scope; and

Considering the need for expanding and consolidating the assistance afforded by international loans in the campaigns against animal diseases, which are of such vital economic and social importance,

RESOLVES:

1. To express its appreciation to the Inter-American Development Bank for the valuable financial assistance it has been giving the countries in the development of their foot-and-mouth disease campaigns and for its decision to extend such assistance to programs for the control of other animal diseases, such as brucellosis, which cause serious economic and social problems in the countries of the Hemisphere.
2. To reiterate Resolution VI of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, to the effect that in the planning stage of their national campaigns against foot-and-mouth disease, brucellosis, bovine rabies, and other animal diseases, the countries consider the possibility of supplementing the financing of these campaigns by making use of the credit facilities afforded by the Inter-American Development Bank.

(Approved at the third plenary session,
6 April 1971)

RESOLUTION III

VOTE OF THANKS TO THE SCIENTIFIC ADVISORY COMMITTEE

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Having examined the report of the Scientific Advisory Committee on the work of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center in 1970; and

Bearing in mind the distinguished scientific qualifications of the members of the Committee,

RESOLVES:

1. To point out that the report contains a review of the work carried out by the Centers in accordance with the recommendations of previous meetings of the Committee, and that it indicates new lines of research on problems affecting or limiting the prevention or control of foot-and-mouth disease and the zoonoses.
2. To express its appreciation for the work of the Scientific Advisory Committee of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center and to support its recommendations.
3. To emphasize the importance of continuing the periodic evaluation and orientation of the work of both Centers by recognized scientific researchers.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION IV

PROPOSED PROGRAM AND BUDGET ESTIMATES OF THE PAN AMERICAN
FOOT-AND-MOUTH DISEASE CENTER FOR 1972 AND PROVISIONAL
DRAFT FOR 1973

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Taking into account that foot-and-mouth disease is a serious obstacle to the development of the livestock industry and to the economic progress of the affected countries, as well as a constant risk for those countries that are free of the disease;

Considering the growing interest on the part of the Governments in developing national and regional programs for the prevention and control of this disease, based on well-defined and coordinated lines of action;

Recognizing that the Pan American Foot-and-Mouth Disease Center performs a vital and effective role in supporting such programs through its assistance, research, and training services; and

Having studied in detail the proposed program and budget estimates for 1972 and the provisional draft for 1973,

RESOLVES:

1. To express its full support of the Pan American Foot-and-Mouth Disease Center and of its action program designed to benefit the countries of the Hemisphere.
2. To reaffirm the need for the Center to continue and to expand its activities insofar as technical advisory services and personnel training are concerned, these being indispensable for the planning, execution, and coordination of national and regional programs for the prevention and control of foot-and-mouth disease.
3. To express its appreciation to the Government of Brazil for its unflinching good will and continuing support to the activities of the Center.

4. To recommend to the XX Meeting of the Directing Council of the Pan American Health Organization the approval of the proposed program and budget estimates of the Center for 1972 as set forth in Document RICAZ4/5.

5. To state that the provisional draft of the program and budget estimates for 1973 includes assistance, training, and research activities necessary for the improved implementation of the foot-and-mouth disease prevention and control programs being conducted by the countries, and that the provisional draft will be submitted to further study in 1972 by the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control and by the Executive Committee and the Directing Council of the Pan American Health Organization.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION V

FOOT-AND-MOUTH DISEASE VACCINES

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering that foot-and-mouth disease control depends to a large extent on vaccination of susceptible species with properly prepared products having a tested immunogenic capacity;

Taking into account that research on new production and control techniques for foot-and-mouth disease vaccines with a view to obtaining a more effective product at a lower cost is of fundamental importance for the campaigns;

Considering that it will be necessary to increase the overall production of foot-and-mouth disease vaccines in the Hemisphere by approximately 200 million doses for the implementation and complementation of the various national programs and campaigns;

Bearing in mind the growing number of requests from the countries for assistance in specialized training of technicians for the industrial production and control of these vaccines; and

Taking note of the negotiations being conducted by the Pan American Health Organization in connection with the financial assistance of the Brazilian Government and of the Inter-American Development Bank for the establishment in the Pan American Foot-and-Mouth Disease Center of a demonstration unit for the industrial production and control of vaccines against the disease,

RESOLVES:

1. To recommend to Governments that have not already done so that they establish as soon as possible the laboratories necessary for the control of production and efficacy of all batches of vaccine, using the techniques recommended by the Pan American Foot-and-Mouth Disease Center, with a view to applying appropriate uniform criteria.

2. To request the Pan American Foot-and-Mouth Disease Center to intensify its research studies on new vaccines and their adaptation to industrial production.
3. To request the Pan American Foot-and-Mouth Disease Center to intensify the training of professionals from official institutions in the production and control of foot-and-mouth disease vaccines.
4. To thank the Government of Brazil for the support extended to the Pan American Foot-and-Mouth Disease Center for the establishment of a demonstration unit for the production and control of vaccines.
5. To reiterate Resolution V of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, requesting the Inter-American Development Bank to supplement its firm support to the countries in their foot-and-mouth disease control programs by granting the financial assistance required to expand the program of professional training in vaccine production and control in the new demonstration unit being set up at the Pan American Foot-and-Mouth Disease Center.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION VI

PROPOSED PROGRAM AND BUDGET ESTIMATES OF THE PAN AMERICAN ZOOSES
CENTER FOR 1972 AND PROVISIONAL DRAFT FOR 1973

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZOOSES CONTROL,

Considering that Resolution II (paragraph 4) of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control 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, as presented in Document RICAZ3/14, on 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;

Bearing in mind that the XVIII Pan American Sanitary Conference, in Resolution XX (paragraph 5), decided: "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;" and

Considering that in Resolution XXII (paragraph 5), the XVIII Pan American Sanitary Conference approved an increase in the appropriation level of the Pan American Health Organization for 1971 for the expansion of the activities of the Pan American Zoonoses Center, in an amount to be determined by the Executive Committee at its 66th Meeting,

RESOLVES:

1. To recommend to the XX Meeting of the Directing Council of the Pan American Health Organization that it approve the proposed program and budget estimates of the Pan American Zoonoses Center for 1972 as presented, on the understanding that the ministries of agriculture of the Governments of the Organization will increase their financial support in the amount of \$330,000 to be paid through the regular budget of the Pan American Health Organization in accordance with the scale of assessments.

2. To reaffirm the request to the United Nations Development Program for extension of financial assistance to the Center as a regional project.
3. To express its appreciation to the Government of Argentina for its continued and substantial support to the financing and operation of the Center.
4. To state that in the provisional draft program and budget estimates for 1973 a proper balance is maintained in the services of technical assistance, education, and research provided to the countries, and that the provisional draft will be submitted for consideration in 1972 to the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control and to the Executive Committee and the Directing Council of the Pan American Health Organization.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION VII

EPIDEMIOLOGICAL SURVEILLANCE OF FOOT-AND-MOUTH DISEASE

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering the report presented by the Pan American Foot-and-Mouth Disease Center on the inter-American program of epidemiological surveillance of foot-and-mouth disease and vesicular stomatitis (Document RICAZ4/13);

Being aware of the need to intensify and improve the surveillance system established for the prevention and control of foot-and-mouth disease, and of the favorable influence of the system on animal health in general; and

Bearing in mind that some countries have not yet attained the desired level in the reporting of vesicular diseases, and that this problem is of particular importance to the area free of foot-and-mouth disease,

RESOLVES:

1. To express its appreciation to the Pan American Health Organization for the work being carried out by the Pan American Foot-and-Mouth Disease Center in the development of the inter-American program of epidemiological surveillance of foot-and-mouth disease and vesicular stomatitis.
2. To reiterate to the countries the need for intensifying their surveillance activities, with particular emphasis on the promotion and consolidation of the national reporting and registry services for vesicular diseases in animals.
3. To reiterate to the countries of the area free of foot-and-mouth disease the recommendations contained in Resolution IV of the II Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control in regard to the control of exotic diseases, and to stress the urgent necessity of increasing their activities for the detection, identification, and control of outbreaks of vesicular diseases.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION VIII

EPIDEMIOLOGICAL SURVEILLANCE OF RABIES

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Having examined the report presented by the Pan American Zoonoses Center on the progress of the rabies epidemiological surveillance service for the Americas, the activities of which have been expanded in compliance with Resolution XVI of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control (Document RICAZ4/19);

Recognizing that, as is made clear by the report, there is a need for the Governments to give new impetus to their programs for the control of this disease, as regards both urban rabies and bovine paralytic rabies;

Considering that more than 50 per cent of the cases reported from all the countries are not properly confirmed by laboratory diagnosis; and

Taking into account that improvement in diagnosis and case-reporting systems, and their proper coordination among the countries, are essential factors in the control of rabies,

RESOLVES:

1. To commend the Pan American Zoonoses Center for the improvement in the quality of the rabies epidemiological surveillance service for the Americas, and to request that it continue its efforts to improve the service further, in close coordination with the Governments.
2. To recommend to all the countries that they make every effort to establish adequate laboratory services for the accurate confirmation of rabies cases in both man and animals.
3. To recommend to all the Governments that they coordinate their rabies reporting systems, with one another and with the Pan American Zoonoses Center, bearing in mind that such action is necessary to ensure the success of the continental campaign against this disease.

(Approved at the fourth plenary session,
6 April 1971)

RESOLUTION IX

ANIMAL HEALTH STATISTICS SERVICES

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZOONOSES CONTROL,

Recognizing the value of the information contained in Document RICAZ4/24, prepared by the Pan American Foot-and-Mouth Disease Center, on the improvement of reporting and data registration systems dealing with animal diseases; and

Recognizing the need to further develop animal health statistics activities in the countries of the Hemisphere, in view of the key importance of those activities for the proper execution of prevention and control programs,

RESOLVES:

1. To thank the Pan American Health Organization for the presentation of Document RICAZ4/24, and to request that this document, with its annexes, be published and distributed to the Governments.
2. To urge the countries that have not already done so, to implement the recommendations of Resolution XIV of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, in accordance with the guidelines set forth in Document RICAZ4/24 concerning the improvement of reporting and data registration systems for animal diseases.
3. To recommend to the Pan American Health Organization that it draw up and promote the implementation of a continental plan for the development of animal health statistics systems for the countries of the Americas, taking into account such factors as organization, education and training, research, equipment, and financing necessary for such a plan.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION X

GUIDELINES AND CRITERIA FOR THE PREPARATION AND EVALUATION
OF BRUCELLOSIS CONTROL PROGRAMS

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Having carefully examined the documents entitled "Guidelines for the Preparation and Evaluation of Bovine Brucellosis Programs" and "Criteria and Principles for the Analysis of Bovine Brucellosis Programs" (Document RICAZ4/23), prepared by the Advisory Committee on Brucellosis convened by the Pan American Health Organization pursuant to Resolution VI of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control;

Recognizing that these documents set forth technical norms and principles essential for planning and implementing national and multinational programs for the control or eradication of brucellosis; and

Considering the serious impact of this disease on human and animal health, as well as its detrimental effect on the economy and on the development of the livestock industry,

RESOLVES:

1. To thank the members of the Advisory Committee on Brucellosis for the efforts they devoted to the preparation of the Guidelines and the Criteria for brucellosis control or eradication programs, contained in Document RICAZ4/23.
2. To approve the aforementioned Guidelines and Criteria and to recommend that the Governments apply these norms and principles in the preparation and implementation of their national programs for the control or eradication of brucellosis.
3. To recommend to the countries that are in the course of planning their national brucellosis campaigns, that they consider the possibility of supplementing the financing of such campaigns by using the facilities extended by international credit institutions.

4. To request the Pan American Health Organization, through the Pan American Zoonoses Center, to provide the countries with technical assistance in the preparation, implementation, and evaluation of their programs for the control or eradication of brucellosis.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XI

PLANNING AND EVALUATION OF ANIMAL HEALTH PROGRAMS

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Recognizing the soundness of the principles of planning, administration, and evaluation of animal health programs, and in particular foot-and-mouth disease campaigns, as set forth in Document RICAZ4/18, prepared by the Pan American Foot-and-Mouth Disease Center;

Considering that the guidelines on planning, administration, and evaluation of animal health programs contained in that document are useful aids to the application of those principles; and

Taking note of the course on programming, administration, and evaluation of animal health projects which will be introduced by the Pan American Health Organization in the present year,

RESOLVES:

1. To recommend to the Governments that they apply the principles and methodology described in Document RICAZ4/18 in order to formulate or redefine their objectives and program their activities for the prevention and control of foot-and-mouth disease and other animal diseases.
2. To urge the Governments to give their support to the course on programming, administration, and evaluation of animal health projects, by facilitating the attendance of animal health officials.
3. To request the Pan American Health Organization, through the Pan American Foot-and-Mouth Disease and Zoonoses Centers, to increase its efforts to promote the establishment of national units for evaluation of animal health programs and to provide them with advisory services.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XII

COMMUNITY EDUCATION IN ANIMAL HEALTH

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Bearing in mind that proper education of the community and its active participation are essential to the success of programs for the protection, promotion, and restoration of animal health; and

Recognizing that there is a general need to increase community education activities in the animal disease control programs, particularly in regard to diseases communicable to man,

RESOLVES:

1. To recommend to the Governments that they promote the establishment of projects for community education, particularly in the livestock-raising sector, in accordance with the needs of the animal health programs.
2. To request the Pan American Health Organization, through the Pan American Foot-and-Mouth Disease and Zoonoses Centers, to assist the countries in planning and promoting such education projects.
3. To request the Pan American Health Organization that, within the frame of activities of the Pan American Foot-and-Mouth Disease Center, it consider the possibility of holding a seminar on community information and education activities in foot-and-mouth disease prevention and control programs.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XIII

STRUCTURE AND ADMINISTRATION OF
ANIMAL HEALTH SERVICES

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering that management sciences provide valuable tools for improving the operation of animal health programs, and that it is necessary that such techniques be efficiently applied; and

Considering that the proper organization of animal health services is essential for the development of programs to control or eradicate diseases that hamper the production of foods of animal origin,

RESOLVES:

To include on the agenda of the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control a panel discussion on organization and administration of animal health services.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XIV

PLACE OF THE NEXT MEETING

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering the importance of animal health for furthering livestock development and increasing the supply of foodstuffs in the countries of the Americas; and

Bearing in mind that Resolution XIX of the XVII Meeting of the Directing Council of the Pan American Health Organization authorized the Director of the Pan American Sanitary Bureau to convene annually a meeting of representatives of the ministries of agriculture to review the program of the Pan American Foot-and-Mouth Disease and Zoonoses Centers and to discuss matters of mutual interest,

RESOLVES:

1. To express its satisfaction with the interest shown by the Governments of the Americas in the present meeting and in those held previously in Washington, D.C., Rio de Janeiro, and Buenos Aires, which led to a valuable exchange of technical and scientific information among the participating countries.
2. To emphasize the importance of providing the Governments with an opportunity, at regular intervals, to exchange ideas and experiences in the field of animal health, in order to promote the health and development of their peoples.
3. To thank the Government of Mexico for its kind invitation to serve as host to the next meeting, and to recommend to the Director of the Pan American Sanitary Bureau that he convene the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control in Mexico City in 1972.
4. To thank the Director of the Bureau and his staff for their assistance in the organization and conduct of the present meeting.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XV

VOTE OF THANKS TO THE GOVERNMENT OF PERU

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Bearing in mind the favorable effect on the development of control campaigns that resulted from the I, II, and III Inter-American Meetings on Foot-and-Mouth Disease and Zoonoses Control; and

Recognizing the significance of the cooperation provided by the Government of Peru in the preparation and conduct of the present meeting, and its valuable contribution to the successful outcome of the deliberations,

RESOLVES:

To express its sincere appreciation to the Government of Peru for its cooperation and assistance in the conduct of this IV Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control.

(Approved at the fifth plenary session,
7 April 1971)

RESOLUTION XVI

VENEZUELAN EQUINE ENCEPHALITIS

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering the rapid spread of Venezuelan equine encephalitis in the countries of the Hemisphere and the deep concern of the public health and animal health authorities in regard to the control of this disease, which constitutes a serious danger to human health and causes substantial losses in the equine species;

Bearing in mind that, pursuant to Resolutions XIX and XX of the III Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control, the Pan American Health Organization set up a working group whose conclusions and recommendations have been submitted to the present meeting;

Recognizing that the Pan American Health Organization, pursuant to Resolution XX of the III Inter-American Meeting, is establishing with the cooperation of the Government of Venezuela a research project on Venezuelan equine encephalitis at the Veterinary Research Center in Maracay, with the primary purpose of studying and preparing vaccines for the control of this disease; and

Bearing in mind that, in accordance with the experience gained in some countries, the best procedure for controlling the disease caused by Venezuelan equine encephalitis virus is the active immunization of equines and, possibly, human beings,

RESOLVES:

1. To request the Pan American Health Organization that the new research project on Venezuelan equine encephalitis to be established in Venezuela conduct a study on the efficacy of the vaccines currently used to control the disease and report the findings to the countries, and that it carry out research for the development of new vaccines to control the disease in man and animals.
2. To recommend to the Governments that they undertake active vaccination programs for the protection of the susceptible equine population, using the modified live virus and inactivated vaccines currently available.

3. To request the Pan American Zoonoses Center to initiate the necessary action to establish an epidemiological surveillance service for Venezuelan equine encephalitis in the Americas, and to cooperate with the countries in the development of epidemiological research in selected areas.
4. To recommend to the countries that they offer the fullest support to the Pan American Health Organization in carrying out the aforementioned field and laboratory research activities in connection with Venezuelan equine encephalitis.

(Approved at the sixth plenary session,
7 April 1971)

RESOLUTION XVII

METHODS OF DISSEMINATING INFORMATION ON
LIVESTOCK ACTIVITIES

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Recognizing the importance of research work and the progress made in this field by the institutions specializing in zoonotic diseases;

Considering that scientific advances in this field should be made known and publicized in a form readily understood by individuals exposed to infection by these diseases; and

Recognizing that it is not always possible to teach preventive practices through traditional means of communication that do not arouse interest among the rural population,

RESOLVES:

1. To suggest to the Inter-American Institute of Agricultural Sciences that it consider the possibility of organizing for livestock technicians working in the field, training courses on teaching, information, and publicity methods applicable to livestock activities.
2. To suggest to the countries that they conduct research on the effectiveness of information concerning livestock, with a view to exchanging experiences and making better use of available information techniques.

(Approved at the sixth plenary session,
7 April 1971)

RESOLUTION XVIII

SURVEILLANCE IN AREAS DECLARED FREE OF
FOOT-AND-MOUTH DISEASE

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Bearing in mind that it is essential to continue to protect the areas in the Hemisphere that are free of foot-and-mouth disease;

Recognizing that the countries continue to take a great interest in the application of strict control measures in those areas; and

Considering that it is necessary to assure the Governments and, above all, the communities in the various countries that such measures have the support of international agencies and are the result of world wide experience in the matter,

RESOLVES:

To request the Pan American Health Organization to continue cooperating, through the Pan American Foot-and-Mouth Disease Center, in the surveillance of areas declared to be free of foot-and-mouth disease, and to report to the respective Governments on the progress of the measures being applied and on possible ways to improve them.

(Approved at the sixth plenary session,
7 April 1971)

RESOLUTION XIX

BOVINE TUBERCULOSIS CONTROL

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Considering the necessity of undertaking bovine tuberculosis control and eradication programs in a determined and well-organized manner, since this disease is one of the most important negative factors in livestock development programs as well as a great health hazard;

Considering that at the present meeting the countries have expressed the desire to receive financial assistance from international credit agencies for carrying out campaigns against the principal animal diseases, and that the representative of the Inter-American Development Bank has expressed the Bank's intention to give its cooperation to zoonoses control programs; and

Taking into account the necessity of establishing the procedures to be followed in the implementation of bovine tuberculosis control and eradication programs, and of adopting uniform criteria and methods in order to facilitate livestock trade between the countries,

RESOLVES:

1. To recommend to the Governments participating in the present meeting that they undertake or intensify studies designed to ascertain the magnitude of the problem of bovine tuberculosis in the various countries, and that they prepare control and eradication programs to free the Hemisphere from this disease.
2. To request the Pan American Health Organization to coordinate with the Inter-American Development Bank the preparation of guidelines and criteria for bovine tuberculosis control and eradication programs that are submitted for international financing, and to present the pertinent documents to the next meeting for consideration.

3. To include on the agenda of the V Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control the topic "Bovine Tuberculosis Control and Eradication."

(Approved at the sixth plenary session,
7 April 1971)

RESOLUTION XX

COLLABORATION BETWEEN FAO AND PAHO

THE IV INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL, ON FOOT-AND-MOUTH DISEASE AND ZONOSSES CONTROL,

Being aware of the responsibilities of the Food and Agriculture Organization of the United Nations in providing advice and assistance to its Member Governments in connection with animal production and health; and

Recognizing the need to ensure close coordination of technical assistance,

RESOLVES:

To recommend to the Pan American Health Organization that it establish, whenever possible, joint action with FAO on subject matters that fall within the competence of both Organizations.

(Approved at the sixth plenary session,
7 April 1971)

IN WITNESS WHEREOF, the President of the Meeting and the Director of the Pan American Sanitary Bureau, Secretary ex officio, sign the present Final Report in the English and the Spanish languages, both texts being equally authentic.

DONE in Lima, Peru, this seventh day of April nineteen hundred and seventy-one. The Secretary shall deposit the original texts in the archives of the Pan American Sanitary Bureau and shall send copies thereof to the Governments of the Organization.

General Enrique Valdez Angulo
Representative of Peru,
President of the Meeting

Dr. Abraham Horwitz
Director of the
Pan American Sanitary Bureau,
Secretary ex officio of the
Meeting



ORGANIZACION PANAMERICANA DE LA SALUD

CE66/8 (Eng.)

ANNEX IV

IV REUNION INTERAMERICANA SOBRE EL CONTROL DE FIEBRE AFTOSA Y OTRAS ZONOSIS

ORGANIZACION MUNDIAL DE LA SALUD

LIMA, PERU, 5-7 ABRIL 1971

Draft Agenda Item 7

RICAZ4/5 (Eng.)

5 March 1971

ORIGINAL: SPANISH

PROGRAM AND BUDGET ESTIMATES OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

PROPOSED ESTIMATES FOR 1972 AND
PROVISIONAL DRAFTS FOR 1973 AND 1974

PROGRAM AND BUDGET OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER
PROPOSED ESTIMATES FOR 1972 AND PROVISIONAL DRAFTS FOR 1973 AND 1974

INTRODUCTION

The Pan American Foot-and-Mouth Disease Center is financed by the Member Governments as Part VI of the Regular Budget of the Pan American Health Organization, as recommended by the resolutions adopted at Meetings of the Inter-American Economic and Social Council (Viña del Mar, Chile, June 1967), the Inter-American Committee on the Alliance for Progress (Rio de Janeiro, Brazil, September-October 1967), and the Directing Council of the Pan American Health Organization (Port-of-Spain, Trinidad, October 1967).

The decisions and resolutions of these Governing Bodies were confirmed by the First Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and Other Zoonoses, which was held at the Headquarters of the Pan American Health Organization, Washington, D.C., from 8 to 11 April 1968. At the Third Meeting, which was held in Buenos Aires from 14 to 17 April 1970, the Ministers (Secretaries) of Agriculture of the American Republics and the Representatives of France, the United Kingdom, and the Kingdom of the Netherlands, reviewed and recommended the approval of the program and budget estimates of the Center for 1971 and the preliminary draft of the program and budget estimates for 1972 and 1973, and recognized the importance of the activities embodied in the programs and budgets. These recommendations are reflected in Resolution VII of the above-mentioned Meeting, which reads as follows:

RESOLUTION VII

PROGRAM AND BUDGET ESTIMATES OF THE
PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER
FOR 1971 AND PROVISIONAL DRAFT FOR 1972

THE III INTER-AMERICAN MEETING,

Bearing in mind the serious and harmful effect of foot-and-mouth disease in the affected countries on nutrition, the live-stock industry, and economic progress, and the constant threat to countries free of the disease;

Recognizing that the Pan American Foot-and-Mouth Disease Center plays an essential and effective role in the struggle to control and prevent the disease;

Having made a detailed study of the program and budget estimates for 1971 and the provisional draft for 1972;

Noting that the program continues along the lines approved but with increased emphasis on technical assistance and training in support of national programs for control and prevention;

Recognizing that the Scientific Advisory Committee pointed out that the quality of the proposed programs would make it possible to meet the expanded services requested by the countries, and recommended that these activities receive adequate financial support; and

Noting further that the proposed budget increases are modest and that the major portion will be required to meet increasing costs,

RESOLVES:

1. To express its full support to the Pan American Foot-and-Mouth Disease Center and the program which it is carrying out.
2. To reaffirm the need for the Center to continue and increase its activities to provide the Governments with personnel training and technical advisory services essential for the planning, execution, and coordination of national and regional programs for the prevention and control of foot-and-mouth disease.
3. To emphasize the important applied research activities of the Center on the laboratory and field aspects of foot-and-mouth disease and the significance of these programs to the technical assistance provided to the countries in order to achieve ultimate control and prevention of the disease.
4. To recommend to the XVIII Meeting of the Pan American Sanitary Conference that it give favorable consideration to the approval of the proposed program and budget estimates of the Center for 1971 as set forth in Document RICAZ3/7.
5. To recognize that the provisional draft of the program and budget estimates for 1972 included activities that are scientifically and operationally sound which will make it possible to provide vital assistance to the countries, and

that the draft will be subject to further study in 1971 by the IV Inter-American Meeting on Foot-and-Mouth Disease and Zoonoses Control and by the Executive Committee and the Directing Council of the Pan American Health Organization.

THE NATURE OF THE PROBLEM

Foot-and-mouth disease is the most important animal disease in the countries it affects, and is a constant threat to the other countries in this Hemisphere that are free of it. Its great economic significance and the difficult and complex measures required for controlling it were the main reasons for the establishment of the Center. The chief factors involved in foot-and-mouth disease may be summarized as follows:

1. The highly contagious nature of the disease and the rapidity with which it spreads among cattle, hogs, sheep, and other cloven-hoofed animals.
2. The financial losses suffered by agriculture as a result of the disease.
3. The harm it does to the production of animal protein and the relation between this and the severe problem of protein malnutrition in the growing human population of the Americas.
4. Losses suffered by national economies through the closing of export markets, since countries that are free of the disease cannot run the risk of importing animals or animal products from countries that are affected by it.

In recent years the effects of the disease on the economies and development of countries that are in large measure dependent upon livestock production, has been fully recognized, as has been the urgent need to launch national and multinational campaigns for foot-and-mouth disease control. As a result, the control of this disease in South America has become the major livestock health protection program; a million livestock owners are taking a direct part in it, as are approximately a thousand professional personnel supported by ten times as many auxiliary personnel. Approximately 75 million cattle were systematically vaccinated in 1970 and another 23 million routinely vaccinated. It is estimated that the government sectors alone invested approximately \$25 million in this operation in 1970.

PURPOSE AND OBJECTIVES

The initial purpose was to provide the countries with technical assistance and a diagnosis and virus-typing service. But it was understood from the outset that if a center covering the whole continent was to be established, the assistance that it could and should give was much greater in scope than that of routine assistance and diagnosis activities. The purpose therefore became that of providing countries affected by the disease with assistance in their efforts to control it, and countries free of it with assistance in implementing preventive measures. To achieve the above-mentioned purpose, the Center has three main divisions (research, training and information, and field advisory services) with the following objectives:

I. RESEARCH, DIAGNOSIS, AND REFERENCE

1. Identification and study of the characteristics of strains of foot-and-mouth disease and vesicular stomatitis viruses causing field outbreaks, as well as those used for the production of vaccines and in potency control. It serves as the reference laboratory for the countries of the Hemisphere.
2. Study of new foot-and-mouth disease viruses and improvement of inactivated and modified live virus vaccines with a view to obtaining better and more lasting immunity.
3. Preparation and maintenance of a strain collection of various subtypes of foot-and-mouth disease virus considered to be of epidemiological importance and adapted to the Frenkel method, to cell lines, and to rabbit embryo organs for dispatch to the countries in the event of emergencies in their vaccine production.
4. Study of new methods for ascertaining the effectiveness of foot-and-mouth disease vaccines, their uniformity, and simplification and adaptation of existing vaccines to conditions in the Hemisphere.
5. Solution of problems arising from the effects of the disease on international trade in meat and meat by-products, such as that of the survival of the virus and study of carriers.
6. Basic studies of the biological and physicochemical characteristics of foot-and-mouth disease and vesicular stomatitis viruses.
7. Provision of advisory services to national centers engaged in research on foot-and-mouth disease.

II. TRAINING AND INFORMATION

1. Organization and conduct of international seminars.
2. Organization and conduct of national courses.
3. Attendance of its expert staff of the Research and Field Advisory Services Departments at seminars, courses, and meetings organized by other national or international institutions.
4. Award of fellowships for individual training at the Center or in other institutions.
5. Provision of information available about the epizootiology of vesicular diseases.
6. Provision of up-to-date bibliographies on specific aspects of these diseases.

III. FIELD ADVISORY SERVICES

1. Encouragement of and assistance in the planning of national foot-and-mouth disease programs.
2. Studies of technico-administrative methods for the control of foot-and-mouth disease through demonstration pilot areas.
3. Advisory services to the countries in the preparation of loan applications for foot-and-mouth disease control campaigns to be submitted to international lending agencies.
4. Promotion of intercountry coordination through bilateral, regional, or multilateral meetings and agreements for the control and prevention of foot-and-mouth disease.
5. Advisory services on the organization and conduct of preventive programs in disease-free countries.
6. Field studies of the most effective preventive and control methods, and evaluation of national campaigns.
7. Establishment of a continent-wide vesicular disease surveillance system including the collection, compilation, analysis, publication, and distribution of epidemiological data.

In the annual budgets the following percentages will be assigned to each of the above-mentioned activities in accordance with the administrative structure of the Center.

	<u>Research Diagnosis Reference</u>	<u>Training</u>	<u>Field Advisory Services</u>
1972	54.6%	9.0%	20.4%
1973	52.3%	9.9%	21.9%
1974	51.6%	10.1%	21.1%

Distribution of the funds in accordance with the program of direct services to the Governments is shown in Table I.

ADMINISTRATIVE AND TECHNICAL ORGANIZATION OF THE CENTER

The structure of the Center comprises an office of the Director, administrative services, and three departments (Field Advisory Services, Training Activities, and Research and Diagnosis) as may be seen by the organizational chart attached.

The activities of the Field Advisory Services Department are undertaken by its staff, who work out of Headquarters in Rio de Janeiro, and through advisers stationed in the various countries. This Department provides advice on epidemiology, administrative methods, statistics, planning, and evaluation of foot-and-mouth disease control campaigns.

The Research and Diagnosis activities are the responsibility of the laboratories at the Headquarters of the Center which have the following sections: Diagnosis and Reference, Inactivated Vaccines, Modified Live Virus Vaccines, Virus Survival, and General Research. Some research activities are carried out jointly with the countries.

The Training Department is responsible for fellowships, the organization of training courses and scientific meetings, the library, and the publications and information services.

The Administrative Services Department comprises the following sections: Finance, Personnel, Supplies, and General Services.

Each year the Scientific Advisory Committee of the Center, whose members are persons of international repute, meet to discuss the various projects in progress or being planned with the Director and the professional technical staff.

ACTIVITIES - METHODS - RESULTS

I. OFFICE OF THE DIRECTOR

There will be no changes in the Office of the Director in 1972, 1973, and 1974. The international staff as well as local auxiliary and secretarial staff will be maintained at their present level and number.

II. RESEARCH ACTIVITIES

1. Diagnosis and Reference

The Center serves as the reference laboratory for the Americas and collaborates closely with the World Reference Laboratory for the typing and subtyping of foot-and-mouth disease and vesicular stomatitis viruses. Since its establishment it has examined more than 10,000 vesicular disease specimens from 18 countries in the Continent which are affected or free of foot-and-mouth disease. In 1970, 629 specimens from countries in the affected area were typed and subtyped, and the results are shown in Table II. The number of specimens is expected to increase substantially in 1972, 1973, and 1974, inasmuch as the countries are stepping up their foot-and-mouth disease control campaigns. On the other hand, and although the countries now have available to them an increasing number of professional personnel who have been trained in and are familiar with techniques for the diagnosis of foot-and-mouth disease, recognition of a fundamental role played by virus subtypes in the epizootiology of the disease makes it necessary for the Center to expand its subtyping studies so as to be in a position to advise the countries regarding the strains that should be used in vaccine production and in tests for ascertaining their effectiveness.

In 1970, the Center identified four new subtypes of foot-and-mouth disease virus, three being subtypes of type A Vallée and one a subtype of type C Waldmann.

The Center supplies reference sera and viruses to national diagnosis and control laboratories. In 1970 all the countries in the affected area received various biological materials for diagnosis, research, and production and testing of vaccines, including sufficient hyperimmune guinea pig sera for 360,000 complement fixation tests. In view of the increase in diagnostic activities in the countries, it is expected that it will be necessary to substantially increase this amount in the years ahead. With the inauguration of the temporary laboratory in Asuncion, Paraguay, at the end of 1970, all the countries in the affected area of the Continent now have diagnostic laboratories capable of undertaking subtyping studies.

In 1970, 1,009 specimens were examined in the course of the research work of the Center.

With reference to typing and subtyping of vesicular stomatitis virus, the Center examined 33 specimens from the countries of Central America and Panama, of which 22 were positive. The results are shown in Table III. It must be emphasized that the immediate diagnosis of all specimens from those areas is essential in order to permit the prompt adoption of the necessary sanitary measures. The serious economic consequences of an outbreak of foot-and-mouth disease in those countries points up the urgency of early diagnosis.

The following percentages of the research activities budget will be allocated to the work of the Diagnosis and Reference Department:

1972	19.2%
1973	19.1%
1974	19.0%

2. Inactivated Vaccines

Any improvement in the duration of immunity provided by inactivated vaccines, which make up approximately 96 to 98 per cent of all vaccines administered in South America, will be favorably reflected in the reduction in campaign costs. This is why the Center is continuing to investigate new cell lines susceptible to foot-and-mouth disease virus and endeavoring to obtain more economical sources for antigen production; new inactivators that provide a better guarantee of the safety of the vaccines produced without affecting their immunizing antigenic qualities; and new adjuvants that will make it possible to obtain more potent vaccines providing longer lasting immunity.

These considerations, together with the fact that an adequate vaccine for immunizing hogs is not yet commercially available and the need for better knowledge of the behavior of vaccines in sheep, has been the basis for experiments with an inactivated vaccine with an oil adjuvant, which are being undertaken in collaboration with the Plum Island Animal Disease Research Laboratory of the Department of Agriculture of the United States of America.

The results obtained show that a good level of immunity has been obtained with this vaccine in sheep for a period of not less than one year. In pigs, serious lesions have occurred at the point of inoculation. These reactions are a problem calling for a thorough study before this type of vaccine can be put into routine use in pigs. The results obtained in cattle are very promising and point to the possibility of only two annual vaccinations in cattle, when this type of vaccine can be used in campaigns. Primo-vaccinees showed a good level of protection six months later and, at the present time, a study is being made of the duration of immunity in animals revaccinated six months after the initial vaccination.

During the course of the year the necessary studies will be undertaken to put the production of this type of vaccine on an industrial footing. Preliminary field studies will also be undertaken with this type of vaccine.

With a view to dealing promptly with requests from countries, the Center maintains a strain collection containing specimens of the most common viruses in South America adapted to the Frenkel method, rabbit embryos, and BKH-21 cell lines.

Research was begun on inactivated vaccines produced with virus from unweaned rabbits, and different methods of extracting and purifying these lapinized viruses were studied.

Studies were also made of other adjuvants, including different polyionic substances and polynucleotid complexes.

Studies on inactivated vaccines will be assigned the following percentages within the budget for Research Activities:

1972	30.4%
1973	30.3%
1974	30.3%

3. Modified Live Virus Vaccines

Modified live virus vaccines have been one of the major contributions of the Center to the control of foot-and-mouth disease, and over the years the Center has acquired great experience in this field. In 1970, research was continued on various clones of modified foot-and-mouth disease virus, and a start was made on the attenuation of various strains by chemical processes, cold mutants, and the selection of plaques. The markers of various virus clones were studied, as was the stability of the genetic characteristics of some modified viruses.

Laboratory studies with cloned specimens of C-3 Resende, A-24 Cruzeiro, and O=1 Campos viruses demonstrated very low pathogenicity and an acceptable immunizing capacity.

A series of clones of the three foot-and-mouth disease virus types are being studied, with a view to obtaining a final product capable of conferring a longer lasting immunity and giving rise to no pathogenicity problems. Studies are also being made on the genetic stability of the modified strains.

Problems relating to the persistence of modified live virus in different organs and tissues of laboratory animals and in cattle are being made for the purpose of clarifying certain aspects relating to the multiplication of the virus in different organs, the persistence of the virus in primo-vaccinated and revaccinated animals, and possible differences in the persistence of the viruses in animals with or without antibodies in the circulatory system.

A start was made on the adaptation and modification of various foot-and-mouth disease virus specimens which may possibly be of epidemiological importance, and investigations were continued on the rapid attenuation of foot-and-mouth disease virus through mutations produced by chemical agents.

Modified live virus vaccine studies have been assigned the following percentages within the budget for research activities:

1972	23.8%
1973	22.8%
1974	22.7%

4. Carriers

The problem of the survival of foot-and-mouth disease virus in carriers and in products derived from them is one of the most important factors affecting international trade, to the prejudice of the economies of South American countries in which livestock production is one of the main sources of foreign exchange.

The Center has been studying this problem and has given special attention to the development of new methods that will make the detection of animal carriers more certain and economical than that at present in use.

The virus-cell binomium in the host is being studied, as are the conditions regulating the virus-host-environment relationship, since it is not yet known which factor or factors determine whether a carrier is capable of transmitting the infection.

The Center has been providing the Governments of Brazil and Venezuela with advisory services in developing tests to detect carrier animals in cebu cattle exported from Brazil to Venezuela.

The Center has also initiated studies on the possible role of cattle semen in the carrier system. These investigations are being carried out in collaboration with the pertinent technical departments of the Ministry of Agriculture of Brazil.

These studies on carriers will be assigned the following percentages within the budget for research activities:

1972	12.8%
1973	13.7%
1974	13.8%

5. Other Research Studies

In addition to the research described above, the Center is investigating the susceptibility of various cell lines to foot-and-mouth disease virus and to culture media favoring the multiplication of foot-and-mouth disease virus in vitro. The production of interferon in cell cultures and in laboratory animals has also been investigated, as has been the serum

antigen-antiantigen phenomenon associated with vesicular diseases of domestic animals, through correlative studies on serum interferon tests. Studies on immunological methods for the detection of antibodies and new techniques for obtaining plaques in tissue cultures have been continued.

The following percentages will be assigned to these research activities:

1972	13.8%
1973	14.1%
1974	14.2%

To achieve the research targets set, it is necessary to make provision in the budgets for 1972, 1973, and 1974 for the following international and local staff:

<u>International Staff</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief	1	1	1
Virologist	1	1	1
Serologist	3	3	3
Research Officer	3	3	3
Biochemist	1	1	1
Immunologist	1	1	1
Research Assistant	2	2	2
<u>Local Staff</u>	114	116	117

There will be no change in the international staff posts in 1972 in relation to 1971. There will also be no change in 1973 and 1974. There will be no increase in local staff in 1972 in relation to 1971 and the staff strength will continue to be 114. In 1973, local staff will be increased by two laboratory assistants, and in 1974 by a further laboratory assistant.

Supplies and Equipment. In 1972, 1973, and 1974 there will be a slight increase in this item to allow for increased costs.

Contractual Services. In 1972, 1973, and 1974 the only change in this item will be to allow for increased costs.

III. TRAINING

The Center provides training for professional personnel of the countries by means of seminars and courses and by individual fellowship training.

Since its establishment, the Center has conducted 27 courses or international seminars, and 583 veterinarians from 32 different countries have attended them or received individual training in various aspects of research and the control and prevention of foot-and-mouth disease. The Center provides instruction and practical training in laboratory techniques and methods for vesicular diseases and in the production and control of vaccines; in epidemiology, statistics, and animal health planning; and, in coordination with the governmental services of certain countries, in the planning and administration of control campaigns and preventive programs.

In 1970, the program of courses and seminars was carried out as planned. Two national courses were held: one in May in Asuncion, Paraguay, which was attended by more than 40 persons; and another in December in Havana, Cuba, which was attended by 22 veterinarians and 10 port and airport inspectors. The first of these courses dealt with foot-and-mouth disease control campaigns and the second with preventive programs.

The two international seminars planned were held: one in September in Santiago, Chile, on epidemiology and evaluation of campaigns, was attended by 14 veterinarians from eight countries, and the second in November, in Montevideo, Uruguay, on the testing of foot-and-mouth disease vaccines, was attended by 19 veterinarians from 10 countries.

With regard to individual training, 13 PAHO fellowships were granted to professional personnel from seven countries, totaling 43 fellowship months, and fellowships for another five professional personnel were provided from other sources.

In 1970, the Epidemiological Report on Foot-and-Mouth Disease and Vesicular Stomatitis continued to be issued monthly. From the beginning of 1971, it is being published fortnightly.

The Cuadernos of the Center, the publication of which has been subject to certain ups and downs since 1967, appeared irregularly in 1970 when only three numbers were issued. Nevertheless, the bibliographical information it contained was brought up to date. In 1971 it will cease publication and be replaced by a Boletín, which will appear quarterly. In addition to including bibliographical information, it will have a section devoted to foot-and-mouth disease control or prevention activities, and a section devoted to the publication of scientific articles and communications.

The modern reproduction and printing equipment, which was purchased and put into operation in 1970, has made it possible for the Center to produce all documents and publications and to print all forms needed for internal use. The press run of these is estimated at 2,500 originals and more than 200,000 impressions.

In 1971, it is planned to hold two international short courses: one in Buenos Aires, Argentina, on the production of foot-and-mouth disease vaccines, for 12 fellows from 11 countries, and a second in Maracay, Venezuela, on prevention and quarantine for Spanish-speaking countries free of foot-and-mouth disease, which will be attended by 11 fellows.

Plans have been made to hold national courses in 1971 in Georgetown, Guyana; Port of Spain, Trinidad and Tobago; and Jamaica. They will be attended by fellows from other countries in the Caribbean area, including Surinam, French Guiana, and British Honduras.

This explains the increase in the item "Fellowships," since a good number of the persons attending these national courses will do so as fellows. Provision has been made for 24 fellowships totaling 96 fellowship months for 17 countries in the Continent.

In 1972 international short courses will be held in Brazil: one at the Center, for 10 fellows from 10 South American countries, will deal with the diagnosis of vesicular diseases, and the other, to be held in Porto Alegre, Rio Grande do Sul, also for 10 fellows from as many countries, on the administration of health campaigns.

In 1972, two national courses will be held in Brazil, one in Ecuador and one in Paraguay.

In 1972, a program of individual training on the protection of disease-free zones will be launched for veterinarians attached to border services in disease-free countries and for persons carrying out similar functions in disease-free areas of infected countries such as Argentine Patagonia and the neighboring region of Chile.

An understanding has already been reached with the Panamanian authorities to use the preventive services of that country and the zone as a training area.

For 1972 provision has also been made for 24 fellowships, totaling 96 fellowship months, for 17 countries, including countries in the disease-free and in the infected area.

Under the 1973 international short courses program, one will be held in Rio de Janeiro on foot-and-mouth disease vaccine production methods, and the other, on programing and evaluation of campaigns, will be held in Caracas, Venezuela. Both will be for 11 fellows from 10 countries.

In the same year national courses will be held for Central American veterinarians in two countries in that area, probably Panama and Guatemala. Veterinarians from neighboring countries will attend as fellows.

Provision has been made for 24 fellowships for personnel from 17 countries.

It is also planned to hold two international short courses in 1974: one in Brazil on statistics, which will be attended by 11 veterinarians from 10 countries operating foot-and-mouth disease control programs, and the other in Panama on prevention in disease-free areas, to be attended by 18 professional personnel from as many countries in the disease-free area of the Continent.

In 1974 national courses for countries in the affected area and the places in which courses will be held will be determined in the light of the situation of the various campaigns.

Provision is made in 1974 for 24 fellowships totaling 96 fellowships months.

To achieve the targets of the training program it is estimated that the following staff will be necessary:

International Staff: No change in 1972. The budget for 1973 includes an international post for a translator, in view of the need to expand the program of publications, teaching materials, visual aids, and information.

Local Staff: There will be an increase of one secretary in 1972 and one clerk in 1974.

The following table shows the personnel required for the training activities:

<u>International Staff</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief, Training Activities	1	1	1
Publication Officer	1	1	1
Translator	-	1	1
<u>Local Personnel</u>			
Librarian	1	1	1
Secretary	2	2	2
Clerk	1	1	2
Total	6	7	8

IV. FIELD ADVISORY SERVICES

1. Countries in the Disease-free Area

The Center assisted countries in the disease-free area in the organization and conduct of preventive programs, training, and diagnostic services, and appointed an adviser for the countries of the Caribbean area.

The "Plan of Action" to be taken in the event of an outbreak of foot-and-mouth disease was revised and brought up to date, and surveillance of other vesicular diseases in this area was activated with a view to providing prompt and accurate diagnosis.

Advice was given to the Governments of Panama and Colombia on frontier programs in the Darien and Choco.

Costa Rica and the United States of America signed an agreement designed to prevent the possible introduction of foot-and-mouth disease and cattle pest into Costa Rica, and to eradicate it. This agreement is basically similar to that which has existed for a number of years between the United States of America and Mexico.

Direct assistance was given to Curaçao to eliminate an outbreak of foot-and-mouth disease.

2. Countries of the Infected Area

Advisory services continued to be given to the countries affected by foot-and-mouth disease in the planning, execution, and evaluation of these campaigns, the technical staff of that Center having been strengthened by the appointment of two area consultants, one biostatistician, one epidemiologist, and an administrative methods officer. Assistance was given to Bolivia, Ecuador, Colombia, Peru, and Venezuela in connection with national foot-and-mouth disease control programs and the preparation of loan applications to be submitted to the Inter-American Development Bank (IDB). A handbook on the establishment and operation of biostatistical units in animal health services was prepared, in which special emphasis was given to foot-and-mouth disease. A continent-wide surveillance system for vesicular diseases of animals was established, and information was published monthly in the Epidemiological Bulletin of the Center. All important developments are immediately made known to the national and international agencies concerned with or interested in the subject.

Assistance was given to Brazil, Paraguay, and Argentina in drafting legislation governing the production and control of the potency of vaccines and in planning the buildings and equipment necessary for control of laboratories.

The following intercountry meetings were coordinated or assisted: Brazil-Venezuela-Guyana, Argentina-Chile-Peru, Colombia-Ecuador, and Colombia-Panama.

Assistance was given to Brazil and Venezuela in connection with carrier detection tests on cattle which Venezuela is importing from Brazil.

During the year enzootic or sporadic outbreaks of foot-and-mouth disease occurred in all the affected countries of South America; there were a few localized epidemic outbreaks in relatively small areas, but they were of no international importance.

In Argentina two outbreaks occurred in the province of Chubut, which had been declared free of the disease the previous year, and were eliminated by the slaughter of susceptible animals and contacts. An IDB loan for US\$10,500,000 was awarded.

In Bolivia the technical structure for local plans in Cochabamba and Santa Cruz de la Sierra were prepared in anticipation of the national program which is being planned.

In Brazil, an evaluation was made of the resources being used and available in campaigns in progress in some of the states. This country was awarded an IDB loan totaling US\$13,600,000 as financial support for the national foot-and-mouth disease control program.

Chile launched a national campaign against foot-and-mouth disease and initiated vaccine potency tests. Two outbreaks occurred in the province of Magallanes, an area free of the disease; they were eliminated by slaughtering the affected cattle, in which Center consultants took a direct part.

In Colombia an application for an IDB loan of US\$9,000,000 for a national foot-and-mouth disease campaign was completed and delivered. The Center helped to eradicate an outbreak due to Waldmann type C virus in Leticia, and provided field technical advisory services and vaccines.

With the technical support of the Center, Ecuador initiated the production and use of inactivated foot-and-mouth disease vaccine. Progress was also made in preparing the national foot-and-mouth disease control campaign which it is planned to undertake with supplementary financing from the IDB.

In Paraguay the campaign to vaccinate 25 per cent of the cattle in the country was completed. A private laboratory began to produce vaccine, and the diagnoses of field specimens were initiated in a provisional government laboratory. Bids were opened for the construction of a permanent diagnosis and control laboratory.

In Peru the national foot-and-mouth disease control project was completed and submitted to the IDB with a view to obtaining financial assistance. Health regulations for the importation of cattle from Argentina through Chile were prepared.

In Uruguay the disease was kept at a very low level through a vaccination campaign which covered the entire cattle population for the first time. The quality and effectiveness of all vaccine production was controlled by the State. Increased efforts were made to incorporate the rural community into the campaign, especially through the establishment of cattle committees centered on rural schools.

In Venezuela a study on the restructuring of the foot-and-mouth disease control program was begun. By the end of 1970 a new modified live vaccine was already in wide use after favorable potency tests had been undertaken in Maracay. This vaccine replaces the virus A component, which had been used since 1962, by a strain of A-24 Cruzeiro subtype delivered by the Center at the beginning of the year. The change was necessary because of the failure of vaccine currently in use to protect cattle against a new subtype A spread in the field.

To achieve the above-mentioned targets, the following staff will be necessary:

<u>International Staff</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief of Service	1	1	1
Epidemiologists	2	2	2
Area Consultants	5	5	5
Headquarters Consultants			
in Biostatistics	1	2	2
in Administrative Methods	1	1	1
in Vaccine Production and Control	1	1	1
<u>Local Staff</u>			
Secretaries	3	3	3
Clerks	2	2	2
	<hr/>	<hr/>	<hr/>
Total	16	17	17

The Field Advisory Services have assigned the following percentages of its budget to these activities:

	<u>1972</u>	<u>1973</u>	<u>1974</u>
	%	%	%
Headquarters Services	62.0	64.9	64.9
Area Consultants	38.0	35.1	35.1

V. ADMINISTRATIVE SERVICES

The local staff of the Administrative Services will be increased by one clerk in the Personnel Section in 1972 and one typist in the Finance Section in 1973.

The increases here are due to the regular within-grade increases of local staff and a possible salary increase in the order of 20 per cent for 1972 and 1973 and 10 per cent for 1974, due to the rise in the cost of living.

VI. COMMON SERVICES

Provision is made for slight increases for supplies and equipment in 1972, 1973, and 1974, to cover possible price increases in products and equipment and additional maintenance service that will be needed for laboratories and animal quarters to be put up in 1971, and for the replacement of a vehicle in 1972, two in 1973 and nine in 1974.

VII. ORGANIZATION OF MEETINGS

There will be no substantial changes in the cost of the meetings of the Scientific Advisory Committee and the Technical Council in 1972, 1973, and 1974.

ORGANIZATIONAL CHART OF THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

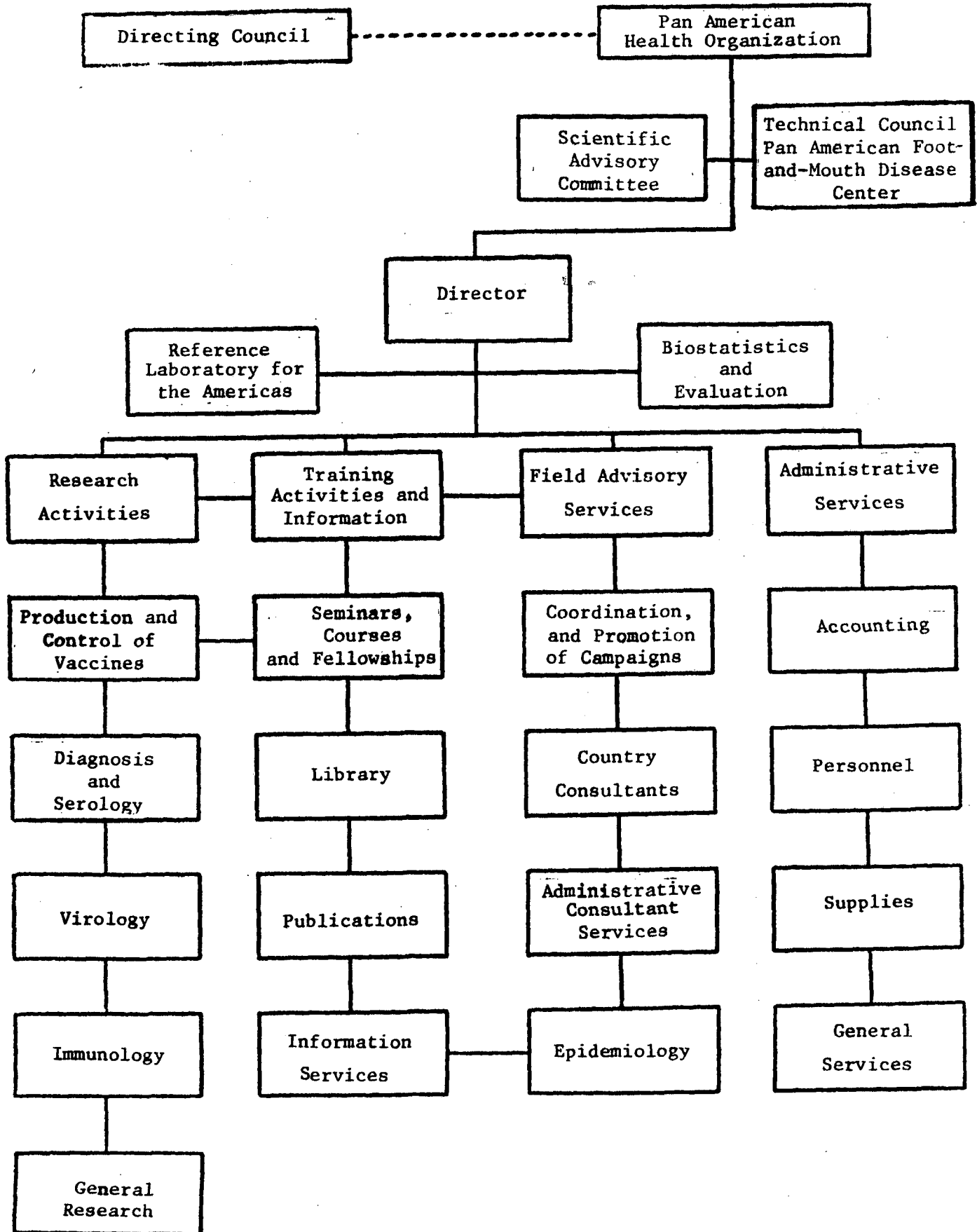


TABLE I - FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF THE BUDGET IN ACCORDANCE WITH THE PROGRAM OF DIRECT SERVICES TO GOVERNMENTS

1972 - 1973 - 1974

YEAR	LABORATORY SERVICES (a)		FIELD SERVICES TO PREVENT CONTROL CAMPAIGNS (b)		TRAINING (c)		RESEARCH (d)		ADMINISTRATION (e)		TOTAL BUDGET	
	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
1972	377,372	24.4	420,271	27.2	251,045	16.2	446,138	28.9	50,711	3.3	1,545,537	100.0
1973	407,561	24.0	470,703	27.7	281,170	16.5	481,829	28.3	58,828	3.5	1,700,091	100.0
1974	448,824	24.0	518,018	27.7	308,567	16.5	529,238	28.3	65,453	3.5	1,870,100	100.0

- (a) Includes the item for diagnostic and reference laboratories and costs of laboratory consultants providing direct services to Governments and the cost of supplies sent to the countries.
- (b) In addition to the budget for field advisory services, includes costs of personnel and administrative staff of field studies on vaccines, epidemiology of the disease, carriers, etc., carried out jointly by the field advisory and laboratory departments. Also includes costs of meetings.
- (c) These funds include the budget of the Training Department (personnel, fellowships, national and international courses, short-term consultants, supplies and equipment, and publications) and the costs of personnel, supplies, and other administrative costs for other departments involved in training.
- (d) Includes the costs of research undertaken by headquarters laboratories in coordination with the institutes or laboratories of some countries. Includes costs of personnel, supplies and equipment, and administrative costs.
- (e) Funds intended for the general administration costs of the Center - finances, personnel, supplies, and general services.

TABLE II

AFFECTED AREA - FIELD SPECIMENS EXAMINED IN THE PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER IN 1970

Country++	Foot-and-Mouth Disease Virus Subtypes													Neg- ative	Total
	O 1	A 24	A 26	A 27	A Ven/ 70*	A Bol/ 70**	A Braz/ 70-I**	A Braz/ 70-II**	A Braz/ 70-III**	C 3	C Arg/ 69*	C Leti- cia	C Parag/ 70** 69*		
Argentina	-	4	1	-	-	-	-	-	-	-	14	-	-	-	19
Bolivia	1	-	-	-	-	3	-	-	-	2	-	-	-	-	6
Brazil	84	6	-	-	-	-	26	38	4	41	-	-	22	20	241
Colombia	-	-	-	1	-	-	-	-	-	-	-	2	-	6	9
Chile	6	-	2	-	-	-	-	-	-	-	1	-	-	-	9
Guyana	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Paraguay	18	36	-	-	-	-	-	-	-	-	-	-	-	16	70
Peru	-	5+	-	-	-	-	-	-	-	5	2+	-	-	-	12
Uruguay	1	2	2	-	-	-	-	-	-	-	-	-	-	-	5
Venezuela	-	-	-	-	9	-	-	-	-	-	-	-	-	-	9
TOTAL	113	53	5	1	9	3	26	38	4	48	17	2	22	42	383

* Subtypes sent to the World Reference Laboratory for allotment of the corresponding number.

** Provisional denomination.

+ One specimen of A₂₄ and two of C Arg/69 have been isolated on-board ship from animals coming from Argentina.

++ Brazil - Five unweaned mice specimens were received but did not allow of classification studies.

Colombia - One specimen of vesicular stomatitis subtype Indiana I was received.

Peru - Two specimens of vesicular stomatitis subtype Indiana I were received.

TABLE III
 DISEASE-FREE AREA - FIELD SPECIMENS EXAMINED IN THE PAN AMERICAN FOOT-AND-MOUTH DISEASE
 CENTER IN 1970

Country	Types and subtypes of the vesicular estomatitis virus		Negative	Total
	New Jersey	Indiana I		
Costa Rica	4	-	-	4
El Salvador	5	-	3	8
Guatemala	-	1	1	2
Honduras	4	1	3	8
Nicaragua	3	-	1	4
Panama	-	4	3	7
TOTAL	16	6	11	33

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF THE BUDGET FOR 1972

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and allowances	75,087	700,918	63,365	268,914	62,228	-	-	1,170,512	75.7
Duty travel	6,945	25,973	5,336	45,798	-	-	39,000	123,052	8.0
Fellowships	-	-	40,763	-	-	-	-	40,763	2.6
Short-term consultants	-	-	3,324	-	-	-	2,000	5,324	0.4
Supplies and equipment	-	107,050	20,000	1,000	1,815	31,500	-	161,365	10.4
Contractual services	-	8,451	2,970	-	1,100	20,000	9,000	41,521	2.7
Publications	-	-	3,000	-	-	-	-	3,000	0.2
Total	82,032	842,392	138,758	315,712	65,143	51,500	50,000	1,545,537	
Percentage of total	5.3	54.6	9.0	20.4	4.2	3.3	3.2		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1972

<u>Office of the Director</u>		<u>82,032</u>
Salaries and allowances		75,087
Professional staff (2)		
Director, P.5		
Administrative officer, P.4		
Local staff (3)		
Duty travel		6,945
<u>Research activities</u>		<u>842,392</u>
Salaries and allowances		700,918
Professional personnel (12)		
Chief of laboratories, P.5		
Virologist, P.4		
Serologist, P.4		
Research officer, P.4		
Biochemist, P.4		
Immunologist, P.4		
Serologist, P.4		
Research officer, P.4		
Research officer, P.4		
Serologist, P.4		
Research assistant, P.1		
Research assistant, P.1		
Local staff (114)		
Duty travel		25,973
Supplies and equipment		107,050
Supplies	84,950	
Equipment	22,100	
Contractual services		8,451

1972 BUDGET (continued)

<u>Training activities</u>	<u>138,758</u>
Salaries and allowances	63,365
Professional staff (2)	
Chief of training activities, P.4	
Technical publications officer, P.2	
Local staff (4)	
Duty travel	5,336
Short-term consultants	3,324
Fellowships	40,763

	<u>Period</u>	<u>Stipends</u>	<u>Travel</u>
<u>Residents</u>	96 months	17,280	9,930
24 fellows from: Paraguay (2), Argentina (1), Chile (1), Peru (2), Uruguay (1), Bolivia (2), Colombia (2), Ecuador (2), Venezuela (2), Brazil (2), Guatemala (1), Panama (1), Dominican Republic (1), Cuba (1), Haiti (1), Jamaica (1), United States of America (1)			

Short courses

Training course in Rio de Janeiro, Brazil	21 days	4,620	2,879
10 fellows from: Brazil, Uruguay, Paraguay, Argentina, Chile, Ecuador, Bolivia, Colombia, Peru, Venezuela (one each)			
Training course in Rio Grande do Sul, Brazil	21 days	3,150	2,904

10 fellows from: Argentina,
Brazil, Paraguay, Bolivia,
Ecuador, Colombia, Venezuela,
Peru, Chile, Uruguay (one each)

Publications		3,000
Supplies and equipment		20,000
Supplies	14,000	
Equipment	6,000	
Contractual services		2,970
<u>Advisory services</u>		<u>315,712</u>
Salaries and allowances		268,914
Professional staff (11)		
Chief of field services, P.5		
2 veterinarians, P.4		
5 country consultants, P.4		
Administrative consultant, P.4		
Biostatistician, P.4		
Vaccine consultant, P.4		
Local staff (5)		
Duty travel		45,798
Supplies and Equipment		1,000
<u>Administrative services</u>		<u>65,143</u>
Salaries and allowances		62,228
Local staff (9)		
Supplies and equipment		1,815
Contractual services		1,100
<u>Common services</u>		<u>51,500</u>
Supplies and equipment		31,500
Supplies	25,000	
Equipment	6,500	
Contractual services		20,000

1972 BUDGET (continued)

<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty travel	13,000	
Per diem	10,000	
Short-term consultants	2,000	
Interpreters	6,000	
Local transportation, printing and general services	1,500	
Secretariat personnel	1,500	
Scientific Advisory Committee		16,000
Duty travel	10,000	
Per diem	6,000	
	TOTAL	<u><u>1,545,537</u></u>

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1972 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and allowances</u>							
International staff	62,340	62,400	74,694	24,646	27,414	251,494	29.8
Local staff	80,447	127,636	99,772	72,807	68,762	449,424	53.4
<u>Duty travel</u>	4,001	5,980	8,959	3,890	3,143	25,973	3.1
<u>Supplies and equipment</u>	12,198	60,053	16,714	6,642	11,443	107,050	12.7
<u>Contractual services</u>	2,901	-	-	-	5,550	8,451	1.0
Total	161,887	256,069	200,139	107,985	116,312	842,392	
Percentage of total	19.2	30.4	23.8	12.8	13.8		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1972 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisors	Headquarters Advisors	Total	Percentage of Total
<u>Salaries and allowances</u>				
International staff	101,467	137,871	239,338	75.8
Local staff	-	29,576	29,576	9.4
<u>Duty travel</u>	18,617	27,181	45,798	14.5
<u>Supplies and equipment</u>	-	1,000	1,000	0.3
Total	120,084	195,628	315,712	
Percentage of total	38.0	62.0		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF BUDGET FOR 1973

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and allowances	81,485	750,803	82,871	323,937	70,870	-	-	1,309,966	77.1
Duty travel	5,945	22,973	5,336	42,942	-	-	39,000	116,196	6.8
Fellowships	-	-	46,313	-	-	-	-	46,313	2.7
Short-term consultants	-	-	3,324	-	-	-	2,000	5,324	0.3
Supplies and equipment	-	111,944	22,600	5,500	2,000	36,548	-	178,592	10.5
Contractual services	-	3,500	4,200	-	1,500	22,000	9,000	40,200	2.4
Publications	-	-	3,500	-	-	-	-	3,500	0.2
Total	87,430	889,220	168,144	372,379	74,370	58,548	50,000	1,700,091	
Percentage of total	5.1	52.3	9.9	21.9	4.4	3.5	2.9		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1973

<u>Office of the Director</u>		<u>87,430</u>
Salaries and allowances		81,485
Professional staff (2)		
Director, P.5		
Administrative officer, P.4		
Local staff (3)		
Duty travel		5,945
<u>Research activities</u>		<u>889,220</u>
Salaries and allowances		750,803
Professional personnel (12)		
Chief of laboratories, P.5		
Virologist, P.4		
Serologist, P.4		
Research officer, P.4		
Biochemist, P.4		
Immunologist, P.4		
Serologist, P.4		
Research officer, P.4		
Research officer, P.4		
Serologist, P.4		
Research assistant, P.1		
Research assistant, P.1		
Local staff (116)		
Duty travel		22,973
Supplies and equipment		111,944
Supplies	82,944	
Equipment	29,000	
Contractual services		3,500

1973 BUDGET (continued)

<u>Training activities</u>	<u>168,144</u>
Salaries and allowances	82,871
Professional staff (3)	
Chief of training activities, P.4	
Technical translator, P.2	
Technical publications officer, P.2	
Local staff (4)	
Duty travel	5,336
Short-term consultants	3,324
Fellowships	46,313

	<u>Period</u>	<u>Stipends</u>	<u>Travel</u>
<u>Residents</u>	96 months	19,007	10,923

24 fellows from: Paraguay (2),
Argentina (1), Chile (1),
Peru (2), Uruguay (1),
Bolivia (2), Colombia (2),
Ecuador (2), Venezuela (2),
Brazil (2), Guatemala (1),
Panama (1), Dominican
Republic (1), Cuba (1),
Haiti (1), Jamaica (1),
United States of America (1)

Short courses

Training course in Rio de Janeiro, Brazil	21 days	4,851	2,879
11 fellows from: Brazil (2), Uruguay, Paraguay, Argentina, Chile, Ecuador, Bolivia, Colombia, Peru, Venezuela (one each)			
Training course in Caracas, Venezuela	21 days	5,775	2,878
11 fellows from: Venezuela (2), Argentina, Brazil, Paraguay, Bolivia, Ecuador, Colombia, Peru, Chile, Uruguay (one each)			

1973 BUDGET (continued)

Publications		3,500
Supplies and equipment		22,600
Supplies	14,800	
Equipment	7,800	
Contractual services		4,200
<u>Advisory services</u>		<u>372,379</u>
Salaries and allowances		323,937
Professional staff (12)		
Chief of field services, P.5		
2 veterinarians, P.4		
5 country consultants, P.4		
Administrative consultant, P.4		
Biostatistician, P.4		
Vaccine consultant, P.4		
Statistician, P.4		
Local staff (5)		
Duty travel		42,942
Supplies and equipment		5,500
<u>Administrative services</u>		<u>74,370</u>
Salaries and allowances		70,870
Local staff (10)		
Supplies and equipment		2,000
Contractual services		1,500
<u>Common services</u>		<u>58,548</u>
Supplies and equipment		36,548
Supplies	24,848	
Equipment	11,700	
Contractual services		22,000

1973 BUDGET (continued)

<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty travel	13,000	
Per diem	10,000	
Short-term consultants	2,000	
Interpreters	6,000	
Local transportation, printing and general services	1,500	
Secretariat personnel	1,500	
Scientific Advisory Committee		16,000
Duty travel	10,000	
Per diem	6,000	
	TOTAL	<u><u>1,700,091</u></u>

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1973 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and allowances</u>							
International staff	66,079	66,346	70,359	31,033	33,708	267,525	30.1
Local staff	86,652	135,511	105,645	79,305	76,165	483,278	54.3
<u>Duty travel</u>	3,539	5,284	7,925	3,445	2,780	22,973	2.6
<u>Supplies and equipment</u>	13,176	61,032	17,693	7,621	12,422	111,944	12.6
<u>Contractual services</u>	700	700	700	700	700	3,500	0.4
Total	170,146	268,873	202,322	122,104	125,775	889,220	
Percentage of total	19.1	30.3	22.8	13.7	14.1		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1973 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisors	Headquarters Advisors	Total	Percentage of Total
<u>Salaries and allowances</u>				
International staff	117,028	171,366	288,394	77.5
Local staff	-	35,543	35,543	9.5
<u>Duty travel</u>	13,791	29,151	42,942	11.5
<u>Supplies and equipment</u>	-	5,500	5,500	1.5
Total	130,819	241,560	372,379	
Percentage of total	35.1	64.9		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BREAKDOWN OF BUDGET FOR 1974

	Office of Director	Research	Training	Field Services	Adminis- tration	Common Services	Meetings	Total	Percentage of Total
Salaries and allowances	81,625	814,651	96,126	343,825	77,954	-	-	1,414,181	75.7
Duty travel	6,540	25,270	5,870	47,223	-	-	39,000	123,903	6.6
Fellowships	-	-	51,226	-	-	-	-	51,226	2.7
Short-term consultants	-	-	3,440	-	-	-	2,000	5,440	0.3
Supplies and equipment	-	121,550	23,280	4,350	2,200	77,000	-	228,380	12.2
Contractual services	-	3,850	4,620	-	1,650	24,000	9,000	43,120	2.3
Publications	-	-	3,850	-	-	-	-	3,850	0.2
Total	88,165	965,321	188,412	395,398	81,804	101,000	50,000	1,870,100	
Percentage of total	4.7	51.6	10.1	21.1	4.4	5.4	2.7		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

BUDGET

1 January - 31 December 1974

<u>Office of the Director</u>		<u>88,165</u>
Salaries and allowances		81,625
Professional staff (2)		
Director, P.5		
Administrative officer, P.4		
Local staff (3)		
Duty travel		6,540
<u>Research activities</u>		<u>965,321</u>
Salaries and allowances		814,651
Professional personnel (12)		
Chief of laboratories, P.5		
Virologist, P.4		
Serologist, P.4		
Research officer, P.4		
Biochemist, P.4		
Immunologist, P.4		
Serologist, P.4		
Research officer, P.4		
Research officer, P.4		
Serologist, P.4		
Research assistant, P.1		
Research assistant, P.1		
Local staff (117)		
Duty travel		25,270
Supplies and equipment		121,550
Supplies	91,450	
Equipment	30,100	
Contractual services		3,850

1974 BUDGET (continued)

<u>Training activities</u>	<u>188,412</u>
Salaries and allowances	96,126
Professional staff (3)	
Chief of training activities, P.4	
Technical translator, P.2	
Technical publications officer, P.2	
Local staff (5)	
Duty travel	5,870
Short-term consultants	3,440
Fellowships	51,226

	<u>Period</u>	<u>Stipends</u>	<u>Travel</u>
<u>Residents</u>	96 months	19,007	10,923
24 fellows from: Paraguay (2), Argentina (1), Chile (1), Peru (2), Uruguay (1), Bolivia (2), Colombia (2), Ecuador (2), Venezuela (2), Brazil (2), Guatemala (1), Panama (1), Dominican Republic (1), Cuba (1), Haiti (1), Jamaica (1), United States of America (1)			

Short courses

Training course in Panama, Panama	21 days	7,560	4,192
18 fellows from: Barbados, Mexico, Panama, Guyana, Guatemala, Nicaragua, Costa Rica, French Guiana, British Honduras, El Salvador, Honduras, Haiti, Dominican Republic, Netherlands Antilles, Cuba, Jamaica, Trinidad and Tobago, Surinam			

1974 BUDGET (continued)	<u>Period</u>	<u>Stipends</u>	<u>Travel</u>
Training course in Rio Grande do Sul, Brazil	21 days	6,006	3,538
11 fellows from: Argentina (1), Brazil (2), Paraguay (1), Bolivia (1), Ecuador (1), Colombia (1), Venezuela (1), Peru (1), Chile (1), Uruguay (1)			
Supplies and equipment			23,280
Supplies		16,280	
Equipment		7,000	
Contractual services			4,620
Publications			3,850
<u>Advisory services</u>			<u>395,398</u>
Salaries and allowances			343,825
Professional staff (12)			
Chief of field services, P.5			
2 veterinarians, P.4			
5 country consultants, P.4			
Administrative consultant, P.4			
Biostatistician, P.4			
Vaccine consultant, P.4			
Statistician, P.4			
Local staff (5)			
Duty travel			47,223
Supplies and equipment			4,350
<u>Administrative services</u>			<u>81,804</u>
Salaries and allowances			77,954
Local staff (10)			
Supplies and equipment			2,200
Contractual services			1,650

1974 BUDGET (continued)

<u>Common services</u>		<u>101,000</u>
Supplies and equipment		77,000
Supplies	27,000	
Equipment	50,000	
Contractual services		24,000
<u>Meetings</u>		<u>50,000</u>
Technical Council Meeting		34,000
Duty travel	13,000	
Per diem	10,000	
Short-term consultants	2,000	
Interpreters	6,000	
Local transportation, printing and general services	1,500	
Secretariat personnel	1,500	
Scientific Advisory Committee		16,000
Duty travel	10,000	
Per diem	6,000	
	TOTAL	<u><u>1,870,100</u></u>

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1974 BUDGET

RESEARCH ACTIVITIES

	Diagnosis and Reference	Vaccine	Modified Live Virus Vaccine	Virus Survival	General Research	Total	Percentage of Total
<u>Salaries and allowances</u>							
International staff	69,476	69,757	73,977	32,628	35,441	281,279	29.1
Local staff	95,634	149,557	116,596	87,526	84,059	533,372	55.3
<u>Duty travel</u>	3,892	5,812	8,718	3,790	3,058	25,270	2.6
<u>Supplies and equipment</u>	14,306	66,269	19,205	8,278	13,492	121,550	12.6
<u>Contractual services</u>	770	770	770	770	770	3,850	0.4
Total	184,078	292,165	219,266	132,992	136,820	965,321	
Percentage of total	19.0	30.3	22.7	13.8	14.2		100.0

PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER

1974 BUDGET

FIELD ADVISORY SERVICES

	Regional Advisors	Headquarters Advisors	Total	Percentage of Total
<u>Salaries and allowances</u>				
International staff	123,731	180,998	304,729	77.1
Local staff	-	39,096	39,096	9.9
<u>Duty travel</u>	15,168	32,055	47,223	11.9
<u>Supplies and equipment</u>	-	4,350	4,350	1.1
Total	138,899	256,499	395,398	
Percentage of total	35.1	64.9		100.0



ORGANIZACION PANAMERICANA DE LA SALUD

CE66/8 (Eng.)
ANNEX V

IV REUNION INTERAMERICANA SOBRE EL CONTROL DE FIEBRE AFTOSA Y OTRAS ZONOSIS

ORGANIZACION MUNDIAL DE LA SALUD

LIMA, PERU, 5-7 ABRIL 1971

Draft Agenda Item 8

RICAZ4/6 (Eng.)
11 March 1971
ORIGINAL: SPANISH

PROGRAM AND FINANCING OF THE REGIONAL PROJECT FOR THE STRENGTHENING OF
THE PAN AMERICAN ZONOSSES CENTER

PROGRAM AND BUDGET ESTIMATES OF THE
PAN AMERICAN ZONOSSES CENTER

PROPOSED PROGRAM AND BUDGET ESTIMATES FOR 1972
AND PRELIMINARY DRAFTS FOR 1973 AND 1974

PROPOSED PROGRAM AND BUDGET ESTIMATES FOR 1972
AND PRELIMINARY DRAFTS FOR 1973 AND 1974

INTRODUCTION

From 1956 to 1966 the activities of the Pan American Zoonoses Center were financed with funds from the Government of Argentina and from PAHO/WHO. To enable it to satisfy the steadily increasing needs of the Member Countries for technical assistance, the Government of Argentina submitted to the United Nations Development Program (UNDP) a project entitled "Strengthening of the Pan American Zoonoses Center in Ramos Mejia and Azul." This project was approved for a period of five years, 1967-1971, and will end on 31 December of this year.

The UNDP contribution has enabled the Center to substantially increase its assistance to the countries, and has earned its recognition as a leading institution in the study and control of zoonoses. In compliance with Resolution VIII of the Second Inter-American Meeting at the Ministerial Level on the Control of Foot-and-Mouth Disease and Other Zoonoses, held in Rio de Janeiro (8-11 April 1968), a special mission appointed by the Director of the Pan American Sanitary Bureau (PASB) visited 26 Member Countries and collected information in each of them on zoonoses control problems and needs in the Region. The Mission also obtained the unanimous agreement of the countries that the Center should expand its technical assistance program, and obtained from them pledges of financial support for that purpose.

The Third Inter-American Meeting, at the Ministerial Level, on the Control of Foot-and-Mouth Disease and Other Zoonoses, held in Buenos Aires from 14 to 17 April 1970, approved Resolution II (see Annex II), which recognized "the essential role of the Pan American Zoonoses Center in education, research, and advisory services to assist the Governments in promoting, expanding, and improving national programs to control and prevent zoonoses." With a view to further expanding the activities of the Center throughout the Region, Resolution II recommended to PASB that it approve an additional appropriation for the Center - in accordance with Document RICA23/14 - on the understanding that the Ministers of Agriculture of the Governments of the Organization increase their financial support in accordance with the scale of assessment. This recommendation was approved by the XVIII Pan American Sanitary Conference of PAHO on 8 October 1970 (Annex III). The Third Inter-American Meeting on the Control of Foot-and-Mouth Disease and Other Zoonoses also reaffirmed the desire of the countries to support a proposal to the UNDP for financial assistance to the Center as a regional project. The regional project, requesting a contribution of US\$1,528,837 from the UNDP for a period of five years, 1972 through 1976, was submitted by the Government of Argentina as the host country of the Center, and supported by Brazil, Chile, Colombia, Cuba, Ecuador, Paraguay, Uruguay, Venezuela, and most of the other countries of the Hemisphere.

SOURCE OF FUNDS

According to the regional project, funds for financing the activities of the Pan American Zoonoses Center will come from four sources:

- (a) The Ministries of Agriculture of the Member Countries of the Pan American Health Organization (PAHO);
- (b) A special annual contribution from the Government of Argentina;
- (c) The United Nations Development Program (UNDP); and
- (d) An allotment from the regular budget of PAHO/WHO.

Table 1 shows the budgetary projection for the years 1972 through 1974.

NATURE OF THE PROBLEM

Zoonoses have a two-fold impact - on the national economies and on the health of the people. These diseases are of special concern to Latin America, where approximately 50 per cent of the population still live in rural areas, in contact with domestic animals and in close proximity to wild animals.

Information available in the countries shows that brucellosis, bovine rabies, tuberculosis, and hydatidosis are the principal zoonoses by reason of their wide spread and the economic losses they cause. For the export of meat, salmonellosis is of importance, since meat is a frequent vehicle of the infection in man.

In Colombia, Ecuador, Venezuela, the countries of Central America, and Mexico, Venezuelan equine encephalitis is a cause of concern. Large-scale outbreaks occurred in 1969 and in early 1970, causing many human cases and heavy mortality in horses.

In other groups of countries, in particular in Central America, cysticercosis in swine reaches high levels, and the available information concerning cysticercosis in cattle shows that it is also an important zoonosis.

Some indication of the magnitude of the economic losses caused by some of the zoonoses may be obtained from the estimates provided by various countries for brucellosis and bovine rabies. The total estimated losses caused by animal brucellosis in 11 Latin American countries, both large and small, amount to \$230 million each year. The losses caused by bovine rabies are estimated in Latin America at approximately \$48 million, and those caused

TABLE 1
 PAN AMERICAN ZONOSSES CENTER
 BUDGETARY PROJECTIONS FOR THE YEARS 1972 THROUGH 1974
 (in US dollars)

	1972	1973	1974
Contribution from UNDP	384,777	349,910	351,009
Contribution from the Ministries of Agriculture	330,000	363,000	399,300
Contribution from the Government of Argentina	283,436	297,608	312,488
Funds from regular budget of PAHO/WHO	255,658	281,224	309,346
	1,253,871	1,291,742	1,372,143

by animal tuberculosis in South America alone at \$150 million. Consequently, the economic losses caused by the three important zoonoses (brucellosis, tuberculosis, and bovine rabies) are estimated to exceed \$425 million annually.

The countries are showing increasing awareness of the damage both to their national economies and the health of their populations caused by zoonoses and of the need to undertake or expand control programs. An important stimulus in this regard has been the willingness of the Inter-American Development Bank (IDB) to entertain requests for loans for zoonoses control programs. In view of these possibilities a number of Governments are already preparing applications for loans from IDB to finance brucellosis and bovine rabies control programs.

PURPOSE AND OBJECTIVES

Purpose: Provision of technical advisory services to countries to ensure the successful conduct of zoonoses control programs.

To achieve the above-mentioned purpose, the Pan American Zoonoses Center proposes the following objectives:

1. Training and Technical Information: Training of professional and technical staff in laboratory and control activities in the following fields:

- (a) Brucellosis
- (b) Rabies
- (c) Tuberculosis
- (d) Hydatidosis
- (e) Leptospirosis
- (f) Food hygiene and microbiology
- (g) Breeding and management of laboratory animals

Technical information and audiovisual aids consisting of:

- (a) Publication of the Boletín Trimestral
- (b) Publication of the Boletín de Vigilancia Epidemiológica de la Rabia and similar bulletins for brucellosis, tuberculosis, and hydatidosis
- (c) Publication of Notas Técnicas, including periodical revision of those already published and the publication of new notes
- (d) Publication of a new series of Scientific Publications (monographs)

- (e) Bibliographical searches on behalf of scientific institutes in the countries
- (f) Loans of films, slides, and film strips

2. Technical Advisory Services: Consists of field consultations and advisory and laboratory services in the following areas:

- (a) Planning, execution, and evaluation of control programs
- (b) Preparation of applications to be submitted to the Inter-American Development Bank and other lending agencies for loans for zoonoses control
- (c) Conduct of epidemiological investigations
- (d) Preparation of biological products (vaccines, sera, antigens)
- (e) Conduct of diagnostic tests and quality control testing of biological products
- (f) Intercountry coordination by means of the standardization of diagnosis at the Pan American level; establishment of standards for quality control testing of biological products; establishment of criteria for the microbiological examination of foodstuffs of animal origin; establishment of regulations for intercountry trade in animals and products of animal origin; coordination of zoonoses control activities; coordination of epidemiological investigations of interest to the Continent as a whole, and of the epidemiological surveillance of zoonoses

Laboratory Services consist of:

- (a) Provision of strains for the preparation of vaccines, sera, and antigens, as well as for microbiological typing and potency tests
- (b) Provision of antigens, vaccines, and allergens for reference purposes
- (c) Provision of sera for identification, and microbiological typing
- (d) Provision of marked sera for immunofluorescence tests and gamma globulins for research projects
- (e) Quality control testing of biological products

3. Research: The research projects of the Center are primarily applied research projects, and their purpose is:

- (a) To evaluate and improve biological products, devise simplified diagnostic tests, improvement of methods of microbial typing, improvement of treatment, ecological, and epidemiological studies
- (b) To promote research in the countries in the biomedical sciences through assistance to scientific institutes devoted to the study of zoonoses, and national agencies for the study of problems arising from the conduct of control programs

DISTRIBUTION AND FUNDS

The following percentages will be allotted, within the budget for each year, to each of the main headings listed above, which comprise the objectives of the Center and the activities for achieving them:

<u>Year</u>	<u>Training and Technical Information</u>	<u>Technical Advisory Services</u>	<u>Research Projects</u>
1972	16.4	43.7	25.2
1973	17.1	43.7	24.7
1974	17.6	43.6	25.0

The distribution of funds for 1972, 1973, and 1974 is in accordance with the program of activities and the administrative expenses shown in Table 2.

ADMINISTRATION AND ORGANIZATION

The Regional Project of the Pan American Zoonoses Center will be administered by the World Health Organization through the Pan American Sanitary Bureau.

There will be a Coordinating Committee to coordinate the activities of the Center with the control or research projects of the countries. This Committee will be composed of representatives of the Government of Argentina and representatives of six Member Countries elected by the Governing Bodies of PAHO and by the Inter-American Meeting at the Ministerial Level on the Control of Foot-and-Mouth Disease and Other Zoonoses. Members of international agencies will also be members of this Committee but will not have the right to vote.

The FAO Liaison Officer will coordinate the activities of the Center and those that FAO undertakes in the Americas.

TABLE 2

PAN AMERICAN ZOONOSES CENTER
PLAN OF EXPENDITURES IN ACCORDANCE WITH THE PROGRAM OF SERVICES TO COUNTRIES

YEAR	Training and Technical Information		Technical Assistance					Administration		Total Budget		
	(a)	%	Field Services for Zoonoses Control (b)	%	Laboratory Services (c)	%	Research (d)	%	(e)	%	Budget	%
1972	228,991	18.2	363,044	28.9	249,826	19.9	353,232	28.3	58,778	4.7	1,253,871	100.0
1973	245,364	18.9	377,506	29.3	252,613	19.5	354,996	27.6	61,263	4.7	1,291,742	100.0
1974	266,825	19.5	399,061	29.0	264,441	19.3	377,819	27.5	63,997	4.7	1,372,143	100.0

- (a) The funds include fellowships for courses and national and international seminars, salaries of the Center's staff and special consultants, supplies, materials, teaching equipment, personnel, materials and cost of shipping publications.
- (b) Includes salaries of staff, duty travel, supplies and equipment for epidemiological studies, vaccine field trials and other control procedures; administrative costs and meetings.
- (c) Includes staff for the production of standard reagents, quality testing of vaccines and antigens, duty travel, supplies and equipment, and common costs.
- (d) Includes the costs of research projects at the Center itself and in the countries, including costs of personnel, consultants, duty travel, supplies and equipment, and administrative costs.
- (e) Funds for staff salaries and general administrative expenses of the Center (finances, personnel, supplies and general services).

The internal organization of the Center comprises an Office of the Director, two departments, and an administrative section. Each of these divisions comprises several units (see organizational chart).

PROGRAM OF ACTIVITIES AND RESULTS

I. Office of the Director

The staff of the Office of the Director consists of two international professional staff and three local staff. There will be no staff changes in the budgets for 1972, 1973, and 1974.

II. Training and Technical Information

A. Training Program

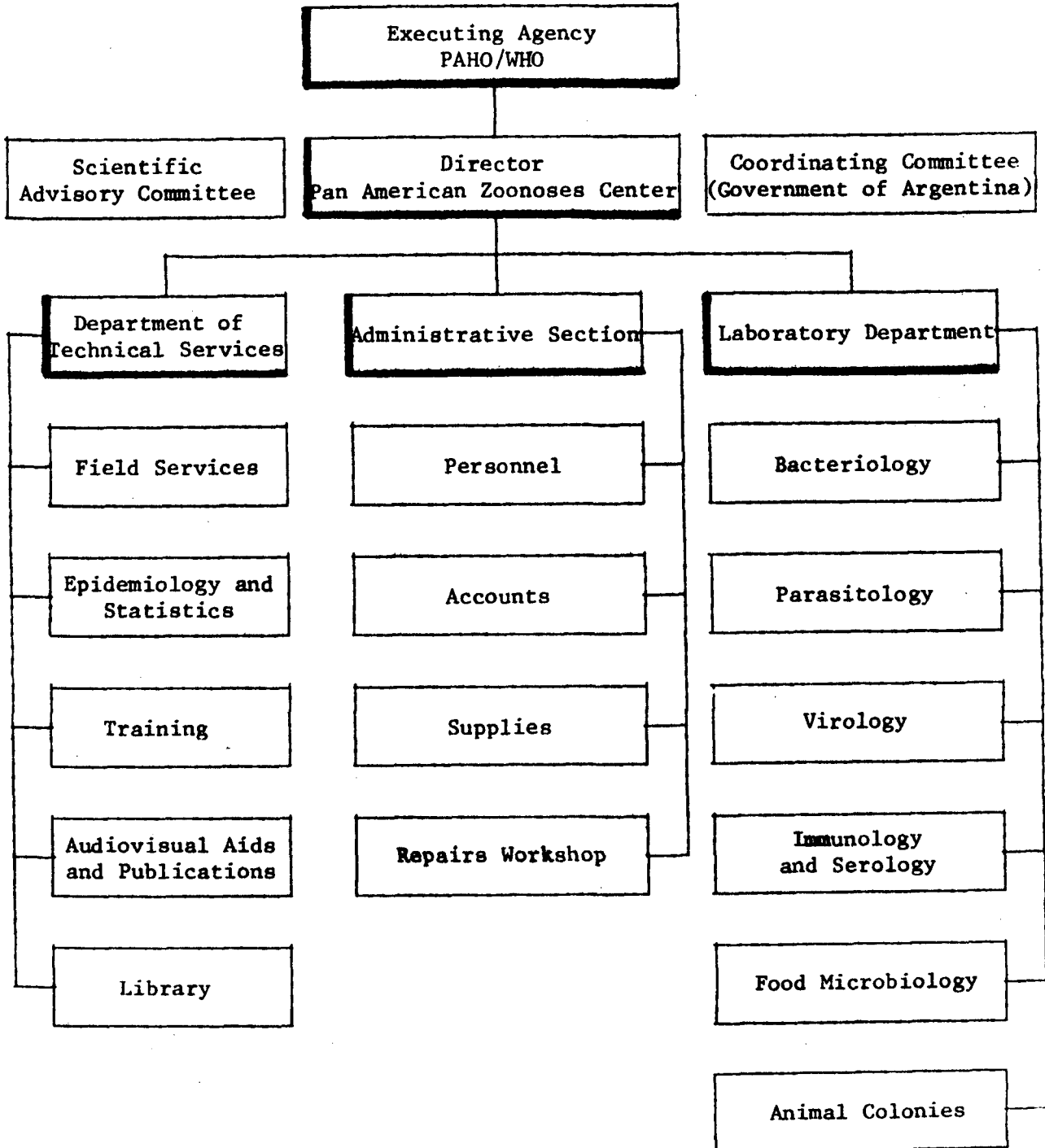
The training of professional and technical staff is one of the basic objectives of the Center, which has already gained a well-established reputation for training in the field of brucellosis, tuberculosis, rabies, hydatidosis, and leptospirosis, as well as in food hygiene and microbiology, and in the breeding and management of laboratory animals. Because of the launching and expansion of zoonoses control programs in the countries, it will be necessary to increase the Center's training activities. In addition to training in the above-mentioned fields, it is planned to include, in the Center's expanded program, training in animal health planning, organization and administration of control programs, applied epidemiology, and biostatistics, which will be carried out jointly with the Pan American Foot-and-Mouth Disease Center.

The Center provides individual short- and long-term training for fellows, as well as group training, such as courses, symposiums, and short courses. The Center has conducted not less than three international courses each year during the first phase of the UNDP project. It is planned to hold the same number of international courses at the Center, but to increase the number of national courses, especially in countries that have control programs, with a view to increasing the necessary manpower for carrying out control activities.

So far the Center has suffered from the disadvantage of not having an allotment for the award of fellowships for international courses or for individual training. In the Second Phase of the regional project (UNDP), which begins in 1972, it is planned to have a special allotment for fellowships and short-term consultants assisting courses.

In the four years of operation of the First Phase of the UNDP project, from February 1967 to December 1970, the Center held 10 courses and/or international seminars and assisted WHO and FAO in organizing and holding

PAN AMERICAN ZONOSSES CENTER
ORGANIZATIONAL CHART



the Inter-Regional WHO/FAO Seminar on the Control of Hydatidosis. These courses were attended by 302 professional staff from almost all the countries of the Americas and from countries from other Regions. The details are shown in Table 3.

In 1970 alone, the Center took part in the organization and conduct of 13 national courses in seven countries (Argentina, Brazil, Chile, Colombia, Cuba, Uruguay, and Venezuela), in which training was given to 356 professional personnel in brucellosis, rabies, food hygiene and microbiology, breeding and management of laboratory animals, and a short course on zoonoses.

In the same year individual training was given at the Center, both in Ramos Mejia and in Azul, for 30 fellows from 10 countries.

In March 1971, a working group will meet at the Headquarters of the Pan American Zoonoses Center to study the planning, administration, and evaluation of control programs. This course, which is a joint undertaking with the Pan American Zoonoses Center, will last for more than eight months and will lay the groundwork for shorter annual courses to be held in the future on the same subject. Another international course will be held this year at the Headquarters of the Center and will deal with meat hygiene and microbiology and meat byproducts. In October of this year, it is planned to hold a regional course, jointly with FAO, on the control of bovine rabies. From 25 January to 5 February, a course was held in Bogota, Colombia, on the diagnosis and epidemiology of leptospirosis, and the Center took part in it. In March, a course will be held in Maracay, Venezuela, on the production and standardization of brucellosis antigens and vaccines. It is planned to hold another course in Venezuela in August on the breeding and management of laboratory animals. A national course on rabies, in which the Center will take part, will be held in March in the Dominican Republic.

Table 4 shows the international and national courses planned for 1972, 1973, and 1974. As may be seen, it is planned to hold three international courses each year, and at least four national courses. The international courses and seminars will normally be held at the Headquarters of the Center, and the national courses in the countries. Together with the Pan American Foot-and-Mouth Disease Center it is planned to organize each year a course on the planning, organization, and evaluation of control programs. These courses may replace some of those indicated in the table, or may be in addition to them. With respect to national courses, preference will be given to countries which have control programs in operation or are planning them.

In accordance with the Regional Project, the Pan American Zoonoses Center will have its own funds for fellowships beginning in 1972. Provision is made in 1972, as in 1973 and 1974, for 84 fellowship-months each year.

TABLE 3
PAN AMERICAN ZONOSSES CENTER
INTERNATIONAL COURSES AND SEMINARS

Subject	No. of Participants	No. of Countries Represented	Dates
Course on Laboratory Methods in Rabies	16	9	11-22 Sept. 1967
Regional Seminar on Rabies	57	17	24-30 Sept. 1967
Course on the Epidemiology and Laboratory Methods in Leptospirosis	17	8	20-31 May 1968
Seminar on the Epidemiology of Zoonoses	33	14	5-16 Aug. 1968
Course on Ram Epididymitis	15	6	11-16 Nov. 1968
Course on the Production of Brucellosis Vaccine and Antigens	17	7	2-13 June 1969
Course on the Breeding and Management of Laboratory Animals	17	8	18-29 Aug. 1969
Course on the Production and Control of Rabies Vaccines	24	10	17-28 Nov. 1969
Laboratory Methods in Hydatidosis	20	7	31 Aug.-11 Sep. 1970
WHO/FAO Inter-Regional Seminar on Hydatidosis Control	46	21	14-19 Sept. 1970
Regional Seminar on the Control of Bovine Tuberculosis	40	18	21-26 Sept. 1970

TABLE 4

PAN AMERICAN ZOOSES CENTER
NATIONAL AND INTERNATIONAL COURSES PLANNED FOR 1972-1974

	1972		1973		1974	
	Nat.	Int.	Nat.	Int.	Nat.	Int.
Brucellosis	+	+	+	-	-	+
Rabies	-	+	+	-	-	+
Hydatidosis	+	-	-	+	+	-
Tuberculosis	-	-	-	+	+	-
Leptospirosis	+	-	+	-	-	+
Food Hygiene and Microbiology	+	-	+	+	+	-
Breeding and Management of Laboratory Animals	-	+	+	-	+	-

Nat. = National
Int. = International

B. Technical Information Program

The lack of technical information available in Latin American countries is notorious. The situation of professional staff working in rural areas and distant from scientific libraries and information centers is especially difficult. Although it is very important for professional staff at the central level to be well informed about scientific and technological advances, it is no less important for professional staff stationed in the interior of a country, who in the final instance carry out control projects.

At the present time, the Center is publishing: (1) A Quarterly Bulletin in Spanish and in English consisting of 80 to 90 pages and containing epidemiological information about countries, reports on research carried out in the countries, and summaries of scientific papers - at present the Quarterly Bulletin is distributed to 2,500 professional personnel interested in zoonoses; (2) a monthly rabies epidemiological surveillance bulletin, issued in English and in Spanish; (3) Technical Notes containing a detailed description of technical methods; and (4) reference material for courses.

Both the quality and the amount of technical information has improved in recent years. Thanks to the UNDP contribution, the Center has been able to establish an audiovisual aids unit with modern printing and photomechanical equipment. In addition to Technical Notes on brucellosis, rabies, and leptospirosis, a new series will be issued on meat hygiene.

With the recruitment of additional staff in accordance with the regional project, it is planned to extend this activity. Besides the rabies epidemiological surveillance bulletin, bulletins on surveillance of other zoonoses will be published periodically. The number of Technical Notes, for which the demand continues to grow, will be increased to include detailed descriptions of methods to be used in tuberculosis, hydatidosis, and the breeding and management of laboratory animals. The Technical Notes are periodically revised and brought up to date. In 1971, it is also planned to begin the publication of scientific monographs intended to keep Latin American professional personnel up to date regarding certain specialized subjects of interest in zoonoses. Eight of these monographs have already been selected for publication. In 1972 bibliographical reference activities, distribution of photocopies, and loans of filmstrips, slides, and films will be increased. Thanks to the offer of the Director of the Regional Library of Medicine, professional personnel will be able to obtain photocopies of articles of interest to them, summaries of which appear in the Center's Quarterly Bulletin on zoonoses.

In order to achieve the targets established in the program for training and technical information, it is planned to recruit the following additional staff:

International staff: a chief of training, and a translator and publications officer. Despite the large amount of work in these fields, there are at present no such posts in the Center. With the planned increase of activities, from the beginning of the regional project, these two posts will be indispensable.

Local staff: There will be an increase of one photo-offset technician, one secretary, one typist, and two audiovisual aids technicians.

The following table summarizes the staff for training activities and technical information:

<u>Staff</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief of Training	-	1	1	1
Translator and Publications Officer	-	1	1	1
Audiovisual Aids Technician	1	1	1	1
Local Staff	4	9	9	9

As may be seen from the table for Training and Technical Information in Annex 1, approximately the same amount of funds are allotted for national and international courses.

III. Technical Advisory Services

The expansion of activities of the Center through the regional project will be primarily in technical advisory services, both field and laboratory, in support of control programs in the countries. More than 40 per cent of the budgetary funds will be allotted to these activities.

A. Field Services

At the present time the Center is providing advisory services by correspondence and by field visits. The Center's experts have been seconded to almost all the countries of the Americas to provide them with advice on the most varied problems in zoonoses control. Advisory services have mainly been with reference to brucellosis in cattle and goats, rabies in cattle and dogs, hydatidosis and tuberculosis, food microbiology, and Bolivian hemorrhagic fever.

On the multinational level, mention must be made of the assistance given to the Regional Technical Commission on Animal Health, which is composed of Argentina, Brazil, Bolivia, Chile, Paraguay, and Uruguay. The Center has helped the Commission's subcommittees, composed of specialists

in the importation and exportation of animals and products of animal origin, brucellosis, tuberculosis, hydatidosis, food hygiene, and inspection, to establish appropriate regulations.

The Pan American Rabies Surveillance System has been in operation for 18 months and at present covers all the countries of the Continent. This service has proved to be extremely useful as "information for action," and has made it possible to correct faults in many canine rabies control programs and to improve national and international planning.

Table 5 shows the field advisory services given to the countries in 1970.

The announcement by the Inter-American Development Bank (IDB) that it would entertain applications for loans for zoonoses control programs has been welcomed by the Governments and will give considerable momentum to future animal health projects. In view of these possibilities, a number of Governments are already preparing applications for IDB loans for financing brucellosis, tuberculosis, and bovine rabies control programs. As a result, IDB has requested the Center to prepare a Handbook on the Preparation of Brucellosis Control Projects, as well as Criteria for the Evaluation and Examination of Applications for Loans for Brucellosis Control Programs. There is no doubt it will also be asked to do the same at a later date for tuberculosis and bovine rabies.

The Special Mission appointed by the Director of the Pan American Sanitary Bureau found that one of the services most frequently requested by the countries was assistance with programming, as well as with the preparation of plans for financing programs, including the preparation of loan applications to be submitted to international lending agencies. To comply with these requests, it is planned to recruit a specialist in programming and a biostatistician.

B. Laboratory Services

The Center plays a leading role in the standardization of biological products used for the diagnosis and for the prevention and control of zoonoses. For that purpose it reproduces, maintains, and distributes reference antigens and vaccines; it receives pathological materials or strains for reference diagnosis or for bacteriological, biological, and/or pathological typing, as well as vaccines, sera, and antigens for quality control tests. The Center serves as the regional reference laboratory for brucellosis, rabies, and leptospirosis. Provision is made in the Second Phase of the regional project for the laboratory to serve in that capacity for tuberculosis, hydatidosis, and food microbiology.

Every program for the control of the principal zoonoses must provide for the development of laboratories. The Center has given considerable assistance in the training of professional personnel specialized in the

TABLE 5

PAN AMERICAN ZOOSES CENTER

Field Services, 1970

<u>Country</u>	<u>Type of Program</u>	<u>Country</u>	<u>Type of Program</u>
Argentina	<ul style="list-style-type: none"> - Survey of bovine tuberculosis - Control of canine rabies - Standards for immunization of man after exposure - Preparation and control of rabies vaccines - Ecological studies on vampire bats and field trial for the control of bovine rabies - Pilot plan for the control of hydatidosis, Province of Neuquen - Epidemiological studies on hydatidosis in Chubut and Rio Negro 	Costa Rica, Guatemala, Honduras, and Nicaragua	- Food hygiene and microbiology
		Nicaragua	- Study on bovine tuberculosis
		Cuba	<ul style="list-style-type: none"> - Brucellosis control - Bovine tuberculosis control
		Chile	<ul style="list-style-type: none"> - Control of anthrax in Ñuble - Canine rabies control - Brucellosis and tuberculosis control
		Paraguay	- Canine rabies control
Bolivia	<ul style="list-style-type: none"> - Prevention of human rabies - Epidemiological study of hydatidosis - Study of human and animal leptospirosis 	Peru	<ul style="list-style-type: none"> - Control of brucellosis in goats - Control of canine rabies - Study on bovine rabies
Brazil	<ul style="list-style-type: none"> - Canine rabies program in São Paulo and Parana - Brucellosis program in Bahia - Study of the biology of <u>Desmodus rotundus</u> - Breeding and management of laboratory animals 	Uruguay	<ul style="list-style-type: none"> - Pilot plan for the control of hydatidosis in the Department of Flores - Meat hygiene and microbiology
		Venezuela	- Brucellosis control
Colombia	<ul style="list-style-type: none"> - Study on bovine tuberculosis - Control of canine rabies - Control of brucellosis - Food hygiene and microbiology 		

diagnosis, production, and control of antigens and vaccines; it has provided advice on laboratory facilities, equipment, and operation; it has given on-the-spot assistance in the production and standardization of biological products and in carrying out diagnostic tests.

Every control program needs standard strains and biological reference products without which it cannot operate. The Center distributes the materials listed in Table 6.

The Center continues to receive samples of batches of rabies vaccine for potency tests. In 1970, it examined 79 batches of eight different types of vaccine, both for human and for animal use, from 12 countries. The results obtained are shown in Table 7.

In 1970 the Center continued to type strains of Brucella, Mycobacterium, and Leptospira isolated from human patients and from different animal species. Table 8 shows the results obtained so far in the typing of 509 strains of Brucella.

The control programs that are being set up in the countries will call for greater laboratory support and an increase in this activity by the Center. In addition to the biological products which it is already producing, the amount of which it will be necessary to increase, the Center will need to prepare tuberculin for reference purposes and hydatidosis antigens for serological and intracutaneous tests, and to provide cell lines for tissue culture.

To satisfy the needs of the countries and to achieve the targets proposed, provision is made in the 1972, 1973, and 1974 budgets for four additional international staff and six local staff, as indicated below:

Field Advisory and Laboratory Services

<u>Field Advisory Staff</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief of Department	1	1	1	1
Epidemiologist (Physician)	1	1	1	1
Epidemiologist (Veterinarian)	1	1	1	1
Ecologist	1	1	1	1
Adviser, Control Programs	-	1	1	1
Biostatistician	-	1	1	1
Specialist in Zoonoses	2	3	3	3
Chief, Laboratory Department (50%)	1	1	1	1
Specialist in Tuberculosis (Bact tb)	1	1	1	1
Specialist in Brucellosis (Bact Bru)	1	1	1	1
Expert in biological products	-	1	1	1
Local staff (including professional staff)	28	34	34	34

TABLE 6

PAN AMERICAN ZONOSSES CENTER

Materials Sent to CountriesBrucellosis

Tube antigen
Plate antigen
Ring antigen

Production strains

B. abortus 19
B. abortus 1119
B. melitensis Rev. 1

Reference strains

B. melitensis M16
B. abortus 544
B. suis 1330

Polyvalent sera

A and M monospecific sera

TB phage

Hydatidosis

Casoni antigen

Latex antigen

Sheep hydatidic liquid

Reference sera

Anthrax

B. anthracis 34F2
B. anthracis P-4

Leptospirosis

Reference serotypes

Antisera

Rabies

Serum conjugate for immunofluorescence

Hyperimmune serum (equine)

Standard reference serum

CPZ reference SMB vaccine

Production strains: LEP, HEP, PVS, 91, 51

Strains for potency tests CVS

DR-19 bovine challenge strains

Cell lines

Tuberculosis

Mammiferous PPD tuberculin

Avian PPD tuberculin

(The tuberculins were obtained from
Weybridge, Great Britain)

Production strains:

M. tuberculosis C, Dt, PnLaboratory Animals

Mice

Rats

Guinea pigs

Hamsters

Gerbils

Rabbits

TABLE 7

PAN AMERICAN ZONOSSES CENTER

Rabies Vaccines Potency Tests, 1970

<u>Type of Vaccine</u>	<u>Results</u> S/E
SMB - H	25/30
SMB - A	19/19
Semple - H	2/3
Umeno-Doy - A	0/1
Formidogel - A	0/3
ERA - A	1/3+
LEP - A	5/13
HEP - A	4/6
Kelser - A	0/1

+ = experimental batches from a national laboratory
 SMB = suckling mouse brain
 H = human use
 A = animal use
 S = satisfactory
 E = tested

TABLE 8

Typing of Brucella Strains - Latin America

<u>Biotype</u>	<u>Number of Strains</u>		
	<u>B. abortus</u>	<u>B. melitensis</u>	<u>B. suis</u>
I	118	271	79
II	10	6	-
III	-	2	1
IV	21	-	-
V	1	-	-

IV. Research

The purpose of research projects is to help the countries with their control programs and to provide them with the tools best suited to the Latin American situation.

It is not possible here to give details of research projects, both because of their number and because of the variety of subjects with which they deal. Since the beginning of the UNDP program (First Phase) 54 different projects have been undertaken, of which 10 are for epidemiological investigation, 18 for improvement of diagnosis, 14 for improvement of vaccines, six for basic research, and six for evaluation of drugs for the control of hydatidosis. Nevertheless, we would like to describe some of these projects in order to give an idea of their characteristics and usefulness.

Improvement of Diagnosis: In addition to training professional staff in new and improved techniques, providing advisory field services and contributing to standardization, the Center has a number of projects on each of the zoonoses intended to simplify investigative techniques and improve their sensitivity and specificity.

With respect to the method of immunofluorescence for the diagnosis of rabies, a technique which the Center has been instrumental in disseminating in Latin America, research has made it possible to shorten its performance time from 5½ hours to 45 minutes. As a result it is now possible for a physician to make a rapid decision about the "treatment" of the patient. In preliminary trials, this modification has also proved useful in examining the saliva of suspect animals.

Another research project shows that better results in isolating rabies virus are obtained by tissue culture enriched with Dextran than by intracerebral inoculation of mice. The importance of this project is that it enables a better, more rapid, and more economical diagnosis to be obtained.

For the serological diagnosis of ram epididymitis (B. ovis) the Center has developed an agar-gel diffusion method which is highly sensitive (92-100 per cent correlation with the complement fixation test), specific, practical and economical.

Abortus and suis standardized agglutinating antigens always give the same result regardless of the antiserum. Standardized melitensis antigen is more sensitive to melitensis antiserum. Therefore, the routine method of standardization cannot be applied to melitensis antigen.

The agglutination latex test using Boerner slides is very useful, practical, sensitive, and specific for the diagnosis of hydatidosis.

Antigenic fractions are being isolated from hydatidic liquid with a view to improving diagnosis in human beings and in animals.

Vaccine Improvement

Special attention has been given to the evaluation of rabies vaccines for cattle, since it is of primary importance in the control of cattle rabies to have biological products which confer effective and long-lasting resistance. Because of considerable confusion in this field, it was necessary to make a reliable evaluation of the relative value of different types of vaccine.

After the potency of eight types of vaccines had been tested in laboratory animals, they were evaluated in cattle, both for seroneutralization and by exposure to a rabies virus isolated from vampire bats. The following conclusions were reached:

- (a) There are considerable differences between the different types of vaccines as far as immunogenic response is concerned;
- (b) The most active live vaccine is that obtained in a culture of pig kidney cells with an attenuated strain;
- (c) The addition of aluminum hydroxide to a chicken embryo live vaccine inhibits the production of neutralizing antibodies;
- (d) The addition of aluminum hydroxide to suckling mouse brain (SMB) inactivated vaccine increases its immunogenic capacity; and
- (e) The use of booster shots 30 days after vaccination is not justified since it does not increase the antibody rate for any considerable length of time.

This is a continuing project of the Center and other types of vaccines are at present being tested.

Very promising results have been obtained in a study of vaccination schedules before exposure to protect groups exposed to the risk of rabies. It has been shown that with three doses of SMB vaccine administered every 36 hours, an excellent immune response is obtained in vaccinated persons as shown by the seroneutralization titers. This schedule makes it possible to protect exposed persons in one week whereas formerly several months were needed.

B. melitensis vaccine, Rev. 1, has proved to be effective in various controlled trials as an immunizing agent against brucellosis in goats and in sheep. Nevertheless, it has a disadvantage of inducing abortions in gravid ewes so that its use is limited to young animals before the age of puberty. To obviate this disadvantage, tests have been made on gravid

animals in Malta with reduced doses of vaccine which have proved safe, but the protection it confers has not been sufficiently evaluated. As in various parts of Latin America male goats cohabit with female goats through the year, a research project has been launched to ascertain the immunogenic value of the reduced doses, as well as of a nonagglutinogenic vaccine, B. abortus strain 45/20.

The comparative study of complete doses of Rev. 1, reduced doses of Rev. 1, and 45/20 strain, showed that when animals are exposed to a low or moderate dose of a virulent culture of B. melitensis the immunity is comparable. The B. abortus 45/20 vaccine gives little or no protection against high challenge doses.

Studies are also under way to evaluate vaccines against brucellosis in swine.

Drug Testing

The Center has devoted special attention to the evaluation of drugs against Echinococcus granulosus, the parasite of the dog which is responsible for hydatidosis in man and in domestic animals. An antihelminth which is effective against E. granulosus in dogs would be very valuable in the control of hydatidosis. For many years the Center has been conducting chemotherapeutical trials in dogs and was the first institution to demonstrate the utility of bunamidine as an agent against E. granulosus.

A single dose of 50 mg/Kg of live weight proved effective against infections caused by mature E. granulosus. However, when the parasites were immature, a single dose was ineffective. On repeating the dose after an interval of six weeks, bunamidine proved effective against early infections.

Bunamidine is better accepted by dogs than is arecoline (the drug usually employed) when it is necessary to give animals additional doses. It also has the advantage of being a tenicide instead of a tenifuge as is arecoline, but we still do not know whether it is an ovicide. This important question is being studied.

An organo-phosphorus compound, one among the many drugs studied, has given promising results.

No provision is made for any increase in the international or local research staff in 1972 through 1974.

<u>Research Staff</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Chief of Laboratory (50%)	1	1	1	1
Parasitologist	1	1	1	1
Serologist	2	2	2	2
Virologist	1	1	1	1
Virologist, Assistant	1	1	1	1
Food Microbiologist	1	1	1	1
Specialist in Laboratory Animals	1	1	1	1
Scientist, Assistant	1	1	1	1
Local Staff	33	33	33	33

V. Administrative Services

Increases are for regular within-grade increases for local staff and a possible salary increase in the order of 25 per cent in 1972, and 15 per cent in 1973 and 1974, due to increases in the cost of living.

VI. Meetings

The items cover travel and per diem allowances for the Scientific Advisory Committee.

VII. Local and Indirect Costs

According to the rules governing the United Nations Development Program, 15 per cent of the total estimated cost of the salaries of experts must be repaid to this Program.

In 1972, local and indirect costs are estimated at US\$64,861.

Annexes

PAN AMERICAN ZONOSSES CENTER
BREAKDOWN OF THE BUDGET FOR 1972

	Office of Director	Training and Technical Information	Technical Advisory Services					Local Costs	Indirect Costs	Total	Per- centage of Total
			Field Services for Zoonoses Control	Labora- tory Services	Research	Adminis- tration	Meetings				
Salaries and Allowances	47,351	98,210	290,945	163,874	245,810	56,787	-	-	-	902,977	72.1
Short-term Consultants	-	6,600	6,600	3,300	3,300	-	-	-	-	19,800	1.5
Duty Travel	3,514	3,110	14,607	11,089	6,725	-	-	-	-	39,045	3.1
Fellowships	-	71,000	-	-	-	-	-	-	-	71,000	5.7
Supplies and Equipment	-	8,900	1,855	15,675	25,783	1,991	-	-	-	54,204	4.3
Common Services	-	9,532	10,942	26,111	29,399	-	-	-	-	75,984	6.1
Contractual Services	-	1,500	-	3,500	5,000	-	-	-	-	10,000	0.8
Meetings	-	-	-	-	-	-	10,000	-	-	10,000	0.8
Indirect Costs	-	-	-	-	-	-	-	-	38,131	38,131	3.0
Local Costs	-	-	-	-	-	-	-	26,730	-	26,730	2.1
Publications	-	6,000	-	-	-	-	-	-	-	6,000	0.5
Total	50,865	204,852	324,949	223,549	316,017	58,778	10,000	26,730	38,131	1,253,871	
			548,498								
Percentage of Total	4.1	16.4	25.9	17.8	25.2	4.7	0.8	2.1	3.0		100.0

43.7

PAN AMERICAN ZOOSES CENTER
BUDGET

1 January - 31 December 1972

I. <u>Office of the Director</u>	<u>50,865</u>
(a) Salaries and allowances	47,351
Professional staff (2)	
Director, P.5	
Administrative officer, P.2	
Local staff (3)	
(b) Duty travel	3,514
II. <u>Training and Technical Information</u>	<u>204,852</u>
(a) Salaries and allowances	98,210
Professional staff (2)	
Chief of Administration, P.4	
Specialist in Audiovisual Aids, P.1	
Local staff (9)	
(b) Short-term consultants	6,600
(c) Duty travel	3,110
(d) Fellowships	71,000
(e) Supplies and equipment	8,900
(f) Common services	9,532
(g) Contractual services	1,500
(h) Publications	6,000
III. <u>Field Services for Zoonoses Control</u>	<u>324,949</u>
(a) Salaries and allowances	290,945
Professional staff (9)	
Chief of Technical Services, P.4	
Consultant, Control Programs, P.4	
Epidemiologist (Physician), P.4	
Epidemiologist (Veterinarian), P.4	
3 Specialists in zoonoses, P.4	
Mastozoologist (Ecology), P.4	
Biostatistician, P.4	
Local staff (11)	

BUDGET FOR 1972 (cont.)

(b) Short-term consultants	6,600
(c) Duty travel	14,607
(d) Supplies and equipment	1,855
(e) Common services	10,942
IV. <u>Laboratory Services</u>	<u>223,549</u>
(a) Salaries and allowances	163,874
Professional staff (4)	
Chief of laboratories (50%), P.4	
Bacteriologist (Tb), P.4	
Bacteriologist (Bru), P.4	
Expert in biological products, P.4	
Local staff (23)	
(b) Short-term consultants	3,300
(c) Duty travel	11,089
(d) Supplies and equipment	15,675
(e) Common services	26,111
(f) Contractual services	3,500
V. <u>Research</u>	<u>316,017</u>
(a) Salaries and allowances	245,810
Professional staff (9)	
Chief of laboratories (50%), P.4	
Parasitologist, P.4	
Serologist, P.4	
Virologist, P.4	
Food microbiologist, P.4	
Serologist (Immunologist), P.4	
Specialist in laboratory animals, P.2	
Scientist, assistant, P.2	
Virologist, assistant, P.3	
Local staff (33)	
(b) Short-term consultants	3,300
(c) Duty travel	6,725
(d) Supplies and equipment	25,783
(e) Common services	29,399
(f) Contractual services	5,000

BUDGET FOR 1972 (cont.)

VI.	<u>Administrative Services</u>		<u>58,778</u>
	(a) Salaries and allowances		56,787
	Local staff (8)		
	(b) Supplies and equipment		1,991
VII.	<u>Meetings</u>		<u>10,000</u>
	Scientific Advisory Committee		10,000
	Travel	8,500	
	Per diem	1,500	
VIII.	<u>Local Costs</u>		<u>26,730</u>
	Local operating costs		26,730
IX.	<u>Indirect Costs</u>		<u>38,131</u>
	Indirect costs of operating the Executing Agency		38,131
		TOTAL	<u>1,253,871</u>

PAN AMERICAN ZOOSES CENTER

1972 BUDGET

TRAINING AND TECHNICAL INFORMATION

	National Courses*	International Courses and Short Courses	Individual Training	Publications	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	28,370	24,780	10,630	6,619	70,399	34.3
Local staff	13,868	12,113	5,196	3,234	34,411	16.7
<u>Duty Travel</u>	1,354	1,194	562	-	3,110	1.6
<u>Fellowships</u>	31,815	27,232	11,953	-	71,000	34.6
<u>Supplies and Equipment</u>	1,935	1,964	682	4,319	8,900	4.5
<u>Common Services</u>	2,191	2,185	777	4,379	9,532	4.7
<u>Contractual Services</u>	604	528	227	141	1,500	0.7
<u>Publications</u>	2,418	2,112	906	564	6,000	2.9
Totals	82,555	72,108	30,933	19,256	204,852	
Percentage of Total	40.3	35.2	15.1	9.4		100.0

* To be held in the countries with the assistance of the Center

PAN AMERICAN ZONOSSES CENTER

1972 BUDGET

TECHNICAL ADVISORY SERVICES

	Field Services	%	Labora- tory Services	%	Total
<u>Salaries and Allowances</u>					
International staff	228,950	70.4	126,980	56.8	355,930
Local staff	68,595	21.2	40,194	17.9	108,789
<u>Duty Travel</u>	14,607	4.4	11,089	5.0	25,696
<u>Supplies and Equipment</u>	1,855	0.6	15,675	7.0	17,530
<u>Common Services</u>	10,942	3.4	26,111	11.7	37,053
<u>Contractual Services</u>	-	-	3,500	1.6	3,500
Totals	324,949	100.0	223,549	100.0	548,498
Percentage of total	59.2		40.8		100.0

PAN AMERICAN ZONOSSES CENTER

1972 BUDGET

RESEARCH PROJECTS

	Epidemiological Research	Improvement of Diagnosis	Improvement of Vaccines	Basic Research	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	58,723	53,436	48,904	27,756	188,819	59.7
Local staff	18,751	17,062	15,615	8,863	60,291	19.0
<u>Duty Travel</u>	2,091	1,903	1,742	989	6,725	2.1
<u>Supplies and Equipment</u>	8,018	7,297	6,672	3,796	25,783	8.2
<u>Common Services</u>	9,143	8,320	7,614	4,322	29,399	9.4
<u>Contractual Services</u>	1,555	1,415	1,295	735	5,000	1.6
Totals	98,281	89,433	81,842	46,461	316,017	
Percentage of Total	31.1	28.3	25.9	14.7		100.0

PAN AMERICAN ZOONOSES CENTER
BREAKDOWN OF THE BUDGET FOR 1973

	Office of Director	Training and Technical Information	Technical Advisory Services		Research	Adminis- tration	Meetings	Local Costs	Indirect Costs	Total	Per- centage of Total
			Field Services for Zoonoses Control	Labora- tory Services							
Salaries and Allowances	48,413	108,938	304,276	169,329	253,993	59,592	-	-	-	944,541	73.1
Short-term Consultants	-	6,600	6,600	3,300	3,300	-	-	-	-	19,800	1.5
Duty Travel	4,186	5,751	17,660	13,722	9,131	-	-	-	-	50,450	3.9
Fellowships	-	76,600	-	-	-	-	-	-	-	76,600	6.0
Supplies and Equipment	-	6,300	1,555	13,439	19,662	1,671	-	-	-	42,627	3.3
Common Services	-	9,998	9,346	25,902	31,073	-	-	-	-	76,319	5.9
Contractual Services	-	500	-	1,500	2,000	-	-	-	-	4,000	0.3
Meetings	-	-	-	-	-	-	10,000	-	-	10,000	0.8
Indirect Costs	-	-	-	-	-	-	-	34,675	-	34,675	2.7
Local Costs	-	-	-	-	-	-	-	26,730	-	26,730	2.1
Publications	-	6,000	-	-	-	-	-	-	-	6,000	0.4
Total	52,599	220,687	339,437	227,192	319,159	61,263	10,000	26,730	34,675	1,291,742	
			<u>566,629</u>								
Percentage of Total	4.2	17.1	26.1	17.6	24.7	4.7	0.8	2.1	2.7		100.0

43.7

PAN AMERICAN ZONOSSES CENTER
BUDGET

1 January - 31 December 1973

I. <u>Office of the Director</u>	<u>52,599</u>
(a) Salaries and allowances	48,413
Professional staff (2)	
Director, P.5	
Administrative officer, P.2	
Local staff (3)	
(b) Duty travel	4,186
II. <u>Training and Technical Information</u>	<u>220,687</u>
(a) Salaries and allowances	108,938
Professional staff (3)	
Chief of Administration, P.4	
Translator and Publications Officer, P.2	
Specialist in Audiovisual Aids, P.1	
Local staff (9)	
(b) Short-term consultants	6,600
(c) Duty travel	5,751
(d) Fellowships	76,600
(e) Supplies and equipment	6,300
(f) Common services	9,998
(g) Contractual services	500
(h) Publications	6,000
III. <u>Field Services for Zoonoses Control</u>	<u>339,437</u>
(a) Salaries and allowances	304,276
Professional staff (9)	
Chief of Technical Services, P.4	
Consultant Control Programs, P.4	
Epidemiologist (Physician), P.4	
Epidemiologist (Veterinarian), P.4	
3 Specialists in zoonoses, P.4	
Mastozoologist (Ecology), P.4	
Biostatistician, P.4	
Local staff (11)	

BUDGET FOR 1973 (cont.)

(b) Short-term consultants	6,600
(c) Duty travel	17,660
(d) Supplies and equipment	1,555
(e) Common services	9,346
IV. <u>Laboratory Services</u>	<u>227,192</u>
(a) Salaries and allowances	169,329
Professional staff (4)	
Chief of laboratories (50%), P.4	
Bacteriologist (Tb), P.4	
Bacteriologist (Bru), P.4	
Expert in biological products, P.4	
Local staff (23)	
(b) Short-term consultants	3,300
(c) Duty travel	13,722
(d) Supplies and equipment	13,439
(e) Common services	25,902
(f) Contractual services	1,500
V. <u>Research</u>	<u>319,159</u>
(a) Salaries and allowances	253,993
Professional staff (9)	
Chief of laboratories (50%), P.4	
Parasitologist, P.4	
Serologist, P.4	
Virologist, P.4	
Food microbiologist, P.4	
Serologist (Immunologist), P.4	
Specialist in laboratory animals, P.2	
Scientist, assistant, P.2	
Virologist, assistant, P.3	
Local staff (33)	
(b) Short-term consultants	3,300
(c) Duty travel	9,131
(d) Supplies and equipment	19,662
(e) Common services	31,073
(f) Contractual services	2,000

BUDGET FOR 1973 (cont.)

VI. <u>Administrative Services</u>	<u>61,263</u>
(a) Salaries and allowances	59,592
Local staff (8)	
(b) Supplies and equipment	1,671
VII. <u>Meetings</u>	<u>10,000</u>
Scientific Advisory Committee	10,000
Travel	8,500
Per diem	1,500
VIII. <u>Local Costs</u>	<u>26,730</u>
Local operating costs	26,730
IX. <u>Indirect Costs</u>	<u>34,675</u>
Indirect costs of operating the Executing Agency	34,675
TOTAL	<u>1,291,742</u>

PAN AMERICAN ZONOSSES CENTER

1973 BUDGET

TRAINING AND TECHNICAL INFORMATION

	National Courses*	International Courses and Short Courses	Individual Training	Publications	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	29,092	25,592	11,156	7,072	72,912	33.0
Local staff	17,007	14,962	6,522	4,135	42,626	19.3
<u>Duty Travel</u>	2,481	2,205	1,065	-	5,751	2.6
<u>Fellowships</u>	33,040	29,364	14,196	-	76,600	34.7
<u>Supplies and Equipment</u>	1,620	1,257	393	3,030	6,300	2.9
<u>Common Services</u>	2,221	1,800	273	5,704	9,998	4.5
<u>Contractual Services</u>	199	175	77	49	500	0.2
<u>Publications</u>	2,394	2,106	918	582	6,000	2.8
Totals	88,054	77,461	34,600	20,572	220,687	
Percentage of Total	39.9	35.1	15.6	9.4		100.0

* To be held in the countries with the assistance of the Center

PAN AMERICAN ZONOSSES CENTER

1973 BUDGET

TECHNICAL ADVISORY SERVICES

	Field Services	%	Labora- tory Services	%	Total
<u>Salaries and Allowances</u>					
International staff	237,818	70.1	129,956	57.2	367,774
Local staff	73,058	21.5	42,673	18.7	115,731
<u>Duty Travel</u>	17,660	5.2	13,722	6.0	31,382
<u>Supplies and Equipment</u>	1,555	0.4	13,439	5.9	14,994
<u>Common Services</u>	9,346	2.8	25,902	11.5	35,248
<u>Contractual Services</u>	-	-	1,500	0.7	1,500
Totals	339,437	100.0	227,192	100.0	566,629
Percentage of Total	59.9		40.1		100.0

PAN AMERICAN ZONOSSES CENTER

1973 BUDGET

RESEARCH PROJECTS

	Epidemiological Research	Improvement of Diagnosis	Improvement of Vaccines	Basic Research	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	60,305	56,439	48,901	27,640	193,285	60.5
Local staff	19,970	18,690	16,194	9,154	64,008	20.1
<u>Duty Travel</u>	2,848	2,666	2,310	1,307	9,131	2.8
<u>Supplies and Equipment</u>	6,134	5,742	4,974	2,812	19,662	6.1
<u>Common Services</u>	9,695	9,073	7,862	4,443	31,073	9.7
<u>Contractual Services</u>	624	584	506	286	2,000	0.8
Totals	99,576	93,194	80,747	45,642	319,159	
Percentage of Total	31.2	29.2	25.3	14.3		100.0

PAN AMERICAN ZONOSSES CENTER
BREAKDOWN OF THE BUDGET FOR 1974

	Office of Director	Training and Technical Information	Technical Advisory Services Field Services for Zoonoses Control	Labora- tory Services	Research	Adminis- tration	Meetings	Local Costs	Indirect Costs	Total	Per- centage of Total
Salaries and Allowances	49,521	116,351	319,740	176,079	264,119	62,496	-	-	-	988,306	72.0
Short-term Consultants	-	6,600	6,600	3,300	3,300	-	-	-	-	19,800	1.4
Duty Travel	4,500	7,062	21,383	16,173	10,782	-	-	-	-	59,900	4.3
Fellowships	-	83,600	-	-	-	-	-	-	-	83,600	6.1
Supplies and Equipment	-	7,620	1,795	14,320	26,487	1,501	-	-	-	51,723	3.7
Common Services	-	10,982	11,255	27,211	33,851	-	-	-	-	83,299	6.1
Contractual Services	-	2,000	-	2,000	3,000	-	-	-	-	7,000	0.6
Meetings	-	-	-	-	-	-	10,000	-	-	10,000	0.7
Indirect Costs	-	-	-	-	-	-	-	-	34,785	34,785	2.5
Local Costs	-	-	-	-	-	-	-	26,730	-	26,730	2.0
Publications	-	7,000	-	-	-	-	-	-	-	7,000	0.6
Total	54,021	241,215	360,773	239,083	341,539	63,997	10,000	26,730	34,785	1,372,143	
			599,856								
Percentage of Total	3.9	17.6	26.2	17.4	25.0	4.7	0.7	2.0	2.5		100.0

43.6

PAN AMERICAN ZONOSSES CENTER
BUDGET

1 January - 31 December 1974

I. <u>Office of the Director</u>	<u>54,021</u>
(a) Salaries and allowances	49,521
Professional staff (2)	
Director, P.5	
Administrative officer, P.2	
Local staff (3)	
(b) Duty travel	4,500
II. <u>Training and Technical Information</u>	<u>241,215</u>
(a) Salaries and allowances	116,351
Professional staff (3)	
Chief of Administration, P.4	
Translator and Publications Officer, P.2	
Specialist in Audiovisual Aids, P.1	
Local staff (9)	
(b) Short-term consultants	6,600
(c) Duty travel	7,062
(d) Fellowships	83,600
(e) Supplies and equipment	7,620
(f) Common services	10,982
(g) Contractual services	2,000
(h) Publications	7,000
III. <u>Field Services for Zoonoses Control</u>	<u>360,773</u>
(a) Salaries and allowances	319,740
Professional staff (9)	
Chief of Technical Services, P.4	
Consultant Control Programs, P.4	
Epidemiologist (Physician), P.4	
Epidemiologist (Veterinarian), P.4	
3 Specialists in zoonoses, P.4	
Mastozoologist (Ecology), P.4	
Biostatistician, P.4	
Local staff (11)	

BUDGET FOR 1974 (cont.)

(b) Short-term consultants	6,600
(c) Duty travel	21,383
(d) Supplies and equipment	1,795
(e) Common services	11,255
IV. <u>Laboratory Services</u>	<u>239,083</u>
(a) Salaries and allowances	176,079
Professional staff (4)	
Chief of laboratories (50%), P.4	
Bacteriologist (Tb), P.4	
Bacteriologist (Bru), P.4	
Expert in biological products, P.4	
Local staff (23)	
(b) Short-term consultants	3,300
(c) Duty travel	16,173
(d) Supplies and equipment	14,320
(e) Common services	27,211
(f) Contractual services	2,000
V. <u>Research</u>	<u>341,539</u>
(a) Salaries and allowances	264,119
Professional staff (9)	
Chief of laboratories (50%), P.4	
Parasitologist, P.4	
Serologist, P.4	
Virologist, P.4	
Food microbiologist, P.4	
Serologist (Immunologist), P.4	
Specialist in laboratory animals, P.2	
Scientist, assistant, P.2	
Virologist, assistant, P.3	
Local staff (33)	
(b) Short-term consultants	3,300
(c) Duty travel	10,782
(d) Supplies and equipment	26,487
(e) Common services	33,851
(f) Contractual services	3,000

BUDGET FOR 1974 (cont.)

VI.	<u>Administrative Services</u>		<u>63,997</u>
	(a) Salaries and allowances		62,496
	Local staff (8)		
	(b) Supplies and equipment		1,501
VII.	<u>Meetings</u>		<u>10,000</u>
	Scientific Advisory Committee		10,000
	Travel	8,500	
	Per diem	1,500	
VIII.	<u>Local Costs</u>		<u>26,730</u>
	Local operating costs		26,730
IX.	<u>Indirect Costs</u>		<u>34,785</u>
	Indirect costs of operating the Executing Agency		34,785
		TOTAL	<u><u>1,372,143</u></u>

PAN AMERICAN ZOOSES CENTER

1974 BUDGET

TRAINING AND TECHNICAL INFORMATION

	National Courses*	International Courses and Short Courses	Individual Training	Publications	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	30,222	26,398	10,799	7,574	74,993	31.1
Local staff	19,327	16,881	6,906	4,844	47,958	19.9
<u>Duty travel</u>	3,083	2,724	1,255	-	7,062	2.9
<u>Fellowships</u>	36,506	32,241	14,853	-	83,600	34.7
<u>Supplies and Equipment</u>	1,840	1,540	173	4,067	7,620	3.1
<u>Common Services</u>	2,605	1,955	201	6,221	10,982	4.6
<u>Contractual Services</u>	806	704	288	202	2,000	0.8
<u>Publications</u>	2,821	2,464	1,008	707	7,000	2.9
Totals	97,210	84,907	35,483	23,615	241,215	
Percentage of Total	40.3	35.2	14.7	9.8		100.0

* To be held in the countries with the assistance of the Center

PAN AMERICAN ZONOSSES CENTER

1974 BUDGET

TECHNICAL ADVISORY SERVICES

	Field Services	%	Labora- tory Services	%	Total
<u>Salaries and Allowances</u>					
International staff	246,512	68.3	132,935	55.6	379,447
Local staff	79,828	22.1	46,444	19.4	126,272
<u>Duty Travel</u>	21,383	5.9	16,173	6.8	37,556
<u>Supplies and Equipment</u>	1,795	0.6	14,320	6.0	16,115
<u>Common Services</u>	11,255	3.1	27,211	11.4	38,466
<u>Contractual Services</u>	-	-	2,000	0.8	2,000
Totals	360,773	100.0	239,083	100.0	599,856
Percentage of total	60.1		39.9		100.0

PAN AMERICAN ZONOSSES CENTER

1974 BUDGET

RESEARCH PROJECTS

	Epidemiological Research	Improvement of Diagnosis	Improvement of Vaccines	Basic Research	Total	Percentage of Total
<u>Salaries and Allowances</u>						
International staff	60,314	59,523	49,833	28,081	197,751	57.9
Local staff	21,249	20,970	17,556	9,893	69,668	20.3
<u>Duty Travel</u>	3,288	3,245	2,717	1,532	10,782	3.2
<u>Supplies and Equipment</u>	8,079	7,973	6,675	3,760	26,487	7.8
<u>Common Services</u>	10,325	10,189	8,530	4,807	33,851	9.9
<u>Contractual Services</u>	915	905	755	425	3,000	0.9
Totals	104,170	102,805	86,066	48,498	341,539	
Percentage of Total	30.5	30.1	25.2	14.2		100.0

RESOLUTION II

PROGRAM AND FUTURE FINANCING FOR
THE PAN AMERICAN ZOOSES CENTER

THE III INTER-AMERICAN MEETING,

Having studied the Report on Zoonoses Control as an Integral Part of Agriculture and Livestock Development and the Role of the Pan American Zoonoses Center, which contains the results of a study requested in Resolution VIII of the II Inter-American Meeting;

Aware of the serious danger caused by the major zoonoses to human and animal health, as well as their harmful effect on economic growth and the development of the livestock industry;

Recognizing the essential role of the Pan American Zoonoses Center in education, research, and advisory services for the purpose of assisting the Governments in promoting, expanding, and improving national programs to control and prevent zoonoses;

Having taken note of the recommendations of the Scientific Advisory Committee of the Pan American Zoonoses Center concerning the need for expanding its activities to provide broader services for zoonoses control on a regional basis, which will require additional financial support from Governments and the United Nations Development Program;

Noting the favorable reception accorded the Mission of Drs. Juan T. Bowler, Enrique García Mata, and Rubén Lombardo and the support expressed by the respective Ministries of Agriculture for continuing and expanding the work of the Center; and

Bearing in mind the importance to the future of the Center of obtaining an extension of the support of the United Nations Development Program as a regional center, as well as providing increasing financial support within the regular budget,

RESOLVES:

1. To express appreciation to the members of the Mission for their valuable services and excellent report.

2. To approve the recommendations on the program contained in the report in which Governments are requested to give special attention to programs for control and prevention of brucellosis, rabies, bovine tuberculosis, and hydatidosis, as well as on the activities of the Center in education, research, and advisory services.

3. To support a proposal to the United Nations Development Program for extension of financial assistance to the Center as a regional project and to request the Pan American Health Organization to collaborate with the Governments in the submission of the proposal.

4. To recommend to the XVIII Meeting of the Pan American Sanitary Conference that it approve an additional appropriation of \$300,000 for 1971 to meet the requirements of the Center as presented in Document RICAZ3/14 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.

RESOLUTION XX

III INTER-AMERICAN MEETING, AT THE MINISTERIAL LEVEL,
ON FOOT-AND-MOUTH DISEASE AND ZOOSES CONTROL

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 the 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 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 the Pan American Health Organization, 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 towards joint activities by the 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 (Document CE64/13).
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 disease 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.