



*directing council*

PAN AMERICAN  
HEALTH  
ORGANIZATION

XXVII Meeting

Washington, D.C.  
September-October 1980

*regional committee*

WORLD  
HEALTH  
ORGANIZATION

XXXII Meeting



INDEXED

Provisional Agenda Item 23

CD27/23, ADD. IV (Eng.)  
25 August 1980  
ORIGINAL: ENGLISH

REPORT ON THE PAN AMERICAN CENTERS

Introduction

In accordance with Resolution CD26.31, the Report of the Study Team on Pan American Centers (Document CSP20/3) is expanded in this document to describe each individual center in greater detail. Complying with the specific requests of several Member Governments to involve the Study Team that did the review, the Secretariat obtained the services of Dr. Myron E. Wegman, a former member of the Team, to do the present study. He was assisted by Ms. Tracy Enright.

Since this is a descriptive analysis, no attempt has been made at evaluating any center or assessing performance; as decided at the XX Pan American Sanitary Conference, each center is being evaluated in depth by an ad hoc committee, using specialists in the particular field. Such evaluation reports are being presented to this Directing Council for five centers--PANAFTOSA, CEPANZO, INCAP, CFNI, and CAREC.

The first part of the report deals with general considerations and various comparisons and the second is a detailed presentation with regard to each center--the seven hemisphere-wide and the three subregional. Both the overall report and that for each center present identifying data, facilities, historical origins and juridical basis, objectives, program, advisory committee, budget, and staff.

## CONTENTS

	<u>Page</u>
I. General Considerations.....	1
II. Animal Health	
A. CEPANZO.....	13
B. PANAFTOSA.....	23
III. Development of Human Resources	
A. BIREME.....	33
B. CLATES.....	41
IV. Environmental Health	
A. CEPIS.....	51
B. ECO.....	59
V. Family Health	
CLAP.....	67
VI. Disease Control	
CAREC .....	75
VII. Nutrition	
A. CFNI.....	85
B. INCAP.....	97
Annex I 1969 - Resolution Establishing Center Policy.....	
Annex II 1970 - Resolution with Guidelines for Centers.....	
Annex III 1978 - Resolution Revising Policy.....	
Annex IV Resolutions Regarding Individual Centers.....	
Annex V Project Number for Each Center.....	

## REPORT ON THE PAN AMERICAN CENTERS

### GENERAL CONSIDERATIONS

Table I gives the official name of each center active in 1980, the acronym by which it is usually known and which is used subsequently throughout this report, the basic PAHO program, and the center's broad goal.

#### Location and Facilities

The centers are widely distributed; only one country, Brazil, has more than one center. Table II shows the location of the center, the physical facilities available to it and the ownership of those facilities.

Uniformly the government has had a special interest in offering to be host; in some cases this has been motivated by the existence of unusual resources, such as a nucleus of specialized personnel. In most cases the host government has made a large investment in building or renovating facilities. In every instance, the host government has undertaken, either through its own resources or through a national agency such as a university, to provide the needed facilities and their maintenance. The host country also pays costs for local personnel as agreed upon for each center. Where there are special additional undertakings these are described under the individual center.

The size of the facilities varies, in accordance with need. They also vary in adequacy, but only two are considered unsatisfactory at this time.

#### Historical Origins and Juridical Basis

There are parallels in the origins of the various centers. All stemmed from recognition of a public health problem that could be attacked more effectively through the concentrated approach possible in a center. The concept of international centers as foci for an attack on a problem began with INCAP, followed shortly by PANAFTOSA (at the request of the Organization of American States) and CEPANZO. In each of these instances, extensive discussion took place at the Governing Bodies concerning the establishment of the center. In the case of PANAFTOSA a specific resolution was passed in September 1950 approving the action of PASB in preparing a project for the organization of the center and authorizing the participation of the Bureau, provided that the funds were extrabudgetary.

In 1969, the Directing Council, after reviewing a report prepared by the Director on the then status of multinational centers (CD19/21, Addendum) and having reviewed a report from the 61st Meeting of the Executive Committee, resolved (CD19.37):

"To declare that multinational centers are needed and useful provided their policy continues to be designed to benefit all the countries; to support the steps taken by the Organization to develop and improve existing centers, which constitute an effective means whereby PAHO exercises its functions of stimulating and coordinating multinational programs for the improvement of health; (and to recommend that), in the future, multinational centers be established in accordance with the pertinent guidelines to be approved by the XVIII Pan American Sanitary Conference pursuant to operative paragraph 2 of this resolution."

The full text of this resolution is shown as Annex I.

The XVIII Pan American Sanitary Conference (CSP18.33) adopted a series of general guidelines for the establishment and operation of multinational centers, reproduced in Annex II, providing, inter alia, that "proposals for multinational centers shall continue to be submitted as part of the PAHO/WHO program and budget to the Executive Committee and to the Directing Council or Conference for consideration and approval."

The XX Pan American Sanitary Conference, in Resolution CSP20.31 decided, inter alia,

"2. To limit the term 'Pan American Center' to those whose technical, administrative, and financial affairs are handled by PAHO."

"4. To direct that any proposal for the establishment, disestablishment or transfer of any Pan American Center be routinely submitted to the Executive Committee and the Directing Council and be accompanied by a complete study."

The full text of this resolution is reproduced in Annex III.

TABLE I  
PAN AMERICAN CENTERS

<u>Name</u>	<u>Acronym</u>	<u>Basic PAHO Program</u>	<u>Goal</u>
<u>GROUP I - Hemisphere-wide Centers</u>			
Regional Library of Medicine and the Health Sciences	BIREME	Development of human resources	Extend and improve health and biomedical information services to health and health-related agencies and institutions.
Pan American Zoonoses Center	CEPANZO	Animal health	To help improve the control of diseases transmissible between animal and man.
Pan American Center for Sanitary Engineering and Environmental Sciences	CEPIS	Environmental health protection	Improve conditions of the physical environment as they affect health
Latin American Center for Educational Technology in Health	CLATES	Development of human resources	Develop effective techniques in education of health service personnel and promote the wider use of these techniques.
Latin American Center for Perinatology and Human Development	CLAP	Maternal, child and family health	Improvement in health status of mother, fetus and infant between conception and the end of the postpartum period.
Pan American Center for Human Ecology and Health	ECO	Environmental health protection	Minimize the adverse effect on health that may result from economic development and industrialization.
Pan American Foot-and-Mouth Disease Center	PANAFTOSA	Animal health	Eliminate foot-and-mouth disease where it exists and prevent introduction where it does not.
<u>GROUP II - Subregional Centers</u>			
Caribbean Epidemiology Centre	CAREC	Disease control	Help improve epidemiology and other services related to control of communicable, and later non-communicable, diseases in the Caribbean.
Caribbean Food and Nutrition Institute	CFNI	Nutrition	Improvement in nutritional status of all the populations in the countries it serves, presently the English-speaking Caribbean and Suriname.
Institute of Nutrition of Central America and Panama	INCAP	Nutrition	Improvement in nutritional status of all the population in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

TABLE II  
LOCATION AND FACILITIES

	<u>Location</u>	<u>Size (m<sup>2</sup>)</u>	<u>Ownership</u>
<u>GROUP I - Hemisphere-wide Centers</u>			
BIREME	Sao Paulo Brazil	3,340	Escola Paulista (Federal University)
CEPANZO	Buenos Aires Argentina	3,500	Government of Argentina
CEPIS	Lima Peru	2,241	Government of Peru
CLATES	Rio de Janeiro Brazil	526	Federal University of Rio de Janeiro
CLAP	Montevideo Uruguay	2,500	Government of Uruguay
ECO	Metepec (near Toluca) Mexico	1,500	Government of the State of Mexico
PANAFTOSA	Sao Bento Brazil	400,000	Government of Brazil
<u>GROUP II - Subregional Centers</u>			
CAREC	Port of Spain Trinidad	2,750	Government of Trinidad and Tobago
CFNI	Kingston Jamaica	350	University of the West Indies
INCAP	Guatemala Guatemala	25,000 (plus experimental farm of 47 hectares)	Government of Guatemala

### Objectives

For all of the centers the objectives were spelled out in the original agreements with the host country. With the passage of time the objectives have been, in most cases, modified to a greater or lesser extent. The wording of the objectives varies, but uniformly indicates how the center will approach the technical aspects of the particular problem. The international role of the center, if not specific in the objectives, is spelled out elsewhere in the agreement.

### Program

Any detailed analysis of the centers, individually and as a group, needs to start from the premise that the centers are not isolated program units but integral parts of the total PAHO program. As will be seen from the histories of the individual centers, they have come into existence because at a certain point in the evolution of the particular program and the development of the relevant technology it became clear that concentration of resources at a special facility was desirable. In the early centers, such as INCAP and PANAFOTSA, it was evident that the lack of basic knowledge, in regard to nutrition and to foot-and-mouth disease respectively, seriously inhibited the mounting of effective field programs. While the necessary research might have been accomplished on a decentralized basis there were clear advantages to bringing together research scientists, educators and field public health workers in a single place where they could interact and reinforce each other's work.

Research, in some form, is still a key part of the raison d'etre for a center but a change in priorities and emphasis has taken place. From the very beginning, the close relationship between research and education led all the centers to undertake training programs. Later, technical cooperation and advisory services became a far more important part of center activities, as did the related functions of information dissemination. There is considerable variation among the centers, but they are all concerned with collection of data on the particular subject and with design and improvement of relevant national and international programs. All follow the PAHO principle of carrying out programs on governmental request and working collaboratively.

Dissemination of information and improved contacts with the governments and national authorities are aspects of the program that have had inadequate attention. Dissatisfaction has been expressed several times at meetings of the PAHO Governing Bodies. Some centers do better than others but all are trying to intensify and expand their efforts in this respect. The individual evaluations lay stress on this part of the program.

The ten existing centers relate broadly to several aspects of the PAHO program--two to infectious diseases involving animals and one to epidemiology in general, two to nutrition, two to education, two to the environment and one to family health. In general the centers are considered technological arms of the PAHO programs, responsible for discovering, refining and testing techniques and helping to spread them to the countries. They do work that would be difficult, if not impossible, in an office environment or in the activity of a field program. In some, highly technical research in a laboratory or elsewhere is involved and in these centers the basic investigative function is more sharply defined than in the case of those where the major concentration is on providing consultation services similar to those of regional advisers.

Relationships with Headquarters divisions tend to be complementary, with interchange of information and ideas before decisions are made. Some divisions look upon the centers for which they are responsible as the technical arm of the division, indispensable to its work. In others the center appears to be a convenient way to carry out a portion of the total program.

Just as various elements of the PAHO program need to maintain contact with other parts of the program and with other agencies having similar or related interests, so do the centers. A group working on the health of mothers and children finds nutrition a matter of central interest, and vice versa. In other instances the relation may not be so clear but the centers use divisions and center directors' meetings to advance interchange.

#### Advisory Committees

The Centers vary considerably in their use of technical advisory committees. Some have well established committees, with both statutory and ad hoc members, which meet on a regularly scheduled basis. Some provide for regular rotation of members and others continue with stable membership. In one instance, a governmentally constituted policy committee serves some of the functions of an advisory committee. The matters of reviewing and upgrading the role of technical advisory committees is under active study.

#### Budget (General Table III and General Figures 1 and 2)

From the program discussion above it is clear that any analysis must be based on the relationship of a given center's activities to the overall PAHO program for that subject area. Thus, it is against the perspective of the parent program that the budgetary history and programs of the centers are presented. This is done in two ways--first by an



examination of the budgets of all the centers in comparison with the total PAHO program, and, secondly, by comparing the program of each center with that for the rest of PAHO's efforts in the particular field.

The 1970-1979 financial history of the centers\* as a group is compared with the total program in Table III and Figures 1 and 2. Table III and Figure 1, a bar diagram, show the dollar amounts, uncorrected for inflation, spent under each category, highlighting for each year proportional relationships between centers and basic PAHO program and between regular and extrabudgetary funds. Figure 2 shows, in line diagrams on semi-logarithmic paper, the relative rates of growth for the regular and other funds over the 10 year time period.

One notes that the proportion that the centers hold to the regular budget has shown a relatively slight but stable rise over the past 10 years. Greater variation has occurred with regard to other funds, but the variation has been due more to the rise and fall of these funds elsewhere in the Organization than in the centers, which have been relatively stable and have shown growth in using extrabudgetary funds. It should be noted that the data in this table and the graphs include two centers no longer in existence: the Latin American Center for Administrative Management, which operated in Buenos Aires, Argentina, from 1967 through 1976, and the Latin American Center for Health Planning, which operated in Santiago, Chile, from 1970 through 1976. The deletions are indicated in the chart and on the graphs.

Throughout this report the term "Regular Funds" applies to the combination of PAHO Regular and WHO Regular, while the term "other" or "extrabudgetary" applies to all other funds. In this category are included funds from United Nations agencies, such as UNDP and UNFPA, from other intergovernmental agencies such as OAS, from member governments in subregional organizations (INCAP, CFNI and CAREC), and from a variety of foundations, philanthropic organizations and other sources. In essence, all funds not freely interchangeable by the Governing Bodies have been classified as extrabudgetary.

---

\* The fiscal data are taken from the Financial Report of the Director for the respective years. Expenditures by each center equal the sum of the projects, or portions of projects, directly operated by the center. Expenditures for program comprised the sum of Headquarters expenditures and the projects identified in each area. Some difficulty was encountered because of a major change in the project numbering system in 1975 and minor shifts in other years. It is believed, however, that relevant activities have been included and irrelevant ones omitted.

All the centers have access to some professional services on a seconded basis at the location of the center. Such personnel costs do not show up anywhere in the budgets. A special problem exists with regard to CLAP and CLATES where, because of arrangements specified in the basic agreements, the contribution of extrabudgetary funds is seriously understated. The problem is discussed under the respective centers.

### Staff

In all instances, by definition, the directors of the centers and, in almost all, the senior staff, are full time PAHO employees. Size of the staff varies substantially and would be difficult to compare among centers, in any event, because of the differing arrangements about staffing to be provided by the host country. Similarly, complexity of administrative structure varies greatly, according to the special character of the center.

### INDIVIDUAL CENTER REPORTS

These are presented in the same order as in the Tables I and II: first those that are Region-wide, and then those that are subregional in nature.

There is some variation in detail because materials prepared for the five evaluations now before the Council were available, while in the other five greater reliance has been placed on annual reports. In these instances a report of a single year's activities is intended only as a sample, not as a comprehensive presentation of the accomplishments of the centers. The latter task is better left to evaluations planned in the immediate future.

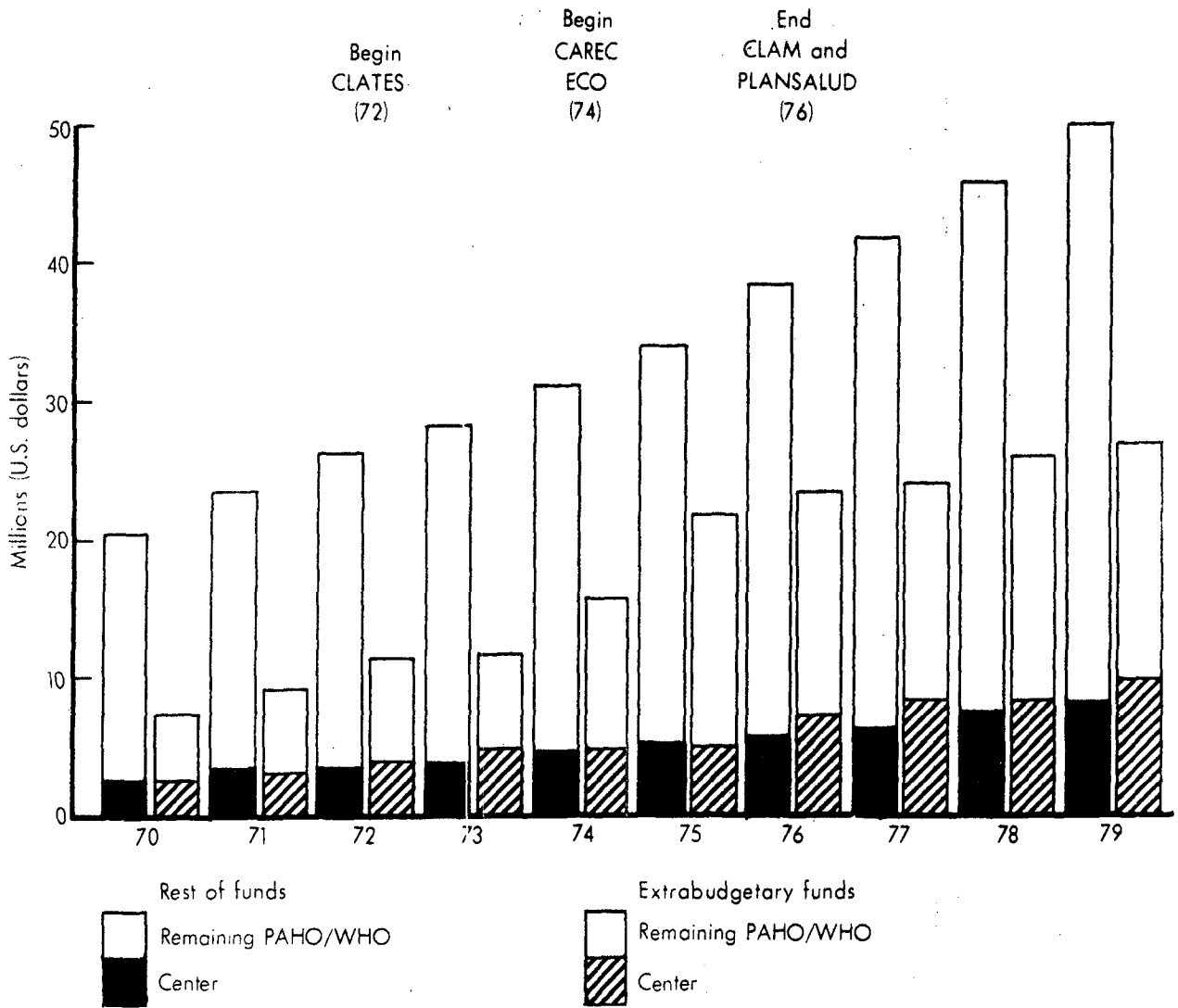
For each center the budget presentation is roughly similar to that shown above. Where a given PAHO program is related to more than one center, both are shown on the figures to facilitate comparison.

TABLE III  
EXENDITURES, TOTAL PAHO/WHO AND TOTAL CENTER FUNDS, 1970-1979

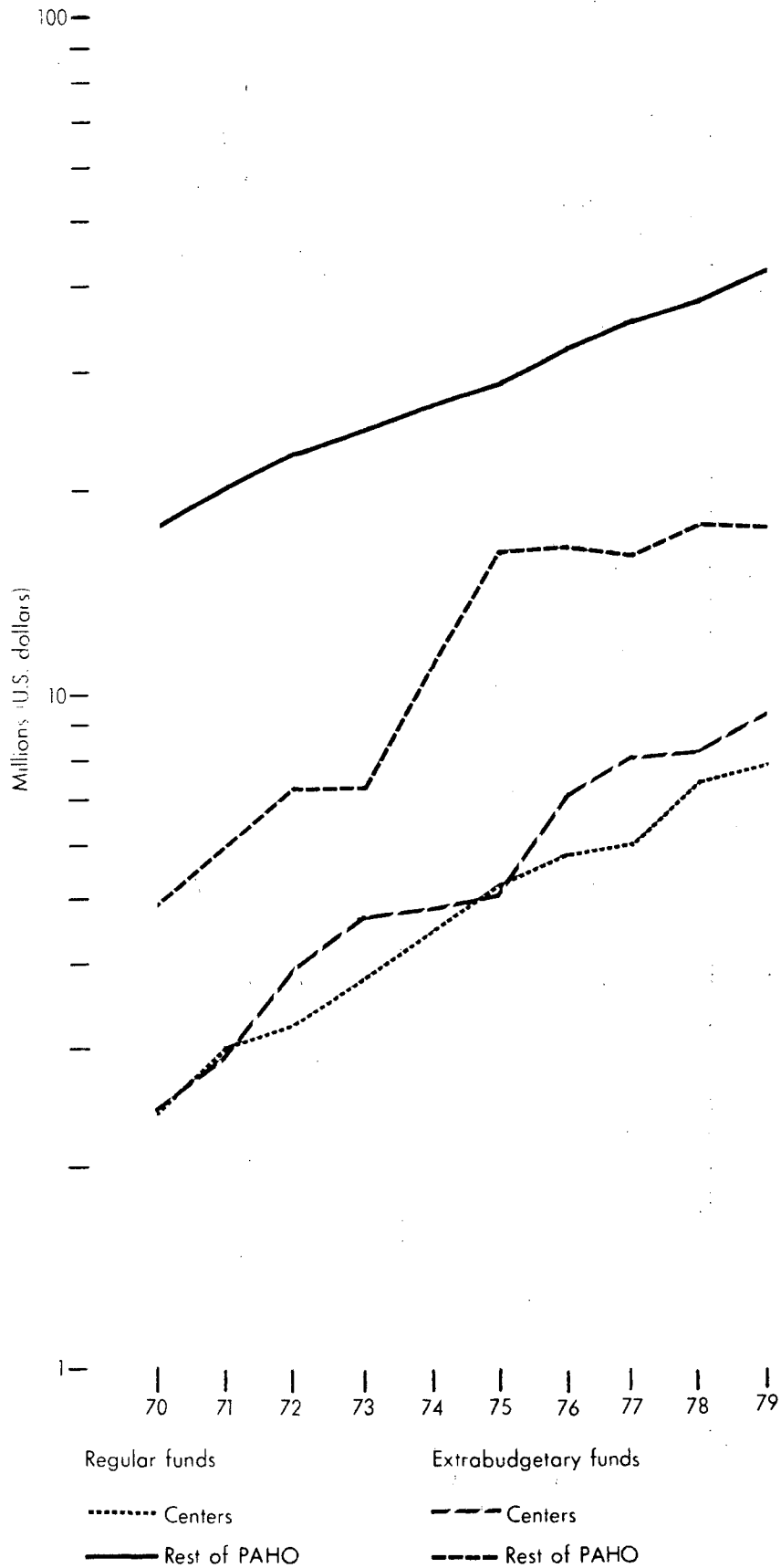
Year	Total PAHO/WHO Funds	PAHO/WHO Regular Funds Centers	PAHO/WHO Regular Funds Rest of PAHO	All Other Funds Centers	All Other Funds Rest of PAHO
1979	77,098,879	7,868,470	42,209,625	9,343,974	17,676,810
1978	71,902,393	7,469,138	38,270,754	8,296,196	17,866,305
1977	65,976,471	6,095,904	35,815,161	8,126,339	15,939,067
1976	*61,869,046	5,876,376	32,560,325	7,088,014	16,344,331
1975	55,600,379	5,229,389	28,965,466	5,104,061	16,301,463
1974	**47,042,458	4,469,738	26,866,284	4,862,243	10,844,193
1973	40,272,426	3,853,849	24,597,416	4,726,546	7,094,615
1972	***37,467,239	3,312,181	22,939,224	3,981,513	7,234,321
1971	32,495,344	3,014,623	20,456,930	2,992,331	6,031,460
1970	27,963,624	2,465,224	18,098,274	2,480,068	4,920,058

\* End CLAM and PLANSALUD  
\*\* Begin CAREC and ECO  
\*\*\* Begin CLATES

**GENERAL 1.**  
**RELATION OF TOTAL PAHO/WHO EXPENDITURES TO EXPENDITURES FOR CENTERS:**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970 TO 1979**



**GENERAL 2.**  
**GROWTH IN TOTAL PAHO/WHO EXPENDITURES AND**  
**IN EXPENDITURES FOR CENTERS:**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



PAN AMERICAN ZOOSES CENTER - CEPANZO

1. Basic PAHO Program: Animal health
2. Goal of the Center: Improve the control of diseases transmissible between animal and man
3. Location: Ramos Mejía and Azul, Argentina
4. Facilities

3,500 sq. meters of laboratory and office space on the 6th and 7th floors of a general hospital, commonly considered by all concerned to be not only unsatisfactory but hazardous. The laboratories are crowded, old and inefficient, and it is difficult to maintain microbiological security. There is also an experimental farm, of some 156 hectares, which includes a laboratory animal colony in Azul, approximately 300 kilometers from Buenos Aires.

5. Historical Origins and Juridical Status

Originally a national effort of the Government of Argentina, the desirability of expanding the program and making it international was discussed at the Governing Council in 1955. Resolution CD8.7 encouraged the Director to find funds to take the Center over as an international effort. An agreement was signed with the Government of Argentina in 1956, but operations as a Pan American Center did not begin until 1959.

The fact that Azul was isolated from research and epidemiological contacts resulted in transfer of the laboratories to Buenos Aires in 1966.

The program of CEPANZO is reviewed annually, along with that of PANAFOTSA, by a PAHO-sponsored meeting of representatives of Ministries of Agriculture.

6. Objectives

In the original agreement, specific objectives included:

- 6.1 Standardization of diagnostic methods, production techniques and quality control for biologicals;
- 6.2 Evaluation of methods and procedures and applied research in the field of zoonoses;
- 6.3 Laboratory diagnostic services;

- 6.4 Practical demonstrations of anti-zoonoses measures;
- 6.5 Preparation and distribution of technical information and education of the public on the zoonoses and their control.

These have since been modified as follows:

- 6.6 To promote the formulation of zoonoses control and food hygiene programs, and to contribute to improving their management;
- 6.7 To conduct research for the improvement of scientific knowledge and food microbiology and hygiene;
- 6.8 To promote and conduct training of personnel in both general and specific aspects of the diagnosis and control of zoonoses and of food protection;
- 6.9 To provide services for reference diagnosis, the control of biological products and the identification of strains of different microorganisms;
- 6.10 To prepare and supply reference biologics as well as laboratory animals for biomedical research;
- 6.11 To prepare and disseminate technical information on the zoonoses and food microbiology and hygiene.

#### 7. Program

Since the list of diseases ordinarily transmissible between animal and man is so extensive, the Center has had to select certain ones as higher priority. These have been: brucellosis, rabies, tuberculosis, hydatidosis and other parasitic diseases, leptospirosis, and anthrax. Because of the closely related practical importance of food microbiology and hygiene, this also receives priority attention.

In addition, the Center established a pathology laboratory in 1971 and is working with national statistical organizations to improve collection and utilization of data on zoonoses in animals and man.

#### 7.1 Technical Cooperation and Advisory Services

Specific work in the countries includes acting as a reference laboratory, supplying biologicals to the countries for diagnostic purposes, advising on the planning, construction, organization, and operation of national laboratories, advising on the conduct of prevalence studies of various disease problems, advising on control program design,

establishing a rabies and encephalitis epidemiological surveillance system of continental scope, and publication of technical guides for use by national authorities.

The Center has been designated regional reference laboratory regarding the production and control of biologics for human and animal use in brucellosis, rabies, hydatidosis, leptospirosis, tuberculosis, and certain aspects of food microbiology. It provides reference diagnostic services for these diseases and supplies the official public health and agriculture laboratories of the Region with standardized biologics and high quality experimental animals for the establishment or renewal of breeding stock.

## 7.2 Training

Training programs have covered the general problem of the zoonoses but also the very specific problems that are prominent in relation to the priority diseases. Since establishment of the Center a total of 1,227 fellows have been trained intramurally and almost 3,000 have been reached through extramural courses. Fellows have come from all countries of Central and South America and to a lesser extent from the Caribbean. Training in food sanitation and microbiology, started in 1969, has been provided to almost 200 fellows.

Courses on planning in animal health, started in 1971, have been attended by 147 veterinarians from 19 countries.

Since 1967 staff of the Center have participated in more than 300 extramural courses, seminars and conference.

The average number of students per year, about 14 in the first 10 years of CEPANZO, rose in 1978 and 1979 to about 300, suggesting continuing demand.

## 7.3 Research

Research activities are going on in relation to all the disease priority areas. Some examples are:

### 7.3.1 Brucellosis

Availability of a vaccine, prepared at the Center for the control of brucellosis in goats led to drastic reduction of human infection in a trial area in Peru. New bio types of Brucella abortus were isolated. An agar-gel immunodiffusion test was developed for the diagnosis of epididymitis in rams and Brucella canis infection.



### 7.3.2 Tuberculosis

M. bovi tuberculin has been demonstrated to have greater sensitivity for the diagnosis of the infection in bovines than M. tuberculosis tuberculin. The specific of bovine and human PPD has been proved in tuberculous human patients infected either with M. bovis or M. tuberculosis. A quantitative enzymatic test for differentiating M. bovis from M. tuberculosis wild strains has been developed.

### 7.3.3 Rabies

A pre-exposure immunization schedule for rabies was developed, consisting of three doses of suckling mouse brain (SMB) vaccine, given on alternate days. For post-exposure immunization, Argentina was the first country in the world to employ the "7 plus 2" dose schedule. This schedule is also employed at present in Brazil, Chile and Colombia. It was demonstrated that the SMB vaccine supplemented with adjuvants protects 96% of the adult cattle two years after vaccination and 100% of vaccinated calves one year after vaccination.

A vaccine produced in BHK cells was developed protecting 100% of dogs for 12 and 25 months and 8 out of 9, for 36 months. The BHK vaccine supplemented with aluminum hydroxide protected 100 per cent of cattle two years after vaccination.

A method for cattle rabies control by elimination of vampire bat roosts was developed.

### 7.3.4 Leptospirosis

Many serovars have been isolated for the first time. Argentinensis (opossum) Argentina; Galtoni (cow) Argentina; Hardjo (cattle) Argentina and Colombia, (horse, armadillo) Argentina, Carimagna (opossum); Copenhageni (dog) Brazil; Fort bragg and Castellonis (dog) Barbados.

An effective means for collecting, holding and shipping samples without adversely affecting leptospiral antibody titers was developed, employing beach sand or table sugar cubes.

### 7.3.5 Hydatid Disease

A methodology for the detection of asymptomatic cyst carriers in population surveys has been developed, as well as the arc 5 double diffusion test, which permits the immunologic confirmation of the disease in minimally equipped hospital laboratories.

### 7.3.6 Food Microbiology and Hygiene

Criteria for control has been established on the basis of studies on the levels of microbial contamination of various foods of animal origin. A simple, rapid, low-cost and non-destructive sampling technique has been developed at the Center for the hygienic control of carcasses and of surfaces in food processing plants. The causal agent of a disease which resulted in thousands of deaths in cattle in an important region of the Host Country was determined.

### 7.4 Information Dissemination

The Center publishes eight periodicals, a series of technical notes (22 published), a series of monographs (11 published) and a series of special publications (10 published). The latter three are periodically reviewed and up-dated for reprint.

The library has approximately 8,000 volumes and receives 365 periodicals either by subscription or exchange. An average of 4,000 CEPANZO publications and other scientific papers are distributed annually on request.

### 8. Advisory Committee

The Center has an Advisory Committee of 17 members who meet every 2 years.

### 9. Budget (Table Animal Health I and Figures Animal Health 1, 2 and 3)

As in the case of PANAFOTSA, the regular funds allocated to CEPANZO are in a rather different category from the usual PAHO/WHO Regular Funds, in that they cannot be reassigned. Zoonoses are a problem in human health but a substantial part of CEPANZO's work is directed at animal health and agricultural economy.

More extended discussion of the budget is presented in the special evaluation report of CEPANZO.

### 10. Staff

The Center has 110 approved posts of which 22 are professionals. Twenty-eight posts are financed with PAHO funds (19 professional and 9 auxiliary) and the remaining 82 are financed with funds provided by the Government of Argentina.

TABLE ANIMAL HEALTH I  
CEPANZO EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	2,886,725	1,287,025	1,599,700
1978	2,183,802	1,233,764	950,038
1977	1,549,500	902,554	646,946
1976	1,350,075	807,446	542,629
1975	1,280,934	860,960	419,974
1974	1,358,470	627,953	730,517
1973	1,204,287	602,190	602,097
1972	934,157	476,503	457,654
1971	935,385	324,687	610,698
1970	822,287	216,254	606,033

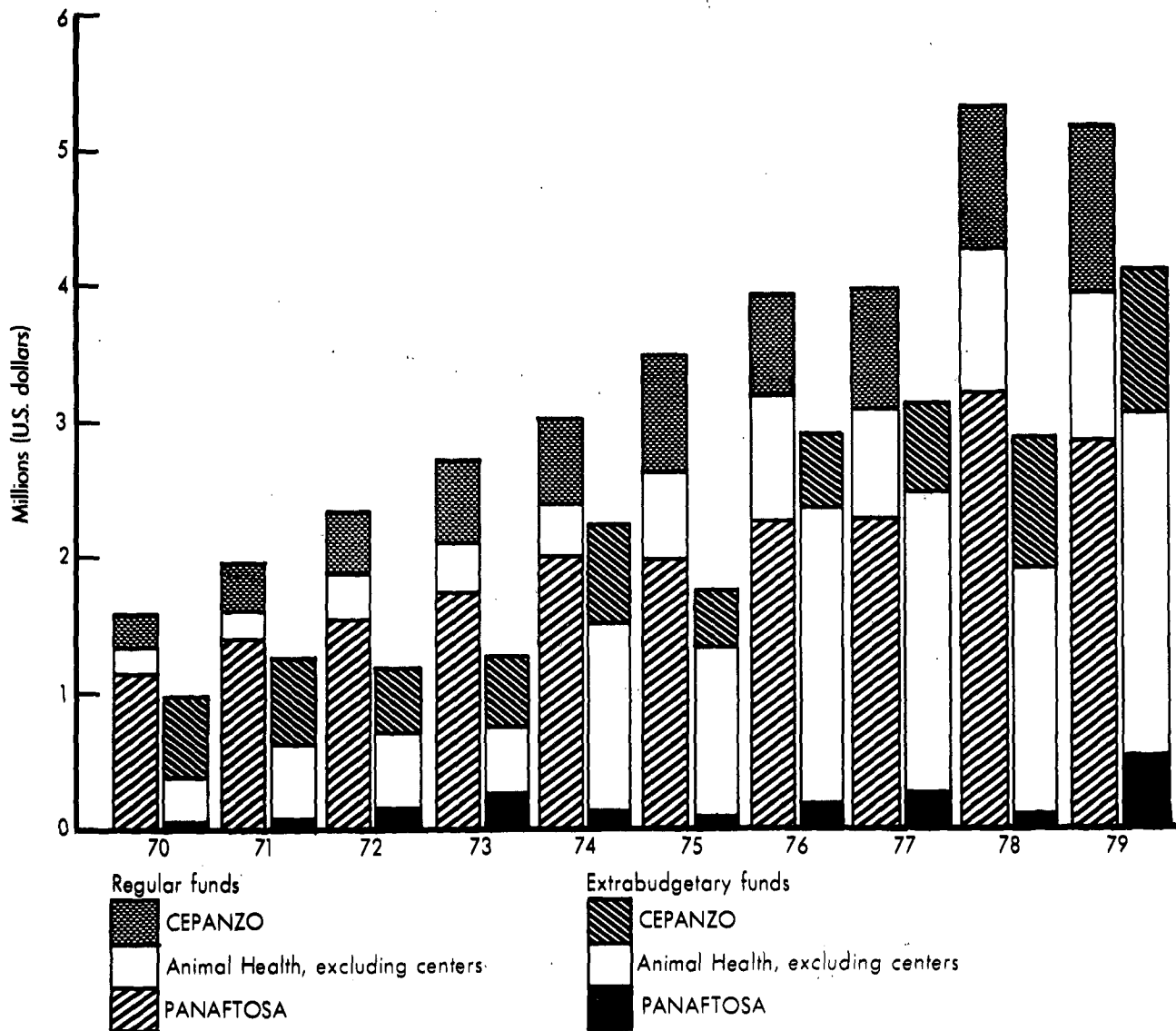
PANAFTOSA EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	3,406,503	2,878,626	527,878
1978	3,297,292	3,226,026	71,266
1977	2,524,383	2,287,067	237,316
1976	2,448,451	2,275,333	173,118
1975	2,160,591	2,091,483	69,108
1974	2,020,475	1,919,218	101,257
1973	2,014,958	1,767,546	247,412
1972	1,670,303	1,559,100	111,203
1971	1,447,899	1,406,942	40,957
1970	1,200,279	1,171,708	28,571

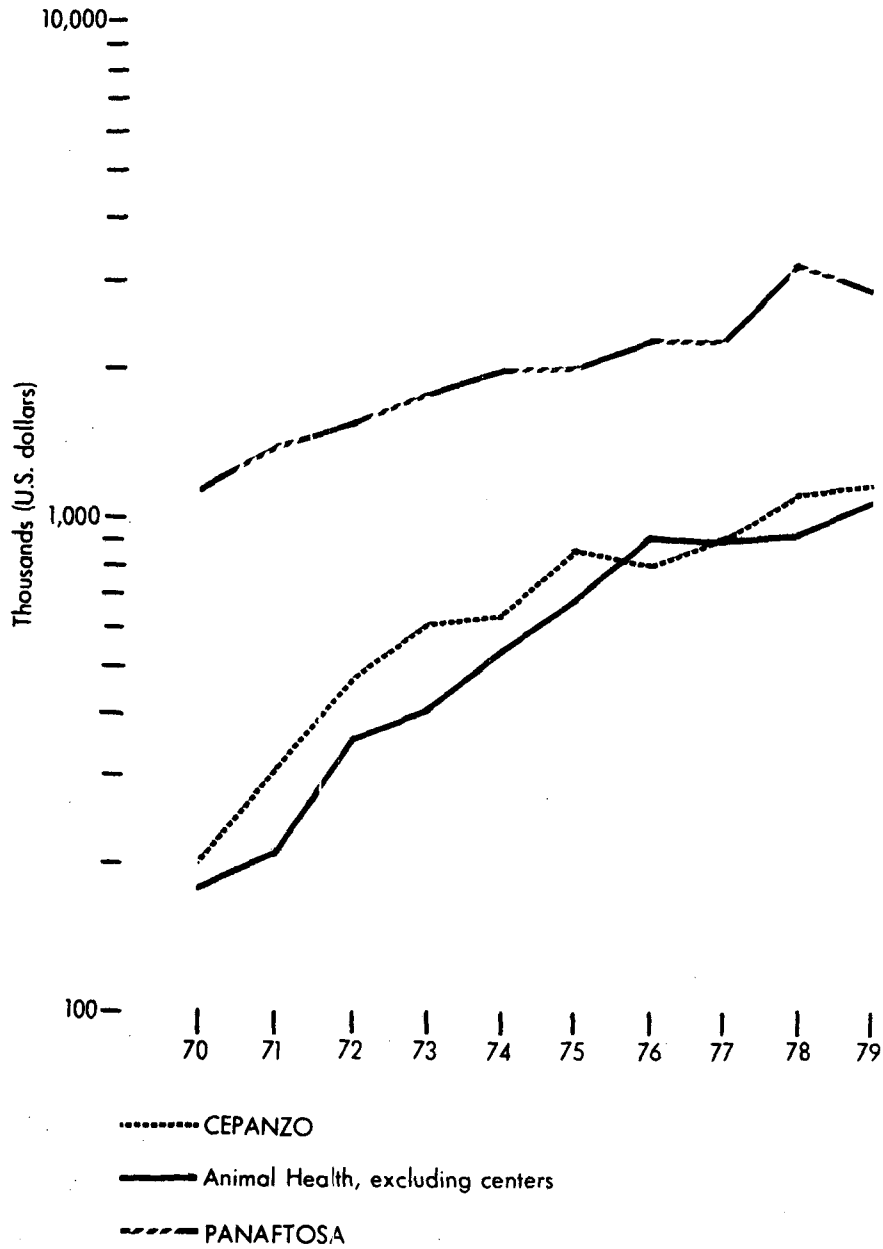
EXPENDITURES FOR ANIMAL HEALTH  
EXCEPT FOR CEPANZO AND PANAFTOSA, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	3,073,136	1,049,792	2,023,344
1978	2,807,224	923,448	1,883,776
1977	3,208,431	906,961	2,301,470
1976	3,106,767	904,615	2,202,152
1975	1,952,752	683,390	1,269,356
1974	1,967,499	544,164	1,423,335
1973	846,624	407,597	439,027
1972	1,001,588	357,641	643,947
1971	811,607	210,318	601,289
1970	535,223	181,113	354,110

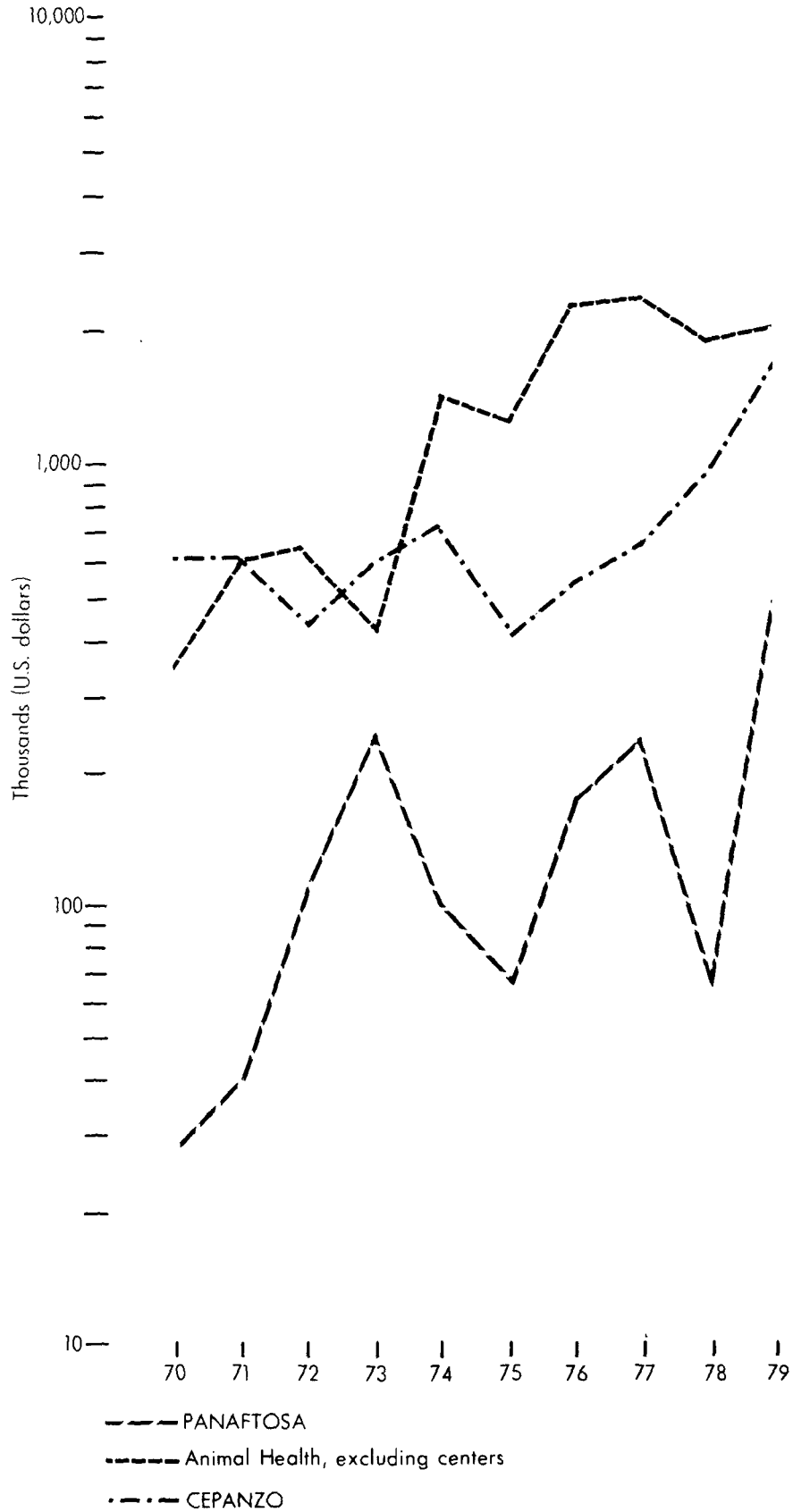
**ANIMAL HEALTH 1.**  
**RELATIONSHIPS AMONG EXPENDITURES FOR ANIMAL HEALTH:**  
**CEPANZO, PANAFOTSA AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**ANIMAL HEALTH 2.  
GROWTH IN EXPENDITURES FOR ANIMAL HEALTH:  
CEPANZO, PANAFTOSA AND REST OF PROGRAM  
REGULAR FUNDS 1970-79**



**ANIMAL HEALTH 3.  
GROWTH IN EXPENDITURES FOR ANIMAL HEALTH:  
CEPANZO, PANAFTOSA AND REST OF PROGRAM  
EXTRABUDGETARY FUNDS 1970-79**



PAN AMERICAN FOOT-AND-MOUTH DISEASE CENTER - PANAF-TOSA

1. Basic PAHO Program: Animal health
2. Goal of the Center: Eliminate foot-and-mouth disease (FMD) where it exists and prevent introduction where it does not.
3. Location: São Bento, about 60 kilometers from Rio de Janeiro, Brazil
4. Facilities

A 40-hectare farm with a number of buildings for administration, laboratories, stables and experimental work. The buildings, while still usable, are old and require frequent repair as well as being difficult to modernize. Another problem is isolation from other scientists and persons with related interests.

5. Historical Origins and Juridical Status

Concurrent with expansion of inter-American cooperation in the late 1940s the northward spread of foot-and-mouth disease led the Organization of American States, as one of its first programs in technical cooperation, to undertake, in conjunction with PASB and the Inter-American Institute of Agricultural Sciences (IICA), establishment of a center to attack the problem. Since (IICA) did not have the staff or resources to handle the problem, OAS turned to PASB. Although the disease does not occur in man, its effect on human nutrition and human economy is such that the XIII Pan American Sanitary Conference, in 1950, accepted the Director's recommendation that the Bureau take on the responsibility. With the approval of the arrangement by the Inter-American Social and Economic Council in December 1950 the Director proceeded to sign an agreement for establishing a center with the Government of Brazil, represented by the Minister of Foreign Affairs and the Minister of Agriculture. The agreement was formally approved by the Brazilian Congress.

The Center began operations in 1951 and continued as a project under the Program of Technical Cooperation of the OAS for 17 years. In October 1967 the Directing Council, in Resolution CD17.19, approved inclusion of the Center in the regular budget of the Pan American Health Organization with the understanding that each country, on the basis of agreements in the OAS, would arrange for its quota to come from the agriculture budget. The resolution authorizing inclusion in the regular

budget provided also for a PAHO-sponsored annual meeting of representatives of Ministries of Agriculture to review the program of PANAF-TOSA and also that of CEPANZO. Such meetings have been held regularly.

6. Objectives (from the original Agreement)

To attack the problem of foot-and-mouth disease by:

- 6.1 Providing diagnostic services on request;
- 6.2 Providing technical assistance on ways of preventing foot-and-mouth disease including: coordination of programs in frontier zones; national and local quarantine regulations; carrying out a prophylactic program; production of vaccines and improved immunization techniques; and verification of incidence and nature of the disease in given areas;
- 6.3 To train technical personnel in field work and laboratory diagnostic procedures;
- 6.4 To carry out basic research on diagnostic and preventive methodology for foot-and-mouth disease.

The basic policy objectives have now been modified:

- 6.5 To cooperate with countries affected by foot-and-mouth disease in organizing and conducting national and regional programs to control and eradicate the disease;
- 6.6 To cooperate with countries or regions that are free of foot-and-mouth disease in organizing and conducting prevention programs.

7. Activities

From the very beginning of PANAF-TOSA operations the functions of technical assistance, training and research were closely interwoven. At the time the center was founded the need for new knowledge in regard to vaccine production in all phases made research in this field necessary to support both the training program and assistance to the countries.

7.1 Technical Cooperation and Advisory Services

The strategy has been based on development within the countries of resources and structures for a long-range animal health program. Facilities for etiological diagnosis were established in the Center and then transferred to the countries. All the affected countries of the



Region now have diagnostic laboratories that carry out the typing and subtyping of the virus in a uniform manner and the Center now functions primarily as a reference center. All these countries now have an FMD prevention, control or eradication program.

Another area of importance relates to production of vaccine in suitable quantity and quality. Four hundred million (400,000,000) doses are now produced annually in South America, adequate in quantitative terms but not always in quality. PANAFIOSA is the reference center for vaccine quality control.

### 7.2 Training

Up to 1979, 2,371 professionals from all the countries of the Region had participated in the Center's training program. In the beginning there was more emphasis on diagnostic and laboratory procedures, with a later shift of emphasis toward training in vaccine production and epidemiologic surveillance. A total of 94 courses, both international and national, as well as international seminars were held during this period. In addition, more than 300 individual fellows studied at the Center.

In nine countries that are at present free of the disease 17 courses and seminars to emphasize prevention were held, with a total of 367 participants.

### 7.3 Research

Since its founding the Center has given priority to the establishment of standardized diagnostic procedures and adaptation of virological and serological techniques to make them practical for use by the national diagnostic laboratories.

FMD virus subtypes present in the field have been identified, and their immunological relationship with the virus strains used in the production of vaccines have been studied. New subtypes of vesicular stomatitis virus have been diagnosed in Argentina and Brazil.

Production of inactivated FMD vaccines at the Center started on a research scale in 1957 with the production of Frenkel type cultures in surviving bovine tongue epithelium. Assistance in this technique was provided to private and official vaccine production laboratories in the Continent, with particular emphasis on Argentina, Brazil, Peru, Bolivia and Ecuador. Presently, the Center's research efforts are directed towards the production, purification and concentration of antigen using baby hamster cell cultures. The Center has successfully developed an inactivation procedure that presently is being used in industrial vaccine production, both private and official.

The Center has shown that it is possible to produce high quality oil-adjuvanted vaccines consistently on a semi-industrial scale. These vaccines have been well received by the livestock industry in the field programs in Argentina, Brazil and Uruguay, and no undesirable secondary effects have been registered. A high degree of population immunity was obtained, leading to reduction in the number of annual revaccinations.

Studies on bovine virus carriers led to development of testing procedures which permitted safe shipment of breeding cattle under certain circumstances. Studies on virus-host interaction have clarified knowledge about vaccine potency tests.

A research project on physical losses under tropical and subtropical conditions is being developed at the Center through an agreement with the Ministry of Agriculture of Brazil and the IDB. This project will lay the groundwork for future studies of economic indicators of cattle production and farm management.

Epidemiological investigations include development of mathematical models. Methods are being studied to relate surveillance systems to socioeconomic conditions, for instance, during the last 5 years the Center has called upon the National Research Institutes for assistance in evaluation experiments for short- and long-term vaccines. The authorities of Argentina, Brazil and Uruguay responded with great enthusiasm; without this help the Center would not have been able to reach the present status in production of oil-adjuvanted vaccine and vaccine control methods.

In the field of operations research efforts have been directed toward developing vaccine control procedures compatible with the infrastructure of animal health services in South America.

Research on diseases of man and animals depend greatly on the availability of a good supply of healthy uniform laboratory animals. At the Center mice and guinea pigs are used in large quantities. Workers at the Center, with the assistance of laboratory animal specialists of the United States Air Force, have developed management practices for mouse and guinea pig colonies under subtropical conditions, which have served as a model.

The Center maintains the bulk of FMD investigation, while good progress is being made in development of national applied research structures. There is a gradual shifting of research responsibilities to national research institutions, in cooperation with the Center.

#### 7.4 Information Dissemination

Complementary to the training programs, technical and didactic publications are forwarded to all the countries. The PANAFITSA Bulletin

publishes scientific papers of Center staff, as well as by others. Abstracts and bibliographical reviews of the latest foot-and-mouth disease research at the world level are disseminated through the Bulletin.

In addition to the Bulletin, both monthly and weekly Epidemiological Reports on FMD and vesicular stomatitis are distributed. Six scientific monographs have been published, 4 technical monographs, 35 bibliographies, and 14 didactic manuals.

The Center's library maintains a collection of literature on foot-and-mouth disease and receives 120 current scientific publications.

A brochure marking the 25th Anniversary of the Center (1951-1976) is a valuable source of information on the Center's program and accomplishments.

8. Advisory Committee

A Scientific Advisory Committee appointed by the Director of PASB from prominent figures of world science has met every two years since 1967.

Although not technically an advisory committee to PANAFTOSA, the South American Commission for the Control of Foot-and-Mouth Disease (COSALFA), composed of high-level officials from national programs, has met annually since 1963. The Director of PANAFTOSA acts as Executive Secretary of COSALFA, increasing opportunity for mutual exchange of information.

9. Budget (Table Animal Health I and Figures Animal Health 1, 2 and 3)

Presentation of data in a form comparable to the other centers is difficult because of the source of funds. As noted earlier, almost all the support is in the regular budget, yet the usual concept of regular funds as reallocable at the discretion of the Governing Bodies does not apply. The funds of PANAFTOSA are essentially dedicated to the one purpose.

The budget is discussed more extensively in the special evaluation of PANAFTOSA.

10. Staff

The staff includes 19 professionals and 136 general support and local personnel. The Center's organization includes the Director's Office and four departments: Research and Services Laboratories, Training and Information, Field Technical Cooperation, and Administrative Services.

TABLE ANIMAL HEALTH I

PANAFTOSA EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	3,406,503	2,878,626	527,878
1978	3,297,292	3,226,026	71,266
1977	2,524,383	2,287,067	237,316
1976	2,448,451	2,275,333	173,118
1975	2,160,591	2,091,483	69,108
1974	2,020,475	1,919,218	101,257
1973	2,014,958	1,767,546	247,412
1972	1,670,303	1,559,100	111,203
1971	1,447,899	1,406,942	40,957
1970	1,200,279	1,171,708	28,571

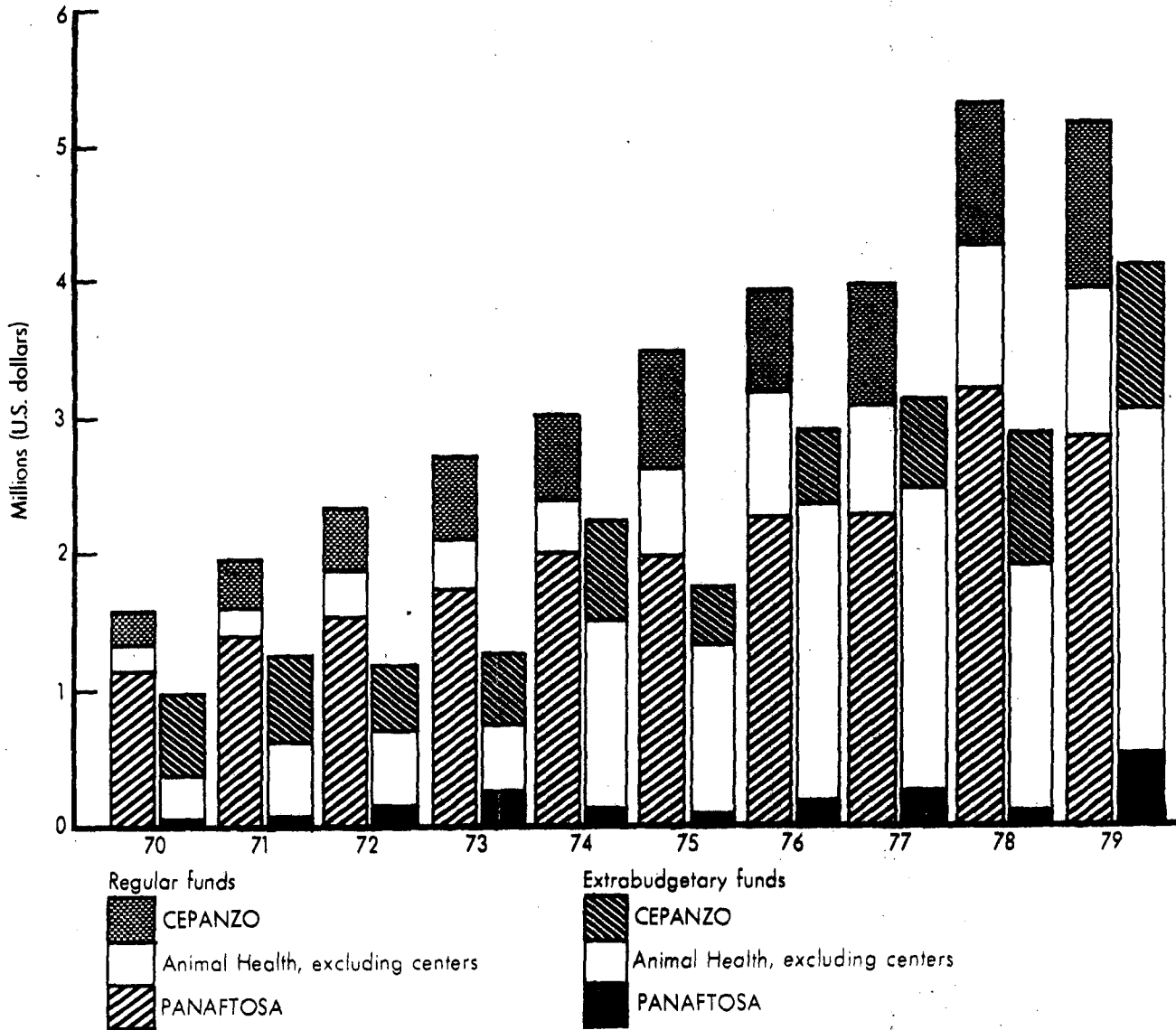
CEPANZO EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	2,886,725	1,287,025	1,599,700
1978	2,183,802	1,233,764	950,038
1977	1,549,500	902,554	646,946
1976	1,350,075	807,446	542,629
1975	1,280,934	860,960	419,974
1974	1,358,470	627,953	730,517
1973	1,204,287	602,190	602,097
1972	934,157	476,503	457,654
1971	935,385	324,687	610,698
1970	822,287	216,254	606,033

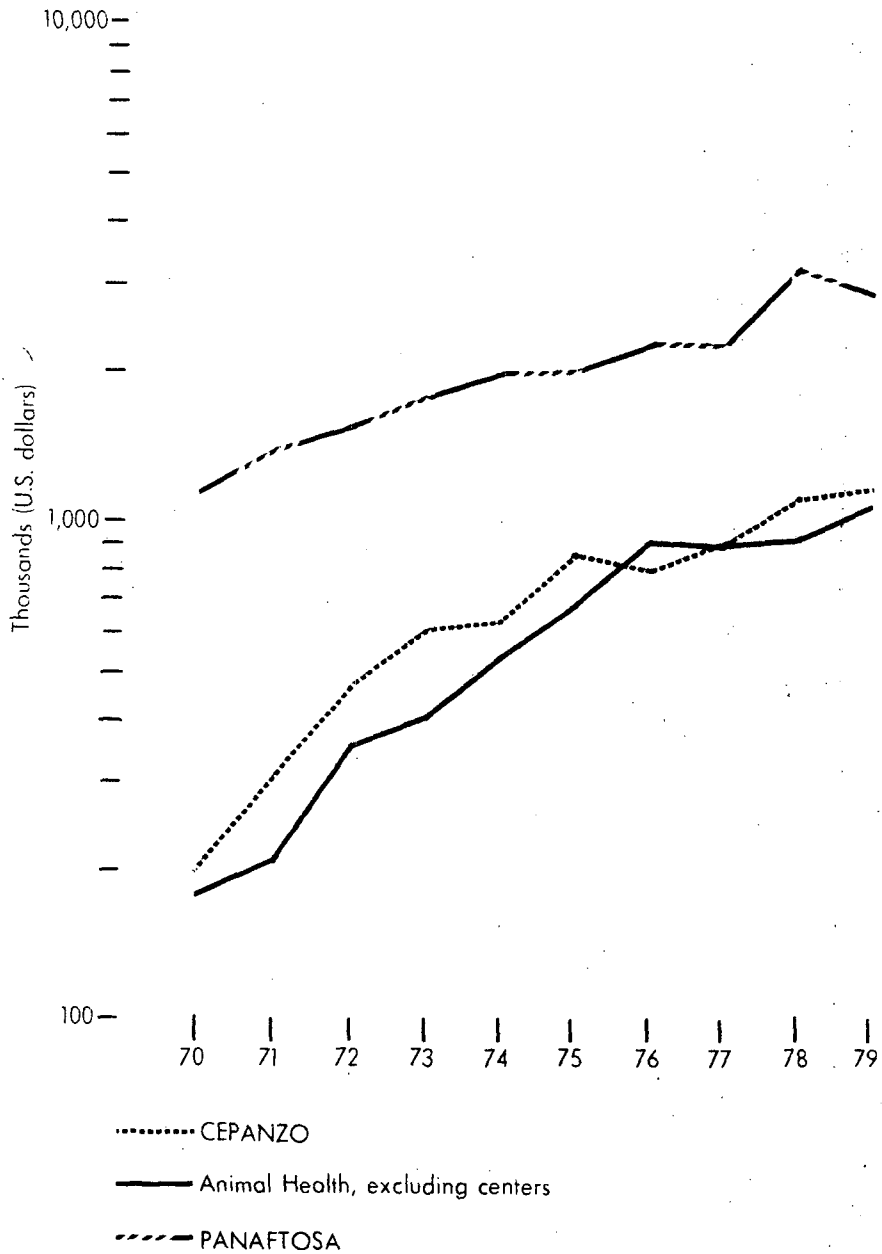
EXPENDITURES FOR ANIMAL HEALTH  
EXCEPT FOR CEPANZO AND PANAFTOSA, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular</u>	<u>All Other Funds</u>
1979	3,073,136	1,049,792	2,023,344
1978	2,807,224	923,448	1,883,776
1977	3,208,431	906,961	2,301,470
1976	3,106,767	904,615	2,202,152
1975	1,952,752	683,390	1,269,356
1974	1,967,499	544,164	1,423,335
1973	846,624	407,597	439,027
1972	1,001,588	357,641	643,947
1971	811,607	210,318	601,289
1970	535,223	181,113	354,110

**ANIMAL HEALTH 1.**  
**RELATIONSHIPS AMONG EXPENDITURES FOR ANIMAL HEALTH:**  
**CEPANZO, PANAFTOSA AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**ANIMAL HEALTH 2.**  
**GROWTH IN EXPENDITURES FOR ANIMAL HEALTH:**  
**CEPANZO, PANAFTOSA AND REST OF PROGRAM**  
**REGULAR FUNDS 1970-79**



### ANIMAL HEALTH 3. GROWTH IN EXPENDITURES FOR ANIMAL HEALTH: CEPANZO, PANAFTOSA AND REST OF PROGRAM EXTRABUDGETARY FUNDS 1970-79



REGIONAL LIBRARY OF MEDICINE AND THE HEALTH SCIENCES - BIREME

1. Basic PAHO Program: Development of human resources
2. Goal of the Center: Extend and improve health and biomedical information services to health and health-related agencies and institutions.
3. Location: São Paulo, Brazil
4. Facilities

The building of the library of the Escola Paulista de Medicina, containing 3,300 sq. meters, has been converted to the use of BIREME. The quarters are crowded; the building serves also as the active library for the faculty and students of the school as well as for the regional library center.

5. Historical Origins and Juridical Status

A number of national and international agencies and associations have long been concerned over the inadequacy of library reference services throughout Latin America. In 1967 these concerns, plus the expansion of the PAHO program in research, led to an agreement by PAHO with the Government of Brazil, the Government of the State of São Paulo and the Escola Paulista de Medicina, to establish a regional library to be headquartered at the school.

The agreement provided for the School to furnish a building and for the Federal and State Governments to supply financial support for local costs. It was envisioned from the beginning that all services would not come from BIREME itself but through subcenters that would be set up elsewhere in Brazil and throughout the other countries.

One motivating factor was concern on the part of the National Library of Medicine (NLM) of the United States of America, the chief resource in the Americas for biomedical information. NLM was receiving so many requests for library and bibliographic services from research workers and teachers in Latin America, that it had clearly become inefficient to supply these directly from Washington. Since development of a regional library in Latin America would help the situation substantially, NLM agreed, as the plans for BIREME developed, to provide a substantial amount of service to BIREME without charge.

The Directing Council noted with approval the beginnings of BIREME (CD17.24, 1967) and the progress of BIREME (CD19.19, 1969).



The most recent modification of the Agreement was on 15 May 1978, providing for BIREME to run for four additional years.

6. Objectives

- 6.1 (From the original Agreement): Development of biomedical research, teaching and practice of medicine in Latin America, through the use of the existing medical libraries and the fulfillment of the following activities:
- 6.1.1 To provide health science professionals with increased access to a more comprehensive collection of publications in these sciences in order to make Latin America self-sufficient in library resources and services in medical fields;
  - 6.1.2 To use photocopying and other modern methods of dissemination of information in order to increase the utilization of the above-mentioned material;
  - 6.1.3 To improve access to bibliographic material through the use of modern scientific communication, especially the MEDLARS system;
  - 6.1.4 To function as a demonstration and training center to foster and encourage the development of medical libraries in Latin America;
  - 6.1.5 To promote bibliographic exchange programs among Latin American health science libraries;
  - 6.1.6 To maintain and increase the regular collections of journals and monographs, as well as secondary material, to complete and enlarge the existing collection in the Escola Paulista's library and to improve reference services so that they may better fulfill their purposes;
  - 6.1.7 To promote programs of selective dissemination of scientific information in Latin America;
  - 6.1.8 To organize a center to provide audiovisuals in the health fields;
  - 6.1.9 To contribute to the strengthening of medical and health sciences schools' libraries, as well as those of health institutions in Latin America.
- 6.2 The 1978 agreement specified six objectives:
- 6.2.1 To integrate the health science libraries of the Region into a Continent-wide system to furnish needed information in a coordinated manner;

- 6.2.2 To stimulate the development of additional libraries to be integrated into the system;
- 6.2.3 To facilitate access to medical literature, especially that produced in Latin America, keeping bibliographic records and maintaining contact with information processing centers, publishing houses and authors;
- 6.2.4 To contribute to the development and utilization of modern methods of scientific communication in the biomedical field, in order to facilitate user access;
- 6.2.5 To establish working relationships and interchange of services with health science information centers in other regions of the world;
- 6.2.6 To support, by providing pertinent information, priority health programs in the countries of the Region in the fields of research, teaching and medical care, making special effort also to provide services to other health science fields.

## 7. Activities

### 7.1 Technical Cooperation and Advisory Services

The library network envisioned in the objectives has been accomplished reasonably well in Brazil, where 18 subcenters function, mostly in universities in the states, while BIREME itself serves as a subcenter for the State of São Paulo. Arrangements have also been made for complementary library service through the schools of Veterinary Medicine, Chemistry and Dentistry of the University of São Paulo.

In other countries of the Region, there has been less success, even though national centers have been designated. Most users still request information direct from BIREME, even though it is often available from their national centers.

Use of the MEDLINE system based upon ELHILL II, specially prepared by the US National Library of Medicine for BIREME, provides BIREME with a system adapted to the limited facilities of Latin America. Material from 1,730 publications is available; the more advanced ELHILL III contains 3,400 journals. The MEDLINE system was introduced in 1974, and since then NLM has been sending to BIREME base tapes which are loaded to the IBM 370/155 computer of the "Instituto de Energia Atômica de São Paulo". This allows direct retrieval through terminals located in BIREME and at

the subcenters of Rio de Janeiro, Minas Gerais and Bahia. Thus, Brazilian and Latin American professionals and institutions have access to the most powerful existing biomedical information system.

BIREME provides missing bibliographic materials to libraries and librarians in order to strengthen and develop collections. It provides to users copies of articles that cannot be found in local libraries or in subcenters.

Two types of bibliographic services are provided:

- A special search in a particular field; and
- Bibliographies covering a priority health field, produced to stimulate interest in that field.

Two thousand nine-hundred and ten bibliographic searches were made throughout the year, approximately 800 from outside Brazil.

An audiovisual collection has established a loan service, available to medical schools in the Region.

A series of side agreements with other Brazilian agencies, notably FINEP (of the Brazilian Planning Ministry), INAN--the National Institute of Nutrition, and DNC--the National Cancer Division, cover special areas of BIREME's work.

In 1979 a plan first proposed in 1977 came into fruition with the first appearance of the Latin American Index Medicus (IMLA), covering periodical literature of Latin America and designed to be issued twice a year.

## 7.2 Training

Regular training courses are offered for medical librarians. Two were held in 1979--both six week courses; the first had participation of six students (4 Brazil, 1 Argentina, and 1 Peru), and the second, 13 students (6 Brazil, 2 Argentina, 1 Peru, 3 Venezuela, 1 Dominican Republic). A number of students made short individual visits to BIREME to learn techniques.

## 7.3 Research

While in a sense all of the work of BIREME is related to research, studies have been undertaken in regard to library techniques. One such study, carried out in 1979, used an inquiry among the professors at the Escola Paulista de Medicina to help determine what journals should be used as a basic collection for a medical school.

7.4 Information Dissemination

This subject has been essentially covered under item 7.1 since, in fact, the bulk of the advisory service function of BIREME is in the form of information dissemination.

The ninth volume of the catalog of recent acquisitions was published. The Index Medicus Latinoamericano, IMLA, was published in an edition of 500 copies. The first two issues are now completed.

8. Advisory Committee

The original agreement called for establishment of an international advisory committee to meet annually and the 12th Meeting of that committee was held recently. Although a national advisory committee was also envisioned in the original agreement it was formed only recently.

An important development is constitution of a "Long Range Working Group on Biomedical and Health Information" which met most recently in January 1980. This group is looking carefully at the total function of BIREME.

9. Budget (Table Development of Human Resources I and Figures Development of Human Resources 1 and 2)

Development of human resources has been a high priority for the Organization over the past 30 years. This is consistent with the observed growth in use of regular funds in this field and in the growth of the two related centers.

Since BIREME began operating fully, the regular budget has grown quite steadily; the extrabudgetary funds have grown even more rapidly. Furthermore, the extrabudgetary funds do not reflect the quite substantial amount of service received from the United States National Library of Medicine without cost to BIREME. Even without this factor, the extrabudgetary funds of BIREME constitute a large portion of the total expenditure of extrabudgetary funds for human resources. It should be noted that most of these funds come from Brazilian Government agencies for specific programs in Brazil.

10. Staff

BIREME has 23 scientific and technical personnel (six of these posts are funded by PAHO funds) and 47 support staff.

TABLE DEVELOPMENT OF HUMAN RESOURCES I

BIREME EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	1,113,537	299,678	813,859
1978	1,368,152	283,496	1,084,656
1977	1,251,799	269,539	982,260
1976	817,218	216,133	601,085
1975	598,752	255,167	343,585
1974	659,985	218,335	441,650
1973	510,236	193,734	316,502
1972	425,806	160,270	265,536
1971	299,336	147,220	152,116
1970	205,523	44,676	160,847

CLATES EXPENDITURES, 1972-1979

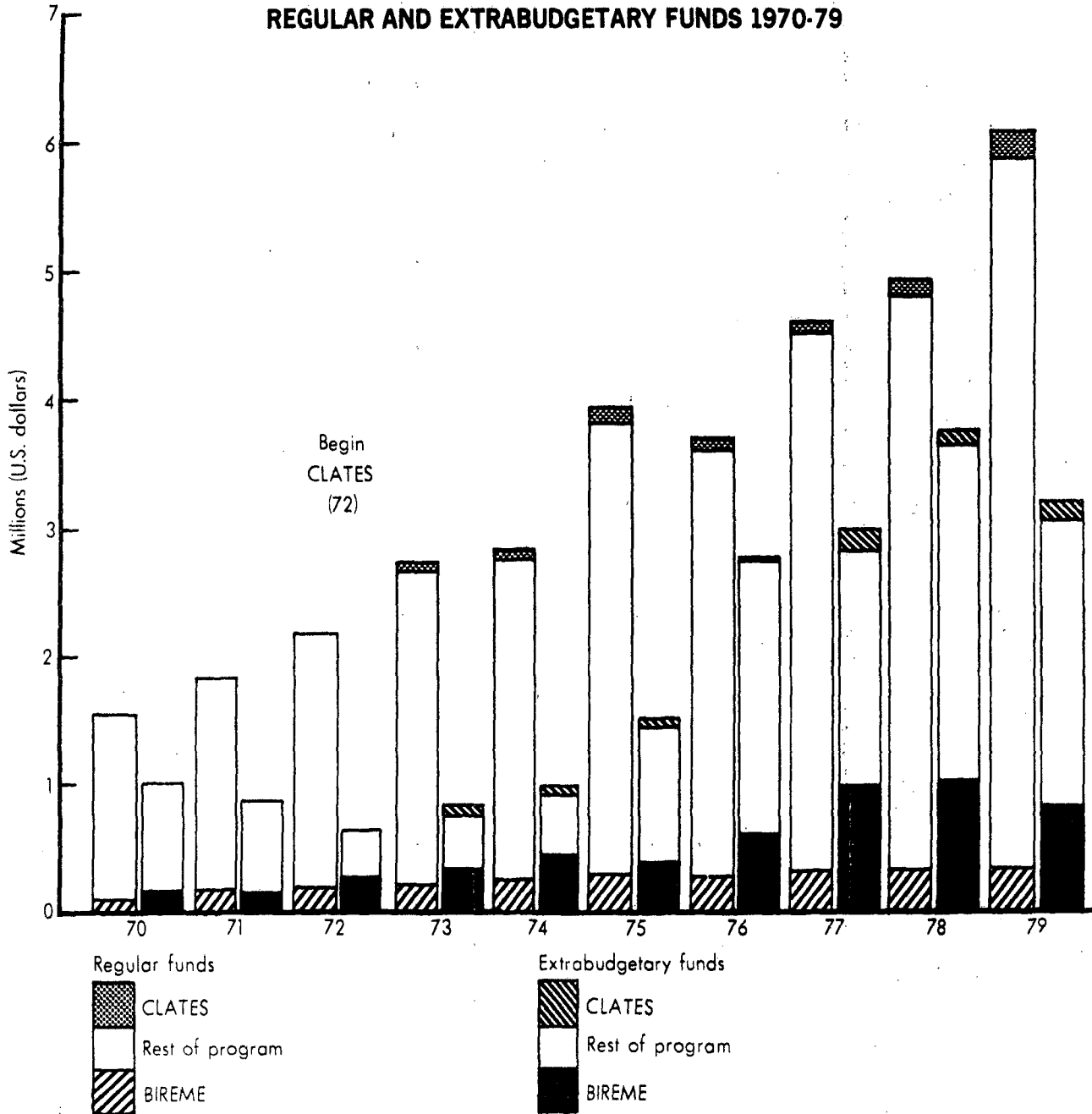
<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	367,893	209,627	158,266
1978	179,216	121,715	57,501
1977	192,374	89,238	103,136
1976	98,666	75,103	23,563
1975	134,594	93,163	41,431
1974	120,059	69,325	50,734
1973	129,647	72,500	57,147
1972	13,847	0	13,847

EXPENDITURES FOR DEVELOPMENT OF HUMAN RESOURCES  
EXCEPT FOR BIREME AND CLATES, 1970-1979

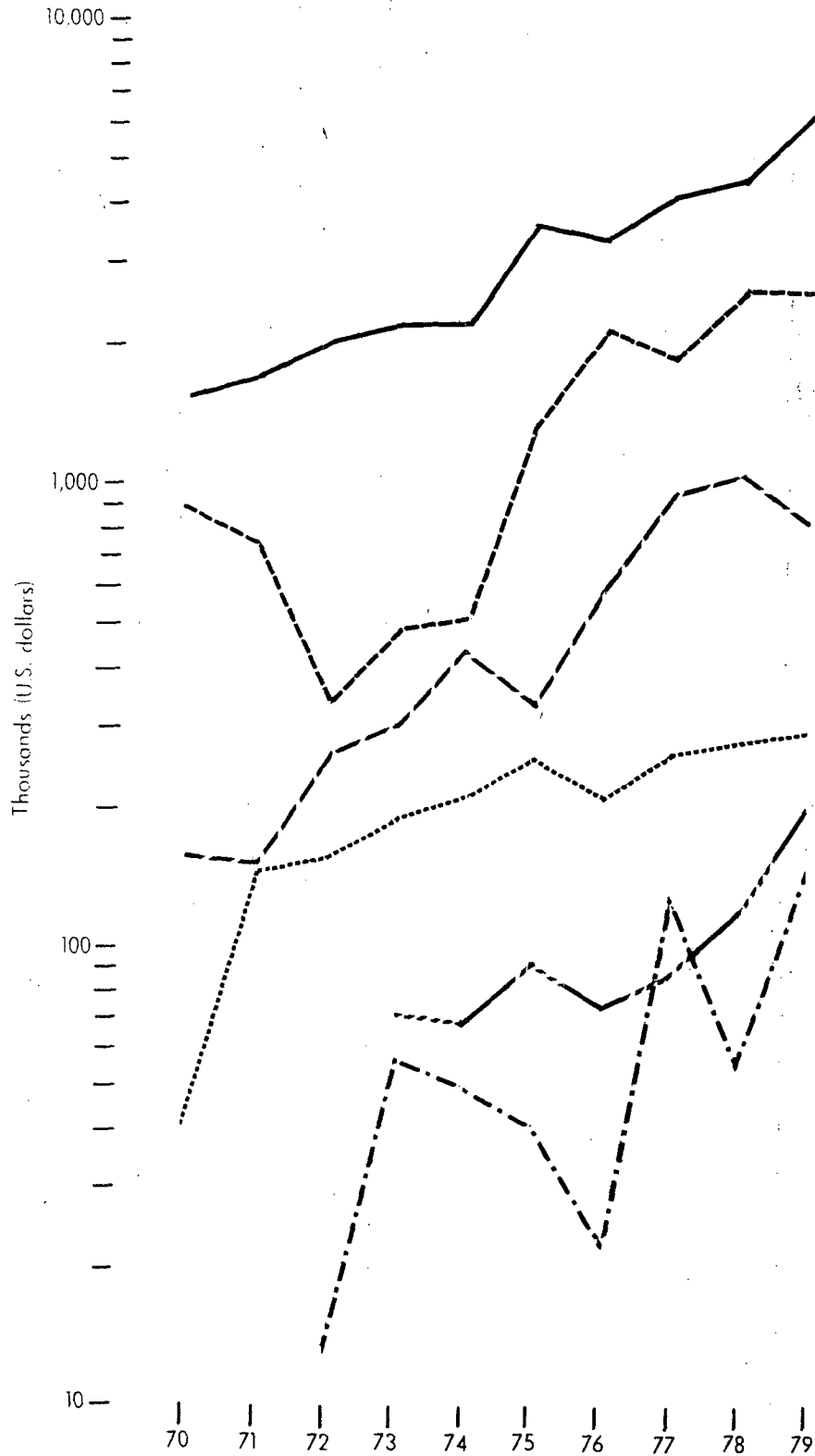
<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	7,982,972	5,721,013	2,261,959
1978	7,361,583	4,686,552	2,675,031
1977	6,169,763	4,245,667	1,924,096
1976	5,647,995	3,464,813	2,183,182
1975	4,868,518	3,730,454	1,138,064
1974	3,039,113	2,520,638	518,475
1973	2,759,468	2,260,591	498,877
1972*	2,457,459	2,063,720	393,739
1971	2,471,864	1,728,384	743,480
1970	2,451,411	1,560,236	891,175

\*Begin CLATES

**DEVELOPMENT OF HUMAN RESOURCES 1.  
RELATIONSHIPS AMONG EXPENDITURES FOR HUMAN RESOURCES:  
CLATES, BIREME AND REST OF PROGRAM  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**DEVELOPMENT OF HUMAN RESOURCES 2.**  
**GROWTH IN EXPENDITURES FOR DEVELOPMENT OF HUMAN RESOURCES:**  
**BIREME, CLATES AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



Regular funds  
 ----- BIREME  
 \_\_\_\_\_ Human Resources, excluding BIREME and CLATES  
 -.-.-.- CLATES

Extrabudgetary funds  
 ----- BIREME  
 ----- Human Resources, excluding BIREME and CLATES  
 -.-.-.- CLATES

LATIN AMERICAN CENTER FOR EDUCATIONAL TECHNOLOGY IN HEALTH - CLATES

1. Basic PAHO Program: Development of human resources
2. Goal of the Center: Develop effective techniques in education of health service personnel and promote the wider use of these techniques.
3. Location: Rio de Janeiro, Brazil
4. Facilities

The Center occupies space on two floors of one of the new buildings of the Health Sciences Center of the Federal University of Rio de Janeiro (UFRJ). Space is provided for classrooms, computer installations, preparation of audiovisual aids and development of other techniques for self-instruction.

5. Historical Origins and Juridical Status

The CLATES activity evolved from a project developed within the Institute of Biophysics in the Health Sciences Center of UFRJ, originating from recognition that the rapid expansion of knowledge in the highly technical fields of biophysics and physiology was causing difficulties for the faculty in teaching and for the students in learning. In several countries successful experiments had been conducted on use of computers, as well as simpler devices in self-instruction, thus allowing students to proceed in accordance with each one's own capacity. WHO had collaborated with many of these projects.

The Health Sciences Center Coordinating Council reviewed the concept and decided to expand its scope to encompass all the health sciences. The name "Nucleus of Educational Technology for Health" (NUTES) was adopted. It was created as a unit of the Health Sciences Center on 13 July 1972.

PAHO, as well as WHO, had keen interest in utilizing new educational techniques on a broad scale for health workers in many fields. As a result, on 22 September 1972 an agreement was signed by PAHO with the Government of Brazil and the Federal University of Rio de Janeiro to expand the program of NUTES under a unique arrangement providing for a form of integration of the Brazilian national effort, NUTES, with the international program, CLATES. Under this arrangement, the Director of the Center and his Administrative Assistant are appointed by PAHO while the majority of the staff and most of the resources for activities come



through NUTES. Because of this situation it is difficult to separate the functioning of the two units, and both Director and staff usually refer to the two jointly as NUTES/CLATES.

A new phase began in October 1979, when, for personal reasons, Dr. Luis Carlos Lobo, who had been Director of NUTES/CLATES from its founding, decided to limit his activities to the directorship of NUTES. Since the whole effort has been based on joint staff activity and a single program (in a sense similar to the unified PAHO/WHO program in the Americas) there are potential complications in having two directors of the program each responsible for a specific portion of the budget but having to reach common decisions in regard to program. Because the two persons involved understand each other so well, no problems have arisen thus far.

A quotation from the 1980 report of the CLATES Advisory Committee is relevant:

"Difficult times may lie ahead as the precise details of the working relationship are worked out. The Committee believes that the advantages of having a single program have been demonstrated clearly. While the two components are separable in terms of finance and administration they should not be separable in respect to program. Thus, the two directors should recognize frankly the pitfalls that exist and should exercise every effort, individually and jointly, to avoid them. One important principle, in the committee's opinion, is that there should be a single 'Direction,' with both directors fully aware of and in accord with all pertinent decisions. The situation may be likened to a marriage where each partner fully accepts the concept of equality and complete sharing of responsibility. The Committee is happy to recognize that this is exactly what has happened to date."

"The next year will test the new situation, and specific recommendations, therefore, do not seem to be in order at this point. The Committee is persuaded that if the partners exercise the necessary flexibility a productive program is achievable."

No specific resolutions dealing with CLATES have come before the Governing Bodies other than as part of the general reports on the centers.

## 6. Objectives

- 6.1 Plan and develop courses for teachers of health sciences to train them in pedagogy and in the use of new instructional materials including the computer;

- 6.2 Design biomedical and health science courses with emphasis on process objectives, not just content, and develop strategies and tactics adapted to the particular teaching objectives and learning conditions;
- 6.3 Design biomedical sciences courses individualizing the educational processs (self-instruction);
- 6.4 Organize programmed instruction courses to prepare audiovisual materials such as videotapes, movies, slides, filmstrips and audiotapes;
- 6.5 Develop simulations of biological events and of clinical and epidemiological problems;
- 6.6 Develop software and courseware to permit computer-assisted and computer-managed instruction in biomedical science teaching;
- 6.7 Design and develop evaluation systems using valid, objective, comprehensive and reliable measuring instruments;
- 6.8 Design and develop a formative evaluation system;
- 6.9 Assist health area teaching staff in planning courses through definition of objectives, organization of contents, building tables of content/behavior specifications, selection of instructional materials, use of media evaluation, and other newer techniques;
- 6.10 Plan, perform and assess research activities on the teaching/ learning process.

## 7. Activities

As indicated earlier, it is impossible to prepare a report of activities carried on by CLATES alone. Thus, the following summary includes NUTES/CLATES jointly. It should be further noted that, since a majority of the operating support comes from Brazil, a larger proportion of activities takes place in the Host Country than in some centers.

Activities directed entirely at the educational process inevitably show overlap in advisory services and training programs; these are discussed jointly.

### 7.1, 7.2. Technical Cooperation, Advisory Services and Training

In essence the work of NUTES/CLATES falls under two large headings: first, development and dissemination of educational resources

and innovative techniques, and, secondly, teaching of courses and providing advisory services to broaden use of the kinds of material developed under the first heading.

In 1979, as an example of a single year's activities, 32 audio-visual programs were produced, 17 on videotape and 15 as slide/sound (unsynchronized) productions. Almost 4,000 requests for videotape programs were received. Agreements for providing audiovisual material were signed with six Brazilian universities and two other countries.

Under the heading of formal instruction, 48 courses were carried out at NUTES/CLATES in 1979 with 651 participants--555 from Brazil and 96 from other countries in Latin America. Five courses were carried out elsewhere in Brazil with 130 participants. Fourteen courses were carried out in other countries--Nicaragua, Venezuela, Paraguay, Colombia (Cali, Bogotá), Peru, Chile, Mexico (Monterrey), and Ecuador (four courses). These courses reached some 500 students.

A Masters course in educational technology continues to be carried out jointly with the UFRJ Faculty of Education. Thirteen students were admitted for the second series; the first group is now at the thesis writing stage. NUTES/CLATES also continued responsibility for the course in medical pedagogy, 131 students, and the course in special didactics, 139 students.

A substantial part of the training program is directed at sectors other than medical education, notably education of nurses and training of supervisors in local health units.

Various forms of support are available for fellowships for students spending time at NUTES/CLATES. Fellowships are provided through PAHO funds and a substantial number of fellowships are also available through Brazilian sources. For example, in 1979, 23 fellowships were provided to other countries of Latin America by the Secretariat of International Economic and Technical cooperation (SUBIN) and one by the Ministry of Foreign Affairs. Thirty-five fellowships were supplied with PAHO funds and 10 by the Kellogg Foundation.

### 7.3 Research

Illustration of the variety of studies being carried out are the four foci involved in evaluation of a large-scale didactic training system at the University of Londrina: efficiency of training, acceptability of the professor-trainee, impact of introducing new educational technology, and perception by the student of the effects of training professors.

A considerable concern of educators is the influence on teachers of training in interpersonal relations. A study concluded in 1979 suggests that the type of orientation given showed little immediate effect. Possible explanations were the short duration of the program and the current system of professor-student relations at the institution studied, which made improvement difficult.

#### 7.4 Information Dissemination

In essence all of the audiovisual material produced and distributed by NUTES/CLATES, described under advisory services and training programs, constitute effective means of spreading information. Furthermore, the whole principle of NUTES/CLATES, that is, training trainers, is a means of maximizing spread of information.

In addition to the materials cited, NUTES/CLATES produces each year an attractive leaflet describing the Center, its goals and its activities, and listing the courses and other teaching offerings available for the coming year.

#### 8. Advisory Committee

The Center has an Advisory Committee of approximately eight members who meet annually to review the program and offer comments. A complication noted in the Committee's 1980 report is that, since the Committee is appointed by the Director of PASB, it is theoretically concerned only with CLATES. Given the inseparability of the two programs, the Advisory Committee may need to be restructured.

#### 9. Budget (Table CLATES I and Figures CLATES 1 and 2)

Analysis of the budget of NUTES/CLATES presents more than the usual difficulties. One problem is the interrelation of the two centers, NUTES and CLATES, discussed above. One index of the complexity is the progress in international funding, comprising funds from PAHO and from the Kellogg Foundation. In 1973 these funds constituted 34 per cent of the total NUTES/CLATES budget. In the succeeding years, the Kellogg Foundation's support terminated while the PAHO Regular support increased steadily. Nevertheless, by 1979 Brazilian national funds had increased so much that the proportion from international sources had dropped to 20 per cent.

The attached charts deal only with CLATES and therefore reflect only a small portion of the Brazilian funds, which, in a sense, are comparable to extrabudgetary funds in other centers. This fact may help to explain the variation in extrabudgetary funds shown on the tables and in the graphs.

The other problem has to do with calculation of the program base. The figures shown here include all of the staff and projects directly connected with the Department of Human Resources and include also the general fellowship program, i.e., unrestricted fellowships. Since there is some variation in the way fellowships have been shown in the budget each year there may be some variation in the totals. The comparison should therefore be looked at as indication of "order of magnitude" rather than a precise relationship.

CLATES constitutes a small portion of the total expenditure for development of human resources. A rough parallelism does exist in the increases in the past few years, both in regular and in extrabudgetary funds. As noted above, however, the large increase of Brazilian funds to NUTES has provided CLATES with additional resources not shown in these figures.

10. Staff

The staff currently consists of 68 persons of whom the Director, a medical educator, and one administrative assistant are on the PAHO budget.

## TABLE DEVELOPMENT OF HUMAN RESOURCES I

## CLATES EXPENDITURES, 1972-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	367,893	209,627	158,266
1978	179,216	121,715	57,501
1977	192,374	89,238	103,136
1976	98,666	75,103	23,563
1975	134,594	93,163	41,431
1974	120,059	69,325	50,734
1973	129,647	72,500	57,147
1972	13,847	0	13,847

## BIREME EXPENDITURES, 1970-1979

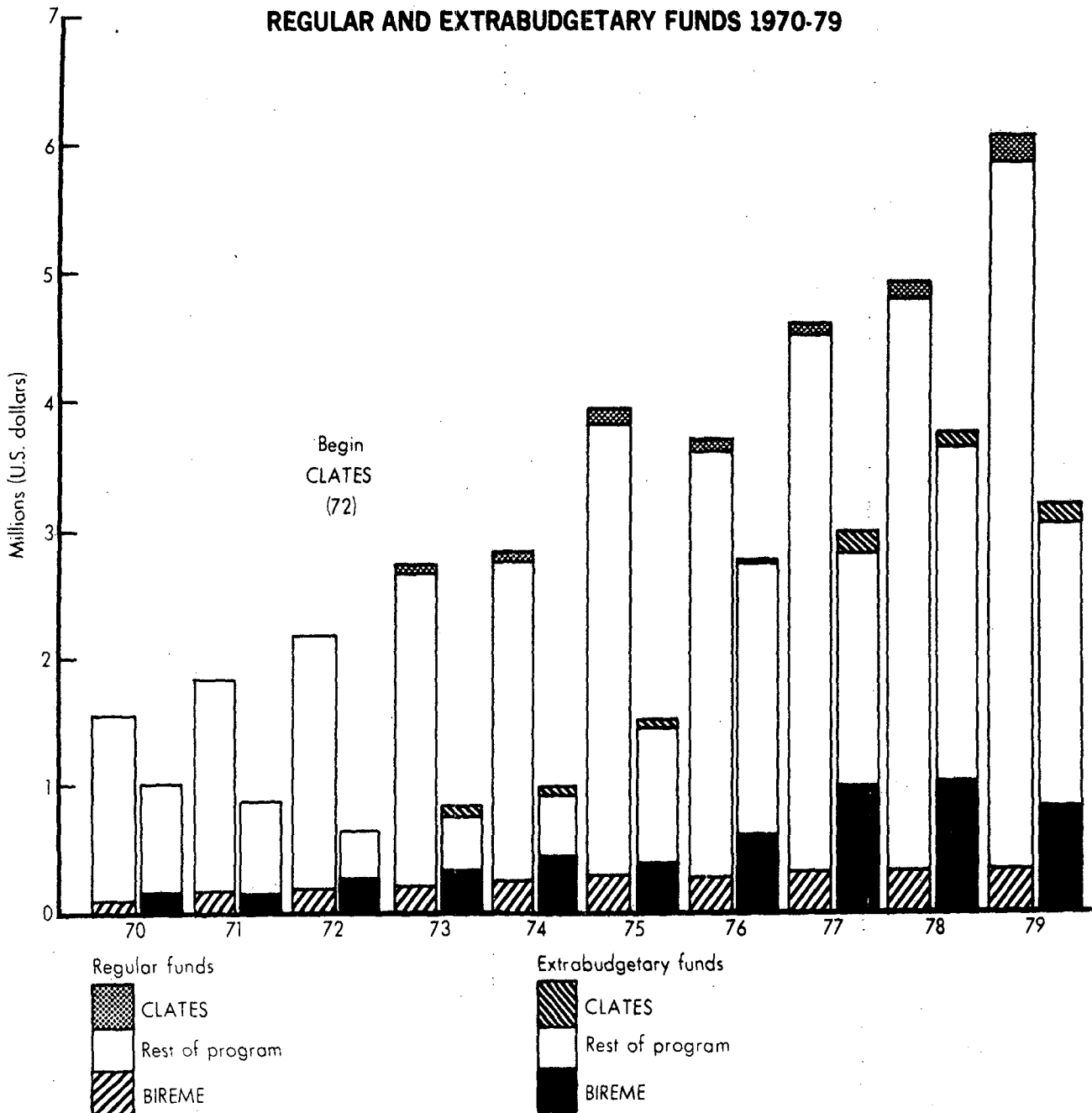
<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	1,113,537	299,678	813,859
1978	1,368,152	283,496	1,084,656
1977	1,251,799	269,539	982,260
1976	817,218	216,133	601,085
1975	598,752	255,167	343,585
1974	659,985	218,335	441,650
1973	510,236	193,734	316,502
1972	425,806	160,270	265,536
1971	299,336	147,220	152,116
1970	205,523	44,676	160,847

EXPENDITURES FOR DEVELOPMENT OF HUMAN RESOURCES  
EXCEPT FOR BIREME AND CLATES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	7,982,972	5,721,013	2,261,959
1978	7,361,583	4,686,552	2,675,031
1977	6,169,763	4,245,667	1,924,096
1976	5,647,995	3,464,813	2,183,182
1975	4,868,518	3,730,454	1,138,064
1974	3,039,113	2,520,638	518,475
1973	2,759,468	2,260,591	498,877
1972*	2,457,459	2,063,720	393,739
1971	2,471,864	1,728,384	743,480
1970	2,451,411	1,560,236	891,175

\*Begin CLATES

**DEVELOPMENT OF HUMAN RESOURCES 1.  
RELATIONSHIPS AMONG EXPENDITURES FOR HUMAN RESOURCES:  
CLATES, BIREME AND REST OF PROGRAM  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**DEVELOPMENT OF HUMAN RESOURCES 2.**  
**GROWTH IN EXPENDITURES FOR DEVELOPMENT OF HUMAN RESOURCES:**  
**BIREME, CLATES AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



Regular funds	Extrabudgetary funds
..... BIREME	----- BIREME
———— Human Resources, excluding BIREME and CLATES	----- Human Resources, excluding BIREME and CLATES
-.-.-.- CLATES	..... CLATES



PAN AMERICAN CENTER FOR SANITARY ENGINEERING AND  
ENVIRONMENTAL SCIENCES - CEPIS

1. Basic PAHO program: Environmental health protection
2. Goal of the Center: Improve conditions of the physical environment as they affect health.
3. Location: Lima, Peru
4. Facility

CEPIS is located in a building specially erected by the Government of Peru to serve the purposes of the Center, with 2,241 sq. meters for offices, library, meeting rooms, auditorium, and laboratories.

5. Historical Origins and Juridical Status

The importance of environmental conditions for health throughout the Americas generated early interest in a center that would concentrate on this area. In 1968, stimulated by interest of the Government of Peru, PAHO set up a center in Lima and in 1971 a formal agreement was signed between PAHO and the Government of Peru to establish the center for an indefinite period. The preamble to the agreement noted specifically the need for an instrument through which the Organization could provide a greater quantity of highly specialized advisory services to Member Countries.

In 1972 the Executive Committee, having reviewed a report from the Director of CEPIS, congratulated him and his staff for the aid provided the countries, thanked the Government of Peru, and recommended to the Director of PASB that he continue his efforts to provide the Center with adequate resources (CD68.13).

6. Objectives

CEPIS started with simple objectives spelled out clearly in the 1971 Agreement, as follows:

- 6.1 To contribute to the improvement of the environmental conditions in Peru and in other countries of the Region, with special emphasis on the complex problems derived from demographic growth, industrialization and intensive urbanization;
- 6.2 To stimulate and advise Governments on the adoption of new approaches and on the maximum utilization of the ample resources of modern technology, for the improvement of the conditions of the physical environment, and for the protection of natural resources giving special consideration to human welfare.

## 7. Activities

CEPIS started out with a somewhat different program focus from that of other centers. From the outset CEPIS was to give primary attention to application of knowledge and to advisory services. Thus, its role in research was seen more as supportive and coordinating than in large-scale direct activities. In this sense, as foreseen in the Agreement, CEPIS activities have been closely related to the basic field program and truly are an integral arm of the Division of Environmental Health.

Environmental health is so broad and all-encompassing a subject that staff of the Center have been involved in providing advice on a large number of areas. Recently the emphasis has been much greater in the field of water supply and waste water control.

### 7.1 Technical Cooperation and Advisory Services

Specialists from the Center have completed more than 400 service missions covering all the Latin American countries, most of the Caribbean member states and several outside the Continent. As a result of these missions and in response to specific requests, almost 700 technical reports and communiqués have been prepared and delivered to the governments, institutions, and professionals. In 1979, CEPIS consultants traveled on 38 missions to 21 countries, some of which received service more than once in the same area or were served by more than one consultant.

In fulfilling its basic functions, the Center coordinates and/or executes various multinational projects:

- Pan American Air Pollution Monitoring Network (REDPANAIRE);
- Regional Program for Analytical Quality Control in Water and Waste Analysis Laboratories (PRELAB);
- Pan American Network of Information and Documentation on Sanitary Engineering and Environmental Sciences (REPIDISCA);
- Global Environmental Monitoring System/Air (GEMS/AIR);
- Global Environmental Monitoring System/Water (GEMS/WATER);

The Project for the Technological Development of Water Supply and Sewage Agencies (DTIAPA) deserves special attention. The main purpose of this Project, sponsored by the Inter-American Development Bank, the

Peruvian Government and PAHO, with PAHO/CEPIS as the executory agency, is the technological development of water supply and sewage agencies in Peru and other Latin American countries, particularly the signatories of the Cartagena Agreement.

## 7.2 Education and Training

Pursuant to its education and training function, CEPIS has collaborated in the organization, planning and/or direct offering of more than 100 courses at sites other than the Center. It is estimated that approximately 3,500 professionals and technicians have received training through these courses.

At the same time, CEPIS participated in the planning and/or development of several education meetings--congresses, conferences or seminars--held in Member Countries. The Center was also responsible for the coordination and holding of one conference, four international symposia, two consultative group meetings, and one forum, which were attended by more than 600 participants.

After moving into the new building, with its ample physical facilities, CEPIS began its own training program. To date, courses, seminars and workshops have been held on subjects related to water treatment, technology of waste water treatment, water pollution, air pollution, operation and maintenance of water systems and educational technology. These sessions were attended by professionals from several Latin American and Caribbean countries. In connection with these activities CEPIS has been involved in the production of 38 training manuals.

## 7.3 Research

To stimulate and help develop research CEPIS has provided advice and collaboration on some 50 research activities or projects being carried out by national personnel or agencies. CEPIS has cooperated in the design and start-up of experimental water treatment plants. It has developed new approaches and methods for water pollution control and for air quality monitoring. A project on the use of advanced technology in water treatment, coordinated by CEPIS, was carried out on the multi-national level in Bolivia, Brazil and Ecuador.

On-site research activity was begun in 1973 with a project on natural polymers and has increased considerably since then. More than 20 projects have been completed, several of them in cooperation with Peruvian agencies.

#### 7.4 Information Dissemination

CEPIS has organized a specialized library which now includes more than 24,000 titles. Each year the Center handles an average of more than 100 requests for information on subjects specifically related to its specialty areas.

CEPIS coordinates the development and operation of the Pan American Network of Information and Documentation on Sanitary Engineering and Environmental Sciences (REPIDISCA), being responsible for the centralized processing of the Network's bibliographic data base.

The Center publishes several periodicals. Among them are:

- News on Sanitary Engineering and Environmental Sciences (in English and Spanish), quarterly;
- Bibliographical Bulletin, quarterly;
- Periodical Newsletter of the Project for Technological Development of Water and Sewage Institutions, quarterly;
- PRELAB Bulletin (in English and Spanish);
- Technical Information Supplements;
- Technical Documents; and
- the Center's Annual Report (in English and Spanish).

The monthly Newsletter of the WHO International Reference Centre for Community Water Supply is translated into Spanish and distributed in Latin America from the Center.

A general information bulletin has had three editions in Spanish and in English. Announcements of courses are issued three to four times a year.

#### 8. Advisory Committee

The Center has not had a regularly constituted advisory committee but has used ad hoc committees formed by the Division of Environmental Health in 1969, 1971 and 1977.

#### 9. Budget (Table Environmental Health I and Figures Environmental Health 1 and 2)

Except for 1977 and 1978 there has been steady increase in the regular budget, roughly comparable to that of the total environmental health program. Extrabudgetary funds seemed to be growing more rapidly than regular funds, except for what looks to be a temporary drop in 1978.

#### 10. Staff

Currently there are 14 approved professional posts and 33 general service posts.

TABLE ENVIRONMENTAL HEALTH I  
CEPIS EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	977,277	707,226	270,051
1978	690,996	575,992	115,004
1977	822,198	595,368	226,830
1976	918,458	732,917	185,541
1975	650,933	523,089	127,844
1974	532,178	452,163	80,015
1973	415,999	366,669	49,330
1972	305,589	249,642	55,947
1971	274,956	270,675	4,281
1970	207,291	203,303	3,988

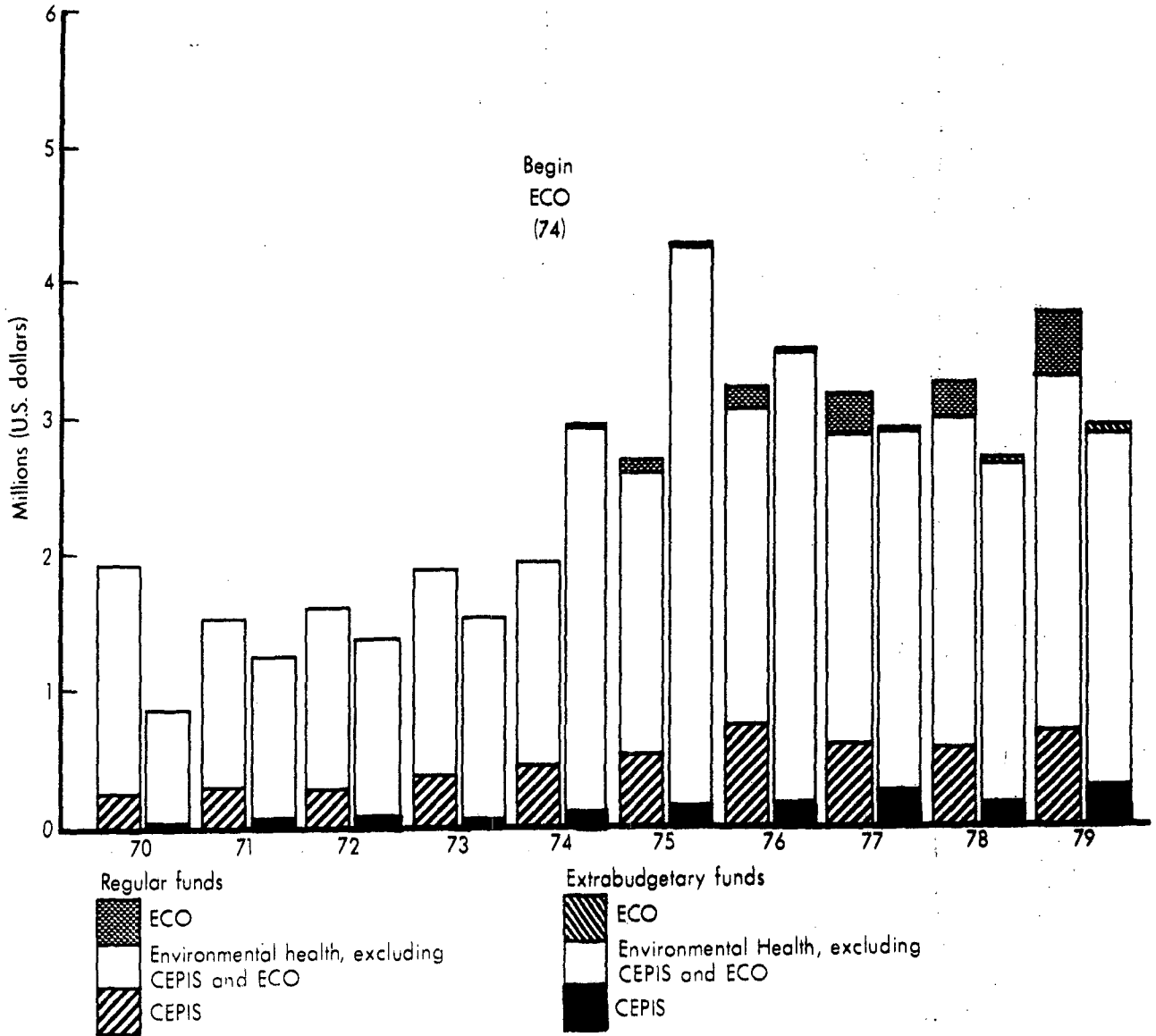
ECO EXPENDITURES, 1974-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	507,581	473,883	33,698
1978	309,142	277,311	31,831
1977	310,354	288,965	21,389
1976	172,775	150,897	21,878
1975	91,699	69,500	22,199
1974	12,725	6,754	5,971

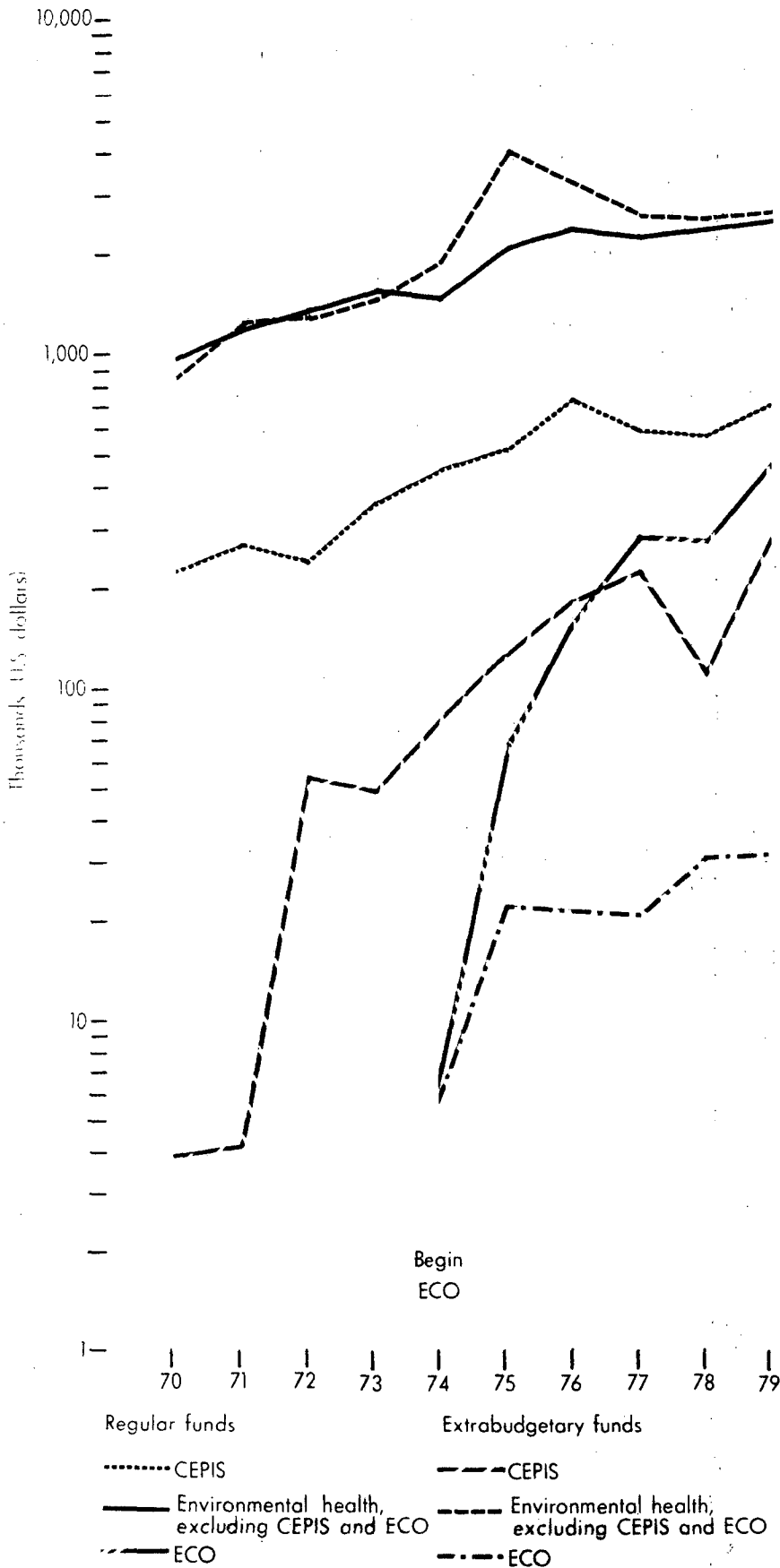
EXPENDITURES FOR ENVIRONMENTAL HEALTH  
EXCEPT CEPIS AND ECO, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	5,421,827	2,671,431	2,750,396
1978	5,066,939	2,464,556	2,602,383
1977	5,024,371	2,329,516	2,694,855
1976	5,784,349	2,411,048	3,373,301
1975	6,382,322	2,135,,600	4,246,722
1974	4,457,464	1,531,784	2,925,680
1973	3,075,661	1,557,325	1,518,336
1972	2,680,711	1,353,751	1,326,960
1971	2,493,615	1,235,300	1,258,315
1970	1,860,564	992,657	867,907

**ENVIRONMENTAL HEALTH 1.  
 RELATIONSHIPS AMONG EXPENDITURES FOR ENVIRONMENTAL HEALTH:  
 CEPIS, ECO AND REST OF PROGRAM  
 REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**ENVIRONMENTAL HEALTH 2.  
GROWTH IN EXPENDITURES FOR ENVIRONMENTAL HEALTH:  
CEPIS, ECO AND REST OF PROGRAM  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



PAN AMERICAN CENTER FOR HUMAN ECOLOGY AND HEALTH - ECO

1. Basic PAHO Program: Environmental health protection
2. Goal of the Center: Minimize the adverse effect on health that may result from economic development and industrialization
3. Location: Metepec (near Toluca) Mex., Mexico
4. Facility:

ECO is in a new building designed specifically for the Center, including space for meeting rooms, map making, information processing, and library, and office space occupying 1,500 square meters. The building and land are owned by the Government of the State of Mexico.

5. Historical Origins and Juridical Status

Rapidity of economic development in recent decades and the change in some areas of Latin America from a purely agricultural economy to one with considerable emphasis on industrialization have led to much concern about ecological impact and its effect on health. Mexico, as one of the countries most seriously affected, offered to be host country for a specialized center on this subject. In July 1974 the Executive Committee, in Resolution CE72.R27, congratulated the Director on the initiative, thanked the Government of Mexico, and urged the Director to set up the Center as early as possible and obtain the necessary additional funds. The discussions culminated in an agreement on 7 September 1975 to establish the center in Mexico. During its early years the staff of the Center operated in space rented by the Government of Mexico. In 1978 the offices were moved to space adjacent to the new office of Area II in Polanco. The new building was occupied in June 1980.

In June 1977 the Executive Committee in Resolution CE78.R20, took note of the first report submitted by the Director of ECO and commended the initiative.

In December 1977 an addendum to the Agreement was signed with the Governor of the State of Mexico under which the latter agreed to give the land, construct the building, and provide the other resources earlier agreed upon. PAHO undertook to assist further in the equipping of the building.

6. Objectives

- 6.1 Devise methods to identify, define and control health problems related to environmental changes and to establish mechanisms for choosing those meriting priority attention;



- 6.2 Provide information permitting assessment of environmentally caused health problems, at national and world level, and provide early warning of critical problems;
- 6.3 Stimulate, advise and alert governments about the need for programs and efforts aimed at minimizing adverse effect from environmental change;
- 6.4 Collaborate in the preparation and dissemination of criteria and standards relative to environmental health;
- 6.5 Assess educational needs and cooperate in development of education and training programs in human ecology related to health;
- 6.6 Direct, support and promote research, prepare appropriate indices, propose preventive measures and use approaches based on ecological systems and modeling.

## 7. Activities

Unlike the other centers, ECO has started in a field in which there is little accumulated knowledge and there are few guidelines for field programs. Thus, ECO activities have been chiefly developmental and in response to requests.

### 7.1 Technical Cooperation and Advisory Services

Four specific program areas now include: environmental and health assessments of development projects; effects on health of environmental alteration and pollution; human ecological studies for disease prevention and control; and public administration of environmental health agencies.

High in priority is production of guidelines for environmental and human health impact assessments of development projects. A guide defining the importance of such assessments has been prepared as background for a manual now in preparation. This deals with procedures for health assessments of dam construction and how adverse affects may be avoided, illustrating possible alternatives. A second manual will be devoted to designing human settlements in zones of new resource exploitation, where migration is occurring.

In view of the basically interdisciplinary characteristics of ecology, a network of associated regional and national institutions is being established in the Americas to bring together those with an interest in human ecology and environmental health. National institutions are being supported so that they will have the capacity to undertake both multidisciplinary training and research programs.

With assistance from the United Nations Environment Program (UNEP), ECO consultants are writing specific sets of guidelines for making environmental and human health impact assessments of development projects. The first publication in the series will be a guide to be used by decision and policy makers; it will describe the need, importance, and value of conducting assessments of development projects so as to avoid the occurrence of serious environmental and health problems. Following the publication of the guide, a manual--now in preparation--will be issued presenting procedures for carrying out environmental and human health assessments of dam construction and providing examples of how to minimize adverse effects while enhancing environmental health and social well-being of the affected population. It will suggest alternative assessment methodologies which may be employed.

A program in environmental epidemiology is being correlated with the PAHO Division of Disease Control. ECO sponsored a workshop on epidemiology applied to environmental change and contamination for application to the changing environments of Latin America and the Caribbean.

Projects involving ECO staff have been located in more than 18 countries of Latin America and the Caribbean.

#### 7.2 Education

Awaiting opening of its own facility, ECO has laid greater emphasis on participation through lectures, seminars, and short courses with other units rather than attempting to devise a training program of its own under inadequate circumstances. Invitations to participate in training have come from governmental, professional and academic organizations.

#### 7.3 Research

Studies have been concerned with the impact of environmental change on real life situations within Latin America. They have had to do with construction of dams leading to essential loss of areas previously available for agriculture. Another aspect of the research program has been literature review, since the available information in this field is not nearly as well-known as it should be.

#### 7.4 Information Dissemination

ECO has an information service that regularly distributes to all Member Countries useful and practical information gleaned from currently published literature, journals and unpublished documents and reports

which have been made available to ECO. A full-time environmental scientist is in charge of this effort and, once established in the new Headquarters, with available printing services, it is expected to expand greatly.

8. Advisory Committee

An Advisory Committee of 13 members has met annually for the past three years.

9. Budget (Table Environmental Health I and Figures Environmental Health 1 and 2)

As one of the newest centers, ECO has shown a steady growth in expenditure of regular funds. Increase in extrabudgetary funds has been more modest but may be expected to become more evident when the Center is fully operative in its own location.

ECO constitutes but a small part of the total environmental health effort of PAHO.

10. Staff

The current staff includes six professionals and six general service employees. Now that the move to the new facilities is complete, plans call for three additional professional posts and between 10 and 12 locally recruited persons. Use of service contracts, e.g. for cleaning, is expected to keep staffing requirements low.

TABLE ENVIRONMENTAL HEALTH I  
ECO EXPENDITURES, 1974-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	507,581	473,883	33,698
1978	309,142	277,311	31,831
1977	310,354	288,965	21,389
1976	172,775	150,897	21,878
1975	91,699	69,500	22,199
1974	12,725	6,754	5,971

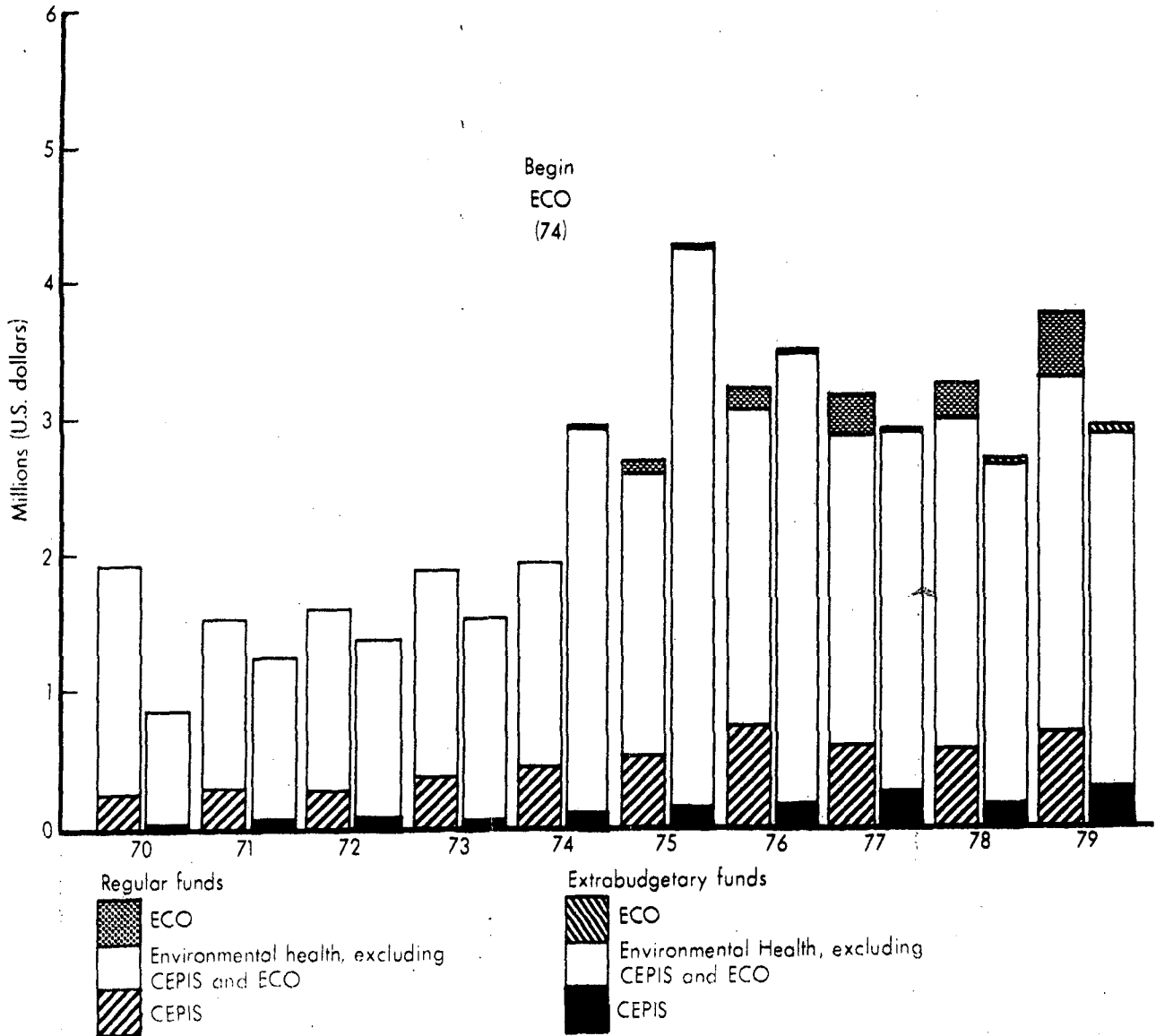
CEPIS EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	977,277	707,226	270,051
1978	690,996	575,992	115,004
1977	822,198	595,368	226,830
1976	918,458	732,917	185,541
1975	650,933	523,089	127,844
1974	532,178	452,163	80,015
1973	415,999	366,669	49,330
1972	305,589	249,642	55,947
1971	274,956	270,675	4,281
1970	207,291	203,303	3,988

EXPENDITURES FOR ENVIRONMENTAL HEALTH  
EXCEPT FOR CEPIS AND ECO, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	5,421,827	2,671,431	2,750,396
1978	5,066,939	2,464,556	2,602,383
1977	5,024,371	2,329,516	2,694,855
1976	5,784,349	2,411,048	3,373,301
1975	6,382,322	2,135,600	4,246,722
1974	4,457,464	1,531,784	2,925,680
1973	3,075,661	1,557,325	1,518,336
1972	2,680,711	1,353,751	1,326,960
1971	2,493,615	1,235,300	1,258,315
1970	1,860,564	992,657	867,907

**ENVIRONMENTAL HEALTH 1.  
RELATIONSHIPS AMONG EXPENDITURES FOR ENVIRONMENTAL HEALTH:  
CEPIS, ECO AND REST OF PROGRAM  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**





## LATIN AMERICAN CENTER FOR PERINATOLOGY AND HUMAN DEVELOPMENT - CLAP

1. Basic PAHO Program: Maternal, child and family health
2. Goal of the Center: Improvement in health status of mother, fetus and infant between conception and the end of the postpartum period
3. Location: Montevideo, Uruguay
4. Facility

Parts of two floors of the Hospital das Clinicas in Montevideo, comprising 2,500 square meters of usable space, with good proximity to relevant clinical services. The hospital is owned by the University of the Republic.

5. Historical Origins and Juridical Basis

The perinatal period is uniformly among the highest of the lifespan in mortality and morbidity. An unusual range of resources to attack this problem was available at the Department of Physiological Obstetrics at the University of the Republic in Montevideo and this led to an agreement, signed on 2 February 1970, to establish a center for perinatology and human development. Besides the participating parties--the Government of Uruguay, the University of the Republic and PAHO--the Ford Foundation offered substantial additional support at the beginning, and other foundations and outside groups have also contributed.

In the Agreement, the Government agreed to make available its hospitals and health centers as well as the help of professional and auxiliary personnel of the Ministry of Public Health and to provide fellowships to national personnel for participation in courses provided by CLAP.

The University agreed to provide, through the Faculty of Medicine, the services of the personnel of the Section of Obstetrical Physiology to work at CLAP on secondment. Included, as a minimum, were a chief of section, an assistant and four associates; three non-professionals were also made available. In addition, clinical personnel in obstetrics/gynecology and pediatrics work with the Center, as agreed between the respective chiefs and the Director of CLAP.

The Organization was to provide the basic staff, a medical director and three perinatologists, as well as short-term consultants and needed support personnel, supplies, equipment and fellowships.

The original Agreement was renewed for another four year period in 1974 and a third agreement, extending through 1982, was signed in December 1978.

In June 1976 the Executive Committee, in Resolution CE76.R25, noting that it had reviewed a report on the achievements of CLAP in the period 1970-1975, commended the Center, supported its future efforts, and recommended that the Governments use its advisory services.

6. Objectives (from 1979 revised agreement)

- 6.1 Develop, use and evaluate appropriate technology for perinatal and pediatric care in Latin America, giving highest priority to technology applicable to the primary level, especially in rural and peri-urban regions;
- 6.2 Develop regionalized models of perinatal and pediatric care, combining primary, secondary and tertiary levels in a progression of increasing complexity in personnel and technology, as needed;
- 6.3 Establish criteria for referral of patients at each level of care, utilizing the strategy of adjusting the level of care to the degree of risk to health;
- 6.4 Promote rational use of existing resources;
- 6.5 Promote full community participation by keeping it properly informed about perinatal and pediatric care. Give high priority to education of mother and family about maternity and paternity, including the care of children from birth to adolescence;
- 6.6 Promote extended coverage with perinatal and pediatric services, especially at the primary care level and in rural and peri-urban regions;

7. Activities

As postneonatal infant mortality has declined, the problem of unnecessary maternal, fetal and neonatal loss has become even more prominent. Thus the total range of CLAP activities has grown.

7.1 Technical Cooperation and Advisory Services

During 1979, 13 countries in the Americas requested technical services from CLAP and all were provided successfully. There were a total of 61 missions, of varying duration, with a grand total of 391



consultation days. These activities covered a wide variety of problems, such as the carrying out of a collaborative program for the perinatal management of prematurity, organization of perinatal units, dissemination of a model perinatal clinical history, and assessment of the situation in the future demonstration area of CLAP.

The work of the Center has become so well-known throughout the world that personnel of the Center are frequently asked to visit other Regions of the world to present papers and take part in conferences. Not all could be accepted, but seven visits were undertaken to various sites in Europe, including the Headquarters of the World Health Organization, and two visits were made to Japan.

## 7.2 Education and Training

During 1979 a total of six courses were carried out at CLAP. They included 1) a 9-month course for fellows from nine countries of the Americas and one from Spain; 2) a short course for physicians, 44 hours, attended by 18 fellows from seven countries; a second version of the same course attracted 20 attendees from five countries; 3) an intensive 2-week course in perinatal public health attended by 72 participants from 14 countries; 4) two intensive one-week courses on ultrasound in perinatology, the first for students from four countries and the second for 31 students from nine countries; 5) a 2-week course for nurses and university midwives dealing with use of technology appropriate to the risk level; 6) a 2-week intensive course, for a variety of professional public health workers, on biostatistics and computer techniques applicable to the perinatal area.

In addition to attendance at formal courses there were four fellows who spent two to four weeks with unstructured programs. Six were at CLAP for a period of two months and one Belgian student stayed for a longer period.

Educational programs at CLAP are helped substantially by visitors from abroad who have given series of lectures on important topics.

## 7.3 Research

Two general areas are involved, the first dealing with what is often called operational research, closely tied to advisory services, and the second, research on appropriate technology.

Four projects fall in the first category; all deal with procedures capable of rapid applicability at different levels of service complexity. One treats the fundamental question of perinatal management

of low birth weight (prematurity) and is seeking to establish standards for diagnosis and therapy of prematurity in the maternities in Latin America. Since approximately 10 per cent of all births in Latin America are in the low birth weight group, usually classified as premature infants, and because this group is responsible for 70 per cent of neonatal deaths, it is a focus of high priority. Field application has been made in Uruguay and Bolivia, and the program is at national level in Brazil, Venezuela, Mexico and Panama. It is being developed at other levels in eight additional countries.

Another project is developing a single perinatal clinical record to bring together information on prenatal and postnatal status, for clinical and research use. The record is currently being tested in Argentina, Bolivia, Brazil, Colombia, Costa Rica, El Salvador, Honduras, Mexico, Panama, Uruguay and Venezuela.

A third project, after a successful pilot study, is applying in the field a simplified technique, measurement of the height of the uterus above the symphysis as an indication of gestational age.

A fourth study of simplified management of the actual birth process indicates that spontaneous efforts by the mother may produce better results and less fetal damage than when an obstetrician or a midwife attempts to direct the mother's actions.

Under the second broad category, research on appropriate technology, there are some 36 projects dealing with a wide variety of areas, such as improved perinatal diagnosis, improvements in technical care during the perinatal period, and analysis of factors such as maternal feeding and hormones on the growth and development of mother and child.

#### 7.4 Information Dissemination

A large part of this work is carried out through the regular visits of CLAP personnel to the countries, through the training programs, and through scientific publications in many different journals. The annual report is widely distributed, as are the proceedings of various conferences. An informational leaflet about the Center is under study.

#### 8. Advisory Committee

CLAP does not at this time have an advisory committee. The Center Director has indicated his interest and has submitted a list of proposed members.

9. Budget (Table Family Health I and Figures Family Health 1 and 2)

The attached table and graphs need to be interpreted against the fact that the PAHO family health budget in recent years has been augmented by large sums from the United Nations Fund for Population Activities. These began in 1974 with \$2,986,414, reaching \$6,968,819 in 1979. Obviously, this effect on the total program has little impact on CLAP, which receives almost no funds from UNFPA. CLAP, of course, contributes to population planning in that decreased infant mortality is thought to be a potent influence on reducing desired family size.

It should be noted that, unlike most of the centers, a substantial amount of professional/scientific time is provided to CLAP on a regular basis by personnel paid directly by the University. They are, in fact, seconded to CLAP, but it is not possible to put a direct dollar value on their services. Estimates suggest that seconded services might equal a third or more of the regular support of full-time and part-time professional/scientific staff.

The initial increase in extrabudgetary funds is related to the rather generous contributions by several foundations and agencies at the start of CLAP, never designed to be long term. More recently another increase has been seen as other foundations and agencies have become interested in furthering CLAP's development of techniques applicable to primary care.

10. Staff

The full-time staff includes a director and three perinatologists. There are 18 locally recruited professionals working part time, funded either by the Center, by the University or by the Government. There are 35 local support and administrative personnel paid by PAHO funds.

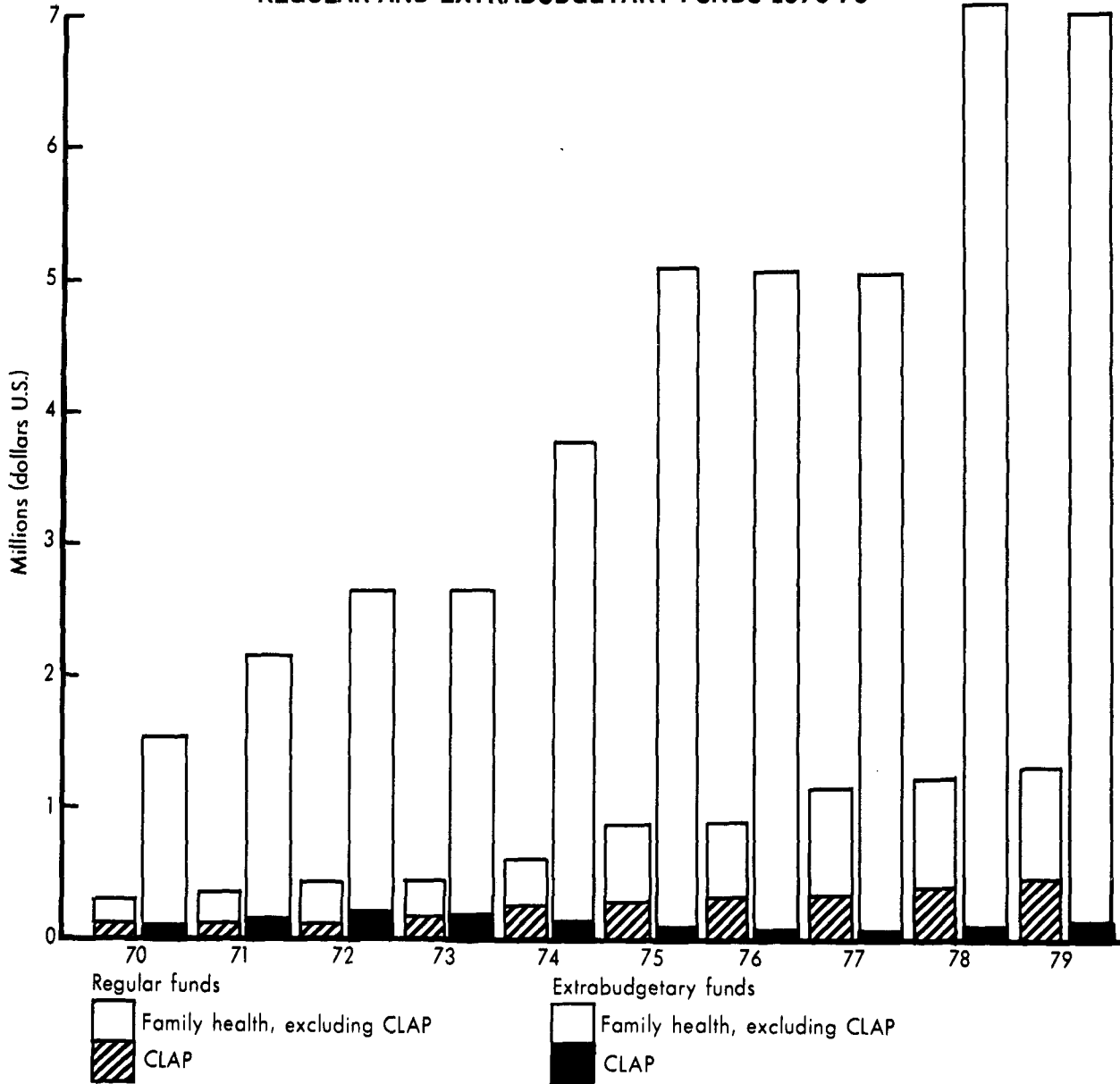
TABLE FAMILY HEALTH I  
CLAP EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	524,046	423,896	100,150
1978	462,620	394,394	68,226
1977	362,592	323,519	39,073
1976	326,434	301,892	24,542
1975	312,398	266,599	45,799
1974	314,482	221,493	92,989
1973	295,038	121,861	173,177
1972	268,306	80,470	187,836
1971	209,928	87,771	122,157
1970	150,083	77,289	72,794

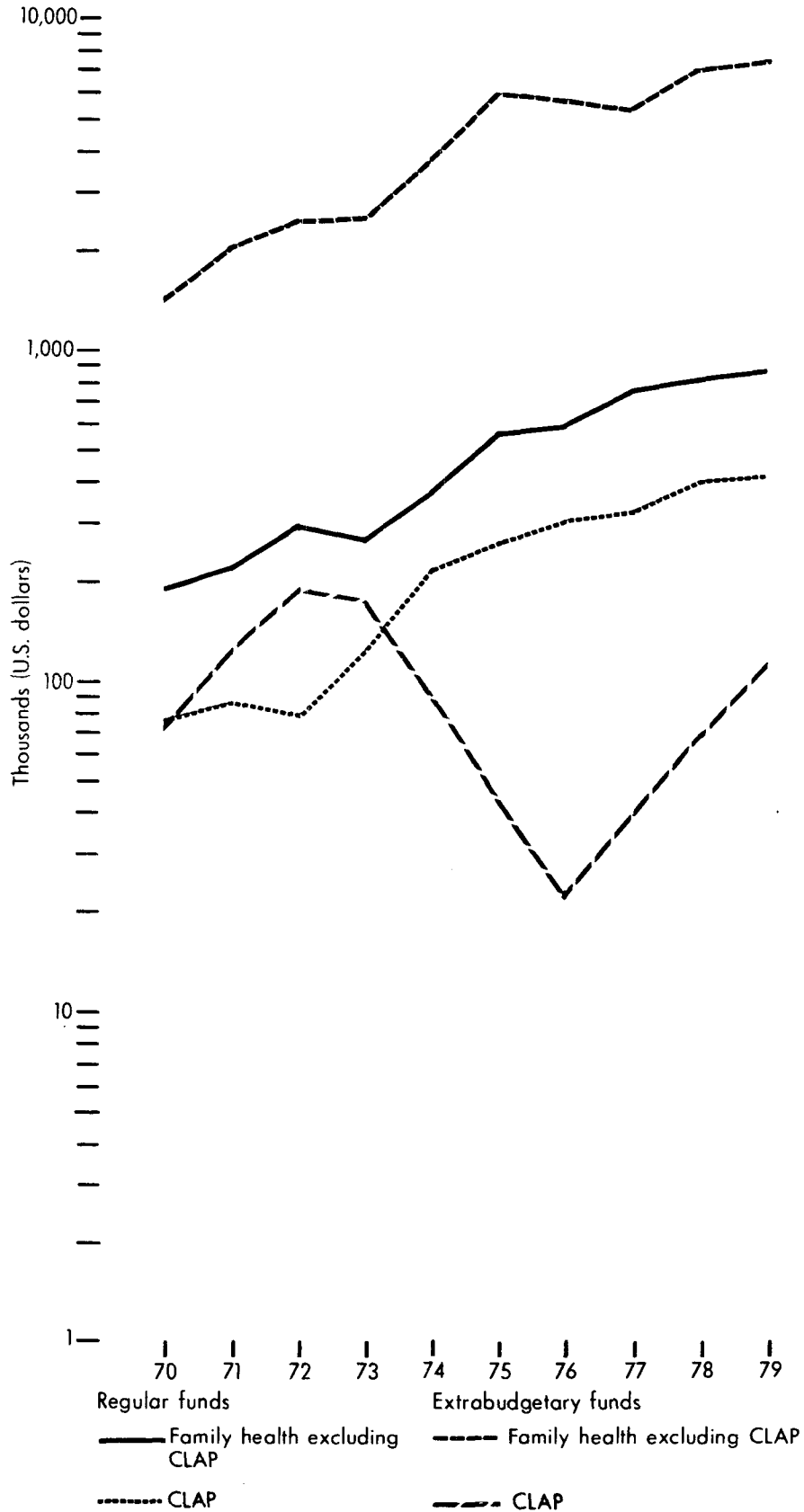
EXPENDITURES FOR FAMILY HEALTH  
EXCEPT FOR CLAP, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	7,909,850	845,873	7,063,977
1978	7,759,337	801,651	6,957,686
1977	5,995,712	749,770	5,245,942
1976	6,112,301	579,320	5,532,981
1975	6,435,838	562,425	5,873,413
1974	3,959,423	368,037	3,591,386
1973	2,741,479	267,060	2,474,419
1972	2,733,170	297,299	2,435,871
1971	2,246,906	222,100	2,024,806
1970	1,649,741	195,886	1,453,855

**FAMILY HEALTH 1.  
RELATIONSHIP BETWEEN EXPENDITURES FOR FAMILY HEALTH,  
FOR CLAP AND REST OF PROGRAM:  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**FAMILY HEALTH 2.  
GROWTH IN EXPENDITURES FOR FAMILY HEALTH:  
CLAP AND REST OF PROGRAM  
REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



CARIBBEAN EPIDEMIOLOGY CENTRE - CAREC

1. Basic PAHO Program: Disease control
2. Goal of the Center: Help improve epidemiologic and other services related to control of communicable, and later non-communicable, diseases in the Caribbean.
3. Location: Port of Spain, Trinidad and Tobago
4. Facility:

A common building shared with the Trinidad Public Health Laboratory. CAREC at present occupies some 2,750 square meters for its work. The land and building are owned by the Government of Trinidad and Tobago which, under the original agreement, transferred possession to PAHO for exclusive use during its administration of the Center.

5. Historical Origins and Juridical Status

Private financing of the Tropical Regional Virus Laboratory (TRVL) in Port of Spain was replaced in 1968 through funding by Trinidad and Tobago, Guyana, Jamaica, Barbados, Bahamas and the U.K., with the Center becoming part of the University of the West Indies. At the request of the Prime Minister of Trinidad and Tobago, a scientific advisory committee recommended transformation of TRVL to a Caribbean Epidemiology Centre, a concept endorsed by the meeting of the Caribbean Health Ministers in 1973. Evidence of support came not only from the Governments of the Caribbean Community but also from other Governments in the area. The 6th Caribbean Health Ministers Conference adopted a resolution and plan for epidemiological surveillance, calling for the establishment of a center at TRVL.

As a result, an agreement was signed in August 1974 by the Minister of Health of Trinidad and Tobago and the Director of the Pan American Sanitary Bureau, under which PAHO assumed responsibility for the administration of TRVL as an expanded Caribbean center. The agreement provided for the Organization to have possession of the facilities for exclusive use and to administer the Center for a period of 10 years. The agreement further provided for the Center to be a legal entity.

In October 1974 a multilateral agreement was signed, and later endorsed by 17 Governments, providing for the operation of TRVL as an expanded Caribbean center. Subsequently, Suriname became a member and Anguilla agreed to pay a separate quota, bringing the total membership to 19.

The Agreement set out the general conditions under which PAHO/WHO will administer the Center and provides for a Council to review and comment to the Director of PASB on the annual report and the program and budget, for his transmittal to the Caribbean Health Ministers Conference, and to make recommendations concerning operating policies of the Center. The Council was to have eight members, including one from the Host Government, two chosen by the Caribbean Health Ministers Conference to represent the other Governments, and one each from the University of the West Indies, the Commonwealth Caribbean Medical Research Council, the U.K. Overseas Development Administration, the Scientific Advisory Committee, and PAHO/WHO.

The Agreement provided for a scale of assessments, adjusted to the United Nations scale, for the member governments, with an additional contribution from the Overseas Development Administration of the United Kingdom.

The Agreement extends for 10 years, that is, until 31 December 1984, subject to a review at the end of 1979.

## 6. Objectives

A series of objectives were laid out in the original Agreement, summarized as follows:

- 6.1 To serve as a specialized technical resource, particularly in the field of communicable diseases and their surveillance, and to cooperate in programs being developed by governments;
- 6.2 To help lower mortality and morbidity from communicable diseases;
- 6.3 To act as a center for epidemiological surveillance and help governments develop effective surveillance by providing visiting staff;
- 6.4 To improve laboratories in the area through collaborative relations and through providing diagnostic reference services;
- 6.5 To provide training in epidemiological surveillance and laboratory diagnosis through courses and through working with universities;
- 6.6 To maintain and expand research, particularly in regard to virus diseases and other disease problems important in the Caribbean.

## 7. Activities

A major portion of the task of CAREC is improvement of surveillance, which obviously involves improvement of disease notification among all the governments of the Caribbean area. Given the large number of



independent governments, much of the effort to achieve this improvement has to depend on training of personnel. Thus, in looking at the productivity of CAREC it is difficult to separate advisory from educational services. Furthermore, the Center started out from the premise that research should be seen as a backdrop to service or related to a specific requirement of importance to the area. Similarly, information dissemination is tied to the other functions. For example, an effective measure in improving surveillance is the production and distribution of the monthly CAREC Surveillance Report, covering information on diseases in the Caribbean and elsewhere in the world; well over 2,000 copies are widely distributed.

#### 7.1 Technical Cooperation and Advisory Services

Objective measures of CAREC accomplishments include: existence of a surveillance officer/epidemiologist in each country; improved reporting of epidemiological information and distribution of this to the fields; staff visits to every territory each year with a record of assistance to all 19 member countries; and development of a reference library. Mortality data by cause are still not reliable, but, unlike the situation in many developing areas, morbidity reporting is improving in quality and quantity. Currently all 19 members and eight non-members of CAREC are reporting regularly, as contrasted with eight in 1975.

Another large area of work for CAREC has been improving the laboratories. While substantial progress has been made in the training of personnel, reliability of independent laboratories has not yet been assured. Services, however, are distinctly improved, and general dependence on the Trinidad Public Health Laboratory no longer obtains.

#### 7.2 Training

Specific training has been provided in epidemiological surveillance and in laboratory diagnosis as well as in the field application of these techniques. In the 5-year period almost 2,000 persons have passed through the various courses. These courses have been designed for all levels of workers, including personnel not directly concerned with epidemiology, such as public health inspectors and public health nurses.

In addition to direct training, CAREC has worked closely with the universities, particularly with the University of the West Indies and the University of Suriname. Effective relationships have not yet been developed with the University of Guyana or the Faculty of Agriculture at the University of the West Indies.

### 7.3 Research

Various investigative projects have been linked closely with surveillance and have been supported largely through extrabudgetary funds. Some of the topics studied include filariasis, gastroenteritis, dengue, rotaviruses, yellow fever virus, and non-ischemic heart disease. New insect cell lines are being developed for field diagnosis of arboviral diseases. Assessment of immunization coverage is being carried out, as is potency testing of vaccines.

### 7.4 Information Dissemination

In addition to the materials noted in point 7 above, an Annual Review of the Communicable Diseases in the Caribbean is published. Individual information bulletins called "Epinotes" are distributed widely on specific items of interest.

An annual review of CAREC activities is published as the Director's Report and distributed widely. An information booklet was originally published as an article in the PAHO's Boletín (Spanish) and Bulletin (English), thus giving it initial wide circulation. An exhibition has been prepared on "CAREC--The First Five Years" and has been visited by the senior officials of PAHO and WHO as well as by governmental leaders, diplomats and scientists.

### 8. Advisory Committee

The Basic Agreement provides for a Scientific Advisory Committee to be composed of three members designated by the Faculty of Medicine of the University of the West Indies, one member designated by the Faculty of Agriculture, two members designated by the Caribbean Health Ministers Conference, and five members designated by the Director of PASB. The Committee meets annually and makes a detailed report to the Director of PASB and to the Council.

### 9. Budget (Table Disease Control I and Figures Disease Control 1 and 2)

CAREC has had a substantial increase in expenditures under the regular budget, not quite tripling in the past five years. Use of extra-budgetary funds has grown even more rapidly, as compared with the growth of extrabudgetary funds in other aspects of the disease control program. Much of this is related to the large increase in government quotas, discussed below, which constitute almost two thirds of the extrabudgetary funds. This would indicate positive government support for CAREC.

Extrabudgetary funds are now three times the regular budget and in 1979 exceeded the total extrabudgetary funds for the rest of the PAHO Disease Control Program. CAREC expenditures are but a small part, just over 5 per cent, of regular budget expenditures for disease control.

CAREC is one of the centers where a substantial contribution to the budget comes from assessments on participating governments. In fact, the original agreement called for an increase in quotas of 20 per cent per year, which clearly was honored since the assessment almost tripled between 1975 and 1979. Although these governmental contributions are assessments, they are included in extrabudgetary funds because they are not in the PAHO regular budget.

Because the countries vary so greatly in size and resources, the scale of assessments varies substantially. The scale that applies in 1979 (US dollars) follows:

	<u>\$</u>
Anguilla	342
Antigua	1,835
Bahamas	12,256
Barbados	19,206
Belize	1,835
Bermuda	2,162
British Virgin Islands	387
Cayman Islands	387
Dominica	1,835
Grenada	1,835
Guyana	25,335
Jamaica	75,600
Montserrat	613
St. Kitts-Nevis	1,490
Saint Lucia	1,835
St. Vincent	1,835
Suriname	19,206
Trinidad and Tobago	289,456
Turks and Caicos Islands	329
United Kingdom Overseas Development	<u>133,233</u>
	591,012
	=====

It is clear that the governmental commitments are substantially greater than in the case of the other two subregional centers with special governmental quotas. Yet fulfillment of the commitments has been far better, as shown in the statement of arrears:

	<u>Amount due</u> <u>1 January 1979</u>	<u>Collected</u> <u>during 1979</u>	<u>Balance due</u> <u>31 December 1979</u>
Current Year Quotas	591,012	578,512	12,500
Prior Year Quotas	<u>63,253</u>	<u>61,459</u>	<u>1,794</u>
	654,265	639,971	14,294
	=====	=====	=====

The budget of CAREC is discussed more extensively in the evaluation report.

10. Staff

The core staff currently consists of 13 professionals and 62 support personnel.

TABLE DISEASE CONTROL I  
CAREC EXPENDITURES, 1974-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds*</u>
1979	1,288,776	325,208	963,568
1978	1,062,602	290,618	771,984
1977	1,067,767	302,382	765,385
1976	637,924	210,902	427,024
1975	398,686	122,468	276,218
1974	49,407	49,407	0

---

\* Includes assessments on CAREC member governments

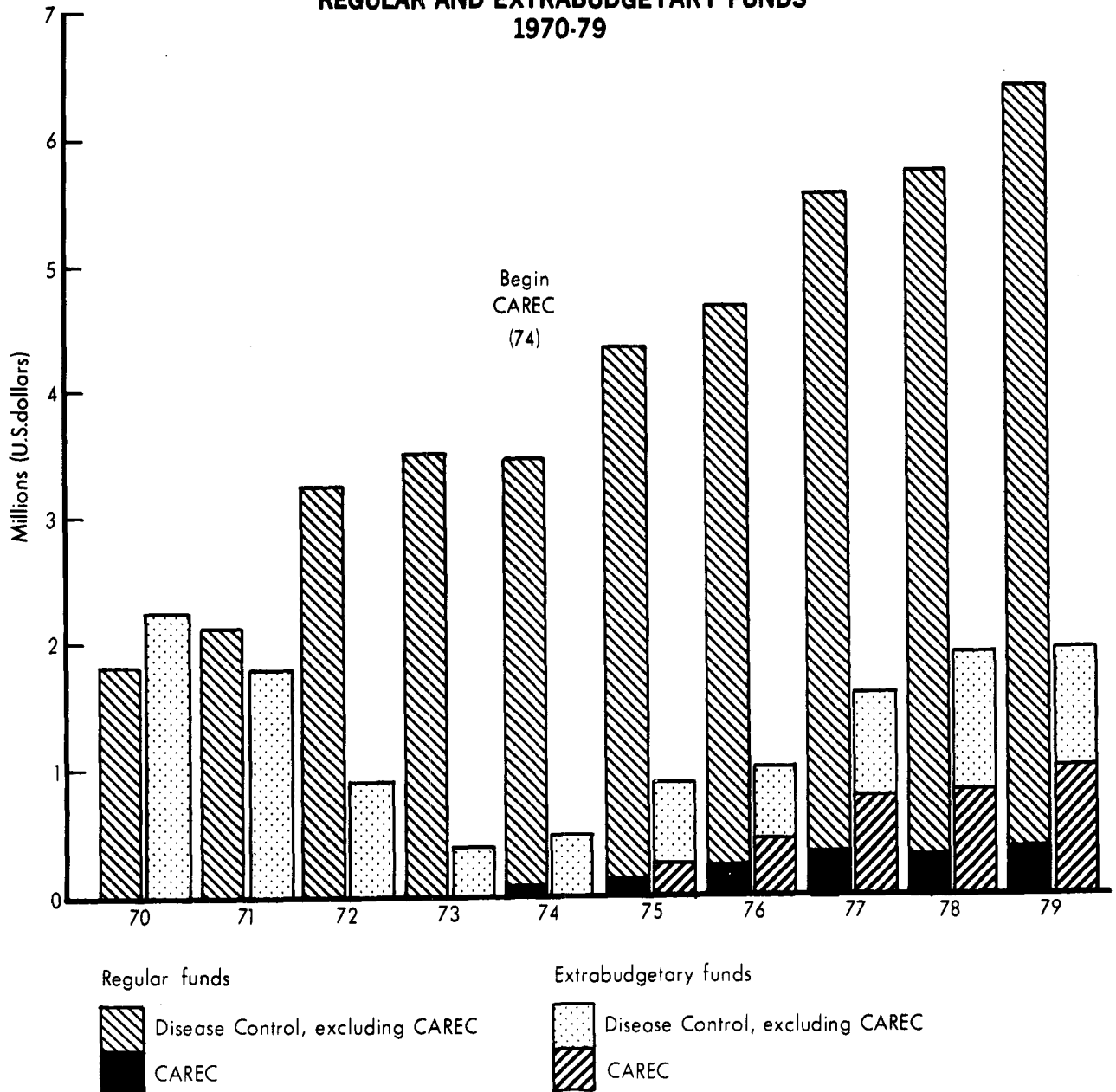
EXPENDITURES FOR DISEASE CONTROL\*  
EXCEPT FOR CAREC, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	6,904,088	6,003,741	900,347
1978	6,442,742	5,358,297	1,084,445
1976	5,966,101	5,189,006	777,095
1975	4,995,299	4,411,385	583,914
1974	4,756,128	4,149,428	606,700
1973	3,796,470	3,445,497	350,973
1972	4,123,506	3,264,774	858,732
1971	3,939,672	2,181,602	1,758,070
1970	3,950,116	1,745,164	2,204,952

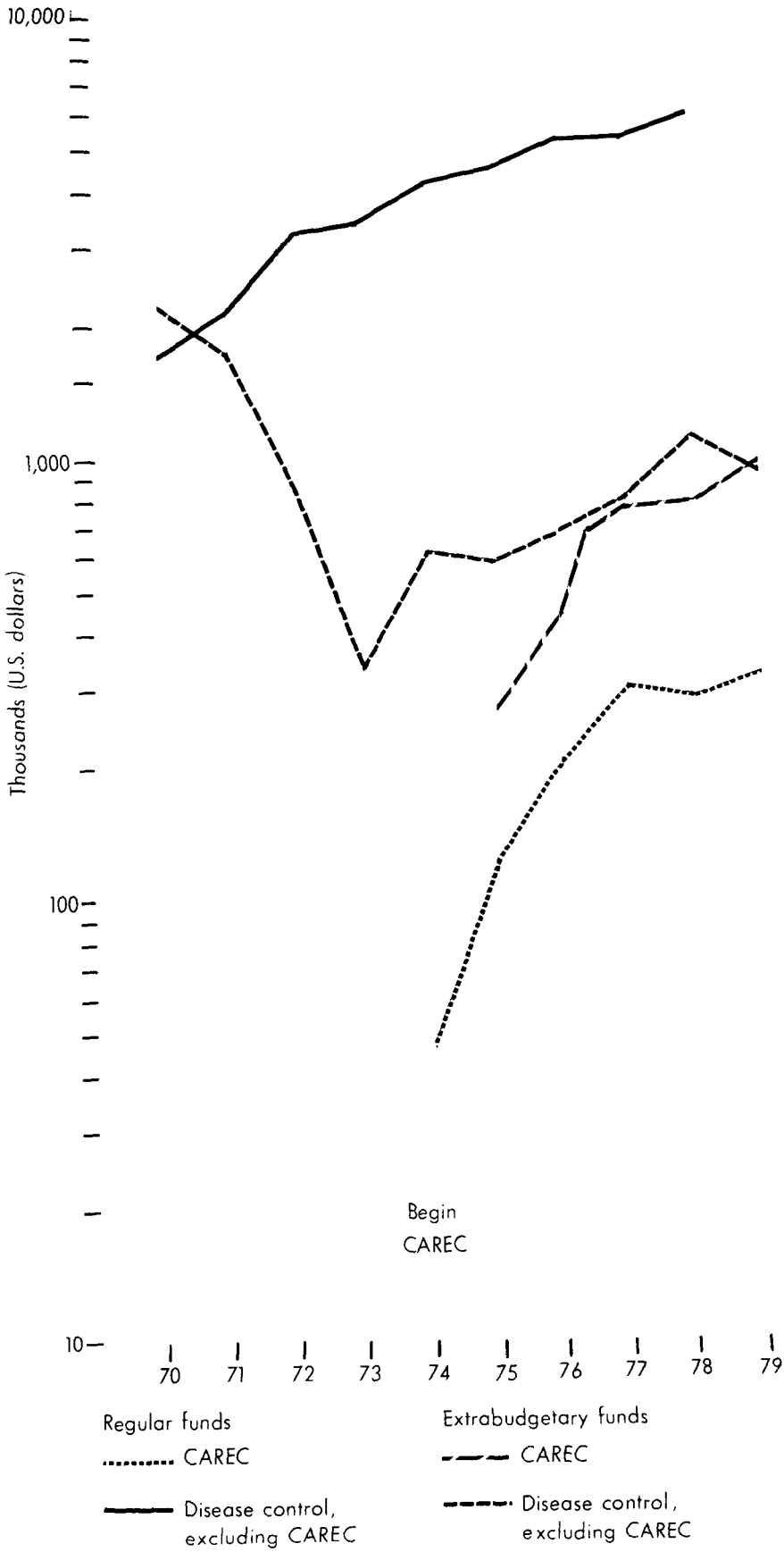
---

\* Although CEPANZO and PANAFOTSA were part of Disease Control prior to 1976, their expenditures and other expenditures for animal health have been excluded from all these figures.

**DISEASE CONTROL 1.**  
**RELATIONSHIPS BETWEEN EXPENDITURES FOR DISEASE CONTROL:**  
**FOR CAREC AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS**  
**1970-79**



**DISEASE CONTROL 2.**  
**GROWTH IN EXPENDITURES FOR DISEASE CONTROL:**  
**CAREC AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



## CARIBBEAN FOOD AND NUTRITION INSTITUTE - CFNI

1. Basic PAHO Program: Nutrition
2. Goal of the Center: Improvement in nutritional status of all the populations in the countries it serves, presently the English-speaking Caribbean and Suriname.
3. Principal locations: Kingston (Jamaica) and Port of Spain (Trinidad)
4. Facility

A "temporary building" erected during World War II, badly infested with white ants and described as "far below standard." Owned by the University of the West Indies.

5. Historical Origins and Juridical Status

A series of conferences during the early 1960s highlighted the serious problem of malnutrition in the Caribbean area, particularly among infants and children. It became evident that the many governments of the Caribbean area were in need of a combination of advisory services and educational programs best served by a center. Preparatory work began in 1963 and the first full-time personnel began operations as a center in 1967. A formal agreement was signed on 25 March 1968 by the Governments of Jamaica and Trinidad and Tobago, the University of the West Indies, the Pan American Health Organization and the Food and Agricultural Organization for the establishment and operation of the Caribbean Food and Nutrition Institute (CFNI). A number of private organizations played a key role in the establishment of the Institute, notably the WilliamsWaterman Fund, now called Research Corporation. Later UNICEF, the Ford Foundation, the Rockefeller Foundation and the Freedom from Hunger Campaign furnished additional support.

Recognizing the productivity and utility of the Institute, other governments became interested. On 12 October 1973 a new agreement, still current, was signed by the original five parties and by the governments of 14 other countries in the Caribbean area and by Bermuda. This agreement was reported to the Governing Bodies in the Director's Annual Report of 1973. The agreement provided for support to continuing operation of the center to serve the countries of the English-speaking Caribbean but envisaged future supplementary agreements with the governments of the Caribbean countries. Subsequently Bermuda dropped out and in 1976 Suriname became a member.



Full-time personnel at the Institute have been supported by PAHO continuously since 1967.

Under the 1973 Agreement, a Policy Advisory Committee, with representation from all the signatories of the agreement, meets annually to review the annual report of the Institute and to make recommendations to the Conference of Ministers Responsible for Health in the Caribbean on the draft program of work and the budget of the Institute.

Because representation from all 17 countries would lead to an unwieldy number of committee members the Governments agreed that the Policy Advisory Committee should include, besides a representative of PAHO/WHO, a total of 10 members, two of them from the University of the West Indies--the Dean of Agriculture and the Dean of Medicine. The remaining delegates represent the governments and include four persons from the health field and four from agriculture. Two are from Jamaica, one each from health and agriculture, and two are from Trinidad and Tobago, also one each from health and agriculture. Barbados and Guyana each have one delegate, alternating each year between health and agriculture. The remaining two seats are rotated among the smaller states. Observers regularly attend from CARICOM (the Caribbean Common Market), UNDP, UNICEF, the Research Corporation, and other foundations supporting the Institute.

## 6. Objectives

The original objectives, specified in the 1973 Agreement have been modified over the years. In 1979 they were:

- 6.1 Establishment and implementation of food and nutrition policies and programs in all member countries of the region;
- 6.2 Establishment and updating of a complete diagnosis of the food and nutrition status of each member country as a basis for the above;
- 6.3 Establishment and strengthening of technical nutritional units to support nutrition programs at national and regional levels;
- 6.4 Improvement in the education and training of personnel at all levels of nutrition and nutrition-related services;
- 6.5 Improvement in the status of diagnosis, prevention and treatment of nutritional diseases;

- 6.6 Strengthening of institutional food services;
- 6.7 Preparation, publication and dissemination of relevant educational materials and improvement of communication skills in nutrition;
- 6.8 Conduct of practical operational research appropriate to the previous objectives.

In 1979 the format of the objectives was modified; they now comprise four impact objectives and five process objectives, as follows:

Impact Objectives

- 6.9 Eliminate undernutrition as a public health problem in all population groups;
- 6.10 Reduce anemia in all groups of the population to functionally acceptable levels;
- 6.11 Lower the incidence of obesity and reduce the prevalence of nutrition-related diseases, particularly obesity, diabetes and hypertension;
- 6.12 Ensure that an adequate and stable supply of nutritious, safe and acceptable food is accessible and available to all individuals.

Process Objectives

- 6.13 Cooperate with member governments and relevant agencies in their efforts to achieve the general objective through national and regional policies, strategies and action plans;
- 6.14 Promote and support institutional development so that member governments can plan, execute and monitor food and nutrition-related programs;
- 6.15 Cooperate with relevant institutions to ensure that all categories of government personnel are educated and trained appropriately and in sufficient numbers to carry out nutrition and nutrition-related activities;
- 6.16 Cooperate with relevant agencies to ensure a level of public awareness, understanding and knowledge of food and nutrition that enables people to make nutritionally acceptable choices;

6.17 Cooperate with member governments and relevant agencies in efforts to achieve a complete diagnosis of the food and nutrition situation and to maintain a system of food and nutrition surveillance.

## 7. Activities

There has been a substantial growth in the program of the Caribbean Food and Nutrition Institute, as illustrated in the 10-fold increase in expenditures from \$81,544 in 1968, the first year of the original agreement, to a total of almost \$900,000 in 1979. Budgetary details are presented in section 9 below.

Current activities include:

### 7.1 Technical Cooperation and Advisory Services

Because of the geography of the area most of the work is carried on in decentralized fashion and annual progress reports contain many individual units of program difficult to summarize under general headings. The Center keeps detailed records on the activities and programs within each country.

Food and nutrition policies have been established in recent years in Guyana, Jamaica and Saint Lucia, and are in the process of formulation elsewhere. A major goal is establishment of a National Nutrition Council by each Government. The Institute has worked with the CARICOM Secretariat in formulation of nutrition elements of the regional food plan.

National food and nutrition surveys have been carried out in a number of countries, in some comprehensively and in others on a more limited basis. Nutrient-cost Tables have been produced quarterly for all countries to provide information on the cheapest available sources of nutrient foods.

Nutrition units in most of the countries continue to expand; half of the graduate nutritionists working in these units were trained through PAHO fellowships.

A series of workshops in food economics and food and nutrition policy, reaching senior government officers in all the countries, have been conducted since 1975. Technical group meetings have been held since 1974 on gastroenteritis and malnutrition, on maximizing self-sufficiency in food in the Caribbean area and on nutrition and the mass media.

Experts from the countries were brought together to draw up guidelines and strategies for concerted action. A "Policy and Procedures Manual for Dietary Services" was prepared for Jamaica and adapted for use elsewhere.

In relation to improving the functioning nutrition units at the national level, job descriptions for nutrition and dietetic personnel have been completed.

### 7.2 Training

A series of diploma courses in community nutrition, ending in 1976, trained over 90 mid-level workers. Since 1975, seminars have been held in the countries to review and promote progress in implementation of the strategy and plan of action agreed upon by the CARICOM Ministers Responsible for Health to combat gastroenteritis and malnutrition. An annual 3-month course for middle-level personnel on implementing food and nutrition plans was instituted in 1979.

Courses in food service supervision were attended by 60 persons, mainly preparing for employment in hospitals in the countries. A syllabus was drawn up for a two-year training course in dietary technology. Many short refresher courses for food service supervisors have been held in the countries.

### 7.3 Research Activities

Basic research and laboratory research in the ordinary sense were never contemplated as a significant CFNI activity. Rather, concentration has been on research directly related to the specific objectives of the center. In the early years research concentrated on developing techniques for conducting surveys and the gathering of data. Later the program turned more to the operational level and concentrated on development and testing of methods for use in operating programs.

A food economics research program, begun in 1975 to study the components of retail prices of basic foods, revealed inefficiencies in the marketing system.

A research program to devise an effective early warning system to prevent uncontrollable shortage and glut in food supplies has reached the stage of completed development of the research design.

An investigation into the accuracy of height, weight and arm circumference suggests that these measures may be a valuable tool for use by community health aides in the home assessment of nutritional status.

Screening methods for hemoglobin determinations and other methods of monitoring anemia are being tested and evaluated.

A preliminary assessment has been made of available data on the prevalence and significance of obesity in preschool-age children.

Data have been collected on methods of assessing nutritional status of pregnant and lactating women.

An evaluation of the effect of Maurice Pate Traveling Seminars on the strategy and plans to combat gastroenteritis and malnutrition is underway.

#### 7.4 Information Dissemination

The major continuing method of disseminating information to the Governments, to food and nutrition professionals and students and to informed lay readers is the CFNI journal, Cajanus, a name selected because of under-appreciated importance of the humble gungo or pigeon pea--cajanus cajan--as a sort of unsung protein cinderella in the Caribbean. Regular publication is also made, quarterly, of Nutrient-Cost Tables, distributed to the member countries, and Nyam News, a general information monthly service, for distribution to the media and libraries.

A fact sheet on CFNI was compiled in 1976 and has been regularly updated. Other publications include a series of guidelines for professionals and for lay people (eight have been published to date); proceedings of conferences (three have been published); a series of manuals and handbooks (nine have been published); reports on national food and nutrition surveys (three); and a number of nutrition education brochures for the lay public on such topics as breast-feeding, meal planning, and available resource persons.

#### 8. Advisory Committee

At the 1979 meeting of the Policy Advisory Committee, whose members perform a limited technical advisory function, there was general expression of interest in establishing a separate technical advisory committee to meet regularly and to concern itself with purely technical aspects of nutrition.

#### 9. Budget (Table Nutrition I and Figures Nutrition 1 and 2)

Since so large a proportion of the nutrition funds in the Americas has been expended through the centers, the table and figures comparing expenditures for CFNI over the past 10 years with expenditures for other parts of the PAHO nutrition programs also shows INCAP.

Until recent years, CFNI has been the smallest component, but its regular budget is now of the same order of magnitude as the non-center component, and its extrabudgetary funds exceed the latter.

Although CFNI is much smaller than INCAP the growth pattern of the regular budget component has been slightly faster. Growth in extrabudgetary funds has been at about the same rate as INCAP and as the rest of the nutrition program. During 1973-1975 the extrabudgetary portion of the budget exceeded the regular budget, and this condition returned in 1979. The discrepancy, however, is small and nothing like the dimensions of that in INCAP. Further budgetary discussion will be found in the evaluation report on CFNI.

CFNI is one of the centers where a substantial contribution to the budget comes from assessments on participating governments. Although assessments, they are included under extrabudgetary funds because they are not in the PAHO regular budget. Currently they constitute roughly one third of the other funds total.

Because the countries vary so greatly in size and resources, the scale of assessments varies substantially. The scale that applied in 1979 (U.S. dollars) follows:

	<u>\$</u>
Antigua	1,176
Bahamas	5,992
Barbados	12,283
Belize	1,176
British Virgin Islands	248
Cayman Islands	248
Dominica	1,176
Grenada	1,176
Guyana	16,203
Jamaica	48,347
Montserrat	392
St. Kitts-Nevis	1,176
Saint Lucia	1,176
St. Vincent	1,176
Suriname	14,304
Trinidad and Tobago	35,280
Turks and Caicos Islands	<u>209</u>
	141,738
	=====

As of 31 December there were considerable arrears outstanding, as shown in the following table from the Financial Report of the Director for 1979, OD-168.

	<u>Amount due</u> <u>1 Jan.1979</u> \$	<u>Received in</u> <u>1979</u> \$	<u>Outstanding</u> <u>31 Dec.1979</u> \$
Current year quotas	141,738	80,056	61,635
Prior years	<u>46,469</u>	<u>33,412</u>	<u>13,104</u>
Total	188,207	113,468	74,739

10. Staff

The present staff consists of 13 professionals and 20 support personnel.

TABLE NUTRITION I

CFNI EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Fund</u>	<u>All Other Funds*</u>
1979	891,348	441,315	450,033
1978	696,191	378,275	317,916
1977	544,073	365,509	178,564
1976	589,106	312,663	276,443
1975	566,155	265,566	300,589
1974	498,381	188,526	309,855
1973	333,527	136,787	196,740
1972	267,818	134,223	133,595
1971	315,791	165,197	150,594
1970	166,033	107,671	58,362

\* Includes assessments on CFNI member governments

INCAP EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Fund</u>	<u>All Other Funds*</u>
1979	5,423,564	821,987	4,601,577
1978	4,816,293	687,547	4,943,820
1977	4,865,345	671,763	5,028,576
1976	4,550,304	665,134	4,705,690
1975	2,864,663	640,466	3,030,222
1974	2,414,813	621,858	2,572,914
1973	2,000,035	549,829	2,550,020
1972	1,850,090	589,015	2,229,623
1971	1,383,019	470,342	1,495,264
1970	1,773,832	480,494	1,293,338

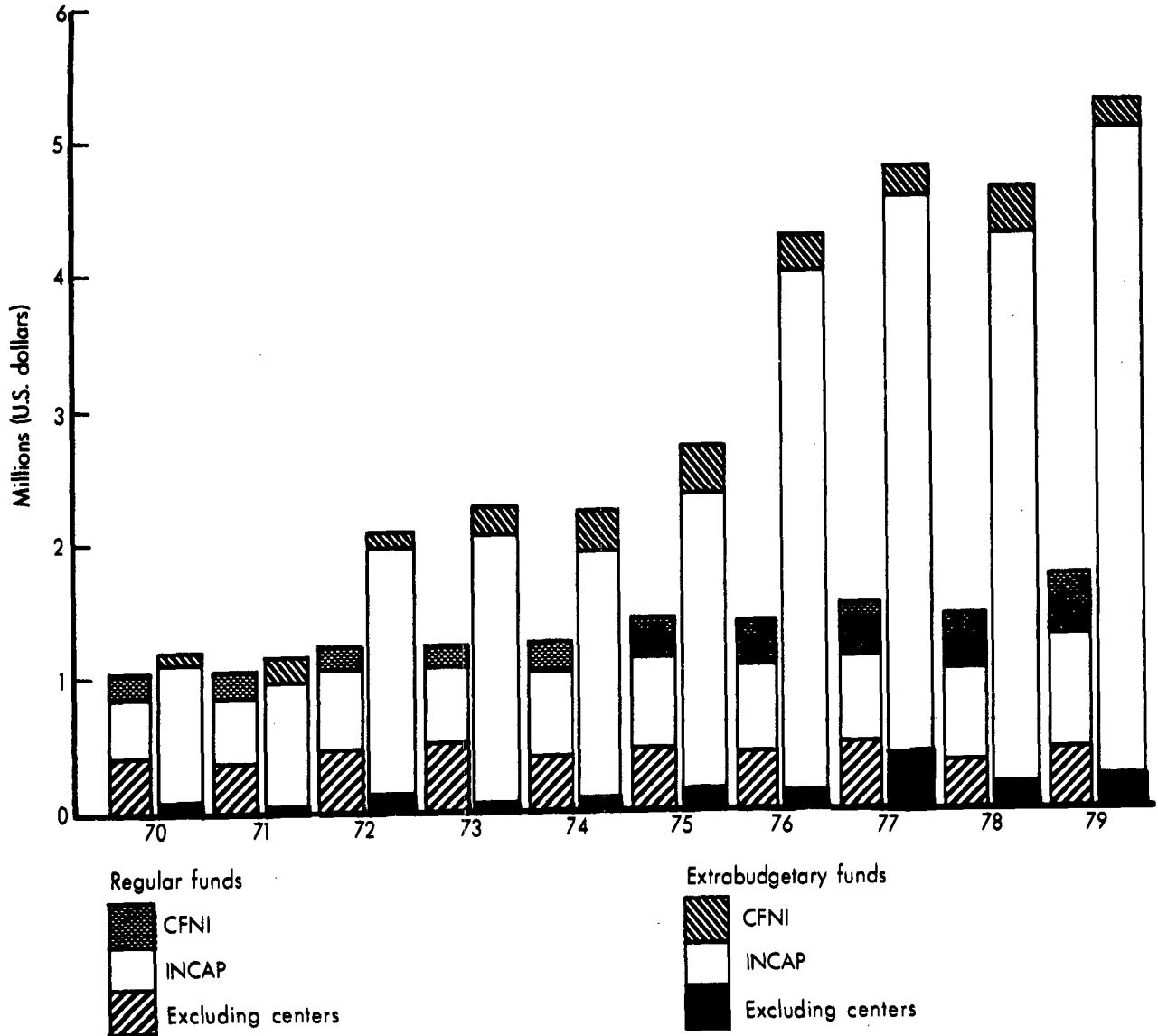
\* Includes assessments on INCAP member governments

EXPENDITURES FOR NUTRITION,  
EXCEPT FOR INCAP AND CFNI, 1975-1979

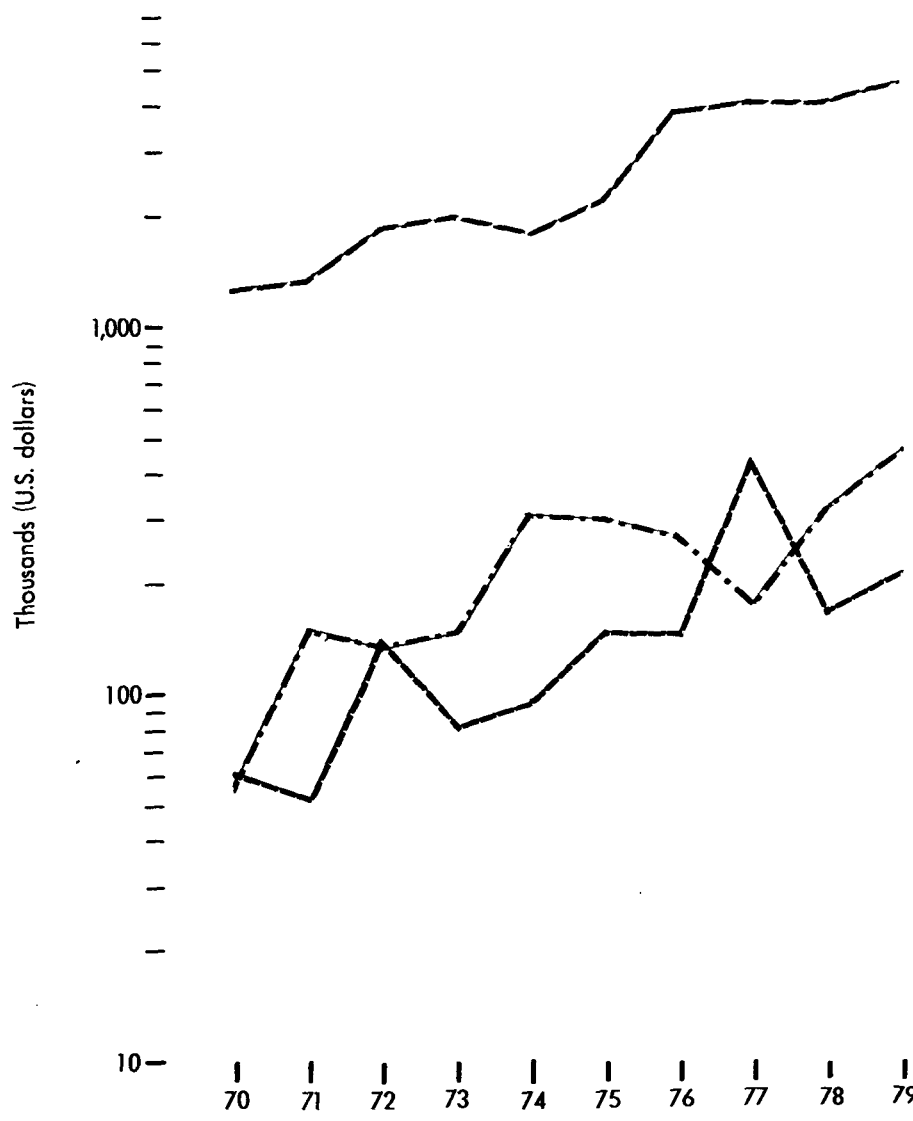
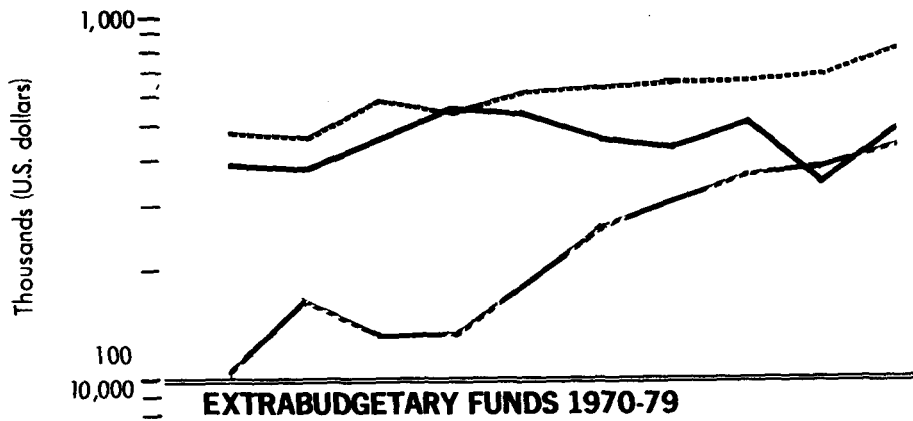
<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Funds</u>	<u>All Other Funds</u>
1979	703,994	481,788	22,206
1978	520,469	352,804	167,665
1977	940,795	505,265	435,530
1976	585,337	439,511	145,786
1975	619,263	470,111	149,152
1974	617,841	522,516	95,325
1973	615,695	531,453	84,242
1972	610,319	472,508	137,811
1971	442,424	389,632	52,792
1970	460,946	399,461	61,485



**NUTRITION 1.**  
**RELATIONSHIPS AMONG EXPENDITURES FOR NUTRITION:**  
**FOR INCAP, CFNI, AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**NUTRITION 2.**  
**GROWTH IN EXPENDITURES FOR NUTRITION:**  
**INCAP, CFNI AND REST OF PROGRAM**  
**REGULAR FUNDS 1970-79**



Regular funds	Extrabudgetary funds
----- INCAP	----- INCAP
----- Nutrition, excluding centers	----- Nutrition, excluding centers
----- CFNI	----- CFNI

INSTITUTE OF NUTRITION OF CENTRAL AMERICA AND PANAMA - INCAP

1. Basic PAHO Program: Nutrition
2. Goal of the Center: Improve nutritional status of all the population in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.
3. Location: Guatemala, Guatemala
4. Facility: 13 buildings located on 25,000 m<sup>2</sup>, plus an experimental farm of 47.6 hectares, all owned by the Government of Guatemala
5. Historical Origins and Juridical Status: (Note: A detailed early history is presented in CD10/22, Annex III, pages 269-272, OD-22, 1958)

In 1946, stimulated by wide concern over malnutrition in the Region, representatives from Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama met with personnel of the Pan American Sanitary Bureau and the W. K. Kellogg Foundation and drew up a four-year agreement calling for the establishment of an institute, under the direction of an intergovernmental council, to study and help improve nutrition in the area. It was planned for the Pan American Sanitary Bureau to administer the institute and to furnish a scientist-director. Each country was to contribute an equal quota to provide the basic operating budget.

The Government of Guatemala agreed to furnish a building and was chosen as the Host Country. The first years were spent in training personnel from the member countries, and the official inauguration took place on 16 September 1949.

In August 1949, the Director of the Pan American Sanitary Bureau presented INCAP's first budget to the PASB Executive Committee in Document CE8.L5 (pages 55-57, and pages 19-20, fiscal supplement). He noted that because of the urgent need for new knowledge, development of INCAP constituted essentially the entire PASB program in nutrition at that time. The budget for 1950 called for a total expenditure of \$74,840, of which \$25,500 came, in equal quotas, from Guatemala, Honduras and El Salvador and \$19,340 from PAHO regular funds. In May 1950 the first outside research grant was made to the Institute.

At the end of the first 4-year agreement, a new agreement was signed, to run for five years, establishing a technical advisory committee and calling for each government to establish a nutrition field unit.

By 1951 it was clear that the original building was inadequate; a new building was constructed and inaugurated in September 1954.

To give the Institute permanent status, a basic agreement was approved by the INCAP Council in 1953. After ratification by the legislature of each country, it became effective 1 January 1955. Among other features, the Agreement provided INCAP with "personería jurídica" and the privileges and immunities appropriate to an international organization.

A number of resolutions of the Governing Bodies of PAHO (CSP15.12 (1958), CD15.7 (1964), CD16.14 (1965), CD18.23 (1968), CD19.8 (1969)) recognize the work of INCAP at various stages and make recommendations concerning that work. None deal with juridical status.

Under the Basic Agreement, a Council, composed of one representative of each country and of PASB, directs the work of INCAP and approves its program and budget. By specific request of the Member Countries, PAHO has assumed long-range responsibility for the administration of INCAP.

Within PAHO, responsibility for INCAP lies in the Division of Comprehensive Health Services and its Nutrition Unit.

6. Objectives (as stated in Basic Agreement)

- 6.1 Motivating and implementing nutrition science and its practical application in Central America and Panama;
- 6.2 Performing research and conducting scientific studies relating to:
  - 6.2.1 Food composition and food analysis;
  - 6.2.2 Surveys for the evaluation of the nutritional status and nutrition problems of the population of the area;
  - 6.2.3 Clinical nutrition and biochemical studies.
- 6.3 Contributing to the development of human resources for the area through:
  - 6.3.1 Training of technical personnel;

6.3.2 Cooperation with universities and agricultural institutions of the area;

6.3.3 Cooperation with other scientific entities related to nutrition.

## 7. Activities

Over the years the work of INCAP has expanded enormously. This is illustrated in budgetary growth, from a total of \$74,840 (\$19,340 from the PAHO/WHO regular budget) in 1950 to a total of over US\$5.4 million in 1979. Expenditures for the past 10 years are shown in section 9, below.

The technical work of the Institute is currently divided into 18 major programs, including such areas as food sources, food technology, nutrition and infection, human development, rural development, and the School of Nutrition.

### 7.1 Technical Cooperation and Advisory Services

Staff are permanently assigned to Honduras (food and nutrition planning), El Salvador (animal nutrition), Nicaragua (public health nutrition), and Panama (evaluation of ongoing action programs in nutrition).

Surveys for the evaluation of nutritional status are conducted primarily for establishing the base line references needed as an essential component when initiating specific action programs in nutrition, such as enrichment of sugar with retinol and/or iron, food distribution programs and establishment of a food and nutrition surveillance system. INCAP works with the national health sectors in the definition of procedures for the collection, analysis and use of the health information component of the national food and nutrition surveillance systems.

In the period 1975-1979 several meetings and workshops on principles and methods required for the formulation, development, implementation and evaluation of food and nutrition plans were convened under the sponsorship of INCAP and the proceedings from these events were widely distributed.

### 7.2 Training

Training is carried out at all levels: academic (graduate and undergraduate), tutorial and in-service. During 1975-1979, 582 persons participated in these programs. Two hundred and ninety-six (51 per cent) were from Central America and Panama and 286 (49 per cent) came from countries outside Central America and Panama, but primarily from the

American Hemisphere. The average number of admissions during this 5-year period (117) contrasts sharply with the corresponding average over the previous 20 years (70), suggesting a sustained increased demand.

In 1965, INCAP signed an agreement with the University of San Carlos in Guatemala to establish a center for higher studies in nutrition and allied sciences (CESNA). This also made possible recognition and accreditation in the other national universities through the Council of Central American Universities (CSUCA). INCAP defines the curricula and conducts the instruction while the University of San Carlos approves the proposed curricula and oversees compliance with the academic programs. The University grants the academic degrees upon recommendation of the INCAP faculty.

In addition to its own program, INCAP has helped establish schools for training nutritionists and dietitians. In Costa Rica and in El Salvador these schools are now fully operational. The University of Panama provides the first two years of the curriculum, the basic training, and will eventually assume responsibility for the full course. In Guatemala, the University of San Carlos will absorb the four-year undergraduate school of nutrition of the Institute, thus permitting the use of INCAP facilities for postgraduate training in this field. Graduates from the INCAP program have provided the core faculty required for the national schools.

During the period, INCAP also has collaborated with the University of El Salvador in strengthening its center for studies of biochemistry, located on its Eastern Campus (Centro de Occidente). In Guatemala, INCAP is participating in the establishment of an undergraduate course in food technology in Universidad del Valle.

The controlled gradual termination of the undergraduate School of Nutrition will permit strengthening of graduate studies. For instance, consideration is being given to expansion of the present graduate program to offer training in food/nutrition planning and evaluation as a program integrating several academic disciplines.

Evidence of the worldwide prestige of INCAP is its designation as one of the first institutions of the world to be a site of activities of the United Nations University. These programs are all at the postgraduate level.

### 7.3 Research

Activities relating to food composition and food analysis provide needed information to update food and feed composition tables. Substantial efforts are being directed at the study of unorthodox foods

as a possible new source of nutrients for human beings and animals. These studies are also an inherent component of the Institute's cooperation with agricultural institutions dedicated to the genetic improvement and selection, of better vegetable food sources, traditional as well as new.

Clinical nutrition studies have evolved from a simple to a sophisticated level. They are now concerned with precise definition of nutritional requirements and appropriate diets for different activities and for different physiological and pathological conditions. They also cover various stages of the growth and development of the human species, and consider in greater detail individual nutrients ranging from gross macronutrients to specific vitamins, aminoacids, fatty acids and minerals, including trace elements. Results will help in determining the most nutritionally appropriate mixtures of basic foods in the context of typical diets.

Studies pertaining to food fortification as a means of preventing specific deficiencies have also continued, and procedures for the fortification of sugar with vitamin A have been defined and implemented in four of the six countries. A proper system for the fortification of sugar with FeEDTA is presently in final pilot testing stages prior to large-scale implementation. This measure has proved to be an effective way of preventing the prevalent iron deficiency anemia observed in the area.

Satisfactory progress has also been achieved in the studies on the effect of nutritional status on host characteristics, such as propensity and resistance to infections, growth and development, work capacity and productivity.

A variety of other research programs deal with:

- Production and development of food technologies that make maximum use of local products;
- More efficient use of basic foods (mainly cereals and legumes) through better and improved methods of storage, processing and marketing;
- Achievement of more effective consumption through study of the socioeconomic, cultural and demographic interrelations of foods and nutrition, definition of the patterns of food consumption and preferred organoleptic characteristics, and the definition of nutrition education needs;

- Improvement of the biological utilization of foods and their nutrients, through better understanding of body requirements and nutrient interactions, interrelation of nutrition and infections, and effective mechanisms for food quality control;
- Evaluation of nutritional status of whole populations based on nutritional surveillance, assessment of the effect of nutritional deficiencies on the growth, development and health of individuals and societies, and development of action programs for the affected populations;
- Development of methods for designing, implementing and evaluating nutrition interventions, incorporating nutrition activities in health, education, agriculture and other agencies, evaluating the impact of economic policies and regulations on nutritional conditions. Cost-benefit studies of various action programs in nutrition;
- Development of proper methods for dealing with nutritional problems arising from emergencies and disasters.

#### 7.4 Information Dissemination

The Institute publishes results of its studies in appropriate media for the technical and scientific community, but believes it is not doing enough to interpret and present these results in suitable form for structural entities and individuals with decision power and for the general public. It is expected that strengthening nutrition education, contemplated for the near future, will help remedy these shortcomings.

INCAP publishes a newsletter (Carta Informativa) approximately twice a month that carries information on ongoing research, field studies and demonstrations. It is directed to a large mailing list, including personnel in ministries of health, agriculture, education and planning, and those in universities, educational institutions and other agencies with an interest in nutrition.

#### 8. Advisory Committee

The regular annual meetings of the Technical Advisory Committee (TAC) during the first 19 years of existence of INCAP were discontinued beginning in 1969. Attempts to continue the activities of the Technical



Advisory Committee through alternate mechanisms, such as the PAHO advisory groups in nutrition, were too broad in their approach and did not satisfy the specific needs of INCAP. Efforts are now under way to reinstate the assessment and advisory functions of a TAC on a regular basis.

9. Budget (Table Nutrition I and Figures Nutrition 1 and 2)

Since so large a proportion of nutrition funds in the Americas has been expended through the centers, the table and figures comparing expenditures for INCAP over the past 10 years with expenditures for other parts of the PAHO nutrition programs also show CFNI.

As the INCAP budget has expanded, the portion provided through PAHO/WHO regular funds has grown from the original \$19,340 budgeted in 1950 to \$66,697 expended in 1961, and to almost \$822,000 expended in 1979. This increase has been relatively faster than the increase in the rest of the program, but not as fast as CFNI. At the same time, the budget of \$55,500 from other funds in 1950 grew to an expenditure of \$606,943 in 1961 and \$4,601,577 in 1979. In that year the proportion of the total expenditure by INCAP that came from other funds reached 85 per cent as compared with 75 per cent in 1950. The problems connected with the current proportion are discussed at length in the special report on INCAP.

INCAP is one of the subregional centers where a substantial contribution to the budget comes from assessments on participating governments. Although assessments, they are included under extrabudgetary funds because they are not in the PAHO regular budget. In 1950 all governments were assessed the same amount, \$8,500. In 1979 the following scale applied:

Costa Rica	\$35,000
El Salvador	42,500
Guatemala	78,250
Honduras	26,000
Nicaragua	31,000
Panama	<u>37,250</u>

TOTAL \$250,000  
=====

As of 31 December 1979 there were considerable arrears outstanding, as shown in the following table from the Financial Report of the Director for 1979, OD-168.

	<u>Amount Due</u> <u>1/1/79</u>	<u>Received</u> <u>in 1979</u>	<u>Outstanding</u> <u>31/XII/79</u>
Current Year Quotas	250,000	135,650	114,350
Prior Years Quotas	895,031	106,307	788,724
	<hr/>	<hr/>	<hr/>
TOTAL	1,145,031 =====	241,957 =====	903,074 =====

10. Staff

INCAP currently has 75 professional staff members and 389 supporting staff; approximately 60 per cent are locally appointed.

TABLE NUTRITION I

INCAP EXPENDITURES, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Fund</u>	<u>All Other Funds*</u>
1979	5,423,564	821,987	4,601,577
1978	4,816,293	687,547	4,943,820
1977	4,865,345	671,763	5,028,576
1976	4,550,304	665,134	4,705,690
1975	2,864,663	640,466	3,030,222
1974	2,414,813	621,858	2,572,914
1973	2,000,035	549,829	2,550,020
1972	1,850,090	589,015	2,229,623
1971	1,383,019	470,342	1,495,264
1970	1,773,832	480,494	1,293,338

\*Includes assessments on INCAP member governments

CFNI EXPENDITURES, 1970-1979

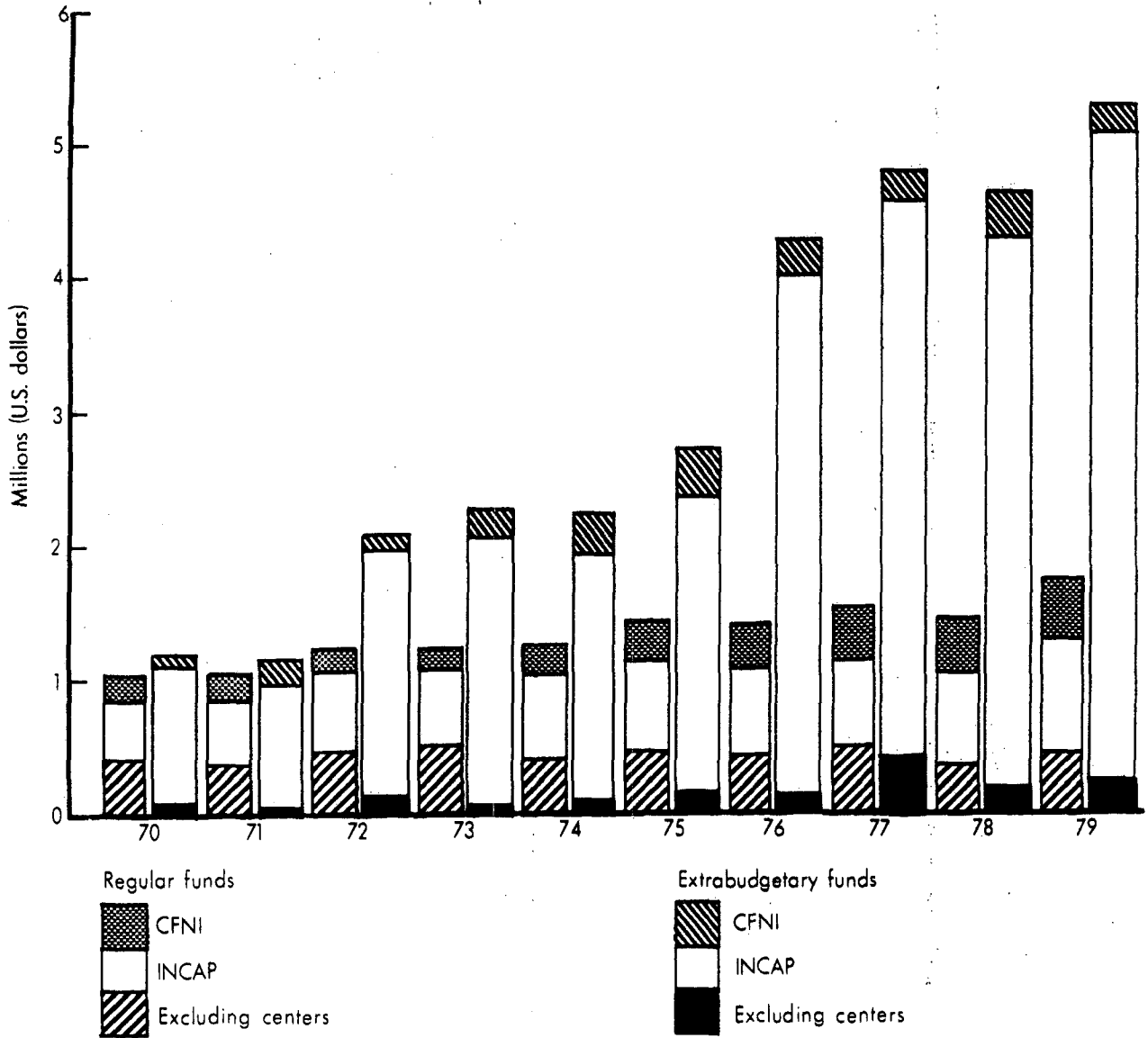
<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Fund</u>	<u>All Other Funds*</u>
1979	891,348	441,315	450,033
1978	696,191	378,275	317,916
1977	544,073	365,509	178,564
1976	589,106	312,663	276,443
1975	566,155	265,566	300,589
1974	498,381	188,526	309,855
1973	333,527	136,787	196,740
1972	267,818	134,223	133,595
1971	315,791	165,197	150,594
1970	166,033	107,671	58,362

\* Includes assessments on CFNI member governments

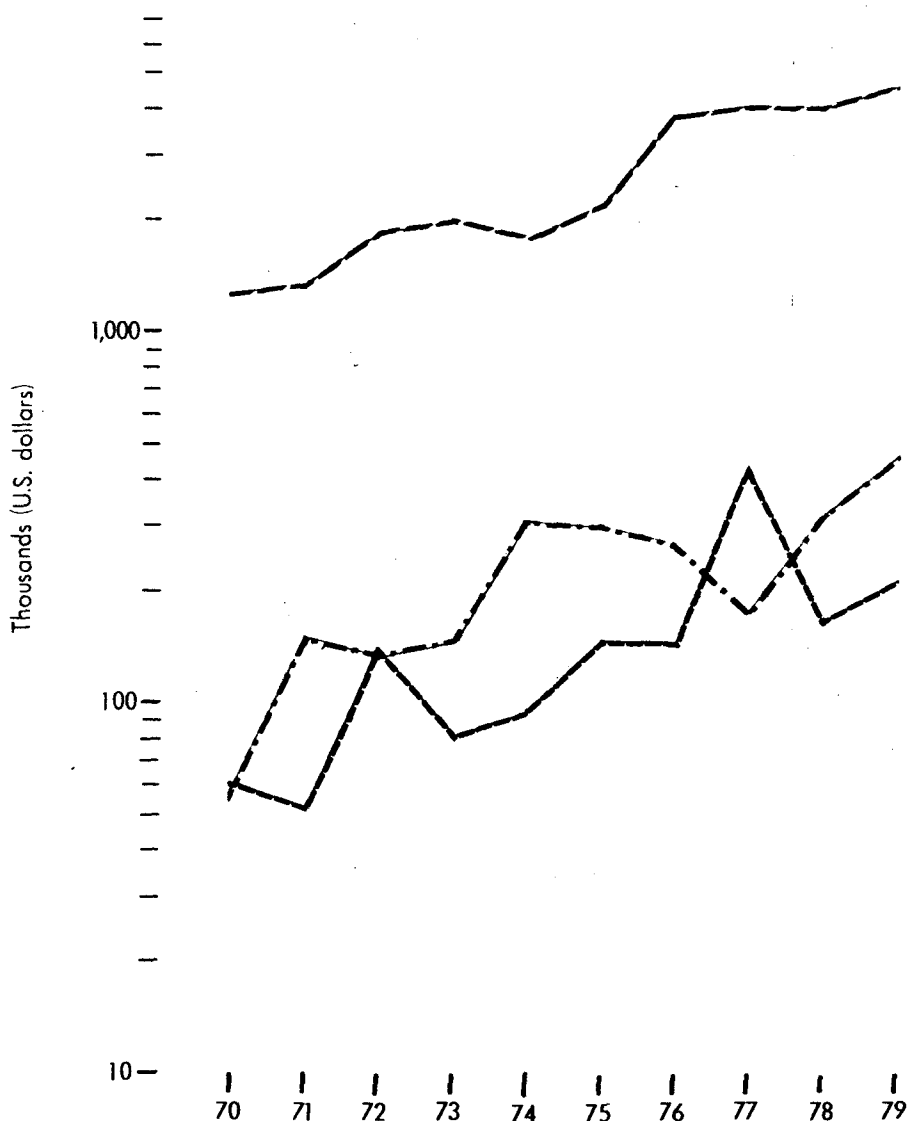
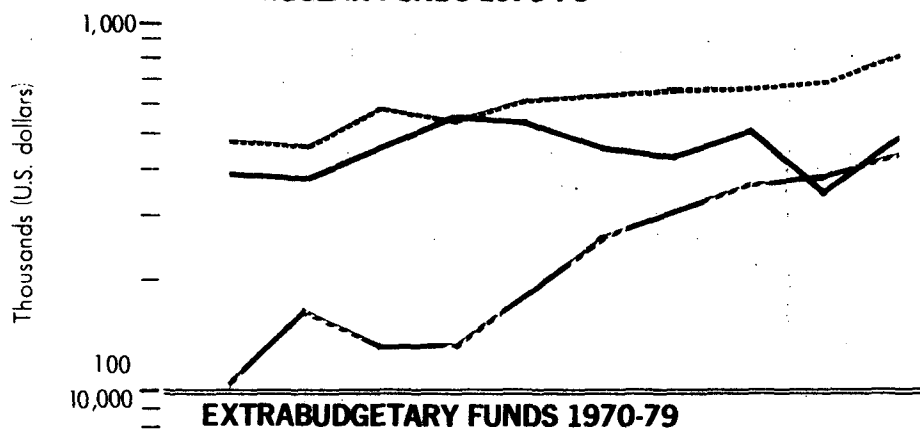
EXPENDITURES FOR NUTRITION,  
EXCEPT FOR INCAP AND CFNI, 1970-1979

<u>Year</u>	<u>Total</u>	<u>PAHO/WHO Regular Fund</u>	<u>All Other Funds</u>
1979	703,994	481,788	222,206
1978	520,469	352,804	167,665
1977	940,795	505,265	435,530
1976	585,337	439,551	145,786
1975	619,263	470,111	149,152
1974	617,841	522,516	95,325
1973	615,695	531,453	84,242
1972	610,319	472,508	137,811
1971	442,424	389,632	52,792
1970	460,946	399,461	61,485

**NUTRITION 1.**  
**RELATIONSHIPS AMONG EXPENDITURES FOR NUTRITION:**  
**FOR INCAP, CFNI, AND REST OF PROGRAM**  
**REGULAR AND EXTRABUDGETARY FUNDS 1970-79**



**NUTRITION 2.**  
**GROWTH IN EXPENDITURES FOR NUTRITION:**  
**INCAP, CFNI AND REST OF PROGRAM**  
**REGULAR FUNDS 1970-79**



Regular funds	Extrabudgetary funds
..... INCAP	..... INCAP
———— Nutrition, excluding centers	———— Nutrition, excluding centers
----- CFNI	----- CFNI

XIX Meeting of the Directing Council

CD19.37 The Directing Council,

Having considered Resolution XII approved by the Executive Committee at its 61st Meeting and the information provided by the Director on the present status of multinational centers (Document CD19/21, Addendum):

Bearing in mind the extent of health problems in the Americas as compared with the limited funds available to the Organization for dealing with them:

Bearing in mind the importance of the efforts of the countries as a basic contribution to the solution of their problems, through programs in which the fundamental purpose of the Organization's participation is to promote and coordinate these efforts; and

Bearing in mind also the possibilities that the countries have of assuming more responsibility in this regard,

RESOLVES:

1. To declare that multinational centers are needed and useful, provided their policy continues to be designed to benefit all the countries; to support the steps taken by the Organization to develop and improve existing centers, which constitute an effective means whereby PAHO exercises its functions of stimulating and coordinating multinational programs for the improvement of health; [and to recommend that], in the future, multinational centers be established in accordance with the pertinent guidelines to be approved by the XVIII Pan American Sanitary Conference pursuant to operative paragraph 2 of this resolution.

2. To request the Director to appoint a study group to draw up a set of general guidelines [laying] down the basic conditions for the establishment and operation of multinational centers in the light of the observations contained in Resolution XII adopted by the Executive Committee at its 61st Meeting and in this resolution.

3. To recommend to the Member Countries that are the seat of multinational centers receiving funds from the PAHO budget that they study the possibility of assuming a progressively larger share of the operating budget of these centers, while maintaining their multinational character, within the ambit of the set of guidelines [that ultimately] will be approved by the XVIII Pan American Sanitary Conference pursuant to operative paragraphs 1 and 2 of this resolution.

4. To recommend to the Member Governments that they consider the possibility of national centers of recognized standing extending their services to the countries of the Continent, in the first place to other countries in the Zone, without necessarily using the funds of the Pan American Health Organization.

5. To recommend to the Director that the funds made available as a result of the implementation of the recommendations set forth in operative paragraphs 3 and 4 of this resolution be primarily used for aiding those Member Countries that request more assistance, bearing in mind the funds available to them, the program for which assistance is requested, and the effort that has been or will be made by the requesting country.

XVIII Pan American Sanitary Conference

**CSP18.33** The XVIII Pan American Sanitary Conference,

Having studied Document CSP18/22 and annexes containing guidelines for the establishment and operation of multinational centers, recommended by the Executive Committee at its 64th Meeting; and

Recognizing the value of multinational centers for dealing with health problems of interest to several countries,

**RESOLVES:**

1. To approve the following general guidelines for the establishment and operation of multinational centers:

a) For the purpose of these guidelines, a multinational center shall be defined as an institution or center administered by international staff and supported to a significant degree by international funds, which provides services for all the countries in the Region, or a group of them in a particular area.

b) The establishment and operation of multinational centers shall be based on the priorities arising out of the planning of the PAHO/WHO program. Under this system, each country's appraisal of its health problems shall determine the extent and nature of the international assistance that will best serve to support the health programs of the Member Countries.

c) Where the solution of a country's health problems requires services of a standard and capacity not existing in a country, PAHO/WHO will collaborate with the health authorities with a view to strengthening the national institutions in order to meet the needs of the country but resorting, in cases where this is not possible, to national institutions of other countries with sufficient resources.

d) Where there are no suitable national institutions to deal with problems of common interest, multinational centers will be planned and developed in consultation with the Governments in order to make maximum use of PAHO/WHO assistance.

e) In their own or related fields, multinational centers should support, assist, and supplement the programs of the countries and should promote international cooperation for the solution of common problems.

f) In view of the fact that multinational centers are institutions and are created only when there are no adequate national institutions, international financial assistance is regarded as a long-term obligation. Nevertheless, each multinational center should be reviewed regularly in planning the program and in the light of its importance in relation to the needs of the participating countries.

g) In planning a multinational center, the Director shall seek financial and other support from extrabudgetary sources in addition to the regular budget. The host Government should provide premises and, as far as its resources permit, also contribute supplies, personnel, and funds. The choice of a location should take into account the resources of the potential host Government as well as any other factors affecting the services rendered to the countries.

h) Proposals for multinational centers shall continue to be submitted as part of the PAHO/WHO program and budget to the Executive Committee and to the Directing Council or the Conference for consideration and approval.

2. To thank the Director for his report on the program and activities of the existing multinational centers.

XX Pan American Sanitary Conference

**Resolution XXXI**

**Pan American Centers**

*The XX Pan American Sanitary Conference,*

Having examined Document CSP20/3, and annexes, concerning the institutions designated as Pan American Centers;

Considering that these institutions are an integral component of the respective PAHO program, and constitute an effective mechanism for combining the functions of advisory services, teaching, research, and dissemination of information, in accordance with the needs of the countries and the state of technological development in the field;

Noting that efforts of such Centers have a unique role in furthering technical cooperation among developing countries;

Recognizing that under certain circumstances a national center, by agreement between the Government and PAHO, may provide the functions of an international center, utilizing PAHO project support without requiring PAHO administration; and

Noting that the term "Pan American Center" has hitherto been applied indiscriminately both to centers entirely dependent on PAHO and to national centers,

*Resolves:*

1. To thank the Director for the comprehensive report on PAHO Centers.
2. To limit the term "Pan American Center" to those whose technical, administrative, and financial affairs are handled by PAHO.
3. To accept in principle the recommendations concerning: the criteria that distinguish a Center; the procedure for establishing and disestablishing a Center; and the standards and conditions for designation of an Associated National Center.
4. To direct that any proposal for the establishment, disestablishment, or transfer of any Pan American Center be routinely submitted to the Executive Committee and the Directing Council and be accompanied by a complete study.
5. To recommend that the Director study the specific recommendations for the improvement of operation of the Centers, noting that many of these recommendations relate to the total PAHO program and not to Centers per se, and to implement those recommendations that are feasible.
6. To request the Director to commence the regular evaluation process of each Center called for in the report and to entrust the Executive Committee with design of appropriate evaluation methods and review of the evaluation reports.
7. To request that the report presented by the working group be completed by describing in greater detail each individual Center, and to ask the Director to submit this to the next meeting of the Directing Council.

*(Approved at the fourteenth plenary session,  
4 October 1978)*



**Regional Library of Medicine**

**CD17.24** The Directing Council,

Having noted the report on the research policy and program of the Pan American Health Organization (Document CD17/17);

RESOLVES:

3. To emphasize the success achieved in initiating the PAHO Regional Library of Medicine, discussed as a proposal by the XVI Meeting of the Directing Council, [which is] the first multinational center to be implemented under this program.

Oct. 1967 OD 82, 81

**CD19.19** The Directing Council,

Having considered the report on the status of the PAHO Regional Library of Medicine (Document CD19/8)<sup>3</sup> and the report of the second meeting of its Scientific Advisory Committee (Document RD8/16);

Having noted the rapid progress made by the Regional Library in the first eight months of its regional services to Brazil;

Noting with concern that the demand for the Library's services is already such that it is becoming difficult to satisfy it efficiently; and

Considering that there are bibliographic centers and libraries in the Member Countries of the Organization that could be used for a program of this kind,

RESOLVES:

1. To congratulate the Director and his staff on the progress attained, which has enabled the Regional Library of Medicine to become an active center for biomedical communications.

2. To thank the Government of Brazil, the United States National Library of Medicine, the Commonwealth Fund, and the Pan American Federation of Associations of Medical Schools for the excellent cooperation they have extended to the Regional Library.

3. To instruct the Director to give the highest priority in the further development of the Regional Library to planning its activities, establishing a sound internal organization staffed by a sufficient number of well-trained personnel, and improving the basic collection, in accordance with recommendations of the Scientific Advisory Committee of the Library (Document RD8/16).

4. To instruct the Director to submit each year to the Executive Committee the program and budget of the Regional Library for the following year.

5. To instruct the Director to explore all possibilities of supplementing the financing of the Regional Library with international, national, and private funds, and to make a study of partial self-financing based on specific payment by the countries for the use of certain services offered by the Library.

6. To emphasize the need to begin the program for training the staff in modern procedures for the collection, classification, and use of bibliographic information in the biomedical sciences, for which provision is made in the plans of the Regional Library of Medicine.

7. To recommend to the Director that he study the possibility of increasing the resources of the Regional Library by incorporating into the program other bibliographic centers and libraries in other Member Countries of the Organization.

Sept.-Oct. 1969 OD 99, 69

**PAN AMERICAN ZOONOSES CENTER**

**CD8.7 The Directing Council,**

Considering the importance of establishing a Pan American Zoonoses Center,

**RESOLVES:**

To authorize the Director of the Pan American Sanitary Bureau to take appropriate measures so that the Pan American Zoonoses Center may receive, at the earliest possible date, the funds required for its operation.

Sept. 1955 OD 13, 9

a) The probability that the United Nations General Assembly will approve a professional salary increase in 1971, with consequent increased budgetary requirements, for which contingency no provision is included in the amount appropriated in paragraph 1 above; and

b) The lack of provision for carrying out the recommendations of the III Inter-American Meeting at the Ministerial Level on Foot-and-Mouth Disease and Zoonoses Control for an additional appropriation of \$300,000 to cover the needs of the Pan American Zoonoses Center.

6. [To request] that, in applying the increase called for in paragraph 5, the Executive Committee give first priority to funding increases in salary costs.

Sept.-Oct. 1970 OD 104, 76

**CSP18.20 The XVIII Pan American Sanitary Conference,**

**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 PAHO, which was submitted by the Director of the Pan American Sanitary Bureau.

5. To reiterate the importance of supporting the activities of the Pan American Zoonoses Center in order to bring about greater control of the zoonoses in the countries, and to endorse Resolution II of the III Inter-American Meeting at the Ministerial Level on Foot-and-Mouth Disease and Zoonoses Control concerning the financing of the Center and supporting the proposal to the United Nations Development Program that it extend its financial assistance to the Center.

6. To express its thanks to the Governments of Argentina and Brazil for their valuable technical and financial assistance to the Pan American Zoonoses Center and the Pan American Foot-and-Mouth Disease Center, respectively.

Sept.-Oct. 1970 OD 104, 73

**CSP18.22 The XVIII Pan American Sanitary Conference**

**RESOLVES:**

[In approving the appropriations for the Pan American Health Organization for 1971]

5. To approve an increase in the appropriation level of \$15,237,331 for the effective working budget specified in paragraph 1 above in an amount to be determined by the Executive Committee but not to exceed \$300,000, such increase [to] be financed in the first instance from any available miscellaneous income and then, if necessary, by transfer from the Working Capital Fund, with no increase in the assessments in respect to the Member Governments and Participating Governments. This approval is given in recognition of:

**PAN AMERICAN CENTER FOR SANITARY  
ENGINEERING AND ENVIRONMENTAL  
SCIENCES**

**CE68.R13** The Executive Committee,

Considering the report on the work of the Pan American Center for Sanitary Engineering and Environmental Sciences, presented by its Director in compliance with Resolution XXIII of the 66th Meeting of the Executive Committee;

Having noted the proposed program of work of the Center for this decade in which provision is made for the gradual and methodical expansion of the program areas it will cover, in accordance with the needs of the Governments;

Bearing in mind that since its establishment in 1969 the Center has been providing the countries with scientific and technical assistance in conducting programs for the evaluation and control of air, water and soil pollution, industrial hygiene, physical planning, housing, water resources development, use of new and more efficient techniques for the treatment of water and liquid wastes, as well as support for training activities, research, and dissemination of technical information;

Recognizing with satisfaction the support given to the Center by the Government of Peru in the form of financial contributions to cover part of the operating costs and equipment as well as the donation of a plot and the construction of a building for the exclusive use of the Center; and

Recognizing that the Center is complying with the guidelines and objectives for its establishment,

Resolves:

1. To congratulate the Director and the staff of the Center and thank them for the broad and efficient aid provided to the countries in the form of technical and scientific assistance, support for training activities, research, and dissemination of technical information.

2. To thank the Government of Peru for its valuable contribution to the establishment and operation of the Center.

3. To recommend to the Director of the Pan American Sanitary Bureau that he continue his efforts to provide the Center with adequate resources for achieving its objectives in accordance with the growing needs of the countries that are carrying out programs designed to improve environmental conditions and to protect natural resources against pollution.

*July 1972* OD 117, 32

**LATIN AMERICAN CENTER FOR  
PERINATOLOGY AND HUMAN  
DEVELOPMENT**

**CE76.R25** The Executive Committee,

Having considered the report on the most important achievements of the Latin American Center for Perinatology and Human Development (CLAP) in the period 1970-1975, submitted by its Director pursuant to Resolution XXXVIII of the Executive Committee at its 74th Meeting;

Bearing in mind the high rates of perinatal and maternal morbidity and mortality and their sequelae in the Region;

Convinced of the need to foster knowledge and encourage research on the reduction of the risks associated with the reproductive cycle; and

Recognizing that the activities being conducted and those planned by CLAP constitute programs of regional importance in the conduct of collaborative projects in the countries, in the benefits of training, and in the results of its research aimed at ensuring satisfactory maternal and perinatal care,

**Resolves:**

1. To commend the Bureau and CLAP for their very useful contribution to the improvement of health care for mothers and newborn children.

2. To recommend to the Governments of the countries of the Region that they make use of the technical services of CLAP, in accordance with the general programs of the Center and the available budgetary funds.

3. To support the efforts of CLAP to continue its programs and to devise rigorously scientific methods for designing a technology consistent with the priorities of the maternal and child health programs and the various levels of maternal and perinatal care in the countries of the Region and in different areas of those countries.

4. To request the Government of Uruguay to continue and, insofar as possible, to strengthen its support in all manner to the Center and to collaborative and cooperative efforts with the Member Governments.

*June 1976* OD 144, 37

**PAN AMERICAN CENTER FOR HUMAN  
ECOLOGY AND HEALTH**

**CE72.R27** The Executive Committee,

Having examined Document CE72/3 and having considered the Director's report on the steps taken with a view to establishing the Center in Mexico; and

Recognizing the role which the Center will play in identifying, evaluating and seeking solutions for health problems related to the environment,

**Resolves:**

1. To congratulate the Director on the initiative he has taken to formalize the establishment of the Center and to obtain funds.
2. To thank once again the Government of Mexico for its offer of support and collaboration in setting up the Center in Mexico.
3. To request the Director to continue his effort with a view to setting up the Center as early as possible and obtaining funds additional to those under the regular budget so as to ensure its effective and continuing operation.

*July 1974* OD 132, 36

**CE78.R20** The Executive Committee,

Having examined the Director's report (Document CE78/15, Rev. 1) on the initial steps taken to establish the Center, including the Center's development plan;

Considering the importance of the health problems related to the environment; and

Being aware of the need to improve the capacity within the Region to assess the impact on human health of environmental changes accompanying development,

**Resolves:**

1. To take note of the first report submitted by the Director on the activities of the Pan American Center for Human Ecology and Health (Document CE78/15, Rev. 1).
2. To commend the Director for the actions he has taken to establish the Center and initiate its program.
3. To recommend to the Director that he continue to implement the plan for the Center's development.
4. To note with satisfaction the Center's participation and cooperation with other United Nations and international agencies in projects where the impact on health is of major concern.
5. To recommend to the Organization that periodic evaluations of the Center's achievements be carried out with a view to increasing the Center's effectiveness to contribute to the attainment of the goals of the Ten-Year Health Plan for the Americas.
6. To urge the countries to make use of the valuable services which the Center is in a position to provide.
7. To thank the Government of Mexico for the support and assistance it is providing for the Center.

*June 1977* OD 151, 40

**PAN AMERICAN FOOT-AND-MOUTH  
DISEASE CENTER**

**CD4.10 The Directing Council,**

Considering that aftosa (foot-and-mouth disease), a livestock disease of wide distribution in the Americas, affects human nutrition through substantial reductions in meat and milk supplies;

Considering that the Organization of American States (OAS) and its Specialized Organizations have received numerous requests from Member Governments for the inclusion of an aftosa project under the Expanded Technical Assistance Program, and [that] the Pan American Sanitary Bureau is the only Specialized Organization of the OAS now equipped with a veterinary service, [which is] necessary for the preparation of such a project;

Considering that the formal agreement between the Council of the OAS and the Directing Council of the Pan American Sanitary Organization (23 May 1950) provides [in Article IV] that "the Pan American Sanitary Organization shall give technical advice on matters of public health and medical care to the Council of the OAS and its organs, and to the Pan American Union, upon request";

Considering that the Secretary General of the OAS has made written request to the Director of the Pan American Sanitary Bureau for the preparation and sponsorship of a Technical Assistance project [for aftosa control];

Considering that the Pan American Sanitary Bureau, in collaboration with the Inter-American Institute of Agricultural Sciences, has prepared a project for an antiaftosa center [in the Americas], to be operated with Technical Assistance funds; and

Considering that the Director of the Bureau has indicated that any further participation in this project is subject to special authorization by the Directing Council,

**RESOLVES:**

To approve the action of the Bureau in preparing the project for the organization of an antiaftosa center in the Americas, and to authorize the participation of the Bureau in the organization of such a center until such time as some other Specialized Organization of the OAS is prepared to take full charge, provided that the financing of the center shall be with funds other than those of the Pan American Sanitary Bureau.

Sept. 1950 Pub. 255, 8

**CSP13.20 The XIII Pan American Sanitary Conference,**

Considering that aftosa (foot-and-mouth disease) is a livestock disease of wide distribution in the Americas and affects human nutrition because of the substantial reductions in meat and milk supplies caused by this epizootic;

Considering that the Organization of American States (OAS) and its Specialized Organizations have received numerous requests from Member Governments for the inclusion of an aftosa project under the Technical Assistance Program, and [that] the Pan American Sanitary Bureau is the only Specialized Organization of the OAS now equipped with a veterinary service, [which is] necessary for the preparation of such a program;

Considering that Article IV of the Agreement between the Council of the OAS and the Directing Council of the Pan American Sanitary Organization (23 May 1950) provides that "the Pan American Sanitary Organization shall give technical advice on matters of public health and medical care to the Council of the OAS and its organs, and to the Pan American Union, upon request";

Considering that the Secretary General of the OAS has made written request to the Director of the Pan American Sanitary Bureau for the preparation and sponsorship of a Technical Assistance program for aftosa control;

Considering that the Pan American Sanitary Bureau, in collaboration with the Inter-American Institute of Agricultural Sciences, has prepared a program for an antiaftosa center [in the Americas], to be operated with Technical Assistance funds; and

Considering that the Director of the Pan American Sanitary Bureau has indicated that any additional participation in this program is subject to special authorization by the Directing Council,

**RESOLVES:**

To approve the action of the Pan American Sanitary Bureau in preparing the project for the organization of an antiaftosa center in the Americas, and to authorize the participation of the Bureau in the organization of such a center until such time as some other Specialized Organization of the OAS is prepared to take full charge, on the condition that financing of the center is provided by funds other than those of the Pan American Sanitary Bureau.

Oct. 1950 Pub. 257, 18

**CE54.R15 The Executive Committee,**

RECOMMENDS to the XVII Pan American Sanitary Conference that it approve a resolution along the following lines:<sup>1</sup>

April 1966 OD 71, 38

<sup>1</sup> The text recommended by the Committee was adopted by the Conference with some modifications as Resolution CSP17.31 (see below).

**CSP17.31 The XVII Pan American Sanitary Conference,**

Recognizing the importance in the economic development and the nutritional status of the Americas of the Pan American Foot-and-Mouth Disease Center, which receives assistance and support from the Government of Brazil as the host country, is administered by the Pan American Sanitary Bureau, and is financed by the Program of Technical Cooperation of the Organization of American States;

Recognizing the important work that the Center has carried out in the field of education and training, advisory services to Governments, and research on various problems with a view to reducing the incidence of foot-and-mouth disease;

Bearing in mind the serious financial problem that has arisen from the fact that the budget covering the period 1 April 1966 to 30 June 1967, recently approved for the Center by the Inter-American Economic and Social Council at its Fourth Annual

Meetings in March-April 1966, is insufficient to permit the activities to be continued even at the 1965 level;

Believing that the Center has reached a stage in which the expansion of services is urgently necessary to enable it to assist the Governments in the planning and execution of national immunization programs;

Bearing in mind the resolution adopted at the Fourth Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level, which recommends that the Organization of American States and the Pan American Health Organization take joint measures to study how to establish a system of payments by the countries with a view to ensuring the permanent and stable financing of the Center; and

Considering that the Inter-American Development Bank and the World Bank have both recognized the economic importance of the programs and have informed the Inter-American Committee on the Alliance for Progress of their intention to grant loans to Governments to finance national control programs.

RESOLVES:

1. To emphasize the importance of maintaining the activities of the Pan American Foot-and-Mouth Disease Center, administered by the Pan American Sanitary Bureau, at a sufficient level to enable it to provide the Governments with scientific cooperation and technical advice in the planning and execution of national foot-and-mouth disease control programs.

2. To express its concern about the immediate financial situation arising from the inadequate budget approved by the Inter-American Economic and Social Council, which would not even allow activities to be maintained at the present level, and to instruct the Director to cooperate with the Organization of American States in efforts aimed at securing the financial support necessary to avoid a reduction in present activities, and at obtaining a gradual increase of that support according to the needs of the program.

3. To express its satisfaction with the fact that, as far as long-term needs are concerned, and in accordance with the provisions of the aforementioned resolution of the Inter-American Economic and Social Council, the Director has begun a study in collaboration with the competent officials of the Organization of American States to draw up a plan for the continuing and stable financing of the Center.

4. To instruct the Director to report to the Executive Committee at its 56th Meeting on the progress made in this regard.

**CARIBBEAN FOOD AND NUTRITION  
INSTITUTE**

**CE72.R26** The Executive Committee,

Bearing in mind Resolution XIX of the 64th Meeting of  
the Executive Committee,

**Resolves:**

1. To select the Caribbean Food and Nutrition Institute,  
with headquarters in Kingston, Jamaica, for review by the  
Executive Committee at its 74th Meeting.
2. To request the Director of PASB to invite the Director  
of the Institute to present the pertinent report.

*July 1974* OD 132, 35



**INSTITUTE OF NUTRITION OF  
CENTRAL AMERICA AND PANAMA (INCAP)**

**CSP15.12** The XV Pan American Sanitary Conference,

Having taken note of the report presented by the Director of the Institute of Nutrition of Central America and Panama (INCAP) on the organization and work of that institution, which is an outstanding example of the success of coordination among countries for the study and solution of their most important public health problems,

**RESOLVES:**

1. To congratulate the Director of INCAP on the effective work accomplished by the Institute.
2. To consider nutrition a fundamental public health problem in the countries of the Americas.
3. To recommend to the Director of the Pan American Sanitary Bureau that regional plans for the study of nutrition problems in countries with similar conditions be prepared and that the necessary technical advice be provided.
4. To recommend to the Governments of the Member Countries of the Organization that they intensify their surveys of nutritional conditions, the enrichment of foods, and the exchange of basic food products in such a way as to make it possible to overcome the chief nutritional deficiencies existing in the countries of the Americas.
5. To recommend to the Governments of the Member Countries that, in the curricula of medical schools and in post-graduate studies in the field of public health, nutrition be considered a basic subject, and that it be given the importance that is its due, bearing in mind its great significance to the individual and to society.
6. To express appreciation to UNICEF, to the Food and Agriculture Organization of the United Nations (FAO), and to the Cooperative for American Remittances to Everywhere (CARE) for their collaboration in the programs of supplementary feeding in the various countries, and to express the hope that this valuable aid will be continued.

*Sept.-Oct. 1958* OD 27, 29

**CD15.7** The Directing Council,

.....  
Bearing in mind that it would be advisable for the Pan American Health Organization to increase its contribution to the Institute of Nutrition of Central America and Panama (INCAP) so as to ensure the normal development of the Institute, which is supplying services not only to the nations of the Americas but to those of other continents as well;  
.....

**RESOLVES:**

2. To thank the Governments of Central America and of Panama for the moral and financial support that they have given to the Institute of Nutrition of Central America and Panama.
3. To thank the Government of Guatemala for the additional

contribution it is making to INCAP by providing it with a new building, which will enable the Institute to have the necessary means and services at its disposal for the better fulfillment of its purposes.

4. To authorize the Director of PASB to increase the contribution of the Organization to INCAP by \$200,000 and to include this sum in the Proposed Program and Budget of PAHO for 1966.

.....  
*Aug-Sept. 1964* OD 58, 62

**CD16.14** The Directing Council,

Considering that the countries of Central America and Panama have contributed, through the instrumentality of the Institute of Nutrition of Central America and Panama (INCAP), to the solution of the problem of malnutrition in the Americas, and have given an example of multinational planning,

**RESOLVES:**

1. To congratulate the countries of Central America and Panama, and to thank them for their valuable help in solving the problem of malnutrition not only in the member countries of INCAP but also in the [other countries of the] Americas and throughout the world.
2. To recommend to the Director of the Bureau that he continue to give all possible technical and financial support to INCAP.

*Sept.-Oct. 1965* OD 66, 66

**CD18.23** The Directing Council,

Bearing in mind Resolution VIII (paragraph 6) approved by the Central American Public Health Council at its Second Regular Meeting, in which it requested the Director of the Pan American Sanitary Bureau to explore the possibility and advisability that the Institute of Nutrition of Central America and Panama (INCAP) expand its direct responsibilities with regard to all the countries of the Hemisphere:

Conscious of the work, which is highly appreciated, that INCAP has carried out and continues to carry out for the benefit of the nutrition programs of all the countries of the Americas;

Considering the magnitude and importance of the nutrition problems that affect great sectors of population in all the countries of the Hemisphere, and fully confident that INCAP, because of its technical capacity, can collaborate efficiently with the Governments in their efforts to solve such problems; and

Expressing thanks for this gesture of the countries of the Central American isthmus toward the countries of the Americas as a whole,

RESOLVES:

1. To request that the Director of the Pan American Sanitary Bureau study the ways in which INCAP can expand its direct responsibilities in collaboration with all the countries of the Hemisphere and, when appropriate, with other regions of the world, thus ensuring its stability and development on a firmer financial basis than at present, and [that he] submit this study for consideration by the Executive Committee at its next meeting.

2. To request that the Executive Committee analyze this study and present its recommendations for consideration at the XIX Meeting of the Directing Council of PAHO, XXI Meeting of the Regional Committee of WHO for the Americas.

Oct. 1968 OD 93, 59

**CD19.8** The Directing Council,

Recognizing that nutrition has a high priority in national health services in the Hemisphere;

Seeing that there is a gradual increase in the demand for improved health, in particular for specialized training and consultation services in nutrition, as well as for applied research in this field;

Considering that over the years the Institute of Nutrition of Central America and Panama (INCAP) has gained excellent experience in providing needed nutrition services both in Central America and in the rest of the Hemisphere; and

Acknowledging that the needs of INCAP must be considered within the over-all nutrition program of the Americas and the total resources available to support that program,

RESOLVES:

1. To recommend to the Director that he provide INCAP with assistance in reorienting its present programs in order to better meet the needs of the present members of the Institute and the remaining countries of the Hemisphere.

2. To recommend that the Director continue to seek funds for INCAP from its traditional sources, and increase, to the extent the budget of the Organization so permits, the annual grant that is made to the Institute to enable it to effectively carry out the proposed expansion of its services.

3. To recommend that the INCAP program and budget be adjusted to coincide with estimated resources.

Sept.-Oct. 1969 OD 99, 58

PROJECT NUMBER FOR EACH CENTER

	<u>AMRO No.</u>
BIREME	8570
CEPANZO	3300
CEPIS	2070
CLATES	8700
CLAP	1370
ECO	2300
PANAFTOSA	3200
CAREC	4370
CFNI	1411
INCAP	1430