directing council

PAN AMERICAN HEALTH ORGANIZATION

XXI Meeting

regional committee

WORLD HEALTH ORGANIZATION

XXIV Meeting

Santiago, Chile
October 1972

Provisional Agenda Item 27

CD21/20 (Eng.)
8 September 1972
ORIGINAL: SPANISH

PAN AMERICAN CENTER FOR HEALTH PLANNING

During its 68th Meeting the Executive Committee considered and discussed the attached report on the work of the Pan American Center for Health Planning and adopted the following resolution:

RESOLUTION XII

PAN AMERICAN CENTER FOR HEALTH PLANNING

THE EXECUTIVE COMMITTEE,

Having considered the report on the work of the Pan American Center for Health Planning, presented by its Director in compliance with Resolution XXIII of the 66th Meeting of the Executive Committee;

Having considered the report of the First Meeting of the Technical Advisory Committee of the Center, held in 1971;

Bearing in mind the programming of the second phase of the Center, in which its program of work is expanded and reoriented with a view to completing the transfer of training and research responsibilities to the countries, and to strengthening and expanding its information services; and

Recognizing that the Center is complying with the general guidelines for the establishment, operation, and financing of multinational centers, established in Resolution XXIII of the XVIII Pan American Sanitary Conference,

RESOLVES:

1. To commend and thank the Director for the training, research, and information activities the Pan American Center for Health Planning is providing in support of the countries.

2. To thank the United Nations Development Program for the financial assistance it is giving to the Center through Program RLA/68/083.

3. To endorse the new orientation of the activities of the Center for a second phase, especially the emphasis on information services and the way in which they will be used to continue to support and orient the training and updating of specialized manpower and the research they are carrying out in the countries on planning problems.

4. To recognize the importance of maintaining the efficiency of the Center, especially for carrying out its second phase, and to support the Director of the Bureau in the negotiations that are being conducted with the United Nations Development Program for the financing of the second phase of Program RLA/68/083.

5. To request the Director to report to the Directing Council on the projected activities and the financial needs of the Center as well as on the negotiations being conducted with the United Nations Development Program.

In compliance with operative paragraph 5 of the resolution, the Director wishes to inform the Directing Council that the project envisages a second phase for the period 1974-1978, during which efforts will be primarily focused on the organization and operation of a permanent information service for the countries of the Region, covering the methodological, administrative and conceptual aspects of health planning.

The research component will also be intensified and diversified. At the headquarters of the project, basic investigations will be continued and at the same time the countries will be provided with the necessary support in the design, use and improvement of short and medium term operational models. These studies, the results of which will be for immediate use, will be undertaken in coordination with the program of direct advisory services being provided to the countries by the Planning and Evaluation Section of Headquarters for the improvement of national planning processes. Training activities will be aimed at the design, organization and conduct of courses and seminars on specialized subjects. Assistance will continue to be given

to the regular planning courses which have been initiated in four schools of public health in the countries.

The second phase of the program will last for five years. An application for assistance has been submitted to the United Nations Development Program. It covers three main items: advisors for training, research and information; equipment; and operating costs. The total cost of the project for the above-mentioned period will be approximately $2,000,000. Since it is a regional project, it is necessary for the Directing Council to pronounce upon it and for the countries individually to express to the local representatives of the UNDP their interest in and support of the proposed project, in addition to the support which the Executive Committee has already given to the proposal.

Annex

executive committee of the directing council

PAN AMERICAN HEALTH ORGANIZATION

working party of the regional committee

WORLD HEALTH ORGANIZATION

CD21/20 (Eng.)
ANNEX

68th Meeting
Washington, D. C.
July 1972

Provisional Agenda Item 17

CE68/10 (Eng.)
20 June 1972
ORIGINAL: SPANISH

MULTINATIONAL CENTERS

PAN AMERICAN CENTER FOR HEALTH PLANNING

PROGRAM AND BUDGET
1972 - 1975

INTRODUCTION

At its XIX Meeting (September-October, 1969), the Directing Council of the Pan American Health Organization considered Resolution XII of the Executive Committee (61st Meeting, June/July 1969) and a report submitted by the Director of the Pan American Sanitary Bureau (Document CD19/21), both concerning multinational centers. As a result, it adopted Resolution XXXVII, by which it requested the Director of the Pan American Sanitary Bureau 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.

The XVIII Pan American Sanitary Conference (September-October 1970) studied Resolution XIX of the Executive Committee (64th Meeting) on this subject and approved the general guidelines for the establishment and operation of multinational centers, taking into account the suggestions of the study group and those contained in the Director's report (Document CE64/2).

In Resolution XIX, approved at its 64th Meeting, the Executive Committee also requested the Director to submit a report on the program and activities of the existing multinational centers and requested that a regular review of multinational centers be carried out in the presence of their directors at the meetings of the Executive Committee when the Organization's program and budget estimates were discussed. Pursuant to this resolution, the Directors of the Pan American Foot-and-Mouth Disease Center and the Pan American Zoonoses Center attended the 66th Meeting of the Executive Committee and presented their reports. At that meeting it was decided (Resolution XXIII) that the Pan American Center for Health Planning and the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS) should do likewise at the 68th Meeting of the Executive Committee. This document has been prepared pursuant to that decision and, as far as possible, has been drafted in accordance with the instructions of the Director of the Bureau to place emphasis on the program of activities.

PAN AMERICAN CENTER FOR HEALTH PLANNING

PROGRAM AND BUDGET
1972 - 1975

I. PAN AMERICAN PROGRAM FOR HEALTH PLANNING

A. Background

During the decade 1951-1960, PAHO intensified its efforts to promote health planning in Member Countries. This was reflected in the Technical Discussions held during the meetings of the Directing Council in 1956 and 1957, on the subjects of "Methods for the Preparation of National Health Plans" and "Bases and Methods for the Evaluation of Health Programs," respectively.

The Act of Bogota (1960) and the Charter of Punta del Este (1961) recommended that countries increase their planning activities, and the latter assigned to PAHO responsibility for providing countries with technical assistance.

To this end, PAHO made every effort to develop the necessary technical resources. In the same year, 1961, a planning unit was established in the central office and expert groups were appointed to deal with specific problems, such as environmental health, medical services, and nutrition. These groups had three main objectives: to develop planning methods and techniques, to provide training in health planning, and to provide technical assistance to the countries.

One of these groups of experts worked in association with the staff of the Center for Development Studies (CENDES) and the School of Public Health, both of which are attached to the Central University of Venezuela, and the Venezuelan Ministry of Health and Welfare, on a PAHO-sponsored project for the production of a manual that could be used for training health planning officials. In mid-1962, the preliminary version of this manual was used in the first national course on health planning, organized at the School of Public Health of the Central University in cooperation with CENDES, the Venezuelan Ministry of Health, and the Pan American Health Organization (PAHO). This course, which included a field study, culminated with the preparation of a health plan for the State of Aragua.

On the basis of this experience, PAHO entered into an agreement with the Latin American Institute for Economic and Social Planning (ILPES), according to which five international courses on health planning would be organized each year in Santiago, Chile. The first of these courses was given during the last quarter of 1962. The content of the course was designed to provide professionals working in the field of health with certain concepts and methods of health planning within the framework of overall planning for economic and social development, taking into account the relative underdevelopment of the Latin American countries.

The "experimental" course in Venezuela and the first two international courses made it possible to improve the manual that had been used for them. Drafted in final form in 1964 and published in April 1965 (PAHO Scientific Publication No. 111, "Health Planning - Problems of Concept and Method (CENDES Report)", this manual constitutes the nucleus of what has become known as the "PAHO/CENDES methodology."

At the same time, PAHO assisted the countries in this field by providing advisory services, particularly on the inclusion of the health sector in overall development plans. This assistance was increased in 1963 with the permanent appointment of three planning consultants, who were to work in the Central American and Caribbean countries and in two South American zones of PAHO, covering eight countries. This increased assistance and the expanded and modified training program have been maintained up to the present time.

By 1965, enough experience had been gleaned in the field of health planning to make it possible to draw certain conclusions. During that year, a study group convened by PAHO met in Puerto Azul, Venezuela, for that purpose.

The conclusions and recommendations of this group were essentially the following:

1. The lack of scientific knowledge on the subject and the weaknesses inherent in the PAHO/CENDES methodology made it imperative to establish a research program designed to obtain the knowledge required to overcome these difficulties.

2. It was advisable to establish an institution to promote and direct these research activities, to organize and direct the international courses, and to collaborate in high-level national courses.

3. It was evident that a single institution should deal not only with the aforementioned aspects, but also with important questions related to the critical points that had been noted in considering health planning as a process; with the need to increase the flow of information required for this process; and with the variations and additions made in the PAHO/CENDES methodology, which by that time had been tried separately in several countries.

On the basis of these recommendations, PAHO designed, in the same year (1965), a proposal for the creation of a Pan American Center for Health Planning. The proposal was endorsed by 14 countries,[1] which submitted it to the United Nations Development Program (UNDP) with a view to obtaining financial cooperation for its implementation. After a preliminary study by that agency in 1966, the project, called "Pan American Program for Health Planning," was submitted to the Governing Council of the UNDP, which approved it in principle in June 1967, and in final form in January 1968, with the recommendation that it should be started immediately.

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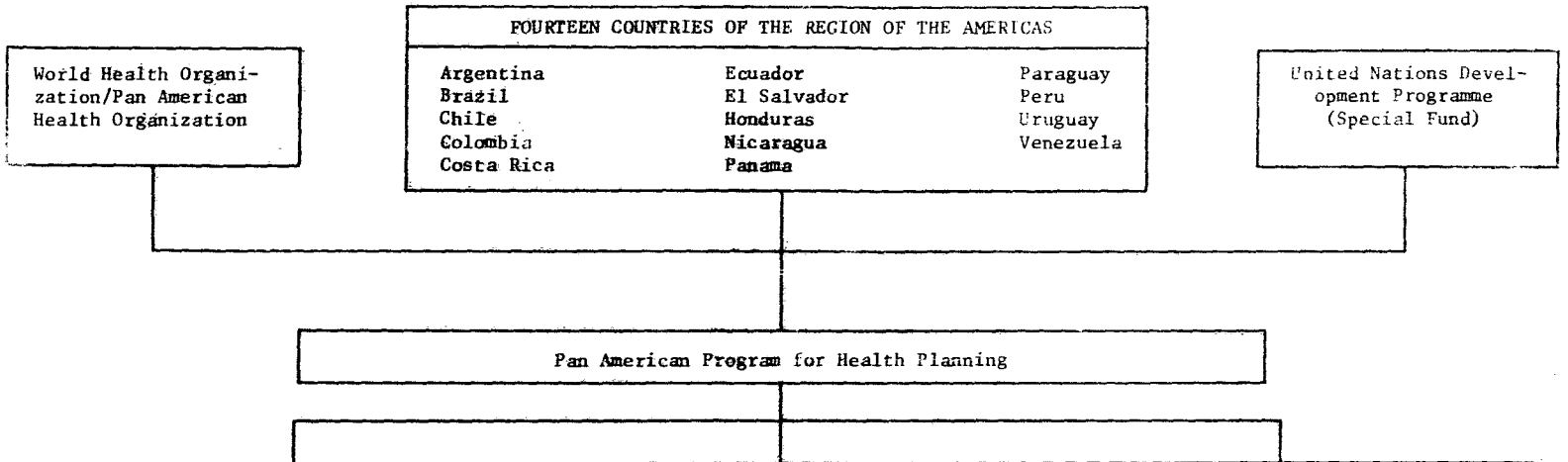
[1]Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela

TABLE 1

PAN AMERICAN PROGRAM FOR HEALTH PLANNING



OBJECTIVES	ACTIVITIES	RESOURCES
1. To continue and expand plans for the training of health planning personnel of PAHO/ILPES 2. To promote and conduct research 3. To compile and disseminate information 4. To strengthen the advisory services of PAHO to governments in order to improve their health planning processes	1. Training: basic courses, special and advanced courses; advisory services for schools of public health and departments of preventive medicine 2. Research program with the countries: methodological problems, internal functioning of the sector, analysis of the relationship between health and the rest of the socioeconomic system 3. Center for the collection and dissemination of information on the progress of the processes and publication of manuals 4. Advisory services for the improvement of the processes	1. Experts US$1,890,000 2. National personnel US$ 581,880 3. Secretarial and other staff services US$ 65,800 4. International fellowships US$ 528,700 5. National fellowships US$ 458,700 6. Equipment and supplies US$ 180,100 7. Miscellaneous costs US$ 24,900 8. General WHO costs US$ 199,600
CENTER HEADQUARTERS	PARTICIPATION AND CONTRIBUTIONS	ORGANIZATION
Santiago, Chile (in coordination with ILPES)	(See Table 4)	Executing Agency: World Health Organization/Pan American Health Organization

However, the project was not declared "operational" until the latter part of 1970, when the relevant agreement - including the Plan of Operations - was signed by the sponsoring countries.

PAHO, UNDP, and the signatory countries assumed responsibility for financing the program, and PASB, in its capacity as Regional Office of WHO for the Americas, was entrusted with organizing and directing it. The preliminary work along these lines had already been started in May 1968, with the appointment of some staff members and the initiation of research activities. The training activities were continued through the international courses in Santiago, Chile, which up until 1970 followed their traditional format, including the participation of ILPES.

B. The Planning Policies of PAHO

The planning policies of PAHO are based on the ideas and circumstances which gave rise to its health planning activities and on the experience gained in their implementation.

Planning became widely used in the Region during the latter part of the fifties, with the conviction that it was a useful instrument for promoting the economic and social development of the countries, which is understood to be an overall phenomenon and one which can and must be guided by definite policies and strategies that will lead to the attainment of the desired ends. The Charter of Punta del Este reflects the decision of the countries to incorporate the social sectors into the planning process, since it is agreed, in the specific case of health, that public health programs are essential and complementary to economic programs.

Prevailing health conditions were reflected in high mortality and morbidity rates, a large percentage due to communicable diseases which could be reduced or eradicated with available techniques and which, to a large extent, affected the lower age groups, particularly the infant population. Also prevalent were high birth rates; an urban population concentration, particularly of youth; poor conditions of environmental health; malnutrition; and relatively scarce health resources, which were inadequately distributed and poorly administered.

The solution for these problemas should be sought in a theory that will explain their origin in ecological terms and view health as a global phenomenon. From this standpoint, planning should go beyond the application of methods for preparing documents and plans and periodic checks of activities performed, to become a continuous, indivisible, and permanent process, of which the preparation, implementation, and evaluation of plans are only a part. It should be a process whereby decisions in the sector will be more rational, serving as a vehicle for, and being a consequence of, a health policy that views health in its overall context and is, furthermore, consistent with the overall development policy.

Thus, PAHO's planning policy is based on this Latin American approach to the subject, wherein the overall objective is to assist countries with the initiation, promotion, and improvement of their health planning processes, which are viewed from the aforementioned standpoint. The instrumental expression of this policy was centered on the training activities and advisory services to the countries, which were governed mainly by the PAHO/CENDES methodology. The experience gained through this work shows some achievements, but it is also recognized that some difficulties have not yet been overcome. These stem mainly from the lack of scientific knowledge regarding health problems as they are viewed under the PAHO/CENDES methodology, and from the difficulties involved in its implementation, which are due to its intrinsic limitations. In other words, the PAHO/CENDES methodology, as a single operative instrument, was not capable of adequately giving shape to planning processes that would reflect in concrete terms the concepts expressed. It was therefore becoming evident that it was essential to improve the instrumental policies that were being carried out. It was precisely for this reason that the Pan American Program for Health Planning was established. While maintaining the validity of the substantive policies adopted by PAHO, this Program aims to change the number and content of the instrumental policies, in the light of past experience.

C. Organization of the Pan American Program for Health Planning

In accordance with the Plan of Operations, which is designed to implement the basic health planning policies of PAHO, the Program has four instrumental policies which, although interrelated, are clearly distinguishable: advisory services, training, research, and information.

Under the organizational scheme of the Program, the advisory activities in the field of health planning for the countries are carried out through the regular channels of PAHO in order to provide these services regardless of the type, that is, they are the responsibility of the regional, zone, and country units. The other three, that is, research, information, and training, are the responsibility of an ad hoc center, the Pan American Center for Health Planning, the structure and operation of which follows the general guidelines for multinational centers approved by the XVIII Pan American Sanitary Conference. The Center's headquarters are located in the United Nations building in Santiago, Chile.

II. PAN AMERICAN CENTER FOR HEALTH PLANNING

A. Purposes and Objectives of the Center

The purpose of the Center is determined by the instrumental policies chosen by PAHO for the achievements of the agreed objectives. It may be defined as follows: to contribute towards the establishment and strengthening of health planning processes in the countries of the Region, through the creation and dissemination of knowledge and the consequent training of personnel.

It is felt that, in order to fulfill this purpose, the following objectives must be achieved:

1. The promotion and development of training for professional health planning personnel, by means of international courses, national basic courses of a subregional character, advanced seminars, refresher seminars, seminars on specific topics of particular importance, special regional short courses, and in-service training.

2. Definition and development of a metric research model for the analysis of the processes as a whole, and their practical application; likewise, the study of specific components or variables of that model, through the definition of submodels and research on same, in several countries, as well as special research of other types.

3. The establishment of a regional information service to make available up-to-date knowldege on the status of the planning processes in the countries of the Region, and on similar experiences outside the Region.

4. Collaboration with other organizations and institutions and with the other units of PAHO/WHO.

5. Evaluation of the Center's program, and definition and preliminary study of subjects, areas, or fields not included in the research program that are considered worthy of study and/or definition.

B. Responsibilites of the Center

In line with the objectives set by the Director of PASB in September 1970, the Center has the following responsibilities:

1. Training

   (a) To promote the development in certain countries of the so-called basic courses, which should be subregional in nature so as to meet the needs of the entire Region; to provide advisory services in the preparation and programming of the content of the

courses, and assist in their organization, administration and teaching, as well as in the provision of teaching materials.

(b) To offer refresher courses (for officials who have already attended the "basic" courses) and special courses on fields or subjects considered important to the planning process. These courses must be decentralized outside Center headquarters whenever countries offer equivalent advantages.

(c) To organize types of training other than the traditional formal courses, such as seminars and in-service training.

2. Research

(a) To conduct research on the Linc model and all those which feed it and which because of their complexity cannot be carried out in the countries.

(b) To try to decentralize research operations, by promoting and supporting, in the countries, research studies which will contribute to the development and/or improvement of planning techniques in order to complete and improve health planning methodology. The Center will, in such cases, be responsible for recommending the areas or variables that should be studied, as well as for suggesting which countries might conduct the research. It will also provide periodic advisory services up to the final phase of each research study.

3. Information

(a) To try to obtain information on health planning and the development of the respective processes, both in the countries of the American continents and in other regions.

(b) To analyze, in the light of PAHO/WHO policy, the information it gathers.

(c) To disseminate information aimed at promoting and guiding the planning processes, to motivate officials at the political and administrative decision-making levels, and to inform and encourage those who are working directly in health planning, in the latter case emphasizing field experiences.

4. Advisory Services to the Countries

(a) The provision of advisory services to the countries with regard to health planning processes is the responsibility of AMRO-3700 and the planning consultants for the zones. Nevertheless, the staff of the Center may participate in direct advisory services through the regular advisory channels of PAHO.

(b) To participate in the training of national officials and PAHO consultants with regard to the technical materials involved in the work done by PAHO/WHO in collaboration with international agencies such as IDB, IBRD, CIAP, and others.

5. Internal Development Activities

(a) To collaborate in the internal programming process within PAHO, with a view to studying and seeking solutions to technical and methodological problems relating to this process.

(b) To develop an internal working program on subjects, areas, or fields that are considered worthy of study and or dissemination, with a view to promoting their further development in the countries once they have been defined and oriented.

C. Structure and Administration

The Pan American Center for Health Planning has been organized according to guidelines considered in the Plan of Operations of the Pan American Program for Health Planning. This document states that the Executing Agency (PAHO/WHO) will plan and direct the operations (of the project) through the principal technical advisor. This advisor will be assigned to the project by the Executing Agency, in consultation with the participating governments. It is further stated that the activities of the project will be organized through a training division and a research division, although the activities to be carried out will also include advisory services to governments, and information. With regard to the latter, the Plan of Operations states that the project will constitute a center for the collection and dissemination of information concerning progress achieved in the planning processes.

Consequently, the organizational structure of the Center includes a director, secretariat, Training Division, Research Division, and Information Service (see Tables 2 and 3). The latter three units have been set up for purely formal reasons in order to give certain human resources a greater responsibility in the implementation of the program of activities in each unit; in practice, the aim is for the entire staff of the Center to work as a team, participating effectively, as far as possible, in all activities.

The Plan of Operations envisages eight professional positions, which have been distributed functionally as follows; one director, three training officers, two research officers, and two information officers. Secretarial services have been contracted from the Administration of the Latin American Institute for Economic and Social Planning and include an administrative secretary, two secretaries, and one chauffeur-messenger who is also in charge of printing, in addition to the facilities for the maintenance of vehicles and equipment, for purchasing, and for printing and reproduction. Since January 1971, the Government of Chile has provided the services of an information officer who is in charge of the control and management of library documentation; it has offered the services of two assistants whenever they should be needed.

The Government of Chile has given PAHO a subsidy of E°361,000 for a temporary structure in a vacant space in the United Nations building. Construction, which was carried out though the Administration of ECLA, has been completed. PAHO has also made an extraordinary contribution by providing furniture for the Center, to replace the old furniture which belonged to ECLA and ILPES and was in poor condition.

D. Financing and Budget

The Pan American Program for Health Planning is financed with contributions from the United Nations Development Program, from the Pan American Health Organization/World Health Organization on behalf of Member Governments, and with contributions in kind from sponsoring countries.

TABLE 2

PAN AMERICAN CENTER FOR HEALTH PLANNING

SYNTHESIS OF ORGANIZATIONAL STRUCTURE AND RELATIONSHIP WITH THE CENTRAL OFFICE OF PAHO

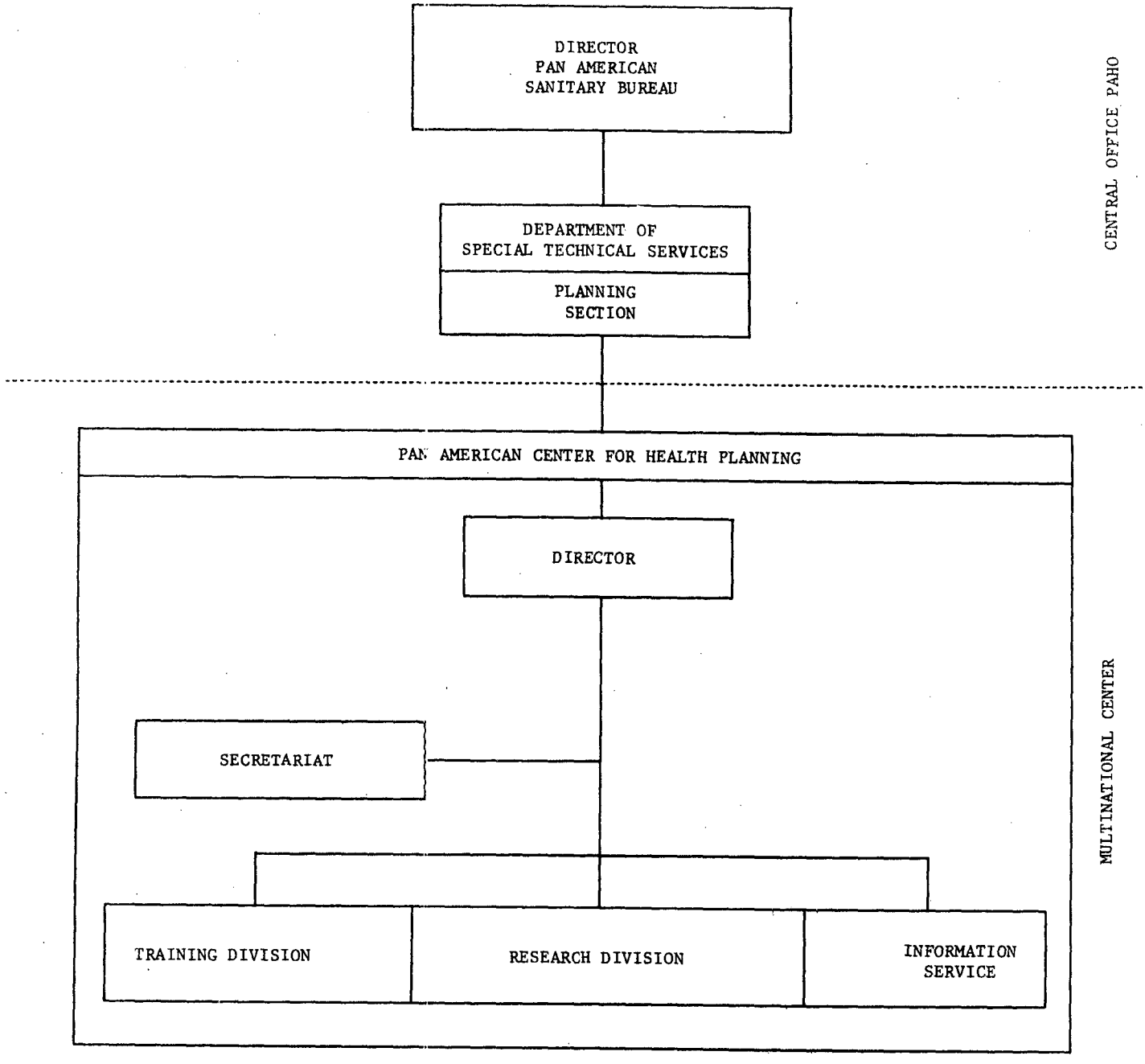


TABLE 3

PAN AMERICAN CENTER FOR HEALTH PLANNING

OPERATIONAL AND STAFF ORGANIZATION

DIRECTOR

P5: 4.3178

1. Program the activities of the Center and be responsible for their implementation.
2. Coordinate the work of the units of the Center.
3. Be responsible for the equipment, material, transport, and local expenditures.
4. Act as liaison between the Center and the Latin American Institute for Economic and Social Planning.
5. Participate actively in periodical evaluations of the Program.

SECRETARIAT*

3 secretaries
1 chauffeur-messenger

1. Administer the management of correspondence.
2. Take dictation, prepare drafts, and type documents and correspondence.
3. Keep the files up to date.
4. Perform secretarial duties during courses and seminars given at Program headquarters.
5. Implement provisions regarding the maintenance and care of office facilities, furniture, equipment, supplies, and vehicles.

*Secretarial and maintenance services contracted from ILPES.

**Assigned by the Government of Chile (since January 1971).

***To be assigned by the Government of Chile.

TRAINING DIVISION	RESEARCH DIVISION	INFORMATION SERVICE
P5: 4.3219 P4: 4.3358 P4: 4.3359	P5: 4.3300 P4: 4.3351	P5: 4.3220 P4: 4.3357 1 Officer** 2 Assistants***
1. Participate in the programming of training activities and be responsible for their implementation.	1. Participate in the programming of research activities and be responsible for their implementation.	1. Participate in the programming of information activities and be responsible for their implementation.
2. Propose the names of persons to act as directors, codirectors, or coordinators of courses, seminars, or short courses, in representation of the Center.	2. Propose the names of persons to act as principal research technicians in charge of research projects, in representation of the Center.	2. Propose the names of persons to act as correspondents in the countries, and provide one of the bases for the information service.
3. Report on the progress of training activities.	3. Report on the progress of research activities.	3. Report on the progress of information activities.
4. Coordinate training activities with research and information activities, participating in them whenever necessary.	4. Coordinate research activities with training and information activities, participating in them whenever necessary.	4. Coordinate information activities with training and research activities, participating in them whenever necessary.

TABLE 4

PAN AMERICAN PROGRAM FOR HEALTH PLANNING

PARTICIPATION AND CONTRIBUTIONS

SPECIAL FUND OF THE UNITED NATIONS DEVELOPMENT PROGRAM		GOVERNMENTS		PAHO/WHO ON BEHALF OF GOVERNMENTS		TOTALS	
A) FINANCING:		A) FINANCING:		A) FINANCING:		A) FINANCING:	
1. Special Fund contribution (Includes $226,800 from PAHO/WHO on behalf of Governments, for local operating expenses)	$1,982,400	1. Counterpart contributions in kind, estimated at	$1,119,000	1. Costs in experts and fellowships	$906,700		$4,008,100
B) PLANS FOR USE:		B) PLANS FOR USE:		B) PLANS FOR USE:		B) PLANS FOR USE:	
1. Experts: 720 man-months	$1,512,000						
2. Secretarial services and other personnel	$ 65,800	1. National Personnel	$ 581,880	1. Experts: 189 man-months	$378,000	1. Human resources	$2,537,680
3. Equipment and supplies	$ 180,100	2. Miscellaneous	$ 78,330			2. Equipment, supplies and miscellaneous	$ 258,430
		3. National fellowships	$ 458,790	2. International fellowships	$528,700	3. Fellowships	$ 987,490
4. Other local operating costs	$ 24,900					4. Other costs	$ 24,900
5. General costs of Executing Agency	$ 199,600					5. General costs of Executing Agency	$ 199,600

E. Activities Undertaken

1. Training

Although the PAHO/CENDES methodology made it possible to achieve significant progress in health planning activities - from both the conceptual and the practical standpoints - the experience acquired through its use and the increasing accuracy achieved in defining and establishing the characteristics of the components of the health planning process showed, as mentioned above, that this methodology was not in itself adequate for an integral study of the health sector at all levels and with respect to all components of the process.

The redefinition of instrumental policies that was carried out in 1970 with a view to implementing the Pan American Program for Health Planning was based on these facts, which naturally led to substantial changes in the area of training. In this regard, the working group of PAHO planning consultants which met that same year in Macuto (Caracas, Venezuela) recommended that the content of the courses include treatment of all the practical aspects with which planners had to deal and not only the theoretical and technical elements of the PAHO/CENDES method. This recommendation was based on the belief that the lack of dynamism or stagnation in the health planning processes in some countries had nothing to do with whether or not the PAHO/CENDES method was properly applied but rather was due, among other things, to the fact that planners were not familiar with other complementary techniques that could - and should - have been used.

In view of the above considerations, the training activities undertaken may be separated into two stages: the first from 1962 to 1970, and the second beginning in 1971.

During the first stage, the emphasis was placed on training in the preparation of plans and the establishment of the formal elements of the process, such as the organization of sectoral planning units, local emphasis of plans, and optimum use of available resources.

During the second stage, emphasis has been placed on the need to consider the planning processes in a more dynamic fashion; simultaneous consideration of local areas and the sectoral, regional, institutional, and establishment levels; the idea of structural change in harmony with the structural changes required for overall socioeconomic development; the importance of the political-administrative components of the process; training in the use of several other techniques (sectoral diagnosis and institutional analysis, investment programming, and regional programming), in addition to the useful aspects of the PAHO/CENDES method; the need to identify and explain causally the problems which hinder the attainment of the image-objective desired, as a prerequisite for proposing viable solutions; and the advisability of attaining flexibility in the application of

all the available techniques. Two other important features of the training program during this second stage have been, firstly, the diversification of the teaching provided in the various types of courses: basic, seminars, in-service training, and so on; and, secondly, the efforts made to decentralize them, i.e., to take them away from the Center in Santiago to countries that offer facilities comparable to those available in Santiago.

These differences may be analyzed by comparing the content of the international courses given from 1962 through 1970, and the content of those programmed under the name of "Basic Courses," beginning in 1971, which was used, although partially, in the first such course, held in San José, Costa Rica. The differences may be seen in Tables 5 and 6, which show the content of the IX International Course - the last one of this type - given in Santiago in 1970, and the content of the Basic Course to be held in Medellín and Lima in 1972.

(a) Basic Training in Health Planning

(i) International Courses

From 1962 to 1970, nine courses were taught at the headquarters in Santiago, Chile, with the cooperation, in addition to ILPES and ECLA, of the School of Public Health and the National Health Service of Chile, the Latin American Demographic Center (CELADE) and other institutions. Another one, in English, was organized in cooperation with the University of the West Indies and offered in Jamaica in 1970. There were, of course, some variations between these courses, based on the teaching experience gained. This was particularly the case with the 1968, 1969 and 1970 courses, which were held after the Pan American Center for Health Planning had begun its preliminary work. Such changes, however, were not of a fundamental nature. Some information on these courses is summarized in Tables 7 and 8.

(ii) Basic Courses

As mentioned above, in 1970 the orientation and content of the international courses, now called "Basic Courses," were substantially changed. In line with the recommendations of the Technical Advisory Committee of the Program, efforts have been made to decentralize these courses by taking them to countries with sufficient resources to ensure the fulfillment of the requirements established for their organization. They are now subregional in nature and are given under the primary responsibility of the schools of public health and the ministries of health of the countries where they are taught.

The first such course took place in San José, Costa Rica. It lasted 16 weeks (from 30 August to 17 December 1971), with a net total of 450 hours of work, and the participation of 14 students from Central America and

TABLE 5

CONTENT OF THE NINTH INTERNATIONAL COURSE IN HEALTH PLANNING, 1970

	Units and Subjects	Hours
	Unit I. Health and Development	**129**
1.	Analysis of the relationship between health and development. . .	36
2.	Basic concepts regarding economics and economic systems.	26
3.	Social problems in the Latin American development process. . . .	7
4.	Population problems in the Latin American development process. .	3
5.	General analysis of the political context of development	3
6.	Economic development in Latin America.	12
7.	Economic planning.	12
8.	Sociological aspects of the organizational institutional framework.	6
9.	General aspects of administration for planned development. . . .	6
10.	Regional problems of development	3
11.	Financing of the health sector	6
12.	Agricultural development and food policies	6
13.	The housing problem.	3
	Unit II. Methodology for Health Planning	**291**
1.	General aspects.	6
2.	PAHO/CENDES methodology.	195
3.	Sectoral analysis techniques	6
4.	Information systems.	6
5.	Program budget	27
6.	Operational research techniques.	3
7.	Preparation for the implementation of the approved plan.	9
8.	Investment projects	15
9.	Evaluation of plans.	6
10.	Field practice	18
	Unit III. Strategy for the Promotion of the Health Planning Process in Latin America	**24**
1.	Organization, training, and research for planning.	9
2.	The health planning process in the countries	6
3.	Presentation of plans.	9

TABLE 6

CONTENT OF THE BASIC COURSES IN HEALTH PLANNING, 1972

		Classroom Hours
	Unit I. The Health Situation and its Frame of Reference	105
1.	General Introduction to the Course.	3
2.	Health in the Region.	21
	2.1 The health situation in the countries of the Region. . . .	9
	2.2 The ecological theory of health.	3
	2.3 Introduction to the systems theory; the health system. . .	6
	2.4 The concept of process; the planning process	3
3.	The Context	48
	3.1 Population and demographic problems.	3
	3.2 The economic structure	24
	3.2.1 The operation of the economy; economic systems . . .	12
	3.2.2 Characteristics of development and underdevelopment	3
	3.2.3 Problems of an underdeveloped economy in the region.	3
	3.2.4 Mechanisms for the assignment of resources	6
	3.3 The social structure	21
	3.3.1 Sociological aspects	15
	3.3.2 Introduction to political analysis	6
4.	Development and Health.	15
	4.1 General concepts	3
	4.2 Relationship between health and development.	12
5.	Planning.	18
	5.1 Approaches to planning and general concepts.	3
	5.2 Economic planning.	3
	5.3 Planning for the public sector	3
	5.4 Health planning.	9
	5.4.1 Critical analysis of the historical experience of Latin America.	
	5.4.2 Doctrinal aspects.	

TABLE 6 (cont.)

			Classroom Hours
Unit II.	Problems and Methods of Planning in the Health Sector		306
1.	Diagnosis of the Health Situation		141
1.1	General introduction		3
1.2	The status of health		27
	1.2.1 General concepts on measurement in health	3	
	1.2.2 Analysis of the level and structure of health	15	
	1.2.3 Analysis of the needs of the population in terms of services	6	
	1.2.4 Special methods for specific problems	3	
1.3	Conditioning factors outside the sector		9
	1.3.1 The population		
	1.3.2 The natural environment		
	1.3.3 Economic activity		
	1.3.4 Other aspects		
1.4	Intrasectoral conditioning factors		90
	1.4.1 Analysis of supply	75	
	(a) General introduction	3	
	(b) Analysis at the sectoral and institutional levels	33	
	(c) Analysis at the establishment level	33	
	(d) Analysis at the regional level	6	
	1.4.2 Information systems in the sector	6	
	1.4.3 Decision systems	3	
	1.4.4 Investment opportunities	4½	
	1.4.5 Research	1½	
1.5	Human resources		3
1.6	Synthesis of the diagnosis		9
2.	The Preparation of Plans		165
2.1	General introduction		2
2.2	Formal definition of the health policy		19
	2.2.1 Establishment of objectives (image-objectives)		
	2.2.2 Policy requirements	4	
	2.2.3 Conditions and margins of financing		
	2.2.4 Formulation of strategies	6	
	2.2.5 Creation and/or strengthening of conditions and requirements for the process	9	

TABLE 6 (cont.)

			Classroom Hours
2.3	Programming		69
	2.3.1 Priorities and norms	12	
	2.3.2 Programming at the global level	6	
	2.3.3 Program preparation	24	
	2.3.4 Consolidation and adjustments	3	
	2.3.5 Derived plans	12	
	(a) Training of human resources	4	
	(b) Physical investments	6	
	(c) Research	2	
	2.3.6 Elements for intersectoral articulation	6	
	2.3.7 Regional plans	6	
2.4	Preparation for implementation		72
	2.4.1 Introduction	1	
	2.4.2 Preparation of projects	8	
	2.4.3 Budgets	27	
	2.4.4 Operational programming techniques; calendars	12	
	2.4.5 Control and evaluation systems	6	
	2.4.6 Organic adjustment	3	
	2.4.7 Adjustment of technical services and administrative systems	15	
2.5	Presentation of plans		3
	Unit III. The Health Planning Process		12
1.	Recapitulation of Conceptual Aspects		5
2.	Situation Analysis		
3.	Formulation of Strategies for the promotion of planning processes in the Region		7
	Unit IV. Case Studies		30
	(Exercise in applying the content of the course to concrete realities)		

TABLE 7

INTERNATIONAL HEALTH PLANNING COURSES, 1962-70

Course	Year	Duration			Students			PAHO/WHO fellowships	Organizer
		Dates	Weeks	Hours	No.	Countries of Origin	PAHO/WHO Consult.		
1.	1962	Oct. 8 - Dec. 21	11	324	20	19	-	19	PAHO/WHO-ILPES
2.	1963	Sept. 2 - Dec. 6	14	380	32	17	9	20	PAHO/WHO-ILPES
3.	1964	Sept. 7 - Dec. 11	14	380	34	15	8	22	PAHO/WHO-ILPES
4.	1965	Sept. 6 - Dec. 10	14	383	32	14	5	22	PAHO/WHO-ILPES
5.	1966	Sept.12 - Dec. 16	14	402	36	14	4	25	PAHO/WHO-ILPES
6.	1967	Sept.11 - Dec. 15	14	378	20	17	1	25	PAHO/WHO-ILPES
7.	1968	Aug. 5 - Nov. 22	16	450	25	12	1	24	PLANSALUD
8.	1969	Jul. 28 - Nov. 14	16	450	28	13	2	20	PLANSALUD
9.	1970	Jul. 27 - Nov. 13	16	435	30	14	-	24	PLANSALUD
Jamaica	1970	Sept.28 - Dec. 3	10	222	12	8	-	7	PLANSALUD-Univ. of the West Indies

TABLE 8

COUNTRY OF ORIGIN AND PROFESSION OF PARTICIPANTS IN THE INTERNATIONAL HEALTH PLANNING COURSES, 1962-70

Country	1962	1963	1964	1965	1966	1967	1968	1969	1970	1970*	1962-1970
Argentina. . . .	1	3	3	3	3	1	-	-	-	-	14
Bolivia.	1	1	2	2	2	2	2	2	1	-	15
Brazil	1	2	3	2	5	2	-	1	1	-	17
Chile.	1	3	5	5	7	4	3	6	4	-	38
Colombia	1	2	2	3	4	2	3	2	4	-	23
Costa Rica . . .	1	-	-	1	-	1	1	-	3	-	7
Cuba	1	-	-	2	-	-	-	-	2	-	5
Dominican Rep. .	1	-	1	-	2	-	-	-	-	-	4
Ecuador.	1	-	2	-	2	1	3	-	3	-	12
El Salvador. . .	1	2	2	-	1	2	2	2	2	-	14
Guatemala. . . .	1	1	-	-	-	-	1	1	-	-	4
Haiti.	-	-	-	-	-	1	-	-	-	-	1
Honduras	1	1	1	1	1	1	-	-	2	-	8
Mexico	1	3	2	1	-	1	1	1	2	-	12
Nicaragua. . . .	1	1	-	1	-	1	-	-	1	-	5
Panama	1	1	1	-	-	3	1	4	2	-	13
Paraguay	1	3	2	2	2	1	1	2	2	-	16
Peru	2	4	3	4	1	2	3	-	1	-	20
Uruguay.	1	1	-	1	2	2	2	2	-	-	11
Venezuela. . . .	1	2	4	3	3	3	2	2	-	-	20
Barbados	-	-	-	-	-	-	-	-	-	1	1
British Honduras	-	1	-	-	-	-	-	-	-	-	1
Dominica	-	-	-	-	-	-	-	-	-	1	1
Grenada.	-	-	-	-	-	-	-	-	-	1	1
Jamaica.	-	-	-	-	-	-	-	-	-	5	5
St. Kitts. . . .	-	-	-	-	-	-	-	-	-	1	1
St. Vincent. . .	-	-	-	-	-	-	-	-	-	1	1
Trinidad & Tobago	-	-	-	-	-	-	-	1	-	1	2
Others.	-	1	1	1	1	-	-	2	-	1	7
Basic Profession											
Physicians . . .	20	31	30	27	32	25	20	19	18	6	228
Dentists	-	-	1	2	1	-	1	1	2	-	8
Engineers. . . .	-	-	1	1	2	-	-	2	1	-	7
Nurses	-	-	1	1	1	3	-	-	-	1	7
Economists . . .	-	-	1	1	-	-	1	2	2	-	7
Administrators .	-	-	-	-	-	-	-	-	1	4	5
Statisticians. .	-	1	-	-	-	2	-	-	-	1	4
Architects . . .	-	-	-	-	-	-	2	-	2	-	4
Lawyers.	-	-	-	-	-	-	1	1	1	-	3
Other professions	-	-	-	-	-	-	-	3	3	-	6
Total	20	32	34	32	36	30	25	28	30	12	279

*Course taught in Jamaica, in English, for countries of the Caribbean area

Panama, and five from Mexico. In addition to the Ministry of Public Health, ILPES, CELADE, the Institute of Nutrition of Central America and Panama (INCAP), the Costa Rican Institute of Public Administration (ICAP), PAHO consultants from Zone III also collaborated in the course. This course has made it possible to evaluate the changes, both philosophical and pedagogical, to be made in the new courses, and to look forward with optimism to the forthcoming courses to be offered in 1972 in Medellín, Colombia, from 3 April to 21 July, for the benefit of Colombia, Mexico, Central America, and Panama; in Lima, Peru, from 5 June to 22 September, for participants from Bolivia, Brazil, Ecuador, Peru, Venezuela; and in Buenos Aires, Argentina, from 21 August to 8 December, to meet the needs of Argentina, Brazil, Chile, Paraguay, and Uruguay. (More complete details regarding these courses may be found under (F.), "Programming of Activities for 1971-1975.")

b) Training in Special Subjects and Advanced Training

In order to diversify training by dealing in depth with those aspects or components of the planning process which are particularly important or had been previously neglected because of the lack of appropriate techniques for studying them, the Center organized a series of seminars on specific subjects, which will be repeated in the future (see "Program 1971-75").

The following seminars were conducted in 1971. More detailed information on them may be found in Tables 9 and 10; their structure and contents are outlined in Annex I.

(i) Seminar on Investment Programming in the Health Sector

Held in Lima, Peru, from 7 June to 2 July, in cooperation with the School of Public Health of the Ministry of Public Health, ILPES, the Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS), and Zone IV of PAHO.

(ii) Seminar on Sectoral Diagnosis and Institutional Analysis

Held at Center headquarters in Santiago, Chile, from 23 August to 16 September, in cooperation with the Ministry of Public Health of Chile and ILPES.

(iii) Seminar on Financing in the Health Sector

Held in Buenos Aires, Argentina, from 20 September to 15 October, in cooperation with the Undersecretariat of Public Health of the Nation, the School of Public Health of the University of Buenos Aires, the Latin American Medical Administration Center (CLAM), the Pan American Zoonoses Center (CEPANZO), ILPES, and Zone VI of PAHO.

In the future, the subject of this seminar will be dealt with as part of the seminar on Sectoral Diagnosis and Institutional Analysis, which will be appropriately expanded for this purpose.

TABLE 9

SEMINARS CONDUCTED BY THE PAN AMERICAN CENTER FOR HEALTH PLANNING DURING 1971

Seminar	Place	Dates	Hours	Participants		PAHO/WHO Fellowships
				No.	Countries	
Investment Programming	Lima	Jun. 5 - Jul. 2	112	17	6	10
Sectoral Diagnosis and Institutional Analysis	Santiago	Aug. 23 - Sept. 6	114	11	9	9
Financing in the Health Sector	Buenos Aires	Sept.20 - Oct. 15	116	15	7	6
Advanced Seminar on Policies and Strategies	Santiago	Nov. 15 - Dec. 10	111	13	9	11

TABLE 10

COUNTRY OF ORIGIN, BASIC PROFESSION, AND PRIOR TRAINING OF PARTICIPANTS IN THE SEMINARS CONDUCTED BY THE PAN AMERICAN CENTER FOR HEALTH PLANNING DURING 1971

	Investment Programming	Sectoral Diagnosis and Institutional Analysis	Financing in the Health Sector	Advanced Seminar	Total
COUNTRY:					
Argentina	2	2	7	2	13
Chile	2	2	2	2	8
Colombia	4	1	1	2	8
Costa Rica	-	1	-	-	1
Cuba	-	-	-	1	1
El Salvador	-	1	1	1	3
Guatemala	-	1	1	-	2
Mexico	-	1	1	2	4
Nicaragua	-	-	-	1	1
Panama	1	-	-	1	2
Peru	7	-	-	1	8
Uruguay	-	1	-	-	1
Venezuela	1	1	2	-	4
BASIC PROFESSION:					
Physicians	7	7	7	12	33
Economists	2	2	6	-	10
Engineers	5	-	-	-	5
Architects	2	1	-	-	3
Lawyers	1	1	1	-	3
Sociologists	-	-	1	-	1
Accountants	-	-	-	1	1
Total	17	11	15	13	56
PRIOR TRAINING:					
In public health	9	8	3	12	32
In planning	4	5	-	6	15

(iv) Advanced Seminar on Policies and Stategies in the Health Planning Process

Designed for experienced planning and high-level executive officials in the health sector, this seminar was held in Santiago, Chile, from 15 November to 10 December.

(c) Other Training Activities

As far as possible, the Center collaborates with other training institutions in the preparation of materials and, in some cases, in the teaching of classes, the preparation of talks, and lectures on health planning.

In particular, and in response to requests made by countries through PAHO/WHO, it may collaborate in the preparation of curricula, the provision and preparation of teaching materials, and technical advice concerning the teaching of national courses in health planning.

In the latter regard, in 1969 the Center, at the request of the Goverment of Bolivia, designed a national course and participated in the teaching, together with the Representative of PAHO/WHO in Bolivia and the Planning Consultant for Zone IV. At the request of Cuba, it cooperated with Cuban technicians in the preparation of a national course and will participate in the teaching as well. This course will be held during the third quarter of 1972.

2. Research

The purpose of the Research Division of the Center is to generate knowledge of practical application concerning the variables and problems involved in the health planning processes. For this purpose, shortly after the Center came into operation in May, 1968, the Division began focussing its attention on developing a parametric model, using numerical experimentation, that will cover the entire spectrum of such variables, both sectoral and extra-sectoral, the so-called Linc model. It has also designed various other research activities, most of them connected with the development of submodels which use numerical experimentation and, within the context of the Linc model, are intended to enrich the model and provide certain elements of immediate practical use in the planning processes. These include, for example, the submodels of investment, financing, human resources, policy analysis, chronic diseases, and communicable diseases. Lastly, the Division has also conducted research in certain areas not directly related to the numerical experimentation models referred to above.

In order to carry out this ambitious program, the Center is endeavoring to decentralize research and is promoting and supporting projects which may be executed in the countries, where such projects help in the formulation and improvement of planning methods or are connected with variables and aspects which can enhance and enrich the Linc model. In

such cases the Center is responsible for advising on the areas and aspects to be researched, for deciding in which countries such kinds of research may be conducted to greatest advantage, and for providing periodic advisory services to the projects so that tangible results may be achieved which can be applied without delay.

(a) The Linc Model

The design of this model was started in 1969 and completed in 1970. This, or course, refers to its theoretical formulation because its practical application depends on the availability of real information on the country for which it has to be constructed, on the operation of other subsidiary research projects, and on access to computers and programming personnel compatible with the characteristics of numerical experimentation procedures with the multiple variables they include and interrelationships and hypotheses to be tested.

(b) Smaller Version of the Linc Model

A smaller version was prepared for the purpose of demonstrating and experimenting with the operation of the Linc model. This version, for which information was received from one country, was then programmed for computerization in the Computer Department of the Central University of Venezuela, where several experiments were under way.

(c) Model for Argentina

Advisory services and collaboration were provided in the formulation of a preliminary version of a numerical experimentation model for Argentina. The so-called "global model," developed by the Health and Medical Education Survey sponsored by the Ministry of Public Health and the Association of Faculties of Medicine of that country, is a practical application of the Linc model to a specific national effort to analyze health problems as a whole and especially to study the consequences of the application of various alternative policies, thus providing criteria for greater rationality in decision-making.

(d) Financing Submodel

This is a specific application deriving from the Linc model. It was developed in the Province of Mendoza, Argentina at the request of the health authorities of that Province and as an immediate consequence of the construction of the above-mentioned global model. Its purpose is to analyze the feasibility of the financial aspects of the medical care systems. This project is at the stage of analyzing results; it was formulated, implemented, programmed, and computerized in collaboration with the Buenos Aires Health Computer Center.

(e) Investment Submodel

The design of this model, prepared in collaboration with the Projects Division of ILPES, has been completed. It includes a methodology for programming investments in the health sector, a classification of investment projects, and the preparation of manuals for preparing projects. The signature of an agreement with the Ministry of Health of Peru is being negotiated for joint research on the practical application of this submodel.

(f) Programming of the Methodological Model

This project, intended to delve deeper into the study of variables and application aspects of the PAHO/CENDES method, was completed early in 1972. The computerization program prepared by the Computer Department of the Central University of Venezuela had to be carried out by the Computer and Data Processing Agency of Santiago, Chile, owing to some difficulties arising in the University. The results are being analyzed.

(g) Evaluation of Planning Processes

A methodological pattern has been prepared for the evaluative study and analysis of planning processes. This pattern is the continuation of work started with the Government of Chile and the PLANSAN research group of the Department of Antioquia, Colombia, to which advisory services and collaboration will continue to be provided until the project is completed.

(h) Study of Typologies

This study is not directly related to the Linc model; its aim is to provide elements for the formulation of health policies better adapted to national realities and to offer better guidance in some fields of health research. On the basis of information from 20 countries of the Region, drawn from the four-year projections, health and development typologies have been prepared and are being revised in the light of the information obtained from the four-year projections of 1971.

(i) Study of Structural Relationships

This is a study of the relationships between different characteristics studied by the various health sciences, with particular emphasis on the health-related aspects. A preliminary design laying down the general and conceptual lines has been completed and compilation of relevant data has been started.

3. Information

From the time the Center started its work in 1968 up to 1971 no personnel were available for organizing and launching an information program at the Center. During this time the personnel of the Training and Research

Divisions produced a series of studies to be used for teaching purposes within the Center or at the request of various institutions. Similarly, bibliographical material and documents produced by other institutions were accumulated on health planning processes and used for the courses given.

At the end of 1970, concurrently with the programming of training activities for 1971-74, some tentative programming of the activities of the information services was undertaken, but these activities could not be initiated until July 1971 when a professional staff member was appointed to take charge of this service; he has since given priority to restructuring it. Early in 1972 agreement was reached on the present organization of the service. Its purposes and structure, the type of information to be compiled and disseminated, the users of this information, and the selection of the machinery to be used were all laid down.

At the same time, with the support of an information officer assigned to the Center by the Government of Chile, a start was made on compiling, filing and preparing for distribution studies of all kinds produced by the Center, which are listed in Annex IV. The information service also produced some special documents, such as "Socioeconomic and Health Planning in Latin America," in English, intended to disseminate information on the background and present situation of health planning in English-speaking countries, and "The Use of Demographic Data and Treatment of the Population in Health Planning."

The service also prepared and disseminated information documents concerning the Center's activities and drafted official documents of the Center. It has started to organize its documentation unit and is preparing for publication two manuals on methods developed by the Center. A growing demand for information is expected from interested individuals and institutions, and an expansion of activities is scheduled for 1972.

4. Collaboration with Other Institutions

To the extent that its resources permit, the Center collaborates with teaching institutions of the Region, giving lectures and courses on health planning or health aspects in the context of development planning, and providing advisory services and collaboration in the structuring of training activities in health planning.

At the request of ILPES, some classes (5 and 10 hours respectively) were given in the 1968 and 1970 courses on the planning of human resources, and 15 hours in the course on planning of the public sector in 1969. It also collaborated with ILPES in programming some activities of the advisory services provided by the Institute, making a particular contribution in some aspects of the preparation of guidebooks for the presentation of investment projects.

In 1970-71 the Center offered a series of lectures on the health planning process in Latin America during the health planning course of the School of Public Health and Administrative Medicine of Columbia University (New York). This activity was also carried out in the School of Hygiene and Public Health of the Johns Hopkins University (Baltimore) in 1971, and it is to be repeated in both universities in 1972. At the request of the School of Public Health of the University of Houston (Texas), a blueprint was drawn up of the content and development of the topic presented at Columbia and Johns Hopkins for use in their curricula.

The Center collaborated with the School of Public Health of Chile, giving classes and lectures on health planning in several of its regular and special courses.

The Center collaborated in various PAHO/WHO programs. In 1968, 96 hours of classes were given in a two-month course organized by the Western Pacific Regional Office (WPRO) of WHO in Manila, Philippines, for WHO regional consultants in various fields and for representatives in the countries of the Region.

In 1970, a 30-hour information seminar was held on the methodology of health planning for professionals of the WHO Central Office in Washington.

In 1971, the Center participated in developing the First Course on Animal Health Planning held in the Pan American Zoonoses Center (Ramos Mejía, Argentina), and 30 teaching hours were devoted to the principles of health planning and programming.

The Center collaborated in technical and methodological aspects with the Executive Secretariat of the Subregional Conferences for the Promotion of National Food and Nutrition Policies, a joint endeavor of several international bodies.

In 1968, the Center was visited by a group of health officers from countries of the South East Asia Regional Office (SEARO) and by another similar group of officials from countries of the African Regional Office (AFRO) of WHO. Each of these groups stayed at the Center for one week and were informed about the Center's activities and health planning trends in the Region of the Americas.

The Center is frequently visited by health officials both from the Region and from outside, who stay for varying periods during which they are informed about the Center's activities and the guidelines followed in health planning.

5. Internal Activities

The preparation of the courses and seminars has generated considerable activity among the members of the Center as regards compiling material,

documentary and bibliographical research, and systematization of the subjects to be taught. The preparation of each of these subjects by one of the Center's technicians, and its subsequent extensive discussion at meetings of the whole team, in addition to constituting a process of internal improvement, has also culminated in the drafting of documents which have been used in the courses; many of them may ultimately be published and disseminated as a contribution to the development and improvement of health planning.

The Center's team has established the procedure of holding internal meetings for discussing all the matters relevant to the programming and content of the training activities. So far most of the effort of all the personnel has been devoted to this discussion.

6. Other Activities

The Center has been invited to participate in various meetings, symposia, and seminars, at some of which it has been asked to present a topic and/or documents. The following is a list of the events in which the personnel of the Center has participated:

1968 Technical Discussions of the Western Pacific Regional Office, Manila, Philippines. One study presented.

Technical Discussions of the Directing Council of the South East Asia Regional Office, New Delhi, India.

1969 VI Meeting of Directors of Schools of Public Health of Latin America. Document prepared on human resources planning.

WHO Expert Committee on Training in National Health Planning.

1970 International Seminar on Global Methods and Models in the Health Sector. Buenos Aires, Argentina. Document presented.

1971 First Seminar on Health Planning of the Central American Isthmus, Panama. Symposium on the Analysis of Systems Applied to Health Services, at the X Meeting of the PAHO Advisory Committee on Medical Research, Washington, D.C.

Seminar on the Use of Demographic and Data Studies in Planning, Santiago, Chile. Document presented.

Seminar on Social Programming for the Overall Development and Training of Children and Youth. Santiago, Chile.

F. Programming of Activities for 1972-75

Immediately after the Plan of Operations of the Pan American Program for Health Planning was signed, during the last quarter of 1970, the first

program of activities, covering 1971-74, was drawn up. It was based on the Plan of Operations, the policy recommendations made at the Macuto meeting, and the responsibilities established for the Center by the Director of PASB.

At the end of 1971, following a special working meeting with zone consultants and staff of the PAHO Central Office, held from 24 January to 4 February 1972, the Center held an internal meeting from 7 to 11 February in order to evaluate the activities carried out in 1971 and adjust its program for the future, through 1975. At this meeting, PAHO planning policies were taken into account, as well as the recommendations made by the Technical Advisory Committee in February 1971, and the recommendations made at the meeting held in January and February. The outcome of this exercise is the new Program of Activities for 1972-75, which appears in the attached tables (the tables also include the activities undertaken in 1971).

The three calendar charts relating to the training, research, and information programs have been amended to reflect the changes made in the Basic Document (attached as Annex III).

G. Problems and Advantages

Although the Pan American Program for Health Planning began its activities in early 1968, immediately after it was approved by the Governing Council of UNDP, a complete program could not be drawn up until after the Program had been declared "operational" by UNDP (17 August 1970) and until the responsibilities of the Center had been explicitly defined (18 September 1970).

During this interval, the work of PLANSALUD was hindered by several factors: the delay in appointing the director or principal technical advisor, which was not done until 1 September 1970; the poor condition of the physical facilities, both accomodations and equipment; and the difficulties encountered in recruiting permanent staff and short-term consultants, due to the relative scarcity of professionals with the training and experience required by the job descriptions.

Because of these obstacles, it became necessary to concentrate all the available resources on the training program. The training goals were thus amply met, but this meant delaying the information and research activities, which are still not fully under way. In the case of research, it must be added that another unfavorable factor has been the lack of interest on the part of the countries in assuming their responsibilities under the "decentralized" policy.

During 1971, and what has transpired of 1972, the space problem has been solved (thanks to the generosity of the Government of the Republic of Chile), as has also the equipment problem (thanks to the additional financing

efforts of PAHO). However, the staffing problem - both as regards permanent and short-term staff - has been only partially solved because the persons who are qualified are already holding responsible positions in their countries and cannot easily leave.

Nevertheless, it is only fair to say that the obstacles are being overcome thanks to the goodwill of all the project officials, who have worked far beyond their specific duties and official working hours. Two other important advantages have been the cooperation of ECLA and ILPES, in regard to training, and the provision by ILPES of administrative support and general services.

H. Evaluation of Work Done and Prospects for the Future

In February 1972, the entire staff of the Center and the Head of the PAHO Planning Office met in order to carry out an internal evaluation of the Center's activities and to adjust the program for 1972-75, as outlined in Tables 11, 12 and 13.

This evaluation was carried out by making a double comparison of the work done by the Center with, on the one hand, the Plan of Operations of the Pan American Program for Health Planning, and, on the other hand, the program of activities for 1971-74, drawn-up during the last quarter of 1970. In the first case, the conclusion reached, on the basis of the evaluation procedure used for PAHO projects, was that the activities undertaken had considerably surpassed the goals set forth in the Plan of Operations for the Program, both in quantitative and in qualitative terms. However, this is not true of the comparison with the program of activities for 1971-74. This comparison was made by closely following the PAHO evaluation procedure, which uses the number of persons trained as an indicator for training programs. The difference is due to the fact that the attendance of a given number of persons at a course does not depend on the entity offering and promoting the course, but rather on the countries. This is particularly true when courses and seminars are designed for participants of a high professional level, who hold positions of responsibility and cannot easily be spared by their countries. Furthermore, the Center's program, although framed within the context of the Program's Plan of Operations, is much more demanding in terms of activities and goals than the original Program. In general, therefore, there has been satisfaction with the activities carried out by the Center, although it will continue striving to meet even more faithfully the ambitious goals it has set for itself.

1. Training

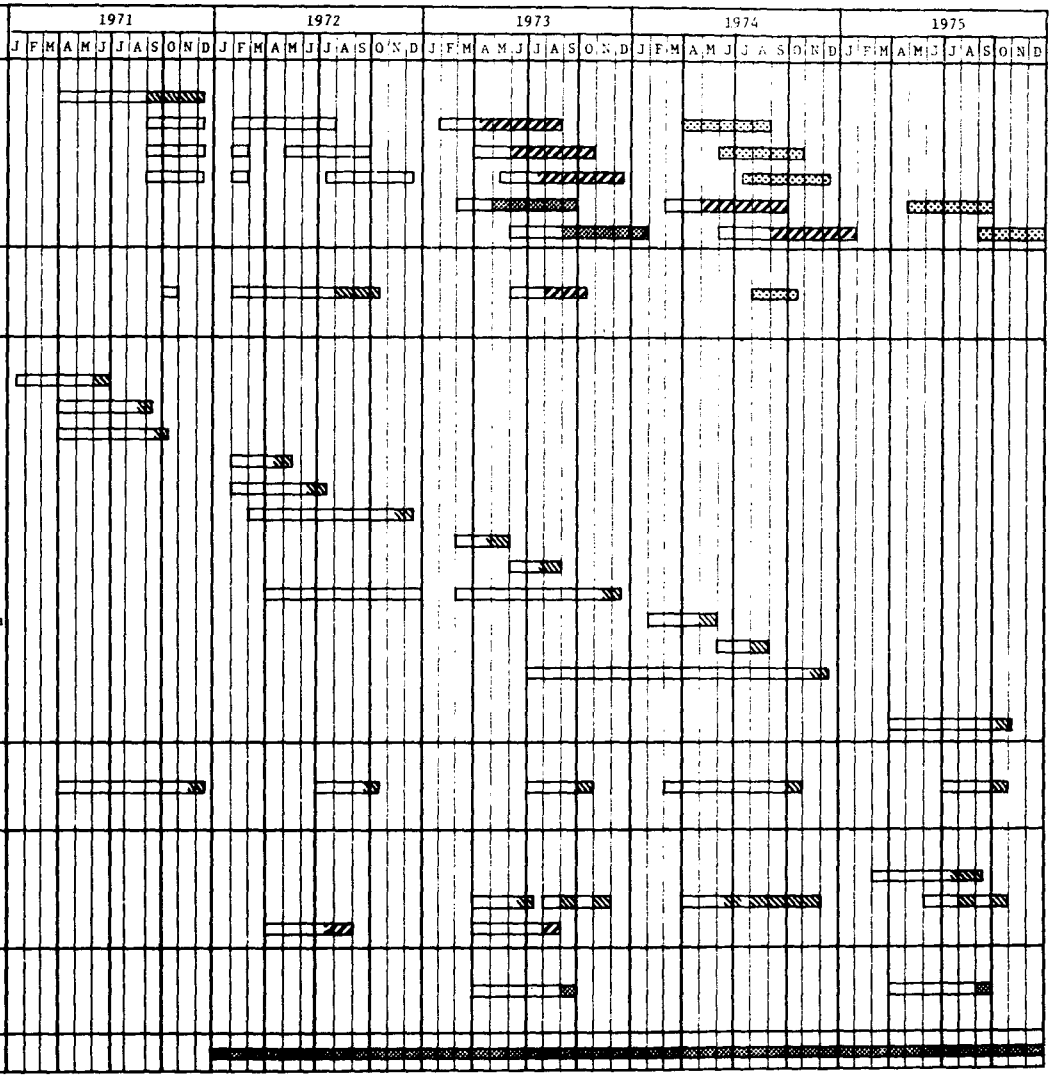
The Center has performed all the training activities planned, except those relating to in-service training which were scheduled to begin in 1972 with one trainee. However, for reasons extraneous to the Center, he has had to postpone his fellowship until 1973.

TABLE 11

PAN AMERICAN CENTER FOR HEALTH PLANNING

TRAINING PROGRAM 1971-1975

	Activity	Place or Institution
1.1.3.	*Basic subregional courses:*	
		San José
		Medellín
		Lima
		Buenos Aires
		Mexico, D.F.
		(Canada)
1.1.5.	Support for basic national courses:	
	1. Course in Cuba	Havana
	2. (Undecided)	
1.2.1.	Special seminars:	
	1. Investments	Lima
	2. Sectoral diagnosis	PLANSALUD
	3. Financing	Buenos Aires
	4. Sectoral diagnosis and financing	Caracas
	5. Investments	Mexico, D.F.
	6. Regional programming	PLANSALUD
	7. Sectoral diagnosis and financing	Río de Janeiro
	8. Investments	Caracas
	9. Information	PLANSALUD
	10. Regional programming	Salvador, Bahía
	11. Information	Buenos Aires
	12. Programming of human resources	PLANSALUD
	13. Programming of human resources	Lima
	14. (Undecided)	PLANSALUD
1.3.1.	*Advanced seminars:*	
	1. *Policies and strategies*	PLANSALUD
	2. *(Undecided)*	PLANSALUD
1.4.1.	Refresher courses:	
	1. Regional	PLANSALUD
	2. Subregional	(*)
	3. National	Recife
1.5.1.	Courses for special groups:	
	1. *Professors S.P.H. and F.M. (P.M.)*	PLANSALUD
	2. *(Undecided)*	PLANSALUD
1.6.1.	In-service training	PLANSALUD (**)



(*) Medellín, Lima, Buenos Aires, Mexico, D.F., (Canada)

(**) With working trips to various countries

Direct responsibility of the Center, with or without support from the countries.

Responsibility shared by the country and the Center.

Support by the Center to an activity which is under the direct responsibility of the countries.

Activity directly under the responsibility of the countries.

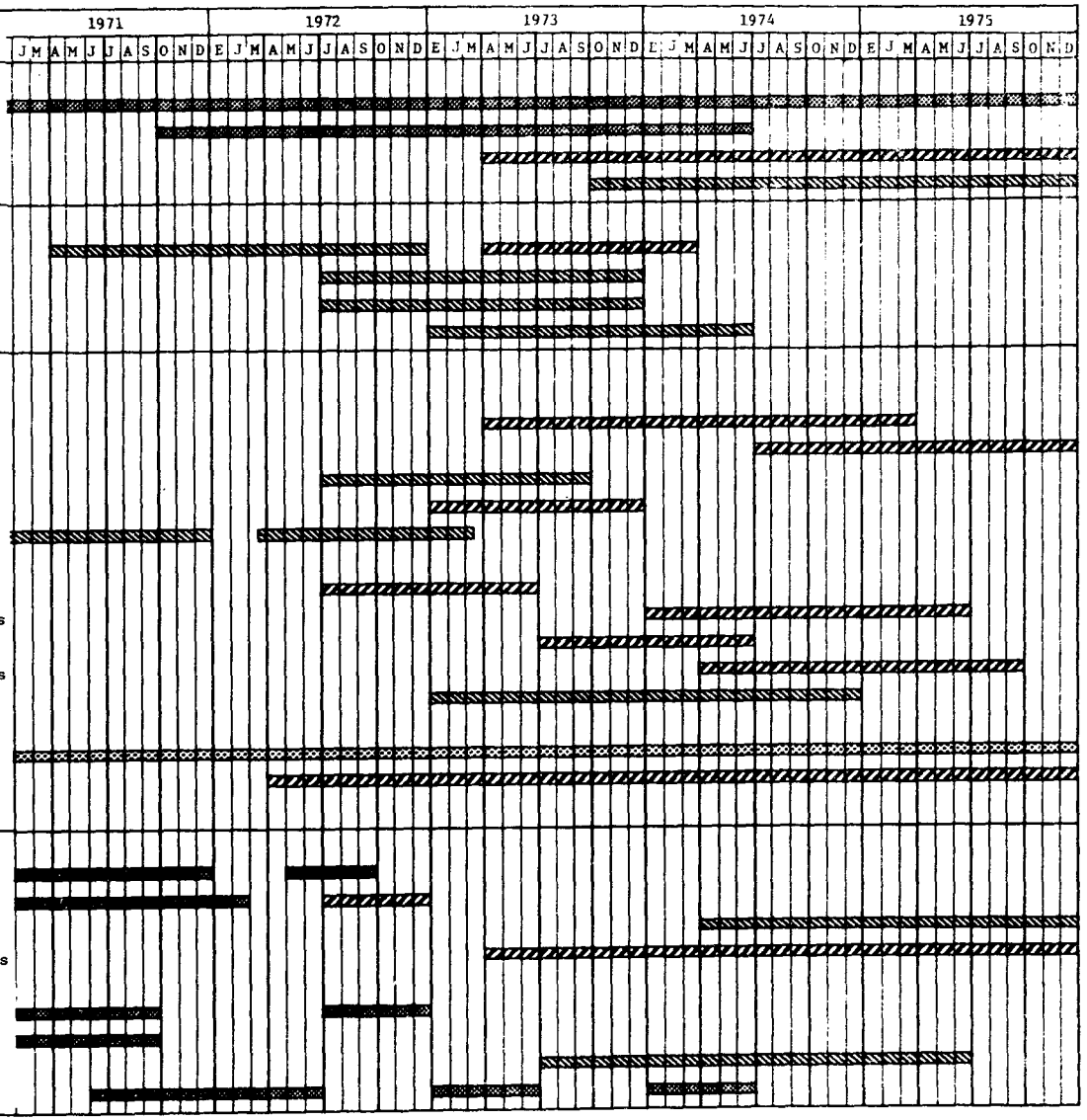
Preparatory work, responsibility of the Center, with or without support from the countries.

TABLE 12

PAN AMERICAN CENTER FOR HEALTH PLANNING

RESEARCH PROGRAM 1971-1975

Activity	Place or Institution
2.1. Numerical experimentation models	
2.1.1. Design and incorporations	PLANSALUD
2.1.2. 1. Intrasectoral analysis	PLANSALUD
2. Intersectoral analysis	ILPES-ECLA
3. Political analysis	ECLA
2.2. Application to concrete situations	
2.2.1. 1. Case of Argentina	Buenos Aires
2. Case of Chile	Santiago
3. Case of Colombia	Bogotá
4. Case of Venezuela	Caracas
2.3. Study of variables	
2.3.1. Submodels	
1. Communicable diseases	Central America
2. Non-communicable diseases	São Paulo
3. Political submodel	ECLA
4. Human resources	Buenos Aires
5. Investments	ILPES-Lima
2.3.2. Parameters and functions	
1. Average hospitalization	CLAM
2. Immunity	Various countries
3. Morbidity and mortality rates	VEN-COL-ARG
4. Effects of vaccination	Various countries
5. Effects of water and drainage	CEPIS
2.3.3. Information systems	
1. Four-year projections	PLANSALUD
2. Design and application of systems	COL-ARG
3. Systems analysis	AMRO-3700
2.4. Problems not related with Linc model	
2.4.1. Comput. Prog. PAHO/CENDES model	PLANSALUD-VEN
2.4.2. Process evaluation model	PLANSALUD-COL
2.4.3. Conditioning factors	PLANSALUD-OC
2.4.4. Technical-administrative norms	Various countries
2.4.5. Typologies and structural relations	
1. Health typology	PLANSALUD
2. Development typology	PLANSALUD-ILPES
3. Political typology	PLANSALUD-ILPES
4. Structural relations	PLANSALUD



Direct responsibility of the Center, with or without support from the countries.

Responsibility shared by the country or institute and the Center.

Support by the Center to an activity which is under the direct responsibility of the countries.

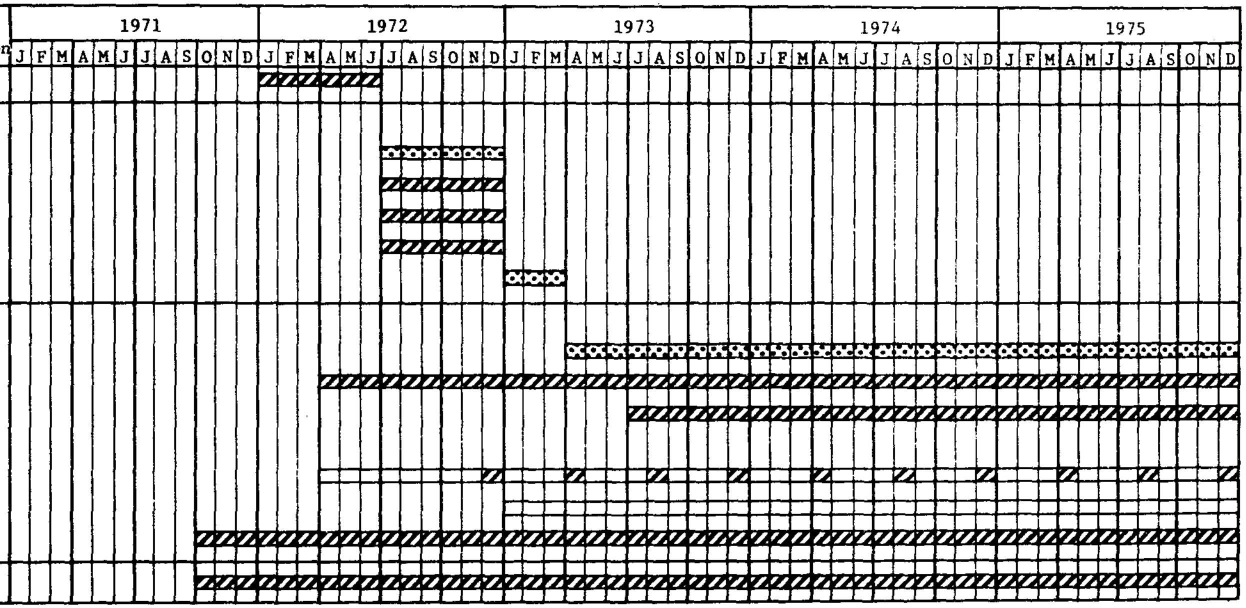
Follow-up of activities directly under the responsibility of the countries.

TABLE 13

PAN AMERICAN CENTER FOR HEALTH PLANNING

INFORMATION PROGRAM 1971-1975

Activity		Place or Institution
3.1.	Design and organization of the service	PLANSALUD
3.2.	Preparation for operations	
3.2.1.	Coord. with CLADES, CLAM, etc.	Countries
3.2.2.	Org. documentation unit	PLANSALUD
3.2.3.	Org. publications unit	PLANSALUD
3.2.4.	Org. documents analysis unit	PLANSALUD
3.2.5.	Selec. country correspondents	Countries
3.3.	Operations	PLANSALUD
3.3.1.	Gathering information on processes	
3.3.2.	Gathering information other regions	
3.3.3.	Analysis situation processes	
3.3.4.	Publications	
3.3.4.1	Four-monthly bulletin	
3.3.4.2	Technical publications	
3.3.4.3	Documents	
3.4	Information by request	



Direct responsibility of the Center, with or without support from the countries.

Responsibility shared by the country and the Center.

Preparatory work, responsibility of the Center, with or without support from the countries.

In 1971, 150% of the goals set for training activities were met. This means that in that year alone, 44% of the overall goals envisaged for 1970-74 in the Plan of Operations of the Program had been met.

The inclusion in the Program of special seminars and the increase in the number of annual basic courses - which will be decentralized - leads to the conclusion that the goals set for the Program will have been amply met in 1972. During 1972, the basic courses in Medellín, Lima and Buenos Aires will be under way; to these will be added, in 1973, the Mexican course and (possibly) the Canadian course for the English-speaking countries. There will then be five basic courses operating simultaneously and providing basic training in planning to some 100 to 150 health professionals every year.

With the courses planned for 1973 and 1974 for professors of preventive medicine, and the administrative training for planners provided by the Seminar on Sectoral Diagnosis and Institutional Analysis, all the activities proposed by the Program in the field of personnel training will have been met and surpassed.

At its first meeting, in February 1971, the Technical Advisory Committee discussed the Center's program of activities for 1971-74 and the bases on which it had been formulated. It also considered the general report submitted to it on the background and status of the planning processes in the countries, including the socioeconomic situation of these countries. It then made several recommendations on the future operation of the Center, which had a bearing on the redefiniton of the program of activities for 1972-75, carried out in February 1972.

Many of these recommendations - such as the one to continue with the policy of decentralization of the courses, and that to intensify training in planning for nonmedical professionals - represent an endorsement of the general policies being implemented by the Center. Others, such as the recommendation to extend the basic courses to a full academic year, can be implemented only partially and gradually (in 1973 the basic courses will have a duration of 20 weeks, with 570 hours net, as compared with 16 weeks, with 450 hours, in 1972). Although it is agreed that the basic courses should be lengthened, the duration of such an extension cannot be determined until a study is made to find out what will best meet the needs of the countries under existing circumstances, and until some experience is gained.

It must be noted that the Center's training activities have been both so intensive and so extensive that they have to a large extent absorbed the human resources that were to be used for research and information activities. It may be said, however, that in future the Center will be less and less involved with many of these training activities and that the research program and, in particular, the information service, will become increasingly important. The training provided directly by the Center might be limited to consideration of very specialized aspects which could not be carried out individually by the countries.

2. Research

The Center's research activities are concentrated on the development of the Linc model, which serves as an overall frame of reference from which other research projects can be designed. The Technical Advisory Committee has called this program of the Center an "ambitious" one, and it is just that. In the first place, the Linc model involves the treatment of a great multiplicity of variables, relations, and hypotheses, both inside and outside the health sector, through the use of metric research procedures which require information and computable elements which are not readily available. In the second place, all the applied research, both on the Linc model and on the submodels and other studies, must be carried out in the countries, not only because the Center lacks the necessary resources, but because it would not make sense to carry out purely theoretical experiments without applying them in practice.

The Research Division has done a highly commendable job. It has begun by conceptualizing the planning processes as they develop in Latin America, drawing attention to the real problems facing planners, proposing ways to study them and procedures for attacking them. Its work has therefore been very encouraging, as it points to long-term solutions without neglecting the conditions and circumstances that may influence immediate action.

Since it does not possess the necessary resources for this type of work, the Center must rely on the greater or lesser interest of the countries in such research and, naturally, on their willingness to allocate resources to it. It has been possible to awaken such an interest in Argentina, which has the best prospects because of the advanced state of information systems in that country and because it has been able to train technical groups to deal with these matters. Interest has also been evoked in Venezuela, Colombia, and Peru, which have or will be carrying out research projects on various submodels or on the planning process and its components. In spite of the above, the lack of real interest in research among the countries still places serious limitations on this work, particularly because it is so time-consuming and does not produce results which can be applied immediately.

Despite the aforementioned difficulties, the Center feels that the research program must be continued and will make every effort to strengthen it, since this is the only way to achieve any substantial and lasting improvement in the planning processes on the Continent. The Center will continue to carry out its research work within the framework of the Linc model, since this is what gives instrumental meaning to the concept of the development of health as an integral part of overall development. Metric research procedures will be used, as they give realism to the treatment of the complex and indefinite situation under which the health systems of the countries in the Region are developing.

Plans for the near future include continuation of the conceptual development of the Linc model in the Center and its possible application to the concrete realities of countries such as Argentina, Colombia, and Venezuela, which are working along these lines and will be needing advice and collaboration. The submodel on the political analysis of health will be developed at Center headquarters in cooperation with ECLA technicians. The submodels on financing and on human resources will be developed in Argentina and the one on health investment in Peru and possibly Argentina. The evaluation of planning processes will be carried out in Colombia, and an implementation model will be applied in Argentina. Research will continue at the Center on structural relations and health and development typologies of countries. Efforts will be make to interest certain countries in research aimed at formulating epidemiological models of communicable and chronic diseases, as well as immunity models.

3. Information

The Center has not yet done much work in connection with the proposed information program. This is due to the fact that it was not possible to obtain the services of a professional in this field until July 1971 and that the training program has made heavy demands on his time. Nevertheless, this may be considered an advantage, since a specialized information service such as this must be headed by someone well versed in all aspects of the field in which he must disseminate information.

Organization of the information service will only begin in 1972. It will be systematically developed after the middle of this year, performing increasingly important functions which will supplement and in some cases replace various training activities.

The aims of the information service of the Center are to keep technical personnel responsible for health planning up to date regarding all theoretical and practical developments in planning; to disseminate the principles and techniques used in planning; to provide information on the status of the health planning processes in the countries; and to disseminate knowledge on substantive and methodological, theoretical and practical matters, both in the field of health and in others which have a potential bearing on the development and improvement of the health planning processes.

To this end, the information service will establish a specialized documentation center, compile information on experiences, prepare manuals, select articles and topics of interest, publish a periodical bulletin, and distribute these publications throughout the Continent.

It must be noted that, in keeping with the recommendations of its Technical Advisory Committee, the Program will in the future place emphasis on information activities, as a natural corollary to the work undertaken to

date by the Center. It is understood that these information activities in the field of planning will be highly specialized with regard to the substantive subject matter rather than the instrumental questions of techniques for managing documentation and information, since the selection of the material to be disseminated and the preparation of manuals and documents on the subject will call for thorough familiarity with the subject and longstanding experience in health planning. For this reason, the Center is drawing up its future information program with the utmost care.

Annexes

PAN AMERICAN HEALTH ORGANIZATION

PAN AMERICAN CENTER FOR HEALTH PLANNING

BASIC DOCUMENT

(First Revision)

Santiago, Chile, March 1972

AMRO-3715, PAN AMERICAN CENTER FOR HEALTH PLANNING

Problem	Purpose	Activities	Indicators
Insufficient knowledge of problems to be faced in order to establish and strengthen health planning processes in the Region; shortage of trained personnel; and lack of an adequate information service to provide knowledge regarding the status of these processes and related needs.	To create and disseminate knowledge and train personnel, as a means of contributing to the establishment and strengthening of health planning processes in the countries of the Region.		
	Objectives		
	1. To promote and develop the training of professional personnel in health planning.		
	1.1 Basic training for health professionals who are or will be holding positions or performing functions related to the health planning processes in their countries.	1.1.1 To offer international courses on health planning at the headquarters of the Center.	Number of persons trained.
		1.1.2 To offer international courses on health planning in English.	Number of persons trained.
		1.1.3 To promote and participate in the preparation, development and conduct of subregional basic courses on health planning, in cooperation with the schools of public health.	Number of persons trained.
		1.1.4 To support, by means of fellowships, the development and consolidation of subregional basic courses on health planning.	Number of fellowships granted.
		1.1.5 To support, through advisory services and participation, the programming and development of national courses, when justified by the potential contribution to knowledge of new situations and methodological approaches.	Number of persons trained.
	1.2 Training of professional personnel.	1.2.1 To conduct special seminars on specific fields or subject matters, at Center headquarters and in countries offering advantages as regards the existence of schools of public health, physical and material facilities and teaching staff.	Number of participants trained.

Problem	Purpose and Objectives	Activities	Indicators
	1.3 Advanced training for professional health personnel with basic training in health planning and/or holding positions with direct responsibility or considerable involvement in decision-making and management of processes in their countries.	1.3.1 To conduct advanced seminars at Center headquarters.	Number of participants trained.
	1.4 To bring up to date professional personnel having previous training in health planning.	1.4.1 To conduct refresher seminars, at the regional, subregional and national levels, at Center headquarters and in countries offering advantages as regards physical and material facilities and teaching staff.	Number of participants trained.
	1.5 Training for special groups of professionals.	1.5.1 To conduct special courses or short courses, at the regional, subregional, or national levels, at Center headquarters and in countries offering advantages as regards physical and material facilities and teaching staff.	Number of participants trained.
	1.6 In-service training for professional personnel with previous training in health planning.	1.6.1 To carry out special in-service training tailored to each trainee's needs, through residency at Center headquarters under permanent supervision.	Number of professionals trained.
	2. Development of knowledge of practical application concerning significant components or variables in the health planning processes.		
	2.1 Preparation of a metric research model for analysis of the total processes.	2.1.1 To design a metric research model for analysis of the Linc model and the incorporation of the results of other research.	Percentage estimate of work accomplished as compared with work planned.
		2.1.2 To program for computers a reduced version of the Linc model for demonstration purposes.	Percentage estimate of work.
		2.1.3 To analyze the relationships between components or variables of the Linc model.	Percentage estimate of work accomplished as planned.

Problem	Purpose and Objectives	Activities	Indicators
	2.2 Application of metric research models to concrete realities.	2.2.1 To promote applied studies of the Linc model to concrete realities in the countries in the Region.	Percentage estimate of work accomplished as compared with plans for each study.
	2.3 Independent study of specific components or variables for information for metric research models.	2.3.1 To define submodels for the study of components or variables such as communicable diseases, non-communicable diseases, political health systems, and human resources and investments, and to carry out the corresponding research.	Percentage estimate of work accomplished as compared with plans for each study.
		2.3.2 To define certain parameters and functions for the Linc model and conduct research in this regard simultaneously in several countries.	Percentage estimate of work accomplished as compared with plans for each study.
		2.3.3 To carry out studies on information systems and their application in the health planning processes.	Percentage estimate of work accomplished as compared with plans for each study.
	2.4 Study of problems not directly related to the Linc model.	2.4.1 To conduct a study aimed at simplifying and programming for computers the PAHO/CENDES methodological model.	Percentage estimate of work accomplished as compared with plans.
		2.4.2 To develop a scheme for the evaluation of planning processes in the health sector.	Percentage estimate of work accomplished as compared with plans.
		2.4.3 To carry out research on factors conditioning levels of health.	Percentage estimate of work accomplished as compared with plans.
		2.4.4 To carry out studies aimed at establishing technical and administrative norms related to the production of health services.	Percentage estimate of work accomplished as compared with plans for each study.
		2.4.5 To carry out studies on typologies and structural relations, in relation with levels of health and development and political health systems.	Percentage estimate of work accomplished as compared with plans for each study.

Problem	Purpose and Objectives	Activities	Indicators
	3. Establishment of a regional information service that will make it possible to have up-to-date knowledge on the status of the planning processes in the countries, as well as on similar experiences in other regions.	3.1 To design and organize the regional information service.	Percentage estimate of work accomplished.
		3.2 To prepare for the operation of the service.	Completion or non-completion of work planned.
		3.3 Operation:	
		3.3.1 To systematically collect information relevant to the analysis of the status of the planning processes in the countries.	Completion or non-completion of work planned.
		3.3.2 To gather information regarding planning experiences in other regions.	Completion or non-completion of work planned.
		3.3.3 To carry out periodic situation analyses.	Completion or non-completion of work planned.
		3.3.4 To publish and distribute an information bulletin, information publications and abstracts.	Completion or non-completion of work planned.
		3.3.4.1 Four-monthly bulletin.	Completion or non-completion of work planned.
		3.3.4.2 Technical publications.	Completion or non-completion of work planned.
		3.3.4.3 Documents.	Completion or non-completion of work planned.
		3.4 To provide advisory services on request.	
	4. Collaboration with other institutions and organizations, as well as with the other units of PAHO/WHO.	4.1. To cooperate with other organizations in training personnel and in carrying out studies and research related to health planning.	Percentage estimate of work accomplished as compared with plans, for each case.

Problem	Purpose and Objectives	Activities	Indicators
		4.2 To promote and develop in universities and other organizations short courses and/or informative symposia on health planning.	Completion or non-completion of program.
		4.3 To collaborate in the internal programming and advisory services of PAHO to the health planning processes in the countries.	Percentage of work accomplished as compared with plans, for each case.
	5. Internal evaluation of the Center's program and preliminary study and definition of subjects, areas, or fields not included in the research program, whcih are considered worthy of study and/or dissemination.	5.1 To carry out preliminary studies on selected subjects, areas, or fields and other work capable of contributing to the performance of the activities planned.	Percentage estimate of work accomplished as compared with plans.
		5.2 To hold periodic internal meetings to evaluate the program with a view to adjusting it to the needs of the countries in the Region.	Completion or non-completion of program.

PAN AMERICAN HEALTH PLANNING CENTER

Training Program

TRAINING PROGRAM

The Pan American Health Planning Center undertakes the following activities in the field of training.

1. BASIC TRAINING IN HEALTH PLANNING

The Center promotes the organization, in a number of countries, of basic training courses in health planning. It always seeks to relate the content of such courses to the realistic needs of countries and the stage that they have reached in the planning process. With this in view, teaching programs present various methodological approaches and encourage the development by students of the capacity to apply these, adapt them, or design others with which they can successfully deal in situations confronted in practice.

The courses are intended primarily for health professionals specializing in public health and/or with at least three years' practical experience in the administration of health services.

As a result of agreements made between governments and PAHO, the courses are held in educational institutions of acknowledged stature in the health field in those countries in which they can be readily attended by participants from neighboring countries.

Designed to last approximately 16 weeks and with 450 net hours of instruction, course curricula are divided into four major units, employing both theoretical and practical approaches designed to make the fullest use of the initiative and creative abilities of participants.

The first unit analyzes the essential principles of an interpretative theory for health; emphasis is laid on the study of health in an economic and social context; some valuable tools for analyzing the relationship between health and its context are examined, leading to a discussion of planning as a practical instrument in the field of health, both per se and in the context of economic and social development.

The second unit studies the problems that confront health planning and deals with the methods and techniques that can be used to define these and find solutions. It covers their diagnosis and formulation, procedures for analyzing the levels and structure of health, sector resources, investments, information systems, decision-making systems, and external conditioning factors. It discusses aspects of the implementation of policies and formulation of plans, together with their preparation, execution, and form of presentation.

The third unit seeks to analyze the health planning process and includes consideration of methods of diagnosing the status of the planning process and its evaluation, together with guidelines for the preparation of strategies designed to promote and improve the planning process.

The fourth unit consolidates and complements the practical exercises of the first three units, culminating with the presentation and discussion of actual cases.

This pattern that the Center is imposing on its basis courses was partially introduced on an experimental basis in the course organized by PAHO at the request of the ministers of health of the countries of Central America and Panama, which was held at San José (Costa Rica) from 30 August to 17 December 1971 and was attended by 14 students from Central America and Panama, and five from Mexico.

Three courses have been programmed for 1972 and will be held at the schools of public health of Medellín, Lima and Buenos Aires. These will be supplemented in 1973 by a course in Mexico and one conducted in English in the Caribbean area, so that from 1973 onwards five basic courses will be conducted simultaneously in the Region.

2. TRAINING IN SPECIFIC ASPECTS OF THE PLANNING PROCESS

Certain components of the health planning process are so important and complex that they must be handled by specially trained personnel. The study of the present status of health planning processes in Latin America has enabled the Center to identify some of these components, and, accordingly, to program courses to train personnel to effectively deal with these aspects of the planning process.

The Center is directly responsible for organizing and running these courses, although it seeks to decentralize them by conducting them in various countries, in accordance with the wishes and resources of their governments and educational establishments.

Professionals are invited to attend these courses, preferably those with formal training in public health and/or planning who are performing or are likely to have to perform major functions in the health planning process of their countries, especially in those areas with which these courses are concerned.

The subjects that have so far been considered by the Center - others of course may be introduced in due course - are the following:

2.1 Investment Programming

It is frequently observed that there is no correlation between investments actually made and those projected in sectoral plans and that in many

instances such investments are not based on these plans. In view of the overriding importance that investments have when they are used as an instrument of change and of their significant bearing on the implementation of sector policy, their channeling through agencies other than the central planning agency represents a serious limitation of the effectiveness of the latter. With this in mind, the Center is organizing special four-week seminars to be held once a year, to enable officials of various countries to consider and discuss procedures for the formulation of investment programs and projects. The first of these seminars was held in Lima (Peru) between 7 June and 2 July 1971 and attended by 18 participants from seven countries.

2.2 Financing of the Health Sector

Although effective financing presupposes the availability of adequate funds, it frequently happens that in the preparation of health plans insufficient effort is made to devise efficient mechanisms for increasing and rationalizing the sector's financial capacity. It is in this very area of financing that it is essential to provide an extremely detailed breakdown of proposals for changes contained in health plans, the preparation of which must include an analysis of all their financing implications if their feasibility, coherence, and effectiveness are to be assured.

On the other hand, the problem of properly financing health services is extremely complex, calling for systematic study and the selection of techniques that can determine and identify the best solutions. Finally, the growing cost of health services is a further factor that emphasizes the importance of adequate financing.

In view of all these factors, the Center held its First Seminar on Financing of the Health Sector in Buenos Aires, Argentina, from 20 September to 15 October 1971, attended by 18 participants from seven countries.

No further seminars on this subject have been programmed, although it has been included in seminars on sector diagnosis and institutional analysis.

2.3 Sector Diagnosis and Institutional Analysis

In general, the health sector is not adequately defined in terms of the operational fields it should cover, or rather such definitions have been incomplete and unsatisfactory from the technical, legal, and political standpoints. Only in a few cases does a clear and explicit definition exist of those institutions that should be regarded as falling within the scope of the sector. In addition, the obsolescence and inflexibility of the administrative procedures of central governments has enhanced the trend towards the formation of new public institutions, converting the sector into a multi-institutional complex with excessive dispersal of activities

and duplication of effort, and overlap in the coverage of various population groups. As a consequence, differing and even contradictory policies frequently coexist, together with a diversity of administrative and technical systems and a superabundance of procedures.

The importance and complexity of these problems calls for their systematic study and the adoption of techniques that can provide a basis for the definition of the sector, its functional and institutional delimitation, and the rationalization of its administrative systems and procedures. With this in view, the Center provides an annual four-week seminar at which it seeks to train professionals from various countries in the use of such techniques. The First Seminar on Sector Diagnosis and Institutional Analysis was held at the Center's headquarters in Santiago (Chile) from 25 August to 16 September 1971, attended by 11 participants from nine countries.

2.4 Health in Regional Development Planning

Disparities in the level and rate of development in various regions of a country result in the existence of economically and socially backward and depressed geographical areas that may lead to serious distortions and create grave problems affecting national growth and development. This situation can be associated with a failure to fully utilize the potential of such areas, with high levels of social cost for their populations in relation to national averages. In addition, the special characteristics of each geo-economic region require, in many countries, a special approach that is either difficult or impossible to obtain in solely national terms. It is possible, moreover, that national development policy may call for a framework of planning that leads to a desconcentration of economic activity, through the strengthening of other areas or foci of development and the promotion of efforts to intensify economic activities in these.

To deal with these problems there is already in existence a rather well-developed body of knowledge and experience, providing the basis for the planning of the spatial distribution of economic activities, which has now assumed the character of a special field of global development planning. The social sectors, however, particularly the health sector, which must now participate in this aspect of planning, are confronted with a dearth of organized knowledge and procedures, hindering their efforts to participate in the integration of regional development planning.

In view of this situation and the special needs of many Latin American countries in this field, the Center has programmed various training activities, in the form of seminars designed (a) to provide a knowledge of the fundamentals and principal characteristics of regional development planning, and (b) to discuss those methods and procedures that can be adapted to the planning of health activities in the context of regional planning.

3. ADVANCED TRAINING FOR HIGH-LEVEL PLANNERS AND EXECUTIVES

Planning in the health sector presents a number of problems that cannot be effectively solved with existing methods and techniques. Irrespective of the technical quality with which plans are fomulated, planning is subject to a "frame of reference" whose characteristics determine, on the one hand, the nature of the plans that can be formulated and, on the other, their feasibility. It is most probable that the health administrator will be unable to modify this frame of reference, since it will be related to the socioeconomic context in which plans are formulated rather than to anything in the health sector itself. At the same time, it is nevertheless vital that he should be in a position to identify such a frame of reference, understand it and take it into consideration.

The cumulative experience of planning gained over the past ten years reveals some factors that have not been given the attention they deserve. In some cases they have a decisive bearing on the success or failure of planning, irrespective of its technical quality and administrative feasibility. An example of such factors is the way in which health policies originate and take shape; the machinery for the formulation of strategy for the implementation of such policies; the processes by which major sector decisions are made; and the respective roles of the decision-making politician, the planner, and the administrator.

In order to cover these subjects the Center conducts an annual Advanced Seminar on Policies and Strategies in the Health Planning Process at its headquarters in Santiago, Chile, to which are invited planners and executives having direct responsibility for or performing a major role in sectoral decision-making and the direction of the planning process in their own countries. The first of these seminars was held between 15 November and 10 December 1971 and attended by 13 participants from nine countries.

4. SPECIAL IN-SERVICE TRAINING PROGRAM

Professionals who desire further training, or who wish to engage in teaching or research in the planning field, are provided with an opportunity to extend their knowledge, under supervision and with regular tutorial services, through a period of residence at the Center's headquarters, in which they participate actively in its work and especially in those aspects of it that are related to the fields in which they wish to specialize. They are required to submit a monograph on completion of the training period. PAHO/WHO offers a limited number of fellowships for such periods of residence.

5. OTHER TRAINING ACTIVITIES

The Center, to the fullest extent of its resources, collaborates with other educational institutions in the preparation of teaching materials and,

in some instances, in the conduct of courses and the preparation of discussions and lectures on health planning.

In particular, in response to requests made by countries through PAHO/WHO, the Center can assist with the preparation of curricula and the provision and preparation of teaching materials, and technical advisory services for national courses on health planning.

TRAINING ACTIVITIES IN 1972

1. BASIC TRAINING IN PLANNING

Three basic courses on planning will be held at schools of public health in Argentina, Colombia, and Peru, which have assumed responsibility for the organization and conduct of these courses, in close association with the Center and following its general guidelines.

The maximum number of students accepted for each course is 30, the host country reserving 15 places for its own students. These must apply for enrollment in accordance with the rules established by each country for this purpose. The remaining 15 places have been made available to participants from other countries, who may apply to be enrolled with fellowships awarded by the Pan American Health Organization. Such applications should be made to the PAHO/WHO Representative, in accordance with the procedures set for each country.

1.1 First Basic Course on Health Planning, Medellín, Colombia, 3 April - 21 July 1972

Organized by the School of Public Health of the University of Antioquia with the support of the Ministry of Health of Colombia and of the Pan American Health Planning Center. In selecting participants for this course, preference will be given to applicants from Colombia, Mexico, Central America, and Panama.

1.2 First Basic Course on Health Planning, Lima, Peru, 5 June - 22 September 1972

Organized by the School of Public Health of the Ministry of Health of Peru with the support of the Pan American Health Planning Center. In selecting participants for this course, preference will be given to applicants from Bolivia, Brazil, Ecuador, Peru and Venezuela.

1.3 First Basic Course on Health Planning, Buenos Aires, Argentina, 7 August - 24 November 1972

Organized by the School of Public Health of the National University of Buenos Aires with the support of the Argentine Ministry of Health and the Pan American Health Planning Center. In selecting participants for this course, preference will be given to applicants from Argentina, Brazil, Chile, Paraguay, and Uruguay.

2. TRAINING IN SPECIAL ASPECTS OF THE HEALTH PLANNING PROCESS

The Center has included in its 1972 program three seminars to be held in Chile, Mexico, and Venezuela. Each course will accept up to 15 enrollments from countries of the Region, three places being assigned to the host country. Candidates will be invited to participate in these seminars by the Pan American Health Organization in agreement with national authorities.

2.1 Second Seminar on Sector Diagnosis, Institutional Analysis, and Financing of the Health Sector

This will be held in Caracas, Venezuela from 10 April to 12 May 1972 with the support of the Ministry of Health and Social Welfare of Venezuela.

2.2 Second Seminar on the Programming of Investments in the Health Sector

This will be held in Mexico City from 19 June to 14 July 1972 with the support of the School of Public Health of the Ministry of Health and Social Welfare of Mexico.

2.3 First Seminar on Health Planning in Regional Development Planning

This will be held at the Center's headquarters in Santiago (Chile) from 20 November to 15 December 1972 with the support of the Latin American Institute on Economic and Social Planning.

3. ADVANCED TRAINING FOR HIGH-LEVEL PLANNERS AND EXECUTIVES

This will take the form of the Second Advanced Seminar on Policies and Strategies in the Health Planning Process, which will be held at the Center's headquarters in Santiago (Chile) from 23 October to 17 November 1972. The Pan American Health Organization, in agreement with national authorities, will invite 10 high-level planners and executives to participate in this seminar.

4. SPECIAL PROGRAM OF IN-SERVICE TRAINING

This will commence in 1972 when a fellowship holder will take up residence at the Center.

5. OTHER TRAINING ACTIVITIES

Advisory services and assistance will be provided for the organization and conduct of national courses in Cuba, and possibly in Brazil.

THE RESEARCH PROGRAM OF THE PAN AMERICAN CENTER FOR HEALTH PLANNING

Background

The Pan American Health Organization has consistently sought to promote planning in activities in the health sector in the countries of the Continent. This concern became more marked in the latter half of the 1950's and, by the early 1960's, was being expressed in positive action and firm commitments on the part of the Organization. Indeed, the central theme of discussion at the sessions of the Directing Council in 1956 and 1957 was the planning and evaluation of health programs while, from that point onwards, there was greater emphasis on cooperation with countries in the context of integrated health service projects, in the improvement of statistical systems, and in the introduction of more suitable methodology in such fields as administration and evaluation.

In 1961, the Charter of Punta del Este established a program for health activities in the Continent, both long and short term, and PAHO was made specifically responsible for providing technical assistance to governments in the formulation of their national health plans. The difficulties which confronted PAHO in assuming such a responsibility may be summarized in terms of two problems which required almost immediate solution: a lack of experience with procedures for planning for the whole health sector as part of the overall planning activities, and an acute shortage of personnel with experience in health planning. These circumstances led PAHO to deploy its resources in a broad range of activities, with particular emphasis on three areas: the development of specific standards and procedures for application in the planning process; the training of personnel; and the encouragement of governments to establish health planning departments at the national level to work in harmony with the departments responsible for overall development planning.

The first of these areas was of crucial importance in that the type of training to be provided, and thus the type of activities to be eventually undertaken by the national planning offices in the health field, was dependent on the existence of standards and procedures for application in that field. PAHO examined various possibilities until, in the latter part of 1961, it decided to support an interesting methodological approach to health planning which was being worked out by the Center for Development Studies (CENDES) of the Central University of Venezuela. PAHO contracted with the latter for the preparation of a training manual, with the participation of PAHO staff especially seconded to the project. The first version of the manual was completed by mid-1962 and was immediately put to the test in an experimental course given in Venezuela. In the latter part of the same year it was used for the first international course - the forerunner of a series of such courses which were offered annually until 1970, inclusive - whereby training was provided to 279 professional staff belonging to the health services of the countries of the Region.

The concept underlying the PAHO/CENDES methodology developed in that manual[1] was that health is an integral ecological factor of the life of the community. This basic approach had been formulated from theoretically sound premises with considerable internal coherence. The availability of such a methodology was a significant and notable step forward by comparison with the programming techniques hitherto employed in the Region. Its rapid dissemination led to the evolution of a new body of knowledge, to the accumulation of experience in planning, and to criticism of the methodology itself in respect to its application. Health planning processes in almost all the countries of the Region were initiated by the 279 professional personnel trained through the international courses and by more than 1,000 persons trained in courses at the national level. Such was the background of what may today be described as the "formal stage" of planning, whose dominant feature was a prevailing concern with the methodological and institutional aspects of the planning processes. The model to which the methodology was applied was regarded as an acceptable reproduction of conditions as they were in reality, and it was further believed that the "scientific thinking" involved in planning would prevail over the "material thinking" of those taking policy decisions and the "instrumental thinking" of those implementing the policies decided upon. It was taken for granted that the "formal" truth of the technician must be accepted by the politician and that the mere establishment of planning offices at the highest possible levels of government, with the formal procedures of coordination entrusted to them, was a sufficient guarantee of the execution of the proposals of the planners. On the basis of this outlook, considerable efforts were directed to the legal and organizational aspects of the planning offices, the diagnosis of problems, and the preparation of plans using the PAHO/CENDES methodology.

In putting their plans into practice, the planners encountered certain problems for which there was no easy solution. Practical experience with the procedures which were being introduced showed that, even in the initial diagnostic stage, it was impossible to undertake a study of the health sector at different levels in the necessary depth by using the PAHO/CENDES methodology. This was due not only to the approaches and attributes peculiar to the latter but also to the fact that the complexity of the problems in the health field and the very ill-defined nature of both their elements and the links between them ruled out the use in many areas of simple procedures, such as optimization, proposed in the methodology.

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[1] PAHO/WHO. "Health Programming - Problems of Concept and Method (CENDES Report)" Technical Publications Series No. 111, April 1965.

In the ensuing conflict between the thinking of the planners and that of the policy-makers, the views of the latter prevailed - as might have been expected. Furthermore, even where governments adopted some of the procedures proposed by the planners, the administrative structures continued to act with their characteristic inertia and lack of dynamism. Accordingly, because of the differences in the thinking of the policy-makers, planning lost much of its utility as an instrument for the promotion of structural changes, and, where traditional administrative practices were retained, it also lost the opportunity to serve as a vehicle for administrative thinking.

This does not mean that the planning processes resulted in failure. On the contrary, they made a very great contribution, which could not have been forthcoming from any other quarter, by bringing to light in the initial diagnostic stage the main problems in the health sector which had hitherto remained hidden. In some cases, the processes brought about the modification of administrative systems and effected an improvement in information systems, thereby contributing to increased productivity in that sector.

An examination of all these considerations led to the conclusion that administrative and political factors are not external features but rather are essential elements which, while intimately connected, must be taken into account in the health planning process, a process which cannot be meaningful unless it takes place within its own political and social frame of reference and is synchronized with administrative considerations as part of the overall planning process.

Towards the end of 1964 it became apparent that the minds of planners in the Continent, and consequently PAHO, were justifiably exercised by the tendencies emerging in the planning processes. It was obvious that the success of those processes was not guaranteed simply by the application of the PAHO/CENDES methodology. This conclusion was formed, regardless of the brevity of the experience acquired in health planning, as a result of the considerable dynamism with which countries undertook the formulation of national health plans. This led some of them to depart from the methodology, to adjust or extend it, and to opt for approaches other than those conceived as part of the health planning process.

A study group on health planning, convened by PAHO at Puerto Azul, Venezuela, in February 1965, reviewed the situation of the national health planning processes and the impact on them of the PAHO/CENDES methodology. Although it was felt to be too early to judge the latter, the group recognized that certain difficulties had arisen in its application as a result of gaps in the technical knowledge of the subject of planning itself and because the methodology had certain shortcomings. Accordingly, the group concluded that it was essential to undertake a program of research to overcome these shortcomings and recommended that the program be undertaken as far as possible by an institution which would be in close contact with operations in the field. Similar requests and recommendations were submitted

to PAHO by countries themselves, both through PAHO representatives in the field and through the Organization's Governing Bodies.

PAHO duly considered these recommendations, together with certain others pertaining to plans for personnel training and the need to compile and exchange information on planning processes in the Region. In the course of 1965, a study was made of the feasibility of establishing a multinational center to undertake these tasks. A project to this end, supported by 14 countries and with the technical approval of the Director-General of the World Health Organization, was submitted for the consideration of the United Nations Development Program. The latter provided the financial support which enabled the Pan American Center for Health Planning to commence its activities in early 1968. Thus, in May of that year, the Center initiated its operations by the appointment of various permanent technical personnel who were to ensure continuity in the training activities and by initiating the work of the Research Department. The Center has its Headquarters in Santiago, Chile, where it is in permanent contact with the Latin American Institute for Economic and Social Planning and with the Economic Commission for Latin America. This allows it to carry on a regular exchange of experiences relating to all areas of overall sectoral, and regional planning.

Basic Considerations

Health planning is the application of knowledge acquired in the field of social sciences, but the methods by which this knowledge is obtained are not exactly the same in the social sciences as in the physical sciences. In the latter, observation, inference, and deduction lead to the formulation of an hypothesis which is then tested and leads in turn to a new series of observations, inferences, and deductions, so that there is a steady accumulation of knowldege. When the results are constant for the same values of the variables considered, it is possible to formulate general laws for the behavior of the variables, which makes prediction and control possible. This process is facilitated by the relative ease with which the variables can be defined in real and operational terms, the availability of instruments for measuring them, the possibility of experimental control of their effects in most cases, and by the general use of a common scientific language, like that of mathematics, which not only gives support and logical coherence to the process but also permits deductions revealing situations that had not been envisaged, with all the heuristic implications that that involves. Another point that is stressed in the physical sciences is that the method used to obtain the desired information must be entirely free of value assumptions and ethical or aesthetic judgements, and from the very outset every effort is made to secure objectivity by using neutral measuring instruments which exclude, as far as possible, any subjective evaluations in

the observations. Objective and neutral evaluation has become the absolute rule in the whole field of science; and it has led to controversies, aberrations, and fallacies whenever it has been strictly applied to social phenomena.

There are many differences between the social sciences and the physical sciences in this respect. In the social sciences, the phenomena being studied are social phenomena, which are generally ill-defined and always impossible to observe directly with instruments of any kind. There is no guarantee that the results will be the same for the same values of the variables, except within very broad limits; this is due, among other things, to the difficulty of checking the immense number of variables involved and to the lack of precision in the operational definitions of the concepts, which makes quantification and measurement difficult if the methods normally used in science are applied. When a regular pattern has been determined for the behavior of phenomena in the physical sciences, this leads to the enunciation of a law relating them to an underlying order; but this is not so easy in the social sciences, except within very wide limits. This suggests that there may perhaps be no underlying order or, if there is, that it may consist of phenomena which can only be quantified somewhat arbitrarily. They can be identified only by describing their characistics and classifying and analyzing them by means of taxonomic criteria, and this must be done without the help of the language of mathematics, which is more efficient, or the mathematical method to which that language conduces, which is more effective than those used in the social sciences.

There is another point which must also be emphasized. In social research, the instrument with which the observations are made is the investigator himself. An observer is essential, for without him the phenomena cannot be recognized, nor can taxonomic principles be applied in an effort to arrive at an ordered design through a description and classification of the facts. Therefore, some subjective criteria and of course some value judgements are inevitably introduced as soon as observation begins, or even earlier, when the principles of the classification are being defined. Thus it is impossible to respect what the rigid adherents of strict scientific method regard as sacred - the neutrality and objectivity of scientific observation. However, this situation in the social sciences seems to be not only unavoidable but necessary; the more sensitive the investigator-observer-instrument is and the finer his perception of the subtleties of human behavior - which is never without emotional components, ethical roots, and value judgements - the deeper will be his understanding of the phenomena and the more accurate his taxonomic description of them.

As has already been said, health planning is almost entirely the application of knowledge acquired in the field of the social sciences. For this reason, what has been said above about the differences between the physical sciences and the social sciences is especially relevant to

the orientation of research in health planning and to the methods that should be adopted for that research. In deciding upon a program of the type that it is now carrying out, the Center has been guided by a number of different principles. Some of these have emerged from the situation in the social sciences described above; others have been drawn from experience with the planning process in the countries of the Region; others again grew out of specific requests from certain countries; and, lastly, still others have been dictated by the policy guidelines and strategy formulations of PAHO's program for the improvement of health planning within the context of the overall development policy for the Region of the Americas.

Some of these criteria can be summed up in a few postulates about the characteristics of the planning process, which are as follows:

(a) Health planning is a continuing, self-supporting, and perfectable process aimed at producing desired and predetermined changes in health systems and in their ultimate objective, the health of the population.

(b) The planning process affects all the components and all the interrelationships in the health system; it is not confined to parts or special aspects of the system.

(c) Health planning is inextricably bound up with overall development planning, and is not a separate part of it.

Implicit in the above propositions is the assumption that the health field has to be considered as a system, the components, structure, and operation of which must be known as far as possible - before decisions are taken on the courses of action to be followed. This indicates the two main areas in which research must be envisaged: first, a substantive area, where research will be directed to defining the health system and how it operates; and, second, an area where the aim will be to determine the best ways of making changes. The second area is, of course, closely related to the first.

It is perhaps in the second area that the most significant progress has been made to date; it might be said that the PAHO/CENDES methodology is largely the fruit of this kind of research. In addition, more and more different ways of doing things are continually being tried, and experiments are made with techniques from other disciplines in order to solve the methodological problems of health planning. In different cases, operational research, administrative rationalization, programming by activity, the use of information systems and systems of appraisal, and many others, have been tried.

There is one point, however, which has not yet been investigated: how far the application of these techniques to partial aspects of the problem may be introducing rigidities which might ultimately prevent the introduction of more far-reaching changes. The web of components making up the health system is so vast and complex that maximization or optimization of the functioning of one component might well result in the malfunction of other components, or even of the system as a whole.

That is one of the reasons why the Center's program gives special emphasis to the area of substantive research mentioned above. The aim of research in this area is to discover more about how the whole system functions and the role each separate part plays in it. This is by no means a recommendation that no action should be taken until the system has been completely elucidated, since it cannot be said with certainty that there is any overall solution. But one thing is recommended, and that is that decisions, both about the system itself and the planning method to be used, should be taken within an overall frame of reference which will give some idea of what must be avoided if potentially more effective and more beneficial activities are not to be ruled out by the rigidities due to oversimplification of past practice.

As has already been said, health planning is undertaken with the deliberate aim of producing changes in a situation which is not considered desirable, even though the reasons for that situation cannot be precisely defined. There are usually two essential features to change: speed and direction. The criteria for both the speed and the direction of change, but particularly the direction, are derived from ethical and esthetic value judgements that are the reflection of different ideologies, and for that reason, the political nature of the planning act cannot be ignored. It may be the failure to take political considerations into account, in the mistaken belief that planning is a purely technical activity, that has caused health planners frustrations and disappointments that have slowed down progress in planning throughout the Continent.

Value criteria are not only found in the political act of setting the policy aims and objectives for the health system; they are to be found in an open or disguised form at nearly every stage of the planning process, and they are sometimes very difficult to detect. They are sometimes found in what appears to be the field of pure science. This is precisely the difficulty which the research program of the Center is trying to overcome, without being too iconoclastic.

The main focus of attention in the Center's research program is the development of procedures for studying health systems as a whole, i.e., in their technical, administrative, and political aspects, and the procedures for analyzing these systems so that appropriate strategies may be designed for achieving the desired ends.

The problem that has had to be faced is essentially one of methodology. The aim is to study an order underlying social life which we assume to exist. Like most social systems, this in an open system, since there is a dynamic interchange, both between its components and between it and the environment, but little is known about the nature of this interrelationship. The system is complex because it has so many components and the relationships linking the components are far from simple. It is easy to conceive that a health system may include practically every aspect of life in society, since nearly everything in a society is related to the health system in some way or other. If that is so, the health system is, of course, the society itself, and any hope of manipulating the system must be abandoned. It is therefore necessary to make a narrower definition of the health system, comprising only those components which are of importance for planning. This decision must be given careful consideration, of course, so as to make sure that nothing has been omitted which might give rise to future difficulties.

The system is only very vaguely defined, mainly because little is known about the relationships between the components, or, again, because the nature of those relationships is such that, although two or more components may be at the same point, they do not produce the same effect on the system itself. To take an analogy from the relationship between two variables, if one variable has a given value, there may be not one but many values for the other. This may be due to a high degree of integration in the system, in which case a variation in a single one of the components will produce variations in all the others, so that it is practically impossible to deal with such a situation by any of the known methods of analysis of multiple simultaneous variations. On the other hand, it may be due to the fact that the type of concept to be dealt with cannot be measured or quantified by any of the known methods.

It should be noted that the characteristics of health systems described above, particularly the extreme vagueness of their definition, make if difficult to formulate any general theories or laws based on the constant behavior of the variables. Consequently, there seems little hope that this path will lead to what some consider - side by side with the explanation of phenomena - the essential goal of science: prediction and control.

There is one point that must be emphasized: the foregoing are all general considerations, and their discussion here does not mean that in its research program the Center is ruling out all possibility of using the well-tried, traditional procedures in any of the concrete and finite situations that may arise in its study of certain aspects of the system. When it had to decide on the method to be used in studying health systems with the characteristics described here, the Center opted for the numerical experimentation model.

Models

Numerical experimentation models incorporate a vast number of basic components and this necessitates a certain level of aggregation such as social or age groups, types of hospitals, and regions.

The optimum level depends on the problem and is always difficult to establish (either how many and which groups of diseases, or what type of hospital beds, or what levels of hospital complexity, and so on). Every relationship between variables is a global-type hypothesis, of which few exist in the social sciences. To solve this problem, numerical experimentation seeks to use what the experience of the user shows to be the most probable alternatives and to apply qualitative criteria and results. They are very specific models and make it necessary to define the conditions forming the background to the entire period to be studied. They are evolutive and have to be constantly improved upon so as to incorporate the new knowledge or changes affecting the real system. Their main sources of uncertainty are the form of the hypotheses, the value of the parameters and the future behavior of the uncontrollable variables. Lastly, they debar quantitative forecasts and are used as a criterion for the adoption of qualitative decisions.

The characteristics of this type of model make it particularly suited, as if designed for the purpose, for tackling the problem created by social systems.

The problems with regard to content derive from the existence of very clear and detailed mental or verbal patterns of the modus operandi of the system under study. It is in this field, which is specifically that of the health specialists, that we may encounter the greatest uncertainties. There are no known laws or even medianly acceptable hypotheses governing the operation of highly important components of the health system. This constitutes a possible source of serious errors because if we are to know the health sector in an overall sense, it is absolutely essential to consider all the components which, theoretically, are of importance in the opinion of the model constructing team.

In this connection the model-constructing team should be construed in a broad sense to include not only the mathematicians writing the equations, the statisticians working out the coefficients, and the health officers describing the system, but also the possible users who are the people who know what problems they have to face and resolve. It must be borne in mind that there may be a problem of communication between the model-constructing team, in the narrow sense, and the presumed users, for example, decision-making officials. This happens because terms or variables are employed which are not in common use and cannot be ascribed to a specific source of the real system. The model constructor who obtains his

relationships from statistical analysis tends to maintain his coefficients as empirical, abstract results which cannot be identified with particular aspects of the real system. To say that demand is a function "x" of income and accessibility is not the same as saying that, in certain conditions, a given population group is going to ask for care in a certain proportion. Efforts must always be made to ensure that every constant and variable has a meaning that is as consistent as possible with the real system, so that its acceptability can be discussed in terms of its common, physical, or conceptual meaning.

In constructing a mathematical model, the first thing is to identify the components of the system and to formalize what we know or believe about each of them, in order to subsequently study the interaction of these components. One of the decisions which are taken at this stage concerns the level of aggregation of the elements. It is impossible to work with maximum disaggregation (for example, every person, every hospital bed) because the magnitudes would become unmanageable, nor with the opposite (the entire population, all beds) because this would be meaningless.

As regards the information on which a model should be constructed, it should be emphasized that sufficient descriptive information is usually available which forms part of the common experience and that with this the construction of a first version of a model can be started that may be extremely useful, inter alia for deciding what information ought to be collected - in other words, a preliminary model.

There should be no insistence on formal data. The routine compilation of numerical data is not going to create new concepts or identify unknown but important variables. It hardly needs saying that this does not detract from the importance of factual information or of the systems for compiling and processing it.

Jay Forrester says that there seems to be some general confusion that the construction of a mathematical model cannot be begun until every functional constant and relationship is accurately known. This often leads to the omission of factors which are admitted to be highly significant, for example, most of the "intangible" influences affecting decisions, because they are neither measured nor measurable. To omit these variables is tantamount to saying that they have a zero effect, which is probably the only value which we know with certainty to be false.

When there are no clear-cut theories about the functional relationship between variables, the hypotheses adopted may be crucial. The technique of numerical experimentation does not embrace general laws but specific hypotheses of particular cases; in other words, some values of a function are given instead of defining it in the widest possible context. The enormous advantage of this is that it enables agreement to be reached

among experts, which is impossible or meaningless when an attempt is made to formulate the general theory of the phenomenon. On the contrary, this process may facilitate the formulation of the theory.

A global mathematical model of the health sector makes it easier to understand the modus operandi of the sector and serves as a guide for decision-making and establishing evaluative judgements and desirable policies.

The use of a model implies that (1) something is known about certain detailed characteristics of the system; (2) these characteristics, whether known or assumed, interact and influence the evolution of the system over time; (3) the knowledge we have of the individual components of the system exceeds our intuitive capacity to visualize the interaction of these components; and (4) by constructing the model and observing the behavior of the factors within it, we may reach a better understanding of the system we are studying.

These remarks imply, in turn, that a useful model of a real system must be capable of representing the nature of the system and of showing the way in which changes in its policy or structure condition its better or worse behavior. The types of external disturbances to which the system is vulnerable must also be taken into account. But it must be emphasized that the forecasting of specific events at a given future moment must not be included here, because the usefulness of models does not reside in their capacity to forecast a specific trajectory. Moreover, having regard to the objectives of knowledge and management already mentioned, we must interest ourselves in the nature of the system rather than in its future condition.

There are, on the other hand, two characteristics of the models which are relevant to the objectives mentioned, namely, their precision and their suitability. The first refers mainly to the accurate, unambiguous definition of each attribute of the components and of their relationships. Construction of the model, we repeat, imposes the obligation to describe accurately what is meant, and this helps to clarify the ideas and hence to improve the mental model. When the mental model becomes a precise mathematical form, it may show discrepancies with the nature of the real observable world, so that from the very outset the model constructor is using the model as an instrument of knowledge. The model is useful even though it represents only what the nature of the system under study is supposed to be. It is conducive to precise thinking, eliminates vagueness, and imposes definitions as regards what is thought about the relative importance of the various factors constituting the system. By using it, discrepancies are discovered, even in the basic suppositions, which constitutes a second way in which the model helps us to learn. It often happens that, when the knowledge or suppositions about each individual component is or are combined, the results are quite different from, and sometimes diametrically opposed to, the intuitively expected consequences.

The second characteristic mentioned is suitability. This means the degree to which the model corresponds to the real world. This characteristic is of the utmost importance if the model is to serve as an aid for managing the system or as a tool in decision-making. In this case the similarity between the model and the system must be very close.

The use of numerical experimentation models for analyzing decisions is part of a procedure, the different stages of which are described by Varsavsky, as follows: (1) determination of objectives defined in terms of time, space, and all the variables which may be of interest; (2) formulation of a strategy, especially in terms of the technology to be used and method of financing; (3) hypothesis concerning the evolution of technical coefficients, including the influence which the objectives and strategies will have on them; (4) calculation, using the model, of the results that would be obtained. The effects are measured as discrepancies between supplies and demands for human and financial resources, capacities, and so on; (5) if, in the result obtained, major discrepancies are noticed between any of the indicators selected, the technological strategy is revised and new experiments are conducted with the model until a feasible strategy which eliminates the maladjustments is found, or until it becomes clear that this cannot be done. If this last-mentioned possibility occurs, the technological hypotheses are revised (technical coefficients or functions of production), and, if possible variants are noted, they are tried out by including them in different strategies. If irremediable discrepancies recur, the objectives are unattainable and have to be changed; (6) the financial feasibility is examined; (7) the results obtained are compared with political (or executive) feasibility. The last two aspects can be studied with the model if the relevant indicators have been included, or without it.

This procedure may have some alternatives, but the interesting point here is the importance given to the planner, the specialist, and the policy-maker. The model does nothing more than facilitate their work and make it more efficient.

Program of Activities

The resources available to the Center for carrying out a research program of the type proposed are very limited. It is thought that implementation of the program cannot be an exclusive responsibility of the Center, not only because of the above-mentioned shortage of resources but also because the methods adopted should, in the main, be applied to the practical realities existing in the countries, with national researchers who can form their own model-constructing teams and are familiar with the realities of their own systems. In addition, although the methods for constructing models may be of general application, the models themselves are specific, constructed for a real situation and therefore not valid for representing situations other than the one for which they were designed.

For this reason the Center has concentrated chiefly on promoting research in the countries, providing the necessary advisory services and collaboration. In its activities it also bears in mind that research in public health has not gone very far in Latin America and that initiating work in this direction may be one way of encouraging the governments to improve their planning processes, especially when some fruits of the research are visible and research is no longer looked upon with indifference or contempt.

1. The Linc Model

The center of interest of the program has been the theoretical development of the so-called "Linc Model," which is an attempt to represent the health system as a whole, including all its links with other systems. It is claimed that the model, which is necessarily highly aggregated, serves mainly for making experiments which enable health policies and their consequences to be tested. The overall approach to the system and the aggregative analysis of the interrelationships of its components enable problem areas to be detected which can then be investigated with the use of submodels. In addition, the design has been made in such a way that it can incorporate the result of partial investigations of each of the components in order to subsequently form a whole.

The model takes the relationships between the health sector and other sectors and aspects of social life carefully into account in an effort to understand the nature of these relationships and the way in which they are linked, the ultimate aim being to formulate procedures for really integrating health planning efforts into the overall development process. The actual construction of the model does not involve the use of optimization mechanisms nor of cost-benefit analysis for establishing priorities for the allocation of resources. The reason why these approaches are not used is not because of any opposition to the aim they pursue, since it would be tautological to say that a better solution is better. In the case of optimization what happens is that the procedures used require the existence of a single indicator and a perfect definition of the problem, and these do not exist in the situation to be dealt with. Cost-benefit analysis requires all the costs and all the benefits, uniformly measured, to be identified; this problem has not been fully solved even in the economic sector, whereas in the social sectors, especially health, its solution presents possibly insuperable difficulties (for example, comparing the value of life at different ages for the same individual or as between individuals).

Nor is any attempt made to develop situation forecasts by extrapolating regular historical patterns. Hence econometric-type determination for the behavior parameters of the system is specifically rejected on the ground that the basic problems of the Region involve changes in, rather than the maintainance of, the existing situation.

The theoretical development of the Linc model began in 1969 and was completed in its first version in 1970. The construction of a model of this type depends on the availability of real information concerning the country for which it is to be constructed, on the existence of subsidiary research projects, and of access to computers and programming personnel suitable for numerical experimentation procedures, with the multiple variables, interrelationships and hypotheses which this involves. As the Center does not have all the elements for this purpose, a smaller version was formulated for demonstration and experimentation purposes; the data of one country were used and its access to computers was programmed in the computer department of the Central University of Venezuela where various experiments were carried out.

The biggest effort was made in Argentina, which was given advisory services and collaboration in constructing a preliminary design for a global numerical experimentation model. This "global model" was developed by the model-constructing team of the Health and Medical Education Survey, with the support and collaboration of the Center, and is an application of the Linc model to a specific national effort to analyze health problems as a whole.

2. The Submodels

The global approach of the Linc model often makes it necessary to add to the fund of knowledge and inquire further into certain particular aspects. Once the area of interest is demarcated, the Center encourages the use of numerical experimentation submodels for studying it. Some of these submodels may have been extensively developed, for which reason it is also thought that each of them is only one way of approaching the system as a whole. In other words, a submodel, such as that of human resources, for example, is a tool for studying the system as a whole, because the variables that occur are the same although the major emphasis is laid on human resources. An approach from the human resources angle is therefore one way of analyzing the same system as would be analyzed using a health investment or epidemiological approach. This explains the support which the Center is providing for the development of submodels, particularly since the analysis of these submodels, owing to their greater specificity in the aspects on which their attention is focussed, makes it easier to visualize immediate applications for decision-making.

The Center's program of activities includes work on the following submodels:

2.1 Financing Submodel

This is a specific application deriving from the Linc model. It was developed in the Province of Mendoza, Argentina, at the request of the health authorities of that province as an immediate consequence of the

construction of the above-mentioned global model. Its purpose is to analyze the feasibility of the financial aspects of the medical care systems. This project is at the stage of analyzing results; it was formulated, implemented, programmed, and computerized in collaboration with the Buenos Aires Health Computing Center.

2.2 Investment Submodel

The design of this submodel, prepared in collaboration with the Projects Division of ILPES, has been completed. It includes a methodology for programming investments in the health sector, a classification of investment projects, and the preparation of manuals for preparing projects. The signature of an agreement with the Ministry of Health of Peru is being negotiated for joint research on the practical application of this submodel, in which Argentina is also interested; it will probably be developed simultaneously in the two countries, for which purpose the Center will serve as coordinating and reconciling agency in methodology.

2.3 Human Resources Submodel

Discussions have been started concerning the development of this submodel by the model-constructing team of the Health and Medical Education Survey of Argentina in collaboration with the Latin American Center for Medical Administration and the Association of Faculties of Medicine of the Argentine Republic. The activities are expected to begin at the end of 1972.

2.4 Policy Submodel

The theoretical development of this submodel will be carried out by the Center in collaboration with ILPES and ECLA. The activities are scheduled to begin in mid-1972.

2.5 Other Submodels

It is hoped that a submodel of communicable diseases will be developed in the near future, preferably in collaboration with a country of Central America, as well as a submodel of chronic diseases, for which purpose the interest expressed by São Paulo, Brazil, has been taken into account.

2.6. Study of Parameters and Functions

Certain parameters and functions forming part of the models and submodels have not been properly determined in the terms required for them to be incorporated therein. Aspects such as hospitalization averages, immunity, mortality, and morbidity rates, the effects of vaccination, the effects of sanitation, etc., require study. They will be studied in collaboration with institutions such as the Latin American Center for Medical Administration in Buenos Aires, the Pan American Sanitary Engineering and Environmental Center, and several countries.

3. Other Research

In addition to addressing itself to studying the Linc model and the submodels, the Center has taken up the following aspects of research, not connected with them, in which numerical experimentation is applied. The following projects are under way in the Center.

3.1 Study of Typologies

The aim of this study is to provide elements for the formulation of health policies better adapted to national realities and to offer better guidance in some fields of health research. On the basis of information from 20 countries of the Region, drawn from the four-year projections, health and development typologies have been prepared, and they are being revised in the light of the information obtained from the four-year projections of 1971.

3.2 Study of Structural Relationships

This is a study of the relationships between different characteristics studied by the various social sciences, with particular emphasis on the health-related aspects. A first design laying down the general and conceptual lines has been completed and the compilation of relevant data has been started.

3.3 Programming of the Methodological Model

This project, intended to delve deeper into the study of variables and application aspects of the PAHO/CENDES method, was completed early in 1972. The computerization program prepared by the Computer Department of the Central University of Venezuela had to be carried out by the Computer and Data Processing Agency of Santiago, Chile, owing to some difficulties arising in the University. The results are being analyzed.

3.4 Evaluation of Planning Processes

A methodological pattern has been prepared for the evaluative study and analysis of planning processes. This pattern is the continuation of work started with the Government of Chile and the PLANSAN research group of the Department of Antioquia, Colombia, to which advisory services and collaboration will continue to be provided until the project is completed. In connection with this type of research, the Center also proposes to support the action taken by Argentina concerning the study of an implementation model.

3.5 Other Projects

Lastly, the Center proposes to work with the technical departments of PAHO and with some countries collaborating in the study of the factors conditioning the health situation and the way in which the technico-administrative standards of health programs are set.

PROGRAM OF THE INFORMATION SERVICE OF THE PAN AMERICAN CENTER FOR HEALTH PLANNING

Soon after the planning process had been initiated in the countries of the Region and the trainees from the two or three first international courses had started on the actual planning of health services in their respective countries, they began to have an increasing need for information on the experience that was being acquired in other countries in the course of national planning efforts.

PAHO became aware of this need through its planning advisers working in the field, who tried to absorb this new function and deal with it among their regular activities. But even the PAHO advisers lacked effective machinery for obtaining the information requested, so that there was a lag in this area until the Pan American Program for Health Planning took shape. The Plan of Operation for this Program says that "the project will be a center for the collection and dissemination of information concerning advances made in the formulation of health plans, their execution, control and evaluation. Publications and Manuals will be developed for the teaching of health planning." The Plan of Operation also indicates that the publication activities "will be initiated during the first year of the project and carried on throughout its duration."

During the period from 1968, when the Center went into operation, to 1971, there were no staff that could be assigned to the task of organizing and launching the Center's information program. Nevertheless, during the first three years of operation, the staff of the Training Division and the Research Division produced a number of papers for internal distribution and for use in teaching, or at the request of various institutions, which were dittoed or mimeographed. Some documents from other sources were also collected and reproduced for use in the courses.

In June 1970, the PAHO/WHO Working Group of Planning Experts met in Caracas, Venezuela. They expressed the view that the information field had been almost entirely neglected and reaffirmed the need for a service that would keep health planners informed of the experience being acquired in the Region of the Americas and in other regions; and they recommended the urgent establishment of an adequate and effective "internal" information system to provide data on health and development planning, both in the Continent and elsewhere.

Side by side with the reorganization of the Center's training activities in 1970, a tentative plan was drawn up for an information service, but it could not be put into operation until July 1971 when a professional was recruited to direct and structure the program.

The aims of the Center's Information Service are as follows:

1. To keep the technical staff engaged in the promotion and conduct of health planning processes up to date with all developments in the theory

and practice of planning so that they can adapt or adopt those they consider appropriate for the better fulfillment of their functions.

2. To promote support for planning among leaders in the health sector, and particularly among those in other sectors, by encouraging the integration of efforts in development planning.

3. To disseminate the principles and techniques of health planning among the professional and technical personnel of the health sector.

4. To provide information on the status of the planning process in the countries of the Continent, with focus on the design of strategies to improve the planning processes.

5. To furnish information relating to substantive and methodological, theoretical and practical developments in the field of health that may be useful for the development and improvement of health planning.

The information provided by the Center is intended for the following:

1. High-level technical personnel engaged in health planning in the countries and in PAHO;

2. Policy-makers in the health sector;

3. Technical personnel in other sectors;

4. Universities and institutions which train health personnel.

Information is provided on the following subjects:

1. Significant aspects of the present status and future prospects of health planning in the countries;

2. Developments in the theory relating to each of the components in the health planning process;

3. Methological developments permitting an improved approach to the process;

4. Experiments in research and training carried out by the Center and by the countries and other specialized institutions;

5. Experiences in the application of different approaches, methods and techniques of health planning;

6. Context of health planning, including the relevant aspects of development and over-all planning.

The Center can provide information in the following ways:

(a) Through publications and the distribution of a periodical Bulletin that will contain bibliographical and general information of interest to health planners in the countries. The publication of the first quarterly Bulletin is planned for December 1972.

(b) Through technical publications on planning methods and research results. It is hoped that those publications on sectoral diagnosis and institutional analysis and investment programming in the health sector will be ready before the end of 1972. These publications will contain the material produced by the special seminars on the above subjects.

(c) By replying to written and oral requests for information on health planning.

(d) By reproducing documents connected with health planning topics for use in the courses and for general distribution.

(e) Through group information activities, such as talks and conferences, in which the Center is invited to participate. In some cases, which might be called cases of "cooperative teaching," the Information Service's activities fringe on those of the Training Division. These activities will be initiated during 1972 and will be organized for PAHO staff through one of the Zones.

The Center hopes to use the following means to achieve the purposes it is seeking to attain through the Information Service:

(a) The organization of a Documentation Unit, closely linked with the Latin American Center for Economic and Social Documentation (CLADES) of ECLA; the Latin American Center for Medical Administration (CLAM); the Medical Documentation Center in Rio de Janeiro; and the Health Computing Center in Argentina.

(b) The organization and operation of a document analysis and evaluation unit which will make abstracts for distribution and answer special requests for information.

(c) A documents publication and reproduction unit.

(d) Designation and training of correspondents in all the countries.

In view of the present uncertainties about where the Center is to be housed and the difficulties in recruiting specialized staff, it is not expected that this outline can be translated into action immediately, but it is hoped that the Center will be able to start its information work along these lines towards the end of 1972 or the beginning of 1973.

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