directing council

PAN AMERICAN HEALTH ORGANIZATION

XVI Meeting

regional committee

WORLD HEALTH ORGANIZATION

XVII Meeting

Washington, D. C.
September-October 1965

Provisional Agenda Item 12

CD16/24 (Eng.)
13 August 1965
ORIGINAL: SPANISH

PLANNING OF HOSPITALS AND HEALTH FACILITIES

In compliance with Resolution XXV of the XV Meeting of the Directing Council on the Planning of Hospitals and Health Facilities, the Director of the Pan American Sanitary Bureau convened a meeting of an Advisory Committee.

The Advisory Committee, which met in Washington, D. C., from 26 to 30 July 1965, discussed the subject in the light of a working document prepared by the special consultant of the Bureau.

The meeting was also attended by representatives of the Inter-American Development Bank, who took an active part in the discussions and made various suggestions.

The attached Final Report of the Advisory Committee is submitted to the XVI Meeting of the Directing Council for its consideration and appropriate action.

Attached: Annex

CD16/24 (Eng.)
ANNEX
13 August 1965
ORIGINAL: SPANISH

ADVISORY COMMITTEE
ON
PLANNING OF HOSPITALS AND OTHER HEALTH SERVICES

FINAL REPORT

Washington, D.C., 26 - 30 July 1965

ADVISORY COMMITTEE
ON
PLANNING OF HOSPITALS AND OTHER HEALTH SERVICES

FINAL REPORT

Washington, D.C., 26 - 30 July 1965

PLANNING OF HOSPITALS AND OTHER HEALTH SERVICES

MEMBERS OF THE ADVISORY COMMITTEE

CONVOKED IN COMPLIANCE WITH RESOLUTION XXV ADOPTED AT THE XV DIRECTING COUNCIL OF THE PAN AMERICAN HEALTH ORGANIZATION

Dr. Sótero del Río G. (President)
Ex-Minister of the Interior and Public Health
Member of the Medicine Academy
of the Chilean Institute

Dr. Guillermo Arbona (Rapporteur)
Secretary of Health
Puerto Rico

Mr. Alfred C. Wolf
Programming Advisor to the President of the
Inter-American Development Bank

Dr. Cecil Sheps
Director General
Beth Israel Medical Center
New York, U.S.A.

Dr. Agustin La Corte
Head of the Programming, Personnel and
Equipment Office of the Planning Unit
Ministry of Health and Social Assistance
Venezuela

Dr. F.B. Roth
Professor and Head of the Administration
of Hospitals Department
School of Hygiene of the University of
Toronto
Toronto, Canada

Mr. José Vera
Member of the Economical and Social Development
Division
Inter-American Development Bank

Dr. Alberto Mondet
Consultant in Public Health

Mr. Henri Scioville
Head of Constructions and Urban Development
of the Analysis of Projects Division
Inter-American Development Bank

Dr. Harald M. Graning
Assistant Surgeon General
Head of the Hospitals and Medical Care Division
Public Health Service
U.S.A.

Secretariat (PASB)

Dr. Alfred Yankauer
Acting Chief, Health Promotion Branch

Dr. René García Valenzuela
Regional Consultant on Medical Care

Dr. Humberto Flisfisch
Special Consultant

Dr. Alfredo Leonardo Bravo
Special Consultant

Dr. J. McKenzie-Pollock
Chief, Office of Health Planning

Dr. Ruth R. Puffer
Chief, Health Statistics Branch

Dr. Peter A. Ruderman
Economic Advisor

Mr. Roberto Rendueles
Chief, Public Information Office

ADVISORY COMMITTEE

ON

PLANNING OF HOSPITALS AND OTHER HEALTH SERVICES

FINAL REPORT

INTRODUCTION

On 26 July 1965 at 8:30 the Advisory Committee convoked by the Pan American Health Organization met in the Conference Room of the Pan American Sanitary Bureau to discuss the topic, Planning of Hospitals and Other Health Services, in compliance with the provisions of Resolution XXV adopted at the XV Directing Council of the Organization.

The meeting was opened by Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau who, after welcoming the members of the Advisory Committee, said: ". . . the care of the patient is part of a single process in which the activities of prevention are in harmony with those of cure. This policy reflects the most relevant events of the life cycle of human beings in which states of health and sickness alternate as a result of variations in the mechanisms of adaptation stimulated by the environment". The Director then added: "The imbalance between its people's needs and demand, and resources and income is one acknowledged characteristic of our Latin America. Another is the fact that the investments made do not always apply to the most urgent needs, nor do they benefit the largest number of people. . . The Governments have recognized the advisability of programming economic and social development, differentiating problems, giving them an order of priority, and setting goals to be accomplished within determined periods. The program covers structural and administrative reforms that accelerate the application of resources where needs are greatest in terms of well-being. When justified, the program includes constructions, equipment and, most important, education and training."

After various considerations on Resolution XXV, the Director remarked as follows: ". . . In it, as part of the health plans we are instructed to consult an Advisory Committee whose recommendations will establish the manner in which the Pan American Sanitary Bureau can participate more effectively in programs of construction, assignment of personnel, and functioning of integrated hospitals and other related services to attend to the needs of the communities in the different countries", and he asked the following questions: "What responsibilities could be assigned to the Pan American Health Organization as advisor of the Governments? Should it be limited to a technical recommendation with regard to a definite service, when a Government requests it? Or should its spere of action be broadened to collaborate with the Governments in a program of construction of establishments, in keeping with the national health plan and the expansion of the economic substructure? If this last plan is deemed feasible, what steps should be taken to put it into practice?"

Along these same lines the Director offered the following proposals:

"The formulation of a plan of long-range constructions and personnel assignment implies the programming of its financing. As the working document points out, exceedingly large quantities of domestic resources are being invested today. In spite of this national effort, the increase of beds is not keeping pace with the present demand and with the needs of the expected growth in population, even when there is organizational and administrative rationalization of existing services. It is obvious that there is a need for foreign capital in long-range credits with low interest in view of the social nature of the investment. On the basis of this, we should like to know the opinion of the Advisory Committee on the possibility of creating a system of regional cooperation in which domestic resources are supplemented by those from abroad, and the resulting total is invested in a program that is carefully formulated by the Governments with the collaboration of the Organization. It is possible that in order to put this idea into practice it will be necessary to make a special agreement as an instrument, a veritable convention, that would establish the conditions under which the Governments and the investors in a cooperative undertaking of such magnitude would participate."

Dr. Horwitz concluded by expressing his gratitude to the Members of the Advisory Committee for their presence and to Mr. Felipe Herrera, President of the Inter-American Development Bank, for the collaboration rendered in sending several officials from that institution to serve on the Committee.

Next, in the name of the President of the Inter-American Development Bank, Mr. Alfred C. Wolf spoke of the interest of the Organization he represented in the programs concerned with health care and medical care in Latin America, outlining the achievements of the Bank in this field.

Dr. Sótero del Río was elected Chairman of the Advisory Committee and Dr. Guillermo Arbona Rapporteur. Dr. del Río occupied the chair and both acknowledged their appointments eloquently.

The Coordinating Secretary of the Advisory Committee indicated the method of work arranged for the Committee meetings, and once again explained the frame of reference for the accomplishment of the work, as follows:

1. The discussions, opinions, and recommendations of the Advisory Committee are to be transmitted to the Governing Bodies, in compliance with Resolution XXV of the XV Meeting of the Directing Council on planning of hospitals and other health services.

2. The chief purpose of the Meeting of the Committee is to obtain a pronouncement on the need, advisability, and feasibility of establishing, within the Pan American Sanitary Bureau, a regional agency for technical advisory services to the Member Governments that request them to study their prevalent problems, most salient characteristics, recommended resolutions and chief functions that the Bureau should assume in this function.

3. Ideas are requested for the establishment of the indispensable structures, both permanent and temporary, by means of which advisory services can be given on the planning, construction, remodeling, equipping, organization and administration, training of personnel, operation and financing both national and international of hospitals and other health services.

4. Standards are solicited to set minimum requirements and methods of analysis for the requests received in order to establish the direction of the studies on pre-investment and to strengthen an experience from which all can derive benefit.

The Special Consultant in turn made a summary of the contents of the Working Document, in its general aspects and then outlined the chapters contained therein. In a succinct description of its contents he spoke of the current state of the health sector, health care in general, resources in health, planning of hospitals and other health services and general considerations included in the Document.

The Advisory Committee thoroughly analyzed the Working Document in its various chapters and considered that it properly covered the basic aspects of the problem under discussion. Although the pertinent information is incomplete, it is sufficient to establish that the health situation in Latin America reveals serious deficiencies in its various aspects. High indices of morbidity and mortality prevail throughout the Hemisphere; they are incompatible with the minimum levels desired by present-day society and although there are important improvements in several countries, the picture as a whole is eminently unsatisfactory. It also recognized that this state of affairs is the result of various factors of a historical, cultural, and economic nature and of the policy of national Governments of attitudes and habits of diverse population groups, either organized or unorganized, of a country or region, and that sustained, intense efforts are needed to overcome this whole spectrum of factors. Therefore, the Committee adopted the recommendations and suggestions contained in the Document and decided to include it in its entirety as an annex to the present report.

The Committee also agreed to emphasize the following supplementary points that gave rise to discussion; they are analyzed in the following pages of this report.

I. GENERAL CONSIDERATIONS ON HEALTH

As a conceptual delimitation for beginning and without diverging from the content of Resolution XXV submitted to it for consideration, the Advisory Committee expressed its conviction that there is a basic unity in health problems. As a result of the improvement of public health techniques, an increased knowledge of health matters by the people, the development of international cooperation in this field, Latin American countries have made important progress in improved environmental health and the control of communicable diseases. Nevertheless, these problems continue to show some degree of severity in certain areas, while in others chronic diseases of a degenerative nature are becoming a health problem of first magnitude. In the face of this, medical care acquires the dimensions of a basic health service that must be developed. Everything undertaken in this field in the future must veer toward bridging the traditional divisions found in varying stages of development in Latin America where the tendency toward unity is observed in most of the countries.

The Committee deemed that, in line with this unifying trend, the hospital is being incorporated to an ever greater degree into a single health structure.

II. PLANNING AS THE BASIS OF TECHNICAL ADVISORY SERVICES

The Advisory Committee expressed its agreement, in principle, on the need for the Pan American Sanitary Bureau to establish an adequate structure to strengthen and enlarge the Technical Advisory Services that the Member Governments are requesting with growing intensity.

Nevertheless, and before considering this fundamental objective of the Meeting, the Committee considered those aspects that imply a close relationship between Planning and Technical Advisory Services, as a worthy antecedent of prior consideration.

The Committee made a clear distinction between Planning of the Health Sector and Planning of Health Activities.

With regard to Planning of the Health Sector, it considered the problems related to the construction of a national "system" to constitute an organized structure of the public subsector, tending to assure the efficient utilization and functioning of the services that are offered to the people. It was brought out that in Latin American countries the public subsector is not generally managed by a single agency, and this

occasionally gives rise to a marked dispersion. It is urgent to solve this problem, and promptly to assure internal coordination, both technical and administrative, so that the latter may not hamper but rather facilitate the enhaced performance of the former. Health services must be provided on the basis of adequate regionalization, supplemented on the higher level by a degree of centralization that will assure the necessary unity of directives.

An important problem is the coordination between the public and private subsectors, directed toward the improvement of the efficiency of the national system. To that end it is indispensable that the private subsector must be incorporated into the general plans established for the public subsector in accordance with what each country deems most necessary and feasible.

A second element refers to the administration of the system as such, the need to develop and apply techniques that will assure the maximum efficiency for the use of resources of the health sector. The foregoing statement means that it is necessary to guarantee full knowledge of available resources, and of their yield, distribution and the greatest possible degree of integration of activities, as a technical requisits for their proper efficiency.

A third group of problems is that referring to personnel, in regard to their training as well as their working conditions, policy of recruitment and remuneration, since said personnel have an active participation, which makes them desirable in number and quality. Finally, problems of construction, equipment and functioning of the executive units, by whatever name they are known, was considered.

As to the planning of activities, there are three basic aspects to consider, the classic aspects of planning: demand, capacity for service, and short, middle and long-term goals. It is generally accepted that the present demand is that which is provided for the people at any given moment without overlooking the potential demand that a given country or region is capable of offering to the population in accordance with desirable and feasible levels. The capacity for service with regard to quantity and quality implies a study of available resources and their yield in present-day terms, both those of the public subsector and those of the private one. With regard to the determination of the goals desired by the community, their level is established as a result of combining the potential demand with the present and future capacity for providing health services, the magnitude of which determines the extent and direction of the necessary effort. It is in regard to these points that technical advisory services acquire special importance, to assure the improvement of the health services that are currently being provided.

The Advisory Committee bore in mind the different level that the countries of Latin America had reached with regard to structures

for the national planning of economic and social development, collaboration or understanding between sectors, or dispersion in subsectors and the urgent need for a closer interdisciplinary bond between professionals and technicians, both in the national and the international field.

With relation to the point, the Advisory Committee discussed the advisability of intensifying and strengthening the technical advisory services that the Pan American Health Organization has been giving to Member Governments. Without a doubt the new ideas of economic and social development planning, with the Health Sector considered as one of its components, will bring as a consequence an increas in such requests in the near future. How can this need be met with a view to improving the health services?

The Committee agreed that the application of known techniques would permit an efficient solution of problems of organization and administration, of personnel management and training, of constructions or expansive programming of the services and enhanced utilization of the installed capacity. In principle, after considering the existence of these techniques, technical advisory services of the Organization to provide better service to the Member Governments requesting them appear to be entirely feasible.

It should be borne in mind, however, that the economic situation of the countries of the area seriously limits their possibilities of dedicating the necessary resources to health care: that limitation can only be partially circumvented by means of international assistance. For this reason, the Committee deemed it necessary to recommend that technical advisory services to the countries be directed, basically, toward improving the efficient use of resources destined for health as the most effective and accessible means of increasing the installed capacity of the countries.

III. COORDINATION OF HEALTH SERVICES

A large part of the deliberations of the Advisory Committee were devoted to an analysis of the problem, mentioned in another part of the present document, of the dispersion of energy produced by the lack of understanding, on the various levels, between the different agencies of the public and private subsectors that provide health services in one way or another.

The Committee deemed it advisable to call attention to a frequently-observed situation in many countries, where there is a lack of coordination between the various branches of the ministries themselves, and also in their relations with other subsectors, especially the private one. The result of this lack of collaboration and understanding between the different subsectors of the health sector determines the latter's disintegration and a defective planning of field activities.

The secretariat of the Meeting informed the Committee that a Sutdy Group met between 12 and 16 July under PAHO/OAS auspices to analyze the relations between the medical programs of social security institutions and the Ministries of Health or other governmental health agencies. It was decided to subscribe to those conclusions, among others, that are related to the topic under discussion in order to assure that the various institutions of the health sector make rational use of available resources and of the installed capacity; indicate the methods that will produce the greatest possible yield from those resources; assure that future investments and contributions will be in proportion to needs in order to guarantee their maximum utilization; build in common the future health services in areas not yet covered.(*)

Without detriment to the foregoing statement, the Advisory Committee adopted the following general recommendations:

1. Previous coordination of services pertaining strictly to the public or governmental subsector (nation, states or provinces, towns), because this is the easiest to achieve.

2. Operative and interdisciplinary coordination of the technicians of the different sectors,especially physicians and economists, within a single program.

3. Promotion or improvement of health legislation, according to the case, to avoid duplication of services or unnecessary constructions.

4. Use of loans from abroad to promote a better organization in health of the requesting governments or agencies.

5. Intensification of efforts toward coordination or active collaboration that the Pan American Health Organization has been promoting between different international agencies.

Finally, the Advisory Committee decided to subscribe, also, in the concept of coordination accepted by the Study Group, i.e.: "by coordination should be understood the methodical and orderly use of all available human and material resources in the different public and private institutions for health care."

(*)Study Group on Coordination of Medical Care in Latin America. Final Report. Pp. 7-8; 12-13.

IV. HEALTH RESOURCES

The Committee discussed the principal problems with regard to human resources expressed in health personnel. In general, personnel are in short supply and poorly distributed in the various countries because they are mainly concentrated in capital cities and large population centers to the detriment of smaller groupings of low density, such as rural sectors.

It was believed that a study should be made of personnel needs and of the optimum proportion that should exist between the various medical groups, non-medical professionals, nurses and auxiliaries, to obtain a better yield from health services and to permit more efficient programming of their activities. There is also a need for better utilization of personnel, who should be assigned certain specific functions in keeping with their capacity and training, and not be charged with other unrelated duties. It was recognized that personnel should be given fair remuneration and better conditions for work and improvement.

With regard to the personnel shortage in the various groups, the Committee expressed the need to stimulate the training of medical personnel with a specialty in administration and non-medical personnel for administrative functions, auxiliaries and others. The Committee acknowledged that the Inter-American Development Bank is participating economically in an educational program that may be adapted for application in the health field.

Concerning material resources, the Committee expressed the advisability of bringing uniformity to the terminology in current use with regard to health services, hospitals, installations, etcetera, in order to facilitate the work of international organizations in their advisory activities in this field. It stressed the role of the hospital as part of a health service.

In view of the fact that the balance of existing resources and their distribution in the countries is not known and there is, therefore, an urgent need to conduct periodic surveys by specialized personnel, both national and international, in accordance with jointly established standards. The surveys would cover quality and utilization as well as quantity.

During the discussions, the members of the Committee insisted on the different aspects of the organization and administration of hospitals and health services and the use of certain specific indices to indicate the yield and efficiency of the programs. Also stressed was the importance of the out-patient clinic and home care as basic factors in the most rational and economical utilization of health resources.

The Committee agreed that it is essential to apply the methods and modern techniques of industrial management to health services.

The Committee acknowledged that health expenditures must be considered with those of operation, capital, and expansion. Services can be financed by public funds, cooperatives, and by direct collection from the entity that uses them. In analyzing these last two sources, it was indicated that, unfortunately, the quantity and quality of the services received by the beneficiary still depend on his economic resources in many cases. The Committee stressed the urgent need to correct this situation.

V. PLANNING OF HOSPITALS AND OTHER HEALTH SERVICES

The Advisory Committee took note of the existing good relationship which exists between the Inter-American Development Bank and the Pan American World Health Organization and considered the statement of the Representatives of BID concerning the need for an understanding between both organizations which would enable the bank to receive the advice of PAHO concerning the Frame of Reference, and criteria for the consideration of projects submitted by countries in this sector, and the machinery for their implementation. The Committee maintained that an understanding between the two agencies could be reached in the near future, but its implementation would need to await the results of preliminary investigations which would have to be carried out in the countries themselves.

The Committee analyzed all aspects relating to procedures, constructions completed in recent years, their cost, problems of supply, future constructions, special expenditures in external advisory services and maintenance, renovation and repair of buildings used for health.

In this regard, it stressed

1. That all constructions or remodeling is part of a national plan of construction of establishments designed to put into practice and/or improve the medical care program for the community.

2. That requests, regardless of the institution from which they come, shall fulfill the requisite of being included and of representing a definite part in the national construction plans.

3. That the staffing, equipment and installations, and operating budgets should be taken into account during the preinvestment stage.

4. That special attention should be given to the expenditures that, in certain cases, result from commercial external advisory services and the contractual agreements they imply.

5. That the most suitable indices of construction costs should be established to regulate the margins of acceptable variability.

6. That it is imperative to attain standardization of acquisitions of equipment and supplies, and of constructions where possible, to reduce costs and permit better utilization of the resources.

7. That the statements already made about new constructions also apply to the repair, maintenance, and remodeling of the installed capacity.

8. That national resources should be utilized to the fullest extent possible in accomplishing these construction plans, with international credits being requested to stimulate a better mobilization of domestic resources and in no case to substitute for them.

VI. CONCLUSIONS AND RECOMMENDATIONS

The terms of reference and background material for the work of the Committee, the questions formulated by the Director of the Pan American Sanitary Bureau in his inaugural speech, and the analysis made of the concepts and problems set forth in the present Report permit the following recommendations:

1. The Pan American Sanitary Bureau should strengthen and expand its present organization in order to assume the following responsibilities:

To carry out studies and give advisory services to countries and international organizations on the following matters:

a) Planning and organization of national health services based on adequately regionalized systems in which existing resources would be utilized more effectively and costs and priorities in expenditures and investments would be established.

b) Hospital administration as a means to enhance efficiency and greater yield from the resources.

c) Study of needs in human resources, expressed in personnel, with their various categories, and possibilities for education and training.

d) Efforts to be made to promote the incorporation of these concepts into the curricula of medical schools and to interest universities and other educational centers in research on these matters.

e) Costs and financing of the various systems, including the participation of Social Insurance institutions.

f) Utilization of international resources so that, in addition to their direct purpose, they will serve to stimulate the expansion of national resources for the same objectives and induce their better utilization.

2. To put these functions into practice, the Pan American Sanitary Bureau should establish a Department with personnel trained in administration and planning (physicians, economists, architects, and other professionals) who are specialists in the activities outlined above, using all structures that presently serve this purpose. There will be two types of personnel: permanent and temporary. The Bureau should also maintain a register of professionals and firms that are specialized in such matters.

3. This Branch, so conceived, should establish and intensify its working relationship and liaison with the Organization of American States, Inter-American Committee of the Alliance for Progress, Inter-American Development Bank, Institute of Planning, United Nations Agencies, and other public and private international agencies interested in this matter.

4. A permanent Advisory Committee should be established composed of outstanding persons in the field and representatives of public and private international agencies that lend financial and technical assistance in this matter. The functions of this Committee will be to advise the Bureau in compliance with the tasks outlined in Point 3 and to promote coordination in the use of national and international resources.

5. The minimum requisites for recommending priority standards for the approval of requests from countries will be:

a) Existence of national or local economic and social development plans, in the planning stage or in progress, in which there is parallelism and balance between the different sectors.

b) Desire and possibility of the requesting Government to provide the indispensable structures, organization, and administration for the attainment of the goals by means of the consequent reforms.

c) Present state of pre-investment studies.

d) Desire to contribute with their demonstration and application areas and size and importance of such areas.

e) Technical integration of the preventive and curative activities and administrative coordination of the different health institutions.

On 30 July at 9:00 o'clock, the Advisory Committee held its last meeting to discuss the draft of the Final Report, which was unanimously approved by its Members with the addition of several supplementary clarifications.

Speaking for the Committee, the Chairman expressed satisfaction and pleasure with the manner in which the working sessions had developed and the atmosphere of harmony and understanding that had prevailed. He expressed the wish that the recommendations made by the Committee in the Final Report would assist the Organization in complying with the provisions of Resolution XXV.

Mr. Alfred C. Wolf, Program Adviser of the President of the Inter-American Development Bank, offered the apologies of Mr. Felipe Herrera who was unable to be present to describe the work that he and his colleagues on the Advisory Committee had accomplished in the various working sessions. "I believe," said Mr. Wolf, "that it is safe to say that we are ready to collaborate with the Organization in defining terms, conditions, and standards for carrying out the programs, and in pre-investment projects formulated by the Member Countries through the Pan American Sanitary Bureau."

In bringing the activities of the Advisory Committee to a close, the Director of the Pan American Sanitary Bureau thanked the Chairman and the Members of the Committee and the Inter-American Development Bank for contributing their experience and authority to the sessions, and added: "We are going to do everything in our power to see that the ideas you have left recorded in this Report will become a reality. I like to think that this matter will acquire within the Organization a structural, budgetary, and functional identity which, naturally, will have to be expanded to the extent and in the manner that the Governments determine. I should also like to make special mention of the presence of the Inter-American Development Bank, the statements I had the opportunity to hear in the first session, subsequent conversations with its Representative on this Committee, and to say that I am confident that your recommendations can be brought into being. Thanks to the interest, policy, and initiative of the Bank, a number of activities in the health field are now being carried out in Latin America. A few days ago, in a meeting of officials of two Zones held in Montevideo,

a summary was given of water service activities to June, 1965. It was pointed out that national and international investments in excess of $600,000,000 have improved the quality, quantity, and distribution of water to more than 40,000,000 persons in Latin America. I believe that the same thing is going to happen in this field, in which, naturally, there is much more experience, a very ancient tradition and therefore old habits. I hope that your ideas will be fundamental to guide the modernization of systems to benefit the largest number of persons."

PLANNING OF HOSPITALS AND HEALTH FACILITIES

Working Document prepared by the Secretariat of the Pan American Health Organization for the meeting of the Advisory Committee convened in compliance with Resolution XXV of the XV Meeting of the Directing Council of the Organization.

Washington, D.C., 26-30 July 1965

SUMMARY

PLANNING OF HOSPITALS AND HEALTH FACILITIES

TERMS OF REFERENCE OF THE ADVISORY COMMITTEE

1. The discussions, opinions, and recommendations of the Advisory Committee are expected for transmittal to the Governing Bodies in compliance with Resolution XXV of the XV Meeting of the Directing Council, on the planning of hospitals and health facilities.

2. It has been established as a basic purpose of the Meeting of the Committee to obtain a statement on the necessity, suitability, and feasibility of setting up in the Pan American Sanitary Bureau a regional body to provide technical assistance to Member Governments requesting it, directed toward study of their prevailing problems, major characteristics, solutions to be recommended, and chief functions to be performed by the Bureau in effecting them.

3. Ideas are requested for establishing the necessary permanent and temporary structures through which to advise on planning, construction, remodeling, equipping, organization and administration, training of personnel, operation, and national and international financing of hospitals and health facilities.

4. Criteria are requested for the setting of minimum requisites and methods for study of the requests received, for the purpose of guiding preinvestment studies and accumulating experience from which all may benefit.

PLANNING OF HOSPITALS AND HEALTH FACILITIES

(Working Document)

We are convinced that there is no planning of medical care. If there has been any planning, then there has been very little of it. In most countries there has been neither a national plan nor a long-term plan. In most of them there is no ordering of needs, priorities, resources, no statement of definite objectives or the funds necessary to reach them.

(From the opening address by the Director to the meeting of the Advisory Group on Medical Care in March 1962).

The present working document, prepared by the Secretariat of the Pan American Health Organization, is a supplement to the official invitation sent to the Members of the Advisory Committee dated 24 May of the current year. Any inadvertent gaps or omissions are explained by the pressures of haste to comply with Resolution XXV of the XV Meeting of the Directing Council.

The Secretariat has sent the working document as soon as possible in its desire to do whatever it could to facilitate the creative labors of the Advisory Committee and thus receive the benefit of its contribution and final recommendations. It has sought to carry out its duty of providing the Committee with the chief background on what the Organization and its Governing Bodies have done to delineate a continental medical care policy as a component of economic and social development (Part I) and with the basic information available at present, which will be added to in the coming years (Part II).

Like others of its kind, this document has no other purpose than that set forth above. An official publication that brings together in a single text background material pertinent to any subsequent discussion in this field (*) and a monograph describing the status of medical care in five Latin American countries and offering some general impressions (**) are accompanied.

(*) PAHO. Publicaciones Científicas Nº 70. Atención Médica. Bases para la formulación de una política continental. Washington, D.C., 1962.

(**) ROEMER, Milton I. Medical Care in Latin America. OAS/PAHO Studies and Monographs III. Washington, D.C. 1963.

PART I

PERTINENT BACKGROUND TO GUIDE THE DISCUSSIONS OF THE ADVISORY COMMITTEE

It has been thought appropriate, for the guidance of the Advisory Committee, to sum up in a few paragraphs certain background material on previous international and Organization activities. This relates to the major aspects of the health sector as a component of development. Medical care is incorporated into it as one of the basic services in any national or local health plan, within a cohesive, integrated system that will make it succeed. This first part concludes with a more detailed account of the terms of reference of the Advisory Committee.

1. A DEFINITION AND A RESULTING POLICY

By the term medical care, the Pan American Health Organization means "the totality of direct and specific measures aimed at placing within reach of as many people as possible facilities for early diagnosis; prompt, thorough, and restorative treatment; and follow-up. These facilities are provided through institutional and private medicine. The basic medical care service also contributes to education and research and--indirectly, secondarily, and through the individual--to health promotion and protection; but for the latter purpose systematic, coordinated national or local programs are used". (*)

In this definition, which is quite broad and well balanced, specific and nonspecific responsibilities are distinguished, in order not to trespass upon other disciplines; the individual and his family are considered to be the social unit; the coexistence of government and private medicine is recognized; impartial collaboration in health protection and promotion is offered; care of the sick is incorporated into national and local health programs; the need for establishing a "system" of facilities is mentioned; and the coordination of all health activities is implicitly advocated.

The proposed definition is included as helping to delimit more clearly the conceptual outlines of the topic "Planning of Hospitals and Health Facilities", for the debates of the Advisory Committee which are expected to be constructive and illuminating. The sense of the definition is that hospitals, which are basic institutions of medical care, cannot and should not be considered apart from the other facilities that go to make up a cohesive "system". This was the consensus of the last meeting of the Executive Committee when it analyzed this concept. (**)

(*) PAHO. Publicaciones Científicas Nº 70. Atención Médica. Bases para la formulación de una política continental. Washington, D.C., 1962, p. 52.

(**) PAHO. Document CE52/26, p. 22.
PAHO. Final Report, Document 52/22, Resolution XXV, p. 26.

2. TOWARD THE FORMULATION OF A CONTINENTAL POLICY

As is well known, a number of events in recent years have occurred to substantiate the principle that health is a component of economic development and social progress, since there is a close and reciprocal relationship between people's health and their economic situation.

This principle, stated at Buenos Aires (1959) and Bogotá (1960), was consolidated at Punta del Este, Uruguay (1961). On medical care, there is an explicit recommendation "to take measures for giving increasingly better medical care to a larger number of patients, by improving the organization and administration of hospitals and other centers for the care and protection of health". (*)

Resolution A.4 of the Charter of Punta del Este recommended that the Secretary General of the Organization of American States establish task forces in various phases of economic and social development to study the most significant problems and recommend solutions "that may serve as a basis for the member states in preparing their national development programs". With respect to health, the resolution indicated that the task force should be organized through the Pan American Sanitary Bureau, which was specifically called upon to "appraise the prevalent problems and suggest general lines of action of immediate effect relating to: the control or eradication of communicable diseases; sanitation, particularly water supply and sewage disposal; reduction of infant mortality, especially among the new-born; and improvement of nutrition; and that it also recommend actions for education and training of personnel and improvement of health services". (**)

To carry out this mandate, the Organization in March 1962 assembled in Washington the Advisory Group on Medical Care, among others. Its final report contained recommendations based on a working document prepared by the Organization.

In August 1962 the Technical Discussions at the XVI Pan American Sanitary Conference, held in Minneapolis, Minnesota, were devoted to a single subject: "The Present Status of Medical Care in the Americas in Relation to its Incorporation as a Basic Service in Integrated Health Programs". Three working documents, covering available information, economic aspects, and effective utilization of existing resources, were submitted for consideration. These were summarized in the Report of the Rapporteur, which was approved with slight modifications.

(*) OAS. Document OEA/Ser.H/XII.1, p. 32.

(**) OAS Official Records. OEA/Ser.H/XII.1 (Eng.). Resolution A.4, Nº 4.

All the documentation thus assembled was compiled by the Organization as Scientific Publication Nº 70, which accompanies the present working document. (*)

This general orientation was then considered in April 1963 by the Task Force on Health at the Ministerial Level, which discussed medical care as part of the topic "Improvement of Health Services". The final report set forth the following basic premise as a continent-wide criterion and a future line of action:

> It is necessary, when planning for the expansion of health services, especially in the case of medical care, to take into account not only the cost of construction and equipment, but also the quantitative and qualitative personnel requirements and the budget for operation. Such expansion should be prudently phased; at the same time, existing resources should be fully utilized. Construction plans should form an element of national health plans. (**)

This, in brief, is the historical background up to the XV Meeting of the Directing Council, at which Resolution XXV was adopted. That resolution led to the calling of the Advisory Committee on the topic dealt with in the present working document.

3. THE DIRECTING COUNCIL ENDORSES A STRENGTHENING OF INTERNATIONAL ADVISORY SERVICES

During the XV Meeting of the Directing Council, held in Mexico City in September 1964, the Director of the Pan American Sanitary Bureau, at the second plenary session, summarized the problem in the following terms:

> Medical care was perhaps the field in which the problem of putting available resources to use was most apparent. The difficulty was particularly noticeable in hospital administration because of the magnitude of this function and the investments required. Hospital building and installation was primarily a technical problem, but one with broad financial implications. Owing to the heavy investments being made by the Latin American countries, international cooperation might play a more active role through some sort of regional mechanism to which detailed consideration should be given. (***)

The present working document ventures to draw attention to this last point because it constitutes one of the most important terms of reference of the group convened to express its judgment in the matter.

(*) PAHO. Publicaciones Científicas Nº 70. Atención Médica. Bases para la formulación de una política continental. 1962.

(**) PAHO. Task Force on Health at the Ministerial Level. Official Document Nº 51, 1963, p. 37.

(***) PAHO. Official Document Nº 60, 1965, p. 26.

The idea was taken up by the Directing Council. Indeed, Resolution XXV, adopted at its 12th Plenary Session, held on 8 September 1964, reflects the Council's determination to put it into practice.

In the preamble, this resolution indicates that the health planning process includes defining the relative roles of hospitals and other facilities in orderly national health development; recognizes the need for additional hospitals and other health facilities and for the re-orientation of existing ones, as demonstrated by the first health plans; takes note of the enormous sums of money required for hospital construction and operation; expresses concern over the costly overlapping of medical care facilities in some countries; and notes that the IA-ECOSOC has made recommendations (*) on outpatient care. In view of all this, the Directing Council resolved:

1. To request that the Director of the Bureau, through an advisory committee, study the planning aspects of hospitals and health facilities within the national health planning process, and that he report to the 52nd Meeting of the Executive Committee and to the XVI Meeting of the Directing Council on how the Bureau can best participate in the planning for the construction, staffing, and operation of integrated hospitals and related health facilities designed to serve the community needs in the various countries.

2. To urge that the recommendations on this subject made by the Second Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level be taken into account. (**)

The breadth of scope of this resolution is revealed by its implications:

a. Orderly incorporation of medical care into the national and local plans for social and economic development; improvement of health services, hospitals, and outpatient clinics as a result of the technical integration of preventive and curative activities.

b. Construction of new health facilities and remodeling of existing ones so as to increase population coverage on a continental, national, and local level; improving their organization and administration through adequate coordination of the institutions involved, so that better use can be made of available resources.

c. Planning of health services with a better understanding of the present and the future, determining the initial investment required for buildings and installations, operating budgets, and personnel needs.

d. A meeting of an advisory committee for a comprehensive study of the problem, with a view to finding how best to strengthen the technical assistance the Pan American Sanitary Bureau can give in this field and how to put it on a permanent basis.

(*) OAS Official Records. OEA/Ser.H/XII.6 (Eng.), 1963, pp. 69-70.

(**) PAHO. Official Document Nº 58, pp. 29-30.

With regard to this last point, it is worth while to emphasize once again, for the Advisory Committee's information, the idea of establishing machinery for regional action and setting up a system in the Pan American Sanitary Bureau whereby Member Governments requesting it can receive advice on the general programming of integrated health services, with particular stress on medical care. They could thus be helped to determine the number, nature, and geographical distribution of facilities needed. They will also be able to count on advice about type and quality of equipment and installations and on personnel requirements and training. All this is to be financed through the national budgets or foreign capital contributions, with due attention to the fact that the idea of planning involves prior study of the economic infrastructure (communications, transportation, power, and so on).

4. FIRST STEPS TOWARD COMPLYING WITH RESOLUTION XXV

These are the main characteristics and implications of Resolution XXV, which the Pan American Sanitary Bureau was called upon by the XV Meeting of the Directing Council to put into practice. The quotations and comments above show the scope of the problem and the difficulties to be overcome during the next stages.

The Bureau's immediate task was clearly indicated: to convene the Advisory Committee and provide it with all the background material that could be assembled, so that it could examine the matter with full knowledge of the facts and draw up recommendations for consideration, in due time, by the Organization and its Governing Bodies.

As on other similar occasions, the cooperation of a special consultant was deemed essential. After briefing by the Branches and Units involved, he was to draft a working document to facilitate the work of the Advisory Committee.

In order to carry out Resolution XXV and derive the fullest benefit from the creative activity of the Advisory Committee, the Organization had first to determine what information could be furnished to enable the Committee to make useful recommendations for current and future purposes to the Organization and its Governing Bodies.

The brevity of Resolution XXV by no means indicates that its contents, or its short- and long-range implications, may be overlooked. With this in mind, the Organization proposed the following general pattern:

a. Current status of the Health Sector.- Health services. Classification and geographical distribution of the services. Population coverage rate. Specific responsibilities of the institutions involved. Degree of coordination among them. Duplication and overlapping.

b. Health care.- Preventive establishments that in one way or another assist the basic medical care services. Institutional medical care. Medical care at home. Outpatient medical care.

c. Hospitals.- General classification. Number. Size. Number of beds. Allocation of beds. Condition of installations. Organization and administration. Patient-days. Average stay. Bed occupancy. Outpatient services and number of new and repeat visits. Number of consultations per patient per year. General and special costs.

d. Personnel.- Professional, technical (laboratory), and auxiliary groups. Absolute figures and indexes. Distribution. Training needs. Current shortages.

e. Planning.- General program of new construction and remodeling to establish a graded "system" of health services technically integrated, administratively coordinated, and regionally distributed according to local requirements and demand. Technical capacity to cope with this job (Government services or private enterprise, personnel, materials, construction capacity). Study of recent construction and costs. Special expenses for national or international advisory services on plans, drawings, construction, and installations. Equipment and installations available within the country or exportable. Approximate cost per bed. Amount budgeted for maintenance, repairs, and renovation. General estimate of equipment considered useless, unsuitable, or superfluous. Requirements for the normal operation of the program, once all construction and remodeling have been finished, in terms of operating program budgets, personnel needs, and training expenses.

f. International advisory services.- Methods, procedures, and organizations through which the Bureau might intensify its technical advice to the Member Governments in planning, construction, fitting out, remodeling, organization and administration, personnel training, and applied research in health services and medical care.

5. THE EXECUTIVE COMMITTEE APPROVES A PRELIMINARY REPORT

Most of the foregoing considerations were included in the Preliminary Report submitted, in accordance with Resolution XXV, to the 52nd Meeting of the Executive Committee of the Organization, held in Washington in April of this year. This body's reaction was favorable to the central idea of establishing in the Pan American Sanitary Bureau a regional mechanism for strengthening international assistance in the planning of hospitals and health facilities.

Opinion was unanimous that the Organization should be supported in its effort to deal with the problem of medical care within the general planning of health services as a component of economic and social development; that coverage should be increased, particularly in rural areas; that the planning of hospitals should not be considered separately from other health facilities; that coordination was essential among the plans of all agencies engaged in health work of one kind or another.

Thus many of the participants made special reference to social security institutes and to the need for strengthening coordination machinery. The point had to be made that this important subject had been omitted from

the report under discussion because it was to be taken up specifically by another study group in the middle of July.

Commenting on the opinions expressed by the Members of the Executive Committee, the Director indicated some practical aspects. He recognized that the subject was a complicated one and should receive special attention. For some time Government representatives and Bureau experts had been noticing in Latin America the curious fact that there was a shortage of facilities of all types and qualities and that those that did exist were less productive than might be expected. He recognized that large sums were being invested, but not always in accordance with the needs indicated by technical people. The fact was that the Governments either did not have the resources or, if they did, failed to employ rational programming in the use of this combination of national and foreign capital. The Bureau hoped that the group of experts soon to meet would recommend a regional mechanism that would make possible the active utilization of all existing and potential resources in the provision of care to the sick and the promotion of health among the population. No concrete idea had yet been formulated, and it was important that the group should express its point of view since this was the mandate of the Directing Council. He emphasized, however, that the Bureau wished to go further than a mere recommendation--the authority for which it had already received from the Governing Bodies. An undertaking of greater scope was envisaged, in view of the settled conviction that the Hemisphere as a whole had excellent technicians whose services could, by means of the Bureau mechanism, be taken advantage of wherever needed. In construction, in the quantitative and qualitative programming of resources, in equipment, in the education and training of technicians, the Hemisphere had unsuspected resources. In short, anticipating the Bureau's presentation to the Advisory Committee, he said that what was wanted was not just a consultation or a recommendation--which the Bureau was authorized to make--but a thorough examination of the problem with a view to solving it from a continental standpoint through the establishment of whatever structure was best for the purpose and capable of attracting the help of foreign capital. (*)

The consensus of the Executive Committee's discussions is summed up in Resolution XVI:

> 1. To take note of the report of the Director on the planning of hospitals and health facilities (Document CE52/4) and of the progress made towards complying with Resolution XXV of the XV Directing Council.
>
> 2. To commend the Director and the staff of the Bureau on the preparation of a sound, comprehensive plan of operations for the studies and assistance requested in Resolution XXV, and to emphasize the need for this plan of operations to be supplemented by the work of an advisory committee that will be appointed to make a study of the medical care problem in the Continent covering all the subsectors providing medical care services.

(*) PAHO. Document CE52/4 and Document CE52/26, pp. 8-26.

3. To emphasize the importance of having senior officials responsible for the medical care benefits of social security services take part in the discussion of this problem at the next meeting of the Directing Council and to instruct the Director to suggest to the Governments when convening the above-mentioned meeting of the Council that they include such officials in their delegations.

4. To recommend to the Directing Council that it support the proposed plans and induce the Governments to do so; and to invite the Director to submit a report to the 54th Meeting of the Executive Committee and the XVII Pan American Sanitary Conference on the progress made in the planning of medical care services that have been incorporated into the general health services or have coordinated with them. (*)

6. FRAMEWORK FOR COMMITTEE ACTION IN THE LIGHT OF PREVIOUS AGREEMENTS

The foregoing account may appropriately be followed by fairly detailed reference to the framework for the Advisory Committee's activities, before the supplementary background on which its work will be based is set forth, in Part II.

A. Primary objective of the Meeting: Preparatory statement on the necessity, suitability, and feasibility of establishing a regional technical assistance organization in the Pan American Sanitary Bureau. Minimum permanent structure through which adequate technical assistance in Member Governments' various needs and requirements may be obtained--by contract in whatever country and from whatever organization or professional is best able to provide it--for those that so request and that agree to the procedures. Practical ideas for structures, methods, and procedures for the review, fulfillment, and resolution of requests and contractual principles for bilateral or multilateral agreements.

B. Types of assistance: To establish practices where the need is most urgent and pressing, particularly in connection with preliminary studies in: (a) General planning of "systems" of national or local health facilities, with medical care included or coordinated. (b) Planning of new facilities, with respect to geographical distribution; construction; equipment; study of staff needs and systems for selection, training, and orientation; organization and administration of services; costs, investment and operating budgets; national and international financing. (c) Improvement and, where necessary, remodeling of existing facilities according to the criteria listed under (b).

C. Minimum requirements: To recommend priority standards for the approval of requests for technical assistance in relation to: (a) Existence of national or local plans for economic and social development, projected or under way, in which the various sectors are aligned and balanced.

(*) PAHO. Final Report, Resolution XVI. Document CE52/22 (Eng.), p. 25.

(b) The requesting Government's desire and ability to set up the necessary structures, organization, and administration for achieving its goals, through the resulting reforms. (c) Current status of preinvestment studies. (d) Desire to contribute demonstration and application areas. (e) Size and importance of these areas. (f) Technical integration of preventive and curative activities and administrative coordination of the various health institutions.

A careful examination of this part will show that it covers virtually all the ideas contained in the discussions and resolutions of the Meetings of the Organization's Governing Bodies and the mandates emanating from them.

PART II

CURRENT BASIC INFORMATION FOR USE BY THE ADVISORY COMMITTEE

1. GENERAL CONSIDERATIONS

Resolution XXV adopted at the 12th Plenary Session of the XV Meeting of the Directing Council, held on 8 September 1964, requested that "the Director of the Bureau, through an advisory committee, study the planning aspects of hospitals and health facilities within the national health planning process, and that he report ... on how the Bureau can best participate in the construction, staffing, and operation of integrated hospitals and related health facilities designed to serve the community needs in the various countries." It thus implicitly recognized that the planning of hospitals and health facilities is an inseparable component of medical care, of integrated health activities of programs in this sector, and--in logical consequence--of national development plans.

The preparation of a working document for the Advisory Committee required not only study and analysis of the figures on hospitals built, their cost, their staffing, programs for the future, and so on but also a panoramic view of the health situation in all the Latin American countries.

The task was not easy, because of the short time available and because of the lack of complete and reliable information on various points. Despite these difficulties, however, the facilities provided by the Ministers and Secretaries of Health in the countries visited and by the Directors of Health and their medical and nonmedical colleagues made it possible to learn a good deal about the organization of health facilities. Mention should also be made of the help afforded by officials of the Pan American Health Organization who cooperated in the drawing up of programs for interviews, visits, and trips to the interior of the countries and particularly in the improvement by their own knowledge of the survey agreed upon.

It is worth while to note that on occasion the personal contact was more valuable than the obtaining of bald figures, the interpretation of which was often dubious or difficult. This contact made it easier to perceive the truth about a situation sometimes rough and deceptive.

The Consultant's program of visits to eight countries considered representative of the present status of health and medical care in Latin America was determined by the need for providing the Advisory Committee with as much new or updated background as possible on the aspects mentioned in Part I of this working document. As the planned stages were completed it became clear, as was to be expected, that in each country the situation is different, though there are numerous points in common that induce an over-all assessment. But when the situation of the health sector in these countries is compared, it can be seen that some are in the midst of stages through which others have already passed, the latter having use-

ful experience to contribute that can be adapted to each country's individual characteristics.

Historical, ethnic, cultural, socioeconomic, as well as structural and organizational factors, together with a sizable population growth unaccompanied by adequate economic and technological development, have brought about diverse systems and facilities in the health sector of the Latin American countries. These are not easy to reconcile and are susceptible of improvement through more rational patterns ensuring better use of existing resources. Leading roles in the achievement of these changes are played by the national policy of the incumbent Government; by the institutional policy of the public and private sectors; and by the habits and attitudes of organized medicine , the nonmedical professionals, and the community. On more than one occasion it was possible to observe the reluctance of some of these groups--components of economic and social development--toward accepting plans, programs, systems, or procedures that would make it easier to achieve certain goals.

An analysis both of previously existing information and of the new data obtained in the countries visited shows the effort being made in each of them to achieve a higher level of health in the population--an effort expressed through the establishment of coordinating and planning agencies; programs for the building of hospitals, clinics, and other health facilities with domestic resources and/or foreign aid; an increase in the education and training of personnel on various levels; agreements toward the coordination and sometimes the administrative integration of the different health facilities; the technical integration of preventive and curative activities; the development of programs in medical care, rural medical care, maternal and child health, nutrition, sanitation, food control, epidemiology, and special fields.

In some Hemisphere countries a start has been made on drawing up health plans in the form of program-budgets, through the planning departments, either subsectorial or at ministerial level. By means of a newly adopted and rational methodology, an attempt is being made to put existing health resources to the most advantageous use through a determination of costs and priorities in expenditures and investments. The results cannot be anticipated; the evaluation made in one of the countries visited a few months after the method went into effect is not and cannot be indicative of its success or failure.

With respect to the national development programs, it is apparent that interministerial coordination is defective or non existent in some countries; in others, plans for the health sector have been formulated by themselves, without the support of the other sectors, which limits and impedes the correct and proper application of the plan. Besides this, the organization of Health Ministries, Secretariats, and Bureaus is so structured in some countries that it does not facilitate good preparation and execution of programs.

Another significant fact noticeable in many Latin American countries

is the advance of social security in the sphere of medical care. Although this important matter is being considered by another Study Group, it was deemed it necessary to examine its relationships with other health facilities and all the aspects that may provide more and better information to the Advisory Committee.

Significant progress has been made in the education and training of health personnel. The various countries are anxious to increase the available human resources. Two basic problems have arisen in this field: shortage and/or poor distribution of personnel. In some countries personnel-distribition ratios have been applied, and in others performance quotas have been assigned in accordance with the program-budgets (health plans).

In certain countries emphasis has been placed on the training of physicians through the establishment of new medical schools--the number in some has tripled during the past five years. The lack of specialized medical administrators is obvious in many countries, and to train these specialists it is therefore becoming necessary to set up short courses --besides the regular long courses--in the public health and hospital administration schools.

Another important item is the shortage of nurses, which is general in Latin America. As in the preceding case, various procedures have been tried to increase the number and to keep them from migrating to other countries where better financial prospects are offered. The same thing is happening with other nonmedical professional groups. In addition, there has recently been an increase in the training of nursing auxiliaries, with selected candidates, in courses ranging from three months to a year.

In the past five to ten years, the planning, construction, and remodeling of hospitals, health facilities, outpatient clinics, and other medical care institutions in Latin America have run the gamut of systems, criteria, and procedures. It is perhaps in this aspect of medical care and, consequently, of community health care, and also in the organization and administration of health services, that international organizations can most effectively give help to countries when they need it, since, as has been said previously, programs related to the construction of hospitals, clinics, and so on cannot be detached from sectorial health plans and from the very organization of their services without the risk of duplication, often at very high cost.

Finally, in this general review, it should be noted that more and more frequently international programs are being drawn up and put into effect that are designed to eradicate communicable diseases and to solve nutritional, basic sanitation, and other problems. Furthermore, an ever-increasing interchange of professionals, technicians, and specialists is creating in Latin America an awareness that better goals (satisfied demand and a decrease in deaths) must be achieved by making rational use of

resources through the adoption of working methods and organizational systems that are attuned to the real situation and the individual characteristics of each country.

The general considerations that have just been reviewed make it advisable to stress once again the importance of Resolution XXV with respect to improving, on new bases, the Pan American Sanitary Bureau's full and permanent assistance on medical care incorporated into health facilities--the main topic submitted for Advisory Committee discussions leading to recommendations on the best means of putting it into practice.

2. DEVELOPMENT OF THE SURVEY

The survey conducted for the gathering of information, background, and theory comprised four (4) groups of questions:

A. Present status of the Health Sector - Health Facilities

B. Health Care

C. Health Resources (institutions, staff, financial means)

D. Planning

Initially, various aspects for investigation were included in these groups; some came to be discarded because it was impossible to obtain adequate replies or because they proved to be of little use when the data recently obtained in each country were analyzed as a whole and compared with those already existing. They might be a subject for future research that would fill in our knowledge of the status of medical care in Latin America.

Furthermore, it was not easy to quantify the material collected in cases where figures supplied by two or three different sources disagreed or could not be reconciled.

A. Present Status of the Health Sector - Health Facilities

a) The Health Sector as a component of economic and social development. Health plans.

In recent years, at various international meetings held in Latin America, emphasis has been placed on the need for promoting the populations' welfare in order to improve living conditions. On this premise, the Governments, through plans and programs for economic and social development, have sought a growth in their economies, in production, and in productivity and also an improvement in health, education, housing and nutrition, and labor and recreation, among the most outstanding fields.

At the Meeting of the Task Force on Health, held in Washington 15-20 April 1963, it was stated in the Final Report:

> A health and active population is essential for economic growth and social progress. Health is therefore a basic component of development and of the standard of living. Resources devoted to health care are an investment, a source of productivity, not an expenditure.

> The return on that investment can be measured in terms of the improved capacity of the members of a community to create, produce, invest, and consume. It may likewise be measured by the greater yield obtained from natural resources as a result of health work.
>
> Seen from another viewpoint, improvement of health implies a raising of living standards that basically benifits the low-income groups of our communities. Consequently, it contributes notably to the attainment of one of the most important goals of the development process, that is, to bring about a better distribution of an increasing real income.*

With health considered as a component of development, its close relationship to the other sectors becomes plain; thus the health sector cannot be omitted from national planning. It must be said that so far the health planners have been tightly bound to the respective Ministries and that the whole of a given country's or region's resources have not always been considered in the plans. These omissions in national health planning are due in almost all the Latin American countries to ignorance of the total of material and human resources available in this sector. Only in a few have censuses or catastral surveys of resources been made, by specialized personnel traversing the entire country, since the survey procedure is subject to error and personal interpretation. There is a remarkable, but not unique, case of a national capital in which up to a year ago the list of health establishments included a 100-bed hospital that was supposed to have been in operation for 20 years. When the census was taken, it was found that the hospital had never existed. Investigations revealed that it had reached only the initial step of an application to be founded.....

In addition, it is extraordinarily difficult to obtain usable and reliable background on the private subsector of health, for which complete information -- the basis for a plan or program -- does not exist or is very defective.

Since it is essential that health plans should be not ministerial or subsectorial but truly national, in totaling the resources of all the organizations concerned it is necessary first to set up standards and procedures that will make possible exact knowledge of the true situation of the health sector.

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* The Politics of the PASB in the Medical Care of the Communities. IV Meeting of Zone IV Countries' Representatives, July 1964.

According to up to date information at the time of preparing this document, there are Planning Units in the Ministries of Health of 17 Latin American countries and health plans have been completed in 10 of these. It must be stressed that in the majority these are merely subsectorial health plans. Also, according to the same sources, in 5 of the countries plans are being formulated.

b) The Ministries of Health and their responsibilities.

In attempting to examine the present status of the health sector in Latin America, it must be borne in mind that since health is an eminently medical economic and social problem, the formulation and fulfillment of a health policy should be the responsibility of a single government agency -- the Ministry of Health. Through a National Health Service covering the entire population, or through the existing health services by delegation of activities, the Ministry of Health develops this policy in plans and programs that comprise integrated health activities (preventive and curative).

With the background available, it is safe to say that in no Hemisphere country has this responsibility been given to the Ministry of Health; on the contrary, participating in community health care are such other Ministries of Labor and Welfare, to which the Social Security funds belong; Education, which carries on programs of school medical care; Defense, which has its own curative services; Development and Public Works, with medical care services for certain labor groups, and others. In two countries, the Ministry of Health also includes Welfare and Labor.

This state of affairs has come about because the Ministries of Health are unequipped - financially, in resources, and otherwise - to satisfy the obvious demand for medical care, both out-patient and hospitalized, and carry out the programs of health protection and promotion that are within its sphere. Furthermore, the lack of sufficient legal and administrative support have contributed toward maintaining this situation.

It should be noted in this respect that the Pan American Health Organization has been advocating a legal and administrative strengthening of the Ministries of Health. As for the former, it ascribes particular importance to written law because of the weight this carries in the Latin American countries. As for the latter, it believes that the power to establish standards and control the administration of health services belongs by right to the Ministries of Health, without prejudice to their power of delegating activities to other Health Institutes.

In accordance with this doctrine, some countries have passed laws giving greater authority to the Ministries of Health and have modified and simplified their structures. Because these changes are recent, however, the results cannot be evaluated.

c) Coordination and integration.

Much emphasis has been placed on administrative integration of the various health facilities, a different matter from technical integration of health activities. It has been warmly defended by some, assailed by others; the real possibilities have met stumbling blocks in the political, economic, and personal sectors and in institutional autonomy, shortage of resources, and other difficulties.

These limitations, which are also valid with respect to achieving good coordination of health facilities, should be more precisely outlined, since the success of the program depends on the multiple alternatives they present.

Among them must be recalled the medical profession's defense of private practice and its opposition to bureaucratic medicine as injuring its financial prospects; the professional training given by the Medical Schools; the distrust of the labor sectors toward government medical care, which they consider poor or deficient, and the interests that have promoted laws granting different benefits. To these must be added the separation that has so far existed, and survives in some countries, between preventive and curative activities, which are subject to the policies of institutions that grew separately. Despite these difficulties, a change of attitude is occuring in the Hemisphere that sooner or later will result in new patterns for raising the health level of the populations.

In this respect it should be recalled that technical and administrative integration has been achieved at the national level in only one American country; in another, this has come about partially, since coverage is not total in regard to institutions and population. In the face of this situation, coordination of the Health Services was indicated as a temporary or final stage; in some Hemisphere countries, this has been started in some regions and localities (pilot projects).

The efforts toward effective coordination with the Health Sector have taken the following forms in the various countries:

(i) The granting of subsidies to local "beneficencias" and similar bodies, with the Ministry of Health reserving the right to set standards of organization and administration and assuming supervisory functions.

In some countries where this procedure, reinforced by written agreements, has been put into effect, it has not had the expected results in changing situations so deep-rooted and traditional. Nevertheless, it should be persisted with and the control and supervision procedures should be improved.

(ii) Transfer or purchase of hospitals and health facilities between institutions, where the original proprietor is financially unable to pay the operating expenses or where the government contribution is very large. In one country the Ministry of Health sold some hospitals to a Social Security Institute for $36,000,000; contrariwise, another Institute turned over a hospital to the Ministry of Health for remodeling and administration. Such examples are showing that moves of this kind can promote more active interinstitutional coordination.

(iii) Coordination among the various Social Security agencies within a country, by means of a Higher Coordinating Council; with this a great number of activities have been shared by the various agencies and it has been settled that, in the future, new hospitals will provide services without distinction to affiliates of all the institutions.

(iv) Contracts between the Ministries, the Social Security agencies, and other Health Services for utilization of beds without discrimination among beneficiaries.

(v) Technical directives, issued by the Ministries of Health and nationally applicable, on statistics, pharmaceutical products, immunization, conditions on premises for food processing and sale, and so on.

(vi) In some countries changes have been made in the administrative structures of the Ministries of Health, with regional decentralization and a technical chief -- a health specialist -- for each area, in charge of directing and supervising medical services there. Experience has shown that this procedure is adequate and suitable; however, owing to lack of legal and financial support, the work of these authorities has sometimes not been as effective as it should be. In most countries, the scarcity of health specialists has been another factor impeding the execution of this procedure.

(vii) In one country, a law was passed under which formerly separate services were integrated administratively and technically. This Service was put in charge of all preventive activity in the country and of curative coverage exceeding 70 per cent of the population.

In any case, the question arises how to achieve this coordination. Integrated planning of economic and social development; standardization on the national level of the different social security systems; establishment of health insurance covering the entire population; financial, legal, and administrative strengthening of the Ministries of Health; coordination of local health activities; education of the trade-union sector -- these are some of the measures recommended for achieving coordination of Health Services.

The first Latin American Regional Assembly of the World Medical Association, held in Santiago, Chile, from 3 to 10 April of this year, summarized its ideas on the problem as follows, in the conclusions of the topic "The Various Medical Care Services and Their Application in Latin America":

> Any medical care system in a country should be adapted to its history; its economic and social situation; its ecological, educational, and sanitary conditions; and its possible planned evolution.
>
> Considering:
>
> 1.- That there are differences between the Latin American countries with respect to demographic situation, health problems, and cultural and organizational characteristics;
>
> 2.- That health is a right and that therefore medicine should be universal, prompt, adequate, continous throughout life in health and in sickness, integrated, and including health promotion, protection, and recovery in its broad community sense;
>
> 3.- That resources at present seem insufficient for the provision of medical care with these characteristics.

The following goals are recommended:

1. The formulation of national health plans and the establishment of a directing organization in harmony with other agencies for national planning.

2. Coordination of the various institutions for medical care.

3. Centralization of work standards and decentralization in the performance of activities.

4. Regionalization and organization into systems in which the basic units are peripheral outpatient clinics and local organization for health promotion and protection, in a functional relationship with the general hospital.*

d) Health Services

An outline that will permit an orderly grouping of the various Health Services existing in Latin America is not easy to present, because of the diversity of national, regional, and local systems performing health activities. The background offered above explains the reason for this situation.

The goal of a single Health Service with total coverage of the population, with technical integration of preventive and curative activities, centralized with respect to standards, decentralized in the carrying out of programs, financed by health insurance or other direct financing, is far from being reached. To facilitate their placement, they are grouped below in a simple, general outline.

(i) Public Subsector

(i.i) Services of or responsible to the central government, wholly financed by the governments

(i.i.i) Branches of the Ministry of Health, which establishes their structures, sets standards for organization and administration, and supervises them.

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*1st. Regional Latinamerican Assembly. World Medical Association. Santiago de Chile, 3-10 April 1965. Conclusions of the subject: "The different services of medical care and its application in Latin America."

In all the Latin American countries the programs dealing with basic sanitation, food control, immunization, eradication of communicable diseases, and so on are the responsibility of the Ministries of Health. In recent years their scope has been coming to include hospitals and clinics of the "beneficencias" or built by the Ministry itself, and some have extended medical care to rural areas through a system of small units scattered throughout the country. In four in particular of the countries visited, the number of units built and functioning in the period 1960-1964 was considerable, and they have been assigned a most important role in solving the health problems of thinly populated communities.

(i.i.ii) Branches of other Ministries, such as the Military, Naval, Aeronautical, Police, and School Health Services with programs of their own; also, the medical Services of other Ministries. Basically, these all provide curative medical care in hospitals and clinics.

(i.ii) Independent or autonomous services with bi- or tripartite financing to which the central government is one of the contributors.

In this group are included:

(i.ii.i) The medical services of the social security agencies that provide curative medical care to members and sometimes their families. Maternity care for insured women and wives of insured men. Compensation for illness, maternity and nursing, disability, and in some countries on-the job accidents. The other risks covered by the social security funds are not considered because they are not specifically related to health care.

(i.ii.ii) Public "beneficencia" societies, which constitute the oldest existing Health Services in Latin America, providing curative care to the indigent or needy in hospitals and clinics. The high and rising cost of medical care has forced the governments to increase gradually the contribution they make for the maintenance of these facilities. Whereas in one Hemisphere country the charity or "beneficencia" hospitals were simply transferred by law to the State, in others there are 21 charities or "beneficencias" to which 98 per cent of the hospitals belong, independently operated despite certain legal provisions requiring supervision by the Ministry of Health. In general there is an attempt, by means of various procedures, toward

financial, technical, and administrative control by the Ministries of the old charity hospitals, so as to incorporate them into an integrated health system.

(i.ii.iii) Societies building hospitals and health establishments; local corporations for development and the construction of hospitals and health facilities; sanitation corporations.

(i.ii.iv) Medical Services and Institutes of the Medical Schools of the Government Universities.

(i.iii) Intermediate and Local Governments

(i) In countries with a federal political-administrative organization, Health Services subordinate to the States or Provinces and Departments have been established. In some there are State or Provincial Ministers or Secretaries of Health, who may or may not be under the national Minister of Health. In several countries definite advances have been made in coordinating these secretariats with the central government through agreements; in others, for financial and economic reasons, the States have turned the administration of their hospitals over to the Ministry of Health.

(ii) The municipalities, as an expression of the local governments of the autonomous commune, have established their own health services in the form of outpatient care at clinics and some health activities. In financially capable communes, these services have attained a certain prominence.

(ii) Private Subsector.

In this subsector have been grouped those facilities in which the central government does not intervene and to the support of which it gives no financial aid. In some of the countries visited, the construction of hospitals or health facilities has been regulated, so that private clinics must submit their programs for review by the Ministry of Health. In several countries, the control of these establishments and of the private practice of Medicine has been made a responsibility of the Ministry. Facilities in this subsector have been grouped as follows:

(ii.i) Private, industrial, and religious hospitals, clinics, and health centers, profit-making and non-profit.

(ii.ii) Private charitable societies.

(ii.iii) Mutual-aid societies.

(ii.iv) Private voluntary health organizations.

(ii.v) Medical Schools and Institutes, for physicians or others concerned with health, belonging to private Universities.

(ii.vi) Private madical, paramedical, or related clinics.

e. Geographical Distribution of Health Services Urban and Rural Areas

In the consideration to be given later to the health resources available in Latin America, the emphasis will be on their geographical distribution, which does not correspond to the principle of distributive equity used by economists.

A knowledge of the geographical distribution of the population is essential for the distribution of services and resources. During the past decade the rates of growth in urban areas have been very high, owing in part to migration, and stress has often been laid on the problems this has brought about in the large cities. Urban and rural distribution varies considerably in the American countries. In a few, a high proportion of the population lives in the big cities and the smaller urban areas; in others, the situation is reversed.

There is no common definition of the term rural area in Hemisphere countries; numerical data are therefore subject to error, sometimes of significant dimensions. In some countries it is the Census Bureau that has established the characteristics of rural communities, solely on the basis of number of inhabitants, which ranges from 2,500 (2,499) to 5,000. This definition puts into the rural sector towns that in every way are part of large, densely populated urban centers and have all the resources in health, education, housing, transportation, communications, and so on that are lacking in real rural areas. Hence it seems more useful to seek a definition taking into account the lack or shortage of such resources and common to all America.

It has been estimated that 50 per cent of the population of the Hemisphere is engaged in farming, grouped in rural areas. To this should be added those working in mining regions, who also live in rural areas, and amount to about 10 per cent. The total rural population in Latin America comes to nearly 60 per cent.

The figure varies among the countries from 78 per cent of the population living in rural areas in Honduras to 34 per cent in Argentina.

Another point that deserves emphasis is the concentration of the urban population in cities of more than 100,000 inhabitants, which amounts to a significant percentage in Argentina and Colombia.

As a result of this situation, some countries in recent years have undertaken programs of rural medical care that have had the help of international organizations and in which a genuine system of rural medical facilities has been set up, consisting of small establishments with or without beds -- depending on the size of the locality -- and with or without doctors and other staff, carrying on integrated health activities. In some Ministries and Secretariats of Health, Departments of Rural Medical Care have been established to set standards and supervise these programs. What has been observed on the spot encourages the expectation that, when the system has been improved and sufficient good human resources - the major obstacle at this time - are available, considerable progress will be achieved in solving the health problems of this large sector of the American population.

A heavier present concentration of Health Facilities in urban areas, and in those with the greatest population density, is general in all the countries of the Hemisphere. This is explained by the tendency of medical and other professional groups to work in centers that have larger resources and a population better able financially to provide an income from private professional practice; by the need for professionals engaged in teaching, research, and administration at central and intermediate levels; and by the ever-increasing pressure of these populations, who because of their higher culture and education demand more services of this kind.

f) Population coverage

Numerous and important gaps in information lie in the way of determining how much of the population is covered by the curative medical care services. Even in countries that have prepared sectorial health plans, the figures are approximate and must be refined as the results obtained are evaluated. It is known that the proportion of subscribers to health protection with respect to the total population ranges from 3.5 to 18 per cent. It is further believed that, theoretically, the average population protected by the private subsector is no higher than 10 per cent. The potential rate of coverage of the health services of the government or autnomous subsector, excluding social security, is from 80 to 90 per cent of the population.

The variations found in the different countries depend on a number of factors; among the most important are the financial capacity of the population, the quality of medical care given, the geographical location of facilities, and the transportation and communication facilities, besides the historial, cultural, and other considerations.

g) Social Security

Social security, which originated in Europe in the second half of the nineteenth century as a consequence of the Industrial Revolution, constitutes "one element of a country's economic and social policy; and its aim is to retores,through benefits in cash and in kind, the consumption capacity of insured workers and their families when, for reasons of illness, accident, disability, old age, or death, they have temporarily or permanently lost their earning capacity and their means of subsistence. Furthermore, it promotes the worker's return to active life in the shortest possible time, in order to put him back into production."*

This definition contains a basic economic principle of production and consumption applicable to all members of a community but with its greatest bearing on the active population. To uphold this principle there must be a healthy population on one hand and the economic capacity to consume on the other, through a conjuction of such factors as full employment, a wage policy that guarantees every inhabitant an adequate living, and social security in the form described.

Social security is financed by contributions that are generally tripartite -- proportions of the wage or salary, varying in the different laws, paid by the employer, the employee, and the State. In some countries, certain social security benefits have bipartite financing -- employer and employee.

To handle health benefits, most of the social security agencies established their own medical facilities to give curative medical care and maternal and child care to subscribers and their families, under various systems and with various limitations. Outpatient centers and hospitals were built and agreements were reached with Ministries of Health, public "beneficencias," and private institutions for the contracting of services (specialized outpatient consultations and hospitalization) not offered, whether generally

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* PAHO/OAS Working Document, "Relationship Between Social Security Medical Programs and Those of Ministries of Health or Other Official Health Agencies, " 1965.

or in certain areas, by the social security agencies themselves. This policy has become more marked in recent years in many countries, where the trend is toward their building more hospitals of their own or, as was observed in two countries, toward assigning certain beds in a Ministry hospital to social security, which organized and operated them in its own manner independently of the rest of the hospital and had different salary scales and work schedules for its staff.

The hospitals and clinics built and equipped by the social security agencies have as a rule been of better physical quality than the old "beneficencia" or new Ministry hospitals. Often they have had better staffs, both professional and auxiliary, owing to a higher salary scale.

According to data supplied by the Organization of American States, 19 Latin American countries include maternity and 16 illness among the social security benefits offered to subscribers. As has been said, however, population coverage is very uneven. It could be determined only by special research.

By providing generally effective and timely medical care, social security in Latin America has created a health consciousness among working groups and has channeled large sums of money into medical services, all of which is unquestionably beneficial to the general picture of organized medicine. But the current structure of social security inspires three reservations from the standpoint of modern views on total coverage and integrated medical care:

(i) High cost of medical care, out of all proportion -- as will be shown later in figures -- to what is being spent to protect the uninsured population.

(ii) Benefits reaching a very small percentage of the population of America.

(iii) Creation of group privileges and distinctions in Hemisphere countries with respect to medical care.

Furthermore, what has been said previously about the integration and coordination of health services is wholly applicable to social security.

h) Organization of Health Facilities

The organization of health facilities in Latin America, a general description of which has been given, has been influenced by various factors -- above all the governments' concept of health problems and their solution through a policy executed by the Ministry of Health and other Ministries.

Generally, all the systems and services have a pyramidal organization, with centralization of standards and objectives and decentralization of operations through the delegation of functions and powers.

In the Latin American health services there are generally three levels with respect to structure: central, intermediate, and local. (Facilities in the private subsector are omitted from consideration.) The authority of the central level, the Ministry or Secretariat of Health and/or Health Bureaus with their departments or divisions and sections, is subject to extratechnical contingencies that account for the way in which well-worked-out programs may be interrupted, altered, or replaced before their results can be evaluated. Similarly, periodic changes in the professionals or technicians at the head affect the development of programs.

While in some countries the central authority is represented by the Minister or Secretary of Health, in others it is vested in the Health Director. Either way, the tendency is for the administrative aspect to be separate from the technical, but always under a single authority. In the technical field, the setting of standards and the supervision of activities is in the hands of Departments of Health Restoration, Promotion, and Protection or Subsecretariats or Divisions of Medical Care and Health. In the first case, these departments are coordinated by the Minister or Director of Health; in the second, coordination is theoretically at ministerial level. No details are given on the other departments and sections that go to make up those basically described; they are much the same in the various countries. In the past decade, Departments of National Health Planning, with or without interministerial coordination, have been coming into being at this level.

The tendency toward technical and administrative decentralization, with a view to preventing hypertrophy of the Health Ministries or Bureaus, has in some Hemisphere countries created an intermediate level grouping a certain number of health systems or zones, which is responsible for coordinating its subordinate services and facilities and for applying the technical standards issued by the central authority. For proper coordination with other sectors of economic and social development, this intermediate level should coincide with the political-administrative division of the country. It has been observed that, despite the good results, in some countries this zonal or regional level does not exist and hospitals are regionalized, with or without a well-defined structure.

Finally, the third level of this organization is represented by local health centers and units, with or without administrative

and/or technical coordination of activities. In general, the organizational scheme at this level is more or less similar in all Hemisphere countries. Posts, primary centers, rural medicatures, health centers, sanitation units, outpatient clinics with or without beds, hospitals of various sizes, and so on recur throughout America. In some countries emphasis has been placed on rural medical care with specific programs; in others, medical care on this level is combined in a single program.

B. Health care

The chief characteristics of health care in America are the dynamism and flexibility with which the trends and knowledge of various periods are applied and the constant creation and change of systems in response to the needs of the environment. Advancing more or less rapidly, the countries have been assimilating the experience of others and adapting it, in successive stages, to their own ecological conditions.

Four basic concepts emerge from an examination of health care systems:

a) The right to health and social security of a country's inhabitants.

b) Acceptance of the interrelationship between health, sickness, and economic development.

c) The value of diagnosis and prompt treatment of morbidity and preventive control of diseases.

d) Agreement that curative medicine, despite its highly advanced techniques, could not alone reduce significantly the high morbidity-mortality indexes, which are affected by environmental factors.

As an inevitable consequence of scientific and technical progress, costs rose, especially in health restoration. This gave rise to the idea of combining resources, coordinating the activities of various facilities, and formulating national programs through planning offices or departments.

The Ministries of Health cover all aspects of health protection through programs in basic sanitation, food control, industrial hygiene, zoonoses, control of infectious and parasitic diseases, and so on. These activities, set out in Sanitary Codes and other regulations, are carried on by specialists and technicians through a network of hospital facilities, health centers, sanitary units, rural medical units, or other services differently named but basically similar. But in more than one country these programs are difficult to carry out, especially

when other sectors are involved in them by law. A good example is water supply and excreta disposal, especially in rural areas. In one of the countries visited, 73 per cent of the urban population and only 5 per cent of the rural population have potable water. With respect to excreta disposal, 51.6 per cent of the urban population has sewer systems and only 40 per cent of the rural population; the remaining 60 per cent has none at all and uses the fields. Under the law, the Ministry of Public Works is in sole charge of water supply and excreta disposal in communities of over 1,000 inhabitants. Smaller clusters and isolated communities are not included in the programs of the Bureau of Sanitation Works of the Ministry of Public Works. Consequently, the National Health Service had to take charge of this serious problem -- no proper solution to it -- thus creating an overlap in the use of resources, especially manpower.

The same situation occurs in another country, where community water supply is handled by the National Institute of Sanitation Works (Ministry of Public Works), for towns of more than 5,000 population, and the Rural Aqueducts Division (Ministry of Health and Social Welfare, for the smaller communities. Natural population growth and the trend toward concentration in urban sectors with more than 5,000 inhabitants (39 such centers in 1941; 127 in 1965) have created serious problems for both of these organizations in project financing and maintenance. Here there is also duplication that should be corrected for the most profitable use of resources.

To avoid repetition, all the material concerning hospital, outpatient, ambulatory, and home medical care will be considered in the next chapter, which deals with the material, human, and financial resources available to health facilities in the Americas.

C. Health Resources

Given the need to use existing resources to the best possible advantage, avoiding duplication and excessive costs and programming activities in accordance with priorities based on a community's health hazards and needs, it is essential to find out first what resources are available -- that is, to make a partial diagnosis of the situation.

For the purposes of this report, the examination of resources in America has been divided as follows:

a) Material resources: number of establishments; size; number of beds, distribution by specialty and geographically, status of installations and distribution in the country; authority to which responsible; organization and administration; patient-days; average length of stay; rate of occupancy; outpatient consultations, new and repeat visits; consultations per patient per year.

b) Manpower: professional, technical, and auxiliary groups; absolute number, indexes; distribution; training needs; present shortages.

c) Economic resources: expenditures on health, on medical care, on personnel, and on certain important branches, among them such programs as nutrition, medicines, and maintenance.

It should be noted that figures of the Pan American Sanitary Bureau and those obtained in the countries visited have been used for quantifying. The lack of adequate information in some countries prevents the data from being complete and entirely reliable.

a) Material resources.

(i) Number of health facilities.

The term "health facilities" has been employed since it comprises hospitals and centers, health units, rural medicatures, and so on, assigned to health care in America.

In the case of hospitals, this numerical information is of limited value, since it may or may not be related to the number of beds. A given country may have few hospitals and enough beds, or the reverse.

Table I shows for each country the local health facilities and the estimated population, together with the rate of growth.

Table I - Number of facilities in America, with population and its rate of frowth

Country	Population	Year	Local health facilities	Annual growth rate
Argentina	22 024 000	1960	714	1.7
Bolivia	3 668 000	1960	193	1.4
Brasil	78 809 000	1962	3 588	3.1
Canada	19 272 000	-	-	2.7
Chile	8 769 000	1964	461	2.8
Colombia	16 040 000	1964	1 051	3.2
Costa Rica	1 391 000	1963	134	4.0
Cuba	7 336 000	1964	256	2.1
Dominican Republic	3 452 000	1964	291	3.5
Ecuador	4 877 000	1961	148	3.1
El Salvador	2 824 000	1964	74	3.0
Guatemala	4 396 000	1964	212	3.1
Haiti	4 550 000	1962	188	3.0
Honduras	2 092 000	1964	82	3.0
Jamaica	1 730 000	1963	166	1.3
Mexico	39 643 000	1964	2 895	3.1
Nicaragua	1 584 000	1963	163	3.3
Panama	1 243 000	1964	186	2.9
Paraguay	1 949 000	1960	258	2.6
Peru	11 357 000	1964	658	2.5
Trinidad and Tobago	948 000	1963	97	2.9
United States	191 334 000	1962	2 069	1.6
Uruguay	2 996 000	1964	-	1.6
Venezuela	8 427 000	1964	520	4.0

The number of health facilities has been related to the population and its rate of growth because this is one of the basic factors in estimating a country's bed needs.

According to the available 1962 information, brought up to date to include recent hospital construction in some countries, there were 17,883 hospitals in America, of which 8,404 were in Northern America, 2,740 in Central America, and 6,739 in South America. If it is recalled that about half the population of the Americas is grouped in Central and South America and the hospitals for these regions are totaled, the figure is 9,479 -- higher than the 8,404 for Northern America. This might suggest, falsely, that Central and South America have enough hospitals, granted that those in North America are sufficient in number to cover the needs of the population; but not if the geographical distribution, number of beds, and distribution by specialty are examined as a whole and, more particularly, for each country.

(ii) Number of beds.

A knowledge of the number of hospital beds in a country is one of the basic elements in planning.

In the statistics furnished by some countries, the term "hospital beds" does not include those in clinics, especially rural clinics, where patients remain for 24 to 48 hours, receiving emergency care, and are then moved to local or regional hospitals for proper examination and treatment, as occurs in certain countries.

To ensure uniformity in the collection of data, the term "hospital bed" should be precisely defined and a common nomenclature should be used for all the countries of the Hemisphere.

It is estimated that at present there are 2,601,908 hospital beds in the Hemisphere -- a figure that will change when a reliable census of available resources has been taken. In many countries such an inventory is now being made, with a view to the formulation of a national health plan. Of this total, Northern America has 898,230 beds, Central America 128,097, and South America 335,588 in general hospitals. In specialty hospitals there are 988,928, 64,833, and 178,864 beds, respectively. The remaining 117,471 are divided between the aged and chronic invalids. It is noteworthy that while Northern America has 851,401 beds for mental patients, in Central America there are only 32,573 and in South America 76,398.

For tuberculosis, however, the proportion changes, since adding the number of beds for this specialty in Central and South America produces more or less the same figure as for Northern America.

In the goals set in health plans, the ratio of beds to 1,000 population is used as one indication of the number needed. It has been estimated that for acute cases there should be 4.5 per 1,000. An examination of the current figures shows a deficit for South and Central America, both in total beds and in those for acute cases; in Central America the figures are 2.7 for acute and 1.8 for general hospitals, in South America 3.5 and 2.3, and in Northern America 9.2 and 4.4. In addition, the figures vary considerably from country to country.

It should be borne in mind that the ratio of 4.5 beds per 1,000 population is far from being reached in most of the Latin American countries, and that what is

considered an adequate ratio could probably be lowered if better use were made of resources with longer hours in the outpatient clinics (morning and afternoon, not, as in many countries, mornings alone).

It has been impossible to learn the distribution of beds by such specialties as surgery, medicine, pediatrics, and obstetrics in the bed total for general hospitals. Though information has been obtained in some countries, it is not sufficient to show the real situation in the Americas; however, the figures below may be useful in indicating trends in the countries mentioned.

TABLE II - Percentage distribution by beds of specialties in some hospitals in Colombia, Chile, El Salvador, Peru, and Uruguay (1962-1964)

Country	Year	Total beds	Medicine %	Surgery %	Obstetrics %	Pediatrics %	Tuberculosis %	Mental %
Chile	1963	22,360	18.1	14.8	11.8	19.6	19.8	17.0
El Salvador	1964	6,503	44.0		10.8	10.7	24.3	8.9
Peru	1963	18,530	28.4	26.2	9.8	7.4	10.8	2.1
Uruguay	1964	7,243	-	-	4.3	11.0	-	-
Colombia	1962	31,778	18.4	10.22	12.52	16.8	9.57	15,58

In Table II only beds for certain services are considered; others have been omitted for lack of data. A striking item is the high percentage of beds assigned to pediatrics in Chile as compared with the others, which is explained by the country's high infant mortality -- the highest in the Americas, together with that of El Salvador. Similarly, Uruguay designates only 4.3 per cent of its beds for obstetrics, which is justified by a slow population growth rate of 1.6 (aging population). It is obvious how important the age distribution of the population is in the apportionment of beds by specialties.

Much stress has been laid, in preparing program-budgets for national or sectorial health plans, on the notion of fair distribution of resources, which is closely related to the number of beds available in urban and rural areas and their concentration in large population centers.

The publication Health Conditions in the Americas 1961-1962 contains the following statement:

Knowledge of the distribution of hospital beds within a country is important for planning for services for the entire population. . . . Since information could be obtained for capitals, federal districts and large cities, for this presentation each country has been divided into two parts, namely (a) the capital or federal district and cities of over 500,000 population and (b) remainder of the country.*

Table III on this subject, which is taken from the same publication, shows data for 16 countries with an estimated population of 189,000,000, representing 90 per cent of the population of Latin American countries around 1962. The number of hospital beds in the hospitals and other large cities of these countries was 5.8 per 1,000 population -- two and a half times the number for the rest of their territory, which was 2.2 per 1,000. Though large cities are centers for hospital care, the rest of these countries -- that is, the smaller cities and the rural areas where about 77 per cent of the population lives -- are also in great need of services.

TABLE III - Number of hospital beds and rate per 1000 population in capitals and large cities in 16 countries, around 1962

Country	Year	Total		Capitals and large cities (a)		Remainder of country	
		Number of hospital beds	Rate	Number of hospital beds	Rate	Number of hospital beds	Rate
Latin America		572 137	3.0	255 637	5.8	316 500	2.2
Argentina	1962	129 435	6.0	57 639	8.2	71 796	5.0
Bolivia	1962	7 371	2.1	2 028	4.4	5 343	1.7
Brazil	1961	219 233	3.0	b) 96 743	7.1	122 490	2.1
Chile	1962	c)28 434	3.5	12 686	4.8	15 748	2.9
Colombia	1962	d) 44 226	3.0	19 375	3.7	24 851	2.6
Costa Rica	1962	6 016	4.7	3 780	8.6	2 236	2.7
Dominical Republic	1962	d,e)6 222	1.9	3 377	6.8	2 845	1.0
El Salvador	1962	d,e)5 787	2.2	2 924	6.0	2 863	1.3
Guatemala	1962	10 250	2.6	4 863	7.6	5 387	1.6
Honduras	1962	e) 2 811	1.4	f) 1 888	4.7	923	0.6
Jamaica	1962	6 825	4.2	g) 4 645	12.0	2 180	1.7
Mexico	1958	47 505	1.4	21 499	2.7	26 006	1.0
Nicaragua	1959	2 738	1.9	948	4.5	1 790	1.5
Panama	1960	h) 4 340	4.1	2 523	6.9	1 817	2.6
Peru	1961	23 481	2.3	11 018	4.8	12 463	1.5
Venezuela	1962	27 463	3.5	9 701	7.4	17 762	2.7

(a) Includes federal districts, capital cities or departments with capital cities plus other cities of at least 500,000 population or departments with a city of 500,000 population or more. (b) State capitals and State of Guanabara, (c) Government hospitals only. (d) Source differe from that for preceding tables. (e) Hospitals of Ministry of Health and Social Welfare only. (f) Distrito Sanitario No. 1. (g) Kington and St. Andrew. (h) Source: Panama en Cifras, Direccion de Estadistica y Censo, Panama, 1961. (i) Beds in 215 hospitals.

* PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1964, p. 53

Observation in 8 Hemisphere countries confirms what has been said. There is evidence of change in government and health authorities, who have begun, in some countries, to provide the regions or zones described above with resources and particularly with beds.

(iii) Size of hospitals

An attempt has been made to group hospitals by size, with respect to their number of beds. A knowledge of this dimension is related to the organization and administration of hospitals and to their cost of operation. Small facilities, with 50 to 100 beds, are known to have a high cost of operation because of the smaller return from their investment in facilities installations and personnel. Hospitals in excess of 400 to 500 beds (quite a number in America have more than 1,000) are difficult to manage and at the same time require a very large staff, often overlapping in function.

Very limited information is available with respect to size of hospitals. To Table IV, which is taken from the above-mentioned publication, have been added data on El Salvador for 1964.*

TABLE IV - Number and percentage of hospitals by size in 7 countries in the Americas

Country	Year	Total	Under 50 beds		50-99 beds		100-199 beds		200-399 beds		400 beds and over	
			No.	%	No.	%	No.	%	No.	%	No.	%
Canada.....	1962	1375	758	55.1	190	13.8	191	13.9	123	8.9	113	8.2
Costa Rica.	1961	45	24	53.3	4	8.9	10	22.2	4	8.9	3	6.7
Chile.....	1960	217	97	44.7	38	17.5	33	15.2	25	11.5	24	11.1
Ecuador....	1959	99	56	56.6	18	18.2	18	18.2	5	5.1	2	2.0
El Salvador	1964	51	27	53	8	15.8	5	9.8		9.2	5	9.0
Peru.....	1961	207	108	52.2	40	19.3	30	14.5	13	6.3	16	7.7
United States..	1962	6371	2125	33.3	1503	24.5	1190	18.7	882	13.8	611	9.6

Except in the United States and Chile, more than 50 per cent of the hospitals have fewer than 50 beds in the 7 countries analyzed in Table IV. For hospitals with more than 50 beds and for the other groups, there is not enough material for useful comparisons or distinctions.

*PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1964, p. 49.

In quite a number of Central and South American countries, there has been a considerable increase during the past 5 years in facilities of this kind, aimed at providing medical care to rural communities and to the fringes of urban centers.

In Colombia in 1962 the total of 44,226 beds was distributed among the hospitals as follows:

Size of hospital	No. of beds	Percentage
Fewer than 50 beds	9,026	20.41
50 to 99 beds	8,696	19.66
100 to 199 beds	8,515	19.25
200 to 399 beds	5,872	13.28
400 beds and over	12,117	27.40

These figures were not included in Table IV because the percentages refer to number of beds, not number of hospitals.

(iv) Ownership of hospitals

No complete information is available on hospital ownership in the American countries. This ignorance of the totality of resources available is being done away with in many of them by censuses and surveys that have been made in recent years for the preparation of sectorial or subsectorial health plans. It is particularly in the private subsector that this information either does not exist or is scarce and on occasion unreliable.

In Table V, which is taken from Health Conditions in the Americas 1961-1962,* the figures for El Salvador and Uruguay have been added; in the latter, only Montevideo hospitals, which account for about 50 per cent of the beds in the country, have been considered.

In Latin America almost 45 per cent of ths hospitals, with 67 per cent of the beds, are government-owned; there are, however, marked differences in the proportion of beds in government hospitals, ranging from 40 per cent in Brazil to 95 per cent in Costa Rica.

* PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1964, p. 51

TABLE V - Number and percentage of hospitals and hospital beds with government ownership in 15 countries of the Americas, around 1962

Country	Year	Hospitals			Beds		
			Governmental			Governmental	
		Total	Number	Per cent	Total	Number	Per cent
Latin America		8 356	3 788	45.3	561 582	374 648	66.7
Argentina	1961	2 253	1 291	57.3	129 435	103 569	80.0
Bolivia	1962	107	62	57.9	7 371	4 547	61.7
Brazil	1961	2 654	416	15.7	a) 210 872	83 826	39.8
Chile	1962	252	188	74.6	38 047	28 434	74.7
Colombia	1961	b) 558	433	77.6	b) 44 686	39 960	89.4
Costa Rica	1961	c) 45	36	80.0	c) 5 751	5 441	94.6
El Salvador	1964	51	35	67.1	6 503	5 889	90.4
Guatemala	1962	45	35	77.8	10 250	9 384	91.6
Mexico	1962	d)1 925	1 031	53.6	d) 62 964	53 754	85.4
Panama	1962	27	16	59.3	e) 4 168	3 488	83.7
Peru	1961	f) 164	97	59.1	f) 19 554	17 291	88.4
Uruguay g)	1964	28	18	61.1	8 825	7 243	82.0
Venezuela	1963	326	183	56.1	28 484	24 954	87.6
Canada	1963	1 346	494	36.6	202 306	85 835	42.4
United States	1962	7 028	2 415	34.4	1 689 414	1132 367	67.0

(a) Excludes beds in para-hospitals.
(b) Excludes 2 hospitals with no information.
(c) Source: International Studies of Hospital Utilization, WHO (A pilot study, 1961).
(d) Excludes 12 hospitals with no information.
(e) Source: Plan Nacional de Salud Pública, 1962-1970, Panama, 1963.
(f) Excludes 64 hospitals with no information.
(g) Montevideo only.

(v) Hospital installations and equipment
Status and distribution

Lack of information on the installations and equipment existing in hospitals, their current status and their distribution, hamper an orderly, quantified presentation of data. There are only isolated data on one or another zone, region, or hospital in a country, or on certain equipment and installations with respect to number but not to present status. The lack of accurate information is one of the handicaps in the preparation of health plans.

In all the countries of Central and South America installations and equipment are known to be very poorly distributed, as are hospital beds, which are concentrated in the large centers and are poor, scarce, or nonexistent in the small centers. In Colombia, in a study of resources conducted in 1962, it was found that out of 560 hospitals surveyes 274, or 48.9 per cent, had radiology equipment; 201, or 35.9 per cent, had clinical laboratories; and 125, or 22.3 per cent, had blood banks. Such data appear again and again in Hemisphere countries, but they are subjet to gaps that should be filled.

With respect to uneven distribution of equipment and to the duplication accompanying this unevenness, in one of the countries visited it was noted that in a small city in the interior there were 6 hospitals belonging to different institutions; each had 1 or 2 X-ray machines, which were professionaly attended by a radiologist who divided his time among the hospitals. Statistical analysis of the return on the 10 machines showed that on the average it did not exceed 2.3 examinations per day for each one. With coordination of services, the machines could be grouped, their number could be reduced, and the specialist could concentrate his schedule on one or two facilities, with resulting advantages for the community and for economy of service. Moreover, some of the machines could be sent to other hospitals that do not have any.

(vi) Organization and administration of hospitals

The organization and administration of hospitals in America follows various patterns, depending on the country and on the services it has available.

In general, the organization and administration of hospitals are based on laws and regulations, ancient or modernized, that depend for execution on the ministerial, regional, or local authorities and their staffs.

Centralization of standards and directives and decentralization of activities, with staff and budgetary authority delegated, exist mainly in theory in many Hemisphere countries.

In a number of countries the hospitals are directed by physicians specializing in public health and hospital administration; in others, by hospital administration specialists exclusively; and in still others, by physicians, generally service chiefs, distinguished for their clinical and/or teaching experience.

In Chile, where there is an integrated health service with preventive coverage of 100 per cent of the population

and curative coverage of 70 per cent, the directors of the service's regional and local hospitals also act as health administrators for their respective areas. In other countries hospital directors do not perform public health functions. Some hospitals are run by a Technical (clinical) Medical Director and an Administrative Medical Director, a specialist in hospital administration and/or public health.

The division of hospital activities into technical and administrative is standard in Hemisphere countries. On one hand is a team of physician service chiefs and other professional and technical heads; on the other is a second team of administrative officials; the hospital directors coordinate activities. In some countries part of the administrative functions (procurement, supply, storage, maintenance, cleaning, transportation) have been placed in the hands of hospital superintendents or administrators, who are generally professionals trained in one- or two-year university courses.

In the technical organization of hospitals, the classic division into four basic services -- medicine, surgery, obstetrics, and pediatrics -- has been maintained; depending on their size and resources, they also have specialized services and diagnostic and therapeutic consultation. Of late years, in some countries, general hospitals have adopted the concept of departmentalization, with diseases grouped as medical and surgical and with the obstetrical and pediatric services retained.

Because of scarcity of resources and lack of equitable distribution of those there are, numerous areas or population sectors do not have the essential services of medical care and diagnostic and therapeutic collaboration. For this reason, hospitals are being regionalized, in organized or in instinctive fashion, in the American countries. The lack is especially serious in the matter of diagnostic and therapeutic collaboration; because of their high cost, some of these services can exist only in the large population centers.

It is notable that in all the countries visited, hospitals of 400 beds and over do not use their services or departments to the best advantage with respect to hours of operation during the working day, which leads to useless and uneconomic duplication. This happens, for example, with outpatient clinics in several countries, which are open only in the mornings, for three hours, and are sometimes closed on Saturdays. The same thing happens with operating rooms, which are used for a few hours in the morning and reserved for emergencies the rest of the day.

Multiplication of facilities is frequent. Several laboratories in the same hospital, each with its own equipment and staff; several radiology services or departments, with independent resources and chiefs -- these are often observed. Efforts at centralization, sometimes successful, have proved their worth proceeding.

Fundamental to health planning are the two departments of clinical histories and records and of finance and budget. Clinical histories, which are essential for correct diagnosis and effective treatment, for knowledge of hazards (mortality-morbidity by discharge and by admission), for research, and for teaching, have been shown to suffer from gaps and errors that will have to be corrected. When 2,000 records or clinical histories kept by one hospital were reviewed for the purpose of preparing a program-budget, about 50 per cent of the diagnosis were tabulated under the heading "Other Diseases" according to the International Classification of Diseases.

Though causes of death and discharges are fairly accurately tabulated in many countries, the records on presenting morbidity in outpatient services are very incomplete or nonexistent. However, this latter aspect is receiving consideration in connection with sectorial or subsectorial health plans. In some of the countries visited, the clinical history archives are not centralized but kept separately in the outpatient clinics and hospitals; in others, as is proper for good administration, they are centralized.

Cost accounting in a hospital is also very helpful for awareness of its financial condition, for good utilization of resources, and for the formulation of a health plan. In many hospitals cost accounting does not exist or is rudimentary. In others, the cost of the daily diet, for example, is established solely on the basis of ingredients, with general and personnel expenses omitted.

Outpatient clinics, in the same building or elsewhere, are the basic unit for the provision of integrated medical services. Since well-organized ambulatory medical care makes possible the rational use of hospital beds by preventing unnecessary and prolonged hospitalization, it has been becoming more and more important. The care provided in outpatient clinics should be humane, rationalized, and economical: humane through an understanding of the individual's physical, phychic, and social needs and respect for his personal dignity and integrity; rationalized in offering scientific orientation and planned development; economical by means of better administration of human and material resources, with no reduction in the quantity and quality of care. Furthermore, outpatient clinics should be responsible for carrying out preventive activities in their districts or sectors, as is done in certain countries.

For lack of information, it is impossible to group clinics with regard to size, as was originally intended. Similarly, it has been impossible to quantify them as urban and rural. In some countries it is apparent that the social security agencies have large clinics in the densely populated centers, where general

and/or special medical care is given (sometimes with 2,000 to 3,000 visits daily), In the past 5 years a system of clinics has been built, particularly in rural areas, in several Latin American countries. This is an important effort, which has made possible a partial solution to the distressing problem of medical care for rural communities. Some of these clinics have from 4 to 6 or up to 20 beds. One serious obstacle to the normal functioning of the clinics is lack of resources -- in particular, manpower, which will be dealt with in a separate chapter. They are generally poorly equipped, and to alleviate the deficiencies various procedures are employed that will be examined in the chapter on health expenditures.

To obtain a better return, emphasis has been placed on sectorized care of an area's or a district's population in the respective outpatient clinic. This procedure is useful when the clinics have adequate resources and the clinicians can be educated along these lines.

These has been a great deal of discussion about the advisability of promoting and stimulating domiciliary medical care. Contradictory opinions on its value are expressed in the American countries. Some people argue that it should be limited to what is strictly necessary, since experience shows that the quality of care thus provided is unsatisfactory and that it considerably reduces the output per medical hour. It is this latter point that gives the argument its greatest force, in view of the shortage of doctors in almost all the countries of the Hemisphere. The social security agencies and private institutions have been the largest users of home medical care, demonstrating its high cost.

(vii) Output performances

Hospital output are measured by means of universally accepted indicators of performances. Together with demographic information and other local characteristics, this knowledge has made it possible to determine whether or not fewer hospitals, clinics, and other health facilities should be built. It has also been used to classify hospitals as excellent, very good, ordinary, or poor. Finally, it is of the utmost importance in the preparation of health plans, in the setting of priorities and so on, and in the drafting of hospital programs; specifically, then, it makes possible an evaluation both of the need and of the demand for services.

Table VI shows admission, patient-days and rates per 1,000 population, average stay, and indexes of occupancy for general hospitals in 15 countries.

Admission rates ranged from 12 (Paraguay) to 149.3 (Canada) per 1,000 population. Similarly, the number of patient-days

varied from country to country. The average length of stay, judging by proportional figures, ranges from 8.6 to 31.1 days. Bed use, shown in the index of occupancy, was 64.1 and 64.8 in Colombia and Paraguay and 69.4 in Panama, rising above 75 per cent in the other 7 countries for which information was available.

TABLE VI - Admissions and patient-days, rates per 1,000 population, average stay, and index of occupancy for general hospitals in 15 countries.

Country	Year	Admissions		Patient-days		Average stay (days)	Index of occupancy
		No.	Rate	No.	Rate		
Canada	1961	2 728 305	149.3	28 803 015	1,576.6	10.6	79.3
Chile	1961	604 636	79.3	--	--	12.0	85.1
Colombia	1962	803 485	54.4	8 792 319	595.3	10.9	64.1
Costa Rica	1962	136 220	106.9	1 260 393	981.3	9.3	--
El Salvador	1962	116 068	--	1 575 109	--	13.5	--
Guatemala	1962	130 570	32.5	2 256 716	561.8	17.3	--
Jamaica	1961	83 697	51.2	--	--	--	--
Mexico	1962	1 532 372	41.2	--	--	--	83.3
Panama	1961	53 615	--	1 306 195	1,225.3	(2)	(3)
Paraguay	1961	23 000	12.0	--	--	--	64.8
Peru	1962	313 207	--	5 976 842	--	19.0	76.0
Trinidad & Tobago	1962	65 132	75.1	--	--	--	--
United States	1961	24 093 720	134.9	221 448 055	1,209.7	8.6	76.0
Uruguay	1963	143 472 (1)	--	4 456 823	--	31.1	80.0
Venezuela	1964	201 270	--	1 831 404	--	9.0	85.0

(1) In Uruguay the calculation was based on 13,989 beds in general hospitals.
(2) In Panama the average stay was not indicated, but the data show it was 5.2 (?) for hospitals.
(3) In Panama the index of occupancy varied by hospital; in official or government hospitals it was 69.4, in social security hospitals 50.2, and in private hospitals 33.

In mental and tuberculosis hospitals the admission rates were much lower than in general hospitals; in the United States, the rate for the mental illness amounted in 1961 to 2.6 per 1,000 population. Patient-days in tuberculosis hospitals have been declining in most countries.

Outpatinet consultations are given in Table VII, which is taken from Health Conditions in the Americas 1961-1962. They are divided into two groups: visits to hospital clinics and visits to health centers.

TABLE VII - Total consultations in outpatient clinics of hospitals and in health centers with numbers per 1,000 population in 14 countries, 1962

Country	Year	Total visits		Outpatient consultations in hospitals	Health center visits	
		Number	Rate		Number	Per cent
Argentina	1961	3 503 272	166	a)2 092 636	1 410 636	40.3
Canada	1962	...	...	6 001 919	...	...
Chile	1962	8 631 551	1 075	...	...	...
Costa Rica	1962	1 439 203	1 130	800 892	638 311	44.4
Cuba	1962	8 264 643	1 169	3 207 064	5 057 579	61.2
El Salvador	1962	882 459	336	676 935	205 524	23.3
Guatemala	1962	405 058	101	150 058	b) 255 000	63.0
Honduras	1962	406 765	209	185 432	221 333	54.4
Jamaica	1961	1 083 361	663	546 701	c) 536 660	49.5
Mexico	1962	22 005 451	591	8 395 472	13 609 979	61.8
Panama	1961	1 200 345	1 077	481 145	719 200	59.9
Paraguay	1962	...	...	...	c) 579 535	...
Trinidad & Tobago	1962	674 318	754	310 446	c) 363 872	54.0
Venezuela	1962	d)3 772 703	479	...	...	...

(a) Ministry of Social Welfare exclusively.
(b) Excluding dispensaries.
(c) Incomplete
(d) Memoria y Cuenta. Ministry of Health and Social Welfare, 1962: Outpatient Consultations in hospitals and health centers of the Ministry and consultations of curative medicine in "medicaturas rurales".

It is interesting to note that the demand for outpatient care has been increasing year by year. Several countries show more than one visit for each inhabitant - Costa Rica, Cuba, Chile, and Panama. In some countries there has been increasing attention in recent years to setting up peripheral outpatient clinics and health centers, whichhas caused this considerable rise in outpatient consultations.

Since one of the main demographic characteristics of the Hemisphere is the "population explosion," intensified maternal and child care has been considered opportune. According to the information available, in three Central and South American countries 60 per cent of the births are known to have been attended by physicians and midwives. In child care, if the number of infants under one year receiving services in clinics is compared with the figure for preschool children, the former are seen to enjoy more care, while the latter appear neglected; this would explain why childhood mortality is moving toward the group between 1 and 5 years of age.

The crude mortality rates in the three regions of the Americas -- that is, the number of deaths per 1,000 population of all ages -- are similar. In 1962 it was 9.3 per 1,000 in Northern America, 10.3 in Middle America, and 9.6 in South America. There are, however, wide differences between countries within each region, which do not show in the death registries and the age distribution of the populations.

In Central America the rates ranged from 6.8 in Nicaragua to 17.2 in Guatemala. In the other areas the range was from 2.8 to 13.0

Analysis of the trend in the crude mortality rates over the years shows that it is remaining more or less the same in Northern America and has declined by 25 per cent in Central America and 15 per cent in South America.

During the past decade there has been a distinct change in the specific mortality rates, in that certain noninfectious diseases have replaced certain communicable diseases as leading causes. Despite the decline in infectious diseases as a cause of death, they are still responsible for a mortality that could in large measure be avoided. In seven countries heart diseases are now the leading cause of death; in two, malignant tumors are in first place.

b) Manpower

In the preceding chapter, the material resources assigned to medical care were described in accordance with the information available. Emphasis was placed on their insufficiency in many of the countries, with particular attention to their poor distribution and in some instances the poor use made of them. There was stress on the importance of a knowledge of them in the preparation of national health plans as part of the national planning of economic and social development. Following the same general guidelines, an examination will now be made of the manpower resources available in Hemisphere countries, their indexes of distribution, present shortages, and training needs.

In the "General Considerations" chapter of Part II of this document, a point was made, with respect to the current conditions in the health sector in America, of the effort the countries are making to solve the worrisome problem of shortage of manpower and also of its unequeal distribution and unsuitable use.

An examination of the existing information on health care personnel in American communities shows that in many areas no valid studies have been made of the manpower available. Such studies are being conducted in some countries, covering various aspects of this field; in Colombia, for example, an investigation is being made to provide better information on manpower needs in relation to certain indexes.

In many places there are not enough professionals to expand programs in accordance with the established goals; a large number of technical or auxiliary personnel are threfore used or needed to handle some essential services. This makes it much more difficult to determine the real needs in each personnel group. Furthermore, though doctors can carry out certain health care functions, there are some others that could be effectively performed by other professionals or by auxiliaries; but in general these are in even shorter supply than physicians.

(i) Physicians

A study of medical personnel usually involves some effort to relate the supply of physicians to the need for their services. Among the methods used are the following:

- The physician-to-population or physician-to-patient ratio.
- The relationship of mortality and morbidity to medical services.
- The average number of patients seen per doctor per unit of time (producer approach).
- The number of patient-doctor contacts per unit of time (consumer approach).
- Economic growth factors.
- The prevalence of preventable diseases.
- The number of vacancies in professional posts (as indicating needs for physicians in specific institutions, shortages of physicians in specific specialties, and so on).
- Studies of function or utilization.

Each of these methods may provide only limited information. With respect to the physician-polution ratio, a report on manpower for health activities and medical education programs in Latin America says:

> The supply of doctors is usually stated in terms of the ratio of physicians to population. The use of this ratio as an indication of the relative adequacy of the supply of doctors in particular localities has limited validity. The size of the population is not an accurate measure of the need for doctors in any particular locality. Patients frequently seek medical care in nearby communities. As the size of the area in question increases, this criticism loses force, since few individuals travel great distance for physicians' services. Nevertheless, the metropolitan areas, as well as certain other localities where comprehensive hospital facilities and large numbers of specialists are found, attract many patients from other areas. The amount and kinds of medical care which a community

needs and seeks also vary, depending on such factors as the income, education, age, birth rate, cultural background, housing, environmental sanitation, and occupation of the residents, and even the climate.

> The number of doctors in a locality does not measure the amount of medical care provided any better than the size of the population measures the care needed. Differences which may exist among states or regions in the quality of physicians cannot be measured. . . . The amount of care provided by each doctor also depends on prevailing patterns of doctor utilization, which is influenced in turn by the age of the doctors, the length of their usual work week, the character of nearby hospital facilities, and the supply of auxiliary medical workers such as nurses and technicians.*

In short, no single indicator can be used to determine whether a given community or a country has enough physicians or whether it should increase the number for the execution of programs in the health sector.

Table VIII shows the number of physicians, schools of medicine, and medical graduates, together with ratios of physicians per 10,000 population, in the Americas during recent years.**

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* PAHO/Milbank Memorial Fund, Health Manpower and Medical Education in Latin America. January 1964, p.29.

** PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1964, p. 61.

TABLE VIII - Number of Physicians, Schools of Medicine and Medical Graduates with ratios of physicians per 10,000 population in the Americas, Recent years

Area	Year	Physicians		Medical Schools	
		Number	Ratio	Number	Graduates (annual)(a)
Northern America		281 441	13.8	98	7 940
Middle America		34 207	4.9	33	...
South America		88 936	6.0	70	...
Argentina	1962	31 831	14.9	9	1 770
Bolivia	1963	1 032	2.9	3	55
Brazil	1960	26 392	3.7	31	1 342
Canada	1962	21 000	11.3	12	817
Chile	1961	4 729	6.0	4	220
Colombia	1962	7 453	5.0	7	442
Costa Rica	1962	575	4.5	1	...
Cuba	1962	5 841	8.3	2	355
Dominican Republic	1960	b) 442	1.5	1	85
Ecuador	1962	1 620	3.5	3	...
El Salvador	1961	526	2.1	1	29
Guatemala	1962	954	2.4	1	35
Haiti	1961	400	0.9	1	41
Honduras	1957	365	2.2	1	34
Jamaica	1961	655	4.0	1	25
Mexico	1961	20 590	5.7	21	1 011
Nicaragua	1960	524	3.5	1	22
Panama	1962	502	4.4	1	14
Paraguay	1962	1 082	5.8	1	97
Peru	1962	6 010	5.7	4	378
Trinidad and Tobago	1962	350	3.9	-	-
United States	1962	260 400	14.0	86	7 123
Uruguay	1962	2 700	9.3	1	91
Venezuela	1962	5 766	7.3	6	258
Antigua	1962	17	2.9	-	-
Bahama Islands	1962	65	5.9	-	-
Barbados	1962	82	3.5	-	-
Bermuda	1960	37	8.4	-	-
British Guiana	1960	145	2.6	-	-
British Honduras	1962	20	2.1	-	-
Canal Zone	1962	103	22.9	-	-
Cayman Islands	1962	3	3.8	-	-
Dominica	1960	8	1.3	-	-
Falkland Islands	1962	4	20.0	-	-
French Guiana	1962	23	6.8	-	-
Grenada	1962	20	2.2	-	-
Guadaloupe	1962	122	4.2	-	-
Martinique	1962	122	4.1	-	-

(Continued)

TABLE VIII - Continued

Area	Year	Physicians		Medical Schools	
		Number	Ratio	Number	Graduates (annual) (a)
Monserrat	1962	3	2.3	-	-
Netherlands Antilles	1960	137	7.2	-	-
Puerto Rico	1962	1 721	7.0	1	45
St. Kitts, Nevis and Anquila	1962	12	2.0	-	-
St. Lucia	1962	10	1.1	-	-
St. Pierre and Miquelon	1962	4	8.0	-	-
St. Vicent	1960	10	1.2	-	-
Surinam	1960	149	5.5	1	6
Turks and Caicos Islands	1962	2	3.3	-	-
Virgin Islands (UK)	1962	2	2.5	-	-
Virgin Islands (US)	1960	24	7.3	-	-

(a) Data usually for 1960 from WHO World Directory of Medical Schools, Third Edition, 1964. Other sources include the following: Supplement to the Second Report on the World Health Situation (Cuba, Guatemala, Peru); Anuario Estatistico do Brasil, 1963, Brazil; Servicio Nacional de Salud, Desarrollo Socioeconómico y Planificación, 1963, Chile; Medical Education in the United States, 1961-1962, JAMA, Vol. 182, (Canada, United States and Puerto Rico); Demografía; 1961, Dirección de Estadística y Censo, Panama. (b) Ministry of Health only.

Using the known figures of physicians in Latin America in 1962, an estimate has been made of the number that will be needed by 1975 if the same physician-population ratio is maintained. For a population of 244 million, there are today an estimated 134,000 physicians. To keep up the same services in 1980 for a population of 374 million (5.5 per 10,000 population), 206,000 physicians will be needed--that is, there will have to be an increase of 72,000 during this period. Are the medical schools equipped to provide such a number of physicians? The present 104 medical schools are graduating 6,500 physicians a year. In the next 15 years, according to this estimate, they will graduate 100,000. Some of the physicians now active and some of the graduates will not be practicing, because of death, retirement, or other reasons. Supposing that this loss is 1 per cent a year or practically 15 per cent in the period under consideration, 25,000 physicians will be needed to replace them. Hence if the Latin American medical schools continue the training of professionals at their present rate, they can maintain the current status of health services.

The foregoing considerations might create the impression of a satisfactory picture; the reality in each country, however, shows that this is not valid. The physician-population ratio ranges from 14.9 per 10,000 in Argentina to 0.9 in Haiti and is under 3 in 6 countries.

In a study conducted in Colombia in February of this year on needs for physicians, it was found that the country's medical schools are not capable of training the physicians needed. The enrollments in 1962 totaled 470; supposing that 400 physicians graduate annually, the number of physicians in Colombia would rise by 1970 to 10,000, including those eliminated by retirement, death, change of activity and so on, estimated for the same period at 500.

Assuming that one physician is needed for each 1,000 population, there would at present be a shortage that is being accentuated by natural population growth. The authors of the study conclude that by the date in question the country will be about 10,000 physicians short. *

An examination of the national health plan prepared by the Department of Health Planning and Evaluation of El Salvador for the next five years (1965-1969) shows that under minimum personnel needs it calls for an annual increase of 39 physicians, for a total of 195 in the period under consideration, whereas the average number of graduates of the country's medical school between 1930 and 1962 was 15.4 a year.

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* Ministerio de Salud Pública, Colombia, División de Atención Médica, Febrero 1965, Factores a considerar para la elevación del nivel de atención médica en el país.

While El Salvador has 2.1 physicians per 10,000 population, a study made in Mexico in 1960 concluded that the ratio there was 6.25 and that in 1970 there would be about 25,100 physicians. Supposing one physician to be necessary for each 1,200 population, there would be a shortage in that year of 7,713 physicians, including areas that have a surplus and those that have a deficit owing to poor distribution in the various regions of the country. Assuming that in 1970 there will be 25,000 physicians, if the rate of graduates continues as at present there will be an estimated shortage of 13,000 in that year. *

Table IX shows the number of physicians and ratios per 10,000 population in the capitals, large cities, and remainder of some Hemisphere countries. **

TABLE IX - Number of physicians and ratios per 10,000 population in capitals and large cities and in remainder of these countries, in 13 countries, around 1962

Country	Year	Capital and large cities (a)		Remainder of country	
		Physicians	Ratio	Physicians	Ratio
Total		56 653	15.1	48 159	3.4
Argentina	1962	20 353	28.8	11 478	8.0
Bolivia	1963	456	9.7	576	1.8
Brazil	1960	11 684	12.8	14 708	2.4
Chile	1960	2 929	11.4	1 692	3.3
Colombia	1962	3 784	7.4	3 669	3.8
Costa Rica	1962	408	9.3	167	2.0
El Salvador	1960	329	7.3	176	0.9
Guatemala	1958	571	10.1	159	0.5
Mexico	1960	10 047	11.9	11 094	4.2
Nicaragua	1960	246	9.0	278	2.3
Panama	1960	245	9.1	156	2.0
Peru	1957	2 843	19.2	998	1.3
Venezuela	1962	2 758	21.0	3 008	4.6

(a) Includes federal districts, capital cities or departments with capital city, and other cities of at least 500,000 population or departments with the city of 500,000 population or more

* Secretaría de Industria y Comercio, Secretaría de Salubridad y Asistencia, México, 1960, Estudio Estadístico en relación con la necesidad y distribución de los médicos en la República Mexicana.

** PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1964, p. 62

The uneven distribution of physicians in the various zones or areas of a country creates grave problems in fulfilling the goals indicated in the programs. In Chile, the ratio of 6 per 10,000 seriously hampers the effective development of health care, and it will tend to fall even further as the population rises. The shortage of physicians is made even more glaring by their poor distribution; 60 per cent of them are in the Province of Santiago, 10 per cent in the Province of Valparaíso, and 6 per cent in the Province of Concepción. In other words, three quarters of the physicians in Chile are concentrated in the three large cities, while only a quarter are left to serve the rest of the country--that is, 4,500 physicians for 3,400,000 people and 1,500 for 4,600. Examples like this are found in every single country in the Americas, with the natural consequences.

A serious problem has been created in many countries by the lack of specialists in public health and hospital administration. This is one of the factors that hinder integration of health activities (preventive and curative) and greatly impair the chances for speedy administrative coordination of the various health facilities. The opening of schools of public health in some countries, the development of courses in hospital administration in all these schools, and the training of physicians in administration through 3-month courses in other countries are introducing new prospects in this field.

What measures have been adopted to alter the situation created by the shortage of physicians in the Hemisphere?

--In several countries the number of medical schools has increased in the past five years. This solution, however, will not begin to bear fruit for another 10 to 15 years, provided that at the same time the existing medical schools enlarge their enrollments.

--Emphasis has been placed on altering medical school curricula, shortening the course--which at present ranges from 7 to 8 years--and orienting instruction toward the training of a practitioner suited to the medical-social conditions of the country.

--Another proposal is to improve the geographic distribution of physicians. Chile has adopted the rule that no physician with less than 5 years' experience may join Health Service hospitals or other facilities in Santiago, Valparaíso, and Concepción, the three largest cities. This measure, together with the appointment

of area general practitioners, has made doctors available to rural districts. Other measures conducive to proper utilization of medical manpower are greater financial incentives (including housing for physicians in interior communities), periodic fellowships for professional advancement in the large centers, and improved working conditions through larger resources for the facilities.

(ii) Other nonmedical professionals

To be considered in this group are dentists, of whom there are one seventh as many in Central America as in Northern America In South America there are half as many. It has been estimated that in 1965 Latin America has 51,000 dentists, and that to maintain this minimum proportion to population by 1980 will require 28,000 more, for a total of 79,000. About 3,000 dentists a year are graduated in Latin America, and maintaining this pace would make it possible to increase the number by 45,000 in 15 years. Assuming that about 14,000 must be replaced during this period, for the same reasons as with physicians, this might be imagined to be enough for the needs arising out of population growth, provided present health conditions continued. But, just as with physicians, dentists are poorly distributed geographycally in Central and South America, with conditions varying from country to country. The annual percentage of dental schools graduates is only 20 in Central America and 40 in South America, which warrants the assumption that these schools could increase their annual enrollments.

Several other categories of health personnel are needed for community medical care; these include pharmacists, veterinarians, sanitary engineers, and architects. Among the last three, the number working in the health field is limited, but has increased--especially veterinarians and engineers--as programs have grown.

(iii) Nurses and nursing auxiliaries

The Americas are conspicuously short of nurses, a fact that has important repercussions on community health care. Nurses are commonly confused with nursing auxiliaries, because in some countries a diploma or certificate as a nurse is awarded after one term in secondary school and a nursing course of no more than a year.

For purposes of this report, a nurse is considered to be a university graduate with three to four years of pro essional study. In a number of countries the term "graduate nurse" is

used to prevent confusion. In Latin America nurses and nursing auxiliaries serve in hospitals and health centers, working chiefly in official government institutions. The qualifications and education of each of these groups vary from country to country, which makes it difficult to gather comparable data on resources. Often, information on the number of persons working in this field does not exist or is incomplete.

In Central and South America the number of graduate nurses per 10,000 population (3.5 and 1.5, respectively) is less than a tenth of that in North America.

TABLE X - Number of nurses and nursing auxiliaries with ratios per 10,000 population in the Americas *

Country	Year	Number		Number per 10,000	
		Nurses	Nursing auxiliaries	Nurses	Nursing auxiliaries
Northern America		611 765	697 583	30.0	34.2
Middle America		24 631	29 205	3.5	4.3
South America		20 260	94 939	1.5	6.9
Argentina	1961	6 176	18 000	2.9	8.5
Bolivia	1963	367	a) 3 508	1.0	a) 9.8
Brazil	1956	3 296	38 429	0.5	6.2
Canada	1961	61 699	62 553	33.8	34.2
Chile	1963	1 375	10 760	1.7	13.1
Colombia	1962	900	3 084	0.6	2.1
Costa Rica	1962	411	1 233	3.2	9.7
Cuba	1962	5 701	2 003	8.1	2.8
Dominican Republic	1962	207	1 171	0.6	3.6
Ecuador	1962	274	1 714	0.6	3.7
El Salvador	1962	500	1 333	1.9	5.1
Guatemala	1962	466	b) 1 672	1.2	b) 4.2
Haiti	1962	357	561	0.8	1.3
Honduras	1963	161	982	0.8	4.9
Jamaica	1961	3 424	...	21.0	...
Mexico	1962	6 000	12 304	1.6	3.3
Nicaragua	1962	263	868	1.7	5.5
Panama	1962	723	1 144	6.3	10.0
Paraguay	1963	76	1 200	0.4	6.3
Peru	1963	3 441	4 806	3.2	4.4
Trinidad and Tobago	1960	1 254	...	14.9	...
United States	1962	550 000	635 000	29.6	34.2
Uruguay	1962	340	2 921	1.2	10.0
Venezuela	1962	2 868	10 512	3.6	13.4

* PAHO, Scientific Publications No. 104, Health Conditions in the Americas 1961-1962, 1962, p. 64

TABLE X - Continued

Country	Year	Number		Number per 10,000	
		Nurses	Nursing auxiliaries	Nurses	Nursing auxiliaries
Antigua	1962	106	...	18.3	...
Bahama Islands	1962	248	102	22.3	9.2
Barbados	1962	248	355	10.7	15.3
Bermuda	1959	63	15	15.0	3.6
British Guiana	1960	a,c) 325	...	5.7	...
British Honduras	1962	165	-	17.2	-
Canal Zone	1962	208	343	46.2	76.2
Dominica	1960	55	-	9.0	-
Falkland Islands	1962	4	5	20.0	25.0
French Guiana	1962	118	...	34.7	...
Grenada	1962	114	24	12.5	2.6
Guadeloupe	1962	215	...	7.4	...
Martinique	1962	245	218	8.2	7.3
Montserrat	1962	26	-	20.0	-
Puerto Rico	1962	3 212	4 787	13.1	19.5
St.Kitts-Nevis Anguilla	1962	132	56	22.0	9.3
St. Lucia	1962	84	5	9.1	0.5
St. Pierre and Miquelon	1962	3	15	6.0	30.0
St. Vincent	1957	74	32	9.7	4.2
Surinam	1960	700	...	25.9	...
Turks and Caicos Islands	1962	7	3	11.7	5.0
Virgin Islands (UK)	1962	6	9	7.5	11.2
Virgin Islands (US)	1960	19	...	5.9	...

(a) 1962. (b) 1960. (c) Government only.

Table X, which shows the number of nurses and nursing auxiliaries and ratios per 10,000 population in the Americas, shows that in four countries the proportion is higher than 10 (United States 29.6, Canada 33.8, Jamaica 21.0, and Trinidad and Tobago 14.9). According to the data available, there were seven countries with less than 1 graduate nurse per 10,000 population, with the ratio dropping as low as 0.4.

A significant happening is the exodus of these professionals from their countries of origin in search of better financial prospects and professional advancement. Of the 488 nurses registered in El Salvador, 91,

or 18.7 per cent, are working outside the country. In Chile, more than 25 per cent of the nurses were at one point working abroad. Furthermore, nurses are not being used for their own specific tasks; in many countries quite a number have been given teaching, administrative, and supervisory functions.

There are almost three times as many nursing auxiliaries as professional nurses in Latin America, whereas in Norther America there are only a few more. The reason for this is the need to provide some kind of nursing care in Latin America. Nevertheless, the rate per 10,000 population for this group is six times as high in Northern America (34.2) as in Latin America (4.3 and 6.9).

Despite the effort in Latin America toward a partial solution to the graduate-nurse shortage through the use of auxiliary nursing personnel, there is obviously still a great need to increase the numbers trained in both groups. The shortage of physicians, particularly in rural areas, places more of a responsibility on nurses and auxiliaries. Moreover, the smaller proportion of graduate nurses to population increases the burden on them, as has been said, in the sector of teaching and supervision and accentuates the need for strengthening both basic secundary and professional education

(iv) Other health personnel

In the countries at the southern end of America, university-trained midwives are used; they are variously called parteras in Argentina and Uruguay, matronas in Chile, and obstetrices in Peru. Since maternal care is one of the major health problems in South and Central America, because of rapid population growth, their services during pregnancy and birth are extremely useful in interior areas that have no doctors.

In other countries, nurses may also specialize in obstetrics and are qualified to practice without losing their status as nurses. In one of the countries visited, basic minimum courses were given to "empirical" midwives, who received official recognition from the Ministry of Health; according to information furnished by the country's health authorities, the results were highly satisfactory, deaths of mothers and newborn infants having declined appreciably.

Among the nonmedical professionals rounding out the health staff are the social workers. This group has not been of marked importance in many Hemisphere countries. Their activities, now largely confined to individual casework, may

perhaps find wider and more significant scope in community and group organization and in the provision of guidance to local sectional and neighborhood leaders.

In several American countries, including some of those visited, there are very few dietitians; consequently, as could be seen in a number of hospitals, patient and staff feeding pose serious and important problems.

One professional group that is becoming more and more important is the laboratory technicians, who are working in many medical-clinical disciplines with excellent results. Obviously, with the shortage of physicians in such specialties as pathology, laboratory, blood banks, and optometry, their assistance is highly useful.

While knowledge of how large the various professional and auxiliary groups are, and how they are distributed geographically, is useful as an indicator in drawing up a sectorial health plan related to plans in the other economic and social development sectors, it does not provide adequate information on their utilization and output. Hence for each country and each health facility it is better to know how many hours each professional, technician, or auxiliary works. This information exists only in a few countries that have prepared their health plans and programs in accordance with the new method that employs this type of measurement. Such a manpower inventory is not generally used or known.

Another important element is the distribution of personnel in a health facility, hospital clinic, health center, and so on. An attempt has been made to distribute staff on the basis of indexes for each group--for example, 1 nurse for every 8-12 beds, 1 auxiliary pharmacist for so many prescriptions, and so on.

Before concluding this review of so important an aspect of health as the manpower available to it, events in two fields may well be mentioned. The first is the education and training of personnel; the second the help provided by community volunteers, sometimes organized, sometimes not.

Mention was made above of some of the solutions that are being adopted by the countries to deal with the shortage of physicians, clinical specialists in certain fields, public health administrators, and hospital administrators. It was noted that in some countries the number of medical schools had doubled and schools of public health had been established. In others, emphasis has been placed on training the kind of doctor who can handle the problems of rural areas, senior medical

students are required (with suitable compensation) to work in these areas, and so on. Advanced courses and fellowships for study within the country and abroad complete the picture with respect to physicians.

The training of nurses and nursing auxiliaries has also been intensified. Generally speaking, there is a trend in all the countries toward standardizing curricula and entrance requirements in nursing schools and nursing auxiliary courses. Two of the countries visited, however, required less basic education in both cases than the others.

Other professions and technical groups have been expanding as the capabilities, especially the financial capabilites, permit.

Social workers have found local leaders to be of the utmost help as assistants in conducting programs. With proper guidance they can overcome difficulties and achieve desired goals. Working individually or with groups organized in the rural sectors (health centers, rural medicaturas, health units, and so on) or in various hospital activities, they have proved their usefulness. In some countries with a serious lack of personnel, this help has permitted good temporary solutions.

In indicating the efforts that are being made in every Hemisphere country to increase the quantity and improve the quality of the manpower available for the development of health plans and programs, the need for guidance by the Pan American Sanitary Bureau emerges. This is given by providing on request, the help of a coordinated group that can join with the interested health authorities in planning the organization of available resources and considering the programming of needs.

c) Economic resources. Health Expenditures.

This document would be incomplete if it did not present some background on the economic resources available in the health sector.

Reviewing health expenditures is not easy, since there are no figures on what they amount to. This is especially true in the private subsector, on which the available data are very scanty and of limited value. In the public subsector also the information on certain institutions is not altogether reliable for fear of its being used against the very institution that supplies it.

Various studies have been conducted in the Americas and elsewhere on the sources of financing and the cost of health services; these, together with the information gathered in the countries visited, serve as a basis for the following remarks.

The cost of the health services furnished to a community depends on the equipment, buildings, manpower, and financial resources that are absorbed by these services and that might instead be used for meeting other, perhaps less urgent needs. Consequently, the monetary cost of health services is measured by pricing the resources, equipment, and labor used to provide them. This cost forms part of the rational distribution of the national income and is therefore limited by the capacity of a country's economy to finance services of all kinds. Among these, health services have a high priority, but they must inevitably be limited to what they can get without depriving other sectors or encroaching on resources for capitalization, industrial and economic development, or consumer goods. In other words, health problems must be looked upon from a financial standpoint, and the amount of activity adapted to the national ability to finance it.

Much discussion has taken place on the question of who should pay for health services--the State, social security, or the beneficiary. Arguments for an against each of these methods of financing have been used to justify a specific system. It must be borne in mind that the services are really paid for by the national income--that is, the country's economic ability to finance them. Obviously, then, the greater this economic ability, expressed in wealth, the better the health services; the higher the degree of the community's economic and social development, the higher its level of health.

Medical expenditures are of appreciable significance in most of the countries, amounting to and usually exceeding 5 per cent of the national product and tending to increase both absolutely and relatively.

The chief goal of medicine is to satisfy the ever-growing demand for services; its objectives are not limited to health problems caused by defective development, in which success is usually not achieved unless parallel steps are taken to produce harmonious social progress.

Figures on medical expenditures in several American countries follow.

Chile.--The 1963 national income of Chile, according to studies carried out by the Development Corporation , * amounted to 4.4 billion escudos ($1.1 billion, on the basis of 4 escudos to the dollar), with a per capita average of 560 escudos ($140).

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* Corporación de Fomento, Chile. "Cuentas Nacionales de Chile, 1958-1963".

The country's two major health institutions, which cover approximately 87 per cent of the total population, spent 5.5 per cent of the national income in that year. According to a report of the Finance Ministry, * 8.29 per cent of the total 1963 spending in the public sector was on health. The information available reveals that the expenditure per person by the public sector was 28.78 escudos ($7.19); the trend over a ten-year period is upward, with dips in some years. Per capita expenditure on medical care in this sector varies in the different regions of the country, ranging from 132.29 per cent in the most densely populated province to 42.66 per cent in the southern province where a majority of the Indian population lives. Analyzing the structure of medical expenditures in the public sector shows that salaries amounted in 1963 to 51 per cent of the total, to which should be added, thus raising the expenditure for personnel, a percentage of transfers. Operating costs accounting for 25 per cent of the total, transfers 22 per cent, and capital expenses 2 per cent. It has been estimated that in the private sector the 1963 medical expenditure was 38.15 escudos ($8.53) per person. Of this, 66 per cent was spent on private consultations and the remaining 34 per cent in private welfare institutions. The National Health Service accounts for between 75 and 93 per cent of the expenditures in the public sector. The general costs in its hospitals, excluding salaries, amounted in 1964 to 45,455,480.53 escudos, the major shares of which were about 37 per cent for medicines, 26 per cent for patient and staff feeding, and 17 per cent for maintenance and upkeep. A little over 50 per cent of the total budget of the National Health Service goes into salaries.

Argentina.--In 1963 the Argentine gross national product was 953.9 billion pesos ($557.8 million), with a family per capita consumption of 29.7. The national government's expenditures on health in that year amounted to only 3.8 per cent of the total spending in the public sector. Because Argentina has a federal political-administrative structure, medical expenses in the public sector break down into 38.2 per cent national 35.5 per cent provincial, and 26.3 per cent municipal. These figures show that the provincial governments contribute an important share of the total. The national public health budget in 1964 was 1.9 per cent of the total national budget--lower than in 1960-61, when it reached 3.09 per cent. For the 1964-65 period, the budget of the Ministry of Social Welfare and Public Health is 12,247,257,261 pesos, which includes 59.5 per cent for personnel, 32 per cent for other expenses, 3.1 per cent for capital investment, and 5.4 per cent for the public works plan.

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* Ministerio de Hacienda, Chile, "Cuentas Fiscales de Chile--1963."

Uruguay.--Uruguay is a country with a relatively high per-capita income level: $834 in 1963, when the rate of exchange was 10.20 pesos to the dollar. (It should be noted that at present the dollar is worth 48 pesos, but the per capita income has not increased at the same rate). Expenditures on health in 1963 stood rather high in the international scale, both in percentage (5.36) and in dollar value per-capita. This spending is poorly distributed, however, and is not altogether translated into services because of low returns in some sectors and lack of planning.

The private sector accounts for two thirds of the national outlay on health and is concentrated mainly in the capital. Fifty per cent of the private expenditures go into mutual facilities of the voluntary-insurance type, which are showing signs of financial strain and deteriorating services.

Peru.--In the 14 Workers' Social Security hospitals, the average bed-day cost in 1963 was 400 sols ($15), or a little lower for the hospital in Lima. The cost per discharge in the same year was 757.8 sols ($28) and the cost per consultation 101 sols ($3.70). The budget of the Workers' Hospital in Lima was 922 million sols in 1963, of which 68.3 per cent was spent on personnel, 25 per cent on goods and services, 9.8 per cent on medicines, and 2.5 per cent on patient and staff feeding. The Lima Employees' Hospital, a subsidiary of the Employees' Social Security Fund, spent 225 million sols in 1964, paying out 65 per cent on salaries and 37 per cent on transfers and operating costs. On medicines 18.2 per cent was spent, and on patient and staff feeding 4 per cent. The cost per patient per day per bed was 448 sols ($18.20), and the cost per consultation 127.8 sols($4.80).

In the report of the Board of Directors of the Lima Beneficial Society, which has several major hospitals in the Peruvian capital, appears the following:

> From the foregoing comparison it may be seen that during the past 16 years the expenditures of the institution have risen to 130,000,000 sols, and, as income has risen only to 80,000,000 sols, there is a budgetary imbalance in excess of 50,000,000 sols.*

This deficit is covered by the Ministry of Health through a change in the national budget.

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* Exposición del Directorio de la Sociedad de Beneficencia Pública de Lima. Año 1964.

Colombia.--Expenditures on health in Colombia in 1963 amounted to 728 million pesos in the public sector, including 231 million spent by the "beneficencias". In the private sector medical outlays have been estimated at 462 million pesos-- a figure subject to correction, as in the other countries, because of the lack of complete, reliable information. Thus the total spent on health in Colombia in 1963 was 1.200 billion pesos, or (at the rate of 17 Colombian pesos to the dollar) $75,880,000.

Since 98 per cent of the hospitals belong to the country's 21 "beneficencias" and since these are autonomous and independent, information on costs is only approximate. It is estimated that in 1964 the "beneficencias" spent 231 million pesos. Some figures on the Colombian Social Security Institute, which has roughly 3,000 beds, are known. This institution invested 172 million pesos ($10 million) in medical care in 1963 and spent 271 pesos ($15.80) per patient per day per bed.

The 1962 summary of expenditures of the 411 agencies receiving official aid shows the proportions of this money spent on major items: salaries 40.55 per cent, feeding 15.03 per cent, medicines 17.86 per cent, and maintenance and repairs 7.56 per cent.

The bed-year cost was estimated at $5,677.08 and the bed-day cost at $15.55.

Venezuela.--Public expenditures on health in Venezuela were 1,098,773,000 bolivars in 1964, including medical care and public health. Excluded from this figure are the beneficiaries' contributions to the Venezuelan Social Security Institute, which amounted to about 200 million bolivars. With the bolivar at 4.50 to the dollar, the government's health outlay came to $244 million.

The Ministry of Health and Social Welfare, which controls 80 per cent of the country's hospitals, distributed its expenditures on these institutions as follows in 1964:

Hospitals for acute diseases, 101,546,219.92 bolivars, of which 65.2 per cent was for personnel, 7.30 per cent for feeding, 6.20 for medicines, and 21.18 per cent for other costs; the cost per patient per day was 65.23 bolivars ($14.49). Health centers, 11,497,564.17 bolivars, of which 72.14 per cent was for personnel, 9.20 per cent for feeding, 7.12 per cent for medicines, and 11.54 per cent for other costs; the cost per patient per day was 89.97 bolivars ($19.99).

Mexico.--The Mexican statistical yearbook for 1962-1963 gives all expenditures on health in the public sector except those of social security, which are published later in some countries. The partial figures are as follows:

Ministry of Health and Social Welfare, 566,010,547 pesos; curative care, 452,706,761 pesos; educational social welfare, 28,322,092 pesos; social welfare in homes for the aged, 11,361,398; social welfare in foundling homes, 4,763,464 pesos; miscellaneous social welfare, 32,682,226. The total comes to 1,095,846,438. According to the present exchange rate of 12.50 pesos to the dollar, the outlay was $87,667,683 in 1962.

The 1965 budget of the Secretariat of Health and Welfare calls for 891,278,000 pesos ($72,122,240). Of this total, 827,660,770 pesos ($66,212,860) are distributed as follows: health, medical care, and hospital services, 520,265,623.73 pesos; hospital construction, 89,712,290.23 pesos; maternal and child care, 38,552,256.97 pesos; social work, 83,650,899.43 pesos, and supplementary services, 95,479,699.64 pesos; and social welfare, 47,282,000 pesos.

The cost per patient per day per bed for the three major institutions that operate hospitals was as follows: Secretariat of Health and Welfare, 70 pesos ($5.62); Mexican Social Security Institute, 200 pesos ($16); and Government Workers' Social Security Institute, 400 pesos ($32).

Panama.--In the past 5 years, the share of the national budget allocated to the National Department of Public Health has been gradually rising in relation to the national income. In 1962, 12,195,000 balboas were spent on public health, estimated at 11.60 per capita. With Social Security spending 7,321,000 balboas in its health facilities in 1962, the total amount invested in health that year by the public sector was 19,516,915 balboas, or 17.6 per capita.

In the private sector, all the outlays were on restorative medicine, and the amount per capita is believed to have been 11.4 balboas. Adding this to what was spent in the public sector makes a total of 29 balboas per capita for health, which comes to 7.35 per cent of the gross national product.

Investments in the public sector are expected to rise because of the larger number of persons covered by Social Security, institutional contributions, and direct payments by patients at the time of receiving out-patient or hospital care, which has been estimated at an average of 15 per cent for the country.

In 1964 the 778-bed Santo Tomás Hospital, which is operated by the Ministry of Public Health, spent 2,254,135 balboas; in the

same period the 269-bed Social Security hospital spent 1,843,071 balboas, not counting the salaries of medical specialists. The cost per day per bed was 35 balboas in the latter hospital.

El Salvador.- Public medical expenditures in El Salvador in 1964 were 30 million colons, or (at 2.5 colons to the dollar) $12 million. The Ministry of Health accounted for 24 million (80 per cent) and the rest was split by Social Security, the Army, the Ministry of Education, the Ministry of Labor, the General Provision for the Poor, the Ministry of Agriculture, and other agencies. There is no information on outlays in the private sector. The per capita expenditure on health in 1964 is estimated at 5.51 colons ($2.10).

In the same year, the Ministry of Public Health hospitals invested 12,224,408 colons ($4,889,760).

It is interesting to report some figures on medical outlays by the social security agencies in the American countries, as furnished by the respective institutes. It should be recalled that the financing of social security is bi- or tripartite, varying in proportion according to the laws of the different countries.

In Peru, Workers' Social Security is financed by a payment of 3 per cent of his wage collected from the worker, 6 per cent paid by the employer, and 2 per cent contributed by the State. Of the 11 per cent total, 6.3 per cent goes to cover illness, maternal care, and lactation, the latter two constituting 30 per cent. The financing of Employees' Social Security differs, with the beneficiary contributing 3 per cent of his salary, the employer 4 per cent, and the State 1/2 per cent.

In 1963 the Salvadorian Social Security Institute, with an income of 7,897,240.20 colons ($3,158,891), spent 4,488,430.11 colons ($1,795,372.10) on medical care, or 58.5 per cent of its total income. Sickness and maternity compensation are not included.

The Colombian Institute of Social Security had a total income in 1961 of 141,467,975 pesos ($8,321,645) and its medical benefits amounted to 101,434,663 pesos ($5,966,741), or 71 per cent. As in the preceding case, compensation for sickness and maternity are not included.

In the report presented by the Social Security Fund of Panama to the country's National Assembly in October 1964, * the institute's activities for the period 1961-1964 are sumarized;

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* Informe que presenta el Director General de la Caja de Seguro Social a la Honorable Asamblea Nacional, Panamá, October 1964.

the figures therefore cover the entire period, without being broken down by year. The total income from all sources between January 1961 and June 1964 was 63,813,455 balboas (the balboa is equal to the dollar), with sickness and maternity benefits amounting to 20,012,826. If compensation is eliminated from this total, the figure comes down to 17,906,128 balboas (28 per cent) as the net outlay on medical care during the period under consideration. In a paper published in a Panama City newspaper on 4 May of this year, Dr. Osvaldo Velásquez wrote:* "The estimated income of the Social Insurance Fund for 1964 was about 27 million balboas. The national budget for the same year was 81 million balboas--that is, Social Insurance handles a budget more than a third as large as the national budget. . . . Social Insurance invested during that year 9,200,000 balboas on medical care, for a per-capita of 97.5. That year, Public Health invested 8,015,000 balboas for the entire population minus the insured, which makes for a per capita of 7.2. . . . . The funds allocated per capita for medical care to the insured population are 13.5 times more than those assigned per capita to Public Health for the rest of the population. . . ."

It is also useful to note some figures on specific medical care expenditures. In Argentina, in 1961-62, the sales of 145 associated laboratories amounted to 12,648 million pesos, of which 11,498 was billed to private pharmacies and institutions and 1,150 to government agencies; if the druggists' profits are added, it may be estimated that the population spent something like 15,500 million pesos on medicines. In Chile, the Development Corporation estimated that the 1963 pharmaceutical outlay was 159,855,000 escudos, of which the private sector spent 145,396,000 and the public sector 14,459,000. The purchase of drugs accounted for between 25 and 33 per cent of the country's total medical spending and was ten times higher in the private sector than in the public.

Table XI shows the total expenditures on health in several American countries, in local currencies.

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* "Estudio económico de las prestaciones médicas del Seguro Social en relación a la Asistencia Médica en un plan nacional. Recomendaciones". La Estrella de Panamá, 4 May 1965.

TABLE XI GOVERNMENT TOTAL AND HEALTH EXPENDITURES IN COUNTRIES OF THE AMERICAS
(National currencies)

Country	Year	Total general government consumption expenditure	Government health expenditure					
			Total	Central government			Intermediate administrations	Local authorities
				Total	Ministry of Health	Other ministries or departments		
Argentina (millions)	1961	191,565	14,129	4,718	4,200	518	5,762	3,649
Bolivia	1963	643,229,926	17,760,000	...	...	...	...	...
Brazil a) (millions)	1964	2,110,257	...	...	77,208	...	...	...
Canada (millions)	1961	7,183	1,109	421	368	53	623	65
Chile	1962	133,888,858	...	...	...	...	...	...
Costa Rica b)	1962	543,000,000	...	26,945,412	10,367,137	16,578,275	...	...
Cuba	1962	1,853,733	109,024	109,024	109,024	-	-	-
El Salvador	1962	173,823,680	19,063,348	...	5,922,520	...	...	...
Guatemala	1962-63	105,905,000	...	...	c)9,867,349	...	...	...
Haiti	1962	...	18,765,609	16,701,755	...	...	2,063,853	...
Honduras	1962	104,917,977	9,384,063	8,240,555	6,832,860	1,407,695	2,809,943	...
Mexico	1962	12,319,783,000	d)1,710,584,616	...	...	...	25,289,221	...
Panama	1962	92,312,377	...	15,061,750	...	...	...	...
Peru	1962	11,291,165,000	...	...	e)1,174,366,840	...	...	...
United States (millions)	1960-61	114,016	6,940	3,070	1,088	1,982	-------- 3,870 ----	

(a) Amounts budgeted. (b) Includes expenditures in the Social Security. (c) From another source it is known that in 1962 there was an expense of 6,322,906 Q. for appropriations for government hospitals and subsidies to other hospitals, which probably is a part of the total budget shown in the table. (d) Of this amount, 637,240,244. (Mexican pesos) is devoted to health care and hospitals. (e) Of this amount, 40,613,509 Peruvian soles are devoted to government hospitals and 12,816,100 P.S. to **Beneficencia and other hospitals.**

The very incomplete background that has been given on health expenditures and certain specific aspects of medical care shows the differences between the various American countries with respect to their investments in preventive-curative programs. Greater or smaller economic capacity, the plans of the other sectors, the government's economic policy, community demand for medical care, the available material resources and manpower--these are some of the elements responsible for the difference.

In some countries, the cost per patient per day per bed varies with the institution, as do expenditures on personnel, medicines, feeding, and other items.

Many examples could be cited to supplement what has been said regarding the urgency of orienting the available resources in a coordinated and rational manner for the best possible utilization in gradually meeting the demands for new health services.

Along the same lines as this appraisal, the First Latin American Regional Assembly of the World Medical Association, held in Chile from 3 to 10 April 1965, decided as follows in the Conclusions of the topic "Medical Expenditure in Latin America":

"Considering:

The health sector, the product of which is the provision of integrated medical services, constitutes a fundamental sector of socioeconomic relations, granted that socioeconomic development has as its central object an increase in the well-being of the community.

The level of health care is related to the resources available to the sector, which depend on the degree of economic development; therefore, it is essential to promote economic and social development as a condition of improving the levels of health and medical services.

In Latin America, the national medical expenditure is generally on the order of 5 per cent of the gross national product, which in absolute terms is very variable. However, the figures presented make it possible to state that resources are far from being channeled or directed toward an adequate return.

Recommendations:

There is agreement that the integration of medical resources would permit better utilization of them, and this is consequently recommended as a goal that should be achieved in Latin America in the shortest possible time.

While this objective is being approached, the coordination of medical services on the various levels should be promoted as a temporary stage. The integration should be guided by a National Health Policy and expressed in planning of the sector as a constituent of the economic and social development plans.

In the planning process, the country's physicians, through their representative organizations, should participate with the public authorities. In the organizations responsible for high-level administration of the plans of the sector, physicians should occupy a majority position.

While the goals indicated are being pursued, medical expenditures should at least maintain their share of the gross national product, provided that this does not mean a decrease in medical spending per person.

Believing that studies of medical expenditures are of basic importance to evaluation of the health policy and to care of the population's health, the Assembly recommends that the countries adopt the necessary measures toward the regular conducting and progressive improvement of these studies. *

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* First Latin American Regional Assembly of the World Medical Association. Chilean Medical Academy, 3-10 April 1965, Santiago, Chile. Conclusions of the topic "Gasto Médico en Latinoamérica"

D. Planning

A close look at Resolution XXV, as was said in Part I of this report, shows how broad in scope it is. Its stated principles imply the following considerations: Orderly incorporation of medical care into the national or local plans for economic and social development; improvement of health services, hospitals, and outpatient clinics as a result of the technical integration of preventive and curative activities. Construction of new health facilities and remodeling of existing ones so as to increase population coverage on a continental, national, and local level; improving their organization and administration through adequate cooordination of the institutions involved, so that better use can be made of available resources. Planning of health services with an eye to the present and the future, determining the initial investment required for buildings and installations, operating budgets, and personnel needs.

On the basis of these principles, a sequence has been followed in this report that makes it possible, despite the insufficiency of data, to come to certain conclusions and propose some solutions to the problem of planning hospitals and health facilities, as explicitely called for in the resolution that led to the report.

Since information on the points to be discussed is more precise for the eight countries visited than for the rest of the Americas, the material to be used will deal chiefly with them.

In order to arrange the account in an orderly fashion, the following material has been considered:

a) Legal systems and regulations for the construction of hospitals and health facilities.

b) Construction and remodeling of hospitals and other health facilities during the past 5 years. Special expenditures on foreign advisory services. Costs.

c) General construction and remodeling plans for the next few years. Capacity to undertake these projects.

d) Equipment and installations.

e) Maintenance. Repairs. Renovation.

f) Requirements for normal financing of facilities after completion of construction or remodeling.

a) Legal systems and regulations for the construction of hospitals and other health facilities.

A review of the legal procedures and regulations followed in various Central and South American countries affords a variety of systems. This makes them difficult to classify and also to incorporate into a sectorial health policy as part of the national development plans. In general, the Health Ministries and Secretariats have regulated construction and remodeling for their own facilities. In some countries there has been an attempt to require all construction and remodeling carried out by other public-sector institutions and by the private sector to be authorized and supervised by the Ministry of Health. Up to now this provision exists in theory only; very rarely does a nonministerial institution abide by it.

But the Ministry of Health, through its Architectural Divisions or Departments, is not the only agency preparing programs, sketches, plans, and specifications and establishing bases for public proposals or bids; the other Ministries or bureaus proceed in the same manner on the construction or remodeling of their own medical care facilities. And so do the social security agencies and private organizations. Usually, when any of these institutions builds a hospital, a clinic, or a health center, the facility is not part of a national hospital construction plan; thus a given locality may for no real reason, as the rates of return demonstrates, have several hospitals. Often local political pressure or pressure by leading community groups results in the building of a hospital for which the need is debatable or that is unnecessary there but fully justified somewhere else.

In certain countries, foreign firms have sometimes been brought in to draw up programs and building plans and even, as will later be described, to contract loans to finance the projects.

Following are the systems used in Uruguay, Chile, Peru, Colombia, Venezuela, Panama, El Salvador, and Mexico, according to the obtainable information. It should be noted that the systems described are those used by the Ministries or Secretariats of Health.

Uruguay.- Up to now there have been no formal programs of hospital construction. The main reason is that the economic resources do not cover all the needs of the existing facilities, so that plans are basically a response to urgent needs according to a list of priorities.

The Architecture Division of the Ministry of Public Health at one time outlined, together with the Welfare Division, a minimum program of new construction, which has not been put into effect for the reason mentioned above.

Two systems are followed on construction:

i) By the Ministry of Public Works (annual plans with resources voted by Congress for Ministry programs); in this case the Architecture Division of the Ministry of Public Health supplies programs and sketches.

ii) Directly by the Architecture Division of the Ministry of Public Health, which plans and supervises construction with the Ministry's own funds (from grants, revenues, and so on).

At present the Architecture Division is attempting to establish organic planning, whereby programs covering the needs of the entire country are studied and formulated, as standard practice.

In addition, CIDE, the interministerial committee studying the Economic Development Plan, is including a hospital construction program in the plan.

Design and supervision are in the hands of specialized architects in government agencies: The Architecture Division of the Ministry of Public Health and the Hospitals Section of the Architecture Bureau of the Ministry of Public Works. This is clearly a duplication of services, which means failure to use resources to good advantage and higher costs. Construction as such is done by private companies after public bidding.

Chile.- Since long before the National Health Service was established, there has been an autonomous institution, the Society for the Construction of Hospital Facilities, in charge of building hospitals and other health facilities. This agency is financed by law through government allocations and through the sale of 8 per cent bonds to the National Health Service, the Social Security Service, other public institutions, and the private sector. When the Society was set up, it was thought that the interest would attract the private sector, which would buy a large share of them. But the general impoverishment caused by the country's perennial inflation has resulted in the Treasury's holding 90 per cent of the bonds.

For the construction of hospitals, clinics, and other facilities the National Health Service follows a plan subject to a list of priorities. Its Department of Architecture draws up the plans and specifications for the buildings programmed, which after approval by the Council of the Service are sent for execution to the Society for the Construction of Hospital Facilities. Under its regulations, the Society must build on land of its own acquired by purchase or, if public, by transfer from other Ministries. It sets the terms on which it calls for proposal or bids, and builds in accordance with its financial capacity. In 1964 the Society had 17 million escudos ($ 5,230,700) at its disposal. The National Health Service uses its interest on the bonds to equip the hospitals built.

Remodeling of hospitals and health facilities is handled directly by the National Health Service with funds from its own budget. Either its own Department of Architecture is used or the hospital directors contract private architects, who are paid according to a previously determined scale.

It is believed that the Society for the Construction of Hospital Facilities might be incorporated into the National Health Service, which would do away with administrative procedures and personnel payments that increase construction costs.

Peru.- The National Health and Social Welfare Fund was established some years ago by Law 11672 as an independent public agency, its main purposes being to carry out projects and services aimed at improving the country's sanitary conditions, to promote health protection, and to advance social well-being. Its resources come from various taxes such as the antituberculosis stamp, a share of the income from fiscal stamps, a share of the tax on alcohol and alccholic beverages, and an allocation of 3.5 per cent of the tax on all salaries and fees paid by private employers for retribution of services.

The Fund has cooperated in the eradication and control of communicable diseases (malaria and smallpox), has helped in the development of health and housing services, and has carried out considerable construction in the welfare field, including the building and equipping of 12 hospitals. A recent law freed the Fund from the construction of hospitals and health facilities -- it is still wholly responsible for subsidies to public "beneficencias," which in 1964 were in excess of 100 million sols; it subsidizes other services to the extent of 38 million sols; and it has lost 25 per cent of its income to the National Economic Development Fund.

Draft programs for the building of health facilities are prepared in the Fund's Office of Health Programs, which also conducts pilot programs in social development and promotes medical teaching and scientific research. The programs then go to the Technical Office, which draws the architectural plans and blueprints, including installations and costs and supervises construction.

The Fund handles construction by means of public bidding.

According to the obligations fixed by law and those conferred by the Council of the National Health and Social Welfare Fund, this independent agency has a standard-setting and executive authority and economic resources that make it seem to be in competition with the Ministry of Health and the Health Service. If these institutions were integrated, the results would probably be more positive and the resources of both could be used to better advantage.

Colombia- Because of the characteristics of Colombian health services, the multiplicity of agencies having facilities and hospitals, the lack of an adequate construction plan, and a lack of economic resources on the part of the Ministry of Public Health, there has been very little building in the past 15 years and what there was has chiefly been rural health centers.

Construction is in the hands of the Ministry of Health. Its Department of Architecture prepares programs, sketches, and plans that usually wait for years to be executed. Sometimes another public institution or a private one asks the Department of Architecture to draw up hospital plans.

Venezuela.- The table of organization of the Venezuelan Ministry of Health and Social Welfare shows a Department of General Services, which includes Sanitary Architecture, Construction, and Maintenance. This Department is one of the organizations participating in hospital construction.

The procedure employed in the building of health facilities may be summarized as follows:

The need for building a hospital is determined by Cordiplan, the office that coordinates development plans, in which there are technical representatives of the agencies related to health. The Ministry of Health prepares the program in its Department of Sanitary Architecture, in which there is a representative of the Ministry of Public Works. This program is sent by the Ministry of

Health to the Ministry of Public Work -- the real builder -- which on approval sends it to the Office of Health Planning. The Office may or may not change it, and then returns it to the Ministry of Public Works. The Ministry of Public Works develops plans, specifications, and so on and submits the terms for public bids to the Comptrollership General of the Republic; on approval they are returned to the Ministry of Public Works, which calls for bids and gets construction under way.

Inspection is carried out by the Office of Sanitation Architecture.

As in the case of Uruguay, a new element has been introduced in Venezuela -- the important role played in the process by the Ministry of Public Works.

Panama.- In Panama, as in Venezuela, hospitals and health facilities are built by the Ministry of Public Works subject to programs, plans, and specifications drawn up in the Architecture Department of the Ministry of Health, Social Welfare, and Labor, with the Health Director participating directly. The Ministry of Public Works handles the construction through public bidding.

El Salvador.- In El Salvador it is the Office of Planning that determines the need for building a health facility or a hospital, and the Ministry of Health gets the financing for it from the Ministry of Finance. Once the resources (domestic or foreign) have been authorized, the Department of Engineering and Architecture prepares the programs and draws the plans. When this step has been completed, and a bid by a national firm has been accepted, construction is started. The work is supervised by some supervisory institution contracted for an agreed-upon fee.

Mexico.- Until a while ago Mexico had a National Hospital Commission (set up in 1954) attached to the Secretariat of Health and Welfare. Its purpose was to provide technical assistance for and to supervise programs and plans for new hospitals or for enlargements or alterations, whatever their auspices, so as to bring about more effective functioning. It was also to conduct a hospital census on which a nationwide hospital construction policy could be based. The Hospital census was quickly taken by professional groups and technical specialists, and its results were published in 1958.*

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* República Mexicana. Secretaría de Salubridad y Asistencia Social. Comisión Nacional de Hospitales. Censo y planificación de hospitales. 1958.

This Commission was replaced in 1964 by the Building Commission of the Secretariat of Health and Welfare. This is now in operation, with functions similar to those of its predecessor.

The Building Commission programs construction, draws up plans and specifications, and calls for public bids from contractors or construction firms. Supervision is carried out by Commission architects and engineers, and this control goes so far as constant sampling, in the Commission's own concrete laboratory, of the material used by these firms.

Mexico is advising several Central American countries on hospital construction. The parties are mainly the Mexican Social Security Institute and the social security agencies of these countries.

The foregoing review of the legal procedures and regulations employed in some Hemisphere countries for the programming and construction of hospitals shows the variety of methods employed and the necessity of finding an adequate system that will make possible an advantageous use of economic resources through the development of programs uninfluenced by outside factors and circumstances.

b) Construction and remodeling of hospitals and health facilities during the past 5 years. Costs. Special expenditures on foreign advisory services.

By means of the procedures that have been described, numerous hospitals, health centers, and other facilities have been built in the Latin American countries -- sometimes in accordance with national, regional, or local programs and sometimes in response to factors quite unrelated to a program.

For the countries visited a survey design was set up that would reveal construction during the past 5 years with number of beds, time spent on construction, cost of construction, cost of equipment, and cost per bed, all of which is summarized in Table XII.

TABLE XII - Construction during the past 5 years in 8 American countries. Number of beds, time spent in construction, total cost, cost of equipment, cost per bed.

Country	Period	No. of beds	Time spent in construction	Construction cost	Cost of equipment	Total cost	Cost per bed	
							National	$ USA
Uruguay.....	1961-64	363	--	-	-	$ 54 565 000	$ 150 000	7 500
Chile.....	1959-64	2901	3 years 3 months	Eº 21 213 753	Eº 4 102 000	Eº 25 315 757	Eº 17 410	4 970
Peru.....	1962-63	1678	2 years	193 437 160	199 272 658 German credit	Sols 392 709 818	Sols 2 950 173	10 631
Colombia.....	1960-63	1463	3 years	-	-	$ 1 281 500	$ 87 544	5 149
Venezuela.....	1959-64	3588	2 years	Bols. 139 872 000	Bols. 32 645 000	Bols. 172 517 000	Bols. 58 960	13500
Panama.....	1959-64	355	2 years	-	-	Balb. 1 011 235	Balb. 2 848	2 848
El Salvador.....	1959-64	36	1 year 5 months	-	-	Colons 208 986	Colons 5 805	2 322
Mexico.....	1959-64	10410	-	-	-	-	-	-

Only general data are available on construction in Uruguay. The Architecture Bureau of the Ministry of Public Health invested, during the period 1961-1964, the sume of 10,765,000 pesos; this is equivalent to about $500,000 at the rate of 20 pesos to the dollar (at present it is 48). Between 1960 and 1962, inclusive, the Ministry of Public Works had 43,800,000 pesos ($2,190,000) budgeted for construction. This latter figure does not, however, show what was actually spent, since certain items in the Ministry's budget were not carried out.

To estimate the cost of beds in Chile in U.S. currency, the rate of 3.50 escudos to the dollar was used. The figure on construction outlays did not include the building of 11 clinics in various cities or certain general facilities in some hospitals, which cost 1,360,741 escudos. Also omitted were the investments made by the Housing Corporation, which built four clinics.

Information on construction in Peru covers the period 1962-1963. Facilities built by the social security agencies, which deserve separate comment, are not included. The exchange rate was 26.70 sols to the dollar.

The Colombian peso was estimated at 17 to the dollar. In the period shown in Table XII 50 health centers, the cost of which is not known, were built in addition to the beds indicated. Furthermore, the information in hand, issued by the Office of Evaluation, does not specify figures in this regard.*

In Venezuela the exchange rate was taken as 4.50 bolivars to the dollar. In El Salvador, with a rate of 2.50 to the dollar, six health units were built at a cost of 406,021.16 colons in addition to the beds shown in Table XII.

In Mexico it was not possible to obtain data on the cost of the 10,410 beds and other health facilities built during the period 1959-1964. Only information on what was accomplished is available.

To determine the time spent on construction, the number of years between start and completion was averaged; in some countries it fluctuated between 1 and 5 years.

* República de Colombia. Departamento de Planeación. Encuesta de las Instituciones del Gobierno Local. Fuentes y uso de fondos. 1964.

Although there are figures on cost of equipment for only three countries, its relationship to cost of construction varies greatly from country to country. According to what is known and to estimates made by officials in the architecture departments of several countries, this range might be from 17 per cent to 100 per cent. It depends on what is considered necessary and adequate equipment for a hospital and on the amount, quality, and complexity of the equipment installed, as could be observed in many of the hospitals visited (radiology equipment with motion pictures and television, while other hospitals in the same country do not have a single fluoroscope).

Within any one country, the cost of construction varies as a result of such factors as difficulty of transporting building materials, difficulty in finding skilled labor, type of construction, and length of time.

The cost of hospitals built by the social security agencies, in the countries where this is known, is interesting, being significantly higher than the usual costs incurred by the Ministry. In Peru, the Employees' Hospital, which was eight years in the building (it was opened in 1958) and has a capacity of 1,247 beds, cost 300 million sols to build and 80 million sols to equip; at the present rate of exchange, this is $11,236,000 and $3,348,200, respectively. The conversion is not precise, for it should be based on the value of the dollar in Peru during the construction period. Furthermore, the cost per bed of a little over $11,000 is fallacious, for only 898 beds out of a capacity of 1,247 are functioning. Workers' Social Security has in recent years built 200 to 300 beds at a cost of 200,000 sols each.

In Panama the Social Security Hospital, with 269 beds, had a construction cost of 2,700,000 balboas (1 balboa = 1 dollar), just over $10,000 per bed.

Another item than should be stressed is the expenditure on foreign advisory services incurred by some American countries for the construction and equipping of hospitals.

Though hospitals and health facilities have generally been built with domestic resources -- technical and economic -- foreign firms have sometimes been contracted for program studies, the preparation of plans and drawings, and on occasion financing. In most cases, the cost of construction and installations has been much higher than with buildings executed by the Ministries; among the factors responsible are interest payments, requirements for specific types of equipment, and fees to other firms supervising investments (financial control).

Good examples of this are such hospitals as the Clinics in Montevideo, the Employees' in Lima, the Military in Bogotá, and the Social Security in Panama City. In all of these the cost per bed was in excess of $10,000, whereas, as has been shown in Table XII, most hospitals built by the Ministries cost half, or just over half, as much. At the Employees' Hospital, it developed, 100 beds could have been built with the architects' fees. A visit to this hospital reveals many high-cost installations, the expense of which could have gone into equipping other hospitals that are not fitted out to provide good-quality integrated medicine. This situation is common with radiology equipment, laboratories, operating tables, milk-pasteurizing plants, and so on.

The governments of Peru and El Salvador have negotiated cash loans -- the former with a foreign consortium, the latter with a government -- to carry out plans for the building of hospitals and health centers or units.

Part of the Peruvian plan, which was formulated by the Health Bureau and the National Health and Social Welfare Fund, has already been fulfilled. According to the agreement with the consortium, the loan is for DM 66,002,532.29, payable in ten years at 7 per cent interest. Over the ten-year period, the interest to be paid by the National Health and Social Welfare Fund will amount to 32 per cent of the total. With regard to equipment, one clause provides for DM 21,571,150.69 to be allocated for this purpose and DM 15,135,849.31 for costs of installation, shipping, clearance, local transport, and so on. It is further provided that installation may be done by consortium or national personnel. Another clause exempts the consortium from all taxes.

In El Salvador, an agreement was reached about a year ago with a foreign government for the financing of a hospital and health-unit construction plan. The conditions differ from those obtained by Peru. The credit is for 6,450,000 colons and is payable over 20 years in semiannual installments at 3 per cent annual interest, with 4 years' grace. To this sum the Government of El Salvador will add 4,300,000 colons for a total of 12,500,000, which will be invested in a program drawn up by the Ministry of Health and the Health Bureau. In Venezuela, some hospitals built by foreign firms cost 50 per cent more than those constructed by the Ministry of Public Works and were found to have a series of defects caused by the construction firm's ignorance of conditions in the country.

c) General construction and remodeling plans for the next few years. Capacity to undertake these projects.

In estimating bed needs in future years, two factors must be taken into account: i) expected growth of the population to be served; and ii) the proportion or percentage of the population to which it is essential to give adequate medical care. Up to now there has been no single index that can be recommended for estimating these needs, since each country presents so many variables. Among these should be mentioned the structure or age distribution of the population, the causes of morbidity in outpatient consultations and hospitalization, the organizational systems of the health services, manpower, the geographic distribution of the population, the utilization of existing hospitals, and the demand for medical-hospital care in relation to the country's cultural background and economic resources.

Use of the first factor alone, the expected population growth, leads to the following estimates of needs for new hospital construction in Latin America between 1965 and 1980. In this period the population will increase by 53 per cent -- from 244 million to 374 million. Maintenance of the present very low ratio of 3.2 beds per 1,000 population will necessitate 1,200,000 beds by 1980; if it is estimated that there are 780,000 beds at present, 420,000 more will be needed, which means that between now and 1980 the present number of beds must be increased by 28,000 annually.

By country, the need for an increase in beds depends on the present supply and the relationship to population. For example, population growth in Argentina is slower than in Mexico and the total population is smaller; nevertheless, to maintain its present high ratio of beds to 1,000 population it must construct more beds than Mexico in the 15-year period 1965-1980.

On the other hand, the current bed level in Argentina is sufficient, whereas in Mexico an increase over present ratios is advisable. Data on hospital construction during recent years in several countries illustrate the progress that has been made: in Mexico, between 1958 and 1963, hospital beds increased by 45 per cent; in Venezuela, between 1957 and 1962, by 28 per cent.

What has been said about meeting bed needs is also applicable to health centers. In 20 countries with a population of about 196 million, there were 11,618 health centers and other outpatient facilities in 1963-1964. The

population coverage represented by these facilities is not known; but asssuming that, as in certain countries, each one serves 17,000 people, the 1965 need is for 14,000 such centers and by 1980, when the population will have risen to 374 million, it will take 22,000 to maintain the present ratio. This means building 8,000 in 15 years, or 530 annually.

On material resources, expressed in buildings, beds, and equipment, the subsectorial, sectorial, and national health plans should consider i) better utilization of exisiting facilities; and ii) the construction, remodeling, and equipping of new ones in accordance with needs. In setting goals, consideration should be given to the feasibility of achieving them with domestic resources, with or without foreign aid, or with outside resources exclusively. The current meager planning method limited to existing resources is unsuitable in this connection; it would lead to decay and stagnation in the fulfillment of goals that vary from year to year.

Some background on construction plans for the coming years about which there is direct or indirect information will show the efforts being made in the countries to eliminate shortages of beds and other health facilities.

In two countries, El Salvador and Chile, and particularly the latter, construction plans must be very short-range, because earthquakes make it necessary to alter the programs, to postpone those already under way, and to invest a large part of the resources that had been allocated in repairing earthquake damage and replacing what was destroyed.

In Chile, before the earthquake at the end of March of this year, the construction of 36 hospitals, with a total of 3,531 beds, had been programmed; work on five of these, with 272 beds, began this year; eight, with 322 beds, had been put out for bids; and plans were being drawn for the rest. The building of eight clinics and ten rural posts was also under discussion.

Similarly, El Salvador, before the earthquake in May of this year, had programmed for the period 1965-1969 the building of three general hospitals with a total of 500 beds. The cost of construction was to be 8,184,492.30 colons and of equipment 2,575,507.70 colons, for a total of 10,760,000 colons ($4,300,000). The cost per bed constructed and equipped was 21,500 colons ($8,600). Also during this period, it was intended to build 50 health posts and units and to do 8,363,765 colons worth of construction, expansion, and remodeling in other hospitals. The three

hospitals mentioned at the start were to be financed in part by the Salvadorian Government and in part by a loan from a foreign government.

Uruguay has no hospital construction programs arising out of a national health plan.

The Colombian construction program, related to the Alliance for Progress, calls for the construction and completion, excluding equipment, of 23 facilities with 4,183 beds. The total cost is 394,780,000 pesos, and the cost per bed $5,551, not counting equipment.

Peru, continuing with its biennial programs initiated in 1962, has planned for 1964-1965 a program, financed by a consortium, that contemplates the building of 11 hospitals with a total of 1,450 beds. The investment comes to 346,571,315 sols, and the cost per bed is more than $10,000.

The ten-year (1958-1968) program of medical and welfare construction in Venezuela, formulated by the Ministries of Health and of Public Works, calls for building 28 hospitals. Eight of these were started, but not completed, during the period 1960-1964, and the 20 others are to be built beginning in 1965. This plan, which comprises 8,271 beds built and equipped, represents an expenditure of 533,028,000 bolivars, with a cost per bed of 64,445 bolivars ($14,320). The cost may vary according to local and other conditions, as stated in the program.

The Secretariat of Health and Welfare of Mexico has made a study of investments on hospital construction and equipping for 1966-1970. This contemplates an investment of 571,000,000 pesos, with the Federal Government contributing 400,000,000 and the state and municipal governments and private sources 171,000,000. Rehabilitating 9, 00 beds is to take 325,380,000 pesos; building 4,093 new ones, 245,616,000. There is also to be an investment of 174,795,000 pesos to equip these beds. The total expenditure for the period is 745,795,000 pesos.

It is of interest that in their construction programs Chile, Colombia, Mexico, Panama, Peru, and Venezuela have all included health centers, health units, rural medicatures, outpatient clinics with or without beds, and medical posts, so as to furnish medical care to small communities with low population density.

In Panama a construction plan was initiated in March 1963 and is to be completed in February 1967. Under this five-year plan, 25,844,000 balboas are to be spent on building a new hos-

pital in the eastern region, a nursing school, health centers with beds, and health subcenters scattered over the country.

In each of the countries visited, there was said to be the technical capacity and the labor to carry out the planned construction. The main stumbling block in all was economic capacity; hence the agreements signed by some countries with foreign consortia and governments. As to how much of the equipment could be manufactured in the country and how much must be purchased abroad, the replies were very diverse. In Mexico it was estimated that 80 per cent could be made domestically and only 20 per cent would have to be imported--the reverse of the situation in some countries, where practically all the equipment must be imported. Others, in contrast, can produce 40 to 50 per cent of their equipment.

d) Equipment and installations

Mention was made above of the difficulty of determining how much equipment there was in the countries, because of the lack of adequate, reliable information. An account was given of what is being done in various countries to obtain background material, through a census of resources, that would make it possible to formulate national or sectorial health plans. Emphasis was also placed on the lack of equitable distribution of equipment among the hospitals and on the existence of some that was considered useless, inadequate, or superfluous. With respect to the latter point, in one of the countries a number of kerosene sterilizers and resuscitators that had been imported stood idle for years, for lack of instructions on how to use them, and other equipment was electric in areas where there was no electricity. In other countries, costly apparatus that requires special techniques and experts to run it, and that is expensive to operate because of its low return, tends to mount up to inexplicable numbers -- machines for extracorporeal circulation, for example. In one country an electron microscope was bought when some hospitals did not have even an ordinary microscope. These examples might be multiplied indefinately; they show the need for rational programming through advisory services that will promote the acquisition of what is needed for the normal development of health facilities and services.

It also happens frequently that various pieces of equipment of the same type originate in different countries or come from different manufacturers in a single country. This creates serious repair problems, with parts impossible to get because of lack of foreign exchange or because the factory is no longer in existence. Thus apparatus and instruments

often go out of service after a short time. Clearly, purchases should be standardized to prevent such waste, which constitutes a significant porportion of a facility's expenditures.

e) Maintenance, Repairs. Renovation.

The maintenance and upkeep of buildings and equipment is a problem that health authorities have not fully come to grips with. In some countries it is handled centrally in the Health Ministry or Bureau by divisions or departments that have their own budgets and specialized staffs, with a small allotment to the hospital director for minor outlays. In others, maintenance and upkeep are the direct responsibility of the facility itself. The percentages granted for his purpose vary, but even in the countries that designate larger amounts these are still below what is required -- especially for the many hospitals in Latin America that are from 25 to 200 years old.

Renovation of equipment is not done as often as necessary. Legal procedures have been established in some countries for using a percentage of the hospital's receipts for this purpose, or for contracting loans. In others, interest on the bonds of construction societies is used for equipment renovation.

f) Requirements for normal financing of facilities after completion of construction or remodeling. Functional operating budgets. Staff requirements and training expenses.

It is not unusual to see a hospital, clinic, or health center or unit standing unused for a long time, perhaps years, after the completion of construction or remodeling with resulting deterioration of the building. This is due to failure to work out an operating budget in time and to include it in the budget for the pertinent year, and also to lack of sufficient trained personnel for prompt and effective medical care.

It has been estimated that the operating budget for the first year after construction ranges from 25 to 50 per cent of the total construction; it is therefore essential to include this estimate in building programs. Only the Mexican plan for 1966-70 includes this expenditure; it is not mentioned in the programs of other countries.

Supplying an adequate staff is much more difficult. Though the requirements may be determined, there is a notorious shortage of professionals, technicians, and

auxiliaries in all the Latin American countries. Mention has been made of the efforts under way in South and Central America to remedy this lack, which will continue to be a dominant factor in the development of health plans and programs.

3. Conclusions

In the course of this review of the current status of the health sector in Latin America; the structure and organization of health facilities; the most salient aspects of the material, manpower, and economic resources available to these facilities, with particular reference to hospitals; and, finally, the background relative to the planning of them, emphasis has been placed on the following points:

A.- The need for planning health activities and programming them in accordance with the existing resources and the needs, so as to meet the demand for medical care and reduce mortality.

B.- The desirability of the health plans' being sectorial, not subsectorial, and of their being related to and coordinated with the national plans for economic and social development.

C.- Establishment of the principle, as a foundation in the development of these plans, that preventive and curative health activities be integrated.

D.- The achievement in the shortest possible time of effective coordination of health facilities, particularly between the Ministries of Health and the social security agencies, which have the largest resources and the responsibility for providing the people with medical care.

E.- Adequate distribution of material, manpower, and economic resources and provision of the means to cover the needs arising from population growth and from each country's individual characteristics.

F.- The view that hospital planning is closely related to health plans and is part of medical care programs and their execution and development.

G.- The planning of hospital building, remodeling, and equipping to increase population coverage, with improved organization and administration.

H.- The planning of health facilities with an eye to the present and the future, with a determination of initial investments, construction and installations, operating budgets, and personnel needs.

I.- The recommendation, in view of the foregoing conclusions, that a regional organization be set up in the Pan American Health Organization to provide technical assistance on request to Member Government, oriented toward the study of their prevailing problems, their major characteristics, the recommended solutions, and the part that should be played by the Bureau in advising on the planning, construction, remodeling, equipping, organization and administration, personnel training, operation, and national and international financing of hospitals and health facilities.

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directing council

PAN AMERICAN HEALTH ORGANIZATION

XVI Meeting

regional committee

WORLD HEALTH ORGANIZATION

XVII Meeting

Washington, D. C.
September-October 1965

Provisional Agenda Item 12

CD16/24 (Eng.)
Corrigendum
15 September 1965
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PLANNING OF HOSPITALS AND HEALTH FACILITIES

CORRIGENDUM TO THE WORKING DOCUMENT ATTACHED AS ANNEX TO DOCUMENT CD16/24

Page 18

Line 9: Delete: "...the real possibilities"; substitute: "...the possibilities of achieving it"

Page 50

Line 3: Delete: "...1975"; substitute: "...1980"

Page 51

Delete the final sentence of the first paragraph

Page 52

Line 13: Delete: "...4,500"; substitute: "...3,500"

Page 63

Delete lines 35 to 37, from "Assuming" to "product"

Page 79

Line 40: Delete: "...12,500,000"; substitute "...10,750,000"