

TECHNICAL DISCUSSIONS AT THE XIX MEETING OF THE DIRECTING COUNCIL  
OF THE PAN AMERICAN HEALTH ORGANIZATION

FINANCING OF THE HEALTH SECTOR<sup>1</sup>

*The Technical Discussions at the XIX Meeting of the Directing Council of the Pan American Health Organization were held on 7 October 1969 at the Headquarters building in Washington, D.C. The topic was "Financing of the Health Sector." The Final Report adopted by the participants is presented below, together with the basic working document prepared by the Pan American Sanitary Bureau.*

FINAL REPORT

The Technical Discussions on Financing of the Health Sector took place on 7 October 1969. Fifty-two participants, including representatives of international, governmental, and nongovernmental organizations, took part in the Discussions.

In accordance with the Rules for Technical Discussions, Dr. Luis Ochoa Ochoa (Colombia) was elected Moderator, and Dr. David A. Tejada-de-Rivero (Peru), Rapporteur. Dr. Alfredo Arreaza Guzmán (Pan American Sanitary Bureau) served as Technical Secretary.

Pursuant to the Rules, an introductory statement was presented by the designated expert, Mrs. Lucila L. de Araújo, and the discussion guidelines were explained by Dr. Juan José Barrenechea (PASB).

The participants were then divided into two working parties, each with a moderator and a rapporteur, which discussed the topic in the morning and afternoon sessions. The views expressed and the conclusions reached by each working party were summarized by the rapporteur concerned, and were consolidated for the purposes of the present Report by the Rapporteur of the Technical Discussions with the assistance of the moderators and rapporteurs of the working parties.

Conclusions

1. Financing is an important aspect both of the diagnosis and of the planning of the health sector.

2. By and large, the countries do not have an accurate knowledge of how the health sector is financed, primarily because budgetary and accounting data are unavailable or not properly used. However, it was recognized that techniques are available for making a complete study of the problem.

3. The problems in financing the health sector arise not only from the relative scarcity of money but also from lack of coordination of the multiple sources and institutions channeling funds. Consequently there is overlapping, and deficient orientation and utilization of these funds. Strong pressures exercised by the various health sector institutions, in an effort to obtain priority in the distribution of funds, hamper the solution of these problems. A reorganization of the institutional structure of the health sector is therefore urgent. This would result in an increase in productivity, which is more important than a mere increase in sectoral financing.

4. Different systems are used for distributing funds to the sector and to institutions, but the decisions taken have no rational basis. The level at which allocations are decided upon also varies—national planning

<sup>1</sup>Originally published in Spanish in *Boletín de la Oficina Sanitaria Panamericana*, Vol. LXVIII, No. 1 (January 1970), pp. 1-40; also issued as *Scientific Publication PAHO 208* (1970).

organizations, ministries of finance or economy, cabinet meetings. The impossibility at present of measuring accurately the effect of health activities, because of the lack of proper indicators, accounts for this mode of distributing funds among the institutions of the sector.

Variations in the proportion of funds allocated to the health sector in terms of the total public sector financing and gross national product, which are determined by the economic and social structure, level of development, government policies, immediate needs, and other factors, were also discussed.

5. In discussing the possibility of increasing internal financing the view was expressed that, although there were various sources, as a whole they were limited by the over-all financing capacity of each country, which in turn depended on the structure and level of economic and social development. Any disproportionate increase in the financing of a particular sector might have negative effects on the country's general development.

The basic purpose of expanding internal financing should be to extend geographic coverage and to include population groups at present without continuous services. It was also agreed that a practical way of achieving this expansion might be national health insurance or similar schemes, based on progressive contributions in accordance with business and personal incomes.

6. The following were considered to be the most important obstacles in internal financing:

a) Inadequate administrative procedures that prevent allocated funds from being used in full within a budgetary period.

b) The earmarking of funds for special disease programs or specific population groups, which prevents them from being used for other higher priority problems.

7. The following were mentioned as obstacles to obtaining external financing:

a) Prolonged and sometimes overly rigid

procedures in the formalities for obtaining loans.

b) Since most of the loans are obtained for investment in health infrastructure projects, the countries subsequently have difficulty in obtaining the internal operating funds necessary.

c) Long-term commitments to satisfy loan obligations, which sometimes exceed the debt capacity of the sector or its financial capacity to operate the system.

d) Sometimes loans involve a commitment to purchase materials and equipment in the lender country, an arrangement that may be detrimental to local industry or result in the purchase of products that are more expensive than locally available substitutes.

e) Donations that may involve undesirable commitments by the country.

8. External financing should be used solely for developing the health infrastructure, in its broadest sense; that is, not only for financing the construction of water supply and sewerage systems and health establishments, but also for manpower training, operations research, and promoting modern administration. In this way productivity and operating capacity can be increased. However, external financing must be used as a "takeoff" resource, not as a regular and continuous source of funds.

9. It was suggested that external funds should preferably be channeled through multilateral agencies because they are true instruments of international solidarity.

10. The financial resources at present available to the health sector cannot satisfy the growing demand for services; at the same time, any increase in external or internal financing should be used to deal with problems in a rational manner; that is, with due attention to priorities and by means of technically sound projects that reflect a well-defined health policy, thereby enabling optimum use to be made not only of funds but also of manpower and physical resources in all health sector institutions.

## FINANCING OF THE HEALTH SECTOR<sup>2</sup>

### Introduction and Background

At their meeting held at Punta del Este, Uruguay, from 12 to 14 April 1967, the Presidents of America expressed the need "(1) to expand, within the framework of general planning, the preparation and implementation of national plans that will strengthen infrastructure in the field of health; (2) to mobilize internal and external resources to meet the needs for financing these plans... (3) to call upon the Pan American Health Organization to cooperate with the Governments in the preparation of scientific programs relating to these objectives."

At the Special Meeting of Ministers of Health of the Americas (Buenos Aires, Argentina, 14-18 October 1968), it was recommended that "Governments consider the possibility of making contributions to a Fund whose income would be assigned exclusively to health programs in the form of long-term, low-interest loans." The Pan American Health Organization was asked to study the feasibility of this proposal.

At the XVIII Meeting of the Directing Council of the Pan American Health Organization (Buenos Aires, Argentina, 21-25 October 1968), it was agreed to include the "Financing of the Health Sector" among possible topics for future Technical Discussions.

The present document covers the specific questions that led to the proposal of the topic. It has been structured to take into account both the foregoing considerations and the need to adopt a comprehensive approach to the problem of financing the health sector, in order that the various aspects of the problem may be examined in the context of their interrelations and the relations between the health sector and other sectors at the national level.

### Problems of Financing Inherent in the Institutional Structure of the Health Sector

Since the range of functions and services for which the health sector is responsible in the countries of the Americas is so great, this paper merely attempts a general comparative description of the various institutions providing services in the health sector, from the standpoint of the source and scope of the funds allotted to them in the various groups into which the countries of the Americas have been classified for the purpose of this study.

It should be borne in mind that the present profile of health services offered by each institution in the sector is a result of the historical development of the countries of the Region, which is outside the scope of this paper. However, a full understanding of the past events that account for today's institutions and their basic functions may provide guidelines to indicate possible projections of the present situation.

### *Institutional Structure*

In each of the countries of the Americas the make-up of the health sector varies according to the combination and importance of the component institutions, which include ministries and departments of health, social security institutions, decentralized public or semiprivate agencies, other public and semiprivate agencies that provide health services in addition to performing their specific functions, and private institutions and private practice.

The importance attributed at the national level to the various public institutions, as compared to the private ones, varies considerably. They may be classified and analyzed according to the characteristics arising out of their functions, their areas of influence, the communities they serve and their human, financial, and material resources.

<sup>2</sup>Basic document prepared by the Pan American Sanitary Bureau.

### *Institutional Rigidity*

The present structure of the health sector in each country cannot be quickly changed, because of the rigidity of most of the institutions and the length of time needed to introduce fundamental changes. The present institutional rigidity in the health sector also persists because of inertia and because of lack of interest in setting up programs and policies better adapted to the increasing needs of a growing population.

In examining the problems of financing the health sector, it is essential to ascertain the trends shown by its components: which of them will persist unchanged or become more pronounced, which will change or wane. So far, in several countries the ministries of health and social welfare, the social security systems, the water and sewerage authorities, and other components of the sector have announced their separate plans. The total financial needs of the sector are known only in countries with national health plans that enable them to estimate over-all costs.

### *Communication and Information*

One of the problems to be faced in making an estimate of total funds needed and their distribution by institution is the lack of communication between over-all and sectoral planners.

Very rarely can planners in the public sector provide information or receive it, since many of the countries have no machinery for this task; in reflection of this situation, the information obtained is usually fragmented. Yet such information is of vital importance for correlating over-all needs with population growth and with national and international health policies and for fitting them into comprehensive development plans, which are not always known to all components of the sector.

### *National Priorities*

There is thus a pressing need for studies that will make possible a sound choice of the

institutions and agencies in the health sector that should be strengthened, bearing in mind the country's need to establish priorities, based on feasibility, for the resources it is free to allocate, since part of the funds flowing to the sector cannot be controlled because of their mandatory or voluntary nature.

### *Quantification of Financial Needs*

It is obvious that at present very few countries can estimate the amount of money they will be needing for health purposes or specify how much should be assigned to each subsector and its institutions.

Few countries have paid sufficient attention to long- and short-term programming of health institutions in accordance with national problems, particularly in regard to the allotment of public funds and their use.

Also important from the financial standpoint have been the lack of systematic inter-institutional evaluations of health programs and the absence of studies to determine the optimum proportion and distribution of inputs to produce the goods and services needed by health sector institutions.

Because of the lack of information available in most of the countries of the Americas, it is not at present possible to estimate the amount of money the health sector needs except in the case of sewerage and water services and, in some countries, of hospitals.

### *Increasing Needs and Costs*

There is general agreement that needs are increasing and that health institutions must have more money if they are to fulfill their purposes.

It is also widely acknowledged that the cost of providing goods and services is rising, as is their priority in the allocation of public resources and in the family budget. Another recognized problem is the necessity of expanding health programs to keep pace with the growth of the population without lowering the present level of satisfaction of health needs.

For individual consumers using private health facilities, the lag between the rate of income increase and the rise in the costs and prices of goods and services means that a greater proportion of income must be earmarked for medical care. They will therefore tend to demand more subsidized services or collective systems of health care.

#### *Relationship between Economic Development and the Institutional Structure*

In the less developed countries the majority of the population lives at the subsistence level and can afford only rudimentary health care, with the result that the services must be almost entirely provided by the State. In some cases employers also provide their workers with certain health services, especially occupational health services. Charity institutions provide health services for indigents.

The small size of the national budget in these countries, and the resulting insufficient allocations for ministries of health and other subsidized agencies, leads to deficit operations and an irregular flow of funds, so that programs lack continuity and are unsatisfactory. The situation is aggravated by the coexistence of various health services systems and their uneven and inadequate development; as a result, only the urban areas tend to be provided with services.

As new patterns of health service organization evolve in a country the old patterns do not necessarily die out. Instead, they usually continue to operate with respect to certain sectors of the population or certain diseases. There thus exists in most countries a variety of health service schemes operating side by side. Traditional healers and schemes based on religious charity are supplemented by newer schemes based on social insurance or general control by the government. The proportion in which these schemes exist differs greatly among countries, but in the great majority there is a mixture. In a few countries, as we shall see, the various component schemes have been integrated with a view to developing unified systems of health service.<sup>3</sup>

<sup>3</sup> Roemer, Milton I. *The Organization of Medical Care Under Social Security*, International Labour Office, Geneva, 1969, pp. 8-9.

In the countries that are relatively more developed, social security systems tend to become important for workers employed in certain economic activities. Because of mandatory bipartite or tripartite financing, a considerable amount of money is collected from various segments of the population and used to protect the insured persons.

More money is available for health sector financing in developed countries. Since the public authorities have larger funds, more can be assigned to promote the programs of the decentralized public and semiprivate agencies that provide health services as their main activity or as a sideline. Because of higher levels of income, free private or charity institutions can obtain more money through private contributions. The universities in these countries also have funds with which to establish hospital services and to promote personnel training.

All the countries, regardless of their level of development, evidence excessive fragmentation of services and institutions, poor coordination and delimitation of functions, overlapping of areas and communities served and/or total absence of services in others, and consequently inefficient resource utilization.

Even in the more developed countries in the Region, the current trend indicates that the Governments will have to pay a sizable and increasing portion of the total costs of medical benefits in order to cover those segments of the population that are unable to contribute directly or indirectly to the financing of the established systems.

#### **Integration of the Financing of the Health Sector into the Process of Economic Development**

In most of the countries of the Region, there is often insufficient awareness that the activities of the various sectors combine to produce direct or indirect effects on human needs within a single context of economic, political, and social structures.

As a result there are a number of problems related to the delimitation of fields and activ-

ities and to the pressures exerted by the various groups contending for priority at all levels.

As a rule, proposals put forward by institutions are not based on sufficient information for inclusion in sectoral or regional policies in the following terms:

- Compatibility between health policy and over-all national development.
- Evaluation of the activities of health sector institutions.
- Estimates of necessary targets and rates of growth of operations broken down by health sector institutions.
- Analysis of the principal bottlenecks or constraints inherent in the activities of health sector institutions.
- Total funds earmarked and their distribution by institution.
- Critical inputs and skilled manpower needed.
- Money required to satisfy the needs of the health sector according to an order of priority derived from sectoral policies.

This relationship between goals and the determination of policies and programs on which operations are based cannot exist effectively unless the health plan provides for institutional coordination and the plan is prepared in the light of over-all national development.

For a social sector such as health, it is difficult to select appropriate sectoral objectives and to harmonize them with those of general economic development because, apart from the problems inherent in unifying the norms of the various institutions that make it up, the incremental relationship between levels of development and necessary health activities is not known.

This important correlation is usually estimated on the basis of correlations between the level of economic development, generally determined by budgetary considerations, and the importance attributed to health at the national level.

Often there is competition rather than coordination between the components of any policy chosen. Problems relating to policy decisions arise in connection not only with the

formulation of objectives (usually improved levels of living and extension of health care and service coverage) but also with the choice of resources and the procedures for obtaining them.

Consequently, if the health institutions are to increase their contribution to health sector programs and to a general development policy, they must have a hand in defining the economic, political, and social content of these programs within the framework of national policies or those of the institutions themselves. They also have a responsibility for estimating the impact of the policies adopted on other sectoral policies.

In sectoral plans and programs it is impossible to satisfy the desires of the subsectors and of all the institutional components involved. Concessions to some mean concessions to others. Nor is it possible for all the resources required to be selected independently, since there are restrictions and pressures from various bodies and activities in each subsector that compete for resources.

An analysis of intra- and intersectoral coordination would make it possible to assess the extent to which the various institutions actually contribute to the health sector programs and the limitations of their presence in the same service area. This assessment would tend to reveal overlavish coverage of some sectors of the population, the result of duplications and overlapping, while others would be found to be without even minimum services. A very important aspect of this assessment would be the actual impact of the direct and indirect charges and benefits received by the various sectors of the population.

Although advances have recently been made in methods of quantifying relations between economic and social phenomena, it has so far not been possible to measure the relationship between the rate of economic growth and the pace at which social policy, including health policy, should be carried out or the amount of resources that can be allocated. Furthermore, many activities are directed toward specific needs of each country that do not expand or

contract in accordance with the rate of economic growth.

A minimum public health target for a community appears to depend not only on the rate of economic development but also basically on the amount of resources available, the final amount of which is usually determined by budgetary considerations and the importance attributed to health.

In view of the fact that social targets take longer to achieve than others, alternatives have been established on occasion, starting with a minimum alternative that theoretically should not mean departing from the level of satisfaction already achieved for economic, political, or social reasons. It has sometimes been necessary to restrict or limit some of the institutions of a sector in order to achieve vital advances for larger groups of the population.

#### *Some Causes of Sectoral Bottlenecks*

*Resources already earmarked.* Investment programs, which usually call for implementation periods longer than a planned fiscal year, tie up part of the resources already earmarked. The other part is fixed by the level and structure of the operations determined by health policies. The impossibility of mobilizing these resources earmarked for other purposes means considerable rigidity in reorienting sectoral policy.

The rate of increase in the prices of health sector inputs, the level of salaries, and personnel policies and other consequent costs are also important factors in fixing the amount of earmarked resources. Another decisive factor is the increase in the demand for health services in most of the countries under consideration.

*Critical inputs and qualified personnel required.* A characteristic of developing countries is their dependence on the outside and their low level of industrialization. Consequently the growth of health sector activities may be affected by the critical inputs required for various activities, especially if they are imported goods such as various types of equipment, drugs, medicines, and construction materials.

The elements available could be subjected to an analysis both to set priorities for their alternative use and to ascertain the possibilities of supply by national producers in order to determine their financing and effects on the balance of payments. If the inputs are produced domestically and the volume of production is limited in relation to the demand, a study might be made of how to obtain some competitive advantages by using them for social purposes.

With respect to the need for qualified personnel, the shortage of physicians, paramedical personnel, technical and auxiliary personnel is well known, as is the cost to a country of training personnel for specific health activities. Even if there are other factors that favor an expansion of activities, the lack of trained personnel may restrict the rate of growth of some of the components of the sector, since on occasion these compete among themselves for the personnel required.

The characteristics of the health sector place it at the macroeconomic level; but by cutting across all the other sectors, the human resources concerned have, by their very nature, specific interrelations that determine the development of all these sectors. In this situation the health sector and consequently the various health institutions and agencies are extremely important to the development of human resources.

As the health indicators and the methods for quantifying activities at the global and sectoral levels improve, and as more reliable and prompt information is obtained about the over-all effects of government activities on the actual distribution of income and the distribution of direct or indirect charges and benefits among the various sectors and regions of the country, a more solid foundation will be laid for defining the soundest health budget policies in the context of over-all development.

#### *Financing and Investment Requirements in the Health Sector*

In most of the countries of the Region the outlook with respect to the present distribution

of income and levels of living of the economically active population, and especially of persons engaged in primary activities, shows not only that the considerations for the selection of the objectives of the health sector will tend to remain valid but also that the expansion and extension of the programs to segments of the population still without health services, particularly those in rural areas, will be essential and urgent. The granting of funds to the sector should make possible a more effective redistribution through the execution of the programs adopted.

The tendencies underlying this prospect are an accelerated rate of population growth and an insufficient increase in the rate of economic development in relation to this growth. These tendencies are reinforced by the slow growth of agricultural productivity and the concentrated distribution of income. Mention should also be made of the reduction of the net flow of capital from the more developed countries to the developing countries.

Although the general conditions mentioned are widely known, it is important to take their trends into account both because of their significance to the availability of total resources for the health sector and because of the fact that altogether they constitute the fundamental problem characterizing the socioeconomic framework within which adequate financing for the development of the present programs of health institutions is supposed to be achieved.

In this framework are to be found the constraints or bottlenecks that may be very important to the development of health programs and to the capacity to absorb new resources in the various developing countries of the area. The specific characteristics of each country will determine the selection of the means or instruments and also the financing required.

In this context the fundamental problems of financing the health sector are first of all the total amount of internal and external resources that can be channeled through the various mechanisms to this sector and the different

ways of distributing them among the various component institutions.

Of no less importance are the problems connected with decisions taken at the over-all national planning level with respect to consideration of the health sector in programs and policies for accelerating the comprehensive development of a country.

It is in the field of public finance that the most complex aspects for analysis and discussion of the most important problems are found, such as the determination of the level of fiscal resources and the proportion to be devoted to the budgets of the ministries and departments of health and to contributions to the social security system and other decentralized public and semiprivate organizations in which health activities are carried out.

An additional problem is how to distribute the various health programs among the various action levels of the public sector—central, regional, and local—and the financial balance among them. One of the problems that deserve special attention is that of discretionary powers in the disposition of funds at the various levels, with centralized supervision, or totally centralized disposition, control, and supervision. Another has to do with the continuity required for the flow of funds to accomplish the programs selected.

The expansion of government activity in the health field has had a number of implications for public finances, even in more developed countries, and has necessitated over-all consideration of them. This expansion has contributed to accelerating the development of the health sector. The increase obtained in both the total and the per-capita national product has made it possible for governments and individuals to participate increasingly in health costs. It is interesting to note that the rate of growth of outlays and activities of the public sector has been greater than that of private health outlays.

The administration of health services has differed according to government structure. Sometimes it is associated with education and social welfare at a centralized level where



policies and national and regional budgets are decided. Sometimes state, provincial or departmental governments not only have a hand in administration and financing but also define their own systems. Federal systems have also been developed, with payments or transfers generally flowing from the central government to the periphery, although the funds may also flow in the opposite direction. As a rule, the local levels within a federal government system are not self-supporting, their deficits being covered by transfers from state and federal governments. There are few countries in which the three government levels have well-defined and coordinated spheres of action that obviate overlapping in their service areas and consequent waste of resources.

Some countries have developed various systems of voluntary health insurance, which fail to cover the lowest-income groups. Even the systems based on contributions by the population and subsidies from the governments have encountered serious difficulties in extending their coverage to groups left out because of their inability to contribute.

The nature of health services, which in all countries, whatever their stage of development, constitute individual and collective benefits meeting social needs, has led to increasing state activity in producing them and in determining, according to the needs and the available resources, the kinds and amount of services provided to the population.

Actual transfers by governments to the health sector through the ministries of health and social welfare, social security systems, and other subsidized agencies occupy an important position, and in some countries amount to large sums that constitute considerable percentages of the total budget of the public sector. This means that the total contributions to the various health agencies and institutions, although they differ in financing mechanism and in the relative shares of the public and private sectors, receive fundamental consideration in the priority of financial resources, both

public and private, established for the general development of the country.

In addition to the health services provided by social security systems, the transfers made through cash benefits are extremely important and should be calculated and programmed. This would make possible a more accurate projection of the actual costs and benefits supported and received by the various population sectors.

#### *Potential for Increasing Resources*

The amount of financial resources to be channeled to the health sector will depend upon the main objectives of government activity with respect to the stabilization and acceleration of development, maximization of efficiency in the use of funds, and changes in the distribution of income. These are the basic considerations in deciding on the amount of funds to be assigned to the various agencies and institutions in the health sector in a given period since they determine limits for transfers, current allotments, and expansion of resources.

The public sector will have a better basis for its decisions on channeling resources to the health sector through the established mechanisms if it has the data to ascertain the objectives pursued by the various components of the sector, their consistency or complementarity, alternative ways of achieving them, estimates of the economic and social cost of each, and the effect upon and benefits for the other sectors.

Lack of communication and therefore of coordination of health sector institutions, lack of adequate information, and pressure to achieve priority positions may result in inconsistency in the partial goals or in the subordination of some to others in such a way as to prevent their integration with the common objectives that should characterize the sector as such in its orienting function and in financial decision-making for health activities.

#### *Programming Health Sector Investments*

Investment programs to extend and renew the health infrastructure in the countries of the

Region generally are not defined in terms of financial availabilities; nor do they take into account the organizational resources—human, material, and budgetary of the institutions—necessary to cover the cost of equipping, operating, and maintaining that infrastructure; nor are they based on the maximization of benefits to the population.

This situation may lead to investment programs not fully carried out, with consequent pressures arising from unsatisfied demand for health services on the part of certain groups, and the immobilization of resources that reduce the allotment for other purposes in the sector itself or other activities at the national level.

### Sources and Methods of Mobilizing Resources for Financing Health Sector Institutions

The sources and methods of mobilizing internal and external resources for the health sector are defined by their positions in the public, semipublic, or private sector. Consequently, the sources are found in public budgets, in the incomes of individuals and private business, in the machinery for mobilizing resources in the field of national and international public finance, and in the mandatory financing of social security systems and in techniques of motivation that promote individual preferences and the decisions of businessmen to pay for or contribute to private services.

The great diversity within the health sector in the countries of the Region and the structuring of institutions and their functions are summarized in Table 1, which compares current methods of financing the basic components of the sector. These show different arrangements in the countries depending on economic, political, and social conditions. The table attempts to identify the characteristics of the specific cases systematized. This analysis does not claim to encompass all the implications of so complex a problem or to include all the possible variations in financing methods used in the Region. It only points out the general characteristics that identify basic systems, the ways in which they are usually applied at

present, and the potentials that might be developed in order to satisfy the growing financial needs of the health sector.

There are several approaches to the problem of financing the health sector. In the table the first part includes a classification of the basic health sector institutions, methods of financing, sources and mechanisms for mobilizing internal resources, and sources and mechanisms for mobilizing external resources.

### *Financing Institutions in the Public Subsector*

The method of financing the public health subsector is basically indirect and governmental. It may be mixed in semiofficial or semiprivate agencies, and the total or partial share attributable to the public budget is determined by legislation, with arrangements specified by the public authorities in the various countries.

### *Sources and Mechanisms for Mobilizing Internal Resources for Institutions in the Public Subsector*

Institutions in the public subsector are primarily financed by public funds. The amount of budgetary funds assigned to these institutions is determined by national considerations. The various elements influencing such decisions may be listed as follows:

#### Availability of funds

- fiscal
- monetary
- credit

#### Order of priority of national problems and determination of objectives for planning purposes

#### Transfer capacity and redistribution policies

- between sectors
- within sectors
- between territories
- between time periods
- conditional

#### Potential capacity for increasing funds

### *Availability of Funds*

Usually national budget estimates are compared with the availability of government resources.

Table 1—Basic systems of financing the health sector, 1969.

Basic components of sector	Method of financing	Sources of internal resources	Mechanisms for mobilizing internal resources	Sources of external resources	Mechanisms for mobilizing external resources
Ministries and departments of health; national health services	Budgetary, indirect	Fiscal capacity of productive structure; budgetary considerations. Monetary and credit policies	Public finance techniques at national, regional, local levels	External assistance of international agencies	General internal loan and external assistance policy of international financing agencies
Social security institutions	Mixed: tri- or bipartite, indirect and direct; mandatory, capitalization, pay-as-you-go	Budgetary capacity of state sector and economic capacity of employers and of contributors covered	Legislation and financial and administrative policy with respect to coverage of risks, population covered, and geographic extension		
Other public decentralized and semiprivate institutions, including universities and medical schools	Mixed: budgetary and private contribution; indirect or direct	Fiscal capacity of contributory population and of the private sector affected	Techniques of public finance and motivation of the private sector, at various levels	External assistance of international agencies	General internal loan and external assistance policy of international financing agencies
Water and sewerage authorities	Mixed: budgetary, indirect; and direct sale of goods and services	Budgetary considerations of the public sector and economic considerations of users	Budgetary techniques and quota structure for users of services	External assistance of international agencies to projects self-liquidating in long range	General internal loan and external assistance policy of international financing agencies
Other public and semiprivate agencies providing health services in addition to their specific functions	Mixed: budgetary at national level, indirect and direct	Internal budgetary considerations	Internal budgetary techniques and motivation of private sector	External assistance of international agencies	General internal loan and external assistance policy of international financing agencies
Private institutions (Red Cross); private medical care and charity hospitals	Mixed: public subscriptions and direct payment for services or free services	Private: public subscriptions and philanthropy	Psychological motivation: individual value, cost-benefit, cost-effectiveness		

The increasing adoption of program budgets is tending to integrate long-range health planning activities in the public sector and the planning of specific activities into the consideration of the annual budget. This has meant greater interest in improving methods for evaluating the costs and benefits of the programs proposed. Cost-benefit analysis and cost-effectiveness analysis with respect to health programs is a broad field for research that may contribute to proper placement of the sector in the scale of priorities of national resources for budgetary purposes.

In some countries there is an awareness of certain shortcomings in program budget systems because of lack of data for evaluating their quality. Consequently the need to supplement quantitative analyses with additional information is becoming generally recognized.

In the main, health activities present certain difficulties for these considerations at the national budget level because of the collective nature of part of the goods and services produced, the continuity of financing required for the execution of the programs, and the multiplier effects of the benefits they produce over a number of years. Despite the fact that they are tangible, these are not quantifiable and extend beyond the annual period generally used for estimating costs and benefits in government budgets. The budgets suffer from certain rigidities both in the application of cost-distribution criteria and in the assessment of benefits.

*Monetary policies.* Monetary policies chosen to increase the availability of money through the central bank can present serious problems both for developing countries and for developed countries because they unleash inflationary tendencies that are difficult to control and that have considerable impact as a causal factor in another series of economic phenomena. However, some countries have succeeded in channeling resources through this mechanism to promote certain activities in the field of social policy: low-cost housing and food programs for the poor.

*Credit policies.* The credit policies that may be adopted to increase the funds available for the health sector involve partial transfer of the financial burden from present to future generations, and due thought must be given to estimating the latter's actual capacity to pay. Nevertheless, this instrument can be very useful in satisfying present needs in terms of expected development if it is applied to a set of carefully established priorities.

#### *Ranking of Problems at the National Level*

The share of government revenue assigned to the health sector poses a number of problems, among them those arising out of the national significance attributed to health services and the need to distribute resources properly in accordance with activities and administrative capacity of the various levels of the political structure, the various productive sectors, and the various health sector institutions.

The budgets for health institutions are rarely based on the over-all objectives of the sector bearing in mind their value in sectoral and global planning.

There are serious problems—such as lack of statistical information and its proper analysis, and difficulty in making quantifiable evaluations of program results—in determining the order of priorities and the distribution or specific application of programs of the various health institutions. Even though considerable advances have been made in this field, there is still much room for research to improve methods of correlating phenomena or important variables.

The problem is to establish the necessary mechanisms for achieving an institutional distribution of resources that will guarantee their supervision and evaluation. Furthermore, the channeling of funds to various components of the health sector should be analyzed in the light of the whole set of policies adopted to promote the development of a country.

In most of the countries of the Region there is insufficient budgetary flexibility to make possible the changes needed to increase the

efficiency of various health activities. And in most of the countries no incentives have been set up to encourage efficient use of the money available.

#### *Transfer Capacity and Redistribution Policy*

It is important to determine a country's capacity to make the transfers required by the income redistribution policy attempted by means of welfare programs in general and health programs in particular.

Obviously the health services delivered to beneficiaries of various public programs increase the real income of the recipients. If progressive fiscal measures collect money from higher-income strata and transfer it to those with lower incomes, the transfers may constitute serious limitations if they reduce the possibilities of accumulating investment capital or increase the cost of the factors of production in countries whose basic development goal is to modernize their productive structure.

Lack of resources in the face of the multiplicity of urgent needs makes it necessary to choose among the alternative ways of increasing funds and to examine the possibility of those transfers that will produce the greatest benefits—a constant challenge to public administration.

Studies of the true economic capacity of the various productive sectors, based on a knowledge of the actual returns on the factors of production in conjunction with current price levels, can obviously provide important additional data for determining the burden of the direct or indirect charges, fiscal or otherwise, that specified sectors already bear. Similarly, these studies can provide very valuable additional information for defining and determining the possible margin for reorganizing the tax structure and for evaluating probable reactions to and effects of transfers in the various sectors of the population.

The capacity to make transfers through the fiscal structures and policies prevailing in some of the countries of the Region, their degree of progress and their impact, the advances achieved in incorporating them into integrated policies, and the level of the fiscal resources in

relation to the gross national product indicate the possibility of increasing the efficiency of the mechanisms used to increase the resources available and the redistributive effects of transfers. It is unlikely that this can be achieved to the extent, and with the speed, needed for solving the general financial problems of developing countries and especially for satisfying the expanding health needs.

*Redistributive effects between and within sectors.* The redistributive effects achieved through the mechanisms which by nature are essentially supplementary to fiscal policy and are generally found in all components of the health sector, and especially in social security systems, clearly acquire an additional dimension if the benefits are analyzed in relation to the tax structure and its effectiveness and in the light of their combined effects on income, consumption, investment, and social welfare. Fiscal policy may be aimed at depressing or stimulating one or another, depending on the general development policy of the country. A problem common to most of the countries in this Region is the need to achieve various economic objectives simultaneously, such as internal capitalization to increase investment and the strengthening of consumer markets, stabilization of price levels and real wages policies, and a broad social policy in education, health, housing, and nutrition with consequent pressure on the availability of resources.

This implies a selection of priorities to be defined in terms of the policies adopted and the magnitude of the internal pressures exerted by different sectors and their component institutions.

So far there are no accurate studies to determine to what extent the various health sector institutions contribute to general development policies and which should be given preference in the assignment of financial resources. Nor have estimates been made of the resources used or of the quality or efficiency of goods and services produced by the various health institutions in relation to the magnitude and needs of the populations benefited.

*Transfers between time periods.* The possibility of deferring current payment for the production of goods and health services by means of credit facilities may also mean the transfer of payment from one generation to another. This is the case of investments in installed capacity in the sector, which has been initiated by earlier generations and received, enjoyed, and perhaps paid for in part by present generations, who in turn increase investments in infrastructure and transfer the burden to future generations. They will also receive the legacy of all investments made in earlier periods and will pay only a part of the deferred cost and another, proportional share of the current investments decided upon.

*Transfers between territories.* The proportion of the budget assigned to the public health subsector for the production of health services poses a set of problems relating to allocation between various levels of a country's political and economic structure, which may coincide with certain territorial subdivisions.

The most difficult problems arise in federally organized countries in which a distinction is made between the central level of federal, state, departmental, or provincial power and that of municipalities or localities.

Public finance tends to incorporate into its objectives a basic policy of redistribution or compensation for local economic capacity. However, not all countries have established mechanisms that ensure the application of resources obtained by central and/or state governments to the programs and services that are supposed to be carried out at the third level of municipalities and localities, so that a considerable part of the population is excluded from the benefits of a redistributory budgetary policy oriented at the centralized level. In some cases funds are allotted to specific programs and activities that directly benefit the population of smaller localities.

In all the countries the presumption is that the services channeled through the public subsector are to achieve national coverage, comprising all the territory and all the population.

The characteristics of certain functions dictate that they be carried out by a central authority that can achieve the integrated approaches required. But the characteristics of most direct health services indicate not only the advisability but also the need of being produced and administered at the local level, where there is a better knowledge of the nature of the problems to be solved. This is one of the most cogent arguments for the decentralization of certain health functions.

In social security systems the geographic distribution of resources depends on the number of members and the dues collected in each locality. In some cases a compensatory policy is applied by means of which the surpluses arising from operations in certain regions are transferred to deficit areas.

International health programs are one of the most efficient means for interterritorial transfers in which frontier limits tend to disappear in order to achieve effective utilization based on the principles of solidarity and the community of interests of the American peoples in the achievement of their health goals.

*Conditional transfers.* Other financing mechanisms consist of matching transfers, subsidies, and grants. In this type of transfer the recipient body has to equal the contribution with its own funds and earmark it for carrying out activities previously decided upon. The conditions governing these financial contributions may mean that the recipient body becomes responsible for applying them and can exercise its discretion with respect to the guidelines issued by the central authority.

This transfer mechanism differs from the common practice of earmarking specific tax incomes for purposes or activities determined in the same way, which, because of the dynamic nature of health problems, usually becomes an important constraint in the optimum allocation of resources.

Another type of conditional transfer, although uncommon, is that which is made as an incentive to internal efficiency in the recipient

agency. The amount of the transfer is proportional to the level of productivity. When obtained, this type of conditional subsidy can function as a supplementary mechanism for the redistribution of fiscal income.

#### *Financing of Social Security Institutions*

Most of the national, state, or provincial social security systems are financed on a tripartite basis: contributions from the government, from the workers, and from the employers. These contributions are mandatory. The systems may also be bipartite, as in the case of governmental or paragonovernmental enterprises and decentralized agencies. Bipartite systems have been established on the basis of collective bargaining that provides for social security by means of a contract between the union or the workers and the enterprise. The enterprise's share in the public budget and its proportion of the total financing determines whether the latter is direct or indirect.

A distinction should also be made, with respect to the financial organization of social security schemes, between long- and short-term insurance.

*Short-term.* The branches of insurance regarded as short-term comprise sickness, maternity, and occupational hazards. Maternity insurance is usually based on a straight pay-as-you-go system; generally an additional reserve is maintained to absorb fluctuations in income and outgo. Coverage for occupational hazards is preferably financed by a system of assessment of constituent capital in which a balance is established between income and outgo during the fiscal year, with the capital involved in the benefits arising during that year charged to the annual expenditures. A mixed system, of capital assessment for permanent-disability and survivors' pensions and pay-as-you-go for other benefits, may also be used.

*Long-term.* For long-term insurance—disability, old age, and survivors' pensions—various financing systems are used, ranging from uni-

form average premiums or collective capitalization through various mixed systems to pay-as-you-go.

#### *Sources and Methods of Mobilizing Resources of Social Security Institutions*

That segment of the health sector consisting of social security institutions receives part of its resources from public funds in the form of subsidies or contributions determined by law. In the case of a national system with a tripartite financial basis the state contribution is fixed in accordance with specified criteria for the participation of the three sectors.

The general financing, or the number of sources of total funds channeled to this component of the health sector, will depend on both internal and external factors. The internal factors involve, first, the organization of social security systems with respect to the relations between their juridical, administrative, and financial structures and functions and the degree of coordination between the various schemes that may coexist in a country. As proper relations are achieved, the finances of social security schemes are used more efficiently. Other internal factors are methods of coverage (whether it includes all or part of the risks faced by the insured person and his dependents) and policies on geographic extension (predominantly urban sectors and the proportion of protection given to rural communities). The policies adopted with respect to coverage and geographic expansion will undoubtedly be based on the concepts, methods, and specific programs adopted by the various social security systems in accordance with their degree of development.

The external factors are difficult to classify because they arise in the internal structure of the system and their application depends on the nature of the particular external situation to which they are being applied. This is clearly shown where the structure of allowances is determined internally by type and by degree of risk assigned to the various economic activities, which will undoubtedly depend on elements

outside the system, such as the nature of the productive apparatus, the activities covered, their labor-intensiveness, the number of workers employed, their wage levels, their geographic concentration or dispersion, and the administrative efficiency of the social security system in enrolling employers and workers and in collecting dues. Also of importance are other incomes resulting from the internal policy on capitalization and investment of reserves and from gifts and private contributions.

To the extent that social security systems serve more and more people more and more effectively, as supplementary mechanisms for redistributing income identified with the redistributive goals of other policies adopted at the national level, the resources channeled to those institutions will be justified.

Unquestionably, when social security systems are fragmented their problems of integration, coordination, and administration are reflected in their finances; their resources are not so well used and there is a consequent reduction in productivity and benefits.

The method of financing in bipartite social security systems, such as those organized for specific groups of workers and for members of particular trade unions or workers' organizations, is less complex. The important thing is to ascertain whether the contribution of either of the parties is supported by public funds, in which case the considerations mentioned above in connection with the financing of the public health subsector are valid.

With respect to the direct contribution of the beneficiaries it is essential to clarify the relative impact of social security charges at various levels of income.

#### *Methods of Financing the Private Subsector*

The methods of financing institutions in the private subsector may be mixed with respect to the form of individual or collective direct payment of the incomes received from the private sector.

#### *Sources and Mechanisms for Mobilizing Resources in the Private Subsector*

The contributions, fees, or direct payments made by individuals in exchange for private or semiprivate health services depend on personal considerations reflecting scales of preferences, particular interests, the availability of services, and a knowledge of which services are necessary and what their quality is. Whether or not to use certain services and pay for them in full or in part out of the individual or family budget, bearing in mind possible alternatives with respect to an estimate of the relative costs this will mean for the individual and the benefits he thinks he will receive, will depend on the need and urgency of medical care.

Anticipating that he will need medical services in some indefinite future, a person may spontaneously and regularly contribute to certain private institutions and pay in advance all or part of the cost of the services of particular interest to him. There are also groups or associations of private medical practitioners with different specialties who join together to offer a wide range of medical care services supported by the dues of their associates.

This kind of financing sometimes draws money to health areas or activities that may not coincide with the national-level ranking of health problems, tying up resources and reducing the amount available to the sector as a whole.

#### *Sources of External Resources*

In most countries the public health subsector is the channel for the joint conduct of certain health programs financed by international agencies and the governments themselves.

It is therefore of great interest to examine the multinational mechanism for redistributing income at the international level by means of the financing and the execution of health programs.

The institutions in this subsector may make bilateral or multilateral loans for the financing



of investments in the construction of hospitals and other facilities to provide preventive and curative medical care; for installations, instruments, and equipment; and for the education and training of personnel and other related purposes.

Some decentralized and semiprivate agencies (including universities and medical schools) that for the purposes of this paper are considered to belong to the public subsector may also be able to receive external funds for the financing of their health programs, especially for conducting health programs of international interest.

### **Evaluation of the Operational Capacity to Absorb Additional Funds**

The notion of "capacity to absorb" additional funds as applied to the health sector (without going into the rigors of its definition in economics) may be interpreted as the set of prerequisites that must be fulfilled in order for a country to be able to make the best possible use of an increase in funds to expand investment in the health sector. The notion covers all the elements required, other than capital, to increase the production of goods and services in the health field. The set of factors is defined in relation to the particular situation in each country generally associated with conditions in the infrastructure of the health sector.

Absorption capacity is also related to the manpower needed for the installed capacity and its foreseeable growth—that is, to a knowledge of the level and rate of growth of the training of personnel by specific skills and in relation to the necessary balance between the various types of personnel and the various types and optimum sizes of health units.

Evaluating productivity and absorption capacity calls for methods of measuring levels of efficiency in administration, accounting, and financing and the volume and quality obtained in the production and distribution of goods and services. "Maximum internal effort" is defined in the light of those factors.

Clearly attempts must be made to achieve optimum use of investments in the various

components of the health sector by means of the most rational use of manpower, the adoption of modern administrative and financial techniques, and better coordination and integration of functions, in order to increase the quantitative and qualitative level of the goods and services produced by the institutions that make up the sector. When the greatest possible productivity of internal resources has been achieved, it will then be legitimate to seek additional capital. There will then be justification for an attempt to increase the level of funds to obtain the desired increase in health goods and services.

It is therefore most important for each country to explore the degree of efficiency in the utilization of its health plant, manpower, equipment, and materials at a specified time in order to determine the degree of maximum internal effort that is being made before attempting to channel additional financial resources into the sector. In order for a country to get the most out of new capital contributions, its efforts must tend toward the achievement, by means of every possible technique, of the best utilization of existing resources and the anticipation of additional needs.

Optimum utilization of health sector resources in a given period may depend on factors beyond the control of the sector. The existence of communication and transportation networks in the areas served; the number and level of educational and training institutes; psychological attitudes of acceptance, resistance, or rejection on the part of the givers and receivers of services and goods; other geographic, climatic, demographic, cultural, economic, and political factors—all these may accelerate, impede, or hinder optimum use of resources in the health sector and will have to be considered in evaluating the present or intended internal effort.

The countries in this Region are aware that economic and social progress is the responsibility of their peoples and that the achievement of national and regional goals will basically depend on the effort made by each country.

This rests on greater cooperation, coordination, and harmonization of policies and programs, both national and international, considered essential for supplementing self-help and mobilizing and making the optimum use of national resources.

At the present time most of the international financing institutions, whether bilateral or multilateral, are conditioning their priorities for loans or foreign aid on maximum internal effort achieved or under way, absorption capacity, and interest in and effectiveness of planning at all levels of the national governments.

### **Feasible Proposals for Expanding the Bases for the Financing of the Health Sector**

#### *External Financing*

The deterioration in multilateral external financing received by the less-developed countries from the more advanced ones in the Region shows how urgent it is to review these conditions and determine the prospects for changing them.

The countries' growing need for resources to achieve sustained general development, particularly for their health goals, implies the desirability of revising the external financing mechanisms to supplement and activate the internal resource potential.

In the 1960's, according to data on the gross national product in the less-advanced countries in the Americas, the average rate of growth was about 5 per cent. The rate of increase in needs for imports, investment, and public services, especially health needs, was in many cases greater than the increase in the national product and required an additional internal effort in order to increase resources. The usual mechanisms employed were increases in exports, in domestic savings, and in tax revenue. At present, however, most of the countries face world market conditions for their traditional exports that render future expansion unlikely. With respect to an increase in private savings, the present pattern of income distri-

bution and level for most of the population similarly destroys any expectation that there will be any significant private internal capitalization. On the other hand, in the public sector the difference between the rate of increase in current income and expenditure has been favorable, which has meant an increase in the funds available to the central governments for some of their infrastructure investments. However, the general rate of national savings in the Region is tending to decline.

Some idea of the potential capacity of the internal effort may be gathered from the fact that 93 per cent of the gross regional investment was financed with domestic savings, even though investment and the flow of foreign capital have both declined.

Notwithstanding the fact that tax income is rising slightly faster than the gross national product, and that an increasing proportion of it is accounted for by income tax, it is unrealistic to expect as complete and rapid a solution as is needed to the problems of health sector financing through fiscal reform, because of the problems involved in implementing and administering such a reform.

The financial assistance requirements for the health sector will vary depending on the stage of development of the countries. Those at the least advanced levels generally need more technical assistance in planning the development of their sectoral activities, evaluating the degree of "internal effort" they can achieve, and determining the capital contributions needed in relation to the "internal absorption capacity" of the sector.

As the countries progress, they may find themselves needing less foreign technical aid since they have more local technical knowledge to resort to. As for the need for capital, these countries are better able than before to repay loans offered on more commercial terms.

There is no doubt that all the countries are becoming increasingly aware of their greater or lesser participation in world development and of their responsibility to contribute to it according to their possibilities.

It is also clear that the kind of development desired by the countries has changed, overstepping the narrow limits of nationalism and the purely economic field as the idea of the interdependence of the economic and social structures within and among countries has spread.

This is shown by the international financing agencies that have been set up and the direction taken by governments today in national and regional planning.

Most of the international financing mechanisms were clearly set up to satisfy the developing countries' need for foreign funds at a time when economic objectives were given first priority at the expense of social policy and its financial requirements.

As for the capacity of the various countries it has been shown that the potential in a number of them is greater than the present use of funds, and is capable of being increased by a greater internal effort coupled with appropriate financial and technical assistance from abroad.

Because of the recent hardening of the general terms of external financing, it is advisable to examine this in the context of the internal conditions prevailing both in the capital-providing countries, since these conditions affect their position as suppliers, and in the requesting countries, since they determine the true needs and the capacity to absorb and repay. Such an analysis of the conjunction of conditions in the donor and requesting countries will make possible a better adjustment between resource availability and conditions in the international capital markets and in financing and external aid policies.

One of the problems involved in policies of long-term foreign aid for health programs for both the supplier and the recipient countries is, as was said above, that there is no satisfactory way of measuring the progress achieved through the health programs financed and the effectiveness of the short-term accomplishments. The results and changes desired in certain institutions, in the population structure, in productivity, in the health and welfare of the popula-

tion, usually require relatively long periods before they manifest themselves.

Even in some of the more advanced countries, with high incomes and national products, the proportion of the gross national product assigned to foreign aid is declining. Among the factors responsible for this change in foreign aid policy are balance of payments, redistribution of income, inflation, and unemployment. These problems imply internal situations which lead to the imposition of restrictions on foreign aid to the less-developed countries. Consequently, it is important to diversify the sources of development capital and find practical ways of transferring resources from the most appropriate sources in conditions compatible with the long-term needs, particularly the health needs, of the countries in the Region.

The need for greater inter-American financial cooperation for health purposes to supplement the internal effort as defined above tends to be governed by the following basic criterion:

That the funds constitute a net transfer in adequate amounts and in a sustained fashion and be granted in accordance with priorities that have been fixed by national health policies and plans and constitute part of the country's general development policies.

In the same way the expansion of inter-American multinational financial cooperation for the attainment of the countries' health goals should be achieved in accordance with their own programs.

With respect to tied aid in which credits must be used on conditions that exceed the payment and internal effort capacity of the less-developed countries, it is deemed advisable to consider the possibility of creating effective new mechanisms for liberalizing external credit with appropriate rates of interest, repayment periods and currency for repayment, grace periods, and amounts needed by the various components of the sector, taking into account the specific nature of the production of health goods and services and also the fact that some projects and programs cover more than one year.

For this purpose, consideration has been given to the feasibility of mechanisms other than those existing at present, which for the most part charge interest no lower than the prevailing rates on the international capital market and prefer short- or medium-term loans, repayment in hard currency, and economic activities considered to be financially sound.

The idea of setting up a regional fund to finance health sector investment calls for a study to determine bases of operation different from those of the present credit machinery, with a new orientation based on the real financing needs of the sector and the present obstacles to its satisfactory functioning.

The fundamental problems in the creation of a regional fund are the formation of its resources—that is, how to determine the contributions of each country—and the establishment of a mechanism to set repayment conditions not governed by market incentives. For this purpose it may be important to look into the special drawing rights of the International Monetary Fund and the possibility of expanding the resources of other existing mechanisms that have special funds awarded under more favorable conditions for general development goals, including health goals, and to explore new sources and mechanisms.

It is clearly advisable that the financing be multilateral, with a view to achieving international distribution of resources based on principles of solidarity aimed at assisting the less affluent countries; and that both the donor and the recipient countries review their internal fiscal, monetary, and credit measures and recommend those considered best suited to their own situations, with respect both to contributions and to repayment of loans obtained.

Similarly, it is advisable to study the feasibility of adopting financing mechanisms that will permit the achievement of two types of objectives simultaneously—one economic and revenue-producing, one social—attractive to certain contributing countries wishing to increase the export of certain goods that may be required by recipient countries desirous of

promoting their health policies. In this recent type of credit operation—by means of which certain agencies have awarded loans for the partial financing of capital expenditures planned by ministries of education in some countries in this area—the institutions receive an open line of credit in a bank in the donor countries, which constitutes an available asset that is transferred for disposition to the central bank of the recipient country; this bank in turn provides the institution involved with the equivalent sum in local currency to be spent locally. The additional advantage of this type of operation is that it alleviates the balance-of-payments situation by increasing the availability of foreign exchange for importing specified goods agreed upon in advance.

These external financing mechanisms could be used for strengthening the health infrastructure and for manpower development. It is important to continue systematic investigation of the possibility of developing or using these mechanisms for the financing of the health sector.

#### *Internal Financing*

The new arrangements that may be adopted in direct and indirect mechanisms for mobilizing internal funds fall into the field of public finances and the private sector.

With respect to the first, it is important to examine the extent to which the tax structure can be altered to bear more heavily on sectors that can afford additional burdens without affecting the incentives to particular activities necessary for the development of the country. It would also be of interest to study the possibility of assigning the revenues from certain special taxes to finance the health sector.<sup>4</sup>

Further studies should be made to ascertain to what extent it is possible to encourage or

<sup>4</sup> These should not be confused with special taxes earmarked for certain health purposes or programs, which impose rigidities that may make it necessary to continue programs at a fixed expenditure level after their justification or priority has expired.

promote the expansion of present direct contributions and also new indirect contributions, such as those that can be channeled through the banking system, which could direct to certain activities a proportion of the increasing savings deposits in the countries. The central bank could issue instructions that a percentage of those funds be earmarked for social loans on special repayment conditions. The feasibility of such mechanisms in fostering low-cost housing and food programs has already been demonstrated in one country in the area. This kind of central bank regulation affects the savings-account side of the ledger to the extent that it represents loans for low-cost housing secured by mortgages, trusteeships, or mortgage bonds, provided these are granted or obtained for the above-stated purposes.

To strengthen food programs, it is possible to similarly earmark savings accounts by granting credits to an organization responsible for controlling producer and consumer prices of certain foodstuffs in accordance with the food policy adopted.

Another internal solution aimed at making optimum use of the resources available for the health subsector in line with the idea of achieving the maximum internal effort is that of coordinating the health, welfare, and social security activities carried out by government ministries and departments, decentralized agencies, government-owned enterprises, and other bodies engaged in health activities with government financing.

For this purpose some countries have coordinated social security institutions with the ministries of public health and social welfare and others have established unified national health services coordinating all the agencies and bodies in the public or paragonovernmental sector engaged in health activities.

The problems connected with this effort to obtain better investment and administration of the public sector resources devoted to health purposes are related to the quality level of the services and goods produced, with respect to the superiority of those provided by one institution as opposed to another and the areas

or sectors of the population they serve. This in turn creates financial problems in determining how the available resources are to be channeled and used.

In some countries social security institutions have been considered best fitted for collecting financial resources because of their mandatory nature and because they already have collection mechanisms. They have also been given functions limited to the handling and granting of cash benefits, with the medical benefits or services left to the national health service and the social security institution making transfers of the funds collected.

In other cases an attempt is made to have a unified national health service financed with resources from the national budget, which takes into account an institutional distribution based on estimates in which the importance and requirements of the agencies and bodies included in the public health sector have been considered.

To assess the feasibility of setting up a unified national health service it is necessary to make a thorough and detailed analysis of the problems involved in financing and coordinating public health, welfare, and social security activities. Some countries have already set up committees and study groups to examine the problems involved in the institutional coordination of the sector and the specific mechanisms for putting it into effect.

To the extent that these studies contribute to the achievement of more consistency in the coordination of activities aimed at extending services to larger sectors of the population with better quality and more efficiency, they will show the desirability of unified health plans based on national policies and directed toward maximum utilization of the national resources available for achieving sectoral goals within the context of the total requirements for general development.

## Conclusions

The financing of the health sector in the various countries of the Americas is one of the

most complex problems of the area, and requires methodical analysis and research if a solution is to be found.

The common characteristics of the problems can be more easily identified if the countries are first classified according to their level of development. Furthermore, the characteristics of the health sector structure point up the financial problems inherent in it, deriving from its institutional rigidity and fragmentation, inappropriate methods for evaluating programs, the influence of political structures, the institutional make-up of the sector, and the determination of institutional priorities and consequent allocation of resources. The need to harmonize the objectives of the institutions of the sector with those of economic and social development policy is another factor that must be taken into account.

Financing problems are affected by the structure of the sector and the importance in each country of its component institutions.

The heart of the problem is to determine methods by which health institutions and agencies may be financed, with special reference to sources of funds and ways of mobilizing them.

From this point of view a distinction must be made between the public and private subsectors since they have different sources of funds and different financing mechanisms, both internal and external. This permits an over-all view of the various factors involved in the problem and in the possible solutions to it.

An examination of methods, sources, and mechanisms used in financing the public subsector points to the need to improve strategies for obtaining and redistributing more revenue for the health sector. In the private subsector it is necessary to keep a continuous watch on the relative proportion of voluntary contributions by individuals whose income enables them to provide for their own health care so as to determine whether the trend can be made use of to increase and expand the activities of the public subsector.

The distinction between internal and

external financing makes it advisable to study in detail such aspects as "the capacity of the countries to absorb new financial resources," bearing in mind their installed capacity, manpower utilization, and administrative efficiency in achieving optimum combinations of these factors. It is also necessary to define the "maximum internal effort" that must be made before further funds are sought. At present this aspect is of great importance since it is one of the conditions or requirements for the allotment of further public funds or for the granting of loans.

Once the condition that the use made of existing resources must be improved is met, the obvious need to increase the amount of money channeled to the sector calls for a careful study of the possibilities of making transfers within the health sector or between sectors and of the factors hindering the generation and mobility of resources of the kind, in the amount, and at the pace required to satisfy the growing needs of the health sector in most of the countries in the Americas.

Originally purely economic considerations—based on the traditional incentives of the capital market—underlay the establishment of most international financing mechanisms and the financial policies of governments and private institutions. Subsequently the more developed countries adopted certain arrangements in consideration of the situation and needs of the less-developed countries, which, although still primarily economic, included social objectives that sometimes required modifications in the conditions for loans.

However, even now external financing does not keep pace with the increasing needs, nor is it such as to foster social policy and, as part of this, health activities.

The multilateral mechanisms for financing the public subsector lack sufficient flexibility for adequate response to its requirements. An exception is the financing of water and sewerage systems which, because they charge for their services, are in a better credit position and are therefore a preferred field for foreign investments.

Because of the problems involved in quantifying the results of health programs and the slow maturation of the benefits of planning and of more efficient administration, recent changes in the productivity of institutions are difficult to appreciate—which hampers the national budget agencies in correctly ranking the needs of the sector.

Future prospects depend on the “maximum internal effort” that can be made; on taxation, monetary, and credit changes tending to increase the proportion of public funds in the gross domestic product and their allocation to the health sector; and on such institutional coordination as may be feasible for defining priorities, for properly distributing the funds assigned to the sector, and for increasing coverage.

Unified health insurance schemes or other similar systems may be a way of solving the problem of financing the health sector, provided local conditions are favorable, and the systems are adapted to the characteristics of the places where they are to be applied.

With respect to external resources it is clearly necessary to expand and redirect the present system of financing in the light of the needs and the capacity of less-developed countries to repay loans. This requires that a study be made of the feasibility of obtaining loans to enable economic and social goals to be achieved simultaneously, of establishing a regional fund specifically for financing health activities, and of making greater use of and reorienting existing financial mechanisms.

Each country will of course have to find its own solution to the problem of the internal and

external financing of the health sector, taking into account its own conditions and the potential capacity of its internal structures.

### Summary

The problem of financing the health sector must be examined in the light of the economic and social development of the countries.

Prerequisite to an increase in the external and internal financial resources available to the sector are the programming and instrumentation of the “maximum internal effort” for institutional coordination; definition of priorities; optimum use of existing resources and the consequent achievement of the highest possible productivity and coverage; and an evaluation of “the capacity to absorb additional funds.”

An increase in the internal financing of the health sector depends on improving ways and means of mobilizing money for the sector through:

- tax policy
- monetary and credit instruments
- national health insurance schemes
- channeling of private funds through the banking system

In order to expand the framework of external financing and reorient it into closer accord with needs and the capacity of developing countries to repay loans, systematic feasibility studies must be made to obtain external funds for achieving economic and social goals, the possibility of establishing a specific regional fund for health purposes must be determined, and greater flexibility in credit policy and external assistance on the part of existing international financial institutions must be promoted. □

## Appendix

## CLASSIFICATION OF 22 COUNTRIES OF THE AMERICAS

An attempt to work out a classification of American countries as a frame of reference for the presentation of the document on the financing of the health sector is justified by the marked differences between the countries in levels and characteristics of development. It is easier to interpret the economic and social indicators usually employed in such analyses if they are used in such a way as to permit the construction of development profiles that can provide a graphic presentation of the essential characteristics of the countries. Another reason for this attempt at a classification of American countries was the need to group them according to similar characteristics and thus form sufficiently homogeneous groups to facilitate analysis at the regional level of the complex problems involved in the financing of the health sector and of possible ways of solving them.

*Procedure*

Many difficulties are involved in this type of comparative evaluation: the data needed are incomplete and sometimes exist for only a few countries and for different periods. The information not only is uncertain in quality but, in some cases, varies greatly from one country to another and is thus exceedingly difficult to interpret. In addition, data are defined and collected in a variety of ways.

In addition to these problems inherent in the available information there is another essentially methodological problem: the difficulty of evaluating the over-all situation in the country on the basis of an analysis of a great number of indicators of different kinds.

The classification used is that employed by Vekemans and Segundo.<sup>1</sup> Although this method should be improved, it may be used in its present state as a guide. It is based on defining the different characteristics of a country, taking into account its socioeconomic indicators as a whole, rather than independently.

To begin with, the scale on which the indicators are expressed was adjusted so as to make them comparable and to facilitate their interpretation.<sup>2</sup> The scales were adjusted in such a way that all the indicators studied were expressed in round figures from 1 to 10, 10 representing the best situation and 1 the least favorable. The procedure used for adjusting the scale is described at the end of this annex. The next step was to calculate the average for the country of the adjusted values obtained. Clearly this is an arbitrary procedure, since equal weight is given to all the indicators used. But it was deemed preferable not to use weighting factors because sufficiently objective data were lacking. The averages obtained were ranked in decreasing order and the magnitude of the differences obtained by subtracting each average from the following average was studied. The greatest differences were used to divide the countries into groups; the smaller differences were considered variations between countries belonging to the same group.

*Discussion of Classification Indicators*

The selection of the indicators for classifying the countries was determined primarily by the availability of variables sufficiently homogeneous for the largest number of countries. To obtain the most reliable data it was necessary to omit indicators that are obviously important for the purposes in view. For example, although the classification is intended to facilitate an analysis of the financing problems of the sector, it was impossible to include data on health expenditures, because of their defects with respect to accuracy, significance, and comparability (Table 2).

The indicators chosen, on the basis of these limitations, were grouped as follows:

*Health level and structure.* The indicators selected were life expectancy at birth, percentage of deaths from infectious and parasitic

<sup>1</sup>Vekemans and J. L. Segundo. "Ensayo de tipología socioeconómica de los países latinoamericanos." In *Aspectos sociales del desarrollo económico en América Latina*. UNESCO, 1962.

<sup>2</sup>It is very difficult to determine on sight, for example, whether a life expectancy at birth of 50 years is in accordance with or in contradiction to a gross domestic product per capita of 300 dollars a year or 4 beds per 1,000 inhabitants.



Table 2—Range of variation of indicators in the 22 countries being classified.

Indicators	Range		
	Maximum	Minimum	
Health level and structure	Life expectancy at birth (1969)	71.0	46.0
	% deaths from infectious and parasitic diseases	38.6	4.9
	% deaths in children under 5 years of age	58.6	13.0
Health sector resources	Physicians per 10,000 population	14.9	0.7
	Beds per 1,000 population	6.4	0.7
Educational factors	Enrollments in higher educational establishments:		
	% population in age group 20-24 years	12.6	0.2
	% illiterates over 15 years of age	95.0	8.6
Other related factors	Available proteins inhabitant/gram/day	94.0	47.0
	% population with water in house	62.3	0.3
	Urban population (% of total)	61.3	5.1
Economic factors	Gross domestic product per capita	891.0	95.0
	% economically active population in Sector II (manufacturing)	35.5	6.6
Population structure	% population under 15 years of age	47.9	28.6
	Total population	88.1	1.1

diseases, and the percentage of deaths of children under five years of age, because these are considered, despite varying degrees of unreliability of registration, to be the best summary of the structures and levels of health in most of the American countries.

*Health sector resources.* The indicator chosen here was the number of physicians per 10,000 inhabitants and of beds per 1,000 inhabitants, because these indicators are the easiest to define and have the highest correlation. The available indicators of expenditures were omitted for the reasons already given.

*Educational factors.* The number of students enrolled in higher education as a percentage of the population in the age group 20-24 years was used because it is considered the best expression of the differences in the level of education in the various countries when related to the percentage of illiterates over 15 years of age.

*Other related factors.* The availability of proteins was included despite its recognized unreliability, because it is the only indicator available, although an indirect one, of the nutritional state of the countries. Urban population as a percentage of total population, an indicator worked out by ECLA, was used as the

best available indicator summarizing the complex elements involved under this heading.

*Economic factors.* The gross domestic product per capita, despite the difficulty in interpreting it and the lack of comparability among countries, was used since it is the only generally used pointer available to indicate the level of development of the countries. The percentage of the economically active population in the manufacturing sector was considered a sufficiently reliable indicator of the structure of development of the countries.

*Population structure.* The percentage of population under 15 years of age was considered the best indicator of the population structure in the Americas.

*Total population.* Total population was not used as an indicator but is included as additional information simply to make it possible to evaluate the number and proportion of the region's population comprehended in the various groups of countries representing different levels of economic and social development (see Table 3).

*Composition of the groups.* The 22 countries studied, which together have a population

Table 3—Classification of 22 Latin American countries. Number of countries, population in millions, and population in each group (%).

Group	Number of countries	Population	
		In millions	%
I	2	26.4	10.4
II	4	20.2	7.7
III	4	60.4	23.0
IV	4	123.9	47.2
V	4	14.8	5.6
VI	3	11.7	4.5
VII	1	5.0	1.9
Total	22	262.4	100.0

of 262.4 million, were distributed in seven groups as shown in Table 3. Tables 4, 5, and 6 break down the classification by level of socioeconomic indicators according to development group, average level of indicators in each group, and socioeconomic indicators (reference table). Figure 1 shows the level of the socioeconomic indicators for each group on an adjusted scale, and Figure 2 the average level of the indicators in each group.

#### Procedure Followed

The scales of the variables were made homogeneous by converting the original scale for each variable into a new one that covers the range of the original scale and is divided into 10 equal intervals. In each case 10 represents the most favorable condition and 1 the least favorable.

#### Construction of the Adjusted Scale

*Recorded range of the variables:* From the minimum to the maximum value recorded.

*Interval:* Equal to 1/10 of the total range, and no more accurate than the original value recorded. In approximating, the higher figure was always taken.

#### Examples:

- (a) *Recorded range* : 10.3–35.5  
*Actual range* : 10.25–35.55  
*Total size* : 35.55–10.25 = 25.30  
*Interval* : 2.6
- (b) *Recorded range* : 10.0–35.5  
*Actual range* : 9.95–35.55  
*Total size* : 35.55–9.95 = 25.60  
*Interval* : 2.6

*Origin of scale:* Preferentially, the midpoint of the scale was used as the origin. That is to say, efforts were made to ensure that the limit between intervals 5 and 6 coincided with the midpoint of the observed range obtained by halving the sum of the upper and lower limits of the range. When this was not possible, the following convention was followed: If the upper figure of the half range was odd, it was used as the upper limit of interval 5; if it was even, it was used as the lower limit of interval 6. When negative limits were obtained by using this origin, then origin 0 was used.

*Classification:* The arithmetical mean of all indicators (in the adjusted scale) of each country was computed. The averages were arranged in order of magnitude and the first finite difference was computed. Notoriously high finite differences were used to differentiate the groups.

Table 4—Classification of 22 countries in the Americas. Level of social and economic indicator by development groups.

Group	Country	Health level and structure			Health sector resources		Educational factors		Other related factors			Economic factors		Population under 15 years of age	Total population
		Life expectancy at birth (1969)	% Deaths from infectious and parasitic diseases	% Deaths in children under 5 years of age	No. physicians per 10,000 population	No. beds per 1,000 population	No. enrollments in higher education: % of population in age group 20-24 years	% Illiterates over 15 years	Available proteins inhab./gram/day, 1965	% Population with water in home	% Urban population	Gross domestic product per capita, 1964	% Economically active population in Sector II (manufacturing)		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I	1	9	10	9	10	10	10	10	9	10	10	10	10	10	3
	2	10	10	10	8	10	7	10	10	9	10	9	9	10	1
II	3	9	10	8	3	8	—	8	—	7	9	6	8	—	1
	4	8	9	8	6	9	3	9	—	7	6	5	5	—	1
	5	8	9	7	4	6	—	9	—	9	4	5	7	—	1
	6	7	7	4	4	7	4	10	7	7	9	8	7	5	2
III	7	6	8	4	6	5	5	8	3	7	8	10	5	2	2
	8	7	6	3	4	3	8	7	6	7	5	7	4	2	6
	9	8	7	5	4	5	6	8	3	7	5	6	3	2	1
IV	10	8	5	2	3	7	4	10	2	10	4	5	5	1	1
	11	7	6	3	3	4	3	7	1	8	6	4	5	1	3
	12	6	5	5	3	3	6	7	2	6	5	4	4	2	1
	13	6	7	6	4	4	3	7	5	1	5	4	4	1	1
V	14	6	4	5	5	5	2	6	4	4	5	3	5	4	10
	15	5	4	1	3	3	3	8	1	5	4	3	5	1	1
	16	4	4	4	3	3	2	6	—	3	4	3	4	1	1
	17	5	7	2	3	3	3	5	3	4	3	3	4	1	1
VI	18	6	6	1	4	4	2	7	1	3	3	3	2	1	1
	19	3	7	4	1	3	2	5	2	3	2	2	2	1	1
	20	1	5	3	2	3	2	4	1	3	3	2	3	3	1
VII	21	2	1	3	2	4	2	3	4	2	2	3	3	2	1
	22	2	—	1	1	1	1	1	—	1	1	1	1	1	1



Table 6—Classification of 22 countries in the Americas. Social and economic indicators (reference table).

Country	Health level and structure			Health sector resources		Educational factors		Other related factors			Economic factors		% Population under 15 years of age	Total population (millions)
	Life expectancy at birth (1969)	% Deaths from infectious and parasitic diseases	% Deaths in children under 5 years of age	No. physicians per 10,000 population	No. beds per 1,000 population	No. enrollments in higher education: % of population in age group 20-24 years	% Literates over 15 years	Available proteins inhab./gram/day, 1965	% Population with water in home	% Urban population	Gross domestic product per capita, 1964	% Economically active population in Sector II (manufacturing)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Argentina	68.	6.6	19.7	14.9	6.1	12.6	8.6	86	62.3	57.7	891	35.5	29.6	23.6
Bolivia	46.	23.5	46.6	2.9	2.1	2.4	67.9	47	14.5	19.6	185	13.1	42.5	4.4
Brazil	61.	26.8 <sup>a</sup>	38.8 <sup>a</sup>	4.0 <sup>a</sup>	3.2 <sup>a</sup>	2.3	50.9 <sup>a</sup>	62 <sup>a</sup>	23.0 <sup>a</sup>	28.1	307	13.1	42.2	88.1
Chile	62.	15.6	41.1	5.8	4.3	4.7	16.4	80	40.5	54.7	691	26.2	39.6	9.3
Colombia	62.	21.1	49.2	4.4	2.7	2.7	37.3	49	46.5	36.6	364	19.2	46.9	20.7
Costa Rica	67.	24.5	52.4	4.7	4.5	4.2	15.7	54	60.6	24.0	492	18.7	47.9	1.7
Cuba	67.	9.2	23.9	8.9	5.5	3.0	22.1	—	41.4	35.5	—	20.4	34.8	8.0
Dominican Republic	59.	21.7	56.8	6.2	2.7	1.6	40.1	50	16.0	18.7	267	11.8	47.5	4.1
Ecuador	56.	27.1	57.7	3.3	2.3	2.8	32.7	50	25.4	26.9	310	18.8	46.5	5.6
El Salvador	56.	16.4	49.9	2.2	2.3	1.3	52.0	58	22.7	17.7	328	17.2	46.8	3.2
Guatemala	49.	38.6	49.3	2.5	2.6	1.6	70.6	62	12.1	15.5	329	14.2	46.1	4.9
Haiti	49.	—	58.6 <sup>b</sup>	0.7	0.7	0.2	95.0	—	0.3	5.1	95	6.6 <sup>b</sup>	47.0	5.0
Honduras	50.	15.8	44.0	1.6	2.0	1.7	55.0	53	13.2	11.6	208	10.3	47.0	2.4
Jamaica	65.	9.9	27.9	4.9	4.0	—	18.1	—	50.6	24.8	427	25.8	—	1.8
Mexico	63.	20.5	45.5	5.2	2.2	9.6	34.6	73	40.5	29.6	579	17.8	46.2	47.3
Nicaragua	54.	26.8	41.9	4.2	2.3	2.1	50.4	—	16.8	23.0	265	15.3	47.3	1.9
Panama	65.	18.1	36.8	5.3	3.2	6.9	26.7	58	38.2	33.1	568	13.6	44.3	1.3
Paraguay	60.	16.3	34.1	6.0	2.2	3.5	25.7	66	6.1	15.9	262	18.5	46.5	2.3
Peru	59.	24.0	37.7	4.7	2.2	7.2	39.4	55	33.4	28.9	399	17.4	44.9	12.8
Trinidad and Tobago	69.	7.9	25.1	3.9	5.3	—	26.2	—	38.9	55.7	540	29.0	—	1.1
Uruguay	71.	4.9	13.0	11.4	6.4	7.9	9.7	94	53.7	61.3	804	29.8	28.6	2.8
Venezuela	61.	14.3	41.5	7.8	3.3	5.6	34.2	60	42.8	47.3	854	19.9	45.3	10.1

<sup>a</sup>State of São Paulo.

<sup>b</sup>Estimate.

Figure 1—Classification of 22 countries of the Americas: level of socioeconomic indicators, by countries, for each group and socioeconomic indicators for 22 countries of the Americas, shown on adjusted scale

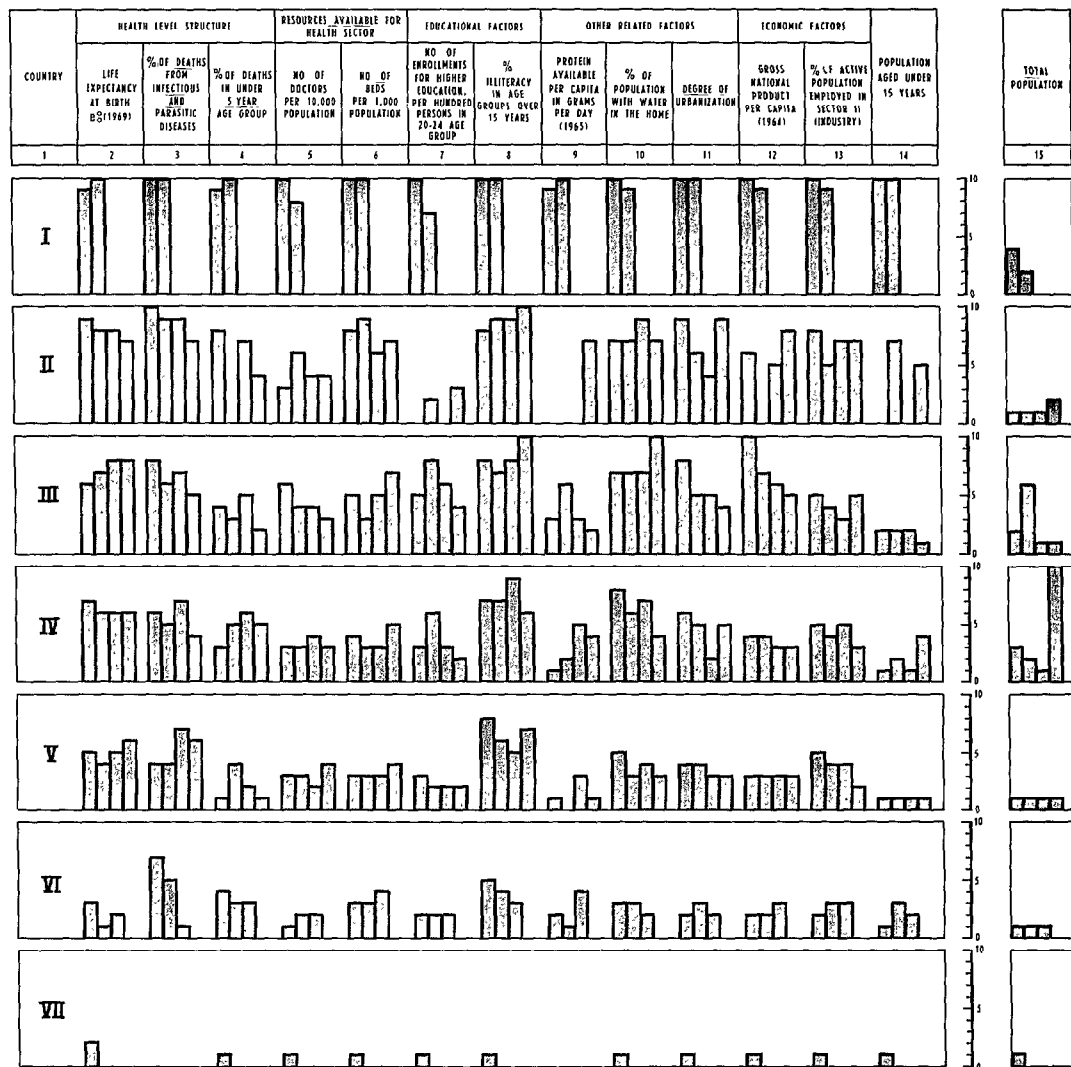


Figure 2—Classification of 22 countries in the Americas: average level of socioeconomic indicators in each group

