

THE INTEGRATION OF THE HEALTH SECTOR IN DEVELOPMENT PLANNING¹

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Health as a component of individual and collective well-being is one of the goals of development. Consequently, any process of development must be capable of raising the level of health of a population, while at the same time good health makes for a hardworking population and a high productivity level.

Indicators of Development and Level of Health

A comparison of the indicators showing level of health and per-capita income reveals a definite correlation between the two types of indices.³ It is not so easy, however, to establish a relationship between an increase in the indices of development and levels of health, in other words, to determine how much more health is produced when the rate of development is speeded up to a given degree, or conversely, to measure how far the development process is quickened by a given improvement in the level of health.

If we knew the nature of this "growth ratio" and how to measure it, we should have gone a long way toward solving the problem of interaction between the health sector and development planning. In the case of what are usually called the economic sectors, the nature of this ratio is explained fundamentally by the structure of the country's production, and the incidence of any increase in production by one economic sector on total production is measurable, because the economic sectors do not

constitute ends in themselves but are vital factors in the development process; for example, agricultural, industrial, or mining production is needed by a country to fulfill consumption and employment targets and to produce capital goods essential for increasing the product and revenue figures.

The situation is different in regard to the health sector, and in fact the other social sectors generally. The nature of the ratio of growth between health and development can be deduced theoretically. A higher level of development not only points to an improvement in the over-all indicators of health—indices of child mortality, general mortality and morbidity, etc.—but also affects the relative values for causes of death. Conversely, more development means higher consumption, improved nutrition, and improvement of other factors such as housing and educational level which have an important bearing on health. But the problem of measuring the growth ratio still remains, and hence the dovetailing of the health sector into development cannot be done just as if it were a necessity created by targets of income growth. Furthermore, over the medium and short term, an unduly high earmarking of resources for health could be detrimental to other economic sectors, hampering the growth of the product and hence causing an imbalance which would indirectly affect levels of health.

The problem could be skirted by simply regarding health as an end in itself, or in economic terms as final demand—which means that the target must be compatible with the

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³The correlation is less obvious in an historical analysis, since in many developing countries health conditions have improved appreciably, especially since the last World War, even though the countries have more or less stagnated economically.

other development targets—and allocating resources accordingly. But here again there are awkward difficulties. Little is known about the correlation between health as final demand and other sectors, such as education or housing, which make up this demand, although the picture is slightly clearer in the case of food consumption. A Government may use social policy as its criterion and assign the health sector a specific role in the development process, and then work out the resources which should be allocated to the sector. This is more or less the method applied in formulating national plans, but improvement is needed by way of better harmonization of the targets of the health sector with the other sectoral plans, while at the same time the resources must be allocated between the various sectors in such a way that the development of one sector does not impair the whole, either by undue acceleration or sluggishness, both of which may have an unfavorable effect.

Thus a rather more pragmatic—though perhaps more fruitful—approach to the relationship between health and development may be desirable if we wish to determine where the health plan fits into the general development plan. It may be useful to study the operation of the social services, in particular those which are the responsibility of the State, since they are the most crucial in the formulation of plans.

State Financing of Health Services

The operational level of a public service, like that of any other production activity, depends on the capital invested specifically in that service and the allocation of funds to it each year. The volume of these two components, capital and running costs, dictates the capacity of the service to produce returns, while the intrinsic nature of each component, and the judicious combination of the two, largely determines the quality and efficiency of the services rendered. The methodology of health planning worked out by the Pan American Health Organization (PAHO) and the Center for

Development Studies (CENDES)⁴ of Caracas, Venezuela, simplifies the task of combining resources with maximum efficiency in the interest of health activities geared to priority needs. The minimum plan—which presupposes an allocation of the same amount of funds as in the immediately preceding period—as a rule improves the level of health more than would be the case without the rationalization of services called for by this methodology.

The problem is thus essentially to determine the volume of additional running costs and capital to be allocated to the sector on the assumption that the health sector targets in a development plan are more ambitious than those of a minimum plan.

The allocation of funds to public health services depends in the last analysis on the volume of public revenue and its distribution among the various State activities. Let us first look at the main problems connected with public revenue in the Latin American countries.

Revenue from Taxation

A number of studies have indicated that the fiscal systems of virtually all the Latin American countries are characterized by low taxes and relatively little elasticity in the tax collection systems to keep pace with the growing monetary product. The tax level (the ratio of current tax revenue to net national revenue) ranges from 25 per cent to 35 per cent in the developed countries, whereas in Latin America an analysis of 13 countries shows that the figure of 20 per cent is exceeded only in the case of Argentina (24 per cent), Ecuador (22 per cent), Brazil (23.5 per cent), and Venezuela (27 per cent).⁵ These low tax levels rule out any appreciable increase in the resources for

⁴Pan American Health Organization. *Health Planning—Problems of Concept and Method*. Scientific Publication PAHO 111 (1965).

⁵Figures submitted to the Conference on Tax Policy, Santiago, Chile, December 1962, in the document *Fiscal Capacity of Developing Economies*. The other countries studied were Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Panama, and Peru.

expanding the public services, and at the same time there is strong pressure on these services by the population.⁶ The low income of the countries of the Region and the inadequacy of tax revenue fit ill with the increasing demand for public services. This demand is due to a variety of factors, including the high rate of increase in the population, rapid urbanization and the consequent expectation of improved levels of living, higher cultural levels, and the establishment by the public authorities of standards of efficiency and minimum levels of service which rapidly turn into normal demands on the part of the community.

Because of the lack of flexibility of tax revenue in relation to the monetary product, an increase in the latter fails to produce a proportionate increase in the former, thus making it impossible to allocate more funds to social sectors which are the responsibility of the State. Similarly, in the case of a country with a stable currency, it inhibits the participation of tax revenue in the national product, at any rate on a regular basis. This widens the gap between the provision of public services and population demand, insofar as the latter can be said to increase as a function of the per-capita product.

Where there is inflation, and the monetary product increases more than the real product, there is a further adverse effect caused by the fact that the costs of services tend to follow the general movement of prices; in other words, there is a steady rise in costs while tax revenue falls off, relatively speaking, making it more and more difficult to cope with these increasing costs⁷ and consequently to contemplate any

increase in them. One solution might be to keep the increase in the costs of such services below the rise in prices. This is feasible over the short run, but it has a bad effect on the quality of the services and the possibility of future expansion.

Apart from the tax system, the fundamental items of public revenue include revenue from the sale of services to the community according to a system of charges or tariffs, and funds in the form of credits and loans.

Public Services

Public services not provided free of charge, but paid for by the inhabitants using them, e.g., drinking water supply, likewise have to face serious financial problems which strike at their efficiency and expansion. In many countries of the Region these services depend on general grants from the Treasury in order to finance new installations or even to cover operating deficits. Tariff charges are not sufficient to cover the costs, and in general, any appreciable rise in these tariffs is hampered by problems of inflation and distribution of the revenue.

The measures taken by many Latin American countries to ensure monetary stability tend to keep any increase in the tariff charges for public services below the level of the general price movement. This is a means of keeping the cost of living down, since most of the services in question are essential services. Perhaps the main reasons for avoiding higher charges are the resistance of the majority of the population to such increases, the fact that price control is more effective in the case of State activities, and the unpopularity of Governments which impose such increases. The situation is financially undesirable, since it creates deficits that have to be met out of resources which could be used for other activities, including services provided free of charge, in other words, financed by taxation.

Without wishing to underestimate the importance of the inflationary factor, there are other factors which go more to the root of the question and maintain utility charges below the level that would be necessary to keep the financial system within bounds, e.g., the distri-

⁶It must be realized that the percentages mentioned are calculated on levels of national income which are very low, so that on a per-capita basis the absolute values are extremely varied.

⁷The following hypothetical example illustrates the situation described here: suppose the annual increase in the monetary product is 23 per cent. Of this, 20 per cent represents the effects of inflation and 3 per cent an increase in the quantity of goods and services available. If the elasticity of the taxation system is 0.7, the tax revenue will increase during the period by 0.7×23 per cent = 16.1 per cent. Assuming that the costs of services tend to rise at the same rate as the general level of prices (20 per cent), the difference between this increase and that of the taxes collected (16.1 per cent) represents the "gap" created and the shortfall in financing for the provision of services.

bution of income in most of the countries of the Region. Table 1 below gives an estimate of this distribution and reveals quite clearly its regressive character.

As may be seen from the table, in 1960, 50 per cent of the population of Latin America accounted for only 16 per cent of the revenue, and this group, the least prosperous economically, had an annual income per inhabitant of US\$120. Forty-five per cent of the population had incomes slightly higher than the average per-capita income for the Region as a whole, while the remaining 5 per cent accounted for 33 per cent of the total income.

This income distribution, seen in combination with the absolute figures for per-capita income, namely some US\$400 per head of the population, leaves an enormous sector of the population in an extremely poor position to meet charges which would enable public undertakings to pay their way. Those public services which are eminently social in character try to serve the greatest possible numbers, and this perfectly legitimate objective makes it impossible to charge rates which will even pay the costs, the result being running deficits necessitating a reallocation of tax revenue, with inevitable repercussions on the allocation of funds for other public activities.

To this series of factors must be added the relative inefficiency in the running of services,

which aggravates the problem of rising costs. This is a well-known and much discussed problem, closely bound up with the excessively bureaucratic nature of State organization.

Credit Resources

The third source of revenue to be considered is credit. In the case of the social sectors particularly, this has increased considerably over the last few years as a result of changes in the loan policies of various international financial organs. Recourse can thus be had to this type of funds for building and equipping hospitals, installing water supply and distribution networks, etc. However, one fundamental point has to be considered here: this source of funds is restricted almost exclusively to capital formation, so that while it helps to solve one aspect of the problem of increasing capacity to provide services, its usefulness for financing current expenditure is practically non-existent and this leaves a wide gap in the funds needed to provide such services from internal sources.

This sketch of the main types of problems facing the Latin American countries has dwelt mainly on the possibility of increasing public funds. Let us now look at the question of the absolute amount of tax revenue and its distribution, on which the allocation of resources to any particular social sector depends.

TABLE 1—Presumptive distribution of income in Latin America, 1960.

Category	Percentage of population involved	Percentage of total income	Average annual income per capita	
			Percentage ratio to general average	US\$
I	50	16	30	120
II	45	51	110	400
III	3	14	470	1,750
IV	2	19	950	3,500
Total	100	100	100	370

Source: ECLA. Economic Development of Latin America in the Post-War Period (E/CN.12/659/Add.1).

Tax Revenue and its Distribution

It is difficult to discern general patterns of distribution of public funds in the Latin American countries, although certain factors may be observed to occur more frequently and in part to inhibit any possibility of sudden changes in the composition of public expenditure, at any rate over the short term.

So long as the tax situation in a given country is disorganized, it is difficult for distribution practices to change substantially. In general, changes in the allotment of resources are feasible provided they are based on a persistent increase in these resources, creating over the medium term a new structure of public expenditure more in line with the development of the country and the objectives of the social services. To achieve this there are also certain difficulties to be overcome, e.g., the fact that a proportion, at times a large proportion, of public revenue is earmarked for a specific use and cannot be diverted to other uses without a change in the relevant legislation.⁸ This is not the only way in which changes in the composition of public expenditure and hence in the allocation of funds are inhibited by legislation stipulating that fixed percentages of total expenditure must be used for a given institution or sector. Another factor making for rigidity, mainly in regard to public investment, is the allocation of funds for the termination of projects already under way. In certain instances such funds represent a very high percentage of the total available for this type of public expenditure.⁹ This can be extremely important

⁸An example of this is the tax revenue of Peru, where the ratio of tax revenue specifically earmarked to the total amount of taxation collected has varied as follows: 1957, 43.9%; 1958, 45.0%; 1959, 47.7%; 1960, 40.3%; 1961, 40.3%; 1962, 38.1%; 1963, 37.0%.

Data provided by the Director for the Public Sector, National Institute of Planning of Peru.

⁹In Colombia, when the Four-Year National Public Investment Plan 1961-1964 was formulated, a study was made of the resources allocated for national public investment. It revealed that the proportion of total funds for projects under way at the time when the Plan was initiated was as follows: 1961, 52.4%; 1962, 34.8%; 1963, 24.4%; 1964, 18.7%.

where the system of public investment is highly fragmented, in other words, where the number of activities put in hand exceeds the financial capacity of the State; the annual earmarkings for individual projects are thus very small, with the result that the period of execution is prolonged.

In the majority of the Latin American countries the social sectors coming under the State are faced with problems of this kind, which hamper the establishment of targets and the allocation of funds for the health sector.

The purpose of the general planning process is not only to reach certain targets of growth of the product and other economic and social indicators, but also basically to transform, over a given period, the conditions in which a country's economic and social activities tend to develop. This transformation, usually known as the "modernization" of an economy, should make it possible among other things to increase efficiency and bring activities more into line with the needs of the population and of production, and to cope with the more pressing needs.

The integration of health service planning within the development plan as a whole must therefore start out from a broad analysis of the probable conditions for the functioning of the public sector. The main factors in such an analysis go beyond the health sector proper to matters belonging strictly to economic policy: rate of development, decisions regarding the distribution of income, planned reform of the tax system, policy of public service charges, proposed measures for removing rigidity in the allocation of funds, and so on. This type of analysis may seem to have little to do with social planning, but in a sense it is unavoidable, since the outcome will define more or less strictly the limits on the possibility of providing the service in question. Thus it may be said that many of the realistic targets of a health plan and the allocation of the relevant resources are automatically predetermined once decisions are taken on the above points.

Consequently, the first task in dovetailing a health plan into a development plan is to

analyze the capacity to provide services as revealed by the policy implicit or explicit in the development project. This requires thorough research into many fields still virgin in the majority of the Latin American countries, such as ways and means of financing the sector, the determination of its various sources of funds, and the assessment of their inherent dynamic capacity or the capacity they are likely to acquire on various alternative development hypotheses over different periods. For example, the health sector of a country may obtain funds from the general resources of the national Treasury, representing tax receipts not specifically earmarked and others statutorily set aside for the health sector or aspects of it; but it may also possess funds derived from the sale of certain services it provides. Again, provinces and municipalities as a rule devote part of the provincial or municipal tax receipts to local health activities. There may also be credit operations arranged with international financing bodies.

All these resources need to be analyzed so as to determine their inherent dynamism and that resulting from the structure of the development plan. It can then be decided whether or not to adjust the basic conditions which ultimately govern the amount of funds to be allocated to the sector. This amount is only one factor in the future capacity to provide services; another is the intrasectoral utilization, efficiency, and mobilization of the material resources, manpower resources, inputs, etc., required to carry out the activities of the sector.

Mobilization of Material Resources

Financing is of vital importance, but it should be borne in mind that finances are intended to mobilize the material resources needed for providing services. The mere fact that finances are available does not necessarily imply the availability of material resources. These can often be purchased on the market e.g., the materials and equipment needed for the functioning of hospitals; but some, such as

specialized manpower, capital goods, and certain types of equipment, have to be built up or installed, and this may take a fairly long time. Indeed in certain circumstances they may be so scarce as to be crucial for the expansion of services. To integrate a health plan into a development plan, the analysis of the present and future availability of scarce material resources is just as important as the analysis of finances.

In the first place, we have to consider the current status of services. The health plan must proceed on the assumption that there will be no deterioration in the situation, and this as a rule implies an increase in material resources proportionate to the natural increase in the variables defining demand. The situation will change considerably if improvements are made in the efficiency of the services provided. But before new operational standards can be introduced to improve the service there will have to be a break with habits, traditions, and even legal regulations. A point to be considered at once is the real possibility and the probable duration of measures calculated to bring about an effective increase in the yield of material resources. On the basis of an analysis of this kind, which is really an exercise in administrative rationalization, any forecast of the expansion of health services will depend on the possibility of an increase as time goes on in material or human resources which are unusually scarce or which because of their strategic role constitute "nerve centers" within a service.

At the risk of over-simplifying problems which are highly complex, let us try to clarify what has been said above by making a distinction between two types of activities carried out by the health sector—first those whose purpose is to expand the capacity to provide services, and secondly the actual provision of the services. The first (A_j) comprise the construction of hospitals, purchase of equipment, and training of specialized personnel. The second (P_j) include the supply of current inputs for the functioning of hospital centers and health campaigns, and the man/hours utilized.

Let us suppose also that there is a known ratio between activities A_j and P_j —for example, that once a new bed is installed in a hospital service, a given level of material and human resources must be forthcoming each year to ensure that the additional bed functions at the maximum rate of productivity. In this way we can construct a figure indicating by means of coefficients the type of correlation in question (Table 2).

One coefficient, for example, a_{23} , shows the ratio between the increase in services P_2 and a hypothetical unit increase in the capacity expansion factor A_3 , or:

$$a_{23} = \frac{P_2}{A_3}$$

If P_2 is the service provided in a general hospital and A_3 represents a bed in this type of hospital, a_{23} is the increase in service obtained by the addition of one bed. This increase may be broken down in turn into doctor/hours, laundry/hours, laboratory/hours, etc.

By the same reasoning, the operational level of an activity P_1 in future years t would be:

$$P_1^t = P_1^0 + a_{11} \sum_0^t A_1 + a_{12} \sum_0^t A_2 + a_{13} \sum_0^t A_3 + \dots + a_{1n} \sum_0^t A_n$$

where P_1^0 is the operational level of the service in the base year (regarded as rationalized) and the expressions $\sum_0^t A_j$ represent the various types of expansion of service capacity added during period $O-t$.

TABLE 2—Correlation between activities designed to expand services (A_j) and the provision of services (P_j).

$P_1 \backslash A_j$	A_1	A_2	A_3	...	A_n
P_1	a_{11}	a_{12}	a_{13}	...	a_{1n}
P_2	a_{21}	a_{22}	a_{23}	...	a_{2n}
P_3	a_{31}	a_{32}	a_{33}	...	a_{3n}
.
.
.
P_m	a_{m1}	a_{m2}	a_{m3}	...	a_{mn}

This outline, while not a model projection of levels of health service supply, gives some idea of the type of problem which has to be faced in defining targets for the health sector. Obviously these targets bear a close relationship to levels of services provided, or rather they are expressions of the factors P_1 , whereas the factors A_j are what is needed to attain those targets. The link between targets and requirements is basically indicated by the structure of production of the service. To put it in another way, the foreseeable future levels of services provided will depend on the additions made to the capacity to provide services over a given period.

In many development plans the emphasis in the social sectors is precisely on these additions to the capacity to provide services, or on what is usually called investment in the sector. Moreover, as has already been pointed out, there is a growing tendency for internal, and even more, external resources to be forthcoming for these purposes. But logically, not only must these additions be functionally combined one with another—an increase in the number of beds, for example, must be proportionate to the increase in professional staff and equipment—but once the capacity is increased, funds must be available for running costs to keep it functioning, if loss of yield and waste of resources are to be avoided.

This implies that the expansion of the sector has a certain internal organic cohesion which means that decisions taken in regard to one aspect determine increases in certain others. A thorough study of this cohesion will help to determine the level of resources needed under a government health policy and at the same time to formulate such a policy, by presenting an over-all picture of the situation of the services and the future outlook.

Thus we reach another point of importance for the integration of the health sector within the development sector: the analysis of the future conditions governing the factors making for expansion of the capacity to provide services, and the study of ways and means of

making the capacity operate satisfactorily once it has been expanded.

A development plan can provide favorable conditions for expanding capacity while at the same time placing restrictions on the operation of the services. Take the case of action in the education field designed to promote medical and paramedical studies so as to increase the number of doctors and paramedical personnel over the medium term. If at the same time severe restrictions are placed on raising the level of remuneration of such personnel in order to steer more of them into the service of the State, or if there is no way of creating incentives to induce them to practice in unpopular areas of the country, we are faced with an anomaly which must be corrected; otherwise there is every likelihood that the manpower available will be inadequate to allow the health service to function at the new level.

The moral to be drawn from all this is of the utmost importance for the integration of the health sector in the development plan: it is that finances must go hand-in-hand with other resources. Thus a minimum plan for the sector might be redefined as one which makes the best and most efficient use of the existing material resources. Alternative plans aiming higher than this minimum will call for a level of financing concomitant with a service capacity based on the foreseeable rate of increase of the factors in shortest supply or most difficult to train.

So far no mention has been made of the time factor in health sector plans and over-all development plans. The integration of the health sector into a development plan obviously involves both medium- or long-term tasks and short-term tasks. The topics dealt with in the present article are those which it would seem feasible to bring into focus over the medium and long term. It seems virtually out of the question to discuss the dovetailing of the health sector with the other sectors and within the general plan each year, except in very special cases of activities which are highly interrelated.

Bearing in mind what was said above in regard to "organic cohesion" of the expansion of health services, the inference to be drawn is

that once a health plan has been outlined, with its programs covering a variety of activities and its investment and personnel training projects, the necessary balance between them and the varying length of time they take to mature, the utmost effort must be made to ensure that the scheme is not upset by changes made on the spur of the moment; otherwise the success of the plan as a whole may be jeopardized. The only adjustments made must be those which practical experience manifestly justifies.

Links between the Health Sector and Other Sectors

We have analyzed certain aspects of the integration of the health sector plan within the general framework of development planning; but clearly there must also be a sound relationship between health and the other sectors making up the social and economic complex of a country. In other words it is essential to analyze the links between the health services and educational services, foreseeable developments in housing, and projects and prospective achievements in transport, energy, industry, agriculture, and other sectors.

It is clear that the level of health will be favorably affected by development achieved in other sectors, especially the social sectors, although of course factors like rapid industrial expansion or new mining activities can cause definite problems for the health sector by creating new types of demand for services.

This question can be approached from two angles—that of health activities which complement those of other sectors and hence necessitate coordination of both the action itself and its timing; and that of interaction, in other words, assessment of the effect of improvements in the level of health on the goals of the other sectors.

As regards the former, many instances can be cited. Certain health sector operations are vital to the efficient functioning of other economic activities or indeed to their functioning at all. An example would be a malaria campaign in a development region—say, where

jungle is being cleared to provide agricultural land. Situations of this kind tend to arise in the economic sector of development plans at the project stage and hence in the health aspects of projects, though the responsibility for such activities rests solely with the institutions of the health sector.

The problem of interaction in such cases is mainly that of adjusting the timing of the various activities making up the project to the necessary resources chargeable to the budget for the project as a whole. But there is one other important point to be considered, namely, the operational capacity of the institution responsible for the health services to meet the requirements of those services while at the same time maintaining its programs in accordance with the general targets of the sector. There are cases where action in the economic sphere tends to affect future demand or supply in the health sector. The execution of a highways program in a given zone, for example, may fundamentally change the whole network of services, expanding them on such a scale that the health plan must adapt its structure so as to achieve maximum efficiency in the new situation. This is an important matter which might well be investigated with a view to determining the effect on the cost of the various health services of investments made to improve communications, especially in rural areas or regions of low population density. Similarly, certain types of large production industries can change the whole character of the zones where they are installed, so that the planning of the health sector must anticipate these changes.

In general, what these examples indicate essentially is that if the health sector is to be satisfactorily integrated with the other sectors, the factors governing its expansion must include the medium-term prospects of changes in the regional distribution of the population, the characteristics of the main economic activities, and the links between urban centers and rural areas.

In practice, to judge from the experience of planning in most Latin American countries,

development plans seldom contain sufficient information on which to work, with the result that health services are set up on the basis of extrapolations of what has occurred in the past or only start to function long after the new conditions have arisen.

No mention has been made of examples of interaction of the health sector with activities relating to water supply and urban and rural sanitation. This omission is not due to any failure to appreciate the intimate relationship between these activities, but to the fact that they are really an integral part of the health sector even when they come under different branches of the administration. In any case, there are effective methods of measuring the impact of these activities on morbidity and mortality, so that the interaction is relatively easy to assess. In fact, calculations and estimates can be made which even enable priorities to be fixed, using cost-benefit techniques.

Another example of interaction between sectors—the correlation between health standards and educational and housing standards—is much more difficult to pin down, for reasons similar to those mentioned earlier. One important factor revealed by statistics of per-capita expenditure on health in various countries is that this expenditure is far greater in the developed countries than in those with low income levels.¹⁰ Yet it is precisely in the developed countries that we find the best education, housing, nutrition, etc. In other words, economic and social development does not seem to imply any relative decline in health expenditure, but rather the contrary, owing no doubt to changes in health demand, to individual and collective attitudes toward disease, and to increases in the provision of health services. Thus development is not a negative factor in raising the level of health of a community; the health services merely have to adjust to the situations arising out of changing

¹⁰The relevant figures are shown in the summaries of the Pan American Health Organization's four-year reports on health conditions in the Americas and in other publications on the subject.

conditions and renew their structure in order to cope with new priorities as they arise.

Analyses using international comparisons or collating the different situations found within one and the same country can help in tracing the policies to be followed by the various health services. It is clear that all this has a long-term significance, insofar as action in the other sectors bears fruit and brings about changes in the demand for health services. Nevertheless, basic research would seem to be called for in order to clarify this type of problem as far as possible. Where conditions allow, an analysis might be made of the historical evolution of health indicators and a study of possible correlation with those of other sectors.

No mention has been made of a whole series of relationships between health and development which are perhaps the crux of the problem of integration of plans. There is much difficult research to be done here, but it is suggested that one approach which might prove enlightening has not been properly exploited, namely, an integrated analysis of the experience of various countries in regard to both health and development, with a view to drawing conclusions which could be applied generally and used as a guide in parallel situations.

At the same time, in-depth studies should be made of the evolution of demand for health services in the Latin American countries by levels of income and consumption. These would be valuable in establishing guidelines for estimating as a first rough approximation the amount of funds to be allocated to health services.

The two types of research mentioned here would help to establish a theoretical framework of principles governing health goals. The integration process must begin by analyzing these principles in the light of over-all development policy before embarking on the more operational aspects dealt with in this article.

Summary

Starting out from the premise that health services, like any other public service, require a judicious combination of capital investment and current running costs, the author analyzes the main sources which Governments can expect to tap and utilize for the purpose, namely, tax revenue, tariff charges for the use of certain public utilities and health facilities, and domestic and foreign credits. The article points out the peculiar difficulties of financing services out of tax revenue in a Region where the per-capita income of the population is extremely low, and the fact that while international credit has been forthcoming on an increasing scale in recent years, it is restricted almost exclusively to the provision of capital, leaving running costs to be met out of scanty domestic resources. Great stress is laid on the balanced development of over-all plans and health plans, and on the need to forecast future health requirements accurately in the light of planned or probable development in other sectors. An attempt is made to establish a serviceable correlation between the expansion of capacity to provide health services and the actual provision of such services.

Although the main emphasis throughout the article is on the interaction of over-all development with that of health, some attention is given to the vital links between the health sector and other sectors such as education, housing, transport, agriculture, and industry. The author ends with a plea for research into many important relationships between health and development which have hitherto not been studied in Latin America yet are a prerequisite for the operational measures dealt with in the article.