Special Feature

EXTENSION OF HEALTH SERVICE COVERAGE USING PRIMARY CARE AND COMMUNITY PARTICIPATION STRATEGIES[1]

PAHO's Directing Council recently requested a special Health Ministers' meeting to examine the subject of extended health coverage and to look into adjustments needed to achieve goals established in this field with all possible speed. The present document, which was prepared for that meeting,[2] outlines the basic concepts involved in extending health coverage through adapted and expanded primary care and community participation. Its principal purpose is to serve as a reference source for subsequent analyses that PAHO's member countries will wish to carry out.

Introduction

At their III Special Meeting in 1972 the Ministers of Health of the Americas recommended to the member countries that they "Begin installing machinery during the decade to make it feasible to attain coverage of the total population by the health service systems in all the countries of the Region."[3]

During the time that has passed since that Meeting the Member Governments have made laudable efforts to reach that goal. In a good number of countries, however, the consensus seems to be that the increase in the supply of services is lagging behind the increase in the growing demand.

An examination of the available information on the growth of health services relative to the growing needs of the population demonstrates how urgent and important it is to consider new approaches and strategies for speeding up the process of extending the coverage of services to the entire population, and to give high priority to deprived and underserved rural and urban groups.

As an expression of the concern of the Governments in this regard, the Directing Council of PAHO, at its XXIV Meeting, approved Resolution XXXII requesting the Director "to convene a special meeting of

[1] Issued separately under the same title as PAHO Document REMSA 4/4 (Eng.) Rev. 1. Also appearing in Spanish in the *Boletín de la Oficina Sanitaria Panamericana* 83(6), 1977.

[2] For an account of the Ministers' Meeting see page 370.

[3] Pan American Health Organization, *Ten-Year Health Plan for the Americas: Final Report of the III Special Meeting of Ministers of Health of the Americas*, PAHO Official Document 118, Washington, 1973, p. 73.

Ministers of Health for the purpose of analyzing the situation in regard to the processes of expansion of coverage and adjusting the policy and strategy of the Hemisphere accordingly, so as to achieve the goals of the Ten-Year Health Plan in this field as rapidly as possible."[4]

The report of the IV Special Meeting of Ministers of Health will constitute the contribution of the Region of the Americas to the International Conference on Primary Health Care which the World Health Organization will hold in Alma Ata, USSR, from 6 to 12 September 1978.

In fulfillment of those instructions, the Pan American Sanitary Bureau (PASB) has carried out a series of activities, among them meetings of three study groups in which experts in different disciplines from 16 countries in the Region and PASB staff together identified and reviewed the basic concepts of coverage of the population and the strategies of primary health care and community participation. On the basis of this analysis the study groups proposed interpretations of those basic concepts that the countries of the Region might use in analyzing their own situations and in designing or revising their own strategies for attaining their objectives in extending the coverage of health services to the population.

The above-mentioned Resolution also recommends that each country analyze the characteristics of its own process of coverage, especially the factors that expedite or inhibit it. It is hoped that, on the basis of the conclusions of those analyses, country strategies and proposals for continent-wide action will be formulated and make it possible to achieve the objectives of the Ten-Year Health Plan.

This document has been prepared in the light of the experience gained in this and other regions of the world. While not claiming to be exhaustive, it outlines the basic concepts and the interpretations of them which underlie any process of extension of coverage to populations based on the strategies of primary care and community participation. Its main purpose is to serve as a source of reference in the analyses the countries will have to carry out.

The Concept of Development

The purpose of development is to enable individuals to realize to the full their capacity to improve themselves continuously and to contribute to the overall development of their society and thus to the maximum well-being of its members. It is a process of change from one form of society to another in which all citizens enjoy a better quality of life.

If development thus conceived is to be brought about, structural and institutional changes that together will support and enhance the capacity of society and its individual members to increase their well-being are needed. These changes must be in accord with the social and political situation in each country and with its system of values, and be such as to allow institutions, social systems and subsystems, and individuals themselves, to adapt to their responsibilities and functions.

The major economic and social components of development are interrelated and interdependent constituents of an evolving process. Hence a unified approach to development emerges that harmoniously combines economic growth with social progress and with the "capacitating participation" of human groups and institutions.

The style of development varies with the importance given to the various components of each process. Thus, unified devel-

[4]Pan American Health Organization, *XXIV Meeting of the Directing Council, Pan American Health Organization; XXVIII Meeting of the Regional Committee, World Health Organization,* PAHO Official Document 146, Washington, 1977, p. 76.

opment represents a strategic approach designed to transform an existing style into another that more closely approximates the image the society aspires to.

Defining this image of society and deciding on the style of development suited to it constitute a task in which the primary object is to adjust the most important values, the attitudes and the behavior patterns of individuals and groups, so that they may make their contributions to national development. To accomplish this, the objectives and structures of social systems and their institutions have to be transformed.

Whatever the development style chosen by a country, the community must be organized and stimulated to play a sustained and purposeful part, and a capacitating participation process must be set in motion so that individuals, groups, and institutions may become the driving forces of their own development and that of their society as well.

"Capacitating participation" means a concerted effort to identify and promote:

(a) The structural changes in the social and institutional systems and subsystems that are necessary if a society is to develop;

(b) The transformations that individuals and the community and its institutions must undergo if the ends of individual and social development are to be attained.

It is these concepts of unified development and capacitating participation that will form the conceptual framework for the extension of the coverage of health services to the population, based on the strategies of primary care and community participation.

The Concept of Coverage of Health Services

Coverage is the result of an effective and organized supply of basic health services that meet the needs of the entire population, are provided on a continuing basis in accessible places and in a form acceptable to the population, and afford requisite access to the various care levels[5] of the health service system.

In the context of unified development, the concept of health coverage goes beyond the traditional limits of a mere numerical ratio between services provided and population.

If the concept of health[6] is to be translated into reality, the population must receive effective and sufficient care to meet its basic needs, given optimum use of a country's resources.

This concept of coverage implies the recognition of a dynamic relationship between, on the one hand, the needs and aspirations of the population as expressed in its demand for services and, on the other hand, the available resources and their technological and organizational combinations that constitute the supply to meet that demand. Consequently the final form of the coverage will vary from one country to another, and even within a country, and from one community to another, depending on the varying health needs and the characteristics of socioeconomic development.

The Concept of Coverage and the Current Situation

In the new coverage concept, the objectives of the various health institutions and programs must converge toward the common goal of universal coverage, and efforts to attain it must make the services more accessible to the population and not be confined to the mere satisfaction of demand as it arises.

[5] See *levels of care*, p. 359.

[6] "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Constitution of the World Health Organization. In: *Basic Documents of WHO*, 26th ed. Geneva, 1976, p. 1.

The achievement of universal coverage poses a real challenge, which is magnified by the urgency of the need to speed up action to achieve it. There is today an enormous imbalance between the supply of services and the steadily increasing volume and complexity of health needs. As society grows more complex, new needs arise that cannot be met because an appropriate technology is not available and resources are not growing proportionately. If this trend persists, the gap between the supply of services and the health needs of the population will grow steadily wider and become increasingly difficult to close.

As a logical consequence of the acceptance of health as a basic right and responsibility of individuals and communities, the concept of universal coverage demands that efforts to attain it be made on a nationwide basis.

The extension of services to expand coverage must accord with national, regional, and local interests and be based on a health policy that will ensure that the programs formulated are in keeping with the characteristics and possibilities of each country. If it is to be feasible, this health policy must be included in the overall development plan. The resultant programs will then give high priority to the health needs of deprived and underserved population groups living in "social poverty," which may be defined as the combination of unemployment and underemployment, a low level of education, poor housing, poor sanitation, malnutrition, ill health, social apathy, and, above all, the consequent lack of will and initiative to make changes for the better.[7]

[7]World Health Organization. "Promotion of National Health Services Relating to Primary Care and Rural Development: Report by the Director-General of WHO." WHO Document A29/22, Geneva, 1976, p. 5.

Health Needs

The means and the end of activities for the extension of coverage are mainly the marginal rural and urban communities.

Most rural communities possess a basic organization (not always clearly identified), cultural traditions, and a low level of formal schooling. The population is usually small, raises crops and livestock, earns low incomes, and lacks services. Their demographic structure, the resources available for work and production, and the form and degree of their social organization, as well as their expectations of progress and change, result in a wide range of situations and problems, each of which needs to be viewed and tackled differently. An important element in rural communities is the large number of people who have so far been bypassed by the national development processes.

There is also a scattered rural population that lives in tiny hamlets and forms family groups which, however, are too widely separated to have much to do with each other; while it regards itself as capable of meeting its own most elementary needs for survival, it has no public services.

A large proportion of the marginal urban population are migrants who come from rural communities. They organize themselves to satisfy their own immediate needs for housing and employment and swell the ranks of the unskilled in the manufacturing and service sectors of the cities.

The rapid growth of marginal urban communities and the increasing impotence of the cities to absorb them and provide them with public services are giving rise to increasingly serious problems of social disorganization that need to be thoroughly studied. Although a worldwide phenomenon, in the Americas it has distinctive features that must be borne in mind in designing programs based on the strategies

of primary care and community participation in the process of extending coverage.

Since all these marginal groups have needs that must be met before health services become effective, due attention must clearly be given to the aspects of development that are most favorable to them.

The way in which these communities perceive and deal with their health needs differs from that of the institutional health system whose perception of them is colored by the professional subculture of its members; this, in turn, is reflected in the place of health in the scale of values of the members, both of the traditional and of the institutional system.

The community has traditionally ranked its health needs according to their urgency: water and food, care at childbirth, and treatment of accidents and the most common diseases, including communicable diseases.

Accordingly, the community's concept of health and its scale of values must be taken into account if effective two-way communication is to be established between the community and the institutional health system.

The Supply of Services

If the goal of universal coverage is to be attained, the services offered must not only be efficient, but must also meet the following conditions: they must effectively correct the situations or solve the problems that arise, be appropriate to and consistent with the basic needs of the community, and be accessible and acceptable to it.

In any community there are two possible sources of services:

(a) *The traditional community system*, set up by the community itself and used by its members, who resort to self-medication or to some member of the community recognized as an agent of the system;

(b) *The institutional health system*, consisting of public and private health institutions.

The traditional system frequently coexists with the institutional one, but in other cases it is the only source from which the health needs of the community are being met. In the former situation, whether more or less use is made of the traditional or the institutional system, or whether they are equally popular, depends on the educational or sociocultural status of the population and the characteristics of the institutional system.

The traditional community system. This system has its own resources and procedures and functions in accordance with the prevailing life-style; whatever its stage of development, every community has resorted to it in an attempt to solve its own health problems. It is limited in the resources it can bring to bear on problems and usually focuses almost exclusively on care of its sick and care at childbirth. Its agents are known by names—that vary according to the local culture and the healing art they practice—such as: "lay midwives," "lay healers," "witch doctors," "herbalists," "shamans," "bonesetters," and the like.

Very little is known about this system, but one thing is certain: it is deeply rooted in the local culture and therefore accepted and supported by the community.

Further community studies are needed to identify the inner dynamics of the role, organization, and operation of the traditional system and its relations with other areas of community life. Their findings will make it easier to link the traditional and the institutional health systems, whose articulation has so far been non-existent or, at the most, partial and sporadic.

The institutional system. Health is a right and duty of all human beings. Although the institutional systems bear the major responsibility for safeguarding and fostering it, the consensus is that they do

not meet the health care needs of the entire population. Among the factors contributing to this situation, we may mention:

(a) Lack of an overview of health problems.
(b) Health services are viewed as an end in themselves.
(c) Existence of a rigid institutional system that makes it difficult to determine and respond to the changing needs of the population and takes a merely statistical view of those needs without, however, making the necessary qualitative analysis of the problems.
(d) The physical, social, cultural, and financial inaccessibility to large population groups of the institutions providing health services.
(e) The lack of community participation in health activities, and consequently the isolation of the services and their personnel in a system impervious to user influence.
(f) The predominantly curative approach of the services, which has led to their separation from preventive and health promotion activities or their parallelism and has thus prevented their necessary integration.
(g) Deficient training of health personnel, who are thus incapable of discerning the advantages and disadvantages of the technologies in use and unable to identify with the purposes of health organizations.
(h) Indiscriminate use of imported technologies, which makes for dependency, and their adoption without regard to the real situation in the countries.
(i) Significant increase in the cost of medical care, especially the more complex and less frequently performed services, which reduces the resources available for providing universal coverage.

However, the institutional system does have a structure and resources, and if the efficiency of that structure were improved and those resources were appropriately redeployed, the system could make an appreciable contribution toward rectifying the present situation.

In any community, and particularly in one in which social poverty predominates, those concerned with the health of the people have as much responsibility as anyone else for the improvement of economic and social conditions.

Accessibility

The concept of the supply of services embodied in the definition of coverage implies that those services are accessible to the members of the community, who can thus satisfy their health needs. The accessibility of services is therefore an essential condition for the attainment of universal coverage.

Accessibility presupposes:

(a) A continuing and organized supply of services provided by a combination of resources that are geographically, financially, culturally, and functionally within the reach of the community.
(b) Services adequate in volume and structure for the size and composition of the population and its health problems.
(c) Acceptance by the community of the services offered and its use of them.

The first element does not imply that the mere existence or availability of a service is in itself a guarantee of accessibility. Hence we must break the concept down into:

(a) Geographical accessibility, which means that distance, travel time, and means of transportation determine the location of establishments, and not theoretical areas of jurisdiction.
(b) Financial accessibility, which means that payments or contributions for using the services are not barriers to them.
(c) Cultural accessibility, which means that there is no conflict between the technical and administrative standards of the services and the habits, cultural patterns, and customs of the communities in which they are provided.
(d) Functional accessibility, which means that services are provided promptly and on a continuing basis, and are available at any time, and that they are of the type to meet the real demand and include a system of referral that provides easy access to the level of care required.

The use the communities actually make of the health services will determine the extent of the coverage; to measure this use, suitable indicators must be developed.

The Concept of Primary Health Care

Primary health care is a strategy for extending the coverage of health services. It consists of a combination of activities designed to satisfy the basic health needs of the communities. It is thus part of an approach that brings together, at the level of the community and in accordance with its socioeconomic and cultural characteristics, the necessary elements for producing a significant impact on the health and well-being of its members.

The strategy of primary health care is based on:

(a) The acceptance, study, and upgrading of the activities the community has traditionally undertaken to meet its own health needs (the traditional community system).

(b) A shift in emphasis, in accordance with the unified development approach, in the activities of the health sector, primarily at the first level of care. (The health sector is defined as the aggregate of public and private institutions—the institutional system).

(c) The development of articulation mechanisms that will ensure the proper linkage of the two systems and give the population access to all the levels of care of the institutional system.

These three principles, harmoniously organized and put into execution, constitute the basis of a strategy that will enable a large number of suitably trained persons to become the driving forces of the system for the delivery of services, will enable self-sufficiency and self-reliance to become more widespread in the community, and will enable conditions for the achievement of universal coverage to be created.

This concept of primary care calls for an intersectoral approach, because the satisfaction of the basic needs of the population is determined by interacting factors that for the most part are beyond the control of the health sector. It calls for concerted action by all development sectors, so as to ensure that their activities will be focused on one common objective. And it requires significant changes in the environment, the lifestyle of the population, and the institutions of the health sector. On the operational level, one objective of the strategy is the full cooperation and coordination of all the systems—by having them pool their efforts and eliminate duplications and obstacles and thus achieve a greater impact in solving problems and more effective and productive joint action in the war on social poverty.

In other words, health programs must be closely tied to the other community development programs, and must become an essential component of them; and health goals must be included in those of the other development sectors.

Only a multisectoral approach can set in motion the processes that will lead to self-sustaining development. When the effects of one activity complement those of the others, the combined result is far greater than the sum of the individual effects.

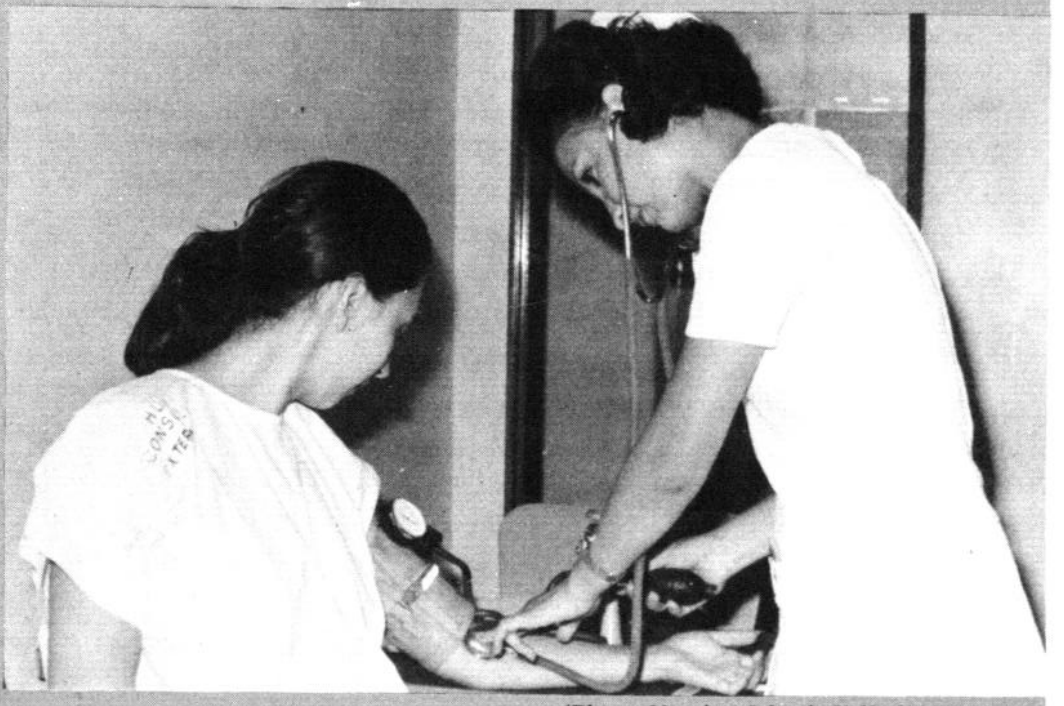
A clearly defined national policy is needed to guide the multisectoral approach to primary health care. For this policy to work, however, legal, administrative, and financial instruments are needed that will ensure coordination of extension of coverage at the national, regional, and local levels with the programs of other sectors. In each specific situation, and depending on the priorities established together with the communities, the sector most heavily involved in the implementation of the national policies must be the one to shoulder the greatest responsibility in the intersectoral effort.

For the primary health care strategy to be effective, the objectives and structures of the participating institutions and the knowledge, attitudes, and performance of the personnel of the various sectors involved in its implementation must be upgraded. Intersectoral barriers can be eliminated by redefining and reorganizing institutional models that are conducive to

(Photo: WHO/J. Littlewood)

(Photo: PAHO)

The primary care strategy emphasizes certain kinds of health sector activities—including the work of primary care centers (*above*), trained health auxiliaries (*middle*), and nursing personnel (*below*). Rapid expansion of these activities is urgently required.



(Photo: Nursing School, Valle University, Cali, Colombia)

compartmentalized and non-responsive bureaucracies.

To sum up, if the intersectoral approach, which is the basis of primary care, is to become a functional element, there must be a national development policy, and the persons and institutions involved must favor interdisciplinary and intersectoral activities and recognize the role and importance of the actual and potential resources of the community in overall development.

The Concept of Community Participation

For the purposes of this document, a community is defined as a clustered or dispersed group of fixed or migratory abode that displays diverse degrees and forms of social organization and cohesion. Its members share, in varying degrees, common sociocultural, socioeconomic, and sociopolitical characteristics and common interests, aspirations, and problems, including those of health.

Capacitating Participation as a Process

Community participation is acknowledged to be fundamental to the extension of the coverage of health services. It is the process by which individuals change themselves in accordance with their own needs and those of their community, acquiring a sense of responsibility for their own welfare and that of the community as well as the ability to contribute to the development process.

The purpose of the educational approach implicit in community participation is to foster the learning conditions that enable individuals to come to know their real situations better, relate the improvement in their environment to the social and economic betterment of other human groups in their country, shoulder responsibilities as promoters of development, and acquire a motivation that will help them solve their common problems. It enables people to be not merely the beneficiaries of programs, but the agents of their own development.

Capacitating participation presupposes a continuing training, information, and communication effort by all the members of the community.

One of the guiding principles of capacitating participation is recognition of and respect for the knowledge the people possess, their human dignity, and their ability to contribute to their own development. The process implies a creative effort in which all the participants contribute knowledge and their personal and group experience and engage in activities that express their will to change and their identification with the process in which they are the driving forces.

Capacitating participation establishes a continuing dialogue between health personnel and the community that is designed to harmonize their views and the activities that will give effective form to health services coverage. It implies the institution of an educational process to prepare the community and reinforce its desire to help set in motion a course of action that the community and the health personnel have decided upon together.

If this dialogue is correctly pursued, the health personnel will at all times be aware of the feelings of the community, and will have a better understanding of the reasons for its attitudes and views, its life-style, the level of its aspirations, and its pattern of organization and communication. For their part, the people will learn to understand their environment and identify their real needs, to understand and identify with the national strategy, and, thus, to become involved in and to promote local progress and well-being.

Another requirement of the participation process is the careful preparation of methods, techniques, and procedures that can be assimilated and used at different

operating levels by the various agents of development.

Characteristics of Community Participation

The meaning, content, and scope of community participation in any country are governed by the sociopolitical setting.

The dominance of the professional in the health field is reduced as and when the people and society as a whole come to see that health is not only the right but also the responsibility of all.

There are many ways in which the community can participate in every stage of the process of extending the coverage of health services. The contribution of labor and material resources, when it is all that is expected and required of the community, does not constitute genuine participation in the sense the term is used here.

Participation is perfected as it is practiced. In the course of its development, participation becomes: *active,* when the people take part in its various stages; *conscious,* when they fully understand the problems, translate them into felt needs, and work to solve them; *responsible,* when they commit themselves and decide to move ahead in full awareness of the consequences and their obligations; *deliberate,* when they express their voluntary resolve; *organized,* when they perceive the need to pool their efforts to attain the common objective; and *sustained,* when they band together permanently to solve the various problems of their community.

Factors Favorable to Community Participation

In the national frame of reference, participation may be analyzed from the standpoint of its three main components: government, population groups, and the interrelationship of the two.

Government: A policy on participation that is actively translated into programs, instruments, and mechanisms at the various levels of the administration charged with developing it; legislation to support the program; and the allocation of sufficient human, material, technological and financial resources together with well-defined intersectoral coordination machinery.

Population groups: Use of community mechanisms to identify common needs and problems, to find solutions to them, and to put them into effect; the identification of agents who can stimulate and guide the organization of the community in ways that favor participation.

The interrelationship: Full knowledge and understanding of the problems of health and of development in general; channels that will ensure a speedy flow of information from population groups to government levels and an open dialogue between them; machinery that will keep government agencies informed of the activities communities and private associations undertake on their own, and thus help them to guide and channel those activities and articulate them with the general development program.

Among the factors that favor the participation process are ones characteristic of the politico-administrative system in general and ones specific to the health sector.

The former include: the political support that assists the process and is provided by the decision-making levels; the efficient operation of intersectoral coordination machinery; an appropriate information system and the proper use of mass media; the concurrent execution of programs of education, housing, handicrafts, agro-industrial development, and the like which can be tied in with specific health programs; the degree of development of the appropriate technology for community participation; a sufficient supply of material and human resources of the required

Community participation is essential to the various program activities for sanitation, water supply, and sewerage, in order that the goals in those areas that have been established by the countries can be met (Photos: PAHO).

quality; legislation that takes account of participation; appropriate communication and exchanges of information between the various administrative levels; and adequate program planning plus use of appropriate methods.

In the health sector the factors favoring the process are services and units that support the system; methods of proven effectiveness and efficiency for strengthening community organization and action; certain features of the traditional community system that make it compatible with the institutional system; cultural patterns that foster participation; the level of development of the community; knowledge of the community resources available; acceptance of the importance of the traditional community system; access to the institutional system; and the support of members of the community.

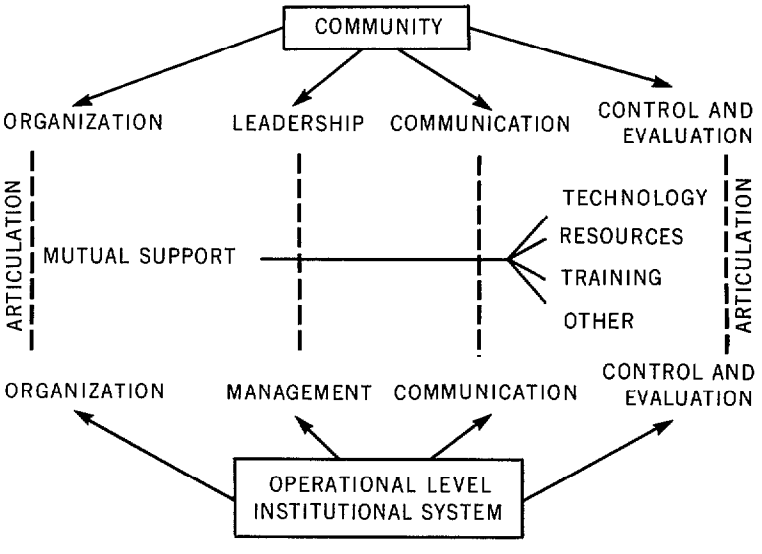
In its dual role as generator of services for its own consumption and as user of the services offered to it by the institutional system, the community must participate in decision-making and in the programming, provision, control, and evaluation of services as well as in their supervision, which, without becoming part of the institutional supervision process, can provide information the institutions can use to improve their performance.

Articulation of the Traditional and Institutional Systems

The purpose of the accompanying diagram is merely to identify the features this articulation should have in the coverage extension process. While articulation implies a connection between or union of two components or parts into a whole for the performance of a specific function, it must be understood that this union does not imply the imposition of the conditions of one part on the other, but rather a mutual conditioning that ensures that the articulation will work. In other words, each of the parts keeps its own individuality but adjusts to the other in mutual harmony for the sake of the effectiveness of the whole.

On the administrative side, when the process is instituted the nature, conditions, strengths, and weaknesses of the traditional community system must be taken into account. Similar considerations must in-

Figure 1. Articulation of the traditional and institutional systems.



fluence the design and establishment of management control and evaluation mechanisms, especially in the communications process, so as to permit the necessary decisions to be taken, thus allowing problems to be solved and activities to be adjusted to the evolving, dynamic requirements of the process.

The community must be given logistical and technical support for its own capacitation; accordingly, it will have to be supervised and its resources strengthened by the institutional system so as to ensure that it will properly discharge the responsibilities it has assumed.

It frequently happens that the community does not perceive the differences between the institutions in the various sectors to which it must turn to satisfy its basic needs. Accordingly, intersectoral coordination is necessary in providing logistical and technical support for community action.

The Concept of Technology

Broadly speaking, technology is defined as a way of transforming reality in order to satisfy specific needs. It is based on scientific or empirical knowledge and includes the means of applying it.

Technology in the Development Process

Technology is a determinant in any development process, and hence the study of it is a matter of high priority. The style of development of a given society demands that technology be essentially national, the result of the participation of all its members in cooperation with other societies that share its problems and aspirations.

Modern technology has arisen, for the most part, in the more developed countries and is the outcome of a continuous process of adjustment to their resources and values. In consequence, its indiscriminate application in the less developed countries—which have other resources and values—cannot be expected to be equally beneficial.

The Latin American and the Caribbean countries are at different stages of social and economic development. The extent to which they use technology imported from abroad varies, but in any event they produce only a limited amount of technology for themselves. This situation has had an adverse effect on the satisfaction of the needs of most individuals and communities, and on their active participation in the transformation and development of the society. So far, use of foreign technology has been the predominant pattern and has resulted in styles of development that are sometimes incompatible with the socioeconomic situation of the countries.

Some countries do not as yet have policies, criteria, or legal bases for selecting and controlling the use of an appropriate technology. The extension of the coverage of health services, based on the strategies of primary care and community participation, presupposes that increased efforts will be made to enable each country to formulate programs for the correct selection and adaptation of existing technologies and the creation of new technologies for those strategies.

Characteristics of an Appropriate Technology in the Health Sector

The extension of the present coverage calls for an overall view of health problems, a definition of the objectives and goals to be attained if the basic needs of the population are to be satisfied, and the identification of the strategies to be employed in reaching those goals.

The extension of health service coverage via the strategies cited requires appropriate technologies that have the following features:

They must be effective, efficient, and viable. While these attributes must be borne in mind in selecting technologies, whatever the degree of development of the country or area of work concerned, they become especially important in the health sector when the objective is to provide a certain volume of services to large population groups that are normally difficult to reach. In most cases this entails a substantial increase in the operating capacity of the system in a relatively short time and in a new context.

Hence, it is essential that the technologies selected be capable of maximizing the productivity of the limited resources and of improving their allocation, and thus of producing the desired impact on the level of health.

Technologies that are viable will be adaptable to different socioeconomic and cultural contexts and be acceptable to all the participants in the process of programming, organizing, and producing the services of the institutional and community systems.

In addition, appropriate technologies:

(a) Can be used by the unserved segments of the population and can meet their real needs, present and future.

(b) Are suited to the sociocultural, economic, and environmental conditions of a given country at any given time and place.

(c) Can be used in a humane, creative, change-inducing way.

(d) Ensure community participation in the process of selection, development, application, and evaluation—and thus induce self-confidence and self-reliance in those who provide and those who receive the health services.

(e) Articulate the resources of the communities they serve with those of the institutional system.

(f) Offer alternative ways of meeting health needs.

(g) Favor inter- and intra-sectoral action.

The Concept of Health Service Systems

A health service system may be viewed as an assemblage of elements through which human resources and installed capacity are organized. It also entails an administrative process and a technology for delivering sufficient health services—of the required quality to meet the demand of individuals and the community—and for undertaking environmental activities. The services must meet prescribed conditions of effectiveness, efficiency, and community acceptance.

Institutional and traditional community systems coexist in almost all the countries of the Region.

The incapacity of an institutional system to take on the responsibility of extending the coverage of health services in accordance with the new definition of coverage and the strategies of primary care and community participation makes its redesign imperative; however, before any change can be proposed, the existence of the traditional community system must be recognized and the structure, conditioning factors, and operation of the two systems and their articulation must be reviewed. This review and the proposed new organization must be based on the image of the society that is desired and on the sociopolitical structure and cultural characteristics of the country in question.

This necessarily implies that each country will adopt its own approach when formulating its health policies and planning, organizing, and setting up its service system. Taking these elements into account ensures the viability of any proposal for change.

It is up to the Ministry of Health to reorient and stimulate the other institutions within and outside the health sector, to develop effective coordination, and to define the functions and responsibilities they must assume in attaining the coverage goals.

As was said in the section on coverage, the institutional system must be organized by adjusting the structure and vol-

ume of the supply of services to the volume and structure of the population and its health needs. Because of the perennial problem of the relative scarcity of resources, the mix of available resources and their management must also ensure maximum productivity without detriment to the effectiveness needed to exert a real impact on health problems. The services must be planned on a regional and functional basis in accordance with the concept of levels of care.

Organization

The ways in which the institutional system is organized vary with the characteristics of the politico-administrative system of the country. There is no universal organizational "model." Any model is good if the organization functions without constraints and obstacles that impede or hold up the process as programmed.

The organization must take in all the health sector institutions, which must therefore be identified, as must their components, responsibilities, powers, duties, and interrelations; in addition, the regulatory powers of the highest health authorities must be defined. The administrative organization must facilitate the effective and deliberate participation of these institutions in the coverage extension process. It is not necessary to set up a new form of organization to lauch the process of coverage extension, but merely to improve the existing one in order to accelerate the process. In some cases it may be necessary to set up multidisciplinary units to assist this acceleration; but they will be temporary units, and one of their main tasks will be to organize all the levels and incorporate them into the process.

According to the levels of care concept, the study of the characteristics of the population, its health needs, and the resources needed to satisfy them, as well as its access to the services, will help reduce the degree of uncertainty surrounding planning decisions. In this stage of the organizational process the community participates by expressing its needs and aspirations. Experience has shown that if the technico-administrative and operational levels of the system do not properly inform the communities on this point, the aspirations they voice may greatly exceed their real needs and the investment possibilities of the sector.

Levels of care. The concept of levels of care has two clearly distinct components: health care needs and the capacity of the services system to satisfy them. Both components are related to:

(a) The frequency of different health problems or needs by time and place. It must be pointed out that some of these needs are not necessarily linked to the illness.

(b) The response of the service system to health needs, for the satisfaction of which technological resources whose complexity varies are required.

If it is borne in mind that the more frequent needs usually call for simpler resources and technologies, and the less frequent for more specialized and complex resources and technologies, then clearly all the needs can be dealt with by means of a system of levels of care.

This way of grouping the problems and the care provided by health systems in response to the demand has given rise to the classical configuration of functional combinations of services or levels, of which the least complex, termed the *first level of care*, includes the more elementary and undifferentiated elements of the system and is the point of contact with the community and its access to the institutional system. The other levels represent more specialized services of increasing complexity that are generally brought into play by individual referrals.

Almost all health systems recognize the

existence of levels of care, though the best possible use of them, based on the referral of patients from other levels, has not always been made.

The foregoing discussion of the conceptual aspects yields a few conclusions that need to be considered:

(a) While the levels will vary according to the health system concerned, the nature and characteristics of the health problems, and the human, technical, financial, and material resources available, the determination of the levels must be based on a careful analysis of the actual situation; otherwise they will prove inappropriate and lead to distortions, as exemplified by the scarcity of resources for satisfying the health needs of the rural areas.

(b) Levels of care are not synonymous with the units, establishments, or staff through which the service is rendered; nevertheless, they are related, since for programming purposes a given level, or its functions, determine the most appropriate types of units or establishments and the kind of system they are organized into. Moreover, a given establishment can contain more than one level of care.

(c) The hierarchical ranking of problems and functions—the basis of the definition of levels—entails a clear definition of the activities to be carried on at each level and, accordingly, determines the most appropriate technologies, the type of personnel, physical plant, and equipment and materials needed, as well as inter-level linkages, i.e., the referral system, that gives patients access to the levels where their problems can be solved.

Functional regionalization. The functional regionalization of health services is the technico-administrative expression of the concept of levels of care. This process acquires special connotations in each case because, to be regionalized, the services must be organized by levels of care, and then the geographical distribution of the health services or establishments must be determined, so that:

(a) The first level of care is provided in establishments of any size and complexity that are easily accessible to the entire population, including small settlements and the scattered population. Proper geographical distribution results in an expansion of the first level and thus of the surface contact between the population and the services of the institutional system.

(b) The levels of more complex care, designed to satisfy the needs of the entire population, are more centrally located in the system, in larger establishments endowed with more specialized staff and equipment. Geographically, they are sited in major cities where the resources they need are also available.

Functional regionalization also implies that all members of the community have access to the various combinations of resources according to their needs and the continuity of care required to satisfy them; hence, in organizing regionalization, it is necessary:

(a) To define the jurisdiction of and assign functions and responsibilities to each of the services at the various levels of care. The assignment of the functions that each establishment will perform as part a regionalized system implies determination of the kinds of technical and administrative activities within its area of responsibility, and the kind and volume of resources required for carrying out those activities. Operationally, they are translated into service programs.

(b) To interconnect the levels by means of a referral system. To that end, appropriate standards for the transfer of patients, staff mobility, exchange of information, technico-administrative support, and supervision must be established. Because of the importance of communication between levels of care, the establishment of standards and the supervision of activities should receive special attention in the administrative process.

Regionalization as an organizational instrument is widespread in Latin America and the Caribbean Area. The results are nowhere near expectations, however. The many barriers to effective application of the concept stem essentially from deep-seated ideas about local and institutional autonomy, with the consequent fear of or resistance to anything that is seen as a threat to authority and prestige. The principles remain valid, however, even if extraneous circumstances have limited their application.

The criteria that are to be used in the

design of a regional organization must be defined and applied in the national context concerned and be consistent with the capacity of the services available in the different regions of the country. One characteristic of the health region is its self-sufficiency; i.e., within the regional organization the services must be able to guarantee both accessibility and continuity of care to solve all the problems of the client population. This is not possible in all situations, however. In large countries, and especially in metropolitan areas, the region can be fully self-sufficient and its establishments and units, where resources are more concentrated, can offer all services of major complexity. In small countries, where there are smaller centers in a large geographic area, the different factors mentioned have to be reconciled, and the regional self-sufficiency attainable is obviously much less. The key establishments in the region will have different characteristics as well.

The nomenclature and characteristics of the establishments of the regional organization, and the operational aspects of regionalization, are well known. However, the regional frame of reference is becoming increasingly important in the planning and organization of services, not only in the health sector but also in development planning.

The referral system. The chapters dealing with coverage, primary care, and community participation emphasized the importance and role of the referral system as the principal mechanism for the coordination and articulation of the institutional and the traditional community system.

Administration

General. In a process of extension of health services to expand coverage, the operating capacity of the system has to be increased substantially in a relatively short time. This requires a change in the attitudes of those employed in the sector. This change can come about only if they are provided with sufficient information about the new policies and strategies to enable them to identify with the objectives of the new approach and to enlist their active participation.

The administrative development needed is not only quantitative; qualitative changes, too, must be made in the organizational forms and in the conventional techniques and procedures in order to adjust the organization and the quality of its operation to the demands of the new approach. Nor can it be brought about at one stroke by any single technique; it must be built up in progressive steps toward the final objective. Though it influences all stages of the process, this development is more urgent in some areas where the needs are building up into critical problems that have to be dealt with promptly. Examples of these areas are information, organization, coordination, programming, administration (of human, material, and financial resources), supervision, control, and evaluation.

Administrative management has to become *dynamic* and *flexible* if it is to adjust to the various stages of development of the communities and their organizations and respond promptly to their needs; it has to become *integral*, so that the components of the process, which are interdependent, may develop in harmony and function in coordination under a multidisciplinary approach; and it has to become *participatory* and *capacitating*.

Implementation of the strategies of primary health care and community participation within the framework of an intersectoral approach in order to accelerate extension of coverage calls for a redefinition of the decision-making powers of each of the managerial and operating levels already established or to be established in each country. Delegation of authority from the central to the peripheral levels must be accompanied by

appropriate delegation of decision-making authority and increasingly broader powers as training and participation in administrative fields are increased and strengthened.

This entails a revision of the system of communication and the consequent establishment of a two-way information system for the information—decision-making—programming—execution—evaluation—information cycle.

The information system. The present information system is regarded as inadequate for the needs of the policy of extending service coverage and incapable of supporting the administrative development required for the information cycle. The information system must be consistent with the technical and administrative requirements. The attributes of being simple, reliable, opportune, and useful—which are common to any information system—strongly apply to the system supporting the process of coverage.

Up-to-date information must be available and projections made:

(a) To identify the demographic, socioeconomic, cultural, and environmental characteristics of the communities, as these help determine their needs.

(b) To identify the priority health problems on the basis of their magnitude and seriousness, and the attitude of the community toward them.

(c) To determine the quantity and organization of the resources of the institutional and the traditional community systems, and particularly the extent to which they are being properly used.

(d) To determine the quantity and structure of the services and their productivity.

(e) To obtain information on the technologies in use in both the institutional and the traditional community systems.

(f) To determine the quality of the services being provided by the two systems.

As to the nature of the data, efforts will have to be made to ensure:

(a) A supply of selected information, generated in other sectors, relevant to the health sector, and ensuring more effective intersectoral coordination.

(b) The compilation of data on resources and their utilization in all the institutions of the service system, so as to correct the present situation in most of the countries, where only information from the public subsector is available.

(c) The selection, standardization and compatibilization of important data generated by the different programs in order to avoid duplication of information.

(d) Incorporation into the general information system of data on administrative management, which are usually provided separately and are determined more by administrative rules that their usefulness for monitoring the administrative process.

The system of information must be structured on the basis of the needs of the decision-control centers of each service system. The nature, quantity, and periodicity of the data required for operation of these centers must be commensurate with the real output capacity of the information system. Because of this requirement, the type of indicators, the procedures, and the organization that the information system must have if it is to meet the needs of all control and decision-making levels must be chosen with great care.

The strategy of community participation imposes on the information system the new function of disseminating, in the community, information that is reliable and timely. In this way effective participation will be stimulated.

The only way to set up a dialogue between the traditional and institutional systems is to disseminate information in the community. This dialogue demands of the information system a high capacity to summarize, in a simple way, the highlights of the technical information.

Programming. "Programming" is usually understood as the stage of the planning process in which the national and regional strategies flowing from the health and development policies are translated into

specific operational terms; the extension of coverage, however, presupposes a change in programming methods. Analysis of the present situation shows that the trend is toward the isolated design of specific programs—in which the technical and administrative activities, goals, rules, and procedures defined do not always accord with the established priorities or with the real production capacity of the service system. Most of these programs are formulated by specialized units at the normative levels of the system, without participation by the operational levels; this impedes compliance with the rules and fulfillment of the objectives established.

If programs are to meet the real needs of the people, programming must be local, albeit with due regard to national policy and the associated strategies; and community participation must be ensured at all stages.

Accordingly, the traditional functions of "normative units" that make up the technico-administrative side of the health institutions have to be revised if they are to do their job of providing technical guidance to the operational levels, and if the rules are to be adjusted to local needs and resources as part of the capacitating participation process within the health structure.

This revision must emphasize adjustment at the local level and ensure that it is as efficient as possible within the prescribed limits of effectiveness. This calls for creative use of non-conventional resources and research to find appropriate technologies.

Administration of human resources. The programming, training, and utilization of human resources that are the most critical and complex aspects of general policy and administration will now be mentioned.

If all the institutions in the health sector are to participate in the process, personnel policy must be revised and redefined, especially regarding salaries, incentives for service in hardship areas, social benefits, possibilities for training and advancement. These are factors that in most countries are creating competition between institutions, and maldistribution and scarcity of personnel in some fields.

Special attention should be paid to the policy governing personnel employed at the first level of care; it must be consistent with the general principles of the process that gives priority to that level. On the whole, the establishments using a more complex and specialized technology have enjoyed higher standing and prestige. This situation will have to be corrected; however, this is no easy task, for it requires a change of attitude in individuals and pressure groups that resist the development and employment of non-conventional personnel whose use is often the only way of expanding coverage.

Personnel administration techniques for determining the type, category, and number of staff employed in the different health institutions, and the knowledge and skills required in the different posts, must be developed and applied.

Administration of material resources (physical plant). This is another critical aspect of the sector because of the investments involved and the rigidities induced if they are not properly and realistically programmed.

The physical plant must be constructed in the light of the real needs of the population, especially accessibility and suitability to local conditions, and must have sufficient architectural flexibility to adjust to the changing needs of the population.

The extension of coverage presupposes a review of the physical plants of the existing establishments, their accessibility, and their ability to carry out the activities called for at the different levels of care for the population to be served. Moreover, the strategies of primary care, community participation, and an intersectoral approach suggest that many first-level activities can be carried out

within the communities themselves in premises provided by them or belonging to other sectors.

The decision to erect new buildings must be preceded by a study of their need and feasibility and must result from the planning of the service system, which constitutes the frame of reference for determining the number, location, interconnection, functions, and types of establishments needed for attaining the established goals. As already mentioned, this frame of reference must be defined at the highest decision-making levels. For building construction, especially in rural areas, easily maintained and replaceable local materials will be used. The physical characteristics of the buildings must meet architectural models flexible enough to adjust to local geographic and climatic conditions, to the functions to be performed, and to the customs, style, and degree of development of the community.

Administration of material resources (equipment). When equipment—another aspect of importance from the technical point of view—is being purchased and installed, a number of considerations warrant attention: first, the activities to be performed; the decisions on the selection of technologies for the various levels of care; the necessary steps to be taken to train staff, not only in the operation and handling of equipment, but also in its basic maintenance; and standarization of equipment to rationalize investment and facilitate activities connected with the physical plant.

Moreover, it is necessary to assess the extent to which the proposed equipment will help improve care and the possibility of putting into operation a preventive maintenance and repair system ensuring its continuous and efficient operation.

Activities on the first level call for minimal, simple, inexpensive equipment. Conversely, the more complex levels require more costly equipment and this seriously affects the budget of the sector. This consequence is, perhaps, a minor one, for the consequences of technological dependence can be much worse. For these reasons, projections about equipment should be part and parcel of the overall programming for the services and should never be made separately.

In selecting and procuring equipment and instruments, first priority should be given to national producers. This procedure will stimulate the production of local technologies.

Administration of material resources (supplies). Improvement is needed in all stages of the supply process (programming and budgeting, procurement, distribution, storage, and control) so that materials will be delivered to the establishments in the requisite quantity and quality and at the right time to ensure continuity of the services. Some stages need to receive priority attention.

In programming, the new strategy gives priority to the first level of care. The priority should be based on the estimated needs and reflected in the funds budgeted for procurement of the material required at this level.

The right choices and specifications will be those that meet the technical standards for care, and the local level will participate in making them.

Because of the time needed to carry out the various steps in the purchase of supplies, administrative procedures must be improved so that continuity of supply will not be jeopardized by delays.

Distribution also needs attention, inasmuch as the extension of coverage implies an expansion of the geographic area of contact of the institutional system and, from the operational standpoint, an increase in the number of effectors[8] at the first level. In this respect, too, careful planning is needed to ensure the continuity of supply

[8]Persons participating in health activities.

from depots located as close as possible to the local levels.

In the extension of coverage, the control of supplies merits special consideration. For operating purposes, first-level control must be simple and confined to the critical inputs, and must be based on consumption models designed for making adjustments in programming and distribution rather than for establishing efficiency criteria.

On the more complex care levels where there are fewer establishments, but where the largest investments are made, there may be fewer distribution problems. Accordingly, at these levels machinery must be developed to monitor utilization and efficiency and to prevent the wastage of resources that generally occurs at the less complex levels.

Administration of financial resources. Resource programming and budgeting are often unresponsive to the real needs of the sector. Deficient systems of information on productivity and costs and the lack of integrated programming generally result in the preparation of budgets in which the funds requested are not clearly assigned for specified purposes. Experience shows that the most common program-budget headings reflect and heighten the inconsistency and lack of complementarity of specific programs.

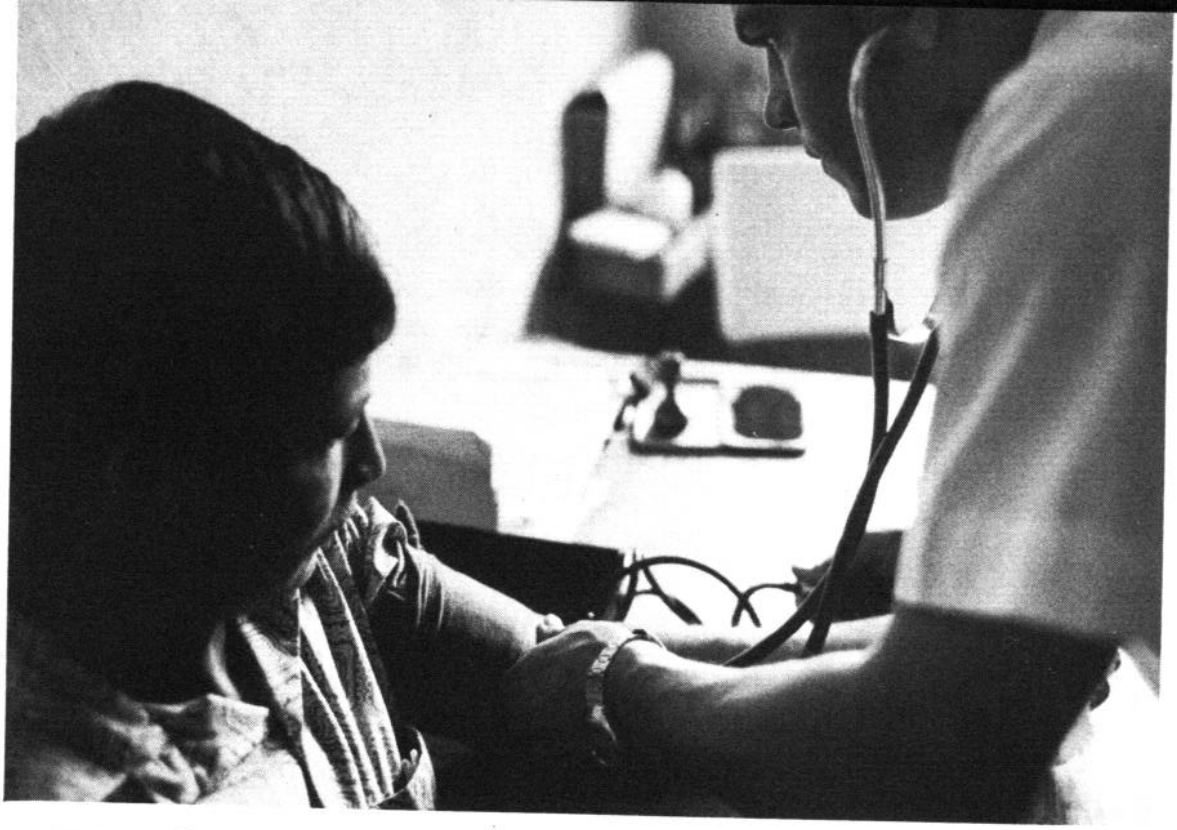
The scarcity of resources is a chronic and intricate problem traceable to a multitude of causes: inequitable budgetary distribution of the national product; the high and rising costs of health services, particularly of the most complex; the rising expectations and demands of the population; underutilization of the sector's resources due to lack of coordination of the sector institutions' activities with those of other sectors and the use of defective management techniques. All aspects of this problem will have to be tackled once the causes have been identified.

The needed increase in resources, therefore, will have to be obtained within the politico-economic system of each country, through:

(a) A redistribution of resources within the sector. If the objective of universal coverage by accessible services providing care at the required level is to be achieved, all the components of the system must participate. Their coordination and integration will vary according to the institutional makeup of the health sector in each country.

(b) An increase in the efficiency of the institutional system at all operating levels. This can only be secured by a coherent administrative development program and a careful selection of appropriate technology. As to the monitoring of budgetary execution, the present situation shows that more importance is attached to financial management—that is, to keeping expenditures within budgetary limits. There is little concern for the social significance of the product, for returns on the productive resources and their cost—that is, either administration is usually not animated by any principle of efficiency or else applies it inadequately.

Proper administration of material resources (physical plant, equipment, and supplies) is a critical aspect of the health sector, because of the large investments involved.



(Photo: WHO/J. Littlewood)

(Photo: WHO/P. Almasy)

From the beginning, the training of physicians (*above*), nursing personnel (*center*), dental auxiliaries (*below*), and all other health team members should be geared to community needs.

(Photo: WHO/P. Almasy)

Supervision systems. The adjustment, reorientation, and operation of supervisory systems is a key factor—in ensuring the necessary connection between the various levels of administration and care in the institutional system, and particularly between the latter and the traditional community system, and also in the capacitating participation of the members of both the health team and the community.

There is an acute need for supervisory systems within the institutional system, because the expansion of the institutional health services and their articulation with the communities call for:

(a) New approaches and strategies for the production of services.

(b) Non-conventional technical solutions and administrative procedures.

(c) Adjustment of functions or changes in them, which usually entail new responsibilities for the personnel at all levels.

(d) Recruitment, sometimes, of large numbers of additional health workers in both systems.

(e) Increase in the geographic separation between health workers of the first level and those of the other service levels, which tends to isolate the former.

In addition, there is the trial-and-error manner in which coverage extension processes are carried out. Consequently, monitoring in the form of timely discussions and analyses is needed to deal with unexpected new situations created by the process itself.

Supervision must be regarded as an instrument for change and capacitation and as a basic element for control of the system. Its chief purpose is to ensure fulfillment of the fundamental propositions established earlier, to anticipate possible variations, and to provide the information for general analysis and decision-making in the following principal areas:

(a) The performance of functions, activities, and tasks in the number, kind, and periods (and with the productivity) programmed.

(b) Compliance with and adherence to technical standards and other administrative procedures.

(c) Evaluation of the results of the activities of the system against clearly defined objectives and goals.

(d) Appraisal of the performance of the agents of the systems.

This control—analysis—decision-making component of the supervisory system must also be designed in such a way as to serve as an effective and efficient channel for any changes, connections, and adjustments deemed necessary. This implies that supervisory systems must include, in addition to the control component, basic education and refresher training for the participating agents. Present supervisory procedures and practices must therefore be revised in the light of the special requirements of coverage extension situations. A supervisory system is designed in the light of the available resources, communication problems, quality of the personnel, and characteristics of the functions and responsibilities assigned to them. The design must ensure that the supervisory tasks are carried out in coordination with those of the services, and that they are one of the functions of each member of the staff.

The purpose of supervision in the traditional system is, first, to ensure the continuing capacitation of the agents who have been taught how to perform a given number of tasks, and, second, to enforce compliance with the rules for the referral of patients to the institutional system.

In its practical operating aspect, supervision must be exercised by the staff employed at the first level of care, and preferably by those that participated in the capacitation activities.

Control and evaluation. Since the process is in its opening stage in most of the countries, and since it is not known to what extent the coverage of health services has been extended, how long it takes—on the average—to bring about the proposed changes, what the impact of the results is, or how long they will endure, control and

evaluation indicators are needed. They should be simple, and as objective and comparable as possible, so as to make it easier to exchange experience within the country and with other countries.

Because of the magnitude and profundity of the changes and the time required for extending the coverage of health services, the process must be improved in successive approximations as knowledge and experience are acquired. Therefore, systematic evaluation of the process is essential and must cover not only the results of the programming but also every new circumstance brought about by the system. The information and control systems must supply the knowledge needed to accomplish these purposes.

Development of Human Resources

Human resources are of fundamental importance in satisfying the health needs of the people. Because of the changing nature of these needs, new ways of providing the services in which the health personnel are in partnership with the community itself have to be developed. It is therefore essential to redefine the functions of the different categories of personnel of the institutional system to bring them into line with the health needs, the technologies to be used, and the available resources.

For political, economic, and social reasons, the programming, training, adaptation, and use of human resources is in most cases inadequate for the coverage required. Among those reasons are the following:

(a) The institutions that deliver health services and the institutions that train health manpower have not jointly agreed upon the kind of training the various types of personnel require.

(b) Both the professionals of the service system and those of the personnel training institutions behave like pressure groups to prevent changes that might interfere with their particular interests.

Frequently, what is taught is irrelevant to the real needs of the community. The training of human resources follows rigid patterns that lead to excessive specialization and to an inability to adapt an existing technology or to create a new one.

The organization of the public and private health sectors, the pattern of medical practice, the labor market, and other factors largely determine the observable trends in professional training—which encourages specialization and contributes to the concentration of professionals in urban areas.

The inadequacy of the training of the human resources needed for the extension of health services stems from the following:

(a) Little relevance of the curricula to the most common health requirements, and unfamiliarity with the technologies required in coverage extension activities;

(b) Teaching methods and attitudes conducive to the training of uncritical professionals, who unquestioningly accept the techniques and procedures in use and confine themselves to applying technologies generated outside their sociocultural setting that are hence not always suited to local conditions, and who themselves have little capacity to devise new and appropriate technologies.

Therefore, in the extension of coverage these shortcomings should be overcome.

In many countries of the Region there are no up-to-date inventories of health manpower. This makes it difficult to plan the kind and number of personnel that need to be trained if the demands that will be generated by the extension of coverage to the population are to be met.

The technology best suited to each situation must be chosen from among those available, bearing in mind the following:

(a) The training must be provided as close as possible to the place where the trainees will be employed.

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(d) Recruitment, sometimes, of large numbers of additional health workers in both systems.

(e) Increase in the geographic separation between health workers of the first level and those of the other service levels, which tends to isolate the former.

In addition, there is the trial-and-error manner in which coverage extension processes are carried out. Consequently, monitoring in the form of timely discussions and analyses is needed to deal with unexpected new situations created by the process itself.

Supervision must be regarded as an instrument for change and capacitation and as a basic element for control of the system. Its chief purpose is to ensure fulfillment of the fundamental propositions established earlier, to anticipate possible variations, and to provide the information for general analysis and decision-making in the following principal areas:

(a) The performance of functions, activities, and tasks in the number, kind, and periods (and with the productivity) programmed.

(b) Compliance with and adherence to technical standards and other administrative procedures.

(c) Evaluation of the results of the activities of the system against clearly defined objectives and goals.

(d) Appraisal of the performance of the agents of the systems.

This control—analysis—decision-making component of the supervisory system must also be designed in such a way as to serve as an effective and efficient channel for any changes, connections, and adjustments deemed necessary. This implies that supervisory systems must include, in addition to the control component, basic education and refresher training for the participating agents. Present supervisory procedures and practices must therefore be revised in the light of the special requirements of coverage extension situations. A supervisory system is designed in the light of the available resources, communication problems, quality of the personnel, and characteristics of the functions and responsibilities assigned to them. The design must ensure that the supervisory tasks are carried out in coordination with those of the services, and that they are one of the functions of each member of the staff.

The purpose of supervision in the traditional system is, first, to ensure the continuing capacitation of the agents who have been taught how to perform a given number of tasks, and, second, to enforce compliance with the rules for the referral of patients to the institutional system.

In its practical operating aspect, supervision must be exercised by the staff employed at the first level of care, and preferably by those that participated in the capacitation activities.

Control and evaluation. Since the process is in its opening stage in most of the countries, and since it is not known to what extent the coverage of health services has been extended, how long it takes—on the average—to bring about the proposed changes, what the impact of the results is, or how long they will endure, control and

tions, the resources available, and the pre-established goals.

(c) The teaching material must be tailored to the characteristics of the population to be served, the person to be trained, and the function he will perform. The trainees must participate in the preparation of the material.

(d) The personnel-training function must be integrated into the health care services so that the teaching resources will merge with those of these services to offer dynamic, relevant instruction. Moreover, the teaching staff should be integrated into and participate in health care work.

(e) The educational process must qualify the human resources to implement the strategies of primary care and community participation.

(f) The educational process should take into account the resources available in the traditional community system. It should teach students technologies appropriate to the first care level. Members of the community should participate in the teaching.

The strategies of primary care and community participation call for a revision of curricula to include the application of those technologies and a non-formal methodology (out of school education, adult education, the psychosocial method, etc.). This revision will also facilitate self-training and provide a new form of instruction in which special importance is given to practice and to early exposure to the community with which the staff will be working. It must result in flexible instruction that fosters the growth of a critical and creative awareness and facilitates the assignment of new functions consistent with changing conditions.

(g) From the educational standpoint, the appropriate technology covers not only the training process itself but also methods of selecting students, the organization of the process, and the evaluation. For evaluation, a technology is needed that appraises the student's performance of the functions for which he has been trained—and not merely what he knows. The community is both the means and the end of the learning process, and therefore teaching programs and objectives must not be copies of imported social and educational models. They must be derived from continuing consultation about the real and immediate health needs of the community, in which as many health personnel and as many members of the community as possible participate. Thus health training, based on this new concept, must be a continuing and integrating process and the standing responsibility of society at large.

(h) If it is to be responsive to quantitative and qualitative needs, the teaching system must adopt non-traditional forms and methods such as mass training—which, geared to the objectives of the process and applying self-training and performance evaluation methods, will be used not only for the initial training, but for the refresher training and in-service capacitation of the staff as well.

For the application of these new health strategies, a continuing education process for the readaptation and updating of the personnel currently employed in the service is necessary. This favors the above-mentioned strategy of reassigning functions. As for the new approach to the problems of health, the interdisciplinary methodology needs to be incorporated into the teaching/learning process so as to train health staff by giving them theoretical knowledge and practical experience in different disciplines for the study, analysis, and development of possible solutions to priority health problems.