HEALTH SERVICES RESEARCH

The issue of this document does not constitute formal publication. It should not be reviewed, abstracted or quoted without the agreement of the Pan American Health Organization. Authors alone are responsible for views expressed in signed papers.
The fulfillment of the goal of health for all by the year 2000 presents a formidable challenge to the imagination, technical capability, and will to serve of the personnel responsible for the establishment of policy, organization, administration, and evaluation of the systems for health services delivery in the countries of the Americas. That challenge is characterized by the need to have equity, efficiency, and effectiveness in the health systems and the prerequisites for participation and intersectoral articulation as indicated in the strategies and the Regional Plan of Action.

Indeed, in most of the countries of the Region, there is a large gap in terms of the availability of health services for important population groups which still do not have access to these services. This situation is compounded by the rapid growth of the demand which is theoretically related to the changes in volume, structure, and distribution of the population caused by the population dynamics of the Region itself.

On the other hand, the general deficit in health care tends to be aggravated in qualitative terms by deficiencies in the content, structures, and forms of operation of the services. The combination of these factors, together with the worsening of the problems related to financing, tends to perpetuate situations of limited coverage, low productivity of resources, and inequity in terms of real access to and utilization of the services by highly vulnerable population groups, which are chronically underserved.

The Seventh WHO Program of Work (Official Document - Series Health for All No. 8) refers to this matter in the following terms:

"The application of systematic effort is required in order to develop the infrastructures of health systems based on primary care for the delivery of services in a integrated form to the entire population. In the absence of such infrastructures it will not be possible to deliver the health programs effectively and efficiently.

"The infrastructure of the health system provides the human and material means for the provision of the services, but its impact on health depends on the very substance of the services that it provides. There is an amazing variety of technologies, but not all of them are appropriate for the persons that need them. For this reason, it is necessary to reanalyze the health technologies, selecting those which are appropriate in specific circumstances, generating new technologies, whenever necessary and exploring alternatives of human behavior whenever possible."

---

1/ Dr. Luis Jorge Osuna, Coordinator, Health Services Delivery Program, Pan American Health Organization, Washington, D.C.
The process by which the health technologies are absorbed by the system of services is closely related to the degree of relevance that the technology and the characteristics of the infrastructure have with respect to the needs and demands of the population. Actually, the idea of primary health care suggests a broad frame of reference for establishing the relations which, in practice, become some of the mechanisms that are applied in the study and identification of the needs of the population. These needs relate to health, the selection of the appropriate technological alternatives, and the requirements for organizing resources which are ultimately responsible for the execution of activities which can improve the health of the population. In the day-to-day work of public health, these processes are described as stages in the planning and administration of health systems and are carried out in relatively traditional ways, depending on the availability of information on the health problems, the level of development reached in the technical and scientific field, and the styles adopted for the administration of the services.

The possibility of a deeper analysis of the correlations between needs, technologies, and forms of provision of services is seen as a field of study that can be framed within a model of analysis that begins with a characterization of the three aforementioned components:

- The needs and demands concerning health.
- The scientific and technological system.
- The infrastructure of the health services.

The search for the interactions between these three large components is proposed as the basic terms of reference for health services research.

1. The needs and demands of health

The identification of health needs, also called priorities, is usually based on the application of epidemiological principles to select the principal problems to be solved. These problems are usually expressed in terms of the prevalence, incidence, severity, and vulnerability to health insults. However, the definition and selection of priorities is in essence a value judgement that results from the interplay between the political and professional ideologies of those who participate in the decision-making process and the historical and cultural patterns in each country.

Only those needs that manage to get channeled through the political machinery actually succeed in generating a true demand for attention. As a result, some needs that might have a low priority, but that are of interest to population groups with a greater influence, may succeed in
generating a strong political demand, while other needs perceived as important by less influential groups are never able to evoke a true demand on the health system. For this reason, community participation is essential in primary care.

In the developing countries it is frequently the case that the training of the majority of the health professionals has not been based on the actual needs of the entire population. This is a result of the strong influence which the centers of medical knowledge in the more developed countries have on the corresponding academic programs. The interpretation of the true needs therefore results in dangerous deformations. Although it is important to recognize the undeniable value of the medical treatment of diseases, there is a growing concern that the increasingly pressing demand for medical services could threaten to force the existing resources beyond their level of effectiveness. On the other hand, the application of ecological and social concepts to the study of human diseases indicates that enormous improvements would be achieved if the general environmental factors which affect the manifestation of diseases in various human groups could be discovered and overcome.

It has been observed in this regard that some circumstances are related to health in a very general way; among these are the urban and rural environment, marital status, economic situation, and the type of occupation. Each one of these factors simultaneously predicts a high risk for some infectious or noninfectious diseases, or the organic system that they affect. This is why it is advantageous to develop health services as program groups rather than as isolated actions designed to control any one specific problem. In practice, this process is facilitated when the needs and characteristics of well-defined population groups are examined as a group and the configuration of the programs that can have the greatest impact on their problems is decided "a posteriori."

The previous considerations support the need to expand the approaches for the detection of health problems in order to reach an interpretation which more closely reflects the true priorities and the social and environmental factors that require different types of interventions in addition to the traditional actions of the health sector.

2.2 The scientific and technological system

When the World Health Assembly designated as the principal social goal of WHO and of its Member Governments "to reach for all the citizens of the world, by the year 2000, a level of health that permits them to lead a socially and economically productive life," the search was intensified for "practical methods and technologies, scientifically based and socially acceptable" so that primary care may be within the reach of all the individuals of the community.
The most effective way to ensure that the technology is appropriately based consists in taking the problem as the point of departure and then selecting or creating, as necessary, a technology that corresponds to the situation and to the local resources.

In most of the countries the scientific and technological system is made up of a variety of sectors, institutions, groups, and individuals, including the health infrastructure itself. The different elements of the system participate in various ways in the fulfillment of general functions that can be summarized as follows:

- The identification of the health technologies that are available within the country or abroad.

- The promotion and execution of research for the development of technology and the health sciences.

- The adaptation of the available technology in order to achieve the maximum utilization of that which is appropriate and relevant to the needs and demands in the country.

In practice, the so-called technological transfer has been the most common mechanism for incorporating technological development in the less industrialized countries. However, in most cases, that transfer consists of the acceptance and mass acquisition, in bulk and indiscriminately, of technology (rather than of knowledge) independently of its real possibilities for use, adaptation, efficiency, and effectiveness. The limitations in the availability of resources of all kinds applicable to the development of scientific and technological capacity are manifested mainly in the weakness of the system in responding to the external pressures that are generated as a result of the commercialization and marketing of health technologies in the international context. The system also responds to the interests of scientific and professional groups within the country itself, and the behavior of these groups may be strongly influenced by the health systems of the more developed countries.

There is a growing interest in the Latin American countries in the analysis of the problems of technological dependency. However, there is a need for a greater investment in research that clarifies the problems of this nature and motivates the search for appropriate solutions. Within the broad gamut of areas that should be studied in greater depth and detail are the proliferation and apparent overutilization of pharmaceutical products and the incorporation and use of high-cost medical technologies in the provision of health services in circumstances in which the access of the population to the same is limited by factors of an economic, geographic, social, or institutional nature.

The debate over whether a particular technology is or is not appropriate can only lead to concrete results when the governments and the institutions decide to establish effective mechanisms for the
continuous evaluation of technologies in regard to their value in the solution of concrete problems and pay regard to the economic, cultural, and administrative aspects of the provision of services.

3. The health services infrastructure

In a broad sense, the health services infrastructure is made up of the group of resources, both institutional and community, that carry out activities for improving the state of health of the population in response to needs and explicit demands, in accordance with the various patterns of organization which are found in different situations. The provision of services usually consists of a combination of measures of promotion, prevention, treatment, and rehabilitation. The forms of organization of the services traditionally respond to the professional and occupational characteristics of the health personnel and to the complexity of the available technological resources. This is how the so-called levels of care have been structured; they are defined more by the characteristics of the delivery of services, in accordance with establishments of different complexity, than by a true estimate of the actual needs of the population. As a result, the first level of care, which theoretically should be equipped to resolve the greatest number of problems at the least possible cost, is identified with certain types of establishment that lack the necessary resources to meet the demands of the population and in addition are organized in such a way that they do not instill confidence in the communities. On the contrary, the establishments at the secondary and tertiary level, which are supposed to concentrate the less frequent pathology and thus be able to regulate the high cost of more complex technology, frequently invest large parts of their resources in care that could probably be provided more efficiently with other modalities of services.

In the majority of the countries, especially in the urban areas, the so-called services of less complexity are used infrequently by the people who prefer to go to the outpatient clinics and emergency services of the hospitals. Some studies show that programs based exclusively on promotion and prevention activities do not attract the interest of the community which, on the other hand, shows a greater demand for curative services as reflected by the high consumption of medicaments obtained through different channels.

Research on these phenomena can cover a variety of matters including experiments and simulation models on administrative activities such as cost analyses, production, productivity, legal matters, public relations, standards and procedures, space requirements, information systems, hospital administration, occupational profiles of the personnel, educational research and other matters. Unfortunately, the majority of the results of those studies are never actually used to introduce the necessary changes in the forms of organization of the services that can lead
to better efficiency and effectiveness in their utilization. It is necessary to learn about the usefulness of the studies in the field of administration as one of the ways of rationalizing the utilization of resources; however, the real concern regarding the goals of Health for All by the Year 2000 lies in the need to find new approaches that can be applied in order to meet the health needs of the entire population.

In the majority of the countries, the system of health services delivery is characterized by its fragmentation in multiple institutions with different approaches and policies with respect to the population groups who are the beneficiaries of their services and with profound differences in the content and coverage of the provisions that they offer. The recognition of that institutional plurality makes it necessary to seek ways of making institutional objectives and policies compatible with broad national objectives and policies, as well as of applying the resources and forms of operation so that they contribute to the postulates of equity, efficiency, and effectiveness adopted by the governments.

SUMMARY

The advantage of developing a analysis framework that integrates and correlates the different variables that play a part in the process of health services delivery is proposed as a basis for the development of health services research.

In a first approximation that framework could consist of three large components of the process i.e. the identification of the needs and demands of the population concerning health, the scientific and technological system focused on the solution of concrete problems, and the infrastructure of services with its resources and forms of operation.

Research in each one of these fields contributes, without a doubt, to the development of knowledge about the general process of improvement of health. There is a need to seek the interrelationships between the variables so that research may be oriented decisively toward the implementation of changes in the system of provision of services in order to facilitate the attainment of the goal of health for all by the year 2000.