Health arrived at a turning point in the beginning of this decade. No longer can health knowledge be reserved for a selected few, with health care available to a limited number of people. We, the health professionals, have come to the conclusion that our highest responsibility is to extend to all the knowledge and skills that society has conferred on us. Never before did we realize so acutely that health care should be made available to all populations, be they poor, distant, or underprivileged. By the same token, never before were we in a position to measure as clearly the difficulties entailed in so doing.

The World Health Organization, among the other agencies concerned, has taken the lead in introducing these changes throughout its 150 Member Countries. Over the past decade, numerous investigations have been conducted on ways of improving health services for the underprivileged populations of the world, and the Governments have shown great concern over the need to expand health care into rural areas.

The rising expectations of people for improvement of their well-being have created a significant impact on health professionals in recent years. No longer can the number of doctors and nurses be increased without improving the pattern of health care delivery and its built-in maldistribution of services. Recognizing this problem, the World Health Organization and the Pan American Health Organization have stimulated changes in the tradi-

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tional training of health professionals that have led to the opening of new careers and the addition of important curriculum features—such as the teaching of preventive medicine and family medical practice in medical and nursing schools.

The Twenty-Fourth World Health Assembly, which met in May 1971, adopted a resolution which called on all Member States to give priority attention to the training and utilization of new categories of health personnel. In an accompanying report by the Director-General, the following reference was made to medical assistants: "The acute shortage and mal-distribution of professional health personnel, not only in developing but also in developed countries, make it necessary to train large numbers of auxiliary personnel to serve as 'multipliers' of the professional staff. The role of auxiliary health personnel thus has a two-fold aspect: to relieve professionals of simple tasks which do not necessarily require their level of competence, and to cater to a population which would not otherwise be covered by health services."

It should be noted that today the expression "auxiliary personnel" is usually limited to lower-level health workers, whereas at the time of the Director-General's report the term "auxiliary" encompassed the nonprofessional worker, the paramedical aide, and the medical assistant as well.

At their Third Special Meeting in Santiago, Chile, in 1972, the Ministers of Health of the Americas assessed the health situation of Latin America and the Caribbean. At that time 43 per cent of the area's 300 million people were living in rural areas. In all, 37 per cent of the total population had no access to any form of organized health care, since health professionals were scarce and tended to concentrate in the large cities. In view of this, the Health Ministers approved a Ten-Year Plan that called for extension of health service coverage through provision of primary health services to all accessible populations in the Hemisphere. Assuming normal demographic growth, it was estimated that health services would have to cover a total additional population of 120 million persons in rural areas or urban slums by the end of the decade.

To achieve this challenging goal, the Ministers of Health recommended a substantial increase in the number of health auxiliaries and invited the countries to innovate and develop new types of health personnel according to each country's needs and resources, so as to ensure the coverage of rural populations.

We realize that in just a few years we cannot expect such a dramatic extension of health services—covering 120 million additional people—unless new approaches are devised. We also realize that this coverage will only be possible if we mobilize the forces of the community and enlist its full participation. A concerted effort must be made at both ends of the health system. At one end, the community should be prepared to participate in primary health care; at the other, health services should be prepared to support the expanded primary level and to receive the increased flow of referrals. Auxiliary personnel can render valuable services at both ends.

We also know that haphazard care or care "on demand," operating exclusively on a case-by-case approach, will not meet the needs of large and
dispersed populations. But a program of well-balanced care in which individual needs are met through a family health approach integrated with a preventive and community approach could solve the problem of providing health care for all. This Conference\(^2\) will study the role of the medical assistant in preventive medicine, a role that we deem to be of paramount importance.

We must emphasize that local health problems, cultural patterns, and socioeconomic conditions will certainly determine both the procedures to be followed in solving problems and the human resources needed to achieve this goal. Therefore, these variables will fundamentally condition the types of health personnel required.

It is dangerous to assume that an appropriate solution for one country will be appropriate for another. However, some countries have decided that the

\(^2\)The Fifth Conference on Health Practitioners held at Houston, Texas, in April 1977.
increased use of medical assistants offers one possible approach for improved delivery of health care to underserved populations.

Whatever his local title—Assistant Medical Officer, Health Assistant, Medex, Feldsher, Assistant Medical Practitioner, or other—the physician's assistant can fill important gaps in our health services. We do not anticipate any uncertainty about development of an intermediate "cadre" composed of such personnel as the medical assistant, or about the future of individuals entering this new career, or about any risk for the quality of health care, provided that the role of the medical assistant is clearly defined in each situation.

Experience shows that the role of the physician's assistant may vary from country to country, and may vary within the same country in different geographic areas. Basically, however, the medical assistant is finding himself in one of two roles. He works as an assistant to the physician, in close cooperation with him and under his immediate supervision, generally at the secondary and tertiary levels; or else he works as an extension of the physician, under supervision that is direct but intermittent. Usually the health services do not use the medical assistant as a substitute for the physician or as a second-best candidate for doing someone else's work, inasmuch as he has his own specific functions.

There seems to be no ambiguity about establishing those two roles for the medical assistant. It is perfectly possible in each case to define his functions, the conditions under which he is to work, his organizational setting, the degree of supervision he will require, and his relationships with other members of the health team. Certainly there are no situations in which we perceive the physician's assistant as an isolated worker, any more than we would perceive other health professionals this way.

In assessing the desirable quantity and required quality of medical assistants within a given organizational setting, priority should be given to primary health care activities. Whereas primary care makes a quantitative demand, referral care requires a qualitative approach in accord with the special needs of the health system's higher levels. Since a country's health system must be devised within the existing educational and socioeconomic context of that country, and in harmony with indigenous cultures, a middle-level professional has a place in developing that great asset, human resources. Nevertheless, since the desired features of the health system in developing countries are not fully defined, the optimal mix of the various health workers on the team is still a matter of pragmatic choice; in fact, it could well be advisable to test the effectiveness of various mixes via a series of operational research programs.

On reviewing the situation, we find that the South Pacific, Asia, Africa, and Eastern Europe have had the most experience with medical assistant programs. The value of these programs in underserved rural areas has been emphasized repeatedly and consistently, but ongoing experience in the United States demonstrates that the physician's assistant concept is also applicable to industrialized nations in advanced stages of health care development.

Over the past ten years the Latin American and Caribbean countries have
initiated several successful programs to train and utilize auxiliary personnel for extended health care. These programs are generally geared to train new types of basic personnel, namely rural health technicians or health auxiliaries. Such programs exist in many countries, including Brazil, Colombia, Costa Rica, Cuba, Guatemala, Haiti, Honduras, Jamaica, Peru, and Venezuela. They cover a variety of categories and levels of workers, and they require different lengths and levels of training—anywhere from a few months following a fourth-grade education to two years after graduation from high school.

All these programs undoubtedly reveal the considerable contribution that non-professional health personnel can make to the delivery of health care. This contribution has been seen in the extension of care achieved, in the lower costs involved, in the ability to mount new programs, and in the capacity to employ a precious resource, the local people.

To date these auxiliary personnel have been extremely well accepted—both by the populations served and by fellow health team members. Community resistance to the delivery of health care by non-physicians has seldom been encountered. At the same time, this new type of health personnel has invariably been utilized in preexisting health structures, and the acceptance of the newcomers by their fellow workers has been encouraging. The physician's assistant has even gained strong professional support, especially from some medical associations. Universities have helped pave the way for this acceptance by educating future physicians about the role of auxiliaries, so that they can use their services, supervise them, and contribute to their continuing education.

Several programs of a different nature—which involve a higher educational level—also exist. These probably lend themselves more closely to comparison with the physician's assistant program in the United States.

Peru has approved the training and utilization of a middle-level health worker with professional status; this training is provided by a specialized high school education leading to the title "Bachelor in Health."

Colombia and Mexico have started several experimental training programs for Community Health Technicians—with components of clinical and preventive medicine, public health, and community practice—that involve post-secondary education. The modalities may vary, but the principle of incorporating the physician's assistant in the health team is gaining acceptance.

Guyana has taken a further step by approving the training of a full-fledged physician's assistant with characteristics and functions similar to those of the U.S. physician's assistant. Experience there has already attracted the interest of neighboring countries, which are considering the establishment of similar programs.

Even though there is a favorable consensus of opinion about the value of these programs, a more systematic evaluation is needed to provide hard evidence of the benefits they bring. Besides the traditional cost-efficiency analysis that compares services staffed with assistants to services staffed with physicians, other studies of cost-effectiveness based on epidemiologic
data or consumer satisfaction with this type of health service could supply additional evidence of the program's validity.

In this process of opening new avenues—such as those being opened by medical assistants—the events now taking place in the United States are extremely important. The results of your country's experience should be useful for Latin America and the Caribbean in considering possible alternatives for the delivery of health services.

The concept of the physician's assistant was born and nurtured in the developing countries. We are now confident that by infusing into it the thoroughness, dedication, and unmatched educational and medical technology found in the developed countries we can effectively enlarge the role of the medical assistant. This will enable us to return an enriched concept to the developing countries, one enhanced by examples of a working reality.