COORDINATION OF MEDICAL CARE

Final Report and Working
Documents of a Study Group
(Washington, D. C., 4-8 August 1969)

PAN AMERICAN HEALTH ORGANIZATION
Pan American Sanitary Bureau, Regional Office of the
WORLD HEALTH ORGANIZATION

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STUDY GROUP ON THE COORDINATION OF MEDICAL CARE SERVICES OF MINISTRIES OF HEALTH, SOCIAL SECURITY INSTITUTES, AND UNIVERSITIES

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Study Group on the Coordination of Medical Care Services of Ministries of Health, Social Security Institutes, and Universities

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FINAL REPORT

FINAL REPORT

From 4-8 August 1969, in Washington, D.C., a Study Group convened by the Organization of American States and the Pan American Health Organization met to discuss the coordination of medical services in the Region of the Americas.

The meeting was inaugurated by Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, and Mr. Theo Crevenna, Director of the Department of Social Affairs of the Organization of American States, who in their addresses stressed the importance of the activities which both organizations have been jointly conducting for the past seven years.

The meeting was attended by 14 experts in the field from nine countries of the Americas, as well as observers from the International Labour Organisation, the International Social Security Association, the Permanent Inter-American Social Security Committee, and the Pan American Federation of Associations of Medical Schools. Officers of the OAS and PAHO also participated.

In the course of the meeting, each of the following agenda items was discussed in detail:

1. *Coordination in the Formulation and Execution of a Health Policy*

   1.1 Institutional coordination at the national level.

   1.2 Participation of ministries of health, social security institutions, social welfare institutions, and schools of medicine.

   1.3 Coordination committees and committees for the study of specific problems.

   1.4 National health systems (population coverage; health insurance; systems of organizing medical care; problem of medical care in rural areas).

2. *Coordination in the Provision of Health Care*

   2.1 Use and productivity of resources (improvement of hospital organization and administrative methods in hospitals; medical records, clinical histories, and hospital statistics; improving the quality of medical care; accreditation of hospitals).

   2.2 Regionalization of services (delegation of authority from the national to the regional level; relations between hospitals and peripheral services, including flow of personnel, equipment, and patients; participation of clinicians in problems of preventive and social medicine in the community and in the administration of local health programs).

   2.3 Integrated health programs (description of integrated activities; participation of teaching hospitals in integrated health programs; incorporation of private institutions in integrated health programs; integration of preventive and curative activities at the local level).

3. Coordination in Manpower Development

3.1 Planning of manpower development by ministries of health, social security institutions, and institutions responsible for the training of health personnel.

3.2 Adaptation of the undergraduate and postgraduate curricula of medical schools so as to produce personnel of the appropriate type for providing health services in an integrated program.

3.3 Cooperation of ministries of health and of social security institutions in the expansion of teaching resources in order to satisfy the demand for professional personnel.

3.4 Participation of medical care personnel in undergraduate and postgraduate teaching.

3.5 Joint in-service personnel training.

4. Coordination of Financing

4.1 Operational area (medical costs and hospital costs, including salaries, drugs, general expenses, etc.; multilateral financing, including fiscal public sector, decentralized public sector, private sector).

4.2 Investment area (program for the construction, renovation, and maintenance of hospitals and peripheral medical services; remodelling and adaptation of health establishments; mobilization of national and international resources).

I. COORDINATION IN THE FORMULATION AND EXECUTION OF A HEALTH POLICY

The Group discussed the item on coordination in the execution of a health policy in all its aspects relating to the formulation of a policy, the participation of the various institutions which administer health services, and the financing of those services so as to provide as wide and as high-quality a coverage as resources permit.

The relationship between health policy and general economic and social development policy was analyzed, and it was recognized that a health policy cannot exist independently; on the contrary, it must be planned simultaneously and in harmony with the national industrial and agricultural development policy, as well as with the educational, social, and labor policy.

The countries have in general been developing their health services and endeavoring to satisfy the emergent needs as and when the demand for services made it necessary. This has been done through what might be termed an "implicit health policy," which in many cases has meant haphazard growth and has not always given priority to the most urgent problems.

Since the initiation of the process of national health planning and the establishment of procedures for determining priorities and fixing short and long-term goals, the need became apparent to formulate a policy based on demographic, statistical, and epidemiological information, in other words, on the diagnosis of a health situation. This has resulted in the need to formulate an "explicit policy," which has been translated into health plans and, in some cases, into legislative changes aimed at adapting these structures so as to facilitate the changes necessary for adapting health care to the demand for health services. It was recognized that these changes, characteristic of the explicit policy, sometimes give rise to different interpretations and reactions among the institutions and persons connected with the provision of health services.

In general, the health policy should mark out the legal and administrative foundations of the medical care services, establish the program priorities, and determine the degree of coverage of the population, all these being projected over a reasonable period of time.

The Group recommended very strongly that institutional coordination should begin at the stage of formulation of the health policy, so that social security institutions, medical schools, professional associations, and other bodies associated with health care, should feel from the start committed to the implementation of the approved policy, to the same degree as the ministries of health.

The Group endorsed the definition of coordination adopted at its 1965 meeting:

"Coordination should be taken to mean an orderly arrangement in the use of all the available manpower and material resources in the various public and private health care institutions."

It noted with satisfaction that there has been progress and that at least half the countries of Latin America have initiated the coordination process through various legislative, administrative, and financial mechanisms. It was nevertheless recognized that these efforts are insufficient and that in some countries coordination has been approached somewhat timidly, perhaps because it has not been the reflection of a clearly defined policy. Coordination is easier to achieve in practice when there exist concrete tasks to be performed and when it has the moral and psychological support of the groups concerned.

The majority of the members of the Group agreed that coordination is a mechanism which is always necessary and which makes possible steady and orderly progress toward the ideal goal of integration of services. Some participants, however, advocated immediate integration without passing through the transitional stage of coordination

Discussions also centered around various levels and mechanisms of coordination and in this connection some examples were mentioned of experiments being carried out in certain countries of the Hemisphere.

The pressure of increasing demand for services is forcing the countries to introduce changes into their systems for provision of health services and to make more effective use of the available resources. The Group recognized that coordination in the planning of health services is a tool for meeting this need for change. Furthermore, it is essential that the health sector obtain its rightful share in the distribution of the national resources, and this is more easily achieved when the various institutions of the health sector act in a coordinated way instead of engaging in mutual competition.

Coordination should extend to all levels of the administration of services, thus constituting a two-way flow. This facilitates the process, insofar as it brings into it as participants the responsible authorities at the different levels of the administration. It was also recognized that the countries have applied different patterns of coordination, which are linked to their own economic, social, and political characteristics and are, therefore, not transferable from one country to another.

There are different techniques for implementing coordination and each country must choose the one which can most effectively influence the provision of health services. Taking into account the political, legal, social, and financial situation of the country concerned, the pace can be faster or slower, further steps being taken toward greater coordination or, eventually, toward more or less integration. In any case, the ministry of health should be the promoter of coordination among all the institutions operating in the health sector, including the private area.

To put this coordination process into operation, the Group recommended that health councils or commissions be established at the highest administrative and political level and with sufficient legal authority to advise the ministry of health on the framing of a health policy, and on administrative coordination at the operational level. The effectiveness of such central coordination councils or commissions is enormously reinforced by the establishment of interinstitutional committees for the study of specific health aspects such as preventive medicine, epidemiology, statistics, development of manpower resources, quality of medical care, basic tables, and other similar areas. Wherever necessary or desirable, local agreements should be established between the participating institutions.

The Group emphatically recognized the dominant role to be played by medical schools in coordination, and in this connection stressed the importance of education and training committees, through which it is possible to promote a health policy as well as stimulate the development of the necessary manpower resources to put it into practice.

The Group recognized the need for wide coverage of the population, but also pointed out the limitations which inevitably have to be accepted in this principle. Only by supplementing the resources of the institutions and by their rational utilization will it be possible to approach the ideal of universal coverage. For the rural population, in particular, the initial coverage should provide promotional services of a communal nature, such as basic sanitation measures. The medical care offered in such cases can only consist of a certain number of minimum measures which could be achieved by delegating medical care activities to nonprofessional personnel, should that be necessary.

It was also pointed out that it is unwise to extend coverage or extrapolate models to unprotected areas without first carrying out experimental surveys to provide the basic demographic, administrative, and statistical information essential for making a soundly-based decision.

The Group recognized the need for simulated trials, which should be carefully evaluated, the decision to apply them on a large scale being taken once their value was proved.

1. Systems of Organizing Medical Care

With regard to provision of medical care and doctor-patient relationships, there exists a wide variety of systems ranging from the traditional private medical practice to medical services organized by the government and furnished free of charge through public institutions. Between these two extremes there is a whole gamut of medical services organized by the social security institutions, by mutual organizations, and by public and private social welfare institutions, which offer services to various selected groups of the population.

The history of social security shows that it has been an economic policy mechanism for channeling toward social programs, including medical services, resources which otherwise would have been allotted to other purposes. The result has been that workers enjoy greater benefits and services than the rest of the population. The services provided by social security institutions are, moreover, of better standard and the remuneration received by their staff is generally higher. All this combination of circumstances leads to competition for manpower between the social security system and the other health institutions; the result should be a stimulus toward raising the levels of quality and utilization of the less favored services, thus facilitating coordination.

The worker, as a factor of production and key element in industrialization, has been given priority attention in all plans for coordination of services. This priority must have as its corollary, measures for redistribution of resources so as to standardize the benefits and services allotted to other population groups. The aim of coordination should be to attain better utilization of the available resources now and in the future, endeavoring to avoid the establishment of a large number of systems of medical care organizations that engage in mutual competition. The larger financial resources available to social security institutions frequently cause irritation in ministries of health. Nevertheless, comparative studies between different countries show that the availability of greater resources in the social security system does not necessarily imply any reduction in the amount of money available in ministries of health. On the contrary, it has been found that when social security is economically strong, the ministry also enjoys the larger financial resources.

The construction of hospitals by social security institutions has increased and improved the installed capacity indispensable for providing health care and has contributed to the development of manpower resources. In short, the establishment of social security systems has resulted in a strengthening of health resources. This does not mean, however, that the present situation, with separate administration of health care services and consequent disparities in standards of quality, can be accepted indefinitely. The time has come for ministries and social security institutes to cooperate among themselves so that the provision of services may become increasingly efficient.

To summarize, the Group recognized that if the whole range of preventive, curative, and social services is to be offered, and considering the high level attained by the cost of health care, it cannot be expected for the time being that a single institution or body will be in a position to finance them in their entirety, and it will therefore be necessary to have recourse to multilateral financing and to coordinated administration under a national health system.

II. COORDINATION IN THE PROVISION OF HEALTH CARE

1. Use and Productivity of Resources

The Group considered the concepts and techniques traditionally proposed for increasing the productivity and efficiency of hospital services. Among others it considered the following:

(a) Improvement of hospital administration, through the application of administrative practices of recognized effectiveness.

(b) Facilities for communication among the various hospital institutions and adoption of systems to promote comparability of clinical reports, hospital statistics, and of economic reports and educational programs.

(c) Raising the quality of services to the highest feasible level, at which hospital establishments will achieve equivalent efficiency and the care, by whomever it is provided, will be equally well accepted by the consumer.

It was proposed that a system of hospital accreditation be adopted to serve as the driving force in the systematic fulfillment of requirements programmed for each country, in accordance with its capabilities, and making possible the attainment of the prescribed quality standards in the provision of services and in the discharge of the teaching function.

The Group discussed at length the choices that arise between implementing programs of high scientific quality and those other programs in which minimum medical care is offered with wide coverage of the population. The consensus was that, from the medico-social point of view, it is desirable to achieve as wide a coverage as possible, of a standard and quality compatible with the present state of advancement of the medical sciences and with the available resources. Reference was made to the case of intensive care units, whose cost is high, but which at the same time offer a chance of saving many lives. Moreover, if the intensive care units are supplemented by intermediate care and ambulatory or domiciliary treatment, the costs can be reduced, since extensive ambulatory treatment is promoted, avoiding hospitalization and making better use of hospital bed facilities. In this connection, attention was drawn to the need for establishing basic criteria to make possible satisfactory distribution of the patients at each phase of progressive care.

Hospitals have grown up in accordance with cultural patterns peculiar to each region or country and their development and present features must, therefore, necessarily be different. It was pointed out that the very wide disparities in the quality of the services provided by hospitals constitute an obstacle to their coordination. It would therefore be desirable to try to standardize at least certain areas and procedures in the provision of services, which would help to facilitate coordination. In this connection, it was agreed that the system of evaluation of the quality of hospitals constitutes a valuable tool both for medical care services and for teaching programs. Hospital accreditation should not be limited to a mere system of registration, but should constitute a continuous process of evaluation and of cooperation among hospitals for the progressive improvement of their services. The areas of least efficiency in hospitals should be identified and stimulus given to improve them.

While progressive improvement in hospital techniques in accordance with contemporary knowledge is highly desirable, it must not be made an indispensable prerequisite for coordination. The difficulty in this regard is the large number of hospital institutions with a limited number of beds whose technical and administrative improvement is not easy, since the necessary specialized manpower resources for undertaking it do not exist. Hence it will be necessary to organize and coordinate, with a realistic approach, what already exists at each level, striving toward its harmonious and progressive improvement.

It was also considered that it would be necessary to keep under constant view the training programs for hospital administration personnel, and there was general agreement on the need to set up a directing and administrative team headed by a physician, with assistance from other professional and technical staff, for dealing with the different areas of administration. The type and number of administrators must depend on the medical, legal, and administrative situation of each country.

2. Regionalization of Services

Regionalization is a system for the coordination of health resources, whether manpower or material, of a socioeconomic development area, in order to make them more accessible to, and more widely utilized by, the entire population. It therefore has as its objective a better distribution of the health services.

From the technical point of view, regionalization is the administrative instrument which makes possible, at the intermediate level, the consolidation of national health programs in order to facilitate their implementation at the local level.

The Group recognized that, implicitly, the various levels of the health services

spontaneously coordinate their activities at the regional level, but in order to strengthen coordination this regionalization must become explicit and have legal backing. It was recognized, too, that the establishment of a regionalized system entails great difficulties, inasmuch as each of the participating institutions has to surrender part of its sovereignty in the interest of joint objectives and programs. Despite such difficulties, regionalization must be encouraged, since it constitutes the most effective tool for coordination within a country. In order to facilitate the coordination process, it is desirable that factors of mutual advantage be introduced into its application, so that the institutions concerned, while giving up certain prerogatives, gain an obvious advantage from participating in the coordinating system. Regional health commissions, with interinstitutional membership and powers delegated by the national commission, can greatly facilitate regional and local agreements for this purpose.

The regional services must be organized at their respective levels into a system of health establishments, in such a way as to constitute a mechanism for redistribution of resources while at the same time facilitating their accessibility. The regional hospital will be at the apex of this pyramid of services.

If regionalization is to prove an effective tool for coordination, it is essential that all the health establishments of the region, irrespective of the institution to which they belong, participate in the planning, administration, and implementation of local health programs.

At the regional, as at the central level, it is desirable that the organized medical profession, as well as teaching institutions, participate in the planning of health services. It is of the greatest importance that clinical physicians, each within his own speciality, have a part in the planning and implementation of the respective regional programs.

3. Local Coordination

Integrated health programs offer preventive and curative care to the individual, together with communal services such as drinking water, food inspection, conservation of the environment, drug control, etc.

Not all the services have to be provided by the same establishment. The commonest pattern is for a group of specialized institutions to participate, though in very small localities all the responsibilities fall on a single institution. What matters is that institutions and individuals should coordinate and pool their efforts for the common benefit, avoiding duplications which lead to waste of resources and an increase in the cost of services.

Integrated health programs should enjoy the backing of a system of health administration in which the unified technical supervision comes from the highest levels down to the smallest local units. It must be borne in mind that there are activities which it is a simple matter to integrate at the local level, whereas others cannot be integrated, or only with great difficulty. The integration of preventive and curative medicine at the local level is easier, the smaller the unit of service. When the aim is to serve the rural areas or the less affluent groups of the urban population, medical care will have to be provided mainly by the national health authorities, through local units.

The basic infrastructure of the local health organization (district, area, etc.) is the health center, which constitutes the minimum basic care unit for providing over-all health services to the individual, the family, and the community through a team of health workers consisting of at least one physician assisted by nurses, auxiliaries, and other technical staff.

The work of these health centers is supplemented by subcenters, which are run by a general practitioner and which cover the health protection, promotion, and restoration requirements of the population under their care.

Since in many places private medical practice constitutes an important sector in the field of medical care, it is highly desirable that it be coordinated with the public sector.

4. Participation of Teaching Hospitals in Integrated Health Programs

The community desires more rapid application of new knowledge for the diagnosis and treatment of diseases and is aware of the need to have a large number of physicians and auxiliary personnel.

Nowadays it is accepted that medical care has close links with medical education. There is an increasing number of internships and residencies in public and private hospitals and this has helped to bring medical education programs and scientific progress in medicine into better relationship with the community.

The traditional concept of the university hospital as a center for teaching and high-level scientific research has been rendered obsolete by the demands of an accelerated teaching process and by the need to bring its services to bear on social problems whose manifestations belong to the fields of cultural anthropology, the behavioral sciences, and community organization. Academic medical science, represented by the university, has the additional responsibility of developing optimum systems for the provision of services, including planning, organization, and operation, as well as for the effective implementation of the program as reflected in the prevention of disease and effective diagnosis and treatment.

If the teaching hospital is to be expected to design models for medical care, it must necessarily be given responsibility for the provision of services, since otherwise the theoretical model is liable to prove inapplicable in practice. Hence, the teaching hospital must adapt itself, together with the medical study curricula, to the actual epidemiological, social, economic, and cultural situation of the community.

The teaching hospital should form part of a coordinated system of health services such that the future physician can be given as complete a picture as possible of the realities he will encounter in his professional life. It is important to incorporate into the teaching process other hospitals and health establishments belonging to the ministries and to the social welfare and social security systems, and for this purpose a coordination arrangement must be made linking the establishments among themselves through a regionalization mechanism.

The university medical center, even though it must have and fulfill objectives and responsibilities of its own, would be able to serve the national community more effectively by placing at the disposal of the coordinated system its irreplaceable experience of teaching and research. At the same time, medical education will benefit from using the clinical fields of the hospitals of other institutions and the social fields of the community as practice areas for students.

The Group considered four important areas for research:

(a) Analysis of the causes of the continued rise in the cost of medical care particularly in the case of hospital in-patients, and development of new ideas for controlling this cost rise.

(b) Study of methods whereby the largest possible percentage of patients can be cared for through ambulatory and semi-ambulatory treatment.

(c) Analysis of methods for the widest possible application of modern technology to medical care.

(d) Promotion of the development of plans aimed toward the adoption of physical structures and installations that offer flexibility and permit modernization and expansion in line with changing program requirements.

III. COORDINATION IN MANPOWER DEVELOPMENT

Coordination in manpower development must take into account both the technical and financial aspects and those relating to the formulation of a basic policy in this field for the health sector.

Manpower development cannot and must not be the responsibility of a single organization and in fact constitutes part of the broader process of health planning. The health sector (ministries of health and social security institutions) and the educational sector (ministries of education and universities) must coordinate their efforts for this planning.

Manpower planning must go hand in hand with general health planning, and form and integral part of it. This has been recognized in the various health planning methods developed for this purpose and now in use. This concept, however, which is self-explanatory has been very difficult to put into practice. On the one hand, it has proved very difficult to assess the magnitude of available manpower, since a clear definition of this resource has not yet been formulated. For example, the care furnished by so-called "empirical" personnel seems to constitute a very important part of general health care in some countries. If there are difficulties in assessing quantity, many more arise in measuring quality. Little or nothing is known of the real turnover of many of the activities carried out by health personnel.

Planning must be quantitative, with adequate projection in time, and qualitative, taking into account the types of professional and technical staff required and course content. It must be a continuous process and must be adjusted to the dynamics of social and scientific change. The grades and levels must be defined within each profession and there must also be research on the individual factors which steer persons toward the various professions.

The training process tends to create and change attitudes by imparting knowledge and developing abilities and skills. In this sense, the purposes of education must be divided into formative and informative. The teaching of preventive and social medicine and of the behavioral sciences, throughout the course, is fundamental, since it fulfills both purposes.

The Group recognized that, among the means for coordination, intersectoral committees on professional education constitute a very effective device, as do also national advisory committees for manpower development.

A program of that nature must necessarily be reflected in educational aspects which have as their pupose the training of the necessary professional staff for its operation and, as a result, will produce repercussions on the various elements that constitute the undergraduate and postgraduate curricula of the medical schools.

The content of the study programs, the arrangements of the subjects within a general scheme, their scope and depth, reflected in each case in the corresponding curriculum, are the factors which have to be considered. Nevertheless, the content of an educational plan takes on shape and meaning only in virtue of the objectives to be attained and through a methodology which takes into account both material resources and manpower, the latter comprising both educators and students.

The medical schools should aim at imparting to personnel a clear understanding of

the benefits their own countries stand to gain from the establishment of an integrated program of medical services. This, in turn, presupposes a familiarity with each and every one of the medical services available in the country which have been coordinated to achieve integration.

As has already been stated, the utilization of health establishments for professional training, regardless to whom they belong, is certainly an objective that medical schools must pursue and develop in all its educational and social potentialities. For this, it will be necessary to strengthen the means of communications between health institutions and universities. Joint programs should receive ample stimulus and encouragement. The pooling of effort must extend to operational programs and to joint, multidisciplinary discussion activities. To the extent possible, cooperation between health institutions must be not only technical but also financial.

For coordination to work, there must always be a concrete aim and immediate objectives which can progressively change from year to year and which constitute the vehicle in which coordination continues its progress.

The objectives of medical education are of two kinds: essential and contingent. The former are universal, the latter changeable and subject to constant revision. It is necessary to establish which are its fundamental objectives and clearly determine the importance both of specialization and of general medical practice.

The Group recognized that the main problem in the provision of health services to the population is the growing demand and the inadequacy of resources, to which must be added the lack of coordination between the institutions responsible for providing the services. Taking these factors into account, coordination between different institutions must be aimed toward the fulfillment of certain basic objectives, among which the following may be taken into consideration:

1. To meet the quantitative social demand for medical services, ensuring that they are provided as and when required.
2. To raise qualitative standards of medical care.
3. To balance the budget for the operation of these services.

In order to adjust educational plans to the developing changes and to the objectives of coordination, the following are proposed:

1. Promotion of closer contact between the authorities of medical schools, ministries or departments of health, and social security institutions, probably through the organization of joint commissions whose members include representatives of all these bodies together with student representatives.
2. Development of studies on manpower resources in each country, a particularly objective analysis being made of the qualitative demand with a view to arriving at a precise definition of the functions which the professional will be performing.
3. Adequate definition of the teaching objectives, on the basis of the above-mentioned studies, determining the content of the curricula and the methodology to be followed.
4. Analysis of the systems adopted by governmental and social security institutions and establishment of minimum requirements for their participation in the teaching program.
5. Accreditation of hospital services and health centers for the training of students under teaching supervision.

1. Undergraduate Education

There is unanimous consensus that there is a fundamental need in Latin America to train general practitioners. Such training, therefore, will continue to constitute the main function of the medical schools. The characteristics of this kind of physician must be carefully defined. It is considered that the general practitioner should possess the following essential traits:

(a) A precise knowledge of the country's health problems and of the resources available for solving them.

(b) The orientation and skill necessary to exercise his profession in the field of public health and preventive medicine.

(c) Adequate preparation for tackling the health problems of a developing population.

(d) A willingness to enter the practice of institutionalized medicine and the ability to work as part of a team with other nonmedical professionals.

(e) Qualities of leadership so as to be able to organize the members of the community in the cause of positive health.

To the above should be added the need to encourage the physician to know his local environment and to fit himself into it without detriment to his over-all vision of the trends and development of medicine in the country, in such a way as to allow him sufficient flexibility to select, within his possibilities and vocation, the place of work which is most suitable for him and in which he can be most productive.

For this he must have a sound scientific grounding, a positive attitude toward service, and an ingrained habit of study.

A sound program of medical education presupposes the existence of an integrated program of medical care. It also presupposes that, on the basis of the distribution of functions, students are taught the knowledge, abilities, and skills which constitute the objectives and make evaluation possible. The program content, which is usually known as the curriculum, is the means used to obtain this end.

Physicians practice their profession in different manners as a result of differences in institutional organization. The curriculum should lay emphasis on the profession as a whole and not on each of its individual parts.

It is desirable that all the institutions participating in the process of coordination of medical care should have an opportunity to express their views on the preparation of the curriculum. In so doing, each one must understand the requirements and make concessions in their interests so as to make possible the change in the orientation of the teaching.

The curricula must be integrated, and for this their components have to be elastic.

There exists a need to introduce into the curricula an earlier opportunity for directly treating patients, as also for tackling the social and ecological aspects of the population to which the school is providing care.

The existence of an integrated health program will substantially assist in preparing adequate medical education plans. Simultaneous development in both fields is therefore indispensable. This is perhaps one of the most important areas of coordination at the present time.

The associations of medical schools, integrated with the health institutions, the organized medical profession, and ministries of education, can constitute the securest backing for these coordination objectives.

The raising of the professional standard of the general practitioner can be facilitated through greater recognition of general practice as a speciality with its own

specific features which characterize it, according to the country concerned, as family medicine or community medicine.

The teaching of administration is necessary inasmuch as the physician in the hospital, while exercising his primary clinical function, at the same time performs a subsidiary but permanent function of administrative management by having at his disposal and utilizing the manpower and material resources of the institution in the implementation of his decisions. Moreover, the clinical physician in the rural areas has to tackle not only the medical problems of the populations concerned, but also the problems of organization and administrative management of rural hospitals and health institutions.

Administration, epidemiology, ecology, and preventive and social medicine must be major components of the medical curriculum. The teaching of administration comprises the procedure, behavioral factors, and quantitative aspects which characterize the various components of the national health system.

2. Continued Education

Continued education activities provide an opportunity for reinforcing the knowledge acquired at the undergraduate stage. For many physicians, these are perhaps the only or simplest opportunities for professional betterment within their reach. With few exceptions, however, in most of the countries no organized plans have been established for their development and utilization.

3. Joint In-service Personnel Training

Joint in-service personnel training to accomplish the foregoing objectives may be summarized under two headings: standards and procedures applicable to any country or region, and characteristics peculiar to a given country.

The responsibility of schools of health sciences extends not only to the training of physicians, but also to that of other members of the health team, health being conceived as a unified whole and man as an integral biopsychosocial entity.

The cooperation of the health institutions will be particularly necessary here, since hitherto the training of this latter type of personnel has been largely the responsibility of such institutions.

The training of health personnel must include profound motivation toward teamwork. Each individual must be aware of the common objectives and the characteristics of the other members of the team. This creates the feeling of respect, appreciation, and tolerance which facilitates the consolidation of the group and the coordination of the work.

Joint programs between health care institutions and teaching institutions, of which there are excellent examples in several countries, should be evaluated through the application of scientific methods to operational problems. It is desirable that this be promoted and sponsored by the international agencies.

Joint in-service training of personnel offers excellent practical opportunities for coordination. Ministries of health, social security institutions, and schools of medicine must develop educational programs for the staff of health services, to whatever authority they are attached.

Positive experience such as that of the Permanent Inter-American Social Security Committee should be put to use on a large scale by ministries of health and social security institutions in order to train their executive staff at various administrative levels.

The Group recommended the organization and strengthening of joint training of medical staff members of the different health institutions, and pointed out that frequently such joint training can be the responsibility of the schools of public health.

IV. COORDINATION OF FINANCING

1. Field of Operations

The Group recognized that there exists an inevitable trend toward a rise in the costs of medical care as a result of the advances in the medical sciences and of a demand that becomes evermore exacting in terms of quantity and quality. The fundamental problem in this regard is the fact that high quality services also have a high price and are very difficult to place at the disposal of an entire community inasmuch as the lack of any coordinated system makes it impossible, with present sources of financing, to expand those services to what would be the necessary extent.

It was recognized, nevertheless, that levelling of standards is an indispensable factor for coordination of services. This has been seen very clearly in the case of those participants in social security schemes who do not accept the services in hospitals belonging to ministries or to social welfare institutions when the quality of those services leaves much to be desired. On the other hand, in those countries where, prior to the creation of the social security system, there existed hospital networks of some degree of efficiency, the social security system has not needed to establish its own services and has found it more advantageous to provide its medical benefits indirectly through contractual services.

Despite the practical difficulties entailed in the joint use of hospital establishments, it is recognized that this is the field where, for the time being, the most immediate opportunities for coordination exist. Mention was made of three different mechanisms whereby the joint use of services is possible: (a) the utilization of beds, paying the required patient-day cost; (b) leasing of a floor or complete sector of a hospital; and (c) contractual service arrangements.

The Group decided in favor of contractual services, since this is the mechanism which comes nearest to fulfilling the conditions of close technical and administrative coordination. The least desirable is renting of a complete sector, which often results in that sector becoming physically isolated and being managed in complete independence of the general administration of the hospital.

There was general agreement that the first step toward coordination is to establish sound administrative practices by means of standard rules and administrative methods which allow the best use to be made of the available resources. The provision of services of the highest quality, and of uniform quality in all areas of the hospital establishment, facilitates their joint utilization. There was also agreement on the need to ensure that priority is given to the organization of ambulatory medical care services, since they are less costly in terms of capital outlay as well as of operational expenditure.

It was noted that the installed hospital capacity must be considered as common property which belongs to the country and which must benefit all its inhabitants without discrimination, irrespective of the institution that owns the establishment. The various public services are under an obligation to coordinate and mutually complement their efforts in order to achieve the supreme objectives of the State, which are nothing else than the development of the nation and the welfare of all its population.

The activities of central interinstitutional committees in ensuring uniformity in basic tables, in provision of drugs, and in acquisition of equipment will be extremely useful for promoting the sharing of services and their most effective utilization at lower cost.

A full discussion was held on the problem of production of pharmaceutical chemicals, which is often costly and does not meet the minimum requirements of pharmaceutical technology and professional ethics. In this connection, consideration was given to the advantages and disadvantages of certain procedures which contribute to lowering costs and to making available to doctors and patients pharmaceutical products that carry full scientific guarantees and are distributed in the light of social considerations.

Discussion also centered around the impact produced on the cost of medical care by staff remuneration and particularly by medical salaries and fees. Note was taken of the various systems for remuneration of physicians and it was recognized that the manner in which payment is made for the work of doctors and other professional health workers is generally dependent on the system under which medical care is provided. Mention was made of the fee-for-service, capitation, and fixed salary payment systems and some members of the Group expressed a preference for the latter. If was unanimously agreed that the combined systems are the least desirable, since they do not encourage identification of the physician with the institution that employs him and result in waste of resources.

The joint use of facilities implies the existence of common standards of operation. Such standards must be worked out by bilateral or multilateral procedures. The specific administrative requirements of the medical benefits provided by the social security system must be taken into account so that they can be fulfilled in the integrated services.

Class consciousness in the insured population, and its absence among the group benefiting from the social welfare services, constitutes a serious obstacle to ensuring joint use of the services. This situation is contrary to the spirit of solidarity which inspired the establishment of the social security system. For coordination to exist, there must be equality in the standard of benefits provided, and this can be achieved only by creating the necessary machinery for bringing the organization of services up to standards of excellence. It was also observed that interest could be aroused among persons who are not yet participating in a social security scheme by offering them as an incentive the high quality of the services provided by the scheme.

Since various methods are already being applied for the joint utilization of services, it would be desirable to carry out evaluation studies of those mechanisms in order to perfect those which are capable of improvement and trying out other new ones.

It was emphasized that coordination should be the result of a process of maturation in which the various institutions, despite their individual differences, agree on certain objectives, sacrifices, and obligations for the sake of a common goal whose attainment would not be possible to each one of them separately.

The Group noted the existence of the following sources of financing for health services:

(a) Government, which may be national or local, federal, or state.

(b) Social security institutions, which can generate sufficient financial resources and, in addition, accumulate reserves of money which can be invested in hospitals.

(c) Private firms—industrial, mining, agricultural, etc.

(d) Charitable and philanthropic bodies.
(e) Fees charged to patients.

2. Investment Area

Plans for the construction, expansion, remodelling, and maintenance of health establishments must be the result of coordinated joint work by the institutions providing health services. Any excess must be avoided in the acquisition of costly equipment, and there must be an efficient maintenance service to ensure long life for equipment and installations. When a hospital possesses certain expensive appliances or instruments, arrangements should be made for their use to be shared with other nearby establishments so as to prevent duplication and promote coordination among them.

Coordination in the financing of a program for construction of hospitals and other health establishments must be exercised at the highest possible administrative and political level and must contribute to justifying various areas of coordination in financing. The institutions which can most often coordinate their activities are the central government and the social security institutions, but in other cases it is possible, through local agreements with universities or with social welfare or other institutions, for social security to make an effective contribution to channelling its resources toward the implementation of a hospital construction program that will benefit the entire community.

During the meeting information was furnished on a number of national experiments aimed at channelling internal financial resources toward a program for the construction of hospitals and other health services.

The Group agreed to recommend the establishment at the national level of a joint fund toward which would be channelled the resources of all national institutions interested in the medical care programs existing in the country. The fullest possible legal backing must be obtained for this type of mechanism and efforts made to obtain the participation in it not only of public and social security institutions, but also of private firms whose interest it is to protect the health of their workers. The fund thus constituted should be managed by a technical commission closely linked with the health policy of the government and possessing legal authority to implement the plan, establish priorities, and exercise financial responsibility with a view to putting into effect the hospital construction program.

The Group took note of the existence of international sources of credit, public and private, which could be mobilized on behalf of the construction of health institutions. It is clear, however, that in allotting these funds priority is given to economic projects of an industrial or agricultural nature and that they are only exceptionally earmarked for programs in the social sector.

The Group took note of the Special Resolution of the Special Meeting of Ministers of Health (Buenos Aires, Argentina, 1968) on the establishment of a fund for health programs, administered by PAHO, which would grant loans for construction of hospitals and other health centers.

The Group was informed that the Technical Discussions during the XIX Meeting of the Directing Council would be on the subject of "Financing the Health Sector" and that the basic document which would serve as an outline for the discussions was being prepared by an economist from the Permanent Inter-American Social Security Committee, who had been placed at the disposal of PAHO for several weeks for that purpose. A general indication was given of what would be the tenor and content of this document.

RECOMMENDATIONS

The Study Group approved the following recommendations:

1. That institutional coordination should begin at the stage of formulation of the health policy, so that social security institutions, medical schools, professional associations, and other bodies associated with health care should feel from the start committed to the implementation of the approved policy to the same degree as the ministries of health.

2. That health councils or commissions be established at the highest administrative and political level and with sufficient legal authority to advise the ministry of health on the framing of a health policy and on administrative coordination at the operational level.

3. That interinstitutional committees for the study of specific health problems and, more particularly, a professional training committee, with the participation of the medical schools, be established.

4. That if the whole range of preventive, curative, and social services necessary for maintaining health is to be made available, and considering the high level attained by the cost of health care, it cannot be expected for the time being that any single institution or body will be in a position to finance them in their entirety, and it will, therefore, be necessary in the meantime to have recourse to multilateral financing and to coordinated administration under a national health system.

5. That an effort be made to raise the quality of care and achieve uniformity in certain service areas, since extreme disparities constitute an obstacle to coordination. For that purpose, a hospital accreditation scheme covering both care and teaching activities might be useful.

6. That the teaching hospitals should form part of a coordinated system of health services and actively participate in the provision of care to the community, while at the same time their specialized services should be made available for conducting operational and community research.

7. That it is important to bring into the teaching process hospitals and other health establishments belonging to the ministries, to social security institutions, and to public and private social welfare agencies, since this would have the advantage of enabling students to make contact, at an early stage, with the medico-social and epidemiological problems of the home and the community.

8. That the primary function of schools of medicine should be to train a general practitioner whose personal traits should be the following:

(a) A precise knowledge of the country's health problems and of the resources available for solving them.

(b) The orientation and skill necessary to exercise his profession in the field of public health and preventive medicine.

(c) Adequate preparation for tackling the health problems of a developing population.

(d) A willingness to enter the practice of institutionalized medicine and the ability to work as part of a team with other non-medical professionals.

(e) Ability to lead the members of the health team so as to be able to organize the members of the community in the cause of positive health.

9. That undergraduate training should include basic notions of health administration and social security and be supplemented by continued education of graduates.

10. That joint in-service training of personnel with a strong comprehensive health care component should be organized and strengthened, as far as possible under the responsibility of the schools of public health and of the teaching departments of health services and social security institutions.

11. That performance of hospital services under contract between institutions should be encouraged, since this is the mechanism which comes nearest to fulfilling the conditions of close coordination, provided that the technical and administrative unity of the establishment is maintained.

12. That sound administrative practices be established by means of standard rules and administrative methods which allow the best use to be made of the available resources as a first step toward coordination and as a means to achieving higher productivity of services.

13. That encouragement should be given to the development of ambulatory and domiciliary services, which entail smaller capital outlay and whose operation is less costly.

14. That the financing of the operational costs of health services should be multilateral and that the participating institutions, despite their differences, must agree on certain objectives, sacrifices, and obligations for the sake of a common goal, which is to provide total health care, of adequate quality, to as broad a sector of the population as possible, and in such a way that its financing is compatible with the available resources.

15. That there be established, at the national level, a joint investment fund toward which should be channelled the available resources of all the institutions interested in medical care programs. The fund thus constituted should be managed by a technical commission closely linked with the health policy of the government and possessing authority to put into operation the program of hospital construction, within the framework of the national health plan where such a plan exists.

CLOSING SESSION

At the closing session Dr. Alfredo Leonardo Bravo, on behalf of the Director of PASB, thanked the OAS for the assistance provided in the organization of the meeting. He also thanked all the members of the Study Group for the consistently high and distinguished level of their contributions, which had made it possible to reach conclusions that would certainly be extremely useful for those countries of the Continent which desired to establish a system for the coordination of health services.

Mr. Beryl Frank then expressed appreciation for the hospitality provided by PAHO to the Group, and stressed the already long history of cooperation between the OAS and PAHO in the field of medical care.

On behalf of the members of the Group, the Chairman, Dr. Guillermo Arbona, thanked the sponsoring organizations for the opportunity given to the Group to meet and discuss problems which were at present particularly acute in national health administrations.

Dr. Camilo Cuccodoro said that ILO was very gratified at the results of the meeting, since its conclusions amply endorsed the new policy adopted by that Organization in the field of medical care.

Dr. César Lechuga, speaking on behalf of the ISSA and ICSS, wished to be associated with the unanimous congratulations offered to the institutions that had organized the meeting. He stressed that the mere presence of observers from several nongovernmental organizations interested in the subject was proof of a new attitude of interinstitutional cooperation which portended a more promising era in the provision of health services.

ADDRESS BY DR. ABRAHAM HORWITZ, DIRECTOR OF THE PAN AMERICAN SANITARY BUREAU

At their Special Meeting, held last October in Buenos Aires, Argentina, the Ministers of Health of the Americas declared: "There was general agreement that the coordination of health resources is essential and that it would be pointless to continue to talk about health planning unless there is a mutual understanding among institutions in the health sector to coordinate their resources. It was noted that several countries have taken a decisive step toward coordination, but it was also recognized that these efforts are still insufficient to ensure the fulfillment of the goals of an integrated health plan. The diverse nature of health activities, and the part played in them by private and semi-independent agencies, the high cost of medical care, the shortage of available resources, and the pressure of the increasing demand make it both urgent and essential to set up national systems for the effective coordination of the preventive and curative services of the health ministries and of these, as a whole, with those of social security institutes, universities, and other public and private agencies.

Coordination will make it possible to raise the level of medical care, expand coverage as much as possible, and promote the active participation of the local community in the planning and administration of services."[1]

We believe that this series of concepts and affirmations, which come from those who have the heaviest responsibility in the Continent for preventing and curing diseases and contributing to development, contains the objectives that have led us to ask you for standards and methods enabling us to provide better services to the largest possible number of inhabitants of the Americas.

We were pleased to invite you because we are aware of the knowledge and experience you possess, and of the importance that your opinions will have for the Governments of our Region. This condition of experts, who do not represent states or institutions, allows you to distill value judgments, analyze each question unrestrictedly, and express what you really think in terms of the common good whose framework goes far beyond even the Americas. Because what is being discussed is to continue the dialogue about a problem with obvious political and social profiles, begun four years ago in a similar Study Group and subsequently stimulated in the countries. As on that occasion we have the honor to sponsor it with the Organization of American States, thus symbolizing the importance that the Governments attach to medical care within the process of promoting health and welfare.

The questions we raised when inaugurating the 1965 meeting persist: "One wonders whether the present lack of coordination between the medical care services of social security agencies and those of health ministries is due solely to conventional causes arising out of the fact that the two spheres of action are not clearly defined in juridical terms. Or does it have deeper roots in an economic and social process characteristic of developing countries? How can the State be helped in fulfilling its obligations of providing health care, if possible to the entire community, and in fully coordinating resources at its disposal?"[2]

Important progress has been made. Perhaps the major advance, because it is an inescapable prelude, is the fact that there has come into being an awareness concerning the over-all utilization of installed capacity, the exercise of an efficient administration and rationalization of human and material resources, to fulfill the objectives of each program. Also to be noted, as the Ministers pointed out, is the adoption of standards aimed at coordinating—and in certain cases in integrating in a national health system—the various agencies of the public sector, and on occasion some of the private sector, which provide communities with medical services.

Another sign of progress—a new awareness—is the movement for university reform aimed in the sciences and arts of health at adapting the teaching process to the real needs of society. What is desired is not a less scientific medicine, on the contrary; but what is desired is a medicine oriented to the goals of the country, of its institutions and undertakings and, in the last analysis, to individual and collective well-being. The

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[1] *Official Document PAHO* 89, 41.

[2] *Administration of Medical Care Services.* Scientific Publication PAHO 129, 4, 1966.

transfer of modern technology, an imperative need of recent years, is a task for the universities in their fundamental responsibility of training the professional personnel that are essential for development. And that involves a harmony between the lifestyle and scientific progress, between the major characteristics of culture and the most recent techniques. Man is what he makes, it has been said, in order to mean that his work should be in line with his being and with reality. This proposition has been expressed with great clarity by a poet:

"There is no other wisdom
Than your impulse
Toward the light
And no other fountain
Than that which spurts
From your heart"[3]

Thus inspired we would like university men for the problems of our time, and universities so motivated to train them. It has become inescapable to incorporate the faculties of health sciences and arts into the coordination for better medical care. Hence the presence among you of distinguished educationalists. It has become evident that as the population and its aspirations have grown and the demand for services, none of the participating institutions has shown itself capable of absorbing alone the responsibilities of providing all the inhabitants with integrated services. The association of them with definite objectives, common procedures, rational use of equipment and elements, well-trained professional personnel aware of the essential purpose they are pursuing, may give the available resources an output that will always be greater than the present output of entities operating in isolation.

To carry out this decision of the Governments, both those which have already initiated it and those willing to do so, it is indispensable to have a definition of principles and of standards that can be adapted to the situation of each country, and more especially to current legislation and the administrative structure. This is what we expect from you and I therefore express to you the thanks of the Pan American Health Organization. We shall transmit the valuable opinions which you would be good enough to give us, to the Governing Bodies and the national authorities.

Our thanks also go to the Secretary General of the Organization of American States, Mr. Galo Plaza, for the repeated understanding of our task, and to his assistants for the opportunity for joint action in functions that are so close to the destiny of the Americas.

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[3] *Pampa Roja*, poems by Fernando Demaría, woodcuts by Pérez Celis, quoted by C. A. Salatino in *Américas*, monthly publication of the Pan American Union, OAS, Volume 21, No. 5, May 1969, pp. 40-42.

WORKING DOCUMENTS

I. COORDINATION IN THE EXECUTION OF A HEALTH POLICY [1]

There unquestionably exists in all countries of the Americas a combination of medical services offered by different institutions, with different administrative systems and sources of financing. The need to coordinate the planning of their activities and obtain a better utilization of their resources, as well as to establish a single administrative system with decentralized regional and local bodies is an essential requirement for the proper functioning of a national health system.

Much discussion and experimentation has been devoted to the problem of how best to achieve a harmonious and progressive procedure for complete coordination of a health system. In some trials at the national level an attempt has been made to create a strong central executive authority with wide powers to direct coordination. Most countries, however, have preferred to promote coordination at the local level, in the smallest units which provide community health services, using this coordinated infrastructure as a base upon which to build the national health system pyramid, leading naturally and spontaneously to the creation of the highest authority at the ministerial level. In reality, however, neither procedure has proved very effective. The central executive authority cannot improve coordination unless there exists a willingness to practice it on the part of all health workers at the intermediate and local levels. On the other hand, nothing is achieved from coordinating small groups of health workers in local programs, as long as the higher authorities of the various participating institutions act independently, and sometimes even in opposition to each other, at the national level.

The answer to the above difficulties seems to be an awareness that coordination can only be successful when it responds to a definite need of the community and is in the hands of health authorities and workers at all levels who share a favorable mental attitude toward it and a firm and sincere will to promote it.

In order to provide health services of a high technical quality to as large a sector of the community as possible, in accordance with the right to health recognized by the national laws, the coordination process also requires an installed capacity, manpower, and financial resources.

In order to attain this degree of coordination, it is essential that each interested institution link its activities at the central level with those of the other public and private institutions concerned with health so as to plan services jointly, administer services uniformly, undertake studies of demand for and utilization of services and, above all, program in common agreement the extent and expansion of health services in an orderly manner and in accordance with the development of human and material health resources.

The various institutions which provide health services exhibit an almost uncontainable tendency to act with a certain degree of independence and autonomy. This tendency is in part justified by their obligation to comply with their legal mandate and to administer their property and finances in such a way as to offer the greatest possible benefits to their affiliates (this is particularly true in the case of social security institutes). To overcome this tendency toward autonomy is a very difficult task but constitutes an un-

[1] Document prepared by the Secretariat.

avoidable obligation for Governments, which must obtain a higher productivity from the capital invested in health and at the same time meet the growing demand for services, which, if not satisfied, becomes a source of social discontent and is at times a contributing factor to political rebellion and violence.

Institutional Coordination at the National Level

The coordination of participating institutions at the national level is a measure that not only benefits the coordination of services but is also an essential element in the national health planning process.

Recognizing that the determination of a national health policy is the exclusive function of the appropriate Government ministry, it is no less true that that policy must be based on an authentic, objective appraisal of the national health problems and their priorities and of the demand and utilization of services. To achieve such an appraisal, it is essential that all participating institutions furnish the required information to a joint coordinating body.

To attain this objective, the Governments have had recourse to various methods directed toward the establishment of a central normative and coordinating authority in which the various institutions and organizations concerned with health in the national territory fully participate. This authority must in turn be closely linked at the ministerial level with the national health planning commissions and, at the presidential level, with the offices of planning for social and economic development.

Participation of the Health Ministries, Social Security Institutes, Social Services, and Medical Schools

The concept of "participation" should have a two-fold meaning for these organizations, implying for them both acceptance of duties and exercise of rights. In effect, when they join the coordination process, the participating institutions must be aware that, in order to achieve coordination, they must surrender a portion of their sovereignty to the collective interest and must make their total range of resources and information available to the coordinating body for use in the implementation of coordinated activities. On the other hand, participation entitles institutions to join in the planning process and to use the installed capacity of other institutions in order to provide services to given sectors of the community. It will clearly be necessary to set up a compensatory mechanism so that the institutions' economic interests are not impaired by the coordinating process.

A prerequisite for success is that coordination must respect the legal authority and legal rights of the participating institutions, so that they may continue to perform the functions assigned to them by the law and their own statutes.

Administratively, however, it is also an essential requirement that the participating institutions agree to use a similar methodology, particularly with regard to the classification and reporting of statistical data, which must be handled according to standardized criteria, and to the regulations governing wages and salaries of their institutional personnel, so that employees will receive equal remuneration for equal duties and responsibilities.

The ministries or secretariats of health have the constitutional responsibility of dictating the Government's health policy, which normally cannot be delegated. They are also responsible for the environmental sanitation and epidemiological aspects of public health.

The social security institutes have legal responsibility for providing health services to persons who subscribe to their insurance systems. Traditionally these services have been confined to the strictly curative aspects of diagnosis and treatment of diseases, but in recent years these institutions have become increasingly aware of the need to extend their activities to the field of personal preventive medicine. Some social security institutes have the additional function of pro-

tecting individuals against professional accidents and diseases through compensation funds and direct medical services.

The universities, and particularly the medical schools, have the essential responsibility for training professional and technical health personnel, who have lately been referred to as health manpower. Education must be sufficiently autonomous to maintain a high cultural level in instruction, and complete freedom in expression and research. The universities are increasingly aware of the fact that these scientific and cultural characteristics of teaching do not relieve them of the social responsibility of adapting the content of courses and the number of graduates to the needs of a total development plan for the health services of the country.

The public and private social welfare organizations are a manifestation of society's need to protect its more vulnerable elements as a means of collective self-defense. Their essentially humanitarian and philanthropic medical services will be reinforced both in content and effectiveness, if they participate in an extensive system. They will thus obtain access to many services they could not themselves provide. However, it will be necessary for these institutions to raise the quality of their services to a minimum acceptable level comparable with that of the services rendered by better-financed establishments such as those of the social security institutes.

The medical services of the armed forces, the police, industrial and mining firms, and various other public and private organizations usually have well-defined, limited functions which are difficult for them to fulfill completely, since their beneficiaries are so widely scattered, but their effectiveness may be greatly increased upon their joining a national health system.

Hospitals and other strictly private health services have an undeniable social responsibility, since they contribute to maintaining and restoring the health of specific community groups. It is in the Government's interests, therefore, as the representative of the hopes and needs of the community, that these private health services be of the highest possible quality and participate to their utmost ability in the collective effort. It must be recognized, however, that the private sector is the hardest to incorporate into a national health system.

A brief description has been made of the field of activity and the responsibilities of the institutions that generally take part in the provision of health services to the community. Each has an important role to play in the planning, administration, and implementation of local health programs. Their sincere and disinterested cooperation will be obtained by a national health system that respects their field of activity and responsibilities while promoting their participation in a system that enables them to better utilize their resources and to satisfy community aspirations to the greatest extent possible, within the limitations imposed by the availability of resources and subject to the norms established by the ministry of public health acting as representative of a Government that hopes to implement a health policy consistent with the country's needs and possibilities.

Coordinating Commissions and Study Committees for Specific Problems

National-level coordinating commissions are usually composed of the authorized representatives of senior executives from all the participating institutions. To succeed, they must have the support of the highest political and executive authorities of the Government and they must be composed of persons wielding sufficient resolutory and administrative authority to ensure that the agreements and regulations approved by the commission are put into practice by the institutions they represent.

Although it is encouraging to note that many countries have established coordinating commissions, it cannot be denied that some suffer from innate weaknesses and function only sporadically, without continuity of action or possibilities for implementing effective

coordination. In the light of the available information, it would be interesting to analyze the reasons that prevent the effective operation of some of these commissions.

Study committees for the analysis of specific problems are an improvement that undoubtedly increases the effectiveness of the commissions. A particularly noteworthy example in this respect is Mexico, which has been progressively establishing working committees in various fields of health administration and presently has 10 in operation. (For greater details, see pp. 63-67.)

The Committee on Professional Education is of special importance; in addition to experts in the administration of health services, it includes representatives of the National Autonomous University of Mexico, the Federal District Department, and the Mexican Association of Medical Schools and Faculties.

These commissions and committees, operating with full legal protection and the technical authority to make recommendations to the executive authorities, who must be able to guarantee their implementation, are the mechanism which ensures coordination at the national institutional level. Their work must be complemented by regional and local mechanisms.

II. ORGANIZATIONAL SYSTEMS FOR MEDICAL SERVICES [1]

In the countries of the Americas, there is a wide variety of systems for the delivery of medical care services and for doctor/patient relationship. These systems range from the traditional private medical practice in which the patient or his family is responsible for payment for services rendered, to medical services organized by the Government and furnished free of charge through public institutions. Between these two extremes, there is a whole gamut of medical services organized by the social security institutions, by mutual organizations, and by public and private social welfare institutions that offer services to various selected groups of the population.

Although it is true that in each country one of these systems predominates, it is also true that in practically all of the countries it is possible to identify an arbitrary combination of the various systems in which frequently there is a duplication of services and competition among institutions for the use of the scant resources available.

The problem can be analyzed from two different angles: administration and financing of medical services, and remuneration for medical work. The relationship between both aspects is close, and normally the various institutions providing medical services show a certain preference for a particular system for remunerating physicians. This preference is not always exclusive, and within the same institution, different systems of compensation for medical work may be found in use. Both aspects of the problem will be analyzed briefly in the paragraphs that follow.

1. SYSTEMS FOR THE PROVISION OF MEDICAL SERVICES

Although they cannot be considered as constituting a basic element of the medical organization, there are certain traditional practices which cannot be ignored when dealing with medical services in the Latin American countries and which are mentioned only by way of reference.

On the one hand, in certain sections of some Latin American countries there still exists a kind of *indigenous medicine*, a left-over from the primitive ministrations of priests, witch doctors, and fortunetellers to the aboriginal tribes in the days prior to colonization. Today, this does not represent an important element and is limited to small ethnic groups living in remote mountainous or jungle regions which do not yet enjoy the benefits of civilization.

Another factor to consider in the analysis of the provision of medical services in Latin America is the *participation of pharmacists and pharmacy owners* who make diagnoses and fill out prescriptions "across the counter," guiding themselves exclusively by symptoms explained orally by the patient or members of his family. This practice occurs in the rural areas of Latin America and in certain suburban areas of the major cities. It stems from the lack of accessibility of certain groups to medical services because of their geographic isolation or, in the case of those living in urban areas, of their legal or financial status.

[1] Document prepared by the Secretariat.

(a) *Private medical services.* The traditional private practice of the medical profession continues to exist, to a greater or lesser degree, in practically all the countries, even in those claiming to have a national health service with comprehensive coverage for the entire population. These private medical services are exclusively governed by the law of supply and demand and by those deeply-rooted human sentiments which lead a man to place his faith or confidence in a particular doctor. At most, they must comply with certain minimum requirements of the Health Code.

From the standpoint of economic planning, these services represent the private sector. This sector varies greatly in size in each country, according to the ability of the national or regional population to purchase these services. This sector should not be given much importance since it is believed that it will gradually disappear as the Government and the social security institutions organize institutionalized medical care systems; however, it is of considerable importance in the majority of the countries and, with a few exceptions, it accounts for more than 50 per cent of medical expenditures in most of the Latin American nations.

In addition to the private, individual practices of physicians, there are also private hospitals and clinics where the doctors form part of a team of specialists and thus constitute a kind of group professional practice. Undoubtedly, this represents a step forward in the organization of medical services and is an improvement over the individual professional practice referred to above.

(b) *Public medical services.* The ministries of health, originally concerned exclusively with the traditional concept of public health—which included hygiene, epidemiology, and personal preventive services, later called health promotion services—have extended their field of activity during the past few years to the diagnosis and treatment of disease, i.e., to medical care or, as it has been more recently called, health restoration. This extension of the ministries' activities is based, first, on the recognition of the technical need to integrate the activities of preventive and curative medicine and, secondly, on the need of Governments to organize medical services for certain groups, especially in rural areas which were excluded from the benefits offered by other organizations and institutions providing such services.

With this background, it is understandable that the ministries have organized integrated medical services, that is, services that cover environmental and community health at the same time that they provide for the preventive and curative aspects of individual medicine. Moreover, the coverage offered by the public services of the ministries of health is of a universal character, since it does not discriminate as to the socioeconomic conditions of its clientele. This universality, however, is limited by the capacity of the services to provide care and in certain places, by their complete nonexistence.

In some countries, the ministries of health have taken over the old public and social welfare services and have transformed them into free public services for low-income groups. Although this absorptive process has permitted the ministries to immediately assume responsibilities in the medical care of certain social groups, it has at the same time imposed certain limitations upon the quality of their services due to the fact that the establishments had very limited resources, as was the case, for example, of the old charity hospitals. It has been a hard task to remedy these defects and limitations and raise the prestige of these services vis-à-vis the community. These public services, limited to certain segments of the population, exist in all countries.

In all of Latin America, only Cuba has adopted a system of integrated health services for the entire population under the jurisdiction of the Ministry of Health. The hospitals were taken from the old mutual organizations.

(c) *Social welfare medical services.* This

general heading included free public or private services offered to the needy.

Public social welfare exists in almost all the countries and in some of them, tends to be confused with the public services under the jurisdiction of the ministry of health.

These services are difficult to finance and generally suffer from serious technical and administrative deficiencies. They are not always under the jurisdiction of the ministries of health and very frequently have a semi-autonomous administration financed with heavy subsidies from the Government and other public and private organizations. Examples of these systems are to be found in Medicaid, the social welfare boards of Nicaragua and other Central American countries, the foundations administering children's hospitals in Costa Rica and Panama, the Vargas Hospital in Caracas, Venezuela, and others.

Private social welfare has very similar characteristics and only differs from its public counterpart in that it has a completely autonomous, private administration, though it frequently receives Government subsidies. Typical examples are the "Beneficencias" in Colombia and the "Santas Casas de Misericordia" in Brazil. Worth mentioning is the fact that in these two countries, between 60 and 80 per cent of the hospitals belong to these organizations, which are considered an integral part of the private sector. Consequently, they play an important part in the delivery of community medical services.

(d) *Sickness insurance.* The *social security* system is an important element in the provision of medical services in almost all the countries of the Americas. Although it does not yet cover a significant proportion of the population, its services are generally the most complete, best organized, and most adequately financed. Some of the hospitals constructed and maintained by social security institutions in Brazil, Costa Rica, Mexico, Panama, Peru, and other countries rank among the best hospitals in their respective countries and a few are among the best in the entire Hemisphere.

With the exception of Argentina, where social security does not provide medical services, and Uruguay, where medical services are limited to the maternal and child health protection offered by the Family Allowances Fund, all the countries in the Americas have more or less widespread social security programs which provide medical services for a wide range of population groups, as can be seen in Table 1. Omitted from the table is Chile, which has recently extended the benefits of medical care to employees and their families, thus bringing this country's probable medical service coverage under social security to over 80 per cent.

The problem of insufficient coverage by the social security medical services is one of the greatest shortcomings preventing these services from becoming a decisive element with an important impact on the status of community health. Unfortunately, their extension to certain economic sectors, and in particular to the agricultural sector, seems to be blocked by serious financial obstacles. Up to the present the insurance is confined, for all practical purposes, to the protection of industrial worker groups in a Continent where 47 per cent of the economically active population lives in rural areas and is employed in agriculture. It is therefore urgent that another system for financing the rural population be sought.

In the United States of America Medicare covers only elderly persons over 65 years of age and is limited to 9.5 per cent of the country's population. Here, no comparison with the economically active population is possible since the protected group is composed largely of retired persons.

Social security medical services are furnished directly in facilities belonging to the social security institutions in those countries where there is no other hospital system capable of assuming responsibility for the medical care of the insured population. In cases such as those of Chile and Colombia, where there is a more or less adequate network of hospitals, social security has refrained from

Table 1. Number of Persons Entitled to Social Security Medical Services in Certain Latin American Countries

Country	Estimated population as of July 1 [b]	Insured persons entitled to medical care [a]				Population coverage (%)
		Year	Premium payers	Family dependents [c]	Total	
Bolivia	3,748,000	1966	189,511	238,630	428,141	11.42
Colombia	17,462,000	1964	473,467	180,303	653,770	3.74
Costa Rica	1,486,000	1966	133,885	370,888	504,773	33.97
El Salvador	3,037,000	1966	68,506	22,607	91,113	3.00
Honduras	2,363,000	1966	27,612	17,552	45,164	1.91
Mexico	42,689,000	1965	2,477,363	5,287,672	7,765,035	18.19
Nicaragua	1,715,000	1966	65,648	37,285	102,933	6.00
Panama	1,287,000	1966	109,676	58,639	168,315	13.08
Paraguay	2,094,000	1966	56,612	66,508	123,120	5.88
Venezuela	8,921,000	1966	439,335	933,957	1,373,292	15.39

[a] Prepared by the Social Security Program, Department of Social Affairs, Pan American Union, Washington, D. C., May 1968. *Sources:* Statistical and Annual Reports of the Social Security Institutes.

[b] *Sources:* United Nations, *Demographic Yearbook, 1966;* United Nations, *Population and Vital Statistics Reports, Statistical Papers,* Series A, Vol. XIX (4), October 1967.

[c] In the provision of medical services, the concept of "family dependent" varies according to the country. It may or may not cover the wife or companion of the insured for sickness or maternity, or maternity only. As for children, when they are covered the age limits during which they are eligible also vary. Moreover, in some countries, medical services are provided only in certain areas.

building hospitals, preferring to furnish indirect services through contractual arrangements in public or social welfare hospitals.

In general, the social security institutions divide their services into three major groups: health insurance against common diseases, insurance against professional illnesses and work accidents, and maternity insurance. All of these provide benefits in the form of services (medical, hospital, pharmaceutical, and dental care) as well as cash (sick or disability pay).

The private or voluntary health insurance systems have not flourished to any significant degree. With the exception of Puerto Rico, where voluntary health insurance systems have been imported from the United States of America, private insurance is nonexistent in the rest of Latin America.

Mutualism flourished at the beginning of the century; today it continues to exist only in Uruguay, where it accounts for approximately 70 per cent of the medical care resources, and in Argentina. The services it provides are strictly curative and individual in character, since the person is insured independently of the family group. Even though the quality of these services is quite good, their costs are generally so high that they make the system impracticable for most low-income populations.

(e) *Health insurance.* Comprehensive health insurance providing preventive and curative services to the entire population of a country is certainly the ideal system, but, unfortunately, it seems to be a goal very difficult to attain at the present time. The economic inability of the rural population and especially of the indigenous groups to pay the premiums, the geographic distribution of the population in small groups scattered over large tracts of land, the scarcity of doctors and other health technicians, are the factors that make the idea of comprehensive national health insurance implausible at the present time.

The Study Group on the Coordination of Medical Care, at its July 1965 meeting, agreed that "the Latin American countries are not at present, and probably will not be in the near future, ready for national health

insurance along the lines of Great Britain or other highly developed countries."

Although the possibility of establishing comprehensive health insurance is remote, it continues to be an idealistic aspiration which would make it possible to provide all, or almost all, of the population with comprehensive health services of a high scientific quality and free of financial obstacles.

The hospitalization insurance adopted by Canada might possibly be a more economic solution to the problem of medical care. In Canada, the environmental and preventive health services remain under the responsibility of the Government.

(f) *National health services.* Chile is the only country in the Hemisphere which has chosen to create a decentralized National Health Service with a semiautonomous administration. Under this service have been brought together the functions of hygiene and epidemiology, which were formerly the responsibility of the Ministry of Public Health, the administration of hospitals, which came under public and social welfare, common sickness benefits, which fell under social security, and occupational illness and work accident compensation covered by work accident insurance.

More recently, the National Health Service has been assigned the outpatient and inpatient services for employees when they require special equipment in accordance with the new law providing medical care for this labor group. As a consequence, the National Health Service now has the responsibility for environmental sanitation and preventive medicine for the entire population, for medical care of all subscribers to social security (approximately 54 per cent of the population) and of needy persons and their families (approximately 10 per cent of the population), and for specialized hospital services for employees and their families (approximately 20 per cent of the population). In all, this represents a coverage of over 80 per cent of the population.

The Service's financing is multilateral, since its resources come from the fiscal budget through the Ministry of Public Health, from the social security service, from the employee medical service, from payments for services furnished to persons not covered by insurance, and from income derived from the Service's property.

(g) *National health systems.* In the light of the high cost of preventive, curative, and social services, some countries have reached the conclusion that a single institution or organization cannot be expected to be in a position to finance them all and that, consequently, what is needed is multilateral financing and a coordinated administration under a national health system.

A system thus conceived envisages the coordinated planning of services at the central institutional level, administrative coordination, and budgetary consolidation at the regional level and the provision of integrated health services at the local level. Its financing should be multilateral and there should also be a central policy-making body which would coordinate the health plans, issue guidelines, and supervise implementation at the regional and local levels.

The national health system aspires to a better utilization of available resources by increasing their productivity and avoiding duplication. To accomplish this, it is imperative that the central administrative authorities issue a clear definition of goals in order to bring all the human and material resources available into the system and to accept the coordinated planning of health activities. All this can be done without infringing upon the administrative authority and financial autonomy so that each institution can fulfill its legal obligations.

Moreover, in order that the system operate efficiently, it is indispensable that authority be delegated to common regional leaders who represent the coordinated administration at the intermediate level and possess sufficient authority to consolidate the regional health budget and oversee the execution of the pro-

grams for each of the regional establishments irrespective of their ownership.

In the corresponding chapter, the characteristics of the regionalization of services will be dealt with.

The enormous difficulties inherent in the organization of a system such as that described above cannot be denied. Chile has been experimenting with such a system for some years, and Brazil has just started to put one into practice on a trial basis in the District of Nova Friburgo. Panama has promulgated the necessary regulations to initiate the organization of a national health system.

If it is difficult to establish a coordinated health system among institutions directly or indirectly under the jurisdiction of the Government, it is a great deal more difficult to get the private sector to participate in the system. The participation of the latter in the health sector takes the form of voluntary insurance, mutual systems, private hospitals and clinics, private medical and other related practices, and commercial pharmacies. This entire conglomerate of establishments and individuals is subject to the sanitary regulations imposed by the laws of the various countries but is not compelled to comply with the dictates of the national health plan, nor with the technical and administrative standards issued by the ministries or secretariats of health. Consequently, its collaboration within a national health system can only be on a voluntary basis and it is recommended that such collaboration be stimulated through the use of certain incentives which do not endanger the technical efficiency of the services.

In some countries, such as Brazil, where the private sector accounts for an important part of the medical services provided to the community, there is the danger that, within the national health system, this sector may assume a role equally important as that of the public sector in technical and administrative decision-making and may even eventually assume more authority than the ministry in issuing technical and administrative standards to the institutions participating in the health system. If this should happen, it would be indispensable to adopt the measures necessary to guarantee that the policy-making and administrative authority of the ministry of health would be respected. This is absolutely essential in order that the Government fulfill its constitutional mandate to protect the health of the people and, at the same time, direct the health policy of the nation.

In a few individual, isolated cases, the idea of creating an autonomous corporation to organize and administer community health services has been advanced. This idea has never been tried and it appears unlikely that any Government would be ready to delegate its power to direct and guide the health policy of the country to an autonomous corporation.

2. SYSTEMS FOR COMPENSATING PHYSICIANS

The way in which the work of the physician and other health professionals is compensated is generally linked to the financial administration system in use in the country. No payment system, however, is completely characteristic of any one organizational system; on the contrary, it is normal to find several forms of compensation combined under a single administrative system.

(a) *Fee for services rendered.* This is the traditional system of medical fees and is generally accompanied by the free selection by the patient of his physician and is characteristic of private medical practice.

The social security services in some countries use this system for some labor sectors, either in the form of payments directly to the physician or the total or partial reimbursement to the patient.

This is the system preferred by the medi-

cal profession because it offers greater freedom in the establishment of fees and a better control over the number of patients treated per time unit. It is not, however, the best system for the employing institutions, since it does not offer any incentive for the promotion of preventive medicine and since the number of patients treated is more likely to be exaggerated, with the resultant rise in over-all costs of the system without any technical benefit to the patient.

(b) *Capitation payments.* This system consists in assigning a given physician a list of individuals who constitute his clientele. He receives a fixed per-capita amount for each individual on his list, regardless of whether he is sick or well. Usually this system requires individual registration, which makes it highly undesirable in that it breaks up the family unit in such a way that the head of the family may be on the list of an internist, his wife on that of a gyneco-obstetrician, and his children on that of a pediatrician or several pediatricians. Under this arrangement, there is no possibility whatsoever of social medicine and epidemiological activities for the entire family group. However, it has the advantage that it stimulates individual preventive activities because it is in the physician's interest to keep his clientele healthy. Consequently, he is led to practice individual, preventive medicine activities which generally require less effort than the clinical and therapeutic treatment of a given sickness.

This system is especially popular with mutual organizations and is also used by a few social security institutions.

(c) *Payment by fixed salary.* Under this system, salaries can be established for a full or for a partial day's work. This is the system preferred by the ministries of health and by the majority of the social security institutions. The difficulty it presents lies in making a fair determination of medical productivity per hour of work. There is a tendency on the part of the physicians to raise the price of services and to limit the number of treatments per hour to very low figures, thus reducing productivity, increasing costs, and making the extension of social medicine to certain low-income labor groups almost impossible. On the other hand, the dedication of more time to each patient could result in higher quality services, although this is not necessarily always the case.

(d) *Mixed systems.* Some institutions have chosen to combine these systems, and by so doing, have made administrative control more difficult and opened the way to all kinds of mistakes.

In Chile, for example, the recent law on curative medicine for employees permits physicians working in hospitals to continue their private practice during hours other than those for which they are contracted at a fixed salary. In Brazil, each physician is assigned a population and in addition salaries are paid for services rendered.

III. REGIONALIZATION OF SERVICES [1]

Regionalization is the administrative instrument which makes possible the consolidation of national programs at the intermediate level to facilitate their implementation at the local level. The main objective of regionalization is to coordinate all manpower and material resources available within a region in order to obtain their best utilization, avoiding duplication and granting the entire population access without discrimination to the region's health establishments.

The best way of introducing the complex subject of regionalization is by motivation of the community and a clear understanding of it by the physicians and other health workers, so that both those who render services and those who use them may be aware of the importance of harmonious and coordinated work within the region. The coordination of different programs and different institutions is a process that, to be successful, requires careful preparation and great administrative skill; it must, moreover, represent a felt need of the community and respect the rights of each and every one of the institutions and persons that participate in its implementation, establishing incentives for tasks which involve higher responsibility or require some measure of personal sacrifice.

The concept of regionalization does not always have the same meaning, and even the term "regionalization" itself has connotations which vary in different countries. In some, it is simply the process of financial coordination by which a common fund is formed for the purchase of equipment and supplies. In others its chief purpose is to pool all available resources in order to intensify the control of certain groups of diseases, such as the cardiovascular, tumors, tuberculosis, diabetes, and others. Finally, in many locations regionalization is applied only to the hospital system, excluding outpatient health services which continue to be subject to a highly centralized administration.

For regionalization to be successful, each region must be self-sufficient, and include an urban, a suburban, and a rural sector.

Basically, regionalization implies an administrative decentralization for the purpose of simplifying bureaucratic procedures and budget consolidation at the regional level, with the object of allocating resources in accordance with the regional health programs. Consequently, it is indispensable that the central authorities participating in the coordination process delegate authority to a regional chief or director. This regional chief must be a health services administrator of the highest ability and have the confidence of all the institutions concerned. In addition, he must have sufficient authority to handle both personnel and budgets with some freedom, within the limits imposed by the legal obligations of the participating institutions and the adequate technical performance of health systems at the local level.

Regionalization cannot function efficiently without the leadership of a regional director who, in addition to the technical and administrative skills required in running the services, must also have leadership abilities which will enable him to direct the health team and maintain a dialogue of medical and social inspiration with the regional community. He must also have teaching ability, since the region's establishments must frequently be used for the teaching of students in medicine and other related professions.

[1] Document prepared by the Secretariat.

In order for regionalization to be an effective instrument for the coordination of health services, all health establishments of the region, regardless of their ownership, must offer all their resources to the planning, administration, and execution of local health programs.

With respect to administration, their participation would mean the distribution of tasks and responsibilities in such a way as to avoid duplication and permit continuous mutual support among the institutions for the purpose of achieving the highest possible productivity from the installed capacity and from the equipment available for the execution of programs.

The base of operations should be located in a general hospital which may, in some cases, be a teaching hospital and must, in every case, have available all the medical and surgical specialties and auxiliary medical services required for good diagnosis and treatment. The specialized manpower and material resources of the regional hospital are costly and must therefore be reserved for patients who need specialized care. Furthermore, it is desirable that the hospital be departmentalized according to broad medical specialties and patients be classified according to the seriousness of their illnesses, with emergency, recovery, and intensive care units being made available to them but with medical treatment being specially concentrated for the benefit of seriously or critically ill patients. The general hospital's outpatient clinic, which must also include all specialties, thus becomes the common ground of understanding, where preventive and curative medicine are practiced in a comprehensive form, and also the link between the hospital services and the peripheral facilities scattered throughout the region.

The peripheral facilities (suburban and rural hospitals, health centers, polyclinics, peripheral clinics, peripheral medical offices, medical stations, rural posts, and others) are the means of extending the hospital's activities to the community, bringing as close as possible to the places of residence, work, and study, the comprehensive health services devoted to promotion and recovery of health through the use of all the knowledge made available by science for preventing, diagnosing, and treating common illnesses. The smallest care unit should have the services of at least one physician and one obstetrical nurse, the minimum administrative and auxiliary personnel, and the laboratory and X-ray facilities necessary to provide essential health services in keeping with scientific practices of diagnosis and treatment.

A good system of communications (telephone and radio) and ambulance service will make possible the timely transportation of specialists from the regional hospital to the peripheral services, of patients from the peripheral facilities to the base hospital, and of diagnostic and treatment equipment to where it can be used to care for a critical case. This interchange of personnel, equipment, and patients is essential to the proper functioning of a regionalized system.

In a further stage of development, the peripheral health services should be combined with social protection and educational services such as mothers' clubs, nurseries, kindergartens, health education centers, and others.

1. PARTICIPATION OF CLINICAL PHYSICIANS IN PROBLEMS OF PREVENTIVE AND SOCIAL MEDICINE AND IN ADMINISTRATION OF LOCAL HEALTH PROGRAMS

The participation of the clinical physician in the administration of services and in the planning and execution of programs of preventive medicine and social medicine at the local level is absolutely essential. This approach should be encouraged from medical school onwards, so that future physicians may practice their profession with a suitable

mental attitude and a clear understanding that they have chosen a profession whose purpose is to provide services for sick persons in the community, both through organized institutions and through direct work in the community and in the patient's home. Because of the high social content of its activities, his profession cannot be subjected to the standards that rule the commercial and mercantile relations of other fields of human endeavor.

The problem of the poor distribution of physicians is of daily concern to Governments, even those of the highly industrialized countries. There is a very strong tendency for physicians to settle down in large cities, where there are better opportunities and greater rewards for professional practice, and where cultural and social development ensure a more comfortable family life and a better education for their children. Governments have devised various means of inducing physicians to move to suburban and rural areas where great masses of the population need medical care urgently and even desperately.

In many countries, what is known as the "physicians' social service" has been established, requiring that interns, immediately before receiving their degrees, and recently graduated physicians move out to work in rural areas for a given period of time as a mandatory condition to the free exercise of their profession. This legal obligation has sometimes been accompanied by economic incentives in the form of recognition of time served, as a sort of compensation for the sacrifices incurred by living in rural areas. The truth is that none of these procedures has had permanent success, since the physicians return to the large cities as soon as their legal obligation is completed and, in some cases, resort to every kind of expedient imaginable to avoid them.

When the physician establishes himself in rural practice, he generally finds himself isolated from professional contacts and must frequently assume clinical, social, preventive, and administrative responsibilities for which he has not been adequately trained. The rural physician automatically becomes the head of a small establishment, whether it is a rural hospital, a health center, or a medical post; he becomes the administrative chief of a small group of auxiliary personnel and other lower-ranking staff members who work with him; and, most importantly, he becomes the leader and counsellor of a community which thirsts for the protection that it has traditionally expected from the medical profession. The young man just graduated from medical school feels overwhelmed by problems that no one pointed out to him or taught him to solve, and his sense of professional responsibility probably becomes one more factor, in addition to those mentioned, that leads him to avoid this rural social service period as much as possible.

In addition to the physician's participation in the provision of basic health services, there is another very important aspect which is the participation of the clinical doctor in the regionalization of services. A regionalized service must be, in effect, a scientifically planned service, properly decentralized, which guarantees the quality of medical care in the peripheral services, regardless of how modest their facilities may be. It requires, in addition, a periodic evaluation of its results for the purpose of correcting errors and reorienting the execution of programs. It is of the greatest importance that the regional director obtain the cooperation of the heads of the specialized clinical services throughout the process of planning, executing, and evaluating local health programs. This task compels the clinical physician to study statistical and epidemiological data and to familiarize himself with administrative methods and, more importantly, with the economic and social problems of the patient and his family. The knowledge and experience he thus gains must necessarily widen his horizons and the delivery of health services cannot fail to benefit therefrom in their human and social aspects.

Throughout his professional practice, the physician must consequently take part in preventive and social medical activities and exercise an administrative and planning role which will increase as he advances in his professional career. It is essential, therefore, to prepare him to discharge these responsibilities satisfactorily, for only a well-oriented undergraduate education can enable him to understand and practice later that noble calling which is the medical profession in all its scope and humanitarianism.

2. COORDINATED ADMINISTRATION OF HOSPITALS

Use and Productivity of Resources

The medical care needs, reflected by the growing demand for hospital services, require that those responsible for providing health services possess administrative skill in order to wisely program, organize, direct, and evaluate the services rendered by each hospital institution. The entire gamut of those health services should be intermingled through coordination in such a way that the resultant utilization of resources is thorough and effective.

Evaluation of hospital operations by the analysis of the utilization of resources and the assessment of the potential productivity of those that have been underutilized is a necessary step in the health administration process, when estimating requirements and demands and implementing hospital programs to satisfy them. Nevertheless, this planning will not be possible unless there exists a frankly positive attitude toward the coordination of services among the various institutions of a given country or region.

What mechanisms should be established to ensure the optimum utilization of resources which, because of historical anarchy in the creation of the various health organizations, are ignored or unnecessarily duplicated even when these organizations have a common purpose?

Some of the following methods may prove valuable in attaining cooperation and coordination of services, and thus obtaining increased coverage, improved quality of services, and a reduction of individual cost of medical attention to a minimum.

Improvement of Hospital Organization and Administrative Methods in Hospitals

Application of adequate administrative principles in the four broad functions of planning, organization, direction, and control will enable the hospital to improve its efficiency. To attain that, it is necessary to use the methods derived from the tremendous advance in management technology. Listed below are some of the concepts, techniques, and alternatives that can be implemented by all hospitals, regardless of their affiliation, in order to increase productivity:

- Functional programming of the hospital should be an obligatory step in the preparation of all projects for the modernization, enlargement, and construction of hospitals. It will thus be possible to avoid the useless investment of large sums of money and the premature obsolescence of physical facilities. Hospitals should be planned according to wide criteria, so as to satisfy the total needs of the community for preventive and curative medical care.
- Optimum utilization of health manpower may be obtained through the execution of a program of progressive patient care, a concept which makes it possible to program resources and carry out services in close relation to the health needs of the patient. An administrative reform may be undertaken simultaneously in which all activities related to hospitalization services are classified as clinical or nonclinical, in order to assign responsibility for the former to the clinical staff, and for the latter to the attached administrative personnel.

• Coordination between the services of the diagnostic and therapeutic departments and the in- and out-patient services required is a fundamental condition for increasing the efficiency of hospital operations, preventing unnecessary delays in in-patient care and facilitating out-patient diagnosis and treatment.

• Through the application of the operational efficiency concept, using mathematical models and time-and-motion studies, staff activity will be better employed, equipment will be properly utilized, and supplies will be more efficiently expended. As a result, patients will be better cared for and service costs will be reduced.

• Adequate organization of a maintenance service will protect the capital investment represented by buildings, facilities, and equipment; furthermore, it will ensure the permanent operation of key hospital services which use facilities and equipment essential in the care of patients.

• Financial management of the hospital should be exercised by personnel who have a thorough understanding of the problems of health and illness, within both the individual and collective contexts, and who are, in addition, adequately trained in the general principles of medical economics.

• A general introduction of the clinical physician to the basic principles of hospital administration and financial management will enable him to perform his clinical functions freely, but without ignoring the economic impact of his decisions upon the patient, the institution, and, consequently, the community.

• The administrative process means that there should be a permanent control and evaluation of hospital operations to make possible the reformulation of goals and objectives, the reorganization of the delegation of authority, and the reanalysis of the decision-making.

• Uniformity of salaries among professional and technical personnel who perform similar tasks is practically essential to coordination.

Medical Records, Clinical Histories, and Hospital Statistics

Clinical histories provide hospitals with basic scientific and legal information as well as a plentiful source of biostatistical data and of hospital statistics. Uniformity in the preparation of clinical histories, use of standard nomenclature, and a similar analysis and processing of statistical information will facilitate coordination among the various hospital institutions. Scientific information contained in clinical histories should be easily transferable to whatever health organization the patient goes to in search of services. A clear and simple system for retrieving information on the patient's health background will be of great value in the coordination of patient care within a system of health institutions.

Hospital statistics, which are largely derived from clinical histories, are a basic instrument for the administrative evaluation of hospitals. The indices which result from analysis of hospital statistics are indicators of hospital utilization and productivity. However, it is important to recognize that the indices commonly used to evaluate resource utilization provide only a quantitative appraisal of services, since their true efficiency can only be judged through the quantification of quality and its relation to quantity and to the costs of operations and investment.

It should be recognized that, unfortunately, the evaluation of quality is still a complex and sophisticated analysis, since there is no single, measurable, valid, and reliable formula available for measuring the quality of medical care. The indicators used are correlative, and must therefore be analyzed as a whole in order to avoid serious errors. The indicators of quantitative utilization and productivity should be used with the above qualifications in mind. Among these, the most frequently used are the average length

of stay, percentage of occupation, bed turnover, and number of first and subsequent visits. These indices are relative and should therefore be considered as a whole; they should be related to each major clinical classification in order to avoid the risk of error.

In several countries of the Region, hospital institutions forward statistical data to the ministry of health, the national statistical office, or to some other agency, in accordance with legal regulations or agreements. With reference to hospital statistics, the adoption of a given set of statistics to give uniformity to intercommunication at the sectoral and national levels is advisable. The nine statistics listed below are sufficient for the analysis of resource utilization and, consequently, for hospital planning:

Number of beds, according to major clinical specialty or undetermined.
Number of beds for newborn.
Number of admissions.
Number of patient-days.
Number of discharges per bed.
Number of births.
Number of deaths.
Number of first and subsequent visits.
Number of autopsies.

The number of admissions, patient-days, and releases will gain real significance when related to major clinical specialties. All data should be computed on the basis of regular intervals of time, usually consisting of a month or a year.

Improving the Quality of Medical Care

Every hospital should aspire to maintain its services at the highest possible level of quality in order to satisfy the demand and to be more effective in fulfilling its objective. As is the case in industry, however, such quality represents higher production costs for services. This is evidenced by the need to provide better working conditions for highly qualified scientific and technical personnel and as a reward for long service. Other needs include new equipment, which medical technology is creating at an accelerated pace, more and better special facilities, and varied instrumentation and medical and nursing supplies in the quantities and at the times required. Obviously, to attain these goals larger operational and investment budgets are required.

When a hospital attains a high standard of quality in its services, it does not raise any objections to participating in coordination programs. High quality in its services is a stimulant to admissions and the potential demand of the various socioeconomic levels of a population, both on the local and regional levels.

Better working conditions for scientific personnel, new technological medical resources, and good hospital administration translate in practice into high quality services for the care of hospital patients. This fact has been demonstrated by the development of a project that PAHO is presently carrying out in six Latin American countries with the object of implementing the concept of progressive patient care. This project is being initiated with the planning and establishment of intensive care units. It has been possible to note, in the first unit to initiate operations, a heavy demand on the part of high socioeconomic levels, in a hospital which, since its establishment, has been dedicated to the care of indigent patients.

With time the people of Latin America will be convinced that teaching hospitals are indeed capable of providing services of the highest quality since all the conditions necessary for achieving excellence in the care of patients are present there.

On this subject, it is not unusual to say that the greatest obstacle to hospital coordination is the fact that, unfortunately, there still exist a great many hospitals with low quality services. Consequently, all avenues which might lead to excellence in the quality of services in the greatest possible number of hospitals should be explored. When this is reached, intercommunication, cooperation, and a permanent flow of information will be

spontaneously generated among the various hospitals.

Accreditation of Hospitals

Of the Latin American countries, only Colombia has implemented a system of hospital accreditation. This requirement may become an indispensable necessity in countries which hope to establish a coordinated health care system. The accreditation of care may be necessary to enable social security institutions to guarantee their beneficiaries the quality of the indirect services provided by establishments not controlled by them. Teaching accreditation is urgently required by medical schools in order to choose those hospitals and other health services of the ministries and of the social security systems which they will use as clinical and community facilities for the teaching of students of medicine and other related professions.

IV. DESCRIPTION OF ACTIVITIES OF AN INTEGRATED HEALTH PROGRAM [1]

This section is concerned with describing health activities which are capable of being grouped in such a manner that their actions can be administered in an integrated fashion. It is therefore in keeping that they include only one of the three large categories of public health functions—health services—leaving aside matters concerned with the training of personnel and with research. Moreover, since the latter two functions are related not only to the health sector but also to education, economics, agriculture, and other fields, they could hardly be included as components of an integrated health program without becoming a source of conceptual friction when an attempt is made to define the administrative limits of such a program.

Health services are offered to an individual, a family, or a community either directly or indirectly. In the first case, one or more health workers contact the beneficiaries to offer them the appropriate services such as diagnosis, vaccination, treatment, dental care, construction of a latrine, improvement of a well, or some other service. In the second case, the health services materialize when the individual, family, or community uses or benefits from public services administered or controlled by the ministry of health, such as water, refuse collection, vector and reservoir control, air pollution control, food services, and public utilities whether state or privately owned.

Must both types of service, direct and indirect, be provided in order to justify the conclusion that the practice of health has been integrated, or can it be assumed that, if services of the first category are offered, the objective of providing total health care has already been met?

It should perhaps be noted at this point that most of the "integratable" health activities are of a medical nature, and that those which require the intervention of other sciences, particularly when dealing with large-scale projects, are hardly integratable in the strict sense of the word.

This document is mainly concerned, then, with medical health services, and especially with those that can be performed by academic, technical, or auxiliary medical personnel who have received general or specialized training in public health.

Since the practice of integral medicine either by the health worker or by the institution is different from the practice of integral public health, it is possible to deal separately with each. Integral medicine presupposes medical practice as defined by the dictionary, i.e., "the science and art of preventing, alleviating or curing disease," and only the knowledge, facilities, and personnel of the medical sciences are required in order to perform it within certain quantitative and qualitative limits. In contrast, the integral practice of public health presupposes knowledge, facilities, and personnel provided not only by the medical and auxiliary sciences but also by the engineering, behavioral, statistical, and other sciences.

Public health activities can be performed by an individual, a team, an institution, or a group of institutions. If the frame of reference with which they operate is designed to fulfill multiple functions, then each of the above-mentioned elements can provide an

[1] Document prepared by the Secretariat.

integrated health practice to a greater or lesser extent.

The typical example of the individually-based integrated professional practice is that of the physician, who can, either in private or institutional practice, take into account and attend to the promotion, protection, and restoration of health in accordance with modern medical science. The same could be said of other professionals who work in the field of medical care.

Both in theory and in practice, integral medicine can be practiced in an institution that has yet to reach an integration of its functions; that is, each function can be planned and carried out in separate spheres.

In an integrated health practice which requires the participation of several scientific disciplines for its implementation, a group should be established composed of members from engineering, behavioral sciences, statistics, medicine, and other fields to specify its purposes, define its objectives, and detail a specific program of action. This group will then be accomplishing a stage of coordination within the framework of its functions, representing the institutions to which they belong, which will lead to an integrated practice of health. In this case, a factor in the attainment of this objective would be the adequate administration of the health establishment which can draw upon the above-mentioned resources to provide integral health services to the community. Another factor would be the establishment and operation of a system of teamwork among the officials from the various disciplines.

The third situation mentioned, which refers to an integrated health program, the implementation of which involves several health institutions, is much more complex and requires concerted action on the part of the administrative personnel of the various bodies that together make up a country's public health sector.

The possibility of an integrated health practice by a single health worker operating as an individual depends largely on the type of guidance and preparation he received during his professional training. Hence, the efforts that in this respect are being made by the universities and other teaching centers which prepare health personnel, to provide knowledge and experience that will enable the health worker to contribute to the attainment of over-all objectives.

The possibility of an integrated health practice by a team of health workers operating within an individualized establishment depends largely on the kind of functions assigned to the establishment and on its plan of action. Hence the need for plans of action, standards, methods, and administrative technical procedures, identification and classification of the health establishments, definition of the functions of each class of establishments, and programming of their activities.

The possibility of an integrated health practice by several health establishments operating as a group depends largely on the responsibilities assigned to the system to which they belong. In Latin America the public health ministries, social security institutions, welfare boards, and others are the most important. Hence, an effort should be made to define the role of each system of the public health sector in the national health plan and the urgency of following a national health policy formulated on the basis of a scientific appraisal of the available and potential needs and resources. The national investment plan and the restructuring of the health sector have provided, and will continue to provide, opportunities both for the strengthening of individualized systems and for their merger into larger organizations with more generalized responsibilities covering a greater number of activities and offering an integrated practice of public health.

It would seem that, while the possibility of contributing to the realization of an integrated health practice on an individual basis diminishes as the individual occupies positions of greater technical responsibility in the higher ranks of the various operational levels, the possibility of converting institutional practice into reality increases as one

ascends in level. Only the Government's directing bodies and their decisions can change the direction of the policies followed by the large corporations that function in the field of health. Thus, the conceptual elements of an integrated health practice must be clearly known and understood at all levels of Government.

The actions that, as a whole, might characterize an integrated health program are given below.

(a) *Medical and dental care* (promotional, preventive, curative, and rehabilitative).

Medical and dental care may be provided in practice as an independent activity in institutions with their own specific objectives, or as part of programs for maternal and child health, control of communicable diseases, nutrition, and other purposes. In addition to general medicine, the classification of promotional, preventive, curative, and rehabilitative medical care includes the specialties of mental health, oral health, adult health, forensic medicine, and others; the relative emphasis or depth with which they are practiced depends on the size of the health establishment.

(b) *Maternal and child health*, including, among others:

Education in child care and family welfare.

Professional supervision during pregnancy.

Institutional or professional natal and postnatal care.

Supervision of child growth, development and welfare during the nursing and pre-school periods.

School health.

The classification of maternal and child care as professional includes the care provided not only by professional medical and paramedical personnel, but also by auxiliary health personnel who have been adequately trained for this purpose and are properly supervised and authorized for an elementary professional practice as established by a regulation or a working manual.

(c) *Control of communicable diseases*

Community epidemiologic diagnosis.

Community vaccination.

Early diagnosis and treatment; inquiry into contacts.

Epidemiologic investigation of outbreaks.

Fight against vectors and reservoirs of communicable human diseases.

Hygiene and sanitation of the family environment.

Control of the production, processing, transportation, storage, and sale of foodstuffs, and of the premises where these activities are conducted.

(d) *Nutrition*

Treatment of third grade calorie and protein undernourishment and rehabilitation of second grade cases of malnutrition.

Education in nutrition and home economics.

Encouragement of local production of foodstuffs.

(e) *Statistics* (vital, morbidity, and service activities).

(f) *Social services*

Control of alcoholism and drug addiction.

Protection of the mentally retarded and of the invalid child.

(g) *Community organization*

Health education in groups.

Mothers' clubs.

Youth organizations.

Promotion of sports and outdoor activities.

1. PARTICIPATION OF TEACHING HOSPITALS IN INTEGRATED HEALTH PROGRAMS

Many changes have taken place in society since the end of World War II. Medicine, medical care, and medical education are profoundly involved in all these changes. One of these is expressed by the rising hopes and expectations of the population in general, and of each community in particular, with regard to the role of university medical centers in many fields related to medical care.

The community is anxious to have new findings applied more rapidly to the diagnosis and treatment of illnesses; it is also aware of the need for more medical and paramedical professional personnel in order to attain this goal. Thus, it is inevitably turning its attention to the university medical centers, expecting and requesting that they assume responsibility and establish a more significant relationship.

Today it is undeniable that medical care is closely linked with medical education. There is a growing number of interns and resident physicians in teaching hospitals. The medical schools have become affiliated with other public and private hospitals in order to broaden their teaching programs, thus gradually strengthening their relationship with the community.

Latin American countries are faced with the difficult problem of developing means to provide effectively the quantity and quality of medical care required, demanded, and merited by their populations.

Inasmuch as the largest center of biomedical learning is the university medical center, we find ourselves in a position of having to decide on their future role in the preparation of more and better professional personnel and in the provision of medical care. The university medical centers indisputably cannot and must not remain isolated and remote from the enormous problems of population pressure on the matter of medical care.

How can the fulfillment of the primary obligations of the university medical centers —the acquiring of new knowledge through research, and the transmission of this knowledge to the students through teaching—be combined with the provision of both general and highly specialized medical care to the community?

What have the university medical centers done recently for community medical care?

How can the universities and their medical schools and hospitals accelerate the application of medical science and technology to the care of patients?

Can university medical centers *be concerned with,* and yet not be *entrapped by,* such problems?

Can the universities safeguard their primary objectives of teaching and research, and yet assume responsibility for service in the operation of programs created in response to community pressure?

How can the universities retain their role and their responsibility as teaching and research institutions, and yet effectively and significantly contribute to the development of community medical care?

University medical centers must look in two directions: first, inward, to the university, where teaching and research are the fundamental objectives; and second, outward, to the community, where medical service and care are the most important and basic considerations. How can the university medical centers achieve a satisfactory balance in carrying out these two functions?

It seems unlikely that a university medical center would be able to provide all the medical care needed by an important urban nucleus. Nevertheless, the university medical centers must recognize their responsibility to the community, particularly in terms of developing models for the quality of medical care, models which might subsequently be more widely adopted, especially by physicians and hospitals whose primary function is not the teaching of medical students but

rather the provision of medical care to large population centers.

University medical centers should be aware of the need for developing new systems of medical care, which implies a special relation to the training of physicians and paramedical professional personnel, their geographic distribution, and the need to increase their productivity.

University medical centers should devote special attention to the problems of financing in the development of models for new services.

The social demands are clear and urgent. The university medical center is undoubtedly one of the community's key resources; it is a reference center with unique programs which complement those of the other medical centers of the community. The question to be answered is whether university medical centers can assist in the solution of the problems facing the communities.

The university medical center should also be the center for pilot programs directed toward the demonstration of better ways of administering and providing medical care to all or to the greater part of the community. These programs can and should be organized in such a way as to permit the validation or refutation of hypotheses in the field of research on medical care. The demand for increased medical care for the population will only be satisfied when the present medical care forms or systems are modified.

The real contribution of university medical centers lies predominantly in the development of new models for medical care by the application of interdisciplinary studies which provide a better understanding than has formerly been available of the mechanisms of health and illness. University medical centers should use and mobilize appropriate experts within the universities themselves to cooperate in the definition of new models which, if proved useful, will give rise to new systems of medical care. The university academic centers have at their disposal experts in the fields relevant to the pressing problems which confront medicine. These include systems engineers, computer technicians, political science specialists, economists, sociologists, and psychologists. If the university medical centers can bring together the skills of these individuals in the organization of studies of the problems of systems and of medical care, they will most certainly contribute new knowledge which will result in more effective medical care for a greater population.

The role of the university medical centers in the solution of community medical care problems cannot be fulfilled unless the university hospitals have resources and a technical and administrative organization that permits the undertaking of medical care research whose results will benefit the community.

Four important research areas that should be emphasized are:

1. Analysis of the causes of the continued increase in the costs of medical care, especially as pertains to hospitalized patients and development of new ideas that might halt or at least restrain that trend.

2. Study of methods permitting the treatment of the greatest possible number of patients in outpatient and semi-outpatient facilities.

3. Analysis of methods for the widest possible application of modern technology to medical care.

4. Development of plans which seek to define the structure of physical facilities which provide the highest degree of flexibility, and which permit modernization and expansion in accordance with changing program requirements.

Thus, although they differ from the health institutions in purpose and objectives, program orientation, responsibility, and the criteria for evaluation of their work, the university medical centers will, in this manner, be able to serve the national community more effectively, while preserving their vital and irreplaceable role in teaching and research. Simultaneously, medical education will benefit from the use of the hospital clinical fields and the community social fields as practice areas for students.

2. INCORPORATION OF PRIVATE INSTITUTIONS IN INTEGRATED HEALTH PROGRAMS

A glance at the experience of the countries of the Region reveals that there is a splitting of health activities among many institutions.

Indeed, in all countries, there are various institutions at the national, regional, or local levels which provide some type of health care. There are governmental, semigovernmental, or private institutions and some cover various risks such as accidents and emergencies; there are others that serve various labor and socioeconomic levels of the population, generally in connection with various social security systems.

This fragmentation is not always based and developed in a population distribution which coincides with territorial communities, which results in unnecessary duplication of financial resources and human effort. This consumes a large part of the scant resources available for health in developing countries and consequently is harmful to the community.

The majority of the institutions began as private institutions and gradually came under Government or state control, largely as a result of the growing increase in costs which made financing with the original private resources impossible. There still remain, however, some private health institutions and hospitals, and in certain countries, such as Brazil, they even constitute a high proportion of available facilities (over 80% of the hospitals). In other countries, they represent a minority in terms of number of hospitals and beds, in spite of the fact that these hospitals and beds frequently constitute the only health facilities of a given geographic community.

If these private hospitals and other health institutions are to provide true and efficient service to the community, it is imperative that they be coordinated within the health system. It is absurd for the health systems to ignore the existence and importance of private health institutions and equally absurd and irresponsible for the private health institutions to ignore their mission as community service organizations.

The hospital, regardless of ownership and control, has become a community health center which should increasingly provide service programs and facilities to improve the health of the inhabitants.

There is today a consensus, sometimes tacit, sometimes expressed, depending upon the country, that some of the controversial questions in the field of medical care urgently require solution. Listed below are certain principles that could guide the coordination of the private hospitals within the local, regional, or national health systems.

(a) Medical care, to be truly effective, must be planned in a coordinated and total manner.

The term "comprehensive health care" is used as the opposite of "fragmented health care" which is unacceptable. Total medical care refers basically to a personalized cradle-to-grave type of care which covers prevention, cure, and rehabilitation, as well as diagnosis and therapy.

(b) The people of the Americas are seeking a policy providing a single type of high-quality health care, accessible to all and limited only by available resources, without discrimination as to race, creed, political ideology, or economic condition.

This policy is based not only upon moral or political considerations but also upon the need for economic efficiency and most important, on growing evidence that this is the best way to guarantee high quality medical care. The old myth of "separate but equal" is as false in medical care as it is in education. If care is truly equal, there is no rational argument with which to justify its separation. This, however, implies raising the quality of less developed services to a minimum acceptable standard.

(c) Medical and health care services should be provided in the facilities and under the conditions most suitable in terms of technological requirements, quality control, and advantages for the physician and the patient. Private hospitals should be prepared to comply with technical and administrative guidelines issued by the coordinating authority.

(d) The most satisfactory doctor-patient relationship is based on a policy of extensive communication between the professionals and technicians making up the health team, and the community, with a view to ensuring high quality care. This is guaranteed by the affiliation of the physician with a good hospital, which, in turn, brings up the need to improve both governmental and private hospitals.

(e) Private hospitals and health institutions should be oriented toward and controlled by the community through the Government. It has been shown that the interests of the community are not best served when either the suppliers or the consumers of health care control it exclusively.

(f) The costs of medical care in private hospitals should be carefully recorded, controlled, and maintained within limits which permit the hospital institutions serving the community to survive without lowering the quality of their services.

(g) Private hospitals should strengthen their community role as well as their financial situation by diversifying their sources of income. It is characteristic of communities to collaborate more readily in supporting private hospitals than in assisting governmental hospital institutions.

(h) The most important assurance of good health care in the future is provided by a sound community health care planning mechanism, capable of responding to the changing needs of both the suppliers and the consumers of medical care so that services and facilities can be adapted continually.

No clear, direct correlation between hospital ownership and efficiency and productivity of hospital resources has yet been shown, but it does seem that efficiency and productivity are more closely related with the training and efficiency of the hospital team, with the concern, awareness, and degree of participation of the organized community receiving the medical and health care.

If the purposes and goals of the hospital institution are compatible with those of the persons making up the organized community to such a degree that the goals coincide, a community of interests between the persons managing the institution, who should represent the interests of the community, and the persons working for the institution, can be established; this gives rise to enthusiasm and assistance, participation, and cooperation, all of which improve the prestige of the private hospital.

If coordination means uniting multiple activities and matching goals with actions and producing a unified and unceasing effort, there can be no effective coordination without an effective authority.

Voluntary coordination is possible, but lasts only as long as does agreement and harmony among the coordinating parties; coordination as "an agreement among parties" is another of several alternatives, a method in which coordination can be accepted or rejected; as such, from the standpoint of administrative practice, it is not an effective method. We believe in the value of *spontaneous coordination* as a step toward *organized coordination,* which in turn leads to *directed coordination.*

The efficient coordination of private hospitals with local, regional, and national health systems should be based for the most part on the recognition of the importance of these private hospitals, and on their awareness of their role in serving the community. Coordination must be planned as an inseparable part of the directive functions of the top-level health administration.

3. INTEGRATION OF PREVENTIVE AND CURATIVE ACTIVITIES AT THE LOCAL LEVEL

A prerequisite for integrated health programs on a national level is a system of health administration whose structure consists of a network of establishments which perform basic health activities under a unified technical and administrative direction.

This type of approach, appropriate to national organizations in the health sector, is known in the respective ministries as "general health services" or "basic health services." These have a central, an intermediate, and a local level, the last of which may include rural extension services. All levels have the same purpose and similar functions, but their resources differ.

As has been mentioned, it is expected that the central level will institute standards, define methods and technical administrative procedures, provide needed advice and supervision, and delegate authority and administrative responsibility to the intermediate levels for the implementation of programs.

In an integrated program, basic health services will be offered to the community by establishments at the intermediate and local levels. Here the integrated practice of health becomes a reality, with the help of the medical, engineering, social, and other sciences.

Integration of health programs can begin with the formation of a team of professionals who work in a health establishment that offers basic intra- and extra-mural care, or with a group of establishments which is part of a given health agency and which follows directives from its governing bodies in furnishing comprehensive care to the communities served.

To this end, the structure and organization of the previously mentioned general health services has proven efficient.

At the rural extension level of general health services, the auxiliary personnel who attend to the needs of a small community perform comprehensive health services. Their training is oriented toward the functions they will be discharging, that is, basic instruction in the promotion, protection, and restoration of health in the fields of medical care, environmental sanitation, health education, and collection of statistical data. Within the limits of their professional capacity, they provide comprehensive health services. The health establishment of the small community, staffed by a single individual, fulfills the entire range of these functions. In this case, the health establishment and its personnel merge into a single entity.

In the various other echelons of local health services, the functions of the establishment exceed those of its individual members. The general background of the health personnel at the rural extension level permits a greater or lesser degree of specialization, and in this case, the health establishment performs comprehensive services. Its personnel, within their specific roles, perform activities that, taken together, are of an integral character. But the service received by the public is of a higher technical quality.

The minimum functions of an integrated health establishment include activities designed to provide direct services to the public as mentioned, together with others covering the entire range of preventive medicine, medical and dental care, including both diagnosis and cure, health education, statistical data collection, nutrition, and part of the field of environmental sanitation.

As one advances to the intermediate and central levels, there is a need for greater specialization of the staff, who perform increasingly specific services in the fulfillment of their obligations. Similarly, therefore, the function of the health establishments also becomes specific. This specialization is a desirable and necessary characteristic of the proper functioning of public health as a whole. But it does not follow that this is also a desirable characteristic in the institutions that participate in the field of health, particularly if it is accompanied by administrative independence, since in this situation the services provided to the communities by institutions will cover only one

portion of the health field and will not constitute comprehensive services. Thus, it is possible to find specialized personnel and specialized institutions which, though in fact having a national scope, cannot provide comprehensive health services, and which, because they enjoy economic and administrative autonomy, are not interested in changing the compass of their responsibilities.

If the situation described does exist, and if there are institutions that devote their efforts and limit their functions to providing partial services in the field of health, offering isolated curative or preventive medical services for treatment of specific conditions, such as dental care, control of vectors, etc., it becomes necessary, among other things: (a) to search for mechanisms which lead to a redefinition of the responsibilities and resources of these institutions, in order to integrate their functions while preserving their administrative independence; or (b) to examine the purposes, objectives, functions, and activities of the various components of the health institutions, and to coordinate their programs within a system so that the services offered to the community may, in the last analysis, have a comprehensive character; or (c) to achieve administrative integration, which presupposes the merger of the prerogatives and resources of two or more institutions through a process by which one of them yields to another a part or all of its services or, if both organizations are to continue functioning, a new institution with redefined purposes is formed.

With respect to the integration of preventive and curative activities at the local level, it should be made clear that the phrase "local level" is used here in reference to activities within the health administration operating through the medium of health establishments and not in reference to what are commonly called "field activities." While "local level" indicates a closer relation with structure and administration, the term "field" has a rather more topographical connotation.

It is assumed that the "health establishment" operates on an equipped site, offers daily services, and has historical continuity in the area it serves. It contrasts, therefore, with the intensive field campaign carried out along a planned itinerary, providing services for variable periods without intention of performing its work within a community on a permanent basis.

Local-level facilities may be located in rural areas with dispersed or concentrated population or in dense urban areas, right beside intermediate or central facilities. The operating capacity of a local-level establishment located in a large population center, which is also the seat of an intermediate-level health establishment, will be much greater than that of a local-level facility whose only additional resource is the district hospital in its health region. Obviously, this last service will have a greater operating capacity than the isolated health establishment which does not dispose of easily accessible hospitalization facilities to which to refer its patients.

For the purposes of this report, it is fitting to try to differentiate between some of the generic types of establishments at the local level. Using the designations most commonly employed in Latin America, the following categories of health establishments can be identified:

Type I—Health Stations. These are staffed by auxiliary health personnel advised and supervised by professional personnel headquartered at higher levels. This personnel lives in the community and performs intra- and extra-mural tasks. They are responsible for providing elementary services in (a) general medical care, (b) maternal and child care, (c) health education, (d) guidance for improving the sanitation of the family dwelling, and (e) collection of statistical data. The types of service they are authorized to furnish are set forth in detailed instructions that restrict their professional attributes to those that they are judged capable of performing, in keeping with their instruction and training. Such instructions may include handbooks dealing with methods and techniques.

This type of health establishment is the most widely used for the rural extension of general health services since it is the simplest and the cheapest to run.

Type II—Medical Posts. These are staffed by one physician and by technical and auxiliary health personnel. The staff lives in the community and performs intra- and extra-mural tasks. These establishments provide academic-level services in general curative and preventive medicine and services of a technical or auxiliary level in the field of environmental sanitation. Although they cover the same health fields as health stations, the services offered to the community are more complex and of a higher quality.

The medical post director is responsible for its operation, and receives advice and cooperation from the higher level which serve as support for organizing the community on technical bases.

Type III—Health Centers. These are staffed by a general practitioner and one or more specialist physicians, as well as by paramedical, technical, and auxiliary personnel. The staff performs intra- and extramural services.

These establishments are responsible for providing health services on the academic level in general preventive and curative medicine and the medical specialties, and of a technical nature in environmental sanitation—for the improvement not only of the family dwelling but also of the community as a whole—and eventually also in statistics, nutrition, and health education.

The health center organizes the community for mass control of communicable diseases, mainly for vaccination but occasionally for control of disease vectors and reservoirs. It receives advice, supervision, and support from the higher levels, and renders similar services to the lower levels.

The specialized staff may have a program of circuit work to provide advice, supervision, and support to lower-echelon health services.

Type IV—Hospital Health Centers. These are staffed by personnel similar to that of the health centers but more frequently have technicians in statistics, sanitation, and health education. They also frequently have at their disposal laboratory, nutrition, X-ray, and other technicians, depending on the facilities, equipment, and instrumentation available. In addition to fulfilling the functions of Type III establishments, they are responsible for the hospitalization of patients when required.

The hospital health center receives advice, supervision, and support from higher-echelon staff and provides the same to lower-level staff.

Type V—Regional Hospitals. This is the last and most complete of the establishments devoted to comprehensive health care. Basically it performs the same tasks as hospital health centers and is staffed by similar, though more numerous and diversified, personnel. It is the only resource available in the health region for certain kinds of diagnosis and treatment. On some occasions, the regional hospital is the headquarters of part or all the personnel that comprise the "intermediate level" of general health services, in which case it can draw upon academic or highly technical personnel in epidemiology, engineering, statistics, health education, nutrition, and other fields.

In this case, the regional hospital can provide high quality comprehensive health services. Most frequently, however, in view of the marked tendency of this type of establishment to develop only medical activities, it offers comprehensive services only in the latter area rather than in the total health field.

The health stations, medical posts, health centers, hospital health centers, and regional hospitals, then, are able to provide comprehensive health services within the general health services system. The coverage and technical quality of such services increases proportionately as one advances from the local to the intermediate and central levels.

V. COORDINATION IN THE TRAINING OF PERSONNEL [1]

1. COOPERATION OF MINISTRIES OF HEALTH AND OF SOCIAL SECURITY INSTITUTIONS IN THE EXPANSION OF TEACHING RESOURCES

The rapid growth in the population of Latin America, referred to as the Hemisphere's "population explosion," has created a greater quantitative demand for health services. In turn, the increased awareness in matters of health on the part of the Latin American people, results in demands for better quality health services. Faced with this situation, the Governments urgently need to satisfy the expectations of the community. Consequently, the universities must be geared to the rate of expansion in services and must speed up the training of professional personnel with the appropriate scientific background and social attitudes to provide the medical services demanded by the community.

Thus, the pressure of social needs compels the medical schools to increase their capacity for turning out professional personnel. To do so, it is necessary to increase the number of laboratories and institutes available for teaching clinical medicine and specialties. Added to this, as has already been noted elsewhere, is the need to introduce into the teaching and learning process a preventive and social, and even administrative, context to train the student to perform adequately in the area in which he will have to work once he has obtained his medical degree.

The traditional concept of the university clinical hospital as a center of training and high-level scientific research, has been made obsolete by the requirements of an accelerated educational process oriented toward social problems which involve cultural anthropology, behavioral sciences, and community organization. Consequently, the utilization of hospitals belonging to the ministries or other agencies, out-patient departments and even domiciliary services, has become an urgent necessity not only to absorb the quantitative requirements of medical education, but also to impart to it the preventive and social context which is essential in the training of the doctors needed by the countries.

The use of hospitals and other health facilities for teaching purposes gives rise to a number of small conflicting situations which can only be solved if there is close coordination of goals, methods, and procedures facilitating the mutual understanding of the problems and limitations facing each one of the participating institutions. The close interrelation which is fully recognized today between the medical care and teaching activities of the hospital constitutes the theoretical basis which needs to be very clearly grasped and introduced into the daily practice both of patient care and medical teaching. In the countries there is a very marked trend in this direction, which needs to be emphasized and maintained as an element of change and progress both in hospital medical care and in medical training. Mutual benefits arise from this relationship between teaching and care and the result is an increase in the quality of medical services through the effect of the teaching process and an improvement in the training of the future doctor as a result of his interest in out-patient and medical care in the home which removes the student from the traditional bedside training.

Although these theoretical principles are

[1] Document prepared by the Secretariat.

generally accepted, there is not always a consensus as to the way in which they should be put into practice. The teaching staff in the medical schools tend to believe that the teaching hospital should be administered by the school of medicine if medical instruction is to develop in the proper environment. The truth is that, within the current concept of a medical center as an integral part of a national health program and as the headquarters of a health region, the training hospital has responsibilities in the planning, implementation, and evaluation of over-all health programs which go far beyond the clinical responsibilities inherent to patient care services.

Furthermore, hospital administration is an important specialty and increasingly takes on the complexities arising out of the use of mechanical and electronic devices for the diagnosis and treatment of diseases. Therefore, any person engaged in hospital administration requires specialized skills which need to be acquired and are difficult to reconcile with the satisfactory performance of clinical activities. It is sometimes argued, however, that the director of a hospital must continue to practice medicine, along with his administrative duties, in order to retain the respect of his clinical associates. Although there may be some truth in this, it is no less certain that the clinician who wishes to be a good hospital director will have to learn administrative techniques which are necessary for the fullest possible exploitation of hospital resources. He will also have to know public health methods which will enable him to handle health planning in the specific sector of the region in which the clinical teaching hospital is located.

Another problem which has to be solved is the participation of the clinical-public welfare doctor in the teaching process. It is essential that procedures be found which make it possible to respect the professional status of doctors who, throughout a long hospital career, have become administrators of clinical services. At the same time, it is necessary to respect the scientific and educational authority of the doctor who is a professor and who will have to use the same clinical facilities for the medical apprenticeship of the students. Some countries have chosen to confer professional rank on all clinical doctors who work in a hospital which accepts students and interns for professional training. In other places, cooperative systems have been instituted in which mixed commissions from the hospital facilities and from the medical schools fuse the selection of professor and chief of clinical services by making both appointments devolve upon the same person.

The participation of hospitals and social security agencies in teaching functions is particularly important. It must be admitted, however, that this practice also gives rise to some conflicting situations. The medical schools tend to lack confidence in the administration of social security which is generally subject to very rigid financial controls and even to a certain standardization in the use of methods of diagnosis and treatment. In their turn, the social security agencies are apprehensive over the setting up of a scientific teaching criterion in the handling of patients which tends to prolong the hospitalization period unnecessarily, with a resulting increase in costs and with no further advantage apart from the fulfillment of a teaching function.

It is of the greatest importance that some compromise solution be found leading to mutual understanding and coordination, since frequently the hospitals under the social security system are the best equipped as regards buildings, installations, and equipment, and could very well serve the purposes of expansion of the medical schools to satisfy the requirements of medical care, making their facilities available for this purpose and thus avoiding new capital investments in university hospitals which are not always justifiable.

In a program of hospital construction forming part of an over-all health plan, it is necessary to consider not only the needs

in the field of medical care, but also the teaching needs so that adequate medical facilities are allocated for training students in medicine, dentistry, nursing, dietetics, nutrition, bio-medical engineering, etc., on a national level and so that available capital is invested in the most rational manner possible in order to avoid duplications. The public health ministries, as well as the social security agencies and the universities, have budgets to construct and equip health facilities. In a poor country it does not seem logical that each institution follow its own construction program without considering similar programs which are being developed simultaneously by other institutions. The reasonable approach is that there should be a single investment plan which brings together all of the funds of the various participating institutions and which forms part of the national health program. All efforts in this direction will contribute toward greater productivity of the capital which society makes available to doctors through various mechanisms in order to help raise the over-all health standards.

2. PLANNING OF MANPOWER DEVELOPMENT [2]

It is generally accepted that the training of health manpower should be carried out in line with a planning process. Nevertheless, simple observation reveals that this concept, although universally accepted, has had little application. On the whole, the various health professionals continue to be trained according to a firmly established system which gives no consideration to the needs of the health services, the methods for providing these services, or the professional market. Still less does it make provision for the new situations resulting from the rapid changes which medical care is undergoing in its two spheres of action: the social, and the scientific.

Consequently, it is not inappropriate to insist upon the necessity for health personnel training to break away from its present haphazard, unordered state and identify itself with a scientific process conducive to the maximum use of resources for the fullest possible satisfaction of a set of complex and changing needs.

This necessity was clearly expressed in the Charter of Punta del Este when it recommended in Resolution A.2: "To give particular importance to the education and training of professional and auxiliary personnel to engage in activities related to the prevention and cure of diseases. To this end it will be necessary: (1) To determine the number of experts required in the various categories for each activity or profession; (2) To provide in-service training to present staff members, and progressively train a minimum number of additional personnel; and (3) To expand or create the necessary educational centers.[3]

Other studies on health manpower insist on the importance of this need, which is proportionally greater as the resources of the countries are smaller: "If medical education is to attain its proper goals, it will do so only as its leaders become directly involved in the national planning process and provide dynamic leadership in the development of well conceived plans for meeting total national health manpower requirements. The developing countries, to a far greater extent than those that are highly industrialized, are faced with the monumental task of allocating their scarce economic and human resources in such a way as to achieve orderly national development. Searching decisions must be made, decisions addressed to problems that are often unique

[1] Document prepared by Dr. Alejandro Jiménez Arango, Assistant, Director's Office, Colombian Social Security Institute, Bogotá.

[3] *OAS Official Records* OEA Ser. H.XII.1, Rev. 2 (Eng.), p. 31, 1967.

to a local situation. The appropriate allocation of resources, moreover, is not constant, differing at distinct stages of development. In arriving at decisions, therefore, the developing countries will find only partially applicable the solutions which have been reached in the more technologically advanced countries." [4]

Some years ago it was said that: "We have come to the very clear concept that medical education, considered as education in the various health professions, does not constitute a goal in itself, but rather a means to achieve global objectives of health care. These objectives must be defined in a National Health Plan, of which the programs of medical education must be an important part. Traditionally, there has been a separation between our medical schools on the one hand, and the ministries of health, the social security agencies and welfare institutions, on the other. This has led to the establishment of educational plans that were far removed from social reality, and of health programs that did not take into consideration the personnel that should carry them out. We are today in the process of defining common objectives for all these institutions, so that the specific programs will result from joint planning and derive mutual benefit from close relationship and permanent exchange." [5]

Manpower planning must go hand in hand with general health planning, and form an integral part of it. This has been recognized in the various health planning methods developed for this purpose and presently in use.[6,7] This concept, however, which appears so cut and dried on paper, has been very difficult to put into practice. On the one hand, it has been quite hard to assess the magnitude of available manpower, since a clear definition of this resource has not yet been formulated. For example, the care furnished by so-called "empirical" personnel seems to constitute a very important part of general health care in some areas.[8] If there are difficulties in assessing quantity, many more arise in measuring quality. Little or nothing is known of the true productivity of many of the activities undertaken by health personnel. For example, what are the benefits resulting from a medical visit? What effects are produced by a lecture on health practices?

On the other hand, many plans do not include the educational sector because its resources are assigned separately, and even when concrete plans are formulated, the educational institutions are reluctant to follow them, contending that to do so would interfere with their institutional autonomy. The universities are particularly adamant on this point, and seriously complicate the situation in that it is precisely their responsibility to train the senior executives who will exercise the greatest influence on the implementation and fulfillment of the plans established.

What is certain is that, in practice, health manpower has not been included as a true component of health planning for two reasons: (1) directors or persons responsible for educational programs have not participated in the planning process, and consequently are not acquainted with the truly essential elements that these plans can bring to bear upon educational programs; and (2) the plans almost invariably fail to provide sufficient resources for the training of health manpower. In other words, the institutions responsible for providing medical care gener-

[4] *A World Program for Health Manpower.* Evanston, Illinois: Association of American Medical Colleges, p. 44, 1965.

[5] Jiménez Arango, Alejandro. "Medical Education and Medical Care in Developing Countries." *Amer J Public Health* 56(12): 2126-2132, 1966.

[6] *Health Planning—Problems of Concept and Method.* Washington, D. C.: Pan American Health Organization. *Scientific Publication 111,* p. 75, 1965.

[7] Health Manpower and Medical Education in Latin America. Report of a Round Table Conference. Reprinted from the *Milbank Memorial Fund Quarterly* XLII (1), pp. 11-66, 1964.

[8] *Study on Health Manpower and Medical Education in Colombia. II. Preliminary Findings.* Ministry of Public Health of Colombia and Colombian Association of Medical Schools. Washington, D. C.: Pan American Health Organization, p. 30, 1967.

ally fail to recognize that they are responsible for contributing to the training of all personnel which they require in order to function properly.

Who Participates in Planning?

This brings us to a vital question: Who should participate in the planning of health manpower resources? It has already been said that this is merely one part of general health planning. Consequently, health planning, since it includes manpower, should be the responsibility of multiple agencies or individuals.

It can hardly be expected that manpower plans in which the institutions actually responsible for training the personnel have not participated will be properly implemented. Neither, however, can plans prepared exclusively by such institutions hope to satisfy the true needs of the countries. Hence, the necessity that two groups participate in the planning of health manpower resources: the group responsible for providing health services, be it the ministry of health, the social security institute, or both, or a single health service, and the group responsible for personnel training, including the universities, technical and vocational schools, etc.

"It is absolutely essential that the universities receive frequent specific requests from the agencies in charge of the general health program, with regard to the number, quality, and levels of personnel required in the different health professions. The university must participate actively in this programing, particularly through one of its essential functions, research. Without wishing to limit the freedom inherent in scientific research, it is expected that the investigator remain sensitive to the problems that surround him, so that he can come to consider as principal objectives those that affect his own community. By proposing solutions and studying programs that will lead to a more rational and effective execution of medical care activities, the university will take an active part in the formulation of plans." [9]

The necessity for this coordination was clearly acknowledged in the Technical Discussions of the XVII Pan American Sanitary Conference, when it was stated that: "As for the training of personnel, it was recognized that the joint efforts of universities, ministries, social security institutions, and other agencies concerned with health, as well as common use of installations and practice areas for welfare and teaching purposes, were of fundamental importance in developing the necessary social attitude in all professional health workers." [10]

Previously, in the Technical Discussions of the XVI Pan American Sanitary Conference, Dr. John B. Grant said: "In most countries the best mechanism to undertake the planning for health personnel and facilities would be a joint commission representing the ministries of health and education and the universities." [11] We would add to these the social security institutions in view of the development and importance acquired by these institutions since that time.

Planning Elements, Results and Application

This coordination becomes even more necessary if we analyze the elements that should be taken into consideration in the comprehensive planning of health manpower resources.

The various procedures utilized which define present situations or future goals in the area of health personnel by means of an index such as the ratio between physicians and inhabitants, are insufficient and only provide partial information. These procedures have been the object of criticism which need not be repeated here.[12] It is

[9] Jiménez Arango, Alejandro. *op. cit.*, p. 2131.

[10] The Final Report of the Technical Discussions was published in the English edition of the *Boletín de la Oficina Sanitaria Panamericana*, Selections from 1967.

[11] Document CSP16/DT/2, p. 8 (mimeographed.)

[12] Health Manpower and Medical Education in Latin America. *op. cit.*, p. 28.

widely acknowledged that a great variety of elements and abundant information must be brought together with a view to laying the foundations for a kind of planning which not only provides the indispensable quantitative elements, but also furnishes sufficient information to modify the curricula of the various professions and even to develop new professions which fill important gaps in the medical care field.

In view of their multiple origins and diverse nature, these elements cannot be provided or gathered by one agency alone. Therefore, it is essential that the medical care and educational organizations, ministries of health, social security institutes, and universities cooperate closely in this type of study, from its design to the analysis of its results, including the all-important phase of field research and the compilation of information.

This type of study is being conducted in several countries and, although such work has not yet culminated in the ultimate goal of a comprehensive manpower training plan, it has contributed, in those cases where the research phase has been concluded, to the initiation of activities in line with actual needs. These have included, for example, the creation of new professional schools, the enlargement of the capacity of existing schools, the establishment of measures to curb student drop-outs, the modification of curricula, the consideration of a reduction in the duration of certain courses of study, the utilization of formerly neglected human and material resources in teaching, the development of multiple programs with the joint cooperation of the groups that participated in the studies and planning, i.e., the ministry of health, the social security institute, and the school of medicine.

A good example of the above is the Study on Health Manpower and Medical Education carried out in Colombia. An important feature of this study is its joint implementation by the Ministry of Public Health and the Medical Schools through their Association. This initial coordination has been a decisive factor in subsequent joint planning of activities in which, in the course of the past few years, the Colombian Social Security Institute has also participated.

The study not only analyzed in depth all matters concerning health personnel and educational programs, but also the requirements and needs imposed by the country's health conditions upon existing or future personnel. Thus, it provided valuable data on the country's demographic situation, mortality, morbidity, medical care institutions, and related socioeconomic factors.[13,14]

With these elements, it has been possible to clearly compare manpower resources with requisites and material resources as expressed in social conditions, morbidity, health care methods, and institutional resources. And although the formulation of a complete health manpower training program is still a long way off, the results of the study have made it possible to introduce important modifications and new ideas into existing programs. To this end, multiple study groups have been established whose membership, at the minimum, consists of representatives from the Ministry of Public Health, the Colombian Social Security Institute, and the Colombian Association of Medical Schools. These study groups formulate joint recommendations to the organizations they represent. Thus, for example, some of these groups have formulated recommendations on modifications necessary in the curricula of medical schools, compulsory rural service for medical students, design of new health-care models to test the extension of social security to rural areas, conception and assay of new health professions, etc., all topics which have constituted excellent examples of coordination.

[13] *Study on Health Manpower and Medical Education in Colombia. II. Preliminary Findings. III. Maracay Conference Working Documents and Reports.* Washington, D. C.: Pan American Health Organization, 1967.

[14] *Recursos humanos para la salud y la educación médica en Colombia.* (National Conference held in August 1967.) Bulletin No. 2 of the Division of Education, Planning, and Development. Colombian Association of Medical Schools, 1968.

A Challenge: The Development of Technology and Social Change

Teaching programs, both with respect to the number of persons trained, as well as to the quality of the training, should be clearly related to the functions and responsibilities that each member of the health team will have to assume under the adopted medical care systems. On the other hand, these systems are largely determined by the amount and quality of health personnel available to implement them. Hence, the planning of medical care, including personnel training, is influenced by two factors, both of them variable and susceptible to change as well as mutually interdependent. Furthermore, this programming occurs within a framework of rapid social and scientific change, some of which, such as demographic variations, are foreseeable, while others, such as technological and scientific innovations, are almost beyond imagination. Not only do these changes influence the process as a whole, they are also largely determined by the process, considering the role played by health as a factor for change and development.

This puts the planning of manpower resources at a level of complexity which can scarcely be dealt with using even the most advanced administrative research techniques available, such as operational research and systems analysis. In the application of such planning, it is indispensable not only that the agencies traditionally involved in health problems—ministries of health, social security institutions and universities—coordinate their activities but also that they obtain the cooperation of numerous technicians and experts who today are applying their skills and know-how in other fields of human endeavor. The first step in these labors has scarcely been taken, but the possibilities for research and action are practically unlimited. To an even greater degree, it is essential to apply and use these complex working tools now, in order that the personnel undergoing training today or to be trained in the future be able to design and manage health systems very different from the present-day ones. Such systems are called for not only to meet the basic needs of a population which is now largely unprotected, but also to satisfy the growing demands of a world which aspires to full participation in the benefits offered by the development of science and technology.

3. ADAPTATION OF THE UNDERGRADUATE AND POSTGRADUATE CURRICULA TO PERSONNEL FOR PROVIDING HEALTH SERVICES [15]

To undertake an integrated program of medical services means to coordinate such services to the optimum, at which point an administrative structure which includes preventive, curative, and rehabilitative services for the entire population attends in a balanced way to the health needs of the various socioeconomic groups in areas served by health units. Only in this manner can the difference in the distribution of health benefits be eliminated, whether they originate in different sources of financing or in financial resources linked to the social classes. An integrated program of medical services recognizes and proclaims unceasingly the right of all peoples to health. A program of this nature must necessarily be reflected in educational aspects which have as their purpose the training of professional personnel necessary to the operation of the program. Consequently, it must also influence the diverse elements that constitute the undergraduate and graduate curricula of the medical schools. The content of curricula including courses, their arrangement within a general plan, and their extent and depth, determined in each case by the corresponding program, must be considered. The content of a plan of education, however, takes shape and gains meaning only in

[15] Document prepared by Dr. Carlos Campillo Sainz, Director, Medical School, National Autonomous University of Mexico, Mexico City.

virtue of the objectives to be reached and through a methodology which takes into account both material resources and manpower, the latter comprising both educators and students.

It can be deduced from the above that, if the system of health services corresponds to an integrated program, the medical personnel required by such an organization must have the necessary training, attitudes, and skill, and that such characteristics must be inculcated in them starting at the formative, undergraduate stage and continuing uninterruptedly through the subsequent postgraduate stage. The medical schools should aim at imparting to personnel a clear understanding of the benefits that the establishment of an integrated program of medical services represents for their own country. This, in turn, presupposes a familiarity with each and every one of the medical services available which have been coordinated to achieve integration.

In order to impart this knowledge and develop these attitudes, the medical school curricula should include a set of courses whose educational and informative importance is equivalent to that of those traditionally known as basic and clinical subjects. This set of courses, composed of specific subjects of varied titles, is strategically distributed throughout the curriculum and its function is to provide the student with the general principles of administrative science, preventive medicine, and social security. To the basic ideas and attitudes imparted by this group of courses, must be added those continually being absorbed from the teaching of the remainder of the courses, since the two types of courses must not be regarded as isolated areas, but rather as intimately related components of the single concept of medicine.

The basic notions of administration, preventive medicine, social medicine, and social security will be like a continuous flow, constantly increasing in size throughout the entire curriculum and, far from being isolated from the clinical training proper, will merge with it to complete the student's vision of medicine in its widest sense, as a profession of service to man and to the community.

It will be necessary to fight against the obstacles created by the resistance of those professors who, attached to the traditional systems, represent the natural inertia which innovation must overcome. It is those who are convinced of the benefits of the change and who have in their hands the teaching of the specific courses mentioned who must be responsible for encouraging in the rest of the faculty a true and sincere attitude, initially of acceptance and subsequently, of cooperation, through the repeated explanation of the goals pursued and principles supported.

If the faculty represents the basic factor, the student body occupies second place and is dependent upon the former; it will be necessary to take advantage of the personality traits of the students, to promote their vocations, to discipline their abilities, and to adequately channel their interests.

To refer to a concrete situation, the School of Medicine of the National Autonomous University of Mexico has included in its objectives the characteristics which the physicians it graduates should have. Some of these are mentioned below. The general practitioner required in Mexico should have the following traits:

1. A precise knowledge of the country's health problems and of the resources available to remedy them.
2. The orientation and skill necessary to exercise his profession in the fields of public health and preventive medicine.
3. A preparation permitting him to attack the health problems of a developing people.
4. A willingness to enter the practice of institutionalized medicine, and the ability to work as part of a team with other nonmedical professionals, and, in general, with the members of the community.

To the above should be added the need to encourage the physician to know his local environment and to fit himself into it without detriment to his over-all vision of the trends

and development of medicine as a whole in the country, in such a way as to allow him sufficient flexibility to select, within his possibilities and vocation, the place of work which is most suitable for him and in which he can be most productive.

With these objectives in mind, the following courses were included in the curriculum for surgeon-doctors: Introduction to Medical Practice, Preventive Medicine, Public Health, and Social Medicine.

In the final stages of his university career, the student takes part in the so-called Social Service. This consists on the one hand, in rendering his professional services to population groups, preferably in the rural areas, that lack this type of care, and on the other, in continuing his training through the lessons provided by direct contact, not only with the problems of individual health, but also with the complex of situations recognized as public health. Moreover, the Social Service offers the student an opportunity to apply his knowledge and to employ techniques related to the different systems of medical care.

It is understood, therefore, that the Social Service is not the goal of the student's training, but rather one more opportunity that the Medical School offers to enrich the preparation of the future physician and to instill in him positive attitudes toward the medical care system by providing him with the opportunity to learn about their objectives, programs, organization, resources, and methods of operation. In addition, by familiarizing himself with the population he serves during his Social Service, the physician will be able to understand it in relation to its racial and cultural patterns, and consequently serve it more efficiently and better judge what he can do for it.

With this basic preparation, the student is equipped to render a good performance in any technical or administrative position within the systems existing in the country, whether he desires to become a general practitioner or to further specialize in some branch of medicine.

4. COMPREHENSIVE TRAINING OF THE PHYSICIANS AT THE UNDERGRADUATE AND GRADUATE LEVELS[16]

The provision of health services within an integrated system presupposes the wide utilization of available resources to fully serve the population in the social, preventive, and curative aspects of health, with activities ranging from individual medical care to social and community medical action.

In this respect, an educational background of a general, undifferentiated character may be accepted *a priori* for the medical personnel who will be responsible for providing such services. Nevertheless, it becomes necessary to deal with the peculiarities of the current system and to analyze in detail the composition and functions of the health team in order to adapt the teaching model to the future professional activity. In practice, this analysis cannot relate merely to a static phenomenon, but must rather be seen as a component of general health planning, and should include the changes that it may be desirable to effect for the permanent improvement of the system.

As they become integrated for this purpose, government and social security health services will necessarily have to coordinate their development plans with the organizations which supply them with the manpower they need to attain these goals, i.e., the universities. In this connection, a cycle of continuous interrelations is established between the educational institutions and the labor market that will absorb this additional manpower.

In the case in point, the problem should

[16] Document prepared by the Secretariat.

be considered from two different viewpoints. The first, of an educational nature, relates particularly to aspects of methodology and program content, while the second, of an institutional character, concerns the coordination of the activities of governmental, educational, and social security health institutions.

(a) *The educational sphere.* In the final analysis, this subject is related to the general set of problems which confronts the universities with respect to the adaptation of student training to the working conditions and needs of their future field of endeavor.

In theory, the entire process of curricular adaptation should follow a logical sequence which takes into consideration its determining factors in terms of social values and the concept of the professional's mission. It should take into account the student's ability, interests, and motivation, as well as potentialities for development. In the formulation of educational objectives, precise definition of the functions which the physicians will discharge will make possible not only a better adaptation of the curriculum but also the permanent evaluation of the degree in which these objectives are being attained.

In practice, the physician should acquire sufficient knowledge to enable him to understand health as a state of satisfactory equilibrium between a human being and his environment. In addition, he should become familiar with the various forms of disease and should be able to understand their functioning, in order to prevent and treat them and acquire attitudes and skills appropriate to the exercise of his functions.

These wide objectives can be better specified in the particular case of integrated systems, taking as a basis the undifferentiated character of their medical activity, the various working conditions in which the physician will have to perform his functions, and the organization of their services, all of which he should be familiar with in his status of potential health team leader.

It is foreseen, of course, that it will be necessary to adopt a wider curriculum which will place the preventive and curative aspects of modern medicine in their proper perspective, capitalizing on the student's interest in relation to the practical importance of the problems dealt with and fostering his early participation in situations resembling those which he will encounter in his daily professional life.

The need to introduce into curricula an earlier opportunity for the student to deal with patients and with the social and ecological problems of the population served by the university cannot be overemphasized. This activity, which should be maintained throughout the course, should lead progressively to a kind of relationship similar to that which exists in teaching hospitals between the physician and the patient or between the student and the patient, and represents in community work what has been conventionally known in traditional hospital training as "clerkship."

The great expansion of the field of medical activity has given rise to the fragmentation of curricula into several diverse disciplines, which are becoming so complex that, due to their own self-sufficiency, they tend to break away from the unity which characterizes the basic knowledge of integral medicine. Therefore, the first phase in any attempt at adaptation should seek to coordinate, harmonize, and integrate the participation of the "teaching team" so that the general interest of the instruction and the development in the student of the attitudes required by a future doctor will not be dominated by the particular interests of the various specialties.

Clinical training, which is more closely related to the integrated program, should be conducted under a system of comprehensive medical services, in hospitals, health centers, out-patient clinics, and even through house calls, with a view to instilling a growing sense of responsibility in the student.

The relation between the suggested model and the classical curriculum, in which the setting consists of a hospital environment where the patient is under the care of a spe-

cialized medical team, is worthy of note. The proposal made here recommends the employment of an analogous model, in which the participants are the community and the health team or the organization charged with providing health services to the entire community, with students and teachers forming part of a single service system.

The objective of a teaching program of this nature would not be to demonstrate the highest level of efficiency of a service, but rather to train the future physician to be as efficient as possible under existing service conditions.

In summary, if it is hoped to obtain the unspecialized services of a physician within an integrated program, whether in out-patient clinics, teaching or social security hospitals, health centers, or peripheral subordinate units of the governmental health services, the least that can be done is to familiarize the student with professional practice in the various environmental conditions mentioned above and expose him to a wide range of medical functions in an attempt to foster the development of an attitude toward medical care which envisages a combined program of activities for the promotion, protection, and restoration of health.

(b) *The institutional basis.* Another aspect which should be considered is the possibility of increasing the student's opportunities for practical experience through the utilization of service facilities other than those belonging to the university. An immediate advantage is that it provides an opportunity for exposing the student to the conditions existing in these services, thus facilitating the adaptation of training through early familiarity with the specific problems of all areas included in the integrated programs.

In theory, the responsibilities of medical schools should be considered to be restricted to educational purposes, an assumption which would, of course, permit the supposition that they are not responsible for the service function which they exercise in teaching hospitals as a part of the educational process. This ideal situation could be reached by promoting a closer interchange between these institutions and the health services and social security hospitals. The existing examples of this type of relationship have demonstrated mutual advantages, especially when the medical staff of the institutions maintains some kind of functional link with the universities.

Sometimes, especially with reference to social security institutions, discussion arises on the difficulties which originate in the handling of insured patients by students, and the practice of carrying out practical demonstrations with social security patients is noted as particularly embarrassing. The opposing argument invoked derives from the very modernization of the learning process, which, by emphasizing training over instruction, advocates the joint participation of the student in individual tasks of progressively increasing responsibility. In practice, the treatment given by each student and by groups of students to a hospitalized patient is an activity which aids medical work and, like handling by nurses and aides, in no way implies disrespect for the patient's condition.

A possibly more important argument, from the technical viewpoint, is the unquestionable fact that the mere presence of students constitutes for the medical staff on any hospital a stimulus which usually raises the scientific level of its activities.

Furthermore, there is an original concept which is important to note for discussion, since it is not generally accepted but is nevertheless in strict accord with the general purposes of medical education, which hold that the introduction of teaching activities in a given hospital need not necessarily raise its operational costs. It is admitted that the demonstrative nature of teaching leads not only to a lengthening of the patients stay, but also to the employment of a greater number of examinations and procedures for diagnosis and treatment, thus increasing hospital expenses. This idea can be refuted by the simple argument that the best demonstration

consists of the most efficient practice of medicine and of the avoidance of superfluous and exaggerated routines that are not always related to each case in particular, a practice which should be desired in every institution. Finally, the increased utilization of outpatients for educational purposes is constantly becoming more and more common, since it makes possible a more objective vision of the day-to-day reality of professional activity and reduces the old preoccupation with demonstrating unusual cases, which were "stocked" for long periods in the teaching wards.

A quick glance at the current situation of the medical teaching process reveals, in practice, that the objectives of its methods and those of the public services and social security systems are ever closer to each other, a situation which favors the type of integrated medicine advocated here. The greatest divergence is possibly to be found in the public health medicine practiced especially by the Government through the rural health centers, but even in this particular case the universities are beginning to provide specific training, especially through internships in rural centers.

(c) *The strategy of adaptation.* It may be admitted that the methodological adaptation of the teaching and learning process may be more important than eventual changes that might be introduced into the curricula. Nevertheless, the present moment must be considered particularly opportune for such changes, since, in innumerable institutions, the problem is being analyzed with a view to reformulating curricula in order to better relate them to present needs.

The strategy that seems to us indicated, in the sense of relating the changes being evolved to the purposes of this meeting, should include:

1. Promotion of a closer relationship between those responsible for the universities and those responsible for the governmental and social security institutions, probably to take place through the organization of joint committees; the universities should recognize that the consumer should also participate in decisions related to personnel training policies.

2. Development of manpower studies in each country which specifically aim at analyzing qualitative demand with a view to formulating precise definition of the functions to be performed by each professional.

3. Adequate delineation of the objectives of teaching, based on the aforementioned studies, and establishment of the curricular bases and methodology to be followed.

4. Analysis of governmental and social security institutions, and establishment of minimum requisites for participation in teaching programs.

5. Accreditation of hospital services and health centers for the training of students under faculty supervision.

(d) *Graduate teaching.* With respect to graduate teaching, the possibility of coordination of integrated programs with other institutions presents a greater immediate viability and is more easily handled. Since this represents the specialization stage, the interests of the just-graduated medical student usually coincide with those of the service itself, and the integration period coincides with the resident internship. The physician now constitutes an inexpensive source of useful manpower, and the hospital, in turn, can offer him the conditions for further preparation for professional practice.

It is worth while mentioning at this point that the adoption of the system of residence in itself improves the pattern of care. Current practice in the countries in which these programs are carried out shows that they are easily adapted by the establishment of a department of education or a residence committee, in close relation with the local school of medicine, as an organ which would concentrate on more profound study of the problem and its permanent programming and evaluation.

It is worth remembering that his adaptation must reflect the working conditions that

predominate in the services which are part of integrated programs, and that mechanisms for the elevation of their level of activity can only be attained through the improvement of the teaching process itself.

Finally, with reference to the postgraduate stage, special attention should be given to the specialization in public health, an area which is undeniably one of those which most urgently requires the development of integrated systems. The number of specialists in this sector can probably be increased most effectively through improving undergraduate courses on preventive medicine, a process which is already in progress, in some fashion, in most medical schools. With respect to the adaptation of public health courses, the same comment made above in reference to the analysis of medical education, including the aspects related to the objectives and methodology of teaching, is applicable. The need to emphasize programs for the organization and administration of health services and planning should be especially stressed. The concepts on coordination assume special importance in this stage, in view of the possibility of their immediate application by multiprofessional teams to teamwork in demonstration units.

5. JOINT IN-SERVICE TRAINING OF PERSONNEL [17]

The institutions responsible for health care very often agree to establish a policy for coordinating their activities in order to make better use of the human, material, and economic resources available to each.

In achieving coordination, there is an increasing trend toward the establishment of mechanisms that, while facilitating effective operation, will also recognize the obligations particular to each participating institution under the laws of the land, so as not to impede the performance of the individual responsibilities of these institutions.

It is recognized that the main problem in the provision of health services to the population lies in the growing demand and insufficient resources, added to a lack of coordination among the institutions responsible for their administration. Taking these factors into consideration, coordination among the various institutions should be directed toward certain basic objectives, among which are the following:

- Meeting society's needs for timely medical services.
- Improving the quality of medical care.
- Keeping the operational costs of services in balance.

Most countries, and especially those in course of development, do not have sufficient facilities, equipment, health personnel, and economic resources. This makes the establishment of adequate coordination mechanisms an urgent necessity.

International organizations concerned with health policy and with social and economic development programs have repeatedly stressed the need to coordinate operative medical care systems. This position has recently gained strength from the participation of medical schools and faculties.

In order to achieve better utilization of resources, it is necessary to bring efforts and goals into harmony. For that reason, this item was included on the agenda of this meeting.

It is evident that joint in-service training programs are of paramount importance because they foster the recognition and understanding of common institutional problems. This, in turn, lays the groundwork for the mental attitudes necessary for the subsequent participation of the various institutions in coordinated activities designed to produce higher output from available resources with-

[17] Document prepared by Dr. Gastón Novelo, Chief, Department of International Affairs, Mexican Social Security Institute, Mexico City.

out hampering the fulfillment of each institution's legal obligations.

In order to attain these objectives, it is necessary to become familiar with the problems facing health promotion within the framework of the political, economic, social, and cultural realities of the various countries. Once this is done, the operative systems can be tailored to the conditions existing in each country or region.

Experience gained from establishing operative systems which are not adapted to the conditions of the country or region in which they were located justifies the urgent need to recommend that the coordination procedures for medical care be closely linked with the general economic and social planning of each country.

Joint in-service training designed to meet the aforementioned objectives can be broken down into two types: training concerning general standards and procedures applicable to any country or region; and training having particular characteristics suited to a given country.

In both cases, emphasis should be placed on measures that will contribute to better utilization of resources in order to obtain a higher output from those resources and foster adequate planning. Especially important is the establishment of uniform goals among persons responsible for directing the policy-making and administrative levels involved in the general planning of economic and social development, bearing in mind, of course, that each institution should assume the pertinent degree of responsibility in this process.

As numerous authorities in the field insistently point out, an important problem lies in the need to closely coordinate the ideological and pragmatic aspects of the attitude and activities of medical schools and faculties with national health plans for the purpose of obtaining health personnel in adequate numbers to satisfy the needs of society and, at the same time, possessing a technical training and psychological outlook which will facilitate its full utilization in medical care and social security programs within the framework of an integrated program of medicine.

The importance of this coordination in developing countries, and in the majority of other countries as well, is revealed by the fact that the growing demand for medical services has not been paralleled by a like increase in the preparation of professional and auxiliary personnel. Furthermore, educational programs do not impart a sufficient awareness of the importance of the role played by national and regional socioeconomic problems. Their failure to do so results in a complete lack of planning in the geographic distribution of health personnel and a qualitative imbalance in the areas of general and specialized medicine.

Looking at medical services from an operative standpoint, coordination among the institutions responsible for health care is indispensable in order to establish uniform procedures in the furnishing of preventive, curative, and rehabilitative services, and in the planning and design of medical units, collection and compilation of statistics, handling and maintenance of equipment and instruments, ongoing training of personnel, risk prevention, and other aspects.

As an illustration of the importance of joint in-service training to medical care coordination, there follows a brief summary of the results obtained by the Inter-American Center for Social Security Studies, the experiences of the Joint Commission for the Coordination of Public Health, Welfare, and Social Security Activities, and the programs developed for this purpose by the Mexican Social Security Institute.

Inter-American Center for Social Security Studies

In compliance with Resolution 58 of the Inter-American Conference on Social Security, the Inter-American Center for Social Security Studies (CIESS) has been operating in Mexico City since 1963 to provide

training programs for the technical, administrative, and medical personnel of social security and other institutions.

Some 800 Latin American employees, sent with fellowships granted by their own institutions or by organizations such as the International Labour Organisation (ILO), Organization of American States (OAS), and Agency for International Development (AID) of the United States of America, have received training. The activities and operating procedures of CIESS contributed to the joint in-service training of personnel in that its faculty includes experts from ILO, IASS, OAS, and PAHO and this results in a basic preparation inspired by the common goals of national resource planning and coordination.

The Mexican Social Security Institute, in accordance with the statutes of CIESS, provides material, technical, and financial collaboration, and grants fellowships to its employees and, on occasion, to employees of other social security institutions.

The study programs include courses in the following subjects: planning of medical units, organization and administrative methods, financial and accounting control, personnel administration, organization and operation of medical services, relationship of social security to economic planning, preparation of instructors for training programs, seminars for labor representatives, cost analysis, and other subjects which fall under the heading of special events. In this connection, the excellent results obtained from meetings held jointly with OAS, ILO, and IASS are worthy of note.

Joint Commission for the Coordination of Public Health, Welfare and Social Security Activities

The Commission was created on 2 March 1965 and is composed of employees of the Ministry of Health and Welfare, the Mexican Social Security Institute, and the Institute of Social Security and Social Services for Government Employees (ISSSTE).

For the discharge of its duties, it has 10 working committees which deal with the following matters: preventive medicine, statistics, basic charts and quality control of drugs, professional education, medical equipment maintenance and technical standards, radiological protection, laboratories, medical libraries and bibliographies, price control of medicines, and rehabilitation.

These committees are composed of representatives from each of the three aforementioned institutions; nevertheless, it is interesting to note that the Committee on Professional Education has an extended membership which includes representatives of the National Autonomous University of Mexico, the Department of the Federal District, and the Mexican Association of Faculties and the Schools of Medicine. This points up the fact that one of the main goals of its activities is to contribute jointly to the education and training of the personnel required by health services.

Mexican Social Security Institute

Its relationship with teaching institutions. The development of the medical services of the Mexican Social Security Institute (IMSS) has resulted in its increasingly active participation in medical education. This, in turn, has given rise to relations with the universities and their faculties and schools of medicine.

In order to make these relations uniform and operational, the General Directorate of the IMSS established a Medical Education Council in which the schools of medicine, academies of medicine and surgery, and the National Union of Social Security Workers are represented.

The importance of the work of IMSS in personnel training can be seen from the results of the meetings of the Medical Education Council. Recognizing this importance, the Institute has an Office for Education in its General Medical Subdirectorate to ensure compliance with standards and operational instructions.

With reference to undergraduate medical education, the IMSS provides facilities for students to receive clinical training in its medical units. This cooperation is very effective due to the considerable number of its medical personnel who teach in medical schools.

This collaboration, which is offered in all the states of the Republic, facilitates the establishment, through the utilization of the medical unit facilities and conference rooms, of direct contacts which are extremely useful in the training of future physicians. These prospective doctors thus acquire an objective understanding of the importance of the institutional organization in the development of national health programs.

In terms of figures, it can be said that 50 per cent of the country's medical students receive instruction in the facilities of the IMSS.

With respect to advanced study programs and postgraduate specialization courses, it is surprising to note that 80 per cent of such activities are carried out in the medical units of and by teaching personnel from the IMSS and ISSSTE.

These graduate programs prepare specialists in all branches of internal medicine, surgery, pediatrics, and auxiliary diagnostic services, and devote special attention to the training of the necessary medical instructors and researchers.

Training programs in the Institute. The General Medical Subdirectorate has under its jurisdiction the preparation of programs for newly graduated physicians who, as interns and residents, receive training in hospitals and other medical units. They are not only provided with educational facilities and financial assistance, but also with lodging and work clothes as well as medical care for themselves and their families. In 1969 1,687 physicians are receiving training in the hospitals of Mexico City and of the states.

The renown of the social security medical services has resulted in numerous requests from other countries for permission to send physicians to Mexico to receive graduate training as interns and residents. At the present time, 134 physicians sent officially by social security institutions, ministries of health, and universities, are receiving training under this kind of arrangement. The following countries are represented in the social security medical units: Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

In order to improve the quality of medical services, there is a Department of Scientific Research which develops social programs and promotes academic upgrading of doctors through the utilization of institutional resources and the application of planning programs for the development and progress of medical care. In accordance with the goals established by the institution, this Department gives consideration to research programs in reproduction biology, biochemistry, experimental surgery, pharmacology, neurophysiology, and pathology. To better perform its duties, it is supported by an administrative organization and special services which include the following: audio-visual aids, biostatistics, documentation center, experimental design, medical museography, and an editorial group. Together with teaching, this organization and its established programs constitute one of the greatest incentives for the medical personnel serving the institution.

In the education and training of personnel, priority is given to the field of nursing, and special attention is focused on the training of graduate nurses and auxiliary nursing personnel.

For basic medical personnel responsible for general medicine in outpatient clinics, there are ongoing training programs organized with a view to creating channels of communication between general physicians and specialists and physicians working in specialized hospitals.

The Institute's concern with the training of personnel has as its goal the improvement

of the standards of medical services in order to harmonize very important factors related with the organization and cost of medical care. To evaluate the results obtained, use is made of modern administrative and medical procedures which make it possible to assess the quality of medical services through the study of previously established indicators. Using the results obtained, an attempt is then made to establish those policies which will facilitate a better application of the resources to all geographic areas and to the populations contained therein.

A measure of the quality of medical services is obtained from the evaluation of the procedures applied to the patient and their results, which are studied in the clinical records by doctors commissioned for this purpose.

The complement of this evaluation of medical quality is the processing of the data in the electronic units of the administrative services whose function is to put the expressed goal of better utilization of financial, human, and material resources into practice and to establish medical and administrative standards conducive to the attainment of the optimum ratio between costs and the volume and quality of medical services.

The above summary is intended to show the importance given by the Mexican Social Security Institute to the ongoing training of in-service personnel and to the training of new health personnel, including the inculcation of a social outlook to enable them to become useful elements in the implementation of the programs of the institution, which are vitally important to the national health programs.

VI. COORDINATION IN THE FINANCING OF MEDICAL CARE [1]

1. OPERATIONAL AREA

The operation of medical services is becoming more expensive as the science of medicine progresses. Moreover, costs tend to rise as efforts are increased to place medical care within reach of larger sectors of the population, especially those in outlying communities and rural areas where the population is dispersed and do not have access to services.

For these and other reasons, costs are outrunning the financial capabilities of both social security institutions and ministries of health. Therefore, there are very practical and logical reasons favoring a policy of coordination between various national entities charged with the provision of medical care.

Joint Financing of Salaries

Given the limited number of medical and paramedical personnel outside of the principal urban centers, it is necessary to provide salaries sufficient to attract professional staff to areas now without the benefits of medical care and to retain them there. Social security institutions and ministries of health could arrange to finance salaries on a combined basis taking into account the number of insured and noninsured persons living in a given area, thus providing an incentive to medical personnel to accept employment in areas where no single agency would find it feasible to pay a salary high enough to attract and retain personnel.

Are there countries where such a practice is now in effect?

If so, what results has it produced?

What problems are there in applying this idea?

Joint Use of Hospitals

A major problem in the provision of medical care concerns the hospitalization of patients. Although in numerous instances the patient load is sufficiently heavy to justify the existence of separate hospitals operated by ministries of health and social security institutions, there is and there will continue to be an increasing number of situations in which the most feasible solution would be to have only a single hospital operated by one institution (either the ministry or social security) with the other paying for the hospitalization and other services it requires.

One difficulty involved in the joint use of facilities is to determine the method by which payment would be made. Committees representing both institutions could set amounts that one would pay the other in each locality for each bed-day. A minor obstacle arises when payment cannot be made directly to the hospital which provides the service, but even if payment is made through the central fiscal office of each entity, funds could be credited to the budget of the hospital providing the service.

Another problem relates to the administration of a hospital when an entity which does not own and operate the hospital is given a separate ward or section in which to hospitalize its patients. Even though certain services such as operating rooms, pharmacy, laboratory and X-ray, laundry, and kitchen are shared, one institution may insist on hav-

[1] Document prepared by the Secretariat of the OAS.

ing its own administrator in a hospital operated by another.

What experience exists regarding the joint use of hospitals?

What results have been observed? Analyze reasons for success or failure.

What payment system is most equitable and easy to administer?

Cooperation in the Provision of Drugs

One of the most costly components of medical care is the provision of drugs. They are traditionally given without charge as part of the benefits furnished to insured persons under social insurance as well as by ministries of health to the indigent sector of the population.

If physicians can be persuaded to prescribe drugs by their generic or chemical names instead of by their commercial brand names, and if the various institutions providing medical care could agree on the medicines to be prescribed, it should be possible to combine the needs of various institutions so as to be able to purchase and/or manufacture together the pharmaceutical products needed by all, thus resulting in a considerable reduction in the cost to each institution.

Different institutions can also make short-term loans of drugs to each other so as to overcome temporary shortages and thus eliminate the need for costly purchases on the retail market.

Do mechanisms exist to promote cooperation in the provision of drugs? If so, what are they?

What effect have such mechanisms had on the cost of drugs to each cooperating institution?

What advantages (and disadvantages) have resulted from cooperation in the area of pharmaceutical products?

2. INVESTMENT AREA

In addition to the problems involved in financing the operation of medical services, there is a chronic shortage of hospital and other facilities required for the provision of medical care. Frequently, neither the ministry of health nor the social security institution has the funds required to build (or renovate) and equip the installations needed, so that coordination in planning the location, size, and layout of hospitals and ambulatory care centers in order to conserve limited human, material, and financial resources has already begun to be put into practice in some countries.

Another way in which coordination can be practiced is when one may have surplus equipment that can be donated to the other —or made available on a short or long-term loan basis. Also, one institution may be willing and able to construct or remodel a hospital in a given location if there is assurance in advance that the other will utilize its facilities and reimburse the cost involved. Sometimes, one institution may be willing to donate new equipment to an existing facility of another if there is some guarantee that the donating entity will be given access to the improved facilities.

There are as many solutions as there are problems, but the possibilities for effective coordination depend to a large degree on the communication and good will that exists between officials of the different institutions at all levels and in all locations—capital cities and outlying areas. Legal instruments imposing coordination and creating joint committees are necessary, but there must be receptiveness to the idea of coordination at all levels in all affected entities if coordination is to become more than a manifestation of good intentions.

The need for coordination to achieve op-

timum utilization of scarce resources is a clear and logical one, but there will continue to be difficulties unless the attitude of those responsible is a positive one, based on mutual confidence.

What mechanisms exist to promote co-ordination in the financing of the construction, renovation, remodeling, or adaptation of hospitals and other health establishments?

What results have been obtained?

What difficulties have existed in practice and what measures are needed to lessen or eliminate obstacles to coordination?

VII. RESOLUTION OF THE XIX MEETING OF THE PAHO DIRECTING COUNCIL

Resolution XVIII [1]

Report of the Study Group on the Coordination of Medical Care Services of Ministries of Health, Social Security Institutes, and Universities

THE DIRECTING COUNCIL,

Having examined the report of the Director of the Pan American Sanitary Bureau (Document CD19/19, Rev. 1) apprising the Directing Council of the final report of the Study Group on the Coordination of Medical Care Services of Ministries of Health, Social Security Institutes, and Universities, jointly convened by the Organization of American States and the Pan American Health Organization, which met in Washington, D. C., from 4 to 8 August 1969,

RESOLVES:

1. To thank the members of the Study Group for their work.
2. To thank the Organization of American States for its assistance in organizing the meeting.
3. To confirm the recommendations of the Study Group.
4. To recommend to the Director that he give the report the widest possible circulation so that the health authorities of the countries of the Americas may take it into account in organizing their national health services.
5. To recommend to the Director that he organize zone meetings of senior health, social security, and medical education officials for the purpose of discussing how and to what extent the recommendations of the Study Group can be applied in the countries concerned.

[1] Approved at the fifteenth plenary session held on 8 October 1969.

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Annex

SOME COMMENTS ON CANADIAN EXPERIENCE WITH RESPECT TO HOSPITAL CONSTRUCTION, HEALTH RESOURCES, PLANNING OF HOSPITALS AND OTHER HEALTH FACILITIES, AND COSTS OF HEALTH SERVICES [1]

1. HOSPITAL CONSTRUCTION PROGRAM

The Nature and Scope of the Program When Introduced, and Significant Changes Initiated Since

The National Health Grants Program was inaugurated by Order-in-Council under the Annual Appropriation Act in 1948, with an annual allocation, for hospital construction projects, of $13 million to be distributed among the provinces on a population basis. This amount was increased slightly in 1949 when Newfoundland entered the Confederation and again in 1952 when the grant was extended to the Yukon and the Northwest Territories.

The federal contribution was $1,000 for the provision of each approved active treatment bed, $1,500 for each chronic, convalescent, mental, or tuberculosis bed, and $1,000 for each "bed-equivalent," defined as either three bassinets or 500 square feet of interior floor space in a community health center. The federal contribution was limited to one-third of the total cost and was contingent upon a matching grant by the province.

The scope of the program was extended in 1951 to provide $500 per bed in nurses' living quarters. The area per bed-equivalent was reduced to 300 square feet for community health centers, and the grant was extended to combined clinical and public health laboratories, subject to limits of area in both cases.

The amount available annually for new projects was reduced to $6.7 million in 1953, partly to provide funds for three other new health grants introduced at that time.

In 1954 bed-equivalent grants were extended to training facilities for hospital personnel.

Extensive changes were made in 1958 when the sum available each year was increased to $17.4 million. Federal contributions for active treatment, chronic-convalescent, mental, or tuberculosis beds and bed-equivalents were raised to $2,000. Payments of $750 per bed were authorized for beds in nurses' residences or in interns' quarters in hospitals. Up to one-third of the cost could be paid for major renovations or for alterations to existing facilities.

The program, introduced for a five-year period, has been continued to the present by a series of extensions. In 1966 the program was extended to 31 March 1970, when it will terminate. Approved projects must be under construction by that date in order to qualify for payment under the program.

Introduction of the Health Resources Fund in 1966 reduced the pressure on the Hospital Construction Grant where large institutions associated with medical schools are concerned, but had no effect upon the

[1] Document prepared by Dr. Joseph W. Willard, Deputy Minister of National Welfare of Canada.

construction of other hospitals or upon residential facilities.

Nature of Provincial Participation

There have been instances where provinces have contributed a larger share than the matching requirements called for under the program. The following components comprise provincial participation:

1. The mandatory matching of federal grants for approved construction.
2. The granting of amounts in excess of the federal contribution where applicable for approved construction.
3. The total cost, net of the federal contribution, in the case of hospitals owned by a province.
4. The total cost, net of local participation, for projects not approved under the Health Grants Program, e.g., in a province which has exhausted its share of the federal funds.

Formulas for provincial grants have changed over the years to meet the increased cost of construction. A review of past or current provisions is not possible here. The provincial contributions generally exceed the federal contribution by a wide margin. The following examples are typical.

In Alberta, most financing is by debenture, although some construction is financed by grants and outright payments. All debenture financing is done through the Alberta Municipal Financing Corporation and the province has assumed responsibility for the repayment of principal and interest on capital debt of approved hospitals. No federal construction grants have been approved for Alberta during the past two years.

Saskatchewan provides grants amounting to a maximum of $8,500 per bed for base hospital beds, $5,800 for regional hospital beds, and $2,000 for community hospital beds.

In the period 1949 to 1967 British Columbia provided grants of $53.6 million against construction costs in excess of $113 million. Federal construction grants approved for beds and renovations in the same period totalled $18.4 million. The province contributes a minimum of 60 per cent of the approved cost of a project, after deducting the federal grant.

Ontario meets two-thirds of the approved cost of construction, part of which may be a loan repayable from the income the hospital earns from extra charges on private and semiprivate accommodation. If the latter is insufficient to carry the cost of the loan, the Ontario Hospital Services Commission will make a payment equal to the deficit. The province also pays the full cost (net of federal contribution) of medical rehabilitation facilities, university hospitals, and teaching and research facilities of university-affiliated hospitals.

Quebec's provincial grants have consistently been higher than the federal contribution.

Nature, Scope, and Methods of Raising Funds for Local Financing

There can be several sources of local financing (i.e., non-federal/provincial participation), for example:

1. Payments from accumulations in hospital accounts, sale of assets, etc.
2. Private contributions.
3. Municipal taxation, primarily in the case of hospitals owned by municipal governments.
4. Salary payments, on account of hospital personnel in religious orders, that can be applied by the mother house to debt retirement.

In general, local financing is expected to provide about one-third of costs. Funds are obtained from financial campaigns, donations, bequests, and sometimes by bank loans or the issue of debentures. In Saskatchewan, where most hospitals are municipally owned, funds are raised by tax levies in the participating municipalities. It should be noted though that in Quebec there has

been little local financing of hospital construction in recent years, the province paying the difference between costs and federal contribution.

In districts where Indians form a significant percentage of the population, the Medical Services Directorate of the Department of National Health and Welfare may make a grant on behalf of the Indian population.

The extent of local financing cannot be readily determined; normally it would be one-third or more of the total cost. Over the period 1948 to 1968, provincial and local financing jointly accounted for 88.7 per cent of total construction cost (see p. 78).

Annual Federal Expenditures under the Program Since its Inception, and Number and Types of Beds Built Each Year under the Program Since its Inception (see Table 1)

Relative Costs of Remodelling Old Hospitals as an Alternative to Constructing New Premises

Costs for remodelling old hospitals are difficult to identify and analyze: they range from less than $20 per square foot to more than $50 per square foot. New construction, exclusive of movable equipment, land, fees, sales taxes, and contingency funds, averages about $30 per square foot (1967 average of 10 hospitals).

The following general rule in respect to remodelling versus new construction may be applied in assessing cost alternatives:

If the cost of purchase of land plus construction of a new facility is more than the value of sale of the existing property plus the

Table 1. Hospital Beds Completed with Federal Assistance under the Hospital Construction Grants, and Federal Expenditure

Fiscal year	*Active treatment beds*	*Chronic and convalescent beds*	*Mental beds*	*Tuberculosis beds*	*Total hospital beds*	*Bassinets*	*Nurses' beds*	*Interns' beds*	*Bed-equivalents*	*Expenditure ($)*
1948-1949	39	—	—	—	39	—	—	—	12.6	2,223,357
1949-1950	1,040	126	—	205	1,371	287	—	—	16.8	6,804,359
1950-1951	3,956	346	919	1,029	6,250	995	—	—	55.2	6,897,352
1951-1952	3,998	814	1,205	971	6,988	743	9	—	57.1	9,166,473
1952-1953	3,533	690	1,084	869	6,176	588	716	—	159.1	10,543,946
1953-1954	3,418	851	752	142	5,163	877	2,111	—	1,064.0	9,114,164
1954-1955	5,249	537	914	254	6,954	1,361	666	—	691.6	9,456,990
1955-1956	4,399	1,146	2,734	326	8,605	1,115	2,419	—	1,476.8	10,817,922
1956-1957	4,820	920	1,485	204	7,429	811	2,131	—	1,532.6	11,374,876
1957-1958	3,221	307	2,757	374	6,659	803	2,253	—	841.8	8,048,518
1958-1959	2,948	710	2,762	230	6,650	554	1,563	41	1,667.1	16,827,224
1959-1960	2,707	324	559	70	3,660	704	1,291	234	769.7	14,940,580
1960-1961	3,776	834	922	—	5,532	929	1,588	32	2,002.2	17,595,202
1961-1962[a]	3,516	418	1,614	—	5,548	894	2,070	111	1,485.3	18,999,996
1962-1963	4,150	660	1,442	64	6,316	589	820	77	1,800.2	20,000,000
1963-1964	6,095	685	1,069	—	7,849	956	2,700	68	2,094.2	22,000,000
1964-1965	3,446	1,190	575	—	5,211	297	985	41	1,403.4	21,512,347
1965-1966	6,253	1,217	991	—	8,461	1,113	606	99	2,172.1	17,622,038
1966-1967	3,378	234	344	—	3,956	624	212	95	1,353.0	16,473,944
1967-1968	3,786	174	207	—	4,167	521	1,189	12	1,253.3	16,401,662
1968-1969[b]	2,918	269	237	—	3,424	375	157	—	1,052.9	14,009,282
Total	76,646	12,487	22,572	4,738	16,408	15,136	23,486	810	22,961.0	280,830,232

[a] In the fiscal year 1961-1962, 35 tuberculosis beds were converted to convalescent beds.
[b] Data for 1968-1969 are based on projects submitted by the provinces.

cost of renovations and additions, then the remodelling of the old hospital should be considered as an alternative to constructing new premises.

It is understood of course that the above general statement concerns only the initial approach to the problem; other factors, listed below, require comprehensive evaluation before final decision.

1. Total resources.
2. Difference in annual operating costs, and in costs for heating, cooling, and electric power.
3. Financing and interest charges.
4. Increased efficiency of a new building.
5. Provision in the existing building for future expansion of departments and utilities.
6. Maintenance costs.
7. Insurance costs.
8. Real estate taxes.
9. Effect of federal and provincial grants.
10. Effect of relocation on patients, doctors, and staff.
11. Flexibility for future changes.
12. Urgency of the requirement for the new facility or service.
13. Amount of inconvenience and hardship subjected on patients and staff during the proposed renovations.
14. Travelling costs due to relocation.
15. Local considerations.

Appraisal of the Financial Formula under the Hospital Construction Program

The current formula is as follows:

$2,000 per active treatment, chronic, or convalescent bed;

$2,000 for each three bassinets in newborn nurseries;

$2,000 for each 300 square feet of eligible floor areas for "community health center" and "teaching" purposes;

$750 per bed in nurses' and interns' residences; and

One-third of the cost of renovations or alterations in an existing hospital building.

The formula is not selective. It is general in its application as regards such factors as geographic area and type of acute bed. It contains no incentive to construct most-needed beds as opposed to less-necessary beds. Some provinces have introduced differentials in their grants but hospital construction has tended, generally speaking, to proceed on an unplanned basis reflecting local initiative and pressure.

Appraisal of the Proportion of Costs Borne by the Federal Government

Federal expenditure on the hospital construction program to 31 March 1969 was $281 million. Total new investment in hospital construction in this period was $2,631 million (see Table 2). On this basis, the federal grants amount to 10.7 per cent of total construction cost. This percentage is

Table 2. Gross New Investment in Hospitals in Canada
(*In millions of dollars*)

Year	*Construction*	*Machinery and equipment*	*Total*
1948	44.0	11.6	55.6
1949	61.3	10.1	71.4
1950	62.3	10.7	73.0
1951	65.5	13.5	79.0
1952	81.4	11.9	93.3
1953	103.1	15.2	118.3
1954	106.4	15.2	121.6
1955	130.0	16.2	146.2
1956	110.0	18.7	128.7
1957	111.7	19.1	130.8
1958	124.5	23.5	148.0
1959	126.0	23.4	149.4
1960	125.2	30.7	155.9
1961	150.9	30.2	181.1
1962	152.2	28.6	180.8
1963	144.8	35.2	180.0
1964	150.2	38.6	188.8
1965	164.8	37.1	201.9
1966	178.9	43.8	222.7
1967	212.6	57.3	269.9
1968 (est.)	225.7	69.4	295.1
Total	2,631.5	560.0	3,191.5

Source: Department of Trade and Commerce: *Private and Public Investment in Canada,* appropriate years.

only an approximation as there are probably conceptual differences between the two series, e.g., definitions of equipment, repair construction, etc., but it seems unlikely that the federal share would be much higher than that.

Appraisal of the hospital construction program

One of the purposes of the appraisal is to determine whether the absence of fiscal need in the formula for distributing grants to the provinces has been a serious factor in deterring low-income provinces from improving and expanding their hospital facilities.

The answer depends upon whether "deter" is to be interpreted as "prevent" or "discourage." Table 3 shows that low-income provinces have not been prevented from expanding their facilities to a degree, but they might have expanded further under more liberal cost-sharing arrangements. The provincial cost of expansion obviously weighs more heavily in provinces with low per-capita incomes.

Table 3. Beds Set Up Per 1,000 Population in Public, General, and Allied Special Hospitals, by Province, 1948 and 1967

Province	*Beds per 1,000 population*		*Personal per-capita income, 1967*
	1948	*1967*	*($)*
Newfoundland	—	6.0	1,424
Prince Edward Island	5.0	5.9	1,532
Nova Scotia	4.7	6.0	1,790
New Brunswick	4.3	6.1	1,658
Quebec	4.2	5.5	2,069
Ontario	4.1	6.2	2,624
Manitoba	5.3	6.3	2,317
Saskatchewan	5.6	8.1	2,183
Alberta	5.9	8.3	2,372
British Columbia	5.7	5.8	2,579
Yukon and Northwest Territories	18.4	5.7	1,795
Canada	4.6	6.2	2,313

Source: DBS 83-217 Hospital Statistics; 13-201 National Accounts, Income and Expenditure, 1967.

Another of the objectives of the appraisal of the hospital construction program has been to determine whether the injection of federal and provincial funds under the program has been a significant factor in increasing the quantity and quality of hospital facilities.

The Branch of the Department of National Health and Welfare that administers the hospital construction grants reports that it has had numerous comments that the federal grant provided an incentive to develop a hospital construction project and that it made the difference between success or failure of the plan, especially for the smaller, community-type hospital.

The standards set by the Department have probably had an effect on the quality of hospital facilities, and the grant for renovations has assisted materially in bringing many older hospitals up to modern standards.

The appraisal of the hospital construction program has also been made in order to establish whether it has resulted in some provinces over-building facilities.

It is difficult to discuss over-building without an accepted norm. Canada has about 40 per cent more beds per 1,000 than the United States of America, but this difference might be rationalized. There appears to be a trend for beds per 1,000 population in most provinces of Canada to gravitate toward the national average in recent years. This would suggest that no individual provinces have engaged in any more extreme over-building than other provinces. The remaining logical alternative consistent with there being some over-building, viz. that most or all provinces have over-built, is excluded (provided that one takes into account the differences in policy of the provincial plans regarding the scope of insured services) by the continuingly high occupancy rates in hospitals.

The appraisal of the hospital construction program has also included an attempt to determine whether its impact has been only to offset the effect of inflation on hospital con-

struction costs, which have increased since the inception of the program.

Hospital costs have increased not only through inflation but also as a result of technological change. The hospital of 1968 bears little resemblance to the hospital of 1948 in many respects and a cost comparison over the 20-year period is not very meaningful. From 1948 to 1968 the value of the dollar as measured by the Consumer Price Index declined by about 40 per cent. Taking the 20-year period as a whole, federal and provincial grants jointly have probably more than offset the effect of inflation.

For a project undertaken now at $25,000 per bed for example, the equivalent cost in 1948 would have been $15,000, i.e., $25,000 × 60 per cent. (The example is, of course, completely hypothetical, because no one could have built a hospital in 1948 with all the facilities and equipment that would come into use by 1968; conversely, in 1968 no one would consider building a hospital on the basis of 1948 technology.) The difference due to inflation is $10,000 per bed. A federal grant of $2,000 plus a matching provincial grant of $2,000 would still leave the additional sum of $6,000 to be raised locally; in this example the construction grants would not have offset the effect of inflation. As already pointed out, however, many provinces far exceed the mere matching of the federal contribution, so that one might well find that 1968 grants from the two levels combined had more than kept up with rising prices. Data on provincial contributions to hospital construction are lacking.

In the appraisal of the hospital construction program an effort has been made to see whether low-interest loans, as were proposed in the 1945 Federal Proposals, would have been a more effective approach to the problem of the shortage of facilities when the program was introduced in 1948.

In his statement in May 1948, the Prime Minister stated that the provision of low-interest loans as proposed in 1945 "would not at this time be a sufficient inducement to hospital construction on the scale required."

The relative merit of low interest loans depends upon present provincial participation, the interest rate, the loan term, and whether the Health Insurance and Diagnostic Services Act might have been drawn up to include interest on capital financing. In 1948, when interest rates and cost per bed were low, there would have been, in fact, little advantage in low-interest loans.

Assuming that a hospital bed cost $8,000 in 1948, and there was a normal interest rate of 6 per cent:

Example 1: Federal grant $1,000; provincial grant $1,000; hospital borrows $6,000 at 6 per cent interest. Approximate cost to hospital: $9,600.

Example 2: Federal grant nil; provincial grant $1,000; hospital borrows $7,000 at 3 per cent interest.[2] Approximate cost to hospital: $9,100.

Example 3: Federal grant nil; provincial grant nil; hospital borrows $8,000 at 3 per cent interest.[2] Approximate cost to hospital: $10,400.

(The 1968 situation is not relevant to the situation proposed for discussion; but today's much higher interest rates and higher prices might significantly increase the advantage of a cheap loan. Ontario now gives low-interest loans to hospitals.)

The appraisal of the hospital construction program also attempted to find out why there was a differential in the formula for chronic and convalescent beds and whether providing this differential was justified.

The Prime Minister stated in 1948, "by placing a premium on the provision for chronic or convalescent beds, which are cheaper to provide and cheaper to maintain, the congestion in active treatment units should be considerably reduced."

The initial differential in the federal grant for chronic and convalescent beds ($1,500 per bed) as against active treatment beds

[2] Assuming 20-year term with principal repayable in equal installments.

($1,000 per bed) resulted from recognition of the fact that acute care beds were being utilized for long-term treatment. It was hoped that an increase in chronic and convalescent beds would release acute care beds. In 1948, there were 8,721 beds in public allied special hospitals (mainly for chronic and convalescent care). By 1957 there were only about 2,000 more. General hospital beds by contrast increased by more than 50 per cent in this period from 50,245 to 77,372. As the anticipated relative expansion in chronic and convalescent beds had not taken place, the grant per bed for beds in both classes was raised to $2,000. This sequence of events indicates that the initial differential, although justified, was inadequate.

Finally, the appraisal of the hospital construction program attempted to determine how and why the Federal Government is phasing it out.

The Hospital Construction Grant will cease with respect to projects submitted by, but not under construction until after, 31 March 1970. It is expected that there will be an annual item for several years in the estimates to carry out federal commitments to construction projects approved and under construction prior to 31 March 1970.

The reasons given for the cessation, when it was announced in November 1968, were that assistance had been provided under the Hospital Construction Grant for more than double the hospital beds estimated at the onset and that greater emphasis was being placed on other health services.

2. HEALTH RESOURCES FUND

How the Government Got Involved in the Program, and the Justification Given at the Time It Was Introduced

In recommending Federal Government assistance to the provinces for the provision of comprehensive universal provincial programs of personal health services, Volume 1 of the report of the Royal Commission on Health Services, published in 1964, recognized also the need for improving the supply and training of health personnel to meet the expected increased demands. On the basis of information obtained from special studies on various aspects of the present and future availability of human resources in the health fields, the Commission recommended various measures for improving the supply and education of health personnel and the provision of federal capital development funds to assist in providing new and improved health training and research facilities.

The actual involvement of the Federal Government in the Health Resources Fund Program arose out of the Federal-Provincial Conference of Premiers held in Ottawa in July 1965. Medical care was one of the items on the agenda of this Conference, and it was there that the Prime Minister placed before the provincial premiers the federal proposals for sharing the costs of provincially-administered medical care plans and outlined the types of medical care programs that would be eligible for federal financial support. At that time he also announced the Government's intention to introduce legislation to set up a Health Resources Fund.

In a further statement on 23 September 1965, the Prime Minister announced that the amount of the Fund would be $500 million, to be provided over a 15-year period commencing in 1966. The purpose of the Fund, he said, was "to help meet the greater need for trained people to provide medicare services. Through the Fund, federal capital grants will be available for the construction, renovation, and basic equipment of research establishments, teaching hospitals, medical schools, and training facilities for their health personnel. Grants from the Fund will not be available to meet the operating costs of such

establishments." Payments from the Fund would meet up to 50 per cent of the cost of construction and basic equipment for the assisted projects. The Health Resources Fund Act, implementing these decisions, was given third reading in the House of Commons on 27 June 1966, and received royal assent in July, with retroactive effect to 1 January 1966.

Nature and Scope of the Health Resources Program

The program is composed of three closely related parts: the Fund, the studies, and the consultation service.

The Health Resources Fund provides assistance to provinces in meeting capital costs of constructing, renovating, acquiring, and equipping health training and research facilities. A sum of $500 million has been appropriated for contributions of up to 50 per cent of those costs during the 15-year period 1966 to 1980, of which $300 million has been allocated to provinces on a per-capita basis; $25 million is a special additional allocation to the four Atlantic provinces for joint projects; and $175 million is yet to be allocated by the Governor in Council.

The money is being spent on new and improved health training and research facilities, which are defined in the Act as schools, hospitals, or other institutions, or any portion thereof, for the training of persons in the health professions or any occupations associated with the health professions, or for conducting research in the health fields. The costs of planning and designing the facility and of all basic equipment required for its operation are also eligible for support, but costs of land, interest charges, and residential accommodation are excluded. The Fund will pay up to 50 per cent of these capital costs, while some other agency, such as the provincial government or the university provides the remainder. The $25 million Atlantic portion of the Fund may be applied to the remaining 50 per cent of costs in the Atlantic provinces. Payments are made from the Fund to the provinces as work proceeds on the projects. To be eligible for Health Resources Fund support, a project must fall within the definition provided in the Act and be included in a provincial five-year program approved by the Health Resources Advisory Committee.

Operating costs are not eligible under the Health Resources Fund but other federal funds are available for these purposes in certain cases. Among these are the Post Secondary Education Assistance Program, the National Health Grants Program, Medical Research Council Grants, and Defense Research Board Grants.

The Health Resources Studies are intended to develop recommendations to improve manpower resources by determining total needs for health personnel, ensuring adequate supply, reducing losses, maintaining quality, and maximizing the unique skills of each type of health personnel by effective utilization. The Department of National Health and Welfare is bringing together a team of consultants in health manpower, initially a physician, a nurse, and a member of an allied health profession, to conduct and coordinate studies and develop the recommendations. This team will coordinate and correlate work already done, but needing updating, with current and future studies by interested associations and agencies. Many of the national associations representing the health professions and allied health disciplines will be participating in the studies program.

The Consultation Service is offered by the team responsible for the studies program and by other members of the Health Resources Directorate in the fields of health manpower and education. The consultants' special knowledge and experiences in the study program is available to provinces, agencies, and institutions intending to set up new health training facilities or otherwise concerned about the quality, quantity, or utilization of health manpower.

The Health Resources Advisory Committee was set up under the Act to advise the

Minister of National Health and Welfare. The Committee consists of the Deputy Minister of National Health (Chairman) and one member appointed by the Lieutenant Governor in Council of each of the 10 provinces.

Adequacy of the Health Resources Fund in Meeting Its Initial Objectives

The program has made encouraging progress. It has been understood and accepted by all concerned with improving health manpower in Canada, and has led to the initiation and development of provincial five-year health resources programs. Coordination of health manpower planning within the framework of comprehensive provincial health services planning has also been stimulated and advanced. This planning is now contributing to the selection of appropriate health training and research facilities eligible for Health Resources Fund support and it can be expected that effective utilization of the Fund will continue to improve as a result of this more thorough planning.

The development of the national health-manpower studies program within the Health Resources Program will provide support for provincial planning and justification for expenditures on Health Resources projects for improving the supply, training, and utilization of health manpower. The Minister so far has approved Health Resources Fund contributions of approximately $134 million to more than 89 projects. They include major health sciences centers, such as the University of Sherbrooke ($14 million), University of Toronto ($18 million), Dalhousie University ($9 million), and McMaster University ($33 million). Payments made from the Fund since its inception amount to approximately $73 million.

The initial momentum of the program experienced a setback when the Federal Government imposed limits of $37,540,000 on payments from the Fund during 1968-1969 and $37,500,000 for 1969-1970. This decision, and the possibility of a continuing annual ceiling, have been criticized by representatives of provincial governments and other agencies who claim that this unilateral decision seriously affects their planning for construction of new facilities for the education of much needed health manpower resources to meet increasing demands for services.

The development of the national health manpower studies program has also proceeded more slowly than anticipated because of classification and recruitment problems.

In the early years of this program, as might be expected, its effect in increasing the ability of the provinces to proceed to the erection of large structures was limited to those which could be rapidly planned and developed. Because the planning and developing of such projects is usually a long process, it would be reasonable to suppose that no great marginal change in the building program would take place during that period. There was a limit on how fast one could spend money on additional construction. Accordingly the early years of the program did not involve demands for great amounts of money.

More recently, the ceilings that have been imposed upon annual spendings under the Health Resources Fund have been the subject of a great deal of discussion. The point has been made that the ceilings have not yet had a limiting effect upon spendings under the Act because the demands on the Fund have remained below the ceilings imposed. In future years, however, this situation is not likely to continue because most provinces have developed spending plans that will considerably exceed the ceilings at their present level. Should it be necessary to continue to impose the ceilings it is likely that the Fund will not be able to continue to fulfill its objectives for long.

In closing the debate on second reading of the Act, it was stated: "The Honorable gentlemen raised another important point with regard to the allocation of funds. They asked whether funds are to be allocated on an annual basis. Funds will not necessarily

be allocated on an annual basis. They will be made available as projects are brought forward. No project in any province will be held up because a strict annual allotment is being applied to the allocation of these funds. That also removes the major concern expressed by hon. members." (Common Debates, 21 June 1968, page 6738.) This statement obviously did not anticipate the need for imposing ceilings and had been the basis of considerable acrimonious comment by the provinces. Some provinces have gone so far as to suggest that a climate of mistrust now surrounds all such matters.

Another point that has been hotly debated is a question of the transferability of funds available under the ceiling for a particular fiscal year but not used during that fiscal year. During fiscal 1968-1969, eight of the provinces did not draw from the Fund all the monies they were entitled to draw under the ceiling that had been imposed. The funds not so drawn were allotted to Ontario and Nova Scotia, the two provinces whose approved demands on the Fund exceeded their shares of the monies available. In April 1969, Ontario and Nova Scotia protested that they should still be allotted their full per-capita share of the 1969-1970 ceiling, and claimed that because when they had been given the extra money in 1968-1969 no particular stipulation in this regard had been made, there was no alternative but to regard allocations made that year as water under the bridge, and give them their full shares in 1969-1970. In fact, the Ontario member of the Health Resources Advisory Committee went so far as to say that Ontario, having been invited by the Federal Government to submit some extra projects for the 1968-1969 fiscal year in order to use up the unspent money available under the ceiling, would withdraw forthwith the extra requests that it, pursuant to those requests, had made unless assurance were forthcoming that its full share would go to Ontario in 1969-1970. The matter remained unsettled as the meeting (Fourth Meeting of the Health Resources Fund Advisory Committee, 9 April 1969) adjourned.

So, to answer whether the Health Resources Fund has adequately met its original objectives it would be necessary to determine first what its original objectives were. In our view, these objectives were never clearly set out in quantitative terms. The shortage of personnel that was the *raison d'être* for the Fund has not to this day been adequately measured, because there is still no agreement on what would constitute adequacy. One might argue, furthermore, that the unfortunate necessity to impose a ceiling on the spending of funds has led to a great deal of provincial trepidation about the future, when their expected spendings will greatly exceed the present ceilings, and has produced a great deal of bitterness. The provinces have had to adjust their construction programs to the exigencies of the situation, and the adjustments have distorted their plans from what their views of the priorities would indicate. The trepidation and bitterness cannot help but harm the success and impact of the operation of the Fund. It is, of course, true that a certain amount of capital development has been promoted during the period that the Fund has been operating, and has been assisted by the Fund. For instance, it appears doubtful that the Sir Charles Tupper Memorial Building at Dalhousie could have been built without the assistance of the Health Resources Fund (and the happy coincidence of the availability of federal funds for centennial projects, of which the building was one). Sizable amounts of assistance have gone to projects in other areas, among the most notable perhaps being the Health Sciences Center at the University of British Columbia. One wonders, however, whether the material gains in these regards have not to a significant degree been offset by losses from the acrimony and bitterness that have been engendered.

3. AREA-WIDE PLANNING OF HOSPITALS AND OTHER HEALTH FACILITIES

Provincial and Regional Planning of Hospital Facilities

The extent to which province-wide and regional planning of hospital facilities has been carried out, and the extent to which such planning has included the coordination of hospitals with other health facilities, e.g., public health clinics, are detailed below.

Province-wide and regional planning of hospitals and other facilities has been carried out, from time to time, in most areas in Canada. The Health Survey Grant, which was completed by the fiscal year 1952-1953, gave all provinces an opportunity to review their positions and to develop province-wide and regional plans for hospital construction and utilization. Prior to that time several health surveys had been conducted in Manitoba.

Regional and province-wide planning of hospitals of a continuing nature, to the extent that it exists, is considered to be only in its initial stages. Several of the task forces on health services have recommended regional and provincial hospital planning. These recommendations are interpreted as implying that present planning is minimal. There has been some attempt at voluntary regional planning in Saskatchewan for example, through the development of Regional Hospital Councils, but although a few centralized laundries have been established, progress generally has been disappointing. British Columbia is divided into Regional Hospital Districts to enable regional planning, development, and financing of hospital projects. Hospital planning in Ontario may receive greater attention with the advent of regional governments.

Generally speaking, regional planning is difficult on a voluntary basis as one group or hospital may exercise an effective veto. The motivation of self-interest associated with hospital autonomy is not easily subjugated to community well-being. Also, the retention of initiative at the local level created problems for the provincial authorities. The political implications of rejecting projects are very real on the one hand. On the other hand, the province cannot go too far in attempting to have projects submitted if local initiative is lacking. In addition, the need for local involvement in financing militates against the development of facilities on a regional basis.

Liaison between hospitals and other modes of health care is generally not extensive. Hospitals may provide facilities for surveys by other agencies, or space for public health clinics and doctors' offices in smaller communities. It would probably be reasonable to claim that most hospitals view their function as intramural and that close liaison in planning of hospitals and other health services is not customary.

In so far as the Hospital Construction Grant is concerned, British Columbia has been most active in utilizing funds for the building of public health services, but by and large these are not directly coordinated in health services. In Saskatchewan most health centers assisted have been associated with hospitals. In Manitoba the pattern is mixed. In Ontario all but one of the health centers built with grant assistance were on the grounds of a hospital.

Master Plan for Hospital Services (Province of Saskatchewan) for Hospital Insurance Program

Saskatchewan conducted a survey of hospital facilities as part of the Health Survey Grant activities in 1948-1952. The report was issued in two volumes: (1) Health Programs and Personnel, (2) Hospital Survey and Master Plan.

The survey made 45 recommendations relating to hospital construction, financing of construction, hospital services, integration, hospital operating policies, tuberculosis and psychiatric services. In its specific proposals for development of a regionalized provincial hospital system it recommended new construction, and bed replacements. Some 19 hospitals were recommended for closure al-

though the report diplomatically described them as "units with uncertain future or not foreseen as part of long term Master Plan." Ten years later, the 1961 Hospital Survey and Master Plan showed that 16 of these hospitals were still in operation, and recommended 12 for closure or conversion to other functions. In 1968, 10 of these hospitals were still listed in the federal/provincial agreement, although it is understood that one or two have since been closed and others are under threat of closure.

Following the completion of the Health Survey Report, a special branch was created in the Department of Public Health known as the Regional Services Branch. Under this program the various health regions in the province were organized with each region headed by a regional medical health officer. While this region was mainly for the provision of the Public Health Service there was some coordination with the hospitals in the region. About 12 years ago special regional hospital councils were set up in Saskatchewan and the main function of these regional councils was to coordinate the hospitals' activities with the region.

Manitoba Survey, Carried Out by Author: Volume Dealing with Facilities and Volume Dealing with Personnel. (Copies have been forwarded separately.)

4. COSTS OF HEALTH SERVICES

Expenditures for Health Services By Type of Service

Tables 4, 5, and 6 deal with expenditure in Canada between 1959 and 1967 for the principal classes of personal health care (medicare, hospital care, dental care, drugs, etc.).

From Table 4 it will be noted that expenditures rose from $1.4 billion in 1959 to $3.2 billion in 1967, or by an average of 11.5 per cent each year. Hospital costs rose most rapidly, increasing from $700 million to $1.9 billion over the period, for an average annual increase of 12.6 per cent. All the components except dentists rose more rapidly from 1963 onward than during the four years ending in 1963. On a per-capita basis, as shown in Table 5, the expenditure doubled

Table 4. Expenditures on Personal Health Care in Millions of Dollars and Yearly Percentage Increases

Year	*Hospitals*		*Physicians*		*Dentists*		*Drugs*		*Other*		*Total*	
	Amount	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)	*Amount*	(%)
1959	734		326		99		106		95		1,360	
		15.1		9.0		10.8		—4.7		10.5		11.5
1960	845		355		110		101		105		1,516	
		11.5		9.4		6.5		21.0		9.5		11.2
1961	942		388		117		123		115		1,685	
		11.1		4.6		4.2		2.0		8.7		8.3
1962	1,047		406		122		125		125		1,825	
		11.3		11.7		12.6		12.5		11.2		11.5
1963	1,165		453		137		141		139		2,035	
		10.6		9.3		7.9		9.6		10.1		10.0
1964	1,288		496		148		154		153		2,239	
		12.0		10.0		8.3		9.9		10.5		11.1
1965	1,443		545		160		170		169		2,487	
		14.4		11.0		10.2		12.2		14.2		13.2
1966	1,651		605		176		190		193		2,816	
		15.0		13.6		6.1		(25.8)		15.0		15.1
1967	1,898		688		187		239		222		3,241	
	Mean Annual Increases 1959 to 1967 and 1963 to 1967											
1959-1967	12.6		10.0		8.3		10.7		11.2		11.5	
1963-1967	13.0		11.0		8.1		14.2		12.4		12.3	

Table 5. Expenditures on Personal Health Care in Dollars Per Person, and Yearly Percentage Increases

Year	Hospitals		Physicians		Dentists		Drugs		Other		Total	
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
1959	41.89		18.59		5.65		6.08		5.42		77.63	
		12.6		6.6		8.3		—6.7		8.1		9.0
1960	47.17		19.82		6.12		5.67		5.86		84.65	
		9.3		7.2		4.4		18.5		7.3		8.9
1961	51.56		21.25		6.39		6.72		6.29		92.22	
		9.1		2.7		2.3		0.1		6.8		6.3
1962	56.23		21.82		6.54		6.73		6.72		98.03	
		9.2		9.6		10.4		10.4		9.1		9.5
1963	61.43		23.91		7.22		7.43		7.33		107.32	
		8.5		7.3		6.0		7.5		8.0		8.0
1964	66.67		25.65		7.65		7.99		7.92		115.87	
		10.0		8.0		6.3		7.9		8.5		9.1
1965	73.34		27.70		8.13		8.62		8.59		126.38	
		10.1		6.9		6.2		8.0		9.9		9.0
1966	80.75		29.61		8.63		9.31		9.44		137.74	
		13.1		11.8		4.4		(23.8)		13.2		13.3
1967	91.35		33.11		9.01		11.53		10.69		156.03	
	Mean Annual Increases 1959 to 1967 and 1963 to 1967											
1959-1967		10.2		7.5		6.0		8.3		8.9		9.1
1963-1967		10.4		8.5		5.7		11.6		9.9		9.8

from $78 in 1959 to $156 in 1967. The hospital component, on this basis, also rose most rapidly, going from $42 in 1959 to $91 in 1967. Table 6 shows that these costs have outstripped the rise in the gross national product, rising from 3.9 per cent of the total in 1959 to 5.2 per cent of the total in 1967. The single year 1966-1967 accounted for a larger rise than any previous year.

In these three tables, the following notes apply:

(a) Hospitals exclude capital cost but include salaries of physicians.

Table 6. Expenditures on Personal Health Care as Percentage of Gross National Product, at Market Prices

Year	Hospitals	Physicians	Dentists	Drugs	Other	Total
1959	2.1	0.9	0.3	0.3	0.3	3.9
1960	2.3	1.0	0.3	0.3	0.3	4.2
1961	2.5	1.0	0.3	0.3	0.3	4.5
1962	2.6	1.0	0.3	0.3	0.3	4.5
1963	2.7	1.0	0.3	0.3	0.3	4.7
1964	2.7	1.0	0.3	0.3	0.3	4.7
1965	2.8	1.0	0.3	0.3	0.3	4.8
1966	2.8	1.0	0.3	0.3	0.3	4.8
1967	3.1	1.1	0.3	0.4	0.4	5.2

(b) Physicians and dentists represent income from private practice.

(c) Drugs represent estimates of prescription sales of retail pharmacies, based on sampling statistics. A new method of survey, used for the first time for the 1967 data, precludes comparison with previous years.

(d) Other expenses are rough estimates for expenditures on optometrists' services, eye-glasses, private nurses, chiropractors, and podiatrists (chiropodists).

Major Components of Costs under Hospital Insurance Programs

Table 7 sets out the operating expenditures for the years 1961 to 1967 of hospitals whose budgets were reviewed under the hospital insurance program. Total expenditure rose between 1961 and 1967 from $696 million to $1,478 million, or by 113 per cent. Salaries during the same period rose by 120 per cent, medical and surgical supplies by 104 per cent, drugs by 74 per cent, and raw food by 45 per cent. The percentage of total expenditures devoted to salaries rose from 64.5 in 1961 to 66.9 in 1967, with offsetting reductions in other categories; Table 8 shows these percentages.

Table 7. Revenue Fund Expenditures of Budget Review Hospitals, by Type of Account

Year	Departmental expenses						Other (non-departmental) revenue fund expenses	Total revenue fund expenses
	Salaries	Medical and surgical supplies	Drugs	Raw food	Other departmental expenses	Total departmental expenses		
1961	448,532,250	22,141,973	29,910,717	44,159,211	95,780,540	640,524,691	55,109,856	695,634,547
1962	496,644,441	23,854,705	31,111,935	46,443,007	125,670,346	723,724,434	58,666,243	782,390,677
1963	560,702,855	27,319,988	34,253,448	49,255,922	141,933,756	813,465,969	64,637,098	878,103,067
1964	634,519,907	30,855,715	37,673,561	51,989,367	156,688,241	911,726,791	69,935,209	981,662,000
1965	723,731,362	34,199,045	42,250,830	54,975,012	179,470,986	1,034,627,235	74,495,664	1,109,122,899
1966	838,299,131	38,773,995	46,581,202	59,645,067	211,935,665	1,195,235,060	80,854,526	1,276,089,586
1967	988,432,016	45,110,199	51,899,439	63,917,117	253,712,166	1,403,070,937	75,264,012	1,478,334,949

Table 8. Percentage Distribution of Revenue Fund Expenditures of Budget Review Hospitals, by Type of Account

Year	Departmental expenses						Other (non-departmental) revenue fund expenses	Total revenue fund expenses
	Salaries	Medical and surgical supplies	Drugs	Raw food	Other departmental expenses	Total departmental expenses		
1961	64.5	3.2	4.3	6.3	13.8	92.1	7.9	100.0
1962	63.5	3.0	4.0	5.9	16.1	92.5	7.5	100.0
1963	63.9	3.1	3.9	5.6	16.2	92.6	7.4	100.0
1964	64.6	3.1	3.8	5.3	16.0	92.9	7.1	100.0
1965	65.3	3.1	3.8	5.0	16.2	93.3	6.7	100.0
1966	65.7	3.0	3.7	4.7	16.6	93.7	6.3	100.0
1967	66.9	3.1	3.5	4.3	17.2	94.9	5.1	100.0