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XIV Regional Committee Meeting

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

First Working Paper

SUMMARY OF AVAILABLE BASIC INFORMATION

I. BACKGROUND

1. Despite the importance of medical care, its long history, and the preponderant share of health budgets devoted to it, no special discussion of it has taken place at the Pan American Health Organization meetings except where it touches rural areas.

This fact explains why the XIII Meeting of the Directing Council of PAHO decided in Resolution XXXI to select this topic for the Technical Discussions to be held during the XVI Pan American Sanitary Conference.

The length of its title is in direct proportion to the vastness of the subject, and reflects an attempt to define it as exactly as possible. In other words, it is postulated from the very outset that medical care is one of the basic services of any national or local health program and, as such, must be incorporated, together with the other activities, into any planning that takes place.

2. The scope of this topic has made it advisable to divide it into three main headings, each the subject of a separate working document, so as to facilitate discussion:

a) A summary of the available basic information, with some considerations on the present general policy governing medical care in the Americas;

b) Financial and economic aspects of medical care, to provide more information about sources of funds and the institutions that provide these;

c) Future prospects, with special reference to better utilization of resources through the formulation of a basic medical care policy.

Great effort was made to adapt all three working documents to a consistent pattern that would facilitate their interpretation. Since the third document is the one that looks toward the future of medical care, it has been taken as the model to be followed, so far as possible, in developing the present paper. This explains an arrangement that might at first glance seem arbitrary.

3. The Governments are aware that the Organization, in order to round out its activities in the field of health, has been attempting lately to deal with the main problems of medical care. This has of course been done before, but only in a sporadic, subordinate, or tangential way. Even at present no course of action will be suggested that is not in accordance with careful observation and the express desires of the Member Governments.

It is in this spirit that the Organization has undertaken certain preliminary steps and gathered the available information to provide the essential background for the subject.

At Punta del Este (1961), pursuing and improving upon the course taken at Buenos Aires (1959) and Bogotá (1960), the Organization consolidated its earlier position: that health is a component of economic and social development. Concerning medical care, the specific recommendation was achieved: "to take measures for giving increasingly better medical assistance to a larger number of patients, by improving the organization and administration of hospitals and other centers for the care and protection of health."

A meeting of the Special Advisory Group on Medical Care was called at Washington Headquarters in March of this year; its final report has been consulted in the preparation of this document. Also included are the pertinent contributions of the June meeting of the Advisory Committee on Medical Research.

With the aid of its six Zone Offices, the Organization made a survey to determine what are the most urgent needs in the general organization of health services and what place they assign to medical care.

These then are the preliminary steps taken by the Organization during the past two years in fulfillment of the Directing Council's mandate, with the present Conference constantly in mind. The data collected are the groundwork for this topic. The general bibliography appearing at the end could be separately published for greater convenience to the Governments if they should so desire.

II. DEFINITION AND PRINCIPLES

1. By "medical care," the Pan American Health Organization means (without prejudice to other supplementary definitions) the totality of direct and specific measures aimed at placing within reach of as many people as possible the resources of early diagnosis, prompt and thorough treatment, and follow-up observation. These resources are provided by institutional or private medicine. As one of the basic services of an integrated health program, medical care contributes also to training and research. Within systematic, coordinated, and coherent programs, it participates indirectly and individually in the activities of health protection and promotion.

2. From the point of view of the patient, its principal beneficiary, medical care must meet the following basic requirements:

a) It should be accesible to everyone, without regard to his income, to the cost of the service, to where he lives, or to his race, religion, or political allegiance.

b) Every individual has a right to proper medical care, with the help of all the means science has at its command, whenever he needs it -whether provided by physicians, dentists, pharmacists, nurses or others; whether in his home, in an out-patient center, or in an institution; whether for prevention, treatment, or rehabilitation; whether the illness be physical or mental, whether short-term or long-term.

c) These services should be adequate in both quantity and quality, and should be provided for as long as necessary, with the continuity and understanding required by the patient's physical and psychological state and social condition and with the greatest possible economy and coordination of the technical services offered.

3. For these reasons, medical care as a social function is winning increasing interest from public and private circles, from the individuals and groups benefited, from professional societies, and from the state. The complexity, volume, and rising costs of medical care have led more and more to a demand that it be a government responsibility.

To this should be added the growing activities of social security in Latin America, which have contributed to the idea of medical care as preferably a state function in the sphere of social justice.

This view has had profound repercussions on the medical profession and the art of healing. History shows that medicine has always attempted to reach the entire population. But since providing complete care to all imposes ever-greater sacrifices on the doctor, he and his professional societes feel a certain understandable apprehension. However this may be interpreted, it remains one of the salient characteristics of medical care in our time, and must not be ignored when looking toward progress based on broader knowledge and information.

4. No matter what position medical care occupies within an economic and social development plan, or within an integrated health plan, there is no point in further discussing whether or not health protection and promotion ought to be separate from care of the sick. The study of health and disease throws light on the unity of the biological process -reason enough for rejecting any structural separation between preventive and curative services.

This fact alone suffices as the point of departure for examining thoroughly the concepts on which the medical care of the future should be based, defining its sphere of action, reviewing its methodology.

5. More than once, proposed definitions of "medical care" have suffered in richness of meaning because of barriers of language or tradition. Ingrained prejudices and controversies still unresolved are reflected here.

On the assumption that the preceding explanatory passages do not altogether clear up the dissimilarities in terminology between various documents originally prepared in different languages, it has been considered advisable to devote a paragraph or so to possible likenesses and disagreements.

In the present document the terms "care of the sick," "medical assistance," and "medical care" are synonymous. They are used in accordance with the definition and requisites listed at the beginning of this chapter.

In another of the documents an attempt has been made to go beyond the English term "medical care" to the idea expressed in "health care," thus including the functions of health promotion, disease prevention, prompt diagnosis and treatment, and social rehabilitation. The term "health care" seeks to emphasize the need for integrating all the services arising out of scientific knowledge.

It is understood as an equivalent for the term "medical care" as used in the present document, at least in the realm of concepts and modern trends, and in the title of the topic. The only difference may lie in the fact that this document employs the term as comprehending individual promotion and prevention, while the other paper gives it a more collective significance.

III. GENERAL REMARKS ON MEDICAL CARE IN THE AMERICAS

1. This chapter aims at examining briefly the information available. To give a clear idea of the situation throughout the hemisphere is an extraordinarily difficult and complex task. It is hoped that the Governments will be inspired, in the course of the discussions, to fill up the acknowledged gaps in the present study.

But even if the true situation of each country were fully known, the whole picture would still not be easy to visualize, owing to the peculiarities of medical care in each of the different countries. The stumbling block of countless autonomous agencies, with consequent duplication of efforts and expenditures, is both the cause and the effect of the most varied and complicated situations.

Medical care services in Latin America are responsible to various administrative authorities. Thus from the outset any attempt at classifying them is open to criticism as undesirably generalized. That offered below is merely an attempt to convey an idea of the multiplicity of institutions that would have to be reconciled in any coordinated action:

a) Central Government: state health service; state or provincial authorities; armed forces and police; public universities; charities absorbed by the state.

b) Local Government: local councils; municipalities; district or regional councils; local welfare boards.

c) Mutual and social insurance: compulsory social-security funds (employers and employees); mutual-aid societies.

d) Voluntary agencies: non-governmental groups (boards, councils, private universities, religious institutions, private charities, and so on) established on a non-profit basis.

e) Private organizations: clinics, sanatoria, diagnostic institutes operated for profit.

This list suffices to show what combinations of variables each country may offer. The possibilities for diversity are further increased by considering the differences in political organization (central, federal, or mixed) in community government (autonomous municipality or dependency of the central government), in the higher administration and grouping of the ministries and their branches, in public universities (dependent or autonomous), in welfare agencies (state, semi-official, or independent), and in social security agencies (government-managed or semi-autonomous). And at times there are legal obstacles difficult to overcome. The Latin American juridical tradition rests essentialy on written law. The constitution, constitutional laws, administrative laws, decree-laws, regulations, vary in their handling of this subject from country to country.

It is therefore not easy to gather the basic data necessary to learn the medical care situation in each country. Even more difficult is discovering how it is related to other health services within the socio-economic framework, so as to be able to plan for integrated development in countries that need it.

It is to be hoped that the Governments will join in overcoming this difficulty --particularly in view of the recommendation, made by the Special Advisory Group on Medical Care during its recent Washington meeting, that these essential data be gathered and that the precaution first be taken of fixing and standardizing the definitions and subject matter relevant to a study of comparative health in the Americas.

2. As mentioned above, the Organization, with the aid of its Zone Offices, made a preliminary study in the countries in order to evaluate the present situation of health problems in general and medical care in particular. This brought to light a certain amount of information --not enough to determine each country's requirements, but useful as guidance on major facts and trends for the study mentioned in the preceding paragraph.

This material, it should again be pointed out, is so arranged in the present paper as to conform to the working document containing the most urgent recommendations for improved use of available resources.

3. As to general organization, 2 countries still lack a ministry of health. In 5, a large proportion of the health activities escape the tutelage of the specialized ministries. In almost all the countries --19-- other ministries are associated with that of health in joint administration of important health programs. In this connection, it should be noted that 14 countries have social security systems that insure against illness in one way or another, but that in only 5 of them is this function handled by the ministry of health. In the remaining 9, it is directed by the Ministry of Labor (and Social Security).

In 8 countries, the structure of health promotion, protection, and restoration services is organized by law for joint and integrated action. In 12, they are loosely coordinated or fragmented. In 16, health activities as a whole, public and private, operate without coordination.

In 17, the Minister of Health both establishes the broad health policy and administers it, either directly or through an under-secretary or other high-ranking official. In 12, the chief is called Director of Health or its equivalent, and is empowered to administer. In 4, there is also a board that is not merely a consultive body but shares the policy-making and administrative offices with the Director.

This summing-up highlights the need for reforming the central policy-making structures -by establishing a Ministry of Health where none exists, by giving the health ministries legal authority to manage their own most important problems, by coordinating health programs at the inter-ministerial level.

4. If within this general health-organization picture an attempt is made to locate those services principally devoted to medical care, the following trends emerge:

In 15 countries, law or tradition give medical care a certain amount of autonomy in its own actions. In these countries the tendency is to regard it as an independent activity.

In 8 countries, there is a high-level agency expecially charged with drawing up a medical care policy. Only 3 have an advisory or consultive board for their medical care programs.

Hospital sponsorship is divided in the various countries as follows:

Sponsor	Number of Countries
National government	20
Province	7
Municipality	9
Military	18
Social Security	16
University	10
Private charity	16
Mutual-aid societies	7
Private	16

In only 7 countries does the state supervise all institutions that provide any form of medical care. Government-established standards are compulsory for all in only 6. The institutions are coordinated among themselves in 3 countries, and coordinated with the other health agencies in 3 more. In 2, they form a unified hierarchical system.

This gives an idea of how much can be done in the way of integration and coordination.

IV. COSTS AND FINANCING

1. Elsewhere in this paper it was said that medical care, as an inalienable right, should be accessible to everyone in sufficient quantity and quality. It is well known, however, that this is far from the case in the Latin American countries. Moreover, costs are rising as technology advances. It is equally well known that the countries' budgets for medical care are inadequate and could not meet the needs even if present resources were more wisely used, which is impossible without an over-all health policy that includes medical care.

There is as yet little experience in "medical economics." As for its application to the subject of this document, no estimate of the real cost of medical care -and hence of its financing- can be made until precise standards have been agreed upon. This is apparent from a recent study made by the World Health Organization on the cost of health in six countries. The final results of that study clearly showed that uniform criteria must be worked out before comparable and helpful data can be obtained.

To discuss the cost of medical care, therefore, means taking a circuitous route -so circuitous, even to arrive at an approximate estimate, that it reveals plainly the gaps yet to be filled.

2. One of the most commonly used indices for evaluating the adequacy of coverage for sickness and recuperation is the number of hospital beds per thousand population. There is no guarantee that a given rate is valid for every country, for the various regions within it, and for its current socio-economic situation.

Still, following the indirect method, it should be noted that in 6 of the countries that rate is 2 per 1,000; that in 6 others it fluctuates between 2 and 2.9 per 1,000; and that in only 8 countries does it exceed 3 per 1,000. Official figures, incidentally, vary from year to year to an extent that cannot be explained by supplementary information on construction, remodeling, or closing down of facilities.

Be that as it may, there is beyond doubt a shortage of beds in some countries, even where there is evidence that with better organization and administration the existing number could serve many more patients. Adding beds is a burden on each country's economy. No matter how conservately the present shortage is estimated, it involves astronomical figures.

Once a policy on this matter has been established, once the need for however many beds has been accepted, thought must immediately ge given to their installation and, even more important, to their future use. It should be added here that many existing facilities could stand remodeling -not only as to premises but as to equipment, and operating budgets. The rates of occupancy are low in some places not because there are too many beds, but because their quality and the prejudice against them discourage people from using them, which illustrates the consequences of insufficient financing. Approximate costs that have been determined (not all institutions are in a position to supply them) are plain evidence of this fault.

3. Three of the most important sources of financing are the Government, social security, and private charity. If they could be induced to establish a common fund, better use of resources and increased efficiency would undoubtedly be possible.

Unfortunately, prejudice, vested interest, desire for autonomy, conviction of one's own greater competence, and other factors prevent common action in a field of common interest.

Moreover, some countries refuse to do away with their systems of wholly gratuitous care so as to let the beneficiaries pay all or part of the costs, as their circumstances permit. Experience proves that a prior medico-social investigation by trained personnel can strike the right balance between the patient's interest and the institution's.

The need for community participation in solving such problems is evident. For, in this as in other matters, an informed and interested community will scarcely deny itself the benefits of modern care. But in only a third of the countries do communities participate to a greater or lesser degree in their local health programs.

V. PERSONNEL AND EQUIPMENT

1. In measuring resources and needs, the role of the technician or expert immediately comes to mind. It is he, rather than the capital invested, who is responsible for social progress. Without technicians who knew how to employ it, a powerful injection of capital into any developing country could produce unpredictably catastrophic results. The new directions in medical care require personnel chosen, trained, and oriented with the emerging needs in mind. The "health care" administrator, the heads of technical units, the clinician concerned with individual and social pathology, the professionals in related fields, should all be reoriented toward a cooperative, not a competitive, health policy. The lack of quality and quantity is only too well known. Some of the salient points are dealt with in the following paragraphs.

2. The appropriate population/physician ratio depends on the disease level, on the organization of the system, on the number of nurses and auxiliaries available, on socio-economic factors, and on the prevailing demand for medical services.

A rate of 10 physicians for every 10,000 inhabitants could serve as a median for present needs and those of the next twenty years. Estimated in this way, present needs would be satisfied with 203,000 physicians -exactly double the number actually in existence. It is estimated that by 1980 a total of 350,000 physicians will be required, or three and a half times the present number.

In 1957 the rate cited above -10 physicians per 10,000 population- had been achieved in only 3 countries. In 6, there were fewer than 3 physicians per 10,000.

The distribution of physicians is very uneven, to the detriment of rural areas, in many of the countries; in 5, there is a high proportion of specialists as opposed to general practitioners. In only 5 does the law recognize a career service for government medical care officers or make that career attractive. The same applies to dental care.

Only 6 of the countries already have or are in the process of establishing one or more schools of public health, but most continue to train the public health and the medical care administrators separately. Interest on the part of physicians in specializing in public health administration is declining. In 3 of the countries, hospitals are customarily administered by specially trained personnel. The majority, 17, entrust this activity to physicians untrained in health enterprise administration. In 3 countries hospital administration may be carried out by non-medical personnel. A few countries are training hospital administrators who are not physicians but are equipped for special studies. It is difficult for international agencies to find full-time or part-time consultants to advise the Governments on the organization of medical care services.

3. Similar or even greater difficulties are found in the field of graduate nurses. It is estimated that at present there are some 37,000 nurses in Latin America. If one nurse is considered capable of supervising four to five nursing auxiliaries, the necessary number of nurses may be calculated at 60,000, or 3 for every 10,000 population -the minimum figure that can be considered acceptable. But in Latin America the present rate fluctuates between 0.3 and 5.8 per 10,000, and in 14 countries is below 3.

There are approximately 94,000 nursing auxiliaries working in Latin American hospitals and health centers. Their training, it must be recognized, leaves much to be desired; simply improving it would fill many gaps. For example, they could free many graduate nurses for teaching.

The rate recommended by experience is 13 auxiliary nurses per 10,000 population for normal hospitals and health-center operations. This means that 263,000 properly trained nursing auxiliaries are needed. The proper ratio exists in only 3 countries, which shows the size of the training effort that must be made.

The new social role of health as a component of development, its position of helping the community and being helped by it, must bring into prominence a group of professionals that until now has been largely neglected: the social worker.

4. What has been said regarding physicians, dentists, social workers, nurses, and nursing auxiliaries also applies to all other health workers. Laboratory assistants, sanitary inspectors, statisticians, must all be recruited or their previous training improved.

But it must be remembered that personnel requirements cannot be solved just by establishing indices and measuring needs; programs must take into account the community's socio-economic conditions and make sensible use of its potential contribution. Volunteer service, for example, is not to be despised so long as adequate training and supervision facilities exist.

5. How many beds are desirable depends on numerous factors, among them socio-economic conditions, the number of professionals available, the distribution and degree of use of hospitals and health centers. Some background data already exist, and only supplementary information is lacking.

According to the most recent information, the available hospital beds in the Hemisphere are distributed as follows (listed by country in alphabetical order):

COUNTRY	POPULATION	BEDS	RATE PER 1,000 POPULATION
Argentina	20,956,000	125,358	6.0
Bolivia	3,462,000	5,600	1.6
Brazil	65,743,000	223,543	3.4
Chile	7,628,000	28,339	3.7
Colombia	14,132,000	41,794	3.0
Costa Rica	1,171,000	4,919	4.2
Cuba	6,797,000	18,000	2.6
Dominican Republic	3,014,000	8,024	2.7
Ecuador	4,298,000	7,145	1.7
El Salvador	2,612,000	5,064	1.9
Guatemala	3,765,000	8,900	2.4
Haiti	4,247,000	2,442	0.6
Honduras	1,953,000	3,913	2.0
Mexico	34,626,000	51,300	1.5
Nicaragua	1,477,000	2,738	1.9
Panama	1,055,000	4,008	3.8
Paraguay	1,768,000	5,000	2.8
Peru	10,857,000	22,000	2.0
Uruguay	2,827,000	16,000	5.7
Venezuela	6,709,000	26,029	3.9

This table is offered merely to give an over-all picture, and is subject to correction in a more detailed investigation. It is evidence of the amount of medical care provided and of the unmet needs that must be kept in mind in any future planning. On the latter point, additional comments are in order.

6. In 3 Latin American countries, hospitals are constructed according to a national plan. In 4, they are programmed after a compilation of necessary data and consideration of the area they will serve. In 6, their architectural plans are drawn after a sufficiently detailed functional program has been written. In 7, there is a department of architecture staffed with specialists in hospital construction. Only 1 country seems to have an acceptable distribution of hospital beds between urban and rural areas; in 8, this proper distribution is found in at least one area of the country. Hospitals are regulated by law in 6, and 14 have a sufficiently separate administrative department. In 12 countries there are accounting offices; in 9, administrative statistics; in 6, medical statistics; in 5, a department for maintenance and minor repairs; in 10, personnel departments.

Once again it should be pointed out that this material was gathered in an attempt to show an over-all picture, and allowance must be made for errors of generalization.

Other serious defects in organization and administration existing in more than half -and in some cases up to two thirds- of the countries are found in the following fields:

- Cost of hospitalization and out-patient service
- Daily census of beds and patients
- Average length of stay and data on discharges
- Occupational data on patients
- Files and clinical histories
- Organization of medical staff
- Graduate nursing staff, at least supervisory
- Auditing

7. Along the same lines of thought, -making the best use of existing resources and discovering actual costs, as a means toward a sensible medical care policy, consider the following example:

In one country, the cost of hospitalization rose from US$33,872,000 (in 1952) to US$41,219,000 (in 1960). But during this same period, by the single expedient of shortening the average hospital stay from 19 to 13.8 days, it was possible to increase the number of patients cared for from 360,879 to 604,636 and to cut the cost per case from US$93.85 to US$68.17. Note also that during that period the rate of beds per 1,000 inhabitants dropped from 4 to 3.8.

It should be remembered further that when one country discusses adding new beds -the enormous cost of which has already been mentioned- data from other countries, different in circumstances and socio-economic conditions, should be treated with caution, and any indications they provide must be adapted to the complex realities of the country where they will be applied. Making good out-patient service the axis of medical care is one solution; it is outside the scope of this document, but a hint for others to consider seems worth making.

On this point, it may be stated that in 11 countries there are regular out-patient services; in 10, such services in one way or another contribute to prevention; in 5, there is home care; in only 2 are medical care services (hospitals and out-patient clinics) effectively coordinated with the general health programs.

VI. INTEGRATION POSSIBILITIES

1. As was said at the beginning of this document, the title chosen by the XIII Meeting of the Directing Council for these Technical Discussions is sufficiently explicit to illustrate a trend: the incorporation of medical care into integrated health programs.

The preceding paragraphs attempted so far as possible to show the main characteristics, on the levels of central direction and local execution, of present-day medical care in this Hemisphere.

For a realistic consideration of how to incorporate a part into the whole, it is also necessary to know more about that whole into which medical care is to be incorporated. The following observations seek to appraise health as a single and indivisible whole, without any adjectival limitations.

At the top administrative level and as regards the State's fulfillment of its obligation to dispense health, half the countries have sufficient departments, including medical care. In 5, the functions of planning, policy-setting, and execution are split, and in 9 the channels of authority are organized satisfactorily.

In slightly more than half the countries, the services are decentralized, bu in only 4 is there an integrated or effectively coordinated integrated health program. This proportion is useful for measuring the extent to which the local levels participate in the consideration and handling of their own budgets and for conducting their personnel policy.

2. The Charter of Punta del Este repeatedly and unmistakably recommends planning. That, after all, is what the Alliance for Progress consists of: planning the economic and social development of Latin America.

The procedures laid down in the Charter for stimulating foreign financial aid presupposes planning in breadth and in depth. Therefore, to get programs promoting medical care under way -to "give increasingly better medical assistance to a larger number of patients by improving the organization and administration of hospitals and other centers for the care and protection of health"- they must inevitably be part of national health programs, just as the latter can hope for outside aid only if they are part of national development plans.

So the crucial problem is how to incorporate medical care effectively into such planning. So long as the actions taken are uncoordinated and piecemeal, the results will be paltry and dubious.

Therefore, it is urgent to effect a synthesis between curative and preventive medicine, between public health and medical care, between hospital and health center, between out-patient and in-patient services and institutions -in other words, to merge medical care into integrated health programs.

3. It has been said, and with good reason, that there are four elements in the solution of any problem: programming, organization and administration, personnel, and research. Implicitly, basic information and planning are included in the first of these, and financing in the second. But this simple list of four elements reveals how many things must be done at one and the same time to put medical care and health on the road to accomplishment. It sums up the questions that must first be answered:

How can the basic information necessary for the planning of medical care be compiled?

How shall health care activities be organized and administered to establish the essential link between public health services and medical care within a balanced and harmonious system? And how are the appropriate areas of experimentation and in-service training to be determined?

How can the schools and other teaching institutions be brought to impose the proper guidance and orientation on their training of medical care personnel especially for the highest levels?

How shall applied research be conceived, directed, and performed in order to receive the support of governments, communities, and professional organizations?

How, finally, can these four activities be carried on simultaneously in such a way that none will be slighted?

The problem is unquestionably a complex one, and its solution will require concerted action. There has been some thought of promoting basic medical care service in practice, but without deviating from the principle of integration that will lead to an appropriate and progressive solution.

For this it is necessary to promote simultaneously health care planning; research, experimentation, and pilot projects in the organization and administration of integrated health service "systems"; and the training of personnel, especially for posts of responsibility and even for international consultant service; and research into the fields of greatest interest, so as to close the circle of progressive expansion.

Once the function has been defined and the feasibility of the idea accepted, the next step is to create the structure. It may be a unitary organization or a diversified one, international or national. Whichever it is, it must have adequate financing, bilateral or multilateral assistance, the sponsorship of a medical school and of a school of public health that wishes to discontinue the futile distinction between public health administration and medical care administration.

Experience shows that other regional or inter-country institutions and centers have been effective in promoting the solution of such diverse problems as nutrition, the zoonoses, and mortality statistics. Considering how large medical care looms in any national budget, action to improve it assumes the proportions of a highly productive investment.

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

Third Working Paper

EFFECTIVE UTILIZATION OF HEALTH CARE RESOURCES

by

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I N D E X

This paper summarizes pertinent sections of the four recent PAHO reports on National Planning, Medical Education, Medical Care, and Research. The main theme discusses implementation of the recommendations, particularly relating to integration and coordination of services, and training of personnel.

A. GENERAL INTRODUCTION

1. STATEMENT OF PRINCIPLES

a. Health Philosophy

Health is as much a social problem as it is a purely medical one, if not more so. A national health program should make available to the entire population all essential promotive, preventive, curative and rehabilitative services.

b. Administration

(1) The first principle of good administration was laid down by the British Ministry of Reconstruction in 1918, it states that "when a special function is to be undertaken, it be undertaken by one governing body for the whole community requiring the service, and not for different sections of the community by several governing bodies."

(2) Successful administrative procedure must be based on sound financial considerations and practicable economic budgeting suited to the area and population. Demonstrations depend for success on technical methods which are economically reproducible, as well as scientifically efficient.

(3) Successful administrative procedure results only from scientific investigation and demonstration of organization methodology. Thus the first step in experimentation in new forms of health care service is operations research.

c. Organization

(1) The efficient distribution of health care services requires that they be coordinated within a given region in a systematic pattern. The regional system should provide for, among other things, continuing education of personnel, and periodic evaluation of the system itself.

(2) The health of a nation is based on competent performance at the local level of government. Although direction is centralized, activity should be decentralized. Coordination should be secured among related spheres of services. Coordination started at the local level promotes regionalization, and is a point of departure for national integration.

(3) Successful development of health care services requires a certain level of over-all community development, political, economic, social and educational. Successful demonstration in public health (or any field) is likewise dependent on horizontal coordination with other fields.

d. Planning

(1) The first step in preparing a national health program is to undertake an over-all survey of existing health resources and needs. Such a survey would constitute a base line from which a continuing planning agency could be constituted and evaluated. The corner-stone of planning is economic practicability.

(2) Planning of short and long-term proposals should reflect adequate consideration of the growth potential of the health care system and its manpower requirements.

(3) Successful planning of health care services requires concurrent consideration of the three major components: finance, personnel and facilities, and organization for the coordinated distribution of services.

(4) Key program areas should be identified and limited resources concentrated in these areas. Rapid change can thus be achieved by an uneveness of development.

(5) To construct any part well and avoid mistakes in local effort, the whole design must be before the mind. Any effort, however small and localized, can confer benefit if designed in relation to the scheme as a whole. An ideal situation should be introduced only after assurance that it represents an attainable goal.

e. Integration

(1) Preventive and curative medicine must be brought together in close coordination. Both must be brought within the scheme of the general practitioner whose activities should embrace the work of community, as well as individual medicine.

(2) The primacy of the preventive outlook is to be maintained by having health-minded, rather than disease-minded persons responsible for overall planning and the direction and allocation of community services.

f. Education

(1) The education of the health care professions, and the development of health care services form an inseparable whole, together with research.

(2) An education program for health care professions should include plans to meet the need for leadership, by formulation of a career development program for key personnel.

(3) Each training centre (in addition to basic sciences and its own teaching hospital) should also have its own controlled community practice field area, having adequate educational standards.

2. NATIONAL SURVEY

Specific recommendations of a national plan or any part of it must be preceded by a survey to determine the current health care situation of the country in question. The survey of the health needs should be analyzed against a background of the country's general socio-economic characteristics. The survey should also analyze existing organization, administration and facilities, and report specifically in terms of whether they adhere to, or violate, the above mentioned principles. The survey should include:

CHARACTERISTICS OF THE COUNTRY

I. GENERAL

a. Geography and Climate: Brief description of the principal geographical characteristics as they affect living habits of the inhabitants and their importance in the national economy:

- total surface area; classification of main natural regions;
- principal natural resources;
- climate;

b. Population and Ethnic Composition: Demographic data according to the latest census, or to estimates by the pertinent agencies. The following are the data generally used in this type of study:

- total population;
- distribution throughout the country;
- distribution by age groups;
- internal migration;
- trends in population growth;
- density;
- urban and rural distribution; and a definition of what is meant by rural population;
- population gainfully employed; distribution by occupation;
- ethnic composition;
- birth rate;
- death rate.

c. Government, including local, state and national: General administrative structure of the government with a brief description of the constitutional structure, degree of authority, autonomy, coordination, etc.

- central government, whether unitary or federal;
- provincial, departmental, or state governments;
- municipalities;
- autonomous entities.

d. Patterns of Living:

- most important cultural and anthropological factors to be borne in mind in preparing and developing health programs;
- analysis of the economic, social, cultural and environmental conditions of specific isolated or segregated population groups such as indigenous groups, racial groups, etc.

II. ECONOMIC AND SOCIAL DEVELOPMENT

An estimate of the importance of certain economic, social, and environmental factors in order to appraise their influence on the health of the population:

a. Gross National Product

b. Sources and Distribution of Income

c. Operational Expenditures by Major Governmental Fields

d. Sources of Revenue

e. Indices of Social and Economic Progress

f. Food

g. Housing

III. INDUSTRY

a. Percentage of unemployment.

b. Appraisal of present situation regarding health hazards in industry and work in general; principal measures now in effect.

IV. AGRICULTURE

V. COMMUNICATIONS

General situation regarding communications and transport facilities, indicating the possibilities of use by the health services and for their supply. The information is also required for assessing the possibilities of food distribution programs and the degree of isolation of certain areas, etc.

VI. EDUCATION

a. Primary

b. Secondary

c. Vocational Training

d. Higher Education

VII. HEALTH CONDITIONS

Community Health Care

The survey report itself would be preceded by a summary of historical developments of organization and institutions -- national, state, and local.

The purpose is to make an evaluation of the health situation in the country in relation to the scope and nature of its health problems, the resources applied in their solution, the organization and administration of the health services, and the budgetary amounts being invested.

(1) NATURE AND SCOPE OF THE HEALTH PROBLEMS

Identify the country's most acute health problems in terms of disease, death, disability, degree of malnutrition, absenteeism, etc. An estimate of the situation should take into account:

- distribution by age and sex;
- distribution of the problems over the country;
- seasonal distribution;
- repercussions on the country's economy.

(2) HEALTH RESOURCES

Estimate the availability of public and private resources for dealing with health problems. In preparing the national health plan, not an inventory of these resources but a general estimate of the availability, and of the most pressing shortages, is required so that immediate measures may be adopted for their solution. It is suggested that the following aspects should be taken into account:

- personnel: number and quality; distribution over the country; training and in-service training; professional training; measures for developing the health service career; administrative aspects of personnel management, i.e., grading system, per diem, welfare, etc.; services available to the population, i.e., hospitals, polyclinics, rural health units, health centers, laboratories, their distribution over the country, quality of care, deficiencies, condition of buildings, performance;
- equipment: deficiencies in numbers and quality;
- supplies and materials: availability in the country of drugs, therapeutic agents, food, and materials for the services; supply problems;
- transportation: most important problems and deficiencies affecting the use of the services by the population.

(3) HEALTH ORGANIZATION

Planning of community health care services requires consideration of four major but interdependent components:

a. Finance

b. Manpower and Facilities

c. Organization for the coordinated distribution and delivery of services

d. Training of the health professions

Obviously, the planning of organization for the distribution of health care services must depend upon a realistic appraisal of available funds.

In most countries, implementation of planning must be over a period of time depending upon the specific targets. This was well exemplified in the 1946 Indian Report of the Health Survey and Development Committee. Forty years was estimated to be required for implementing the full recommendations. A short term five-year program was outlined for initial activation. The principle involved is that the whole design should be in mind when undertaking individual parts.

Analysis of the budget of official and private health services, with reference to the following:

- proportion of the national budget and of the national income devoted to health;
- distribution of the funds by main heads, i.e., medical care, communicable disease control or eradication, etc.;
- comparative study of the country's financial outlay for health in relation to the efficiency of the services;
- appraisal of present and potential budgetary resources of the private sector;
- evolution of the national health budget in the last ten years.

3. FINANCE

In the moderately and well-developed countries, health care expenditures constitute from 4% to 8% of the gross national product. In less economically developed countries, there may be only 2% of the gross national product available. This amount includes both public and private expenditures. Public expenditures for health care vary widely depending upon the socio-economic policy of the Government in question, and upon the country's economic level.

An important responsibility of Ministries of Health is to take the initiative to assure that health care services are accessible to every national without any financial barrier, through either some form of prepayment plan or support from general tax revenue.

There should be an overall national plan for the financing of health care, although the funds may be derived from multiple sources, including public revenues, social security contributions, philanthropic and private payments.

Expenditures for health care should be in accordance with a national health plan, rather than through the separate and independent channels through which the funds have been derived.

Funds devoted to health care services should be increased, constituting an enlarging proportion of the total national economic resources of each country, until a reasonable degree of adequacy is reached.

4. HEALTH MANPOWER AND FACILITIES

The facilities which are available in a country for health care are markedly affected by its existing economic and educational levels. Where the latter are low with consequent insufficiency of professional personnel, it may be necessary to draw heavily on voluntary self-help in each local community to discharge services, under supervision. The necessity of mobilizing the people to help to solve their own problems has been successfully demonstrated in Taiwan and India and to a lesser extent in the Phillipines. In Taiwan for example 80% of the activities in the Trachoma control program in the schools was carried out by the teachers and school children themselves. In the Malaria control program, spraying was done by teams of villagers on a voluntary self-help basis. All these volunteer personnel were under professional supervision, but their assistance reduced considerably the cost of the programs.

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.

The terms of reference for such a Commission should be:

(1) Increasing recognition that the training of medical and paramedical personnel is to be linked directly with the need for manpower to administer health care services.

(2) Such planning (depending on size and population of the country) would include proposals for new medical centers, and the manner in which their staffing needs could adequately be met.

(3) Such planning would, in larger countries, designate one center to be staffed adequately to serve as the main teacher training institution for the other centers of the country. In this center, standards should be of the highest possible level.

This commission should be provided with a secretariat under the direction of a competent medical officer assisted by representatives of such other health professions as may be deemed desirable.

The functions of the Secretariat would be to plan the orderly establishment and distribution of training institutions required to meet the manpower needs of the country. The type of medical and other schools which the country needs is not necessarily the same as in more advanced nations.

5. ORGANIZATION FOR COORDINATED DISTRIBUTION

There are two major examples of loss in return on the medical dollar because of violation of sound administrative principles. The health services in most countries have developed categorically without any real planning or coordination. The degree of multiplicity of autonomous unrelated administration of hospitals, rehabilitation, welfare, and other health services varies from country to country. This occasioned little criticism when the services were first established to meet quantity needs. However, when the time is reached, where quality becomes a major concern, there is growing effort, belatedly, to effect the necessary coordination. The other major illustration of uncoordinated services is examplified in Israel, Italy and other European and Latin American countries where parallel health services are administered respectively by Ministries of Health and by Social Insurance. One observes the beginning of this dual organization in such developing countries as India. This waste of the medical dollar is primarily the result of lack of planning and is accounted for on historical grounds. Tax funds available for health care purposes in agricultural economies allow only a low quality of care. As the country begins to become industrialized, labor feels that the worker must be provided with a higher quality of service than that generally available, and consequently, labor develops its own services. When the country has become industrialized, Social Insurance has grown to be one of the most potent political and economic forces in the country, and constitutes the chief obstacle to the coordination of health care services. Even in Czechoslovakia, it required six years for the health care services of Social Insurance to be transferred to the Ministry of Health.

The future distribution of health care services must be planned and organized on a regional basis. Regionalization is the organization of all the agencies for curative medicine, preventive medicine, public health, and social service within a given geographic area, coordinated into a single system. This concept, although not yet implemented in England, was first put forward in 1920 by the British Ministry of Health in the Dawson of Penn Report: "Future Provision of Medical and Allied Services." Some components of "Regionalization" are to be found in an increasing number of countries, but probably in no country except Czechoslovakia is it comprehensive.

Today the concept has extended beyond the idea of a coordinated system for delivering health care services, to connote continuing education of the health care professions within the area of a region, and the development of the technical consciousness of the consumer public.

The area to be regionalized should contain a population large enough to be self-contained in supporting the provision of all branches of health care facilities. Coordination is effected by establishing a two-way flow of professional and administrative services, between the peripheral units and the base, which preferably should be a teaching medical center. Such an area would also contain institutions of an intermediate size. The Regional Office would serve as the decentralized unit of the Ministry of Health. Administratively it would be responsible for developing and maintaining professional and administrative standards, and manuals of procedures for services rendered throughout the area.

Continuing education for both professional and administrative personnel is an essential function of the Regional Office. In addition to special courses offered at the base medical center, there are qualified individuals circuit riding to provide consultation at the local level. In addition, opportunity is provided the health personnel from the local level to obtain periods of graduate in-service training at the base medical center. The latter would of course also offer the usual graduate courses leading to specialization. An important educational feature of regions based on a training medical center would be the provision of a community practice unit within the area, which in addition to being accredited for service, could also be accredited for training of the health professions at both the under and the postgraduate level.

A third essential function of the Regional Office would be to plan and develop activities at all levels whereby the technical consciousness of the consumer public would be increased. Institutions at each level would have consumers represented on advisory councils, meeting at regular intervals to consider and discuss service problems at the level in question. In addition, specially at the local community level, various groups such as Ladies Auxiliary, Parents-Teachers' Association, etc., would become actively interested in developing their own community health institutions.

More particularly at the local, but also at the intermediate and regional levels, the health care services should constitute an important activity in a multipurpose Community Development organization, representing services in other welfare fields such as education, agriculture, cooperatives, etc. If such a multipurpose Community Development organization does not already exist, it then becomes a responsibility of the Regional Office to spearhead its development.

The necessity for regionalization of health care services is proportionate to the economic level of the country in question. A high economy level country such as the United States of America can wastefully afford to ignore regionalization, but the latter is absolutely essential in such low economy level countries as India, particularly where part of the health care services must be rendered on a voluntary self-help basis. This is only possible under constant professional supervision.

It is today some four decades since the "Interim Report on the Future Provision of Medical and Allied Services" was submitted to the then newly created Ministry of Health of Great Britain. This document, as has been pointed out previously, represented the first comprehensive set of proposals for coordinating the distribution of health services within a given area, through the type of organization now commonly designated regionalization. Although the report gave only the outline of a plan for primary health units at the periphery devolving on a base hospital, preferably part of a medical school, in retrospect its proposals can be seen as a blueprint for the future.

Every major innovation involving a basic organizational change requires a long germinal period, as well as experimentation and demonstration, before its use can become widespread. In the case of regionalization, the difficulties encountered have been exceptionally great, and to date the concept has not been comprehensively implemented in any western country. Since the end of World War II, however, more and more proposals for the regionalization of services have been advanced, an increasing number of experiments and demonstrations have been undertaken, and certain aspects of the concept of regionalization have been put into operation in various countries.

We feel confident that this trend will continue, and that in the coming decades health care organization will become increasingly regionalized throughout the world. This conviction is based in part on economic considerations. It seems unlikely that, in the long run, the richer, more industrialized countries will be any more willing than the developing nations to tolerate the waste inevitably associated with uncoordinated services. Regionalization represents the logical organizational framework for coordinating services so as to derive the maximum return from the resources available for health care.

Our conviction is based also on the fact that the rapid growth of the body of scientific knowledge on which health care depends is producing an intensification of specialization and a greater degree of complexity as reflected in the expansion of professional groups, the restriction of the area of competence of any one group of workers, and the greatly augmented armamentarium of modern medicine. The importance of rationalizing health care organization grows with the increase in the diversity and the extent of the facilities and skills needed to render quality care. The physician practicing on his own out of a little black bag has become technically obsolete. An independent and autonomous hospital facility today represents a completely inadequate mechanism for dealing with the totality of the health problems of a community.

Finally, we believe that there is a general movement throughout the world toward a more conscious planning of efforts directed to the satisfaction of human needs. Implicit in this is the growth of a more comprehensive approach to each specific area of need. In any field, however, increasing centralization of overall direction is likely to be accompanied by progressive decentralization of activity. Unless they are related to the total scheme, local efforts cannot avoid mistakes, but once integrated,

even the smallest endeavor can contribute to progress. In the health field, regionalization acts to conserve such efforts, and to enhance their value by providing a systematized framework for community health activity.

Regional offices should be so constituted that they can assume responsibility for the coordination of the distribution and delivery of all health care services within a given area. Planning, in its broadest context is an essential element of these functions, and so is operations research, aimed at developing methods and procedures to secure a greater return on the health care dollar. In addition, experience shows that the regional office must act as a catalyst in promoting the second major goal of regionalization - the development of a system of continuing education.

To carry out these several functions, the regional office must have a separate budget. This may be on the order of one to two per cent of the total budget of the services to be coordinated. It should be kept free of the often excessive bureaucratic control imposed by government, and should be available for meeting contingent expenses as they arise. By the same token the professional staff of the regional office should not be unduly restricted by the rigidities in financial emolument and other conditions, so often associated with civil service.

The initial step toward regionalization should be a reasonably comprehensive survey of the organization and financing of the existing services, the facilities available for providing these services, and the personnel who are and can be committed to performing them, The survey should not be limited to taking an inventory but should also analyze such factors as financial potentialities, the extent of unmet health care needs, and the probable supply and demand patterns for key medical and paramedical personnel. Such an initial survey serves as a base line and provides an essential background for making changes. It also constitutes a bench mark for subsequent evaluation.

Evaluation, it should be noted, is an essential aspect of the planning process as well as a necessary feature of good administration and supervision. It is likely to prove especially difficult in the case of a regionalization program because it must deal not only with the quality and quantity of performance within specified areas, but also with the impact of a new form of organization on the use of available resources, and measure how this is related over time to the health and well-being of the people served. Nevertheless, such evaluation is indispensable, both to ascertain the extent to which the objectives set are attained, and to validate the legitimacy of additional budget for health and welfare services.

A second basic step is to organize a program of operations research. Particularly in the developing areas, coordination of services must be accompanied by development of a research arm to facilitate innovation and experimentation with alternative ways of meeting the people's health and social needs.

Intimately related to this is a third step, the formulation of standards. A major objective of coordination is improvement in the quality of services. In the majority of cases, however, coordination itself cannot be achieved unless clearly defined standards are set up for the organization and management of each service, as well as for its performance. Without such a compass, administration for the coordination of services can only proceed blindly. As a general rule, these standards should be such that they can be met by forty to fifty per cent of the services in the area.

It should be noted that two types of standards are involved here. Those for organization and management specify requirements in terms of personnel, equipment and facilities, and the functional relationships of a given service. Standards of performance set the quality and quantity of work that each unit of the program must achieve in order to reach the over-all objective.

Experience suggests that formulation of standards for organization and management can be accomplished with comparative facility, although it is likely to be a time-consuming process. Development of performance standards is generally far more difficult, not only because of the absence of guidelines but also because in the developing areas the key administrators have usually received professional training that is unrelated to local conditions. To devise standards appropriate to existing circumstances and their potentiality for change, is therefore a major creative effort. Once formulated, manuals of procedure can be prepared in conformity to local needs.

The evaluation process and the formulation of standards imply the necessity of a fourth basic step, the development of an adequate reporting system. Reports have traditionally centered upon an enumeration of the volume of work activity. Emphasis must be shifted to the procurement of information regarding progress in the solution and control of the health problems of people. In order to ascertain the extent to which objectives are being met, it is necessary to determine how adequately the standards of performance which have been set are being attained. Such a performance reporting system also serves as the basis for instituting performance budgeting.

What may be called public relations is another area of vital importance. Actual involvement in a regionalization program represents the most certain way to secure the support of the various categories of health workers for such a development. Attention must also be given to the promotion of understanding and acceptance of the regional program among other professional groups. It is also essential that the appropriate government agencies be kept informed of the next steps to be taken and of how these are related to more general objectives.

It is just as important to provide the general public with knowledge of the program and the progress being made. This means identifying the objectives in clear and simple terms, and explaining the steps being taken to reach them in a way that can be grasped readily. It is axiomatic that, whatever the adequacy of the technical services available at the community

level, the broad aims of a regionalization program cannot be met in a rapidly developing area unless the people are educated in the use of such services. Comprehensive medicine is not aimed solely at the integration of prevention with diagnosis, treatment, and rehabilitation; it is also directly concerned with health education and health promotion. Any contact between a doctor or public health nurse and a patient that does not, on the one hand, increase the health worker's knowledge of cultural attitudes relevant to health and, on the other hand, increase the patient's understanding of health and its relation to different ways of thinking, feeling, and behaving - is to that extent a waste of time on both sides.

Technical solutions to health problems should be humanized by an understanding of the existing cultures and subcultures and the ways these are changing. Increasing the people's technical consciousness will enable them to contribute to the solution of their own health and social problems for example through local health councils, whose efficacy has been demonstrated in many countries of the world.

B. EFFECTIVE UTILIZATION OF RESOURCES

1. IMPROVED USE OF PRESENT DAY PERSONNEL, FACILITIES AND HEALTH CARE RESOURCES

One of the most important problems of health care in the Americas lies in the field of the organization of services, and their efficient utilization. The aim of improved organization of service in health care is to make available to the largest number of people the benefits of modern medical science through the most efficient and effective utilization of resources in each country. It has been shown that this aim can best be achieved through a pattern of organizing services on at least three levels - national, intermediate and local.

a. National Level. At the national level, there should be a department at the central health agency responsible for planning, establishing policy, and either the coordination or the administration of all health services in the country. This is meant to include the Ministry of Health, the Social Insurance system and other governmental and non-governmental agencies involved in health care. Coordination includes "horizontal coordination," that is, between agencies at the national level; and "vertical coordination," that is, within the agency between the national and the other levels of government.

b. Intermediate Level. The functions of the intermediate level are directing, supervising, providing supporting services, and such other functions as are sovereign to the intermediate level as delegated to it by the national level. The precise administrative structure will vary with the geographic and political characteristics of each country.

c. Local Level. At the local level, services should be provided so that wherever people live comprehensive and integrated health services are made available to them. This may be achieved through a process of regionalization involving a flow of patients from periphery to the center, and a flow of services from the center to the periphery. At the level of the community, services should be provided through the closest integration of preventive and curative programs; the coordination of specialized personnel of all types, including the adequate supervision of auxiliary personnel; and the closest coordination of facilities of all types, taking into consideration the individual's needs and those of his family.

The fragmentation of health services within a country, with the health care system under the auspices of the Social Insurance institution and the organized services for health protection and health promotion under the wing of the Ministry of Health, is a serious obstacle to improved organization of services.

Requirements for facilities should be established with due regard to each country's socio-economic conditions and medical care patterns, and also with due regard to the most appropriate utilization of facilities in that country. Further research is required to establish the optimal requirements of each country.

In the improvement of the supply of health facilities, consideration should be given to the renovation of existing facilities, where appropriate, as well as to the construction of new ones.

The required geographic and service distribution of health personnel should be determined.

2. INTEGRATION OF HEALTH CARE SERVICES

Health care is a program of services that should make available to the individual, and thereby to the community, all the facilities of medical and allied sciences necessary to promote and maintain health of mind and body. This program should take into account the physical, social and family environment, with a view to the promotion of health, prevention of disease, the restoration of health and the alleviation of disability. The extent of the services to implement such a program will vary according to local conditions.

The modern concept of health care requires that all persons, regardless of their income level or the source of their financial support, regardless of their geographic location, and regardless of their race or creed or political beliefs, should receive prompt medical care of the appropriate types; whether involving the skills of physicians, dentists, pharmacists, nurses or other health personnel; offered in their own homes, in an ambulatory care center, or in a bed-care institution; for prevention, treatment, and

rehabilitation of all illnesses or accidents, whether physical or mental, short-term or long-term, which science is capable of providing; offered in adequate quantity and quality for as long as may be necessary; with continuity and sensitivity to both the physical and psychological state of the patient and his social adjustment at work and to his family situation; and with maximum economy and coordination among the technical services provided.

To implement the aims embodied in this modern concept of health, comprehensive personal health services should be organized to protect, promote and restore the health of individuals and thereby of the community.

These services can be grouped as follows:

1. Health protection:

   Control and/or eradication of communicable and other diseases
   Immunizations and related measures
   Detection of unknown cases of illness

2. Health promotion:

   Maternal and child hygiene
   Health education
   Nutrition
   Mental health
   Occupational and radiation health
   Health promotion of the aged

3. Medical care services:

   Ambulatory care
   Home care
   Institutional care (general and special hospitals for tuberculosis, mental illness and other long-term facilities; intermediate institutions such as convalescent homes, "half-way houses," day hospitals, etc.)

4. Rehabilitation services:

   Physical rehabilitation
   Psychological and social rehabilitation
   Vocational training

Such comprehensive personal health services have close relationships at one end of the spectrum of health services with environmental health services which are indispensable for the control and/or eradication of certain diseases, and at the other end, with those social protection and educational services necessary for the adjustment of the individual to his social and cultural environment.

An integrated health unit including hospital beds, ambulatory care facilities, and facilities for preventive services and welfare services should serve as the organizational focus for the provision of services. The achievement of integrated service through this type of health unit may require innovations in bringing together different agencies and various facilities. In this integrated health unit, the hospital will have to change its present role to an institution which provides welfare, preventive and ambulatory services and home care, as well as in-patient care.

The resolutions passed by successive meetings of the Council and of this Conference, repeatedly urge steps for coordination and integration of services.

There seems to be two major reasons for what up until now has been largely "lip service" to these resolutions. The first, is the lack of correct attitude on the part of the health professions because of bad habits formed during their learning process. The second, is the absence of an environment during the learning process where coordination and integration constitute the routines which the students assimilate. The product generally lacks even consideration of the patient as a person much less as a member of a family or the community. The physician also lacks consciousness of the growing necessity that efficient health care services depend upon the physician working as a member of a team. These two factors constitute a vicious circle which can only be broken by a reorientation of our teaching institutions. The pattern of training generally found in Latin America finds its prototype in France, while in Asia and Africa the pattern of England and the United States is more generally followed.

A unique training demonstration undertaking coordination and integration is to be found in the National Medical Defense Training Center in Taipei. This is reported upon in the May 1962 Journal of Medical Education: "A system of Medical and Allied Education at the National Defense Medical Centre, Taipei, Taiwan, Republic of China." This Medical Centre is organized on the principle that where the number of personnel of suitable academic standing, and the amount of equipment necessary for teaching medical personnel are both very limited, the most economical way of using them is by concentrating all the available resources in one central teaching institute. The Centre at Taiwan trains simultaneously all levels of health personnel, on the understanding that a doctor, aided by a medical team comprising nurses, technicians and other allied workers can cover the work of several doctors working singly. The level of training depends on the previous education of the student, and varies from the training of orderlies, vocational training for technicians, to college and postgraduate training of nurses, dentists and physicians. The centralization of faculty and equipment permits the education of all types of health care personnel to be carried on simultaneously with the available resources. A comparable unique training center is found at Zagreb, Yugoslavia.

3. TRAINING OF PERSONNEL

Major emphasis must be placed on the development of an organized system of continuing education for all levels of health workers. This implies continuous education, on the one hand, and provision of appropriate professional training on the other. It is essential to recognize that in the health field, service, training, and research are parts of a single whole. Regionalization can effectively unite them by bridging the gap between the institutions involved in training medical, paramedical, and social service personnel, and the agencies rendering services.

The gap between theory and practice is especially critical in the developing countries. In most of them the graduates of medical schools are recruited to staff and administer peripheral health centers; yet the universal complaint is that the existing schools do not train their students to undertake such responsibilities. Developing countries are, of course, almost invariably confronted with a serious shortage of physicians and, in fact, of all categories of health workers. While the quality of medical education should not be sacrificed to service pressures, undergraduate medical education not specifically oriented toward the discharge of the responsibilities of health care in the community center, is not quality medical education in the true sense.

Typically, the conventional undergraduate curriculum of these medical schools suffers from one or more of the following defects: the student observes the patient in terms of a specific organ system; his observation of the patient is discontinuous; because of this discontinuity, he has little or no opportunity to undertake preventive measures or to learn about the social and environmental factors associated with the clinical pathology he observes.

The future physician clearly requires a much greater exposure to the social sciences. His training must equip him to give leadership to the health team and to assist in mobilizing the resources of the community in meeting health needs. He must be able to project himself beyond the individual patient to deal with the family as a unit, and with groups of families that in turn constitute communities.

The reorientation of his training toward prevention will not be accomplished quickly or easily. It will necessitate experimentation in the extension of training from the present intramural wards and outpatient departments of a teaching hospital, into the community itself. Universities have long accepted the principle that they should control their own hospital teaching and research service. They must now apply this same principle to community facilities such as primary health centers and peripheral health units, where the intern and the medical clerk can train themselves in what will increasingly become, under the impress of the regional pattern, the practice of community health care.

The area served by a Teaching Community Health Center should conform to an existing administrative unit of government so that pilot results may be readily duplicated. The population of the community should be as representative as possible of the entire state, and should be of sufficient size to make operation of the center economical.

The center should have an advisory board with representation from the community, the services, and the university. It should likewise have an executive board, representing each major field in the center, to deal with the administrative routines and to submit an annual budget to the advisory committee for transmission to the university and the health department.

The teaching community health center should preferably be adjacent to the teaching medical center. It will also benefit if it can serve as the planning and research laboratory for the administration of regional health care services.

Implicit in our conviction that health care services will become increasingly regionalized is the belief that medical education will become more oriented toward prevention.

The present clinical departments will be supplemented by a comparable group of departments in the health care sciences for such fields as administration, epidemiology, and maternal and child health, etc. Graduate training in the health care sciences will then be offered in the same manner as in the basic sciences or clinical medicine, where individuals, after internship, would spend several years in residency training. It is of course anticipated that the medical center would administer its own community practice field as it now does its teaching hospital and basic science laboratories.

The changes which seem certain to occur in the undergraduate medical curriculum will exercise a decisive influence over future health care practice.

Among the existing disciplines, the most probable change in the next half century will be the greatly enlarged scope of the basic sciences as a result of developments in nuclear medicine and the consequent impact of this on the clinical disciplines. It seems likely that the latter will also be affected by advances in social physiology and social pathology. The present-day graduate of medicine is generally ignorant in both the humanities and social sciences, although some beginnings have been made in a few schools to correct this lacuna. The enrichment of the medical student's intellectual background should have a marked effect on his present disinterest in social medicine.

As this trend develops it will, hopefully, extend the scope of the present practice of medicine and require the establishment of new medical school departments in the health sciences. This development will be an incremental one, comparable to the process by which present-day departments became differentiated out of those existing at the end of the seventeenth century. The rate of differentiation will, of course, depend on the accumulation of sufficient knowledge, but by the beginning of the next century there should be at least six or more differentiated health science disciplines in medical schools. This will provide added impetus to the establishment of community facilities that are under medical school control for use in training and research. Such facilities are important not only as community laboratories for experimentation and investigation, but also as demonstration centers. The validity of the teaching institution for the health professions extending itself into a field practice area under its own supervision and administrative control, has already been demonstrated in such diverse settings as the Peking Union Medical College, the University of the Philippines, the All-India Institute of Hygiene and Public Health, and the Institute of Public Health in Tokyo. More recent examples of this trend, can be noted in the development of teaching health centers as organic components of the training programs of the School of Medicine of the University of Puerto Rico, the University of Valle, in Colombia, in São Paulo, Brazil and the All-India Institute of Medical Sciences in New Delhi, India.

In the field of health adequately trained professional and auxiliary staff are essential, but in every category of health personnel there are deficiencies in the number of personnel and in the caliber of their training. At present, sufficient students do not complete primary and secondary education, and too few are prepared to undertake special training for responsibilities in health as well as in other fields such as education, sciences, and industry.

Recommended ratio of the number of physicians to population vary with the burden of disease, the organization of the medical care system in a country, the number of nurses and auxiliary personnel available, and with the socio-economic factors in a country which influence the utilization of the physicians' services.

The most critical shortage in health personnel in the Americas is that of well-prepared nurses and nursing auxiliaries. Usually the available nursing personnel are carrying out functions for which they have not been trained. In addition, in rural areas where the supply of physicians is very limited, the nurse has been entrusted with medical responsibilities, thus enlarging the scope of her activities in areas for which she has not been prepared.

Nursing auxiliaries are employed in large numbers in hospitals and health services, but practically all are untrained. These and many more, if trained, could give valuable service and release graduate nurses for administrative posts and for teaching other nursing personnel.

Further research is necessary to establish each country's personnel requirements in the light of its socio-economic conditions and patterns of health care, rather than through arbitrary and fixed standards of personnel requirements imposed from outside. Also, personnel requirements must be developed with due regard to the most appropriate utilization of personnel in each country.

It is axiomatic that the rank and file of the health professions should be trained in their own country. A first step in countries where this is not yet undertaken would be for the Ministry of Health to inaugurate its own Training Center for at least the paramedical workers. Training in health care services cannot be undertaken without practice facilities. Hence, concurrently the Ministry would provide a training institute with a controlled community where the recommendations of the Planning Department of the Ministry can be demonstrated at least at the peripheral and intermediate levels.

Programs of education and training of health personnel for service and administration should be established. In many countries, in view of severe shortages of personnel, consideration should be given to the training of auxiliary personnel of all categories and to the training of supervisory personnel so that the auxiliaries work under adequate supervision.

Several countries are preparing nursing auxiliaries in 6 to 9 month courses with considerable success. These courses are to be followed by continuous in-service training. This approach could be extended to all countries.

Nursing auxiliaries under the supervision of nurses can be successfully trained to carry on all direct nursing care to patients and families. Nurses, on the other hand, in addition to having these skills, are prepared to teach other nursing personnel and to administer nursing services.

Many of the specialists required for modern health work come from academic backgrounds outside the health fields. The laboratory worker, the sanitarian, the statistician and the administrator, for instance, come to health work with basic education which must be augmented by experience under supervision and, desirably in many cases, by specialized training in schools of public health or other graduate institutions.

Health statisticians are essential in the health services and in the medical and public health schools in Latin America.

Consideration should also be given to accelerated training programs for some types of personnel such as those in charge of medical records in the hospital, so that basic medical care data can be made available.

The problem of providing a medical school with sufficient faculty members possessing the necessary qualifications to perform their functions adequately is a complex one involving a series of factors of the most varied kind. In general, teaching as a full-time career is not attractive because it is poorly paid, often the salary is not enough to cover the basic needs of a professional; and because of insecurity of tenure, absence of an environment conducive to a renewal of scientific knowledge, and the cultural and scientific isolation in which the researcher finds himself. The solution of these problems must come through the efforts of the countries themselves which, in so doing, must respect their own cultural characteristics and educational traditions; however, international cooperation can be an important factor in securing the success of such an endeavor.

It is felt that each of the four or five larger countries which can afford it, should establish a teaching research medical center capable of training teachers and administrators in each of the health professions, as well as serving as a model for that country, in undergraduate instruction. Such a center would serve not only as a "lighthouse" for the country in question, but also for smaller nations that could not afford the cost of such central training demonstration centers.

Sound planning of medical education is essential; for it is only through the systematic and continuous application and coordination of the techniques and principles of administration, economics, finance and sociological and public health research, that teaching institutions will be enabled to provide professional training in keeping with the needs and resources of a given country or geographical area.

The training of a physician must be regarded as a systematic process aimed at specific objectives -- an inseparable part of any health program -- and must therefore be carefully planned.

It has been suggested that each country should have an agency responsible for this planning, which should be composed of officials from institutions engaged in higher education, medical care, and health. The advisory services of other qualified national or international agencies could also be resorted to, where necessary.

The basic objective of this planning body will be to draw up a health plan for the country from the triple viewpoint of profession, service, and training. It is deemed advisable, for purposes of formulating recommendations and duly coordinated and integrated solutions on a national scale, that the planning group should be composed of officials from institutions engaged in higher education, medical care, and health. The advisory services of other qualified national or international agencies could also be resorted to, where necessary.

The planning group will, in effect, constitute a center for applied research; it will be responsible for drawing up short and long-range plans, for determining the most pressing needs, the available resources, and the order of priorities. It should be recognized that a study of this kind is a complex task and calls for a knowledge of various basic factors. A survey of how many physicians are needed in a country cannot be divorced from the health care demands to be met, or from the amount of resources a given society can devote to educating physicians and maintaining them in service, in keeping with the progress of the art and science of medicine in the country concerned. In such a survey, factors bearing on the physician's productivity, performance, working conditions, and the degree of satisfaction he derives from his work should be studied, as should the attitudes of auxiliary and ancillary personnel, the relative proportion of the various technical groups and the efficiency of the administrative organization of the establishments responsible for health care; nor should the population's attitude toward health and disease, and its response to medical services be overlooked.

It should further be recognized that to establish new schools of medicine is a complex undertaking requiring careful planning and preparation. Before any plan to open a new school is promoted there should be the certainty that sufficient teaching staff and financial support will be available for its operation. Preference should be given to strengthening and expanding existing medical schools rather than to setting up new schools, unless there are very strong reasons for establishing them.

It is urgently necessary to direct efforts toward improving the quality and social attitude of physicians graduating from medical schools at the present time. It is essential for the faculty of a medical school to reach an agreement on the aims of medical education before revising or modifying study plans and programs. The aims of medical education have been defined in various countries of the Americas and may be summarized as follows: "to contribute toward the training of a non-specialized physician (general or basic) whose formation is in keeping with the health needs of the country, the evolution of medical science, and the requirements springing from the nature and responsibility of the physician's functions and his position in society."

Every effort should be made by medical faculties to exercise the students responsibility for his own education; it is only by this experience that they can be stimulated to a desire for knowledge which will make them remain students over their entire lives.

The Ministries of Health should make available certain duly selected rural medical services in which students, both interns and residents could undergo practical training which should be done under the continuous supervision of the institution's staff and the school's faculty. Collaborative efforts between the medical schools and the Ministries of Health would result in better health care for people in rural areas. To permit the medical schools to assume increased responsibilities for medical service they should

be given financial support by the Ministries of Health to permit additions to the faculty of physicians who could supervise the medical care given, and the instructional programs for the students at rural health centers. By acquainting students with the realities of rural health, these activities will help to increase their sense of responsibility and give them a broader view of medicine, and possibly the incentive to practice in the rural areas after graduation or specialization. This in turn could lead to a better distribution of physicians throughout the country.

Promotion of Research at Schools of Medicine

The functions of a medical school are medical training, research, and the search for solutions to a country's health problems. These objectives are closely interrelated and can only be achieved when the medical school engages in research. Undoubtedly, therefore, research and teaching are two inseparable and characteristic aspects of every educational activity. Medical training objectives can therefore only be achieved by facilitating active teaching of the scientific method, and the mastering of the method by students.

The nature of the research, the type of work done by investigators and its objectives, will vary according to prevailing problems and available resources, but the search for truth and the accumulation of knowledge cannot be separated from the teaching function.

In medical schools it is necessary for the faculty to take an interest in research, which in turn will help them to acquire the proper mental attitude for better teaching. Research methods and concepts, both in planning and execution, are also applicable to planning and teaching, whether it be a laboratory exercise in the basic sciences, the study of a patient in the clinic, or the epidemiological study of the community.

Seen in this light, research becomes an essential teaching tool, a way of thinking that the entire teaching body should share in order to mold the personality of the student, awaken his intellectual curiosity and powers of observation, and develop his ability to interpret phenomena.

4. RESEARCH NEEDS IN HEALTH CARE

The need for operation research has been stressed throughout the foregoing sections, however, research is so important that this section summarizes what is essential in this area.

The principal purpose of research on health care is to study its organization and administration, the available resources, the staff and the services, with a view to establishing their distribution, effectiveness, and cost. The principal aim of research is the dissemination and utilization of these findings to improve the administrative and technical practices of health care.

It is recommended that a planning and research department be organized as an adjunct to each Ministry of Health for the compilation of the basic information needed for the formulation of programs and for their subsequent evaluation. The departments will require adequate financing and the necessary facilities to perform their functions.

They will place special emphasis on the studies which can best serve to guide health care administration. Therefore, they will make an inventory of needs and resources, and the principal requirements in personnel and facilities.

Pilot projects should be carried out in each administrative area to give a sound foundation to the different schemes of organization, including the integration of preventive and curative activities, regionalization, the organization of health centers, and the use of auxiliary personnel. Each pilot project must be considered as an experimental expedient, and accordingly must be carefully evaluated. Such projects will be real "laboratories" for health care research, and will serve as special training centers.

Suggested areas of research can be arranged in three main groups:

a. those which concern the system itself; organization and administration of the services; costs, etc.

b. those which concern the providers of service, e.g. supply and distribution of personnel and facilities, quality of care, etc.

c. those which concern the consumers of health care services; morbidity studies, sociological studies on attitudes of the recipients of services, etc.

5. LIMITATION OF CONSTRUCTION TO NEEDS AND RESOURCES

The construction of new facilities should be undertaken in accordance with adequate geographic distribution and population needs, and minimum standards for construction and equipment should be established.

The economic component of planning is more important than either the components of personnel and their facilities, or the organization for the distribution of personnel and facilities. In the final analysis it is the economic level of a country which determines de sufficiency of personnel and their facilities, as well as their distribution. No country as yet has reached the optimum of health care manpower, although some have reached a degree of sufficiency in the university professional level of health care personnel.

The implementation of planning for health in a low level economy country will be inefective if initially it provides only for hospitals, without concurrently establishing local community health care units.

Only too frequently the need for additional hospital beds is discussed without reference to the efficiencies which are possible through reducing the average duration of stay, and providing adequate out-patient services, as an alternative to more expensive bed care. Extension of the preventive and promotional health services could probably reduce the disproportionately large expenditures for medical care given in hospitals and clinics for preventable diseases. Moreover, planning for hospital construction does not always take into account needs for financing the maintenance and operation of the hospital as well as its personnel needs.

Costs of operation represent something more than a third of the initial construction and equipment costs.

Better organization of ambulatory care and of out-patient and home care could lower the cost of in-patient care.

6. ADMINISTRATION

Administration is implied throughout the foregoing sections. It is necessary to recognize that today, health care administration has evolved as a distinct discipline with its own technology. This fact is not yet universally recognized. This development must be appreciated if the recommendations of the several Technical Reports prepared for this Conference are to be implemented. Technical advances are such that the day is passed when important administrative posts can be assigned to an individual merely because he is highly qualified in some specialized branch of medicine. If the health care objectives of the Alliance for Progress are to be achieved it will require the appointment of individuals especifically qualified in administration of health care services.

7. ROLE OF INTERNATIONAL AGENCIES

The Charter of Punta del Este in Resolution A.2, paragraphs 4 and 5 states the basis for international collaboration as follows:

> "4. To recommend that governments, whenever they consider it advisable, utilize the technical advisory services of the Pan American Sanitary Bureau, Regional Office of the World Health Organization, in the preparation and execution of the aforementioned plans; and likewise to support the projects of that organization for establishing systems of health planning in the countries of Latin America.
>
> "5. To recommend, at the same time, the use of other means of technical assistance, whether multilateral of bilateral, available to the countries of this Hemisphere."

In view of these recommendations, it is anticipated that the Pan American Health Organization will be called on increasingly for assistance in planning to implement the Charter.

A need is indicated for coordination between all programs of economic and social development in the same country and between the several international agencies supporting such programs. It is suggested that there is a collaborative role for international agencies in conducting surveys of needs and resources (and that in such surveys the national counterpart should participate); in giving assistance in health planning and in training of

personnel for such planning; in stimulating the conduct of administrative research by nationals and the training of such research personnel; and in developing pilot projects in organizational patterns of medical care.

Every international agency, whether specifically dedicated to health services or only generally related to those functions, has something significant to offer in health planning. In general, we may look to international groups in planning for (a) stimulation toward opening new areas of activity or reorienting more orthodox practices; (b) comparative and demonstrative research in administrative practice; (c) formulation of standards of performance or of analysis; (d) development of educational criteria and curricula; (e) provision for education and training of health workers engaged in planning; (f) development of seminars, workshops and facilities for expanding perspectives; (g) investigations in laboratory and field practices to produce guidelines in administration and policy; (h) development of specifications for personnel recruitment, tenure, conditions of service; (i) inquiries into fiscal characteristics of programs with particular reference to their relationships to other government functions and objectives; (j) provision of consultants; (k) exchange of personnel.

Undoubtedly, international agencies may have still other values to offer than those enumerated above. Even these limited categories make clear, however, that these rich resources in research, stimulation, training and standard formulation provide major aids to governments in their tasks of health planning.

The usefulness of this collaboration would be greatly increased if each country would provide, in turn, a single clearing house for all international supplementation, whether of money, facilities or technical and manpower advisory resources. Unless such coordination is provided, health planning would not be adequately related to either the national or the international objectives. Whether such a clearing house should be under a committee or a single official, with appropriate full-time staff, should be determined by each country. In any event, multiple, un-coordinated demands upon international agencies should be resolved within each country and be related to the latter's primary national policies.

DISCUSSION

The 19th Century English economist John Stuart Mill wrote:

> "History shows that great economic and social forces flow like a tide over communities only half-conscious of that which is befalling them. Wise statesmen foresee what time is thus bringing, and try to shape institutions and mold men's thoughts and purposes in accordance with the change that is silently coming on. The unwise are those who bring nothing constructive to the process, and who greatly imperil the future of

> mankind by leaving great questions to be fought out between ignorant change on one hand, and ignorant opposition to change on the other."

Community health care services are social services. Their development requires social engineering and skill of a high degree. This paper, drawing heavily upon the preparatory reports for this Conference, has attempted to emphasize the basic lines to be followed for implementing successfully the integrated development of health care services. Health care resources to be effectively utilized must be coordinated and integrated.

The essential components of health care services themselves have been described. However, as they are social services one must draw attention to two essentials relevant to satisfactory progress. Social services depend upon a suitable national atmosphere for their growth. A welfare, free enterprise state depends upon equitable land tenure on the one hand, and upon adequate capital investment on the other.

The strength of nations depends upon and can be measured by its middle class. A middle class cannot develop in agricultural societies where the workers are predominantly tenant farmers and paying 40 per cent to 60 per cent of their produce in rental. Similarly, nations must be able to make annual capital investments of at least 5 per cent to 10 per cent of their gross national product, to become industrialized. The latter is impossible if nations permit their capital to flee the country.

The foregoing implies that the successful development of health care services requires the prerequisite of satisfactory land tenure laws, and legislation prohibiting the flight of capital. Finally, the attainment of the health goals of the Alliance for Progress requires that health is a coordinated component of a multipurpose community development program.

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

Second Working Paper

"SOME ECONOMIC ASPECTS OF MEDICAL CARE IN THE AMERICAS"

Table of Contents

I. Introduction

From the economic point of view, medical care differs from other areas of health activity. The provision of potable water, for example, is financed by borrowing in the short run on the basis that in the long run the loans will be amortized and current operating expenses met from water rates paid by the consumers. Mass operations like malaria eradication often rely on outside aid such as that furnished in the Americas by PAHO/WHO, UNICEF, and AID. Medical care, on the other hand, depends principally on the current income of the country involved, though the funds may flow through the tax system to Ministries of Health, through the social security system, or directly from the beneficiary to the governmental institution providing medical care or to the private clinic or practitioner.

The Swedish economist Gunnar Myrdal, then head of the United National Economic Commission for Europe, told the Fifth World Health Assembly in 1952 that "the success of a health programme is entirely dependent on whether it is integrated into a social process of economic development or applied to a status of economic stagnation" (1). This holds true particularly for medical care, in view of its sources of financing. In the short run --as noted in Document DT/2(2)-- it is possible to expand medical care services by the rational organization and management of existing resources. Once an optimum level of management has been achieved, however, the further expansion of medical care cannot take place in the absence of the increased resources provided by an expanding economy.

Finally, it should be noted that the present paper does not set out to reiterate the proposition that health makes a vital contribution to economic development or that health planning must be integrated with general planning for the social and economic development of the Americas. These points were made quite persuasively at the Technical Discussions held during the XIII Meeting of the Directing Council in 1961 (3). The present paper starts from the conclusions reached in 1961, and assumes not only that a close relationship between health and economic development exists, but that this view is by now so widely accepted by economists and health officials throughout the Americas that further argument is neither necessary nor desirable.

II. The Nature of Health Economics

Health economics is a new concern for the Pan American Sanitary Bureau, and the Quadrennial Report of the Director for the years 1958-1961 presented to the XVI Pan American Sanitary Conference justly notes that the subject is still in its infancy. Perhaps the most significant document in the field published in 1958 was the exploratory study entitled simply "Toward a Definition of Health Economics" (4). As recently as June of this year Professor Abel-Smith, in his introduction to the preliminary six-country WHO study of the cost and financing of medical care, observed that "little information is available from which each country can see its expenditure in relation to those of others or how expenditures are allocated between different fields of health services... There is as yet no international language of health service finance" (5).

Health economics can be viewed as having two main components --the study of the internal organization of health services, and the study of the relationships between health services and other economic activities. The first of these fields is by far the better developed. Both medical and lay administrators have been concerned for years with obtaining the maximum output from the resources at their disposal.

Some of the conclusions of the PAHO Advisory Committee on Medical Care with respect to internal organization were the following: "Only too frequently the need for additional hospital beds is discussed without reference to the efficiencies which are possible through reducing the average duration of stay... Better organization of ambulatory care and of out-patient and home care could decrease expenditures for in-patient care... Improvements are required in administrative practices in the utilization of personnel and facilities... Expenditures for medical care should be in accordance with a national health plan rather than through separate and independent channels through which the funds have been derived" (6).

Since the 1950's, in particular, the achievement of efficiency and economy through improved organization has been aided by a variety of econometric studies of medical care in Canada, the United States, Venezuela, and elsewhere in the Americas. Econometrics is defined as the application of mathematics and statistics to economics, and it goes without saying that the mathematical formulae are not of much help unless the basic statistics are of a high order.

A popular tool of analysis which is gaining increased currency in econometric studies of medical care is the input-output table or "matrix" illustrated in Figure 1. In the example shown, the health services of a community are arranged in columns and rows in a table. Column and row number 1 represent the out-patient service, 2 stands for in-patient beds, 3 for domiciliary care, etc., until all health services are listed. X stands for any value. The first number in the subscript stands for an output and the second for an input, so that X_{12} represents an output from the out-patient service and an input to in-patient beds (for example, a case referred for inpatient treatment from the out-patient service). Similarly X_{23} could represent a case discharged from the in-patient service for domiciliary care during convalescence, X_{41} might represent laboratory examination of a specimen from the out-patient service, X_{46} laboratory examination of a food sample from a market inspector, X_{47} laboratory service to some other department. Some of the values would be zero if no service were performed by one department for another.

Even without mathematical analysis, the input-output table is a convenient way to visualize the internal organization of health services. In addition, when the administrator tries to assign real values (figures of cost or units of service) to each X in the matrix, this points up the areas where statistics are adequate and those where data have yet to be collected.

Figure 1

Example of an Input-Output Table Showing Health Services in a Community

INPUTS

OUTPUTS	1	2	3	4	5	6	7	Total
1 Out-patient service	...	x_{12}	x_{13}	x_{14}	x_{15}	x_{16}	x_{17}	Sum of X_1 outputs
2 In-patient beds	x_{21}	...	x_{23}	x_{24}	x_{25}	x_{26}	x_{27}	Sum of X_2 outputs
3 Domiciliary care	x_{31}	x_{32}	...	x_{34}	x_{35}	x_{36}	x_{37}	Sum of X_3 outputs
4 Laboratory service	x_{41}	x_{42}	x_{43}	...	x_{45}	x_{46}	x_{47}	Sum of X_4 outputs
5 X-ray service	x_{51}	x_{52}	x_{53}	x_{54}	...	x_{56}	x_{57}	Sum of X_5 outputs
6 Environmental sanitation	x_{61}	x_{62}	x_{63}	x_{64}	x_{65}	...	x_{67}	Sum of X_6 outputs
7 ...etc...	x_{71}	x_{72}	x_{73}	x_{74}	x_{75}	x_{76}	...	Sum of X_7 outputs
Total	Sum of inputs to X_1	Sum of inputs to X_2	Sum of inputs to X_3	Sum of inputs to X_4	Sum of inputs to X_5	Sum of inputs to X_6	Sum of inputs to X_7	Sum of inputs = sum of outputs

Note: The letter "x" stands for any value. The first number in the subscript identifies the output and the second number the input. If money values are assigned to each "x" the sum of all inputs = the sum of all outputs = all the current expenditure on health in the community. In cases where all columns and rows can be expressed in a non-money unit (e.g. bed-day or unit of service) the sum of all inputs = the sum of all outputs = the sum of all services, bed-days, etc.

Another purpose of input-output analysis is to establish functional relationships between the different departments or services which can serve as a basis for control of operations and for future planning. If standard figures are obtained by the examination of data on laboratory services to the out-patient department, in-patient service, etc., these can later be used in forecasting the need for additional laboratory technicians if the out-patient service is to be expanded, or the repercussions on the laboratory of a change in some other service, and in a similar way the mutual interaction of all services on each other can be analyzed. For control purposes, the standard relationships would show the administrator when an out-of-the-ordinary use of some service was made--for example, if laboratory services to patients in domiciliary care increased sharply this might have either administrative or epidemiological implications.

Just as the input-output table in Figure 1 represents "economic bookkeeping" in the microcosm of a community health service, so larger input-output tables can be constructed for the macroscom of the national economy. The planning course for health officials to be fiven in Santiago, Chile, in cooperation with ECLA in the last quarter of 1962 will, among other things, introduce health officials to the techniques of input-output analysis.

Another form of "economic bookkeeping" of wide current interest and application is the analysis of national income, product, and expenditure in terms of the standard system of national accounts of the United Nations. An outline of some of the common national accounting concepts is given in Figure 2. The subheadings in the upper part of Figure 2 show what are known as the "distributive shares" of national income as paid out to the recipients. These shares merit closer examination, since they are the source of most funds for medical care.

People obtain their income as wages and salaries (compensation of employees) or from rent, interest, or business profits. Individuals with sufficiently high incomes are usually the clients of the private sector of medical care. In many countries a portion of the compensation of employees is drawn off in the form of social security contributions and used to finance medical care institutions or provide cash sickness benefits--principally for urban wage earners and salaried employees. Finally, both individuals and businesses pay direct taxes on income or profits to governments, and these taxes are the principal source of funds for medical care as they are for the other activities of the State.

The next concept in Figure 2, that of gross national product,represents, as its name implies, the value of everything produced in a country. Not all of the value of production, however, is paid out as distributive shares. When consumers buy goods, sales and excise taxes are returned to government and do not become part of the income of the merchant or producer. These taxes, too, contribute to government revenue. On the other hand, the government may pay out subsidies to certain groups. This is common in

Figure 2

Schematic Outline of Some National Accounts Concepts

COMPENSATION OF EMPLOYEES: Wages, salaries, and supplements, in cash or kind, payable to employees of private and public enterprises and to military personnel, before deduction of direct taxes and social security contributions. + UNINCORPORATED NET INCOME: Income in cash or kind of proprietors or partners of unincorporated businesses (including farms) and independent professional men. + RENT: Net income from possession of land and buildings, patents, and copyrights. + INTEREST: Payments received by households and private non-profit institutions. + DIVIDENDS: Payments received by households and private non-profit institutions. + UNDISTRIBUTED PROFITS: Income of corporations remaining after payment of direct taxes and dividends. + CORPORATE TAXES: Direct taxes on corporations and cooperatives levied on profits, capital, or net worth.	= NATIONAL INCOME
NATIONAL INCOME: As defined above. + INDIRECT TAXES NET OF SUBSIDIES: Sales taxes, import, export, and excise duties, etc., less subsidies. + DEPRECIATION: Provision for capital consumption.	= GROSS NATIONAL PRODUCT
GROSS NATIONAL PRODUCT: As defined above. + NET TRANSFERS AND BORROWING FROM ABROAD: Income received from foreign sources and funds borrowed from foreign sources.	= GROSS NATIONAL EXPENDITURE

Source: Adapted from WHO Document MHO/PA/77.62, op. cit.

agriculture, where governments often pay part of the cost of staple commodities so that returns to producers are greater than the price paid by the consumer. Subsidies are substracted in computing national product, as a sort of "sales tax in reverse." Finally, some part of the value of production is reserved to replace worn-out buildings, machines, and the like, and this sum for depreciation, while part of national product, is not paid out as income.

Finally, of particular importance to low-income countries, is the concept of gross national expenditure. Some countries spend more than the value of what they produce, and the difference represents grants or loans from foreign sources and --in a few cases-- earnings from foreign investments. In the Americas, grants from foreign sources often aid the mass eradication and disease control campaigns, while loans are commonly given for water works and other environmental sanitation activities though --as noted earlier-- these sources of funds are of less importance in the field of medical care.

The reason these concepts are introduced here is that national income and product are the basic indices of economic growth and development. Even though limitations of the data often restrict national accounts to gross estimates of money flows --the flow of wages from employers to employees, of personal and corporate income to government through taxes, etc.-- countries with more sophisticated statistics can also identify the health sector and study its curious dual character as consumption and as investment.

Normally, consumption and investment are quite distinct from one another. Bread is a consumption good, while the baker's oven represents an investment in bread production. But how about medical care? Take the case of a carpenter's apprentice who collapses at work, is taken to a hospital where meningococcus meningitis is diagnosed, and returns fit for work a month later. The time of the physician who made the diagnosis and of the hospital staff who nursed the patient, the occupancy of the bed, and some drugs have been consumed just like the bread fed to the patient. But other things have also happened: The loss of an investment in several years of schooling and apprenticeship has been prevented. A new investment has also been made, because the cost of curing the patient --depending on average life expectancy in the country concerned-- has also been an investment in manpower providing something between 20 and 40 man-years of carpentry in the future. Current economic literature includes a number of studies of this investment in "human capital" or "human resources" through health and education (7).

At this point Myrdal's comment on development and stagnation can be illustrated. If the life saved had been that of an illiterate, untrained youth in a stagnant economy where half the labor force was unemployed or chronically underemployed, the professional care, drugs, and bed-days would still have been consumed, but the investment might have had zero return for society. If the youth were to live for some years more and continue to consume food and clothing without ever holding a productive job,

the return on the investment might actually be negative. On the other hand, in a vigorously developing economy where manual skills were at a premium and a critical shortage of trained carpenters was hampering the construction of factories which in turn would employ people in other occupations and produce more goods, then the return on this investment in medical care would be extremely high.

Economists like to think of themselves as realistic, and certainly do not believe that only an economic calculus should be adopted in deciding whether to expand medical care. They recognize the health worker's moral imperative to promote, protect, and restore health and the implicit right of every human being to share in the health resources which the society into which he has been born can make available. They do feel, however, that the highest return on health investment comes from those services which foster economic development.

Consider the hypothetical case of a small country which is beginning an ambitious development program. New factories are established to make furniture and paper from wood which was formerly exported. The seaport which used to transship the wood continues to handle coffee, cotton, and banana exports, but its population is now static at 12,000. Meanwhile, the new factories are grouped in another community which rapidly grows from 600 to 12,000 population as industrial employment increases and other activities are attracted. The old seaport has one inadequate health center which is not sufficient to serve its entire population satisfactorily. The new factory town has none. Funds and personnel are available to establish one additional center in 1963. Where should it be located? Obtaining the information to answer this question in practice is more difficult than appears at first glance, and involves substantial fact-finding efforts.

III. Economic Decision-Making in Theory and Practice

The above examples have been theoretical simply because in most countries of the Americas there is not enough quantitative information to serve as a guide to decision. Anyone trying to construct an empirical input-output table for a typical community health service would encounter considerable frustation. How many services did the X-ray department perform for out-patients? How many patients were hospitalized for nutritional deficiency states? Even in the microcosm of the individual health center these data are not always forthcoming. The difficulty of obtaining data on the organization and distribution of medical care services has already been noted in Document DT/1(8).

As for general background information, if the hypothetical country had been a real one, it would be difficult to establish that population had grown from 600 to 12,000 in recent years. If the development schemes had begun in 1961, it might be necessary to wait for the 1970 census whose results might not be available until 1973 or even 1975. If it were desired to examine the employers' payrolls so as to make an estimate of population

on the basis of the number of wage earners in the absence of published statistics of establishments, the investigator might be told that a businessman's books are his private property and not meant for the eyes of strangers. Perhaps with the cooperation of the Ministry of Development or the Ministry of Labor or the National Planning Council the answers might be obtained. Even then, special and by no means low-cost surveys might be called for.

The Charter of Punta del Este made a distinction between short-term and long-term plans. The reason for this distinction is quite important, especially for those now engaged in planning for the extension of medical care. It was felt that few countries had started the decade of the 1960's with sufficient information to make reasonable ten-year plans. Furthermore, new plans in other field--plans for agricultural colonization, for industrial development-- would create new demands for health services which could not be foreseen. For this reason, it was felt that short-run activity (over two or three years) could usefully be limited to areas where immediate practical results could be obtained in health work (malaria eradication is a good example), and these years could also be used for pre-planning studies and basic research so that the eventual longer-term plans would have a solid basis.

The shift in geographical distribution of population provides an example of the studies that might be needed. Let us assume that another hypothetical country will see the numbers of medical and paramedical personnel and the budget for medical care rise 20 per cent by 1972, and that ECLA has computed (admittedly, on the basis of incomplete data on births and deaths) that the population will increase by 15 per cent in the same period. Is it possible simply to increase the number of health centers by 20 per cent so as to keep pace with population growth and raise the level of care by 5 per cent? Probably not.

More detailed demographic data would be needed to show whether the population increase is concentrated in rural or urban districts or in specific parts of the country, and to determine what migration, if any, had been going on between regions or from country to town, the basis of this movement, and the prospects for its continuing. Then, it would be necessary to learn what plans were being made for other sectors of the national economy, and their effect on the distribution of population. Agrarian reform, opening of new land to settlement, river and harbor development, the establishment of new mines, hydroelectric facilities, and manufacturing industries-- all would have to be studied. Within the field of health, would the successful completion of malaria eradication change birth rates, migration trends, or patterns of land settlement and use? What reduction in the demand for hospital beds, antimalarial drugs, and the care of physicians and nurses would be involved? What would be the effect of earlier diagnosis of tuberculosis and more effective ambulatory treatment? If the development plans included water service, what effect would this have on water-borne diseases and on personal and community hygiene?.

Some information must be obtained in a fine degree of detail. A fully automated textile mill staffed by ten foreign technicians, for example, would have a different set of health requirements from a conventional mill in which 200 low-paid local laborers provided the same output. The foreign technicians might even prefer, and be able to afford, to consult a private practitioner and go to a private clinic when ill. Thus, in planning for medical care to be provided under the aegis of the Ministry of Health, the existence of a private sector of health care must also be taken into account.

To find the answers to these questions, and to provide the exhaustive list of demographic, economic, and social indicators proposed in Document DT/2 it is seldom enough to search in government archives or in libraries. Direct investigation in the field is often called for. In recognition of this, the Advisory Committee on Medical Research, in its report to the Director of the Pan American Sanitary Bureau in June of this year stated: "... research into medical care and its economic aspects would help tie up health with the general growth and development of a country, and establish a basis for the general body of doctrines related thereto. This type of research fits in very well with the present timely interest in the rational planning of many aspects of social and economic development in the hemisphere... because of the immediate and long-range returns to be expected from this type of research, this Committee does not hesitate to place it at a very high priority level on a par with biological and medical research."(9)

For the present, the economist can provide a qualitative rather than a quantitative answer for the public health administrator, both as regards the economies to be obtained from the internal reorganization of medical care and as regards the demand for health care which can be expected to result from the process of economic development. In economics as in mathematics, however, a point is sometimes reached where it is possible to say with confidence that a determinate solution exists even before the precise answer has been found. There is reason to believe that this point has been reached in the economic analysis of health services and medical care, and that improved data, introduced into existing theoretical models, will bring about fruitful results.

IV. Economic research in medical care under the auspices of PAHO/WHO

The Fifth World Health Assembly (Resolution WHA5.73) urged the World Health Organization to undertake studies of the relationship between public health, medical care, and social security, and the mandate of the Pan American Sanitary Bureau for research in health economics is found in Resolutions XVI and XXIII of the XII Meeting of the Directing Council (Havana, 1960) and Resolution XXIII of the XIII Meeting (Washington, 1961). In the specific area of medical care, the six-country pilot study of WHO cited earlier was begun in 1957 and completed this year. The countries covered were Ceylon, Czechoslovakia, Israel, Sweden, and in the Americas, Chile and the United States of America. This study had the broad goal of surveying the costs and means of financing medical care services, and

provided a variety of data for the year 1959 or a near date. One interesting observation was that personal health care, defined in the WHO study so as to correspond roughly to the curative, preventive, and promotional activities associated with integrated health service programs in the Americas, represented more than 90 per cent of current operating expenditure for health in the six widely disparate countries studied. Similar services seemed to make for similar levels of expenditure, and Chile and Sweden --which had similar governmental health objectives-- spent respectively 17.2 and 20.4 per cent of their current government budgets on health, compared with 6.6 per cent in the United States of America where the role of the private sector of health service was proportionately greater.

In order to relate hospital costs to national levels of living, the study also compared costs per bed-day in the different countries with the national expenditure (as defined in Figure 2) per capita per day. National expenditure per capita per day can be considered to represent the average amount of money available for all economic activities, and the cost per bed-day of hospital care turned out to be about three times this amount in Chile and Sweden, compared with about five times per capita expenditure in the United States of America. Since Sweden has a higher per capita national expenditure than Chile (which is another way of saying that it has a higher level of living), the comparison means that Chile and Sweden devote a similar proportion of their respective levels of living to hospital care though Sweden actually has a higher amount of resources committed, while the United States of America devotes a higher proportion of a still higher level of living to the same purpose. This was borne out by the finding that the relative importance of hospital care, as compared with other health care, was highest in the United States.

While many differences were observed in the relative importance of teaching and research within overall health expenditure, and between different preventive and curative programs, there appeared to be a rough general consistency in that something near 5 per cent of gross national product was devoted to health care from all sources (public and private) in both high-income and low-income countries.

Encouraged by the information gained in this pilot study, WHO plans to extend the inquiry to all interested countries on a questionnaire basis in 1963, and the Pan American Sanitary Bureau is prepared to assist the countries of the Americas in their participation. In this connection, little difficulty is expected in obtaining data on medical care provided by Ministries of Health or by social security agencies, but greater difficulty is anticipated in obtaining comprehensive information on the health services provided by other Ministries to limited groups, by employers to their workers, by charitable agencies ("beneficencia") and by private physicians and clinics. Even if the information for these latter groups is limited to sample survey data, however, valuable background for the future planning of medical care services will have been gained.

V. Recent developments

(The work of the Health Task Force called for in Resolution A.4 of its August 1961 Meeting at Punta del Este will be one of the items considered in the early days of the meeting of the Inter-American Economic and Social Council which begins in Mexico City on 20 August 1962, and it is hoped to include a brief progress report at this point in the Technical Discussions).

VI. Conclusion

This brief set of observations on economic aspects of medical care has introduced certain economic concepts, described some of the tools of analysis currently employed, and emphasized the need for further research to provide empirical data to fit into the theoretical model of a developing society in which the multiple interactions of health and economic development have heretofore been studied mainly in qualitative terms.

The principal question confronting the medical administrator is where the money is coming from. The expansion of medical care services evidently involves the most rational use of existing resources as well as new increments of professional and sub-professional manpower, buildings and equipment, and money to cover both capital investment and current operating expenses. The money, must come from sources of revenue available to Governments. Borrowing is feasible in the case of capital investment which can successfully be amortized over a period of years, but borrowing to meet current expenses involves the dangers of runaway inflation. Efforts to obtain a greater share of a static national income through higher rates of taxation do not appear to offer much promise because of institutional rigidities and limitations on ability to pay. The most fruitful source of added funds for health is, quite clearly, a rising national income and product.

The Charter of Punta del Este embraces a number of measures designed to produce this increased income-tax reform; agrarian reform; credits for directly productive investment and for social overhead investment in electric power, roads, and the like; the promotion of intra-regional trade; the promotion of health and education as forms of investment in human capital.

Despite the promise of these programs for the Americas, enthusiasm should be tempered with caution. There are disagreements among economists as to the relative advantages of balanced and unbalanced growth; on the degree of price inflation concomitant with the development process that can be tolerated; on the relative emphasis to be given to industrialization and agricultural development, to labor-intensive and capital-intensive activities. Each side can advance persuasive arguments, and professional economists as well as laymen are sometimes dizzied by the debate. One point on which there is fairly general agreement, however, is that the factors of risk and uncertainty are inherent in a free economy. Populations do not always react as predicted to economic incentives. Social and traditional

factors often intervene. The adjective "stochastic" has been used by economists to describe situations where an element of unpredictable randomness enters the analysis.

Progress, in these circumstances, often appears to be a matter of successive compromises, approximations, and adjustments to changing conditions, rather than a clear and predictable path. Perhaps the most valuable advice the economist can give the medical administrator today is to maintain the clear long-run objective of advancing medical care to meet all the needs of all the people, but at the same time to be willing to undertake the necessary compromises and adjustments that changing situations may demand. The decision to locate a new health center in a potentially important development area rather than a region of less economic importance but equally great human need is one of the types of adjustment that may be called for. The establishment of targets for professional education in view of the limited number of candidates graduated from the secondary schools and the sometimes conflicting needs for training in medicine, engineering, economics, and the other skills demanded by complex modern society, necessarily involves compromises. The long-run goal will still be served because today's student of accounting or geology is tomorrow's taxpayer and a contributor to the higher national income that will finance expanded medical services as well as the other needs of society. Flexibility and the willingness to cooperate with other sectors of national life in planning for general development promise a greater long-run return for health work in the Americas than projects planned in isolation whose request for funds may fall on unreceptive ears.

Of the three aspects of medical care considered in the technical discussions, the economic aspect fits appropriately in the middle. The first working paper summarizes the available information. The present paper shows the need for research to provide quantitative economic data that will enable us to analyze medical care in the context of the developing economies of the American countries. The rising national incomes and health budgets which are hoped for as a result of the development process launched at Punta del Este are still some years away, however, and for the present the economic contribution is overshadowed by that of the Third Working Paper, which discusses concretely how health resources can be utilized to improve medical care in the here and now.

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Pan American Health Organization World Health Organization

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

(Corrigendum to Document CSP16/DT/3)

"SOME ECONOMIC ASPECTS OF MEDICAL CARE IN THE AMERICAS"

The reference made under point V, page 11 to the progress report expected to be presented at the Technical Discussions on the item on the Health Task Force, during the meeting of the Inter-American Economic and Social Council, in Mexico City, is to be deleted since the meeting in question has been deferred.

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

"HOW TO UNDERTAKE EFFECTIVE UTILIZATION OF HEALTH CARE RESOURCES"

Introductory Statement
by

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HOW TO UNDERTAKE EFFECTIVE UTILIZATION OF HEALTH CARE RESOURCES

The paper "Effective Utilization of Health Care Resources" has been placed in your hands--it attempts to outline what are the requirements for effective utilization. Consequently, it seems preferable not to take up your time by reading the paper, but to open a discussion after a brief summary by outlining how one undertakes to put these essentials into practice.

First, consideration can be given to the following points as a general introduction to this discussion:

A. STATEMENT OF PRINCIPLES

The paper sets forth certain principles of thought and conduct, primarily in regard to the organization and administration of health care services; the need for the close integration of preventive and curative medical services; the need for planning of all activities; and the basic requirements of an educational program for the health care professions, and last but not least, the development of a technical consciousness on the part of the public.

B. NATIONAL SURVEY

Prior to the formulation of a national health plan a survey of the individual country's characteristics must be carried out to include socio-economic development, health problems and health resources. In studying the existing agencies and patterns of health care, particular attention should be paid to their organization and administration in the light of the principles previously stated.

C. FINANCE

There must be one over-all official administrative plan for financing and administration of health care in any country, even though the funds for the different types of services may be derived from different sources, such as public revenues, social security contributions, philantropic and private payments.

D. HEALTH MANPOWER AND FACILITIES

To undertake the planning of health manpower and facilities in a country a commission should be formed representing the Ministries of Health and Education, and the Universities. The training of personnel must reflect the manpower needs of the country in question by being linked to the capabilities of the service agencies.

In a low level economy country facilities and manpower are inevitably deficient and must be supplemented by voluntary self-help on the part of the local community. Under professional supervision the assistance of these local volunteers can reduce considerably the cost of a program.

E. ORGANIZATION FOR COORDINATED DISTRIBUTION

Health care services must be planned and organized on a regional basis, coordinating all the agencies for curative medicine, preventive medicine, public health, and social service within a given geographic area. In each region there should be a regional base health center with facilities for inpatient and outpatient care including key personnel for health promotion, disease prevention (diagnosis and treatment), and rehabilitation, with communication in both directions for personnel as well as clients. The region should have a population of sufficient size to be able to be economically and professionaly self-sufficient. The Regional Offices are not only responsible for the provision of coordinated services to the region, but are also responsible for the continuing education of the health care professions and the development of the technical consciousness of the consumer public. Health care should be part of an overall program of Community Development which includes education, agriculture, etc., etc.

Second, a number of considerations regarding the effective utilization of resources warrant summarizing here:

A. IMPROVED USE OF PRESENT DAY RESOURCES

The type of organization must be such as to provide the largest number of people with the benefits of modern medical science. This can best be done if services are organized on three coordinated levels:

a. National
b. Intermediate (State, Provincial, and Regional)
c. Local

B. INTEGRATION OF HEALTH CARE SERVICES

Health care is a program of services which promote health, prevent disease, restore health and alleviate disability. They must be closely related to environmental health services on the one hand, and social protection and educational services on the other. A fully integrated health care unit providing inpatient treatment, ambulatory care, facilities for preventive services and welfare services must be the organizational focus for the peripheral provision of health care. In order to achieve this integration the health professions must reorient their attitudes.

C. TRAINING OF PERSONNEL

The future physician must be trained as a leader of the health team in the practice of community health care. This will require a corresponding reorientation of his basic training, with increased emphasis on the social sciences and on preventive care. Medical schools must administer their own community practice field for training and research. The foregoing implies reorientation of the conventional curriculum.

D. RESEARCH NEEDS IN HEALTH CARE

Operations research to experiment with alternative ways of meeting the people's health and social needs is of prime importance. Every Ministry of Health should have its Planning and Research Department. The principal purpose of such a department is to study the organization and administration of health care services and the resources available, with a view to improving the administrative and technical practices.

E. LIMITATION OF CONSTRUCTION TO NEEDS AND RESOURCES

New facilities should be constructed in accordance with planned geographic distribution and population needs. Reduction of average patient stay, provision of adequate outpatient services, and extension of promotional and preventive services, will all reduce the need for inpatient care. The provision of local community health care units must be considered concurrently with hospitals.

F. ADMINISTRATION

Health care administration is today a distinct discipline with its own technology and requires the appointment only of specially qualified individuals to administer health care services.

G. ROLE OF INTERNATIONAL AGENCIES

There is a collaborative role for international agencies in research, stimulation and training. Each country should provide a single clearing house for all international collaboration.

H. DISCUSSION

Community health care services are social services and therefore depend on a suitable national atmosphere for their growth. Satisfactory land tenure laws, and prohibition of the flight of capital from a country are prerequisites for the universal provision of health care services. Health should be a coordinate component of a multipurpose Community Development Program.

As already has been discussed, particularly in Dr. García Valenzuela's paper, in the majority of the Latin American countries medical care is still separated from the other health service activities, which brings about a fragmentation of health care services within those countries.

The placement of Medical Care, usually under Social Security and/or "Beneficencia" is a serious obstacle to smooth operation of health services at all levels.

We firmly believe that medical care must be incorporated as one of the basic services in integrated health programs, if proper and conveniently balanced health care services is to be accomplished.

This will not be easy and in some countries, it will require close coordination before a complete integration is achieved. Experience in some countries shows that it may take some years to completely integrate health services.

Thirdly, the following observations are directed toward the implementation of the foregoing principles:

National implementation of integrated coordination should be preceded by a regional demonstration. Such a demonstration must be based upon certain assumptions: First, that the Ministry of Health has already a Planning and Research Unit which has established a policy based upon the results of a national Survey. Second, that there is a Medical School within the proposed region. Third, that the health care status of the region has been specifically examined in a more detailed manner than the national Survey in terms of undertaking a demonstration. Fourth, that the recommendations of the review of the region have conformed adequately with the principles postulated for "effective utilization of health care resources". These recommendations would provide for two categories of action. The first would relate to the organization of the administration of the health care services within the region. The second would relate to the training and continuing education of the various categories of the health care personnel, but particularly the physician.

The population of the region should not be less than 1/2 million and might possibly even be of the category of 2 millions. The area, however, must coincide with a defined political unit such as a district or a province. The administrative blueprint would envisage the three levels described in the paper under discussion. The peripheral health center would service all health care demands for health care services of a local political unit or units serving a population from 25,000 to 50,000 preferably, the latter if transportation facilities assure that the individuals served are not more than approximately 30 minutes from the center by ambulance. The blueprint might include one or more intermediate health centers providing somewhat more comprehensive services than the local centers.

The Regional Office should comprise two units -administrative and research training. The Office, on the one hand, would be the decentralized administrative arm of the Ministry of Health, and on the other, an integral part of the Department of Community Health of the Medical School. The Regional Hospital should concurrently be the University Hospital for the Medical School. The personnel of the Training-Research Section of the Office should include each of the differentiated health care disciplines responsible for consultant supervision of the activities throughout the region as well as for teaching and research. This principle will apply similarly to the major clinical departments of the teaching hospital. This implies that the budget of the latter would be sufficient to discharge these extramural responsibilities. It is important to insure that the budget established specifically for regional coordination is protected from diversion to meeting routine service or teaching needs.

A successful demonstration would probably require at least five years for its establishment. Competent leadership would however, be essential. The first task confronting the Regional Office would be of two categories. Coordination of services requires the preparation of operating manuals to facilitate the desired integration. Also, standards, however minimum would have to be drafted. Such standards would be for organization and management and later for performance. An essential component for successful coordination is evaluation. This is a difficult and complicated undertaking. The responsibility for this presumedly falls on the Department of Community Health of the Medical School.

The Regional Office provides a two-way flow between the periphery and the base. This is not only for professional but also for such administrative services as central purchasing, pharmacy, laundry, maintenance, etc. An important responsibility of the regional administration is the development of a technical consciousness in the consumer public. It becomes necessary that not only should there be a consumer's health committee for each peripheral and intermediate center but also that there should be an advisory council for the Regional Office itself providing broad representation throughout the region. This council should have a small executive committee with designated responsibilities to assure that the council itself is an active and not a dormant body.

TRAINING AND RESEARCH

A Community Research and Practice Field is as essential to the Medical School for the provision of adequate instruction as it is to the University Hospital for discharging its responsibilities in clinical medicine. Such a research practice field is as much in need of standards for training as are the essentials required of hospitals which train interns and residents. These standards should be established and applied

in one or more of the peripheral health centers selected for training of students. These centers must be provided with adequate self-participating training facilities if the trainees are to acquire the desired attitudes towards future community responsibilities.

A second essential to assure satisfactory attitudes for physicians is that the University Hospital must insure that during the clerkship years the records of patients include the ecological factors relating to the clinical pathology being diagnosed. This requirement entails a strong hospital social service department which preferably should be headed by a Medical Sociologist in order that the department in question can undertake research in Social Epidemiology.

An important integral function of "Regionalization" is that of continuing education. The Medical School should provide this in three ways: First, the circuitriding consultations should be given to the peripheral units by the teaching staff of the School. Second, the staff of the peripheral centers should be regional rather than merely local; as such, they would have opportunity for periods of resident training in the Regional Hospital. This requires that the regional personnel should include stand-by staff to relieve individuals given training leaves. Third, the Medical Training Center should organize annual short-term refresher courses. It should be borne in mind that what has been implied above for the training of physicians applies equally to each of the health professions.

CONCLUSION

It will thus be seen that a demonstration for the coordination and integration of health care services requires the assumption that training of personnel and administration of services are two sides of the same coin. This principle does not in any way endanger the quality of training and research but merely extends their boundaries. However, this undertaking requires personnel and facilities and attitudes which may not be available in some countries. A start may be made, even under the greatest limitation, which should outline future developments. The greater the limitation of resources- personnel, etc.- in a country, the more essential it is for that country to plan correctly to assure sound future developments.

Pan American Health Organization *World Health Organization*

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THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

REPORT OF THE RAPPORTEUR OF THE TECHNICAL DISCUSSIONS

THE PRESENT STATUS OF MEDICAL CARE IN THE AMERICAS IN RELATION TO ITS INCORPORATION AS A BASIC SERVICE IN INTEGRATED HEALTH PROGRAMS

REPORT OF THE RAPPORTEUR OF THE TECHNICAL DISCUSSIONS

I. Establishment

The group was established on the date mentioned above by the officers of the Conference, with Dr. Alfredo Leonardo Bravo (Chile) acting as discussion leader, Dr. Guillermo Arbona (Puerto Rico) as rapporteur, and Dr. René García Valenzuela (PASB) as secretary.

II. Introduction

The following aspects of the topic were presented by the authors of the working documents:

1. Summary of available basic information, Dr. René García Valenzuela;

2. Some economic aspects of medical care in the Americas, Dr. A. Peter Ruderman; and

3. Effective utilization of health care resources, Dr. John B. Grant.

III. Outline for Discussion

Dr. Bravo opened the discussion with a brief summary of the chief bibliographical material available in addition to the three working documents, and outlined a few ideas about the following items, with a view to centering discussion on them.

1. Principles and main points at issue (terminology, "systems", coordination, integration, legal aspects, extent of coverage, levels, regionalization).

2. Structures and practical implementation (areas, establishments, levels, lines of authority, manuals of procedure).

3. Financing (national budget, social security, local and semi-governmental budgets, contributions by patients).

4. Personnel requirements; instruction and training; categories.

5. Buildings, installations, equipment, supplies.

6. Planning and evaluation.

IV. Discussion

Discussion centered chiefly on the points summarized below:

1. Working documents - In the course of the discussion reference was made to the principles and recommendations contained in the working documents. Notwithstanding any special references and opinions to be noted in the pertinent paragraphs, it was decided to accept the suggestions relating to coordination and integration, broader powers for health authorities, improved organization and administration of services, training and expansion of personnel, the need for applied research and promotion of medical care as a basic service in all national and local health programs.

2. Nomenclature and definitions - The terminology was studied with reference to traditional and linguistic characteristics and it was concluded that the time was not ripe for introducing changes into it, but that the terms medical care and assistance should be considered synonymous in describing the function which is primarily concerned with care of the sick.

In that connection, the opinion was expressed that the definition of medical care should not encompass the functions of health promotion and health protection, which are covered by the broader concept of health care.

It was considered that a distinction should continue to be made between the hospital and the health center, with reference to the chief functions of each. It was agreed that the local health authority should be the leading organ of the local program. The hospital should be a member institute and collaborator. The opinion was also expressed that a hospital-health center or a health center with in-patient accommodation might be a possible solution.

This brief outline summarizes both the consensus and divergent opinions on details; the latter are, however, agreed as to the substance and the purpose.

3. Planning and programming - The group recognized the need for planning all health activities, which of necessity had to be preceded by a study of the special features of each country, including the degree of social and economic development, health problems, health resources, and the information normally required for such planning.

In addition to the study of existing agencies and types of services, special attention should be given to their organization and administration, bearing in mind that policy making should be centralized and activities decentralized.

With respect to national health planning as such, a fundamental requirement recommended was that it form part of a national economic and social development plan.

4. Integration and coordination - This was the most important subject and the one most fully discussed by the group. While it was unanimously agreed to recognize the advisability of and need for such integration and coordination, no attempt was made to gloss over the obstacles in the way of reaching this goal, which is currently no more than an aspiration.

The group acknowledged that, despite its importance, legislation designed to increase the scope of activities of the ministries of health is not, in itself, sufficient. A suitable approach must be fostered as a permanent attitude shared by all program executors. To this end, the physician must be taught to think along these lines while still a student. Because of inherent difficulties, they usually have to be inculcated after his graduation and less thoroughly. The group emphasized the inadvisability of such a procedure when specialization is undertaken in countries with different environmental and cultural conditions. It must also be kept in mind that administrative training should cover both preventive medicine and treatment; this is rarely the case in medical schools, where a distinction is still made between health administration and hospital administration. In this respect, the group suggested that it was advisable for physicians with previous clinical experience to specialize in health administration in order to prevent the bureaucratic approach that results when the interests of the patient are not of primary concern.

Having fully acknowledged the advantages offered by integration, the group proceeded to study possible means of implementation. A number of divergent opinions were expressed on this point. Some urged that implementation should progress from the simple to the complex, i.e., advocating initiation of a policy of integration at the local level, while others advocated initiating integration at the ministerial level. However, initial, small-scale but progressive integration through experimental demonstration programs, found favor with most of the group because it was more feasible, had a more lasting impact upon the community benefited, and offered better prospects for personnel training.

Mention was also made of the different obstacles to be overcome by each country in making better use of existing welfare resources, since public health resources have traditionally been entrusted to the State. As for medical care, it is difficult to systematize resources that are handled by autonomous state or private institutions. It was decided that these institutions should be drawn into the system through a process of coordination made possible by the fact that it is the State that normally subsidizes them.

The relationship between planning and integration has served to indicate that good relations can lead to better and more effective work in services that have to date suffered from substantial lack of organization. In this way, integration becomes a means of systematizing the services, ensuring better use of the limited resources available including a proper bed-day yield which may be obtained by extending ambulatory and home services that can be utilized in both preventive and curative activities.

Public health activities have led to a change in morbidity statistics that would appear to call for changes in public health methods. Activities pertaining to certain diseases that benefit from the epidemiological method in their early diagnosis and timely treatment tend to become more individualized. In order to make an effective contribution in that field, Public Health has to maintain its close contact with Medical Care. The only way is to integrate the twp services.

For those reasons, it was decided to acknowledge the advisability of health services being planned and organized on a regional basis, with close coordination of the existing agencies of curative and preventive medicine under the sole authority of a health administrator. In each region there should be established a system of services as self-sufficient as needs and possibilities indicated; with at least the services for institutional and ambulatory care; with key personnel specialized in the various aspects of promotion, prevention, cure, and rehabilitation; within such a "system" there should be centrifugal and centripetal communication, both for the staff and for the persons benefiting from the system. The population in each region should be large enough to justify such an effort and should be able to meet the financial and personnel needs. Insofar as possible, efforts should be made to establish ties with the community, the interested professional groups, and teaching centers. The services should be part of a general program for the economic and social development of the community.

As to administrative structures in general, although they admittedly vary from one country to another, according to the political organization and legislation, it was decided to acknowledge as valid the division suggested in one of the working documents, as follows:

a. National Level: Responsible for formulating policy, establishing directives, and maintaining supervision.

b. Intermediate Level (state, provincial or regional level): Responsible for coordination, and certain specialized services.

c. Local Level: Responsible for execution of programs.

It was agreed to add two additional levels: an international level, for the benefits it would provide in the field of information, cultural exchange, and collaboration between governments; and, at the opposite extreme, an individual level, as the greatest possible decentralization of services for the patient, the family, or the community, according to the problem.

It was also agreed to acknowledge that it is a good administrative principle to put the diversified functions of a health program under a single administration.

5. Financing - Every country should have a general and official administrative plan for meeting the financial needs of health services, notwithstanding the fact that the funds for different kinds of services may be obtained from various sources such as public revenue, social security contributions, and others.

When fixing the requirements for financing health services a proportion of the gross national income was considered a good indicator. It was noted that, in some countries, 5 per cent of the gross national income was an acceptable proportion, provided, however, that the services were efficiently administered.

The discussion included interesting observations on two aspects that were directly related to the item: the obligation of the state to protect the health of its citizens, and the acknowledgment of health as inalienable right, a matter which was of moment to the medical profession; and the increased development and autonomy of medical services and their operation by social security agencies.

As to the former, the view was expressed that the State had an obligation to the needy, and should offer them integrated care through services grouped together under the general name of "public services". That does not necessarily mean that the State should administer those services; it might delegate certain functions in part or in whole.

With regard to the second aspect, it was acknowledged that social security had made progress in protection against physiological, pathological, professional and social hazards. However, the high cost of independent administration and operation, the discrimination between insured and non-insured, the standard of competence required of professional personnel, and the obstacles the autonomy of social security agencies put in the way of effective coordination or integration were viewed with serious reservations.

It was decided to use regulatory and legal channels to correct past and prevent future failings, and to assign such social security institutes or Funds the primary function of financing that was incumbent on them in an integrated system of health services, since the responsibility for the services should be in the corresponding Ministry.

6. Personnel Policy - Unfortunately, there was not enough time to discuss the subject in detail.

However, it was decided that the future physician should be trained as a team leader in community health care. To that end, it was essential to reorient his basic training, putting ever-increasing emphasis on the social sciences and preventive medicine, not only in specialized university courses, but also throughout the whole period of his professional training, and to utilize the community itself as a living laboratory. Schools of medicine should be responsible for the administration of those practice centers, in association with the health services.

Those same observations hold good for other types of personnel.