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**ORGANIZATION OF
LOCAL AND INTERMEDIATE
HEALTH ADMINISTRATIONS**

Report of a WHO Expert Committee

WORLD HEALTH ORGANIZATION

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WHO EXPERT COMMITTEE ON THE ORGANIZATION OF LOCAL
AND INTERMEDIATE HEALTH ADMINISTRATIONS

Geneva, 26 October - 2 November 1971

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THE ORGANIZATION OF LOCAL AND INTERMEDIATE HEALTH ADMINISTRATIONS

Report of a WHO Expert Committee

A WHO Expert Committee on the Organization of Local and Intermediate Health Administrations met in Geneva from 26 October to 2 November 1971. Dr N. Jungalwalla, Director, Division of Organization of Health Services, who opened the meeting on behalf of the Director-General, welcomed the members of the Committee.

1. INTRODUCTION

From its inception, WHO has been interested in the organization of health services. Expert Committee meetings have been held on such aspects as local health services;¹ local, regional, and other intermediate organizational patterns;² regionalization of hospital services;³ the planning of public health services;⁴ urban health services;⁵ national health planning in developing countries and its implications for training;⁶ and the administration and planning of hospitals.⁷

Furthermore, the Twenty-third and Twenty-fourth World Health Assemblies adopted resolutions on the development of national health services with special reference to their organization and management, and selected as a subject for technical discussions in 1972 the contribution of health services to socioeconomic development. Finally, the Executive Board chose "Methods of promoting the development of basic health services" as the topic of its organizational study in 1973.

Thus it is clear that Member States are aware of the need for improving the planning and delivery of health services, and some are considering the application of modern methods of management to their programmes.

¹ *Wld Hlth Org. techn. Rep. Ser.*, 1960, No. 194.

² *Wld Hlth Org. techn. Rep. Ser.*, 1954, No. 83.

³ *Wld Hlth Org. techn. Rep. Ser.*, 1957, No. 122.

⁴ *Wld Hlth Org. techn. Rep. Ser.*, 1961, No. 215.

⁵ *Wld Hlth Org. techn. Rep. Ser.*, 1963, No. 250.

⁶ *Wld Hlth Org. techn. Rep. Ser.*, 1967, No. 350.

⁷ *Wld Hlth Org. techn. Rep. Ser.*, 1968, No. 395.

A continuing effort is needed to co-ordinate and integrate health activities into a coherent system that will make the best use of existing resources to satisfy the health needs of the population. If these objectives are to be attained, adequate machinery must be established for planning and evaluating health programmes at the central level, and for organizing health administrations at the intermediate and local levels to ensure the rational implementation of these programmes.

There is an increasing tendency towards the decentralization or regionalization of health services. A regionalized system of local and intermediate health institutions is highly complex. If the delivery of regional health services is to be fully efficient, they must be freed from the innumerable administrative barriers which, in the opinion of certain economists, are among the principal obstructions to development in certain countries. Existing administrative routines need to be revised and modern managerial techniques to be introduced. Here the successes and failures of the developed countries can provide a valuable lesson.

The main task of the Committee was therefore to give guidance to authorities building or about to build health administrations at the regional and other intermediate levels, and at the level of local health services.

1.1 Definitions of terms used in relation to the organization of health services

Centralization. The act of bringing together operations of the same type, or activities that are similar in function, and combining them to form a central group or unit with delegation of authority to effect executive action.

Comprehensive health care. The *promotion* of health; the *prevention* of illness at all levels; early *diagnosis* and *treatment* of disease; and *rehabilitation* of the patients. It implies health education at all these stages.

Concentration; deconcentration. Terms used in describing varying degrees of centralized administration. The more a centralized administration delegates authority and sends its agents to the periphery to do its work, the more it is said to be deconcentrated.

Decentralization. Dispersion of the same type of work or activity with full executive powers to the responsible authorities of various areas away from the centre, thereby locating the work close to the source that initiates the activity.

Deconcentration. See *Concentration*.

Evaluation of health services. The process of measuring the value of services. This process usually involves in turn measurements of *effective-*

ness (how far services achieve their objectives), *cost-efficiency* (how well they utilize resources), and *quality*.

Intermediate area. A politically endorsed entity, state, region, province, or district that is capable, in terms of its resources (actual or potential), of managing a comprehensive health programme within its geographical boundaries, and to which adequate executive authority can be granted for this purpose.

Intermediate health administration. A body that administers and supervises the services of a number of local health areas. Within this definition several organizational and functional types of intermediate health service may be found. There may be more than one intermediate health service between the local and central health authorities. The regional health administration is one example of an intermediate health service.

Local health area. An area where health services are located and administered to serve a local urban or rural community.

Region. A subdivision of a country for the purposes of planning for socioeconomic development. It usually has the same geographical limits as one or more other administrative units and often has special topographic, demographic, cultural, social, or economic characteristics that make separate planning necessary or desirable.

Regionalization of health services. The rationalization of services so as to provide comprehensive health care to a community or group of communities. In this context it concerns local health services and intermediate health services, and implies that health care and support are distributed through resources strategically located in the area of the community or communities served. At the international level, regionalization implies the common use of resources by groups of countries so as to ensure their optimum utilization.

Regional planning. A multidimensional, interdisciplinary synthesis of the economic, social, and spatial aspects of development.

2. OBJECTIVES AND FUNCTIONS OF HEALTH ADMINISTRATIONS

2.1 Objectives

The Committee reviewed a number of general objectives the attainment of which was considered as essential to the proper functioning of health services. The more important of these objectives are:

(a) *Comprehensiveness.* Comprehensive health services must be available for all.

(b) *Accessibility.* Health services must be located within or close to the community, which will thus be aware of their availability.

(c) *Quality.* Both the health administrator and the individual physician must strive to deliver high quality medical and health care. As regards the physician, quality is ensured by professional competence based on up-to-date knowledge. Training, experience, and innovation reflecting advances in medicine are therefore essential. The administrator, on the other hand, must also absorb modern concepts, which may imply refresher training.

(d) *Adaptability.* Health administrations must remain dynamic so as to be able to adapt themselves to changing social, economic, and political conditions and to meet increasingly heavy demands on the existing health services.

(e) *Ability to influence and interpret.* Administrative systems are active links between executives and the population. Therefore they ought to be involved in the processes of influencing and interpreting the policies of the government and the wishes of the population. This implies education of the consumer by the health administrator. The consumer in turn is involved not only through expressing his demands but also by participating actively in the determination of his own health affairs. An interplay is thus established between the health administrator and the consumer.

2.2 Functions

The activities of the health administrator fall into six main categories:

(a) *Planning, the determination of priorities, and the allocation of resources* are usually the responsibility of the central health authority, or at least the administrators of larger areas. It would be beneficial to extend these functions to lower levels as they are inherent in the process of translating policy into action.

(b) *Translation of policy into identifiable and workable services and institutions* is mainly the function of intermediate health administrations, although it is performed at all levels. It is perhaps the major duty of the health administrator.

(c) *Provision of services.* Health services should be provided in a wider context than is usual. All preventive and curative services should take into account environmental, housing, and socioeconomic factors affecting the health of populations. Health administrations should be "service-oriented" — i.e., they should be directly involved in the delivery of preventive and curative medicine or health education.

(d) *Evaluation* is an important part of the health administrator's work (particularly of the services that he delivers). He must understand the processes used even if the evaluation is undertaken by technical specialists. Evaluation is a function that concerns mostly administrators at the intermediate level.

(e) *Strengthening morale*, within both the service and the local community, by consultation and securing the participation of the consumer, is a less widely accepted but none the less important aspect of the health administrator's duties.

(f) *Health education*. The health administrator is becoming increasingly involved in the health education of the population that he serves, so his own permanent education should be ensured by basic, graduate, and in-service training.

In addition to these major functions, the health administrator undertakes more general tasks such as redefining objectives, mobilizing resources, co-ordinating and integrating the health services, and ensuring co-ordination with other services indirectly concerned with health (see page 13).

3. ORGANIZATION AND MANAGEMENT OF COMPREHENSIVE HEALTH SERVICES AT LOCAL AND INTERMEDIATE LEVELS

The characteristics of local and, to a greater extent, intermediate health administrations differ with history, culture, and country. The Committee knew of no single intermediate entity that could be described as or become ideal. Nor were there any "pure" models of totally centralized or decentralized health services (though a number of semi-autonomous federal—provincial or state—systems came close to the latter).

Four significant factors out of the many that could modify the relationship between the central, intermediate, and local health administration are briefly mentioned below by way of example:

Nature and complexity of health requirements. As is well known, the evolution of the health situation in a country brings about radical changes in the administrative structure of the health services. In an area where there is little development and few services, and where the major health needs are for basic environmental controls and the control of epidemics, a central system is the most likely to ensure rapid action and the optimum use of available resources. Often no intermediate structures exist and local services may be so rudimentary that they need reinforcing by mobile teams. As the area develops, it may acquire an

administration large and efficient enough to form first local and then intermediate administrations. Furthermore, as its health needs change, personal health services may become a possibility. Once the major communicable diseases have been brought under control, central authority may be relaxed and a movement towards decentralization can be planned. This perhaps oversimplified description shows the complex relationship between the socioeconomic development of a country, the nature of the country's disease problems, and its ability to decentralize its health services by creating or strengthening intermediate administrations.

Where chronic disease is of growing significance there is a need for more subtle environmental control, different types of health education, and services of greater complexity. Health screening and advanced surgery demand an intermediate administration whose optimum size is dictated by disease prevalence, facilities such as special hospitals, and the distribution of skills among medical teams.

The form and complexity of local services are affected also by disease patterns. Thus continuity of care (a feature of systems where patients are registered for long periods with the same physician) may be more important in countries where chronic diseases are the chief health problem than in those where short-term infections are the main threat.

The place of health administrations within the legal and administrative structure of a country. Health administrations should be part of the legal and administrative structure of a country. They are most likely to be successful if they conform to this structure, especially as health is related at the local and intermediate levels with social security, the law, sanitary engineering, and veterinary public health.

Differences in socioeconomic development and fiscal resources and policy. Because health administrations are costly both in manpower and in money, and as the benefit that populations derive from some types of medical care is difficult to estimate, the building up of health services is occasionally given a lower priority. The development of intermediate and local services need not be prevented on that account, though it may be delayed or have to take place in stages. Thus cost-benefit analysis, though useful, cannot be the only determining factor in setting priorities in health planning. In these circumstances, a central health organization may be the only system possible. Indeed, by fair allocation of resources, and especially of grants, it may diminish inequalities and imbalance in the development of peripheral health services between areas of unequal economic potential.

Differences in the extent of private medicine. The haphazard yet advanced private services that have developed in some areas have hindered the superimposition of intermediate and local administrations. However, this uncontrolled development appears to have one advantage: the

diversity of structure that is a feature of the private health sector allows for experiment and evaluation through the comparison of one pattern with another.

3.1 Functioning of the different systems

There are no rigid patterns of centralization and decentralization and there exist as many graduated forms of administration as the initiative and imagination of legislators permit.

Health services are, of course, subject to the patterns adopted in a given country, but within this pattern they have their own special features. Centralization and decentralization can be considered from two points of view: the *structural*, which concerns the distribution of resources between the centre and the periphery, and the *administrative*, which relates to the making of decisions. Structural decentralization may involve the aggregation of manpower and facilities at the periphery, often in simple institutions. Conversely, with a structurally centralized system, resources may be concentrated centrally, often in large complex institutions. These tendencies are strong in the field of health care, which is more readily available to the consumer when the health services are structurally decentralized. But medical and public health services have become so complicated and specialized that there is a tendency towards large complex institutions requiring structural centralization. Countries provide different answers to this problem by various combinations of components, a common compromise being to decentralize primary care and centralize specialized care.

Administrative centralization implies control, by a single policy-maker, of most of the activities of all health institutions in a country. The decision whether or not to provide certain facilities and types of manpower is made by the health ministry for each level of the system. Furthermore, the policy regarding, for example, the referral of patients, the functioning of the record system, and continuing education is laid down centrally, although many decisions are left to the individual institutions. Administrative decentralization allows each institution a large measure of autonomy in taking action based on its own decisions.

National health services may favour one or another organizational pattern depending on the local situation, so as to strike a balance between the objective and the means of attaining it. A possible compromise in this respect may be found in the regionalization of health services.

Inherent in the organization and administration of comprehensive health services at the local and intermediate levels are the principles of decentralization and delegation of authority. Historically, health systems have displayed a high degree of centralization with limited delegation of executive and managerial responsibility from the centre to the peri-

phery. Limitations of responsibility may be implicit or stated in centrally established policies, and subsequently stipulated or varied by instructions, decrees, and inspection services. Even within a central system there can be a regional distribution and local management of services. However, in the absence of mobility and authority to take decisions at the local level, the management of regional services is only a replica, on a smaller scale, of the central organization and is subservient to it.

Decentralization is a good investment in management because it enables the correctness of decisions made in pursuance of national policy to be checked after the event. The amount of authority transferred from the central level to the local and intermediate levels will depend on the competence of the latter to receive and make efficient use of it.

A major justification for decentralization is the optimum utilization of the human and other resources of a particular area.

3.2 Special problems in the administration of local and intermediate health services.

3.2.1 Priorities for the use of resources.

In countries where the cost of medical care is rising dramatically or where resources have been restricted, a new stimulus to research in medical care has arisen: the urge to cut costs and use resources more wisely. Much of this research is directed towards determining priorities for the allocation of scarce resources, but as yet there has been little practical application of the results. This area of management is likely to become one of the most rewarding in health administration and it has been promoted considerably by new concepts of evaluation.

Cost and benefit studies (see page 19), are also likely to be of increasing value in decision-making as long as they remain simple and do not neglect the human element. All modern quantitative management techniques depend upon accurate records, so record-keeping is becoming more important as information science improves. In its traditional role as a centre for the dissemination of information, WHO can do much to stimulate and co-ordinate research on this important question.

3.2.2 Supervision and quality control

The quality of health and medical care should be supervised both administratively and technically.

3.2.3 Co-ordination between levels

The necessity for adequate administrative leadership, upon which the quality of the human relationships within the hierarchy depends so much, cannot be overstressed. Without adequate vertical and horizontal co-

ordination, there is a risk that confusion, conflict, and even duplication of services may occur at the local level. Special studies of the best methods of communication between the levels of an administration are therefore warranted.

3.2.4 *Integration of services*

The integration of services has proved to be one of the most difficult problems. Preventive, curative, and rehabilitative services, as well as social welfare and other related services, are difficult to integrate even under optimum conditions. Yet this is what is demanded by a comprehensive approach. When all these services belong to different administrative structures, their integration is further hampered. This is mainly a management problem with three main implications:

Education. Health administrators must be trained in elementary management techniques and encouraged to adopt a holistic, ecological, or comprehensive approach.

Overlap. When administrative areas overlap, it is important that the authorities administering the different services should co-ordinate their efforts in order to provide the same populations with the same services.

Consultation. Finally, consultation is a valuable mechanism for stimulating co-ordination and co-operation. Representatives of each administration should meet in person regularly to discuss mutual problems.

In the integration of services, the physician has a role to play as administrator and co-ordinator.

3.2.5 *Control over services affecting health but not within the responsibility of the health administrations*

In many countries, housing, sanitation, social security, industrial health, defence, education, veterinary¹ and other services affecting the health of populations are almost completely separate from the health administrations themselves. There is sometimes neither co-operation nor co-ordination. Yet interrelationships between these and the health services are increasingly necessary as the problems of pollution, irrigation, radiation, housing, and nutrition are becoming better understood. The problems brought about by the aging of populations, and by migration, tourism, and air travel, serve only to emphasize the scope of health care.

¹ Because of the great importance of animal disease to human beings, there is much to be said for a veterinary public health unit as a built-in component of the health service — especially at the local and intermediate levels.

Any modern notion of the human ecological system and the natural history of disease must dictate not only co-operation between these different services but also, for some health-related projects, the participation of health administrators in all decision-making. Indeed, in some countries, it is a legal requirement that such projects should be discussed with, and even cleared by, the health administrations.

3.2.6 *Relations with voluntary and specialized institutions, special programmes, and consumer groups*

The programmes of some specialized institutions can "cut across" national systems of health administration and, by focusing attention on a particular problem, disturb priorities and lead to misdirection of talent. Such a situation can be avoided by making the maximum use of existing structures wherever possible without detriment to the programmes of these specialized institutions, and by promoting administrative practices that will be of value after the programmes have ended.

For constitutional reasons, many intermediate and local administrations must consult the local population. Co-operation with consumer groups (whether they have constitutional power or not) requires great care because, although this is an essential objective of health administration, fulfilling all the demands of the public may lead to a distortion of true priorities.

3.2.7 *Adaptation to change*

Some of the changes taking place in disease patterns and in the technology of medicine have already been mentioned. Innovation in health services must keep pace with these changes and can no doubt do so more readily if some of the new quantitative monitoring techniques prove to be successful. It seems likely that if education to promote the idea of innovation can be combined with the selection of personnel for "innovative potential" this will go some way to ensure progress. However, many systems ensure for the administrator a secure career with prospects of promotion. In other systems more adaptable to change, promotion goes chiefly to the innovators.

4. REGIONALIZATION OF HEALTH SERVICES

4.1 The concept of regionalization

Regionalization implies setting up co-ordinated personal and community health services in harmony with the economic, social, and cultural life of the region. Co-ordination at the national level is with the central

health administration. Sometimes there is inter-regional co-ordination with certain components of adjacent regional health systems. The regional health administration may be centralized or decentralized. Its aims include the adaptation of central policy to the local context, taking into account particular demographic and epidemiological features and the efficient utilization of resources. It encourages the community to participate in the conduct of its own health affairs.

In most countries, historical developments have continued to influence existing patterns. In some, where central planning has been traditional, central management is still the rule. As services have increased in quantity and improved in quality, and as their range has been widened, the theoretical advantages of central management have been more than outweighed by the difficulties of maintaining effective executive control. A new organizational pattern for personal and community health services, maintaining central control but promoting local management, has therefore become necessary.

The term "regionalization" in health administration has thus come to signify far more than the delineation of regional boundaries and characteristics. It has become a concept of co-ordinated and integrated action: the creation of new links between institutions in a region rather than the identification of existing links. Thus it has been defined as "the organization and co-ordination of all the health resources and services within a defined area for the purpose of maintaining the highest possible level of medical care and adapting a comprehensive health programme to the characteristics and needs of the area".¹ At a later stage, it implies the welding of all health services and institutions in an area — including teaching institutions and medical schools if any — into an organized and integrated system.

Various criteria may be used to define a region, e.g., physical (geographical) features, such as river valleys (formal regions); agricultural or other resources (resource regions); economic conditions (functional regions); degree of urbanization (city regions); development plans (planning regions); and other *ad hoc* criteria for special purposes or for less developed or stagnant areas. For the provision of health services, the region may be considered to be the largest unit within the comprehension of the consumer; the smallest unit appropriate to the disease commitments; or the largest unit compatible with good communications. Whatever the criteria employed, the health administration at the regional level should be administratively capable of ready co-ordination with the other services that may have implications for health work, and it should cover the same geographical areas as they do. Furthermore, regionalization of the health services implies a structure in which input, functions,

¹ Grant, J. B. (1955) *J. med. Educ.*, 30, 73-80.

and resources receive prime consideration. The size of the region should be related to its function, as well as to the prevalence of diseases and to the population served. Many health regions have a medical school as their natural centre and are considered as foci of medical competence having the facilities to meet all health needs.

Particular mention must be made of the relationship between regionalized health services and regional development. The concept of integration has health implications for the practice and theory of social and economic development. There are four main aspects of integration that are related to social and economic factors: *physical* integration, i.e., the incorporation of isolated areas (the so-called "pockets of isolation") into the national development plans by improving transport and communication facilities; *economic* integration (influenced by physical integration), as reflected in expansion of trade and the concentration of certain economic activities in regions with the highest potential for development; *social* integration, to reduce regional inequalities in the availability to the entire population of health, education, and recreation facilities; and *political* integration, to improve public participation in the decision processes related to national development.

As the concept of development broadens, planning becomes more comprehensive. However, the difficulties inherent in central planning for the whole nation become more apparent. Many countries then turn gradually from national to territorial planning. Others, in which planning used to be essentially local and/or urban, are beginning to realize that it should be extended at least to cover the area directly influenced by, and influencing, the development of a city. Thus, starting from opposite planning concepts, the region is now accepted as a convenient level for planning and action. When delimiting health regions in future, careful attention must be paid to the kinds of regional planning and regional administration that are being worked out simultaneously in fields other than health.

Health services must not only contribute to integrated regional development by providing expertise on certain acute problems directly affecting specific development programmes, but they must also be involved in the process of "institution building". The health institution has an important social role to play as an infrastructure for agricultural, trade, educational, and research institutions.

A new trend is to extend the concept of regionalization to the international level by co-ordinating the health services of several countries in joint regional activities; by the adoption of joint regional programmes by several countries; and by setting up permanent regional services, such as medical schools, specialized hospitals, and research centres, in order to make optimum use of the resources of the various countries of the region.

Initially, regionalization of the health services was mainly considered as a functional process for rationalizing the delivery of health services, but it must now be considered as the establishment of an administrative unit fitting into the regional administrative organization for development.

4.2 Special features of regional health services

Ideally, the executive officer of a regionalized health service would have authority to administer the budget and personnel and plan regional operations. However, there are conditioning factors that must be appreciated and controlled if regionalization is to be successful. These factors, although they influence health administrations at all levels, are particularly relevant to the regional system. The more important of them are:

4.2.1 *Influence of the legal, social, and political framework*

Essentially, the way in which a regional organization is administered or organized reflects the legal, social, and political framework of the region. It constrains the system at the levels of both function and service.

4.2.2 *Significance of planning and design of administrative systems*

It may be appropriate at this stage to specify what is meant by the three key words "organization", "administration", and "management". *Organization* is concerned with the basic structural characteristics and the fundamental division of responsibilities between institutions and various units within the administrative system. *Administration* is concerned with planning, programming, and evaluation. *Management* is a part of administration — a rational technique that connotes the phasing of administrative activities, enabling administrations to develop to the full their human, technical, and financial resources and therefore to render optimum service at minimum cost (specialized functions).

Administrative systems at the intermediate (regional) level must be planned as a function of the general organization. Concepts, methods, and techniques are available, but the difficulty lies in their application to specific public health problems.

Every decision is determined not only by considerations of a strictly medical or public health nature but also by a whole complex of financial, social, economic, and administrative factors.

4.2.3 *Development and adaptation of administrative systems*

Once planning and design have been possible with some specificity, "overdesign" of the system without latitude for adaptation is the usual error. Adequate design must take into account the function and develop-

ment of the system in the future as well as in the present. Target dates must be established — e.g., Day 1, end of Year 2, and end of Year 10. Participation, “feedback”, and growth must be provided for. The system should be flexible enough to allow for dealing with emergencies, adaptation to detected changes in needs and demands, and innovation if this becomes desirable.

4.2.4 *Use of modern management methods*

There is an increasing tendency to apply modern methods of economic analysis, systems analysis, and operational research to regional health administrations.

It is essential that these methods be applied intelligently — i.e., with an understanding of their basic strategy and an appreciation of their relevance to the specific problem. For example, operational research methods range from the rarely applicable game theory — through the middle range of simulation methods for forecasting the outcome of alternative programme strategies and linear programming for manpower allocation and assignment problems — to network analysis (critical path method, programme evaluation and review technique), applied routinely to problems of scheduling and project control.

The growing need to obtain data rapidly for planning, administration, evaluation, and research, as well as the technical opportunities offered by electronic data processing, are creating a new situation as regards the construction and development of information systems. Various information systems for use at the national, local, and community levels have been developed recently, but little effort seems to have been expended on developing such systems at the regional level. Special study of these new systems is urgently needed.

Health information systems have not been linked with those of other sectors so far, and this would be particularly important for attaining the objectives of regionalization.

As has been remarked above, health administrators should understand the limits and advantages of these systems of analysis and information, which can often be used to assess local problems. Too frequently they are also applied to problems on a larger or mass scale (see also sections 4.3.4, 4.3.5, and 4.3.6).

4.2.5 *Education and training*

Education in its broadest sense is not only an aim of regionalization, but also a method by which regionalization may be accomplished. It must extend to both the community served and the professional and other groups that provide the services. It should be a continuous process.

There is a need for positive educational programmes in management and administration for physicians who are, or who intend to become,

national or regional medical administrators. This training should be systematic and continuous, and it should supplement the traditional system of training by experience.

Professional, paramedical, and auxiliary health workers require more intensified training so as to be able to participate in the development of regionalization; to understand its basic philosophy; and to foster the conviction that the approach is sound and beneficial to both consumers and producers of health services. These educational programmes should include some training in epidemiological and evaluation techniques for workers at the professional level.

Dynamic programmes of health education for the consumers of health services are equally essential. In a regionalized health system, additional responsibilities are assumed by health educators of consumers and by community leaders. Individuals, and the community as a whole, must be encouraged to take prompt and full advantage of the health services and must understand the necessity for self-service in many aspects of health. Thus the community will be prepared to support the concept of regionalization both financially and otherwise. This will not be accomplished unless the community is firmly convinced that regionalized services are advantageous.

4.3 Operational aspects at the regional level

Operational difficulties are not confined to regional health administrations. Nevertheless they require special consideration at the regional level because co-ordination and integration are fundamental to the success of regional health administrations. Some of the factors on which operational success depends are:

4.3.1 The study of human relationships

In view of the humanitarian objectives of health services, a special study of human behaviour in relation to regional health services is essential. Enough is now known of this subject to warrant its inclusion in the training syllabus of health administrators and other professional health workers.

4.3.2 The sophistication of cost and benefit analysis and the use of economic criteria in decision-making within health services

These exact and valuable techniques have been referred to in other sections of this report. Essentially the problem is how to use them efficiently and to avoid their excessive intrusion into areas of human biology in which it would be unsuitable to apply them.

4.3.3 *New notions of evaluation, productivity, and utilization of health services*

The quantification of the effects of medical care and its rationalization by reducing it to sequences of procedures will increasingly influence decision-making by health administrators during the next few years. The rational use of these new ideas for defining priorities and allocating resources presents considerable problems. Resistance to new methods, aroused by distrust on the part of the health administrators themselves or by the consumer's traditional conservatism, is widespread. Indeed it seems likely that a major retraining programme of the health staff concerned is inevitable.

4.3.4 *Communications*

Communications must be effectively organized within a health service and between the various health and welfare services of the region. However, in most regional health and social services, communications are inadequate or even non-existent.

Communication must take place from the top to the bottom of the hierarchy and *vice versa*, so that each staff member, whatever his level, can make his observations and suggestions known. There must also be horizontal communication between the health services directly concerned with the decision to be taken and associated services — i.e., other interested public or private services or persons concerned with health, such as administrative, economic, or social services; professional or social organizations; and representatives of the general population or of patients.

When a rapid decision is required, channels of communication should be short — i.e., they should not go beyond the level of those to whom responsibility has been delegated.

4.3.5 *Coherence of the communications system*

Although it is desirable to collect all relevant information, allow all interested persons to participate in preparing decisions, and ensure maximum horizontal and vertical communication, these procedures may entail a serious lack of cohesion. The decision-making process may be fragmented or even break down completely through undue dispersal of information.

There are several ways of obviating these dangers. In particular, steps should be taken to apply the decision to a precise objective; to assign to the preparation of the decision a place in a medium-term or long-term programme or plan of action; to group the various items of information under major headings relating to the fundamental activities of the service; and to ensure the cohesion of the group of persons among whom the information circulates. This last aim can be achieved by means

of periodic meetings to assess the situation and exchange views and by circulating material classified and presented synoptically and by order of importance, etc.

4.3.6 *Creativity*

In the process of decision-making and more particularly in the organization of communications, there should be freedom from constraints and adequate opportunity for exercising imagination and creativity. The efficiency of management depends to a large degree on these qualities, which should be encouraged in those taking decisions, so that the most timely, effective, ingenious, economical, and acceptable solution may be found.

4.4 Conclusion

The regionalization of health services is desirable but involves considerable educational, operational, and research problems. It is, in effect, a system of collaborative and co-ordinated services.

5. SOME ALTERNATIVE SYSTEMS OF REGIONALIZATION

Regionalization as a functional concept of administration can be applied to centralized and decentralized systems of health services. The following three examples illustrate the adaptability of regionalization.

5.1 Centralization and deconcentration

The principle of deconcentration from a highly centralized health administration is applicable to areas with adequate resources in terms of manpower and institutions and where personal health care at the local level is the responsibility of the central health authority or is provided by private practitioners. The local health authorities have limited administrative responsibilities, confined largely to the supervision of the physical environment. This is the case, for example, where regions have been determined by government policy according to economic or social criteria.

A regional council is the usual co-ordinating mechanism between the administrations of health, welfare, and education; other interested institutions; government agencies; professional disciplines; and the consumer. It therefore represents all these parties and it advises the regional director; participates in policy decisions within the region and

in programmes arising out of these decisions; and acts as the co-ordinating body in the distribution and acceptance of comprehensive medical services.

Within the broad confines of policy, directors of regions are empowered to adapt programmes to the needs of their regions and to participate in the formulation of national policy affecting regions.

Regional health administrations are required to maintain constant quantity and quality control of the services provided and to furnish consolidated returns to the central authority. The latter, in turn, assesses the efficacy of regional programmes on a country-wide basis, comparing the services provided in the various regions.

5.2 Decentralization

In a highly decentralized system, on the other hand, the local community has to guarantee and organize services according to conditions determined by law for effective health care at the local level, including sanitary control, prevention and control of communicable diseases, primary medical care, emergency services, maternal and child care, health education, and dental services.

In such a system, health services are provided through the medium of health centres and associated subcentres permanently staffed as the area and population density demand. These centres are connected with referral hospitals — general and specialized — at higher levels by functional links ensuring a “two-way flow” (centripetal and centrifugal) of patients, personnel, and information.

With this decentralized approach, regionalization implies the aggregation of resources and manpower for more effective, rational, and co-ordinated services. This is achieved by linking general health care programmes with health service development plans. Instead of being adopted by each local community, regionalization is the result of agreements between health insurance associations, health institutions, and local communities.

Problems are bound to arise in such a complex system. Co-ordination in the implementation of the system might appear to constitute the main problem, but this is not so: A far more significant and serious problem is that of establishing objective criteria for health regions whose size, population, and economic possibilities would satisfy all the requirements for a comprehensive health plan. Unless this problem can be solved, health services can be linked only loosely with hospitals, specialized services, and teaching institutions; from the technical and administrative point of view, supervision tends to be minimized and efficiency to suffer. There is also a real risk of duplication and even of competition between services, which, although it may not be detrimental to the consumer, is a major cause of inefficiency.

5.3 Partial decentralization

In some countries that are moving towards regionalization, the circumstances are still inappropriate for total decentralization. In such cases, decentralization may consist in the partial transfer of responsibility and of the power to take administrative and technical decisions from the central to the provincial (or intermediate) level and from the provincial to the local level. There is also a process known as "horizontal decentralization", whereby duties, responsibility, and technical guidance and supervision are transferred from the health ministry to institutions, institutes, and centres specialized in various fields of public health. For example, the management and technical supervision of environmental health, maternal and child health care, or tuberculosis control may be transferred to appropriate specialized institutes. Thus, authority remains at the central level and control remains with the ministry, but technical and managerial responsibility is transferred to specialized institutions that enjoy autonomy. Similar responsibilities can be transferred from provincial (intermediate) health authorities to provincial hospitals and provincial specialized out-patient clinics. At the local level, these responsibilities can be transferred to local hospitals and out-patient clinics.

The concept of regionalization of health services in these circumstances rests on subordination of the organizational structure of health services to the administrative structure of the country. The division of services is thus consonant with the national administrative and economic systems. Each level provides the integrated services for which it is responsible, with increasing technical expertise from the peripheral to the national level.

5.4 Commentary

None of the regional systems illustrated achieves all the objectives for which regionalization in health administration was conceived. Each has its advantages and disadvantages.

The advantages of centralization are that it ensures the distribution of personal medical care and public health services of even quality throughout all the units of the regional system. This distribution is not influenced significantly by the variability of regional resources and financial structures because central support is supplied differentially in order to minimize these differences.

The disadvantages lie in a bureaucratic approach, with its tendency towards rigidity and uniformity, and the need — which many countries may be unable to meet — to give financial and other assistance to regions that are incapable of supporting their own services independently. A

centralized system is often deficient in continuous medical care at the personal level and takes relatively little account of the needs and demands of the consumer.

On the other hand, decentralized systems are in close contact with the consumer, and decisions regarding health services are strongly influenced by his needs and demands. Such a system is "service-oriented" and apparently unhampered by bureaucracy. Its main disadvantage lies in the varying social and economic levels of local communities. As a result, substantial subsidies are required to maintain uniformity in the quality and distribution of services, or differential costs may have to be borne by the poorer communities.

Moreover, dependence on local resources (particularly in manpower) and local solutions to problems may lead to a certain mediocrity and also to an inability to withstand local political and other influences and pressures.

6. RECOMMENDATIONS

6.1 Objectives and functions of local, intermediate, and regional health administrations

The Committee agreed that the functions of such health services must be based on certain objectives and defined these objectives and functions as follows:

Objectives. Comprehensiveness, accessibility, and quality of health services; adaptability to changing conditions and increasing demands; ability to influence and interpret government policies and the wishes of the population.

Functions. Planning, determination of priorities, and allocation of resources; translation of policy into identifiable and workable services and institutions; provision of services; evaluation; strengthening morale; health education.

6.2 Co-ordination

The functions of public health and related administrations should be co-ordinated at all levels, both vertically and horizontally, for the purposes of making decisions and providing services. Without such co-ordination, services may be duplicated or fragmented with consequent disadvantage to the administrations concerned. The public health administration should be involved in the execution of decisions taken by administrations not directly connected with health, when such decisions

affect public health. Public health and other administrations should frequently consult each other in order to solve administrative problems. The value of such consultations would be improved by a clear definition of the area served and services provided by each administration.

6.3 Adaptation and innovation in health systems

Health systems should have a built-in mechanism for adapting themselves to technical developments and environmental change. Adaptation would be facilitated if, within health administrations, not only the technical competence but also the personal attributes of staff members were recognized. The staff of health administration should be encouraged to be imaginative, innovative, and creative.

6.4 Collaboration with the consumer of health services

The attitudes, needs, and demands of the consumer must be taken into account in organizing and delivering public health services. The role of the public health administrator is to reconcile the needs and demands of the consumer with the priorities involved in planning.

6.5 Education

Additional education needs to be provided for the public health administrator; the medical, paramedical, and auxiliary staff of health administrations; and the communities served by them. A knowledge of modern principles and techniques of management and personnel practice is essential for the modern public health administrator. This knowledge, suitably modified, should extend to all areas of service. Educational authorities should include these subjects in the medical curricula at both the undergraduate and graduate levels. At undergraduate level, the emphasis would be on epidemiology and on an understanding of human behaviour in relation to health care. At postgraduate level, human behaviour could be studied in greater depth and more intensive training should be given in the techniques and principles of management, including the use of new information sciences and their application to health administration.

6.6 Research

Much research is being conducted in Member States on the application of managerial and behavioural science to health administration. These studies are to be encouraged, as also continuing research on (a) the

special problems of co-ordination between administrative levels of government in so far as they involve health administration (directly or indirectly); (b) the use of new information sciences and evaluation techniques in decision-making; (c) the behaviour of those providing health services in relation to the recipients of those services; (d) human relationships within the administrative and organizational structure; and (e) the organization and management of health services from the functional and economic points of view. The World Health Organization is well placed to collate and disseminate this information and foster this research.

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