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WORLD HEALTH ORGANIZATION

TECHNICAL REPORT SERIES

No. 55

EXPERT COMMITTEE ON PUBLIC-HEALTH ADMINISTRATION

First Report

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WORLD HEALTH ORGANIZATION

PALAIS DES NATIONS

GENEVA

NOVEMBER 1952

First impression, November 1952
Second impression, September 1955

EXPERT COMMITTEE ON PUBLIC-HEALTH ADMINISTRATION

First Session

Geneva, 3-7 December 1951

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The report on the first session of this committee was originally issued in mimeographed form as document WHO/PHA/9, 10 December 1951.

PRINTED IN SWITZERLAND

World Hlth Org. techn. Rep. Ser. 1952, **55**

EXPERT COMMITTEE ON PUBLIC-HEALTH ADMINISTRATION

First Report [1]

The Third World Health Assembly, held in May 1950, made provision for the establishment of an Expert Committee on Public-Health Administration.[2] The first session of the committee was held in Geneva from 3 to 7 December 1951.

1. Opening of the Session

Dr. Brock Chisholm, Director-General, opened the session and welcomed the members of the committee. He outlined the structure of the World Health Organization, with special reference to the expert committees. He referred to the problems of public-health administration and the solutions to be applied in differing circumstances, and emphasized the importance of reaching conclusions which might be adapted to the greatest possible number of countries, whatever their stage of development.

2. Election of Officers

Dr. K. Evang was unanimously elected Chairman ; Dr. I. V. Hiscock was unanimously elected Rapporteur.

3. Adoption of Agenda

A comprehensive agenda, prepared by WHO, was reviewed, discussed, and adopted. In general, the items corresponded to those covered in sections 5-11 of this report. The two major topics dealt with were :

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[1] The Executive Board, at its ninth session, adopted the following resolution:

The Executive Board

1. NOTES the report of the Expert Committee on Public-Health Administration on its first session ;
2. THANKS the members of the committee for their work, and
3. AUTHORIZES publication of the report.

(Resolution EB9.R85, *Off. Rec. World Hlth Org.* **40**, 31)

[2] Resolution WHA3.65, *Off. Rec. World Hlth Org.* **28**, 39

(*a*) principles and practices of public-health administration, and (*b*) experiments in local health services. It was agreed to consider general principles during the course of the discussions.

4. Introduction

The General Assembly of the United Nations, on 10 December 1948, adopted and proclaimed the " Universal Declaration of Human Rights ", in which the following statement is included as Article 25 : [3]

" 1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

" 2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection."

In considering the stake in world health, there is both a moral and a financial issue involved if the objective stated in the Preamble to the Constitution of WHO is to be realized. This calls for the enjoyment of the highest attainable standard of health as one of the fundamental rights of every human being. The Constitution visualizes nutrition, housing, medical care, control of accidents, and mental hygiene as health objectives quite as important as the suppression of epidemic disease. Many complex factors and also opportunities need to be kept in mind at all levels of government, by all concerned, wherever joint planning and co-operative action are involved.

The potentialities of world health are great if WHO can become the spearhead of a movement for the social and economic betterment of the underdeveloped countries while also serving as a channel for the exchange of ideas on health administration among all countries. In so doing, it may be recognized that effective results can be reached by widely different roads ; that it is essential to grapple with the health implications of the problem of poverty; and that each pattern in force in various countries has grown up in response to local needs, local traditions, and local psychology. Furthermore, as emphasized by Boudreau,[4] long experience has shown that men of all races and creeds can work easily together in the sphere of health.

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[3] United Nations (1948) *Official Records of the third session of the General Assembly, part I. 21 September - 12 December 1948. Resolutions*, Paris, p. 71 (Resolution 217 (III) A) (Document A/810)

[4] Boudreau, F. G. (1951) *Amer. J. publ. Hlth*, **41**, 1477

Modern public health has been developed during the last hundred years from primarily a legislative and police function to an applied science, which constitutes an important and integral part of social and economic evolution. The techniques used in health administration have consequently been changed to emphasize positive measures in planning and organizing the modern health services on a community basis, in order to create a healthy environment for the people, and in educating the public for active participation in health work. In general, most governments are following this trend of development particularly where there are few traditions to overcome. There is also a gratifying tendency to employ technically trained and experienced health administrators and to give them reasonable security of tenure.

In certain countries where there has been a longer history of health administration, readjustments or new starts are being made for a more efficient system of organization of health services for the people. In a relatively few localities and non-self-governing territories, a well-planned and well-organized total health service, including medical care, has been initiated on a community basis. Health administrators are trying to stimulate the thinking of professional groups towards more economic use of hospital beds or the linking of hospitals with the system of health service. Isolated experiments are being carried out whereby hospitals are linked together with a series of health centres which serve as feeding units to the hospital. Such action also reduces the load upon hospitals by regulating the admission of patients and by providing supervision for the convalescent patients suffering from chronic diseases who can be taken care of at home or in convalescent hostels.

5. Definition and Services

In view of numerous definitions of public health and of the use of this term occasionally in place of that of preventive medicine, and vice versa, an early (1920) definition by C.-E. A. Winslow [5] is given in an amended form to include mental as well as physical health, as follows :

> Public health is the science and art of preventing disease, prolonging life, and promoting mental and physical health and efficiency through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of social machinery to ensure to every individual a standard of living adequate for the maintenance of health, so organizing these benefits as to enable every citizen to realize his birthright of health and longevity.

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[5] Winslow, C.-E. A. (1923) *The evolution and significance of the modern public health campaign*, New Haven, p. 1

Taking this definition as a starting point, the committee emphasized the importance of the concept of the health education both of the individual and of community groups, and was impressed by recent developments and broadening of views in regard to public-health administration.

These developments in public health make it essential to co-ordinate all measures of prevention, care, and restoration under one system of health service. This will help to make the service more effective and less expensive through the pooling of resources to achieve a common objective. Health is a part of individual and social welfare in general; health administrations should, therefore, recognize the interdependence of all agencies concerned with community welfare. All types of health services rendered in a country by public or private agencies should be integrated into the health programme. It is, in fact, an overriding duty of a health administration to act as a general staff in co-ordinating the health services of a community, whether these services are carried out by official or voluntary organizations or a combination of both. The committee agreed to adopt the following terms in its report: " health administration ", " health services " (to include " medical service "), " health care " (to include " medical care "), and " health policy ".

In view of the great variety of health services or services influencing health, the committee has attempted to present a list of health provisions which may be considered within the scope of functions of health authorities. This list, however, is not intended to be exhaustive, serving only as an indication of the expanding field in health:

LIST OF HEALTH PROVISIONS

I. Services Provided Directly by Health Authorities or Jointly with Other Authorities

1. *Environmental*
   - (1) Housing
   - (2) Town and country planning
   - (3) Reservation of land
   - (4) Water-supply
   - (5) Drainage and disposal of excreta
   - (6) Disposal of sewage
   - (7) Disposal of refuse
   - (8) Protection against river pollution
   - (9) Control of insects and rodents
   - (10) Control of dangerous trades and trade wastes
   - (11) Control of atmospheric pollution

2. *Personal and social*
   - (1) For the healthy:
     - (*a*) expectant mothers — prenatal, postnatal
     - (*b*) children, infants — pre-school, school

(*c*) adults, including industrial workers
(*d*) aged persons

(2) For the handicapped :
(*a*) children
(*b*) adults
(*c*) aged persons

(3) For the sick :
(*a*) pathological conditions related to reproduction
(*b*) short-term sickness
(*c*) long-term sickness
(*d*) infectious disease
(*e*) occupational disease

3. *Control of communicable diseases*

(1) Quarantine :
(*a*) national
(*b*) international

(2) General epidemiological control (including immunization, isolation, and disinfection)

4. *General*

(1) Health promotion :
(*a*) nutrition
(*b*) physical education
(*c*) health education — mental, physical

(2) Regulation :
(*a*) legislative
(*b*) standardization
(*c*) food and drugs

(3) Supplies :
(*a*) medical
(*b*) sanitary

(4) Recording and analysis :
(*a*) statistics and records
(*b*) survey and identification of problem
(*c*) assessment of services
(*d*) appraisal of results

5. *Professional education*

(1) Undergraduate
(2) Postgraduate
(3) Refresher

6. *Research*

(1) Basic
(2) Operational — including field studies
(3) Applied

II. Other Services that Contribute to Health

Services	*Examples of provisions or conditions affecting health*
1. Social welfare	Community organization, social services, relief of sudden and urgent necessity
2. Social security measures	Employment, insurance, job selection
3. Education	Scientific knowledge and information relating to health, general education
4. Food production and distribution	Adequate food-supply, and proper system of distribution
5. Reservation of land	Utilization for housing, food production, parks
6. Veterinary services	Animal diseases transmittable to man, dairy products, meat products
7. Labour standards	Working hours, wages, working conditions
8. Recreation	Swimming, games, theatres, parks
9. Transport and communications	Access to health services, accident prevention
10. Youth movements	Camps, hostels
11. Irrigation	Improvement of crops, mosquito control
12. Environmental sanitation and personal cleansing services	Street cleansing, fly control, public baths
13. Conservation of natural resources	Housing material, prevention of soil erosion, supply of minerals
14. Population and family planning	Family welfare, size of family in relation to health, education and development of children

In the distribution of responsibility for health services, a distinction may also be drawn between the following types of relationship :

(1) operational responsibility — the authority provides the funds and does the work ;

(2) policy-making and financing — the authority is responsible for policy and usually makes a financial grant to another body which is the responsible agent for carrying out the work ;

(3) regulation — the authority defines and enforces minimum requirements, statutory or otherwise, without necessarily undertaking fiscal responsibility ;

(4) promotion of services — the authority promotes services by methods of persuasion and education, without imposing financial or legal sanctions.

It is appreciated that the distribution and scope of responsibility, both financial and operational, show wide diversities in different countries. It would be unreasonable to suggest uniformity, but it is important that for each authority the nature and scope of responsibility for a programme be defined and understood.

Maternal and child health services may be considered as an illustration of the distribution, as defined above, of responsibility at the different government levels ; both operational and financial aspects of these services might well be primarily a responsibility of the local government or of the community organization. The provincial and national governments may help to stimulate or promote the interest of the local government or community organization in providing such services by offering financial grants or technical advice. They may set up standards for maternal and child health services for the guidance of the local bodies which wish to establish the service. Quarantine and control of communicable diesases, on the other hand, should be considered as a co-operative effort of the local, provincial (or State), and national (or federal) governments.

Many health services require technical skills not likely to be found among local staffs ; these can most conveniently be supplied by regional or central authorities. Likewise many of the larger institutions providing remedial and custodial services operate best on a regional basis. The regional authority too has an important role to play in promotion of services, operational studies, and evaluation surveys, and, where the tax structure permits, in contributing to local budgets.

6. Functions at Different Levels of Health Administration

In practically every country there is a national health administration either in the form of a cabinet ministry or as a department in a ministry. In general, there is a full-time medical chief with or without public-health training in charge of a professional and technical staff. In some countries, the authority of the professional head of the health administration is defined in the medical legislation ; in others he acts only under authority delegated by the minister and based upon administrative practice in the country concerned. The trend is to employ medical men with postgraduate public-health training as health administrators.

National health systems vary in their degree of autonomy within the framework of the governmental organization. In some countries, as noted above, the minister of health is a physician, in others a political leader with a professional person in charge of the programme. The national health agency may have the benefit of the advice of a central public-health council, or of a group of consulting committees or individual experts on special subjects.

Also, the field covered by the national health organization varies. More specifically, in some countries health insurance and hospital service are separated from preventive health services. In Scandinavia the relationships between local physicians and the health organization are close. In

other countries the central health administration is responsible essentially for all the health services received by the people in any area, and, in such cases, curative medicine often receives major attention. A report to the United Nations [6] indicates that the construction of hospitals is a major interest in certain countries, and notes the extension of basic medical services to rural areas by the establishment of health centres or mobile dispensaries. The need for basic sanitation is recognized also in many areas.

The relations of the national health administration to local health services show the widest variations. At one extreme are countries where the national health administration provides all the health services which are available. In the USA, the national health administration has broad authority to co-operate with the States in all matters pertaining to health, but its regulatory powers are limited and are related primarily to items of commerce and to preventing the introduction of diseases and their spread among the States.[7] In Switzerland, the powers of the central health department are limited by the Federal Constitution and each of the 22 cantons has its own separate health machinery. In other European countries, the central administrator may deal directly with local health officers. In Norway, the central health administration supervises the work of 380 health officers, in provinces, districts, and towns, who most frequently divide their time between public-health work and private practice.[8] In some countries, as in Greece, the national health department provides direct local service by maintaining health centres, health institutes, hospitals, and clinics in local areas.

In spite of the fact that health care has been generally accepted as a governmental function, there are, in many countries, private and voluntary agencies, organized either by the people themselves or by religious bodies or other groups from foreign countries, supplying health services. The co-ordination of these valuable activities of voluntary and private health agencies with the national health programmes has become an important task of the public-health administrations in several countries.

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[6] United Nations (1950) *General Assembly : Fifth session. Information from non-self-governing territories : summary and analysis of information transmitted under Article 73 e of the Charter. Report of the Secretary-General. Analysis of information on public health* (Document A/1299)

[7] An illustration of the situation in another North American country (Canada) is given in unpublished working document WHO/PHA/Panel/1.

[8] An account of the desirable scope of a health programme in modern society is given in : Evang, K. (1952) *Public health, its scope and its place in the central governmental administration.* In : Evang, K., Gordon, J. E. & Tyler, R. G. *Public health lectures. Medical Teaching Mission to Israel, September to October 1951, sponsored by the World Health Organization and the Unitarian Service Committee Inc.*, Boston, Mass., p. 7.

In relation to the organization of health services, the following conditions exist :

(1) The authorities and functions of national, provincial, and local health administrations in many countries have not been clearly defined.

(2) The integration of medical care into the health services has not yet been well established in most countries.

(3) Public-health functions are also being carried out by other ministries — dealing with education, labour, agriculture, social affairs, etc. — and there is lack of co-ordination of the health services provided by these various ministries.

(4) In general there is a lack of system in organizing medical and health services. The basic structure under the local health administrations for extending the needed service to the people is often lacking also. However, experiments are being carried out in several countries, both in the eastern and western hemispheres, in which detailed structures of local health services are being set up for units of the population to provide the necessary services to the people on a decentralized basis. Thus, in addition to the national (or federal) and provincial (or State) health administrations, there is a series of units of health services, such as health centres, health stations, and dispensaries, extending from the cities to the villages in the local areas.

There are certain health services, however, which by the nature of their organization demand administration at a regional or national level. This may be due—as in certain projects in environmental sanitation—to the high degree of technical specialization required for the work, or to the need for a wide area of supervision if good results are to be secured. It may also be necessary to bring together for a health purpose, such as protection of water-courses, a large number of health units which should be integrated under one co-ordinated system of health service. In each case it is essential that the local bodies receive full information, so as to enable them to undertake and follow up the programmes with keen interest. The committee urges the importance of a decentralized administration geared effectively to the policy of the central authority and the active participation of the local people.

Among the services which all national health administrations can and should provide for local health departments are : planning of health programmes including medical legislation on a national scale, leadership, and technical assistance in specialized branches of work.

Broadly speaking, then, the chief functions of local health administrations are operational but with a power of discretion within the generous limits set by the central authorities whose main functions are policy-making, giving of advice on request, and enforcing medical legislation and other standards of efficiency.

The purpose of a health programme is to serve all the people—those in rural areas, industrial areas, villages, and cities—considering the community as a whole, with the family as the smallest social unit, indivisible as far as its health problems are concerned. Emphasis on health problems will vary in different areas according to the needs and the available resources, but a physician should be responsible for general administrative control of the work. In many countries a local health department is the basic service unit in the administration of a health programme. Local health units will meet their responsibilities most successfully if their programme is built on the needs of the people and if the necessary facilities and qualified personnel with which to do the work are available. Health programmes should not be static but should undergo a continuous process of change and development; they should be flexible, designed in terms of needs and resources, and capable of modification to meet new health problems as the latter become recognized. In the more fully developed areas, responsibility for community health rests jointly on the local health department, the medical, dental, and allied professions, the hospitals, the voluntary health agencies, and the public generally. The needs of professional and technical personnel will be discussed in section 9 (page 16) of this report.

The structure of a decentralized system of health services varies widely in different countries and areas. However, desirable minimum functions of local health departments include: vital statistics, sanitation, communicable-disease control, hygiene of housing, maternal and child health, and health education, as well as adult health including the control of chronic diseases. Accident prevention, laboratory services, occupational health, school health services, mental health, medical rehabilitation, and hospital and medical-care administration are other types of service and responsibility which have been incorporated into the programmes of an increasing number of local health departments.

The success of a health programme is dependent on many factors including the general level of health care available to the population as a whole. Another essential factor is the health staff. The smallest health unit that can work together as an effective team consists of a health officer, a nurse, a sanitarian, and a clerk-stenographer (in areas with scattered population even a smaller team consisting only of a health officer and a public-health nurse may be effective), with provision for supplies, for transportation, and for headquarters. The health officer has a general responsibility to the public and meets it by rendering certain direct services and by providing stimulation and leadership to assure that other necessary services and facilities are made available by appropriate means. In order to achieve an effective programme, provision may be made, as listed in section 5, for the following general types of service, utilizing methods in keeping with scientific knowledge: recording and analysis of

health data, supervision and regulation, administration of personal and community health services (e.g., immunization, clinics, x-rays), health education and information, operation of health facilities, and co-ordination of activities and resources.

A local health department can fulfil its responsibilities most effectively if it operates one or more well-equipped health centres or " health houses " providing adequate space for administrative offices, various types of prophylactic services, clinic facilities, and a well-equipped auditorium or classrooms for public and professional instruction. In due course these centres may develop facilities for the temporary care of the sick and for diagnosis.

In a comprehensive plan of health care, health departments may be directly responsible for the administration of hospitals and of medical care.[9] In any event, it is to be hoped that the hospitals of the area will function to a greater extent as community health-centres. Furthermore, the preventive outlook should be developed. If the health officer and the hospital administrator have such an outlook, the staff members will be likely to develop it, whether in a large or small community, at the local, State, provincial, national, or federal level. Joint housing of facilities under one roof helps integration and understanding. This subject is discussed further in section 11, "Experiments in local health services" (see page 27).

7. Provisions for Popular Participation in Health Work

The extent to which the problems of health administration can be solved is determined in the last resort by the finances available for health services. But material resources are by no means the sole factor to be considered. It is necessary to study the broader issues of how to organize *people* for health, for health administrators must make the fullest possible use of the goodwill and enthusiasm that exist in all communities. It is also necessary to consider health administration in its relations to human society—the welfare and security of people living in communities. Thought must be given to the effective use of people's time as well as money, and to seeing that staff members are properly educated for, and well fitted into, the range of functions which they are called on to perform. Again, an essential function of health administration is to encourage self-help among the people and to bring the service within the limits of local interest.[10] The crucial tests are :

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[9] Unpublished working document WHO/PHA/4 ; Evang, K. (1952) *Trends in the development of hospital functions and administration.* In : Evang, K., Gordon, J. E. & Tyler, R. G. *Public health lectures. Medical Teaching Mission to Israel, September to October 1951, sponsored by the World Health Organization and the Unitarian Service Committee Inc.*, Boston, Mass., p. 36

[10] See : Lilienthal, D. E. (1944) *TVA : democracy on the march*, New York.

(1) Do the men and women on the local staffs have the power of decision ? and

(2) Do the people, in their private and group capacities, actively participate in the enterprise ?

Health is a very personal thing and the people must be interested in the need for a local health administration—an administration containing both experts and citizens at large. It is also in this way that a health education programme can be made stimulating and effective.

The development and operation of a health programme, regardless of its scope and content, will involve attention to more than legislation or finances, important as are these factors of essential support. Skilled personnel and the backing of an informed public are fundamental, whether the funds come from the tax revenue or from voluntary sources. Health is

> " not something which can be imposed by a fiat from on high. Its attainment depends on the interest and willingness of individuals and groups to assume responsibility for the solution of their own problems on a well-informed basis. People are more prone to apply acceptable health practices in their daily lives if they have had a part in determining ... [the programme] in partnership with the professional health workers." [11]

Examples or demonstration projects showing improvements in health and living conditions, such as housing, water-supply, excreta disposal, and other measures, have also been proved to be of great value in serving as practical means of health education.

> " This spirit of co-operation among health specialists and the people themselves, at all stages of the development of a health programme, is destined to have far-reaching educational influence. At the same time it will serve to generate widespread public goodwill and support for the total health programme." [11]

8. Planning and Assessment of Health Services

While the national health authorities are familiar in general terms with the major health problems in their respective countries, no systematic health survey has been conducted in most countries. Health services have been developed in most instances as a result of emergency calls to control epidemics or to meet certain urgent medical relief problems rather than from careful planning based on surveys of health needs. However, systematic surveys and planning of health services on a national basis have been carried out in a few countries, but for political or economic reasons the implementation of these plans has been delayed or interrupted.

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[11] Winslow, C.-E. A. (1951) *The cost of sickness and the price of health*, Geneva, p. 57 (*World Health Organization : Monograph Series*, No. 7)

There are many questions to be considered in relation to the planning and assessment of health services. For example, in view of the great amount of assistance at present extended either by international organizations or through bilateral arrangements in the sphere of health, are many countries not reaching the point of saturation with international personnel and projects ? Are they able to assimilate such assistance for the benefit of the health of their peoples ? On 13 March 1951 the Economic and Social Council of the United Nations, at its twelfth session, adopted a resolution on concentration of effort and resources calling attention to this effect.[12] This and earlier resolutions of the General Assembly and the Economic and Social Council of the United Nations on the subject were noted by the Fourth World Health Assembly, held in Geneva in May 1951.[13] Recognizing that a major function of WHO is to act as a co-ordinating authority on international health work, the Fourth World Health Assembly also urged Member Governments to promote the co-ordination of health efforts at national levels and to encourage agencies furnishing technical assistance to co-operate with WHO when planning their activities.[14] Mere co-ordination of these projects which are assisted by international agencies or foreign countries leaves something to be desired, perhaps. Since the protection and promotion of the health of the people is the responsibility of the government concerned, it would seem to be important that all types of health projects and programmes initiated or assisted by outside agencies should be integrated with the national health programme from the very beginning.

Shortage of adequately trained health personnel is the major problem in health administration today in almost every country. Are additional types of personnel needed or can there be combinations of certain professional skills in one person and, if so, to what extent ? What is known about job analysis in this field ? Should a health officer and his technically qualified section chiefs devote a major portion of time to affairs of administration and business management ?

The importance of periodic assessment in order to appraise needs and resources, to determine priorities, and to plan for the future, including shifting the emphasis possibly from one activity to another, is stressed. This approach has implications for the work of a department and for the community as a whole, besides providing a means of enlisting more popular interest and participation. Opportunities may also be discovered for transferring certain activities from one agency to another or for securing

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[12] United Nations, Economic and Social Council (1951) *Economic and Social Council. Official Records : twelfth session. 20 February - 21 March 1951. Supplement No. 1. Resolutions*, New York, p. 17 (Resolution 362 (XII) B) (Document E/1987)

[13] Resolution WHA4.10, *Off. Rec. World Hlth Org.* **35**, 20

[14] Resolution WHA4.23, *Off. Rec. World Hlth Org.* **35**, 25

increased interlocking of parts of an operation for increased effectiveness. Frequently, the gaps discovered are more significant than the duplication or overlapping.

Appraisals are subject to scrutiny, and objectives should be defined, although by-products in education and re-alignment may be more significant than a capacity to trace the effects of some activity in terms of lowered morbidity or mortality, or increased health, longevity, or productive capacity. There are so many factors to be taken into account when dealing with human life. Criteria may be suggestive, but should not be considered too significant as measuring-rods, even with careful testing, and must be related to time, place, and procedure. Self-appraisals by local committees are also growing in frequency and scope with promising results. Many factors bear on the health and well-being of a population. Some of them are capable of measurement while others cannot be expressed numerically or quantitatively. Among indices which are sometimes used in conducting administrative appraisals are population, culture, economic resources, sanitation, medical facilities, health-insurance status, physical status, mortality, and morbidity.

9. Needs of Professional and Technical Personnel

Some problems of professional training

The efficiency of a health department depends to a very large extent upon its ability to recruit suitably trained personnel. This subject has to be considered especially in respect of professional and technical staff, and it requires review at regular intervals because the needs of a health service, like all growing organisms, are constantly changing. A service may retain its general pattern for a number of years, but the emphasis is constantly shifting in terms of time and place. There may be a broad general pattern of communicable disease control, for example, in all countries, but the emphasis on the subject and method of operation will obviously vary according to the type of country—tropical or arctic, underdeveloped or more fully organized. If this is accepted, then it is clear that the health services have a vital, continuing interest in the scope and quality of professional and technical education.

In many countries the teaching of preventive medicine to undergraduates has in the past been a public-health course in miniature. This was justified where many physicians in general practice became part-time health officers, but with the increasing complexity of clinical work there has often been a tendency to crowd out even the small amount of public-health teaching that had previously been given. This would not have been a serious matter if undergraduate teaching had kept pace with the changing

needs for health services, especially in the social aspects of medicine. Unfortunately, in many medical schools the teaching of the social component of medicine and the other aspects of modern preventive medicine was not developed, with the result that medical practitioners were often ill-equipped to meet the needs of the modern health service. In other words, the physician was not filling to the fullest extent his place in modern society as an adviser on health and on social welfare, as well as on sickness, of the families under his care. His training did not cover the whole range of health care.

Similar considerations apply to postgraduate or special training for health workers. It is essential that teaching should keep abreast of practice in the field. In time gone by the teaching of public health was founded upon the German schools and rightly (for its period) devoted much time and attention to the basic sciences. In recent years, however, two changes have taken place : first, the sciences themselves became highly specialized, with the development of bacteriology ; and secondly, health administration moved steadily into the spheres of education, social welfare, and social security, through insurance and other provisions against unemployment and poverty. The needs of the health services have therefore demanded a reorientation of teaching, with far more emphasis than hitherto on the social factors related in a broad sense to health.

The committee is well aware that teaching, especially to undergraduates, ought not to be narrowly vocational and that its organization is the primary function of a university with all the freedom that this implies. Nevertheless, it is vital that teaching and practice should not get out of step with each other. The committee would urge that there should be close and frequent consultation between the teaching bodies and the health authorities, in order to secure effective co-ordination of subject-matter, and a regular adjustment of the supply of personnel to the needs of the health service. Health administrators should take an active part in teaching.

The broad principles which have been enunciated above are equally applicable to the sanitary-engineering, dental, nursing, and other professions in the health sphere. Each of these will have its own teaching programme, and postgraduate instruction should be provided to meet the particular needs of a health service in which preventive measures acquire a special significance.

When the question of licensing and registration of physicians is considered, the claims of the State as a third party become paramount. It is the function of the State to ensure that all who practise medicine are in fact sufficiently qualified and experienced to be capable of practising their profession in the public service. In this way national uniformity—at least up to a minimum standard—can be secured, and indeed the first steps may

be taken towards international co-operation in licensure and registration. The committee feels, therefore, that it should be a governmental function to appoint a licensing body, which shall be representative of its final authority and, at the same time, include members of the teaching schools and of the departments concerned with the health of the people. The actual constitution of such a body would, of course, vary with the laws and traditions of each State.

Categories of personnel needed to carry out a comprehensive health programme

The key persons in any well-planned and well-organized health programme are the physician, the dentist, the pharmacist, the health engineer, and the professional nurse. In order that these highly trained individuals may serve most effectively, it is necessary to find auxiliary personnel to assist them in providing an adequate service to the greatest number of people.

In most countries, the supply of physicians is inadequate to provide a satisfactory health service for the people. As a result, in every country there are not enough properly qualified health administrators to fill the openings at present available.

In order that the health administrator with his special qualifications may function in the best possible way, it is necessary to consider ways and means of providing auxiliary personnel in his office organization, not only to reinforce him in his technical duties, but also to relieve him, as far as possible, of many of the day-to-day routine administrative procedures that might be carried out by some other type of personnel.

Experiments in the training of such a subsidiary administrative officer have been carried out in some places in North America for several years. If one can select university graduates in law, arts, science, or economics and give them a year's instruction in the principles of administration in general and of health in particular, such individuals become suitable for work directly under the health administrator. Experience with this type of auxiliary person has shown that he can satisfactorily perform many of the duties in a health organization that most medical administrators now undertake themselves. Wider use of this type of non-medical administrator should serve a valuable purpose in many State or federal health organizations.

Where conditions permit and there is a shortage of physicians to render adequate personal health services, the scope of his services can be increased and improved if he is provided with visiting-nursing services and has available also the special talents of a medical social-worker or almoner. As part of a team, such a staff augments the work a physician can

accomplish and provides an intelligent approach to effective health administration and practice.

The problem of providing an adequate dental service for all those who require it seems at the moment incapable of immediate solution. Even in those countries with the most favourable dentist:population ratio there are barely enough dentists to provide a really satisfactory service for children. Because of this shortage and the steadily increasing demands for dental service for adults, it is impossible to supply the requirement for health dentists. The dental hygienists at present being trained go only a very little way towards closing the gap. The possibility of using dental nurses as trained and used in New Zealand [15] presents a possible solution to at least part of the problem of providing a children's dental service. It would seem that this type of personnel should have further study and trial. In this connexion, of course, every effort should be made to stress the importance of preventive dentistry.

With the training facilities at present available for the training of professional nurses, it may never be possible to obtain as many registered nurses as are required to fill all nursing needs. On account of this, several countries have accepted the view that it is a great waste of time and effort, and also of money, to depend entirely upon the fully qualified nurse to perform all the nursing duties in an area of health administration. So it would seem important that greater emphasis be placed upon the training of nurse-assistants or " practical nurses " in order that they may be able to take over a great deal of the duties of registered nurses and allow more nurses to assume the responsibility of supervisory or administrative nursing work in countries where such a system is acceptable. In remote and less-developed areas this arrangement allows the trained nurse to operate effectively over a much wider area, and at the same time it offers greater scope for training assistants with a simpler educational background. It is of interest also to refer to other types of auxiliary in this sphere, such as " home helps " and " nurse-housekeepers ".

No worthwhile community health programme can be operated without the use of the special skills which can be provided only by health engineers who have studied the advanced problems of environmental sanitation in postgraduate courses. In the many aspects of environmental sanitation, auxiliary personnel in the form of sanitary staff can be of great value to the health engineer, and they can be trained in a relatively short period.

Another very important member of the sanitation staff is the health veterinarian. In addition to the control of animal diseases, he can perform a valuable service in restaurant inspection, in the control of milk-

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[15] See : Fulton, J. T. (1951) *Experiment in dental care : results of New Zealand's use of school dental nurses*, Geneva (*World Health Organization : Monograph Series*, No. 4).

supplies and their distribution, and in the supervision of the production and sale of meat and other food products.

With the rapid advance in medical science and the rapid increase in the demand for x-ray and laboratory services by both health officers and other physicians, the shortage of technical personnel to operate such services becomes increasingly more acute. At the present time most physicians, especially those in rural areas, have no access to all the services that are freely available in a well-organized hospital. In fact, in many small and even medium-sized hospitals in underdeveloped areas adequate diagnostic service is not available. There is therefore great need for pathologists, bacteriologists, and radiologists. Training of graduates in science as non-medical bacteriologists may fill the need for bacteriologists but the provision of pathologists and radiologists is hampered first by the shortage of medical graduates, and secondly by the shortage of training facilities in these special subjects. Most of the training of this type of personnel at the moment is on an " apprenticeship " or " in-service " basis.

A detailed study of one area of North America with a population of approximately 4,000,000 revealed that the shortage of technicians for hospital and public-health services alone was over 1,000. It would seem that funds are required immediately to provide more training facilities in this connexion to fill the need for preparing this most important category of health personnel to carry out a comprehensive health service.

There are many other auxiliary workers who can be of real service in an organized health programme. These include psychiatric social-workers—a necessity in any mental health programme—physiotherapists, medical rehabilitation workers, nutritionists, and health educators.

Finally, health programmes need statisticians in order that health statistics may be efficiently collected and tabulated. To evaluate and report on such data, research personnel is required. Without such a service a health department is like a ship without a compass, travelling without any precise knowledge of direction.

For the sake of illustration, the committee has included a list showing basic personnel and some of the auxiliary workers engaged in health services. Some of these groups have been brought into the services because their work is closely concerned with health, and others have, as it were, grown up in response to specific needs as they arose from time to time. It is not proposed to deal with the large group of auxiliary workers primarily concerned with institutional and other medical treatment of the sick ; and while it is realized that the number of categories of specialized health personnel will necessarily vary with the size of the country and with other factors, the following list of health workers may be taken as illustrative of the personnel engaged in health services :

List of Health Workers

1. *Medical and health personnel*

   Physicians — medical specialists, public-health officers and specialists, general physicians and practitioners
   Nurses — health nurses, general nurses, nurse-assistants
   Pharmacists
   Nutritionists
   Health statisticians
   Nurse-midwives
   Midwives
   Physiotherapists
   Dieticians

2. *Sanitation personnel*

   Health engineers
   Sanitary inspectors (sanitarians)
   Dairy and food technologists
   Veterinarians

3. *Dental personnel*

   Dentists
   Dental nurses
   Dental technicians

4. *Laboratory personnel*

   Laboratory specialists — pathologists, microbiologists, bacteriologists, parasitologists, entomologists, chemists, physicists
   Laboratory technicians
   X-ray technicians

5. *Other personnel*

   Health educators
   Social workers
   Administrative assistants — hospital, general

In considering the structure of a health service it is necessary to give increasing attention to the training of the auxiliary worker. This is partly due to the enlarged scope of a modern health service—its extension into the fields of nutrition, mental health, pharmacy, and veterinary science, and the broadened outlook on environmental-sanitation methods which can be applied for the benefit of man in society; and it is to some extent the inevitable result of increasing specialization within the health and social services. The former development is natural and desirable, and the main concern of the public-health administrator is that the health service should absorb the new developments without sacrificing its integrity. The latter movement—towards specialization—is also a reasonable development, provided that its limits are carefully watched. Unregulated specialization within a service may lead to disintegration, if a time comes when

each specialist puts his own subject before the needs of the service as a whole. These two features of a modern health service therefore—extension of scope and increasing specialization—reinforce the argument that a health administration should always be vigilant to preserve the team spirit and to oppose resolutely any tendencies that may lead to disunity in its organization.

Making a career in the health service more attractive

The lack of trained personnel is a formidable difficulty which has to be faced by all health administrators at the present time. Even where staffs with some sort of training are available, their achievements in the field are often disappointing owing to inadequate basic training. Furthermore, it is unwise to recruit into the health services men and women naturally unfitted for such work. In many instances it has been found, in the case of physicians, that the curative side of medicine offers more shining prospects to men of ambition and drive. However, the facts must be faced and the root causes of the situation traced; the latter may be briefly listed as follows:

(1) Many of the teachers in medical schools fail to put forward and to transmit to their students a wholesome attitude towards preventive medicine and health administration, which is often treated in a very casual fashion as a minor subject in the curriculum.

(2) Medical treatment—in the hospitals where students spend so much of their clinical years—tends to be valued more highly than prevention.

(3) The care of sickness is regarded by the public as of higher status than the care of health, because its application is more dramatic and spectacular.

(4) Medical treatment, as it offers almost everywhere relatively high remuneration and more scope for promotion, even to administrative appointments, appears more attractive to young men at the threshold of their careers.

These are the facts, among others, which have led to the present unenviable position in which someone entering upon a career in the health service finds himself. An improvement, however, is noticeable in some parts of the world because of amalgamation, from the centre to the furthest periphery, of the two services—curative and preventive—into one combined service. This has generated a greater confidence and hope that a health-service career can lead one to the top as easily as a purely curative career. It has also given hope to keen physicians that an essentially health-service career need not be completely divorced from clinical work.

Even so, much headway has yet to be made if physicians are to be attracted—in increased quantity and improved quality—to a career in the health service. In some areas certain anomalous practices must be eliminated in order to permit selection and promotion on the basis of merit, and to give the health officer reasonable security of tenure. More than that, much thought has to be directed to making the job in the health service more challenging. This can be achieved partly by extending its scope, and partly by giving the officer at the local level more authority and wider discretion. His status depends in large measure upon the way in which he is regarded by those whom he serves, both professional and lay people.

The countryside in most parts of the world, particularly in underdeveloped areas, should be the focal point of attention. It is a very common experience that medical men cannot be persuaded to settle down in rural areas even when there is reasonable scope for achieving the satisfaction of a living by private practice. When the problem of a health career in rural areas without private practice is considered the position becomes even darker and more serious. The committee, therefore, feels that, if these difficulties of acute shortage of personnel confronting the public-health administrator in the planning of a sound public-health programme are to be overcome, serious attention must be paid to the means of attracting men and women to a public-health career, especially in the remoter areas. Experience in some countries demonstrates clearly that it is possible to establish a type of combined administrative-clinical service, which gives the medical officer a very high degree of professional satisfaction and at the same time a reasonable income and a high social position. Some of the following means to reach this goal should be adopted without delay:

(1) In the undergraduate training of medical students and nurses a higher place should be given to preventive and social aspects of medicine than has hitherto been accorded to them. They should be made to permeate the whole course of studies; and the universities entrusted with the task of preparing medical students and nurses for their future duties should appreciate this and set about reforming the curriculum and the methods of teaching. At the same time the teachers, particularly in preclinical and clinical studies, should reorientate their concept and methods of teaching. More practical training facilities should be provided in the postgraduate course. This would tend to build up in the students a proper attitude to the newer and more comprehensive concept of public health.

(2) Health organizations should be broad-based so as to include both medical care and public-health practice in order to give the new entrant scope for developing his talents in both clinical and preventive work. It would also impress upon him the fact that public health and medical

relief are facets of a comprehensive health programme, and eliminate the prevailing notion that these two branches are unconnected, running on parallel lines in a health organization. What is more, the person taking up a career in the health service would be in a position to realize that he has a common heritage and a common attachment with the person entering upon a clinical career; he would thus feel more secure, both with regard to the position he occupies and to the prospects of promotion in the service.

(3) The aspect of emoluments that normally attract a young entrant into the service cannot be brushed aside. If the man choosing a health-service career is to be a whole-time officer, giving both medical care and preventive medical service, he should not be made financially poorer than his opposite number in the hospital or other form of clinical service. If he is, furthermore, to be appointed in the more remote areas, attractive living accommodation should be provided for him and his family, and a special allowance should be given to make up for difficulties of travel and the lack of amenities in rural areas which involve him in extra expenditure.

(4) After an approved period of service an opportunity of promotion in the profession should be open to the physician who takes up a career in the health service, and the knowledge that he may one day rise to the top grades will be an attraction and an encouragement to good work. Consideration might also be given to the organization of periods of exchange of duties with health officers in towns, so as to afford opportunities for the education of children and the stimulus of a new environment.

Efforts should be made to maintain continuous contact between the local health officers and the higher levels of administration, through conferences, in-service training, and study travel.

The comments made above apply with special force to physicians in combined practice in the more remote areas, but similar difficulties apply to nurses, engineers, and other health personnel. Every effort should be made to attract teams of good and well-trained workers to the health service, and to give them opportunities for a full and interesting life, with adequate remuneration and prospects of promotion.

10. Financing of Health Programmes

The question of financing health-care services is very complex. This is a result of lack of co-ordinated planning and proper organization of the health services in most countries. During recent years, peoples of the world have gradually become conscious of their human rights and are expecting their respective governments to discharge their duties and responsibilities

in protecting their rights, including health. Most of the governments in the world today are not fulfilling adequately their responsibility in protecting and promoting the health of the people. They are not devoting a reasonable proportion of their revenue to the provision of necessary funds for health services. Consequently voluntary bodies and various other private groups have been active in many countries in collecting funds for organizing health services for special groups of the population through insurance or other private enterprises. This of course is most helpful. On the other hand, there is reason to believe that the funds at present available may not always be used to the best advantage.

In many countries local governments or communities have been appropriating funds for establishing local hospitals or dispensaries. In a few countries where national planning and organization of health services is being attempted, the use of government taxes for health purposes has been centralized at the state level.

Considering the trends of social and economic developments in the world today, the committee feels that States should assume the primary responsibility of ensuring that the health programmes of their respective countries are adequately financed. While the systems of taxation may be different in different countries, it is the opinion of the committee that health work in a country should be primarily supported by public funds under a co-ordinated plan. The committee wishes to emphasize that the funds for health services being spent by voluntary or private groups in many parts of the world could be more effectively utilized for the promotion of the health of the people if they were channelled or properly co-ordinated through government health authorities.

The committee feels also that in view of the great variation in financial resources, as well as in the major health problems in many countries, it is difficult to set a definite proportion of distribution of the health budget. It is, however, important to point out that the appropriation of funds for preventive services will generally prove far more effective in promoting and protecting the health of the people than the spending of an undue proportion for purely curative purposes. In the preventive categories it is recognized that housing, water-supplies, and many other such services contribute to disease prevention in addition to fulfilling their main functions. Even in countries most advanced in this respect, further improvement is possible and the maintenance of sanitation services will always be a major health activity. Countries where sanitation has not developed so fully may well devote a major portion of their health budget to this purpose since experience has amply demonstrated that in no type of activity can more be accomplished towards reducing mortality, morbidity, and discomfort for a corresponding outlay of funds.

In order to know more about how governments are financing their health-care services, to what percentage government taxes are being spent for health purposes, and the cost of health services per person per year or in terms of the national income, the committee wishes to recommend to WHO that it should collect more relevant information from Member Governments either by questionnaires or by other special studies. The development of a suitable schedule with definitions will be necessary.

The economic burden involved in financing the cost of medical treatment services is considerable in contrast with the cost of a preventive health service, both of which comprise parts of health care. In most areas, health work started as a local interest and responsibility, but as this grew and became more specialized it became necessary to spread financing over wider and wider areas. In most highly-developed countries a stage has been reached when government at the highest level must accept the responsibility, while at the same time encouraging private effort. Where a central authority provides financial support, it may be expected to exercise supervision and to set standards even though not operating the service in detail. Legal sanctions are necessary for certain services.

The financing of a health programme has become so complicated that comparative figures are difficult to obtain. Perhaps a wide survey of administrative factors would be useful, with an objective of obtaining in so far as possible comparative expenditures for health services, including both personal and environmental.

Many States recognize that increases in the population and in industrialization in both the urban and rural areas necessitate the provision of effective health services for the people. In many areas local health agencies lack the necessary funds, and the local population lacks the means to furnish funds, to provide effective health services. Food for a pregnant mother, accessible water-supplies, roads for transport, decent clothing, soap, and shelter may be as important in a given area as any item for constructive health work.

In some countries, the ability to assume personal responsibility may be influenced by such factors as the distance to carry water for the home, or the landholdings being in the hands of a few, or some other practical barrier. Assemblies and legislatures have then sought to further the provision of necessary health services by granting financial assistance to cities and other local health districts, thus enabling them to meet needs in a more efficient manner. The funds granted are to augment local appropriations provided for health purposes, not to replace them.

There is no universally accepted method of expressing the cost of health services in a country which could be used for comparison between countries. In many countries the figures given include only the national

health budget or expenditure and it is almost impossible to calculate the local, public, and private health expenditures. It is difficult to know what items are included or should be included. In countries where health services spread among several government departments, it is even more difficult to secure the correct total figure. However, it is important to find a means of expressing the cost of health services, including medical treatment, which will be widely accepted and practised.

The major cost of medical care services in many countries has been covered by various insurance systems, either obligatory or voluntary. In others, government hospitals have been established and supported by government funds. Not infrequently, patients of the government hospitals are charged fees which constitute a part of government revenue. Occasionally, medical care services are being provided as a part of co-operative systems.

While the committee appreciates the great variety of financial processes, the time has come when responsibility rests at all levels for the development of a health policy, including financial provisions to meet the requirements entailed by the plan and the policy.

11. Experiments in Local Health Services

Consideration was given earlier in this report to some aspects of the methodology of health protection for local areas as related to the health, social, and economic needs of those areas (see section 6, page 9). An effort will be made here to present some illustrations of local health services in a few countries. Of course it is not suggested that this gives a complete or a representative picture. In this connexion the committee welcomes the plan for provision of a travelling study-group on public-health administration in Europe in 1952. The first scheme of this kind was carried out in the autumn of 1951, and may be regarded as a very promising experiment to study, in particular, local health services.

The composition of a health unit will depend upon particular problems and opportunities in a locality, as previously observed in this report (see section 6). Yet there are types of personnel whose services will be required in every local area whether the country is in the north, the south, the east, or the west, namely the physician, the health engineer, and the nurse, although requirements as to numbers vary. Other specialists and types of workers will be included in the team or identified with the group as circumstances require. In a local community one individual often has to combine several functions. At the central or national level specialized services are necessary in order to provide technical guidance to the local

health units. Attention to co-ordination between medical, dental, nursing, hospital, and other public and private agencies, and to fitness of personnel, are essential.

All types of health services, including the administration of medical and of hospital care, may be functions of the unit. In some countries apparently a desirable population size may be anywhere from 250,000 to 1,000,000 per unit, but generally 100,000 population per unit is proposed as desirable. There may be smaller units, even down to a few thousand, particularly where distances are great and populations sparse. A unit may be in an area primarily rural, or in one primarily urban, or may combine a city with a county for health administrative purposes. Close working relationships are necessary between local, State or provincial, and federal or national agencies.

The following are some illustrations of local health services being developed, as reported by the health officials of the countries concerned:

India and Pakistan

In India and Pakistan a national health survey was carried out and programmes were recently developed and planned. Throughout the work the modern trend of development of health services in other advanced countries was borne in mind, as well as the limitations imposed upon these two countries by the serious impediments to rapid progress resulting from the size of the country, the available financial resources, and the lack of trained personnel necessary to provide a health service of an expansive character so as to cover the wide areas of the country. In these health programmes, particular emphasis was laid on securing services for the protection and promotion of health in rural areas, in which 80%–90% of the population of these two countries live. In other words, the needs of rural and remote areas of India and Pakistan have been uppermost in the minds of the administrators. Furthermore, sight has not been lost of the fact that local needs, conditions, and circumstances might necessitate modification of the plan even though the minimum targets of achievement as recommended by the Health Survey and Development Committee [16] might be attained without undue delay. In these schemes stress has been laid, while advocating the ways and means, upon securing the co-operation of the people served, without which lasting improvements in health conditions and the building of national health on stable foundations are not likely to follow. Emphasis has also been given to the integration of preventive and curative health services both at the centre—throughout the

[16] See: India, Health Survey and Development Committee (1946) *Report*, Delhi (Bhore report).

various levels of administration—and at the periphery. In the implementation of the schemes, recommendations have been made for provision of health services without charge to the individual, except for such special facilities as any community may like to have developed for its own benefit. Health service to the majority of the population, except through the State organizations, is practically unknown. Until insurance schemes, State or voluntary, are introduced, the State will remain the supreme body for providing national health services on any large scale. The existing economic level in the rural areas makes the early introduction of any health insurance scheme impossible. An attempt has been made to cover the industrial population of India by a co-operative insurance scheme in which the State, the employers, and the employees are taking part. This is being tried out in some working areas before being universally introduced throughout the whole country.

The tradition of family physicians does not exist in these countries, medical relief, such as it is, having been rendered primarily through the State medical service and to some extent through private physicians on the basis of payment. A whole-time service organized by the State without private practice has been advocated so that the rich and the poor alike will receive attention.

The long-term programme envisages :

(*a*) adequate health-care services for the individual and active promotion of positive health regardless of ability to pay ;

(*b*) placing services as close to the people as possible ;

(*c*) widest co-operation between the health personnel and the people ;

(*d*) adequate support for health services from medical and ancillary professions — e.g., dentists, nurses, pharmacists ;

(*e*) provision of consultant, laboratory, and institutional facilities — constituting group practice ;

(*f*) special provisions for certain groups of the population — e.g., mothers, children, the mentally deficient ;

(*g*) creation and maintenance of a healthy environment at home, and at places of work and congregation.

Depending on the size of the district and population, a district in some States with a population of 3,000,000 will be provided with about 150 primary units each serving a population of about 20,000. About 30 of these primary units will have one secondary unit over them.

The staff required for such primary, secondary, and district units would be as follows :

	Controlling administrative health officer	*Other medical officers*	*Non-medical personnel*	*Beds for patients*
Primary unit	1	5	78	75
Secondary unit	1	139	358	650
District unit	1	268	1,398	2,500

This scheme will take some time for implementation in all its aspects. Hence a short-term ten-year programme has been considered for making a start with the provision of health services to the vast majority of the population in the rural areas. The primary unit, instead of serving a population of 20,000 as envisaged in the long-term programme, has been enlarged to cover a population of 40,000. The whole area is divided into four parts each with a health centre serving a population of 10,000. Services rendered cover all aspects of preventive care (i.e., environmental sanitation, control of communicable diseases and immunization, maternity and child welfare, school health, collection of vital statistics, and health education). Besides preventive health services, there is provision for a hospital with 10-20 beds for the care of the sick and hospitalization of expectant mothers when necessity arises.

Thus a provincial-wide health organization providing preventive and curative services is being developed on the same lines, but not as comprehensively in scope, as the long-term programme—namely, a primary health unit, secondary health unit, and district health unit. Provision is also made for special health services dealing with such diseases or problems as malaria, tuberculosis, venereal diseases, leprosy, mental diseases, maternity and child welfare, school health, nutrition, etc. Besides these, field training-centres are being developed in these health units for teaching purposes.

In the State of West Bengal (India), with certain modifications of the above proposals, work has commenced in regard to implementation of this short-term programme. This State contemplates developing primary health centres in as many Union Boards (community units) as possible out of the total of over 2,000 such Unions. Since 1950, 106 health centres have been put into operation and another 100 will come into existence early in 1952. Such health centres are provided with a hospital with 4-10 beds, mostly 10. Some of these centres at the Thana level cover a population of 80,000 where a 50-bed hospital for care of the sick has been provided. These Thana hospitals are expected to be fed by the primary health centres at the periphery (population of 10,000 to 20,000).

The staff at the Union health centre consists of a rural health officer, a health assistant, a compounder, a clerk, midwives, nurses, and subordinate staff.

At the higher level of the Thana (80,000 population), the staff of a health centre includes health officers, a sanitary inspector, nurses, health visitors, midwives, a health assistant, and other subordinates. Duties of the staff consist of attention to outpatients, care of the sick in the hospital, and all phases of public-health work, including control of communicable diseases, maternity and child welfare, school health, collection of vital statistics, environmental sanitation, and health education. Supervision of the work is ensured by the regional officer of the State health service. Direction and guidance is provided by the State directorate and its staff.

Brazil [17]

In Brazil, the field training-centre at Colatina, State of Espirito Santo, deserves mention for its contribution to local administration.

Except for the unit at Araraquara, State of São Paulo, the Serviço Especial de Saúde Pública (SESP) operates the only local health service in Brazil employing fulltime personnel. In 1949 this organization decided to use its health centre and hospital at Colatina as a " medical centre " field training-unit. SESP doctors, engineers, and nurses have since been given various types of practical experience there before going to their permanent posts.

In addition to providing an instructional public-health service unit, Colatina offers an example of a co-ordinated hospital and health service programme. It is located in an essentially rural environment, is readily accessible to Rio de Janeiro, and operates on a lower per capita cost than the centre at Araraquara. Colatina may also serve to demonstrate how auxiliary nursing personnel work under the supervision of a public-health nurse.

The county of Colatina is approximately half-way between the ocean and the State of Minas Gerais. The area is hilly and drained by deep, narrow river valleys, the chief of which is the Rio Doce. Principal occupations are coffee growing, lumbering, and cattle raising. The 1950 census gives the total population as 100,900, or 21 persons per km^2 (1 km^2 = 0.39 square mile) for the 4,788 km^2 (1,849 square miles) for the county area.

The health centre is a one-storey, functionally designed structure, with two parallel service wings connected at opposite ends by a third unit—the central reception and waiting area. Thus, when viewed from above, it has the general shape of a " Z ".

In one wing are located the offices of the director, the nurses, the sanitarian, the secretary, the storeroom keeper, and the file clerks, plus a

[17] Unpublished working document WHO/PHA/Panel/4

classroom used for teaching and the projection of films. The other wing consists of a doctor's office, a nurses' station, two examination and treatment rooms, a preparation room, a dentist's office, a laboratory, and a milk preparation and distribution room, as well as sanitary facilities. The central area serves both as a reception and waiting area and is roofed over for protection. The cost of construction was US $25,139.18 in 1945.

The hospital is located directly across the street from the health centre and has 56 beds, though only about 45 are being used at the present time. It is a single-storey building, actually owned by the local government and turned over to SESP for operation purposes only. Besides providing general care, the hospital contains a surgery unit, a maternity unit, child-care facilities, a laundry, and a kitchen.

The health centre does not possess sufficient office space to house all the new employees proposed under the co-ordinated training project; it is planned, therefore, to rent an adjacent house for this purpose. Later it may be possible to make an addition to the present structure of the health centre, since there is plenty of land there to expand on.

Personnel. At the present time a six-month course is being given in Colatina for auxiliary nursing personnel. Upon the completion of this course the present staff will be augmented so that the personnel for the co-ordinated health-centre hospital programme during 1952 will consist of the following:

1 medical director of programme and of health centre
2 other doctors in health centre
3 doctors in hospital
1 director of entire nursing programme and of nursing service in hospital
4 other nurses in hospital
2 nurses in health centre
5 auxiliary visiting nurses
20 auxiliary nurses in hospital
1 sanitary inspector
1 sanitary engineer
1 dentist
3 laboratory workers
1 nutritionist
7 clerks
2 cooks
1 housekeeper
7 attendants
2 laundry workers
2 chauffeurs
1 storeroom keeper
1 gardener
3 night watchmen
33 servants
1 carpenter

Total 105

Budget. For the calendar year 1951, SESP has allocated the sum of 3,850,000.00 cruzeiros (US $207,883) [18] for the co-ordinated health-centre hospital programme at Colatina, as follows :

	Health centre	*Hospital*
Personnel	1,005,360.00	1,337,700.00
Materials	722,000.00	722,000.00
Miscellaneous	22,640.00	40,300.00
	1,750,000.00	2,100,000.00
Total	3,850,000.00 cruzeiros	

Medical care is provided to the population free of charge both at the health centre and in the hospital. This service has filled such a need that the units serve people from a huge area extending even into the adjacent State of Minas Gerais. During 1950, a total of 1,322 persons registered at the centre for the first time, 5,250 medical consultations were given, 24 home visits were made by doctors, while 218 home visits were performed by nurses. There were 2,270 immunizations administered and 12,075 drugs furnished without charge to the patients.

An indication of the growth of the health service is provided by the increase in the number of family folders on file at the centre from 607 in 1946 to 2,455 in 1950. It is reported that by October 1951 the service was being used by practically every family in town.

The programme for the control of communicable diseases in Colatina includes diagnosis, treatment, isolation, immunizations, improvement for sanitation, and health education. While it is difficult to show statistically the impact of SESP's programme on community health, because of the small numbers involved, there is no doubt that considerable progress has been made, especially in regard to those diseases spread through a faulty environment.

Canada [19]

Experiences in Canada are likewise worth considering. In one area of Saskatchewan a completely prepaid health-insurance plan is in operation. Residents of this district, known as the " Swift Current Area ", and consisting of between 50,000 and 60,000 people, by the payment of certain premiums which are subsidized by provincial funds, are entitled to complete medical care—in the doctor's office, in their own homes, or in hospital. This includes not only general-practitioner services but specialist services as well. They also have in this area a full-time public-health service dealing with the ordinary public-health problems, and have started the provision

[18] Exchange-rate as used by WHO for accounting purposes (January 1952): US $1.00 = 18.52 cruzeiros.

[19] Unpublished working document WHO/PHA/Panel/1

of a dental service for children. Although the physicians are remunerated on a fee-for-service basis, there is a ceiling on the total cost of medical care. This, with their hospital-insurance scheme, gives the residents of this area complete coverage. The plan seems satisfactory to the physicians, as evidenced by the fact that the number practising in the district has doubled since the plan started. This pilot health-insurance plan will be valuable in devising satisfactory administrative procedures for the provisions of such services to all rural areas in Canada.

In Manitoba a new health plan—based on the assumption that there was a certain priority of services that should be provided, and aimed at the ultimate complete provision of all needed health and medical care for all the people—was inaugurated in 1945. The plan consisted of four basic services : first, the establishment of full-time public-health units, which are required before the benefits of the other parts of the plan can be obtained by a local community ; secondly, the provision of prepaid diagnostic facilities ; thirdly, a contribution towards prepaid medical care, provided the first two services have been established in a local area ; and fourthly, the provision of adequate hospital facilities in rural areas. Since the inauguration of the plan, seven new rural health units have been brought into operation. In two units, prepaid diagnostic services are in operation. In five others prepaid diagnostic services have been established, but are not yet operating, owing to shortage of staff. Twelve new rural hospital districts have been set up ; construction of new beds has been completed in nine, and construction has started in the other three.

The newest Province of Canada, Newfoundland, because of its scattered population along the coast-line of the Province, had to devise a special type of health service to take care of its people. This is known as the Cottage Hospital Plan. It is a prepaid medical care and health service to all residents of the " outports ". The communities in a cottage-hospital district pay a nominal fee per family per year to the Provincial Government which, in turn, builds, owns, and operates the hospitals without any direct cost to the individual, and provides the necessary preventive and curative medical care and nursing service in the districts with this coverage. This service, although it might not be considered adequate when compared with that being provided in urban areas of Canada or the USA, is giving the people it serves more and better care than can be found in most of the isolated rural areas in the other provinces of Canada.

Yugoslavia [20]

In Yugoslavia, centres were established for health care, complete and well equipped with resources for investigation. In a few districts " homes

[20] Unpublished working document WHO/PHA/Panel/6

for health " were established, with all necessary facilities, including laboratories. The physicians as well as the other key staff members of these centres were provided with living-quarters and with transportation. The physician was able to go out to families, particularly in rural areas, and to offer his help. This philosophy is constructive particularly in its emphasis on a policy of having reasonably good living-quarters, and good salaries for the physician, and it promotes a fine spirit among the staff. With reference to the development of health services close to and in conformity with the people of the community, useful suggestions are found in the Yugoslavia story.

Egypt

In Egypt one finds an illustration of the development, under difficult conditions, of a health programme adapted to local needs. Besides attacks on communicable diseases, including tuberculosis and venereal diseases, maternal and child health centres are included. Some 200 such centres are being planned, each to serve a population of about 20,000 within a radius of 3-4.5 miles (5-7 km). For each five of such centres it is planned to develop a 100-bed hospital, with laboratory and ambulance services. Each of the small rural centres is to be provided with a full-time physician for preventive work and a half-time physician for curative services, a public-health nurse or nurse-midwife, a sanitary inspector, a laboratory technician, and a clerk.

Norway

So much depends in the end on the local unit as to where responsibility and authority are vested. When the Norwegian Health Act of 1860 established a board of health under the chairmanship of the health officer, in each of the more than 700 municipalities in Norway, the principle was adopted that the local board of health should take initiative on its own and have full responsibility in all matters pertaining to health in that municipality. It is reported [21] that the principle of local responsibility has been carried on so far that, even now, the central health administration has not the power to change a decision made by a local board of health. If an appeal is made and the decision turns out to be adverse only the Ministry of Social Affairs will have authority to change the decision.

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[21] See : Evang, K. (1952) *Public health, its scope and its place in the central governmental administration.* In : Evang, K., Gordon, J. E. & Tyler, R. G. *Public health lectures. Medical Teaching Mission to Israel, September to October 1951, sponsored by the World Health Organization and the Unitarian Service Committee Inc.*, Boston, Mass., p. 7.

Indonesia

Experiments in Indonesia in providing units of different types of health services also offer food for thought, according to reports.[22] After the transfer of sovereignty to Indonesia (December 1949), the Ministry of Health of the United States of Indonesia (from August 1950 the Republic of Indonesia) re-established the Health Education Service, and a Rural and Urban Hygiene Service.

The task of the Health Education Service is the education of people of all ranks, young and old, men and women, literate and illiterate. This service especially makes a study of the ways :

(*a*) of educating the people ;

(*b*) of choosing the materials which are necessary for this education ; and

(*c*) of finding the personnel able to fulfil this task, which is difficult because special talent is required for this work.

The Health Education Service works in close conjunction with the Rural and Urban Hygiene Service. The latter executes the health work in those areas in which the programme and materials are already prepared by the Health Education Service. These are the so-called health experimental and training areas in the villages and cities. Here the work is put into practice, and the personnel necessary for this task is trained. When establishing the two above-mentioned health services, the Indonesian Government kept in mind some basic principles :

(1) The influence of medical treatment of the sick upon health in general is slight, because this treatment can never reach more than a small fraction of the people who are sick ; hence the emphasis is on prophylactic-hygiene work.

(2) The standard of living of the people must be raised. This means improving not only the general education and economic standards, but also the health education of the people.

(3) Every health measure taken by the government should be borne principally by, and carried through in co-operation with, the people.

Scotland [23]

There are many problems in health and social welfare illustrated in Scotland which are being studied and for which plans are being made. To enter into these in detail or to indicate even briefly the steps which may

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[22] Unpublished working document WHO/PHA/Panel/3

[23] Unpublished working document WHO/PHA/Panel/8

be taken to deal with them would be beyond the scope of this report. Suffice it therefore to enumerate some of these problems. Most of these, in what might be termed social health, arise from the impact of industrialization on the social system of the country, but others arise in the search for progress in social life and health. The main problems which concern the local health administrations directly or indirectly are :

(1) Housing : The provision of satisfactory houses for all classes of the community means continuation and intensification of the plans for the building of houses by local authorities and also by private persons. Improvement in housing and the mitigation of the evil effects of housing scarcity—overcrowding, occupation of unfit or unsatisfactory houses—and precautions concerning land use and sanitation, are still urgent tasks despite the large amount of work which has already been done.

(2) Environmental sanitation : Further improvement in water-supply, particularly in the country areas, hygiene in the catering industries and food handling generally, suppression of atmospheric pollution by smoke and industrial fumes, prevention of pollution of rivers and streams, and further improvement of milk-supply are some of the important problems in environmental sanitation.

(3) Industrial health : There is legislation and regulation on the subject of safety and health precautions in factories and in other industrial concerns, but nothing specific about places such as offices or for persons in non-industrial occupations. Additional measures are being considered for ensuring satisfactory working conditions in these groups.

(4) Care of the aged, the partially infirm, the enfeebled, and the bedridden ; this is accentuated by the increasing proportion of old people in the population. Liaison between the welfare services and the various parts of the health services is important in relation to the care of the aged.

(5) The particular diseases which present important problems in Scotland are cancer, heart disease (including coronary diseases), rheumatism, tuberculosis, and virus infections of all kinds including influenza, the common cold, other respiratory diseases, and poliomyelitis.

There are tasks, too, in connexion with the administration of the new National Health Service in Scotland.

The National Health Service (Scotland) Act, 1947, provided for the establishment of a comprehensive health service for Scotland. It deals with such matters as hospital and specialist services ; general medical and dental services ; pharmaceutical services ; ophthalmic services ; prevention, care, and after-care services of local authorities ; mental health services ; research ; ambulance services ; bacteriological services ; and others.

Over three years have passed since its inception, in July 1948, and several problems have been brought to notice in the administration and operation of this Service. These are being resolutely tackled. Among those problems which are being given careful consideration at present are the importance of securing co-ordination of the three main branches of the Service—hospitals, general practice, and local-authority services; the need for ensuring more emphasis on prevention; the desirability of improving the status and standards of general practice; the value of promoting health education and health consciousness of the public generally; and the task of obtaining a proper distribution of medical man-power.

Belgium [24]

Belgium is divided into 9 provinces and 2,670 communes. Each province is ruled by a governor appointed by the King and assisted by a provincial council, and the communes by a body of burgomasters and aldermen (échevins) chosen from among the members of the communal council. There is, among other features, a common fund (" Fonds commun ") for the purpose of supplementing the resources of the communal public welfare committees in the relief of long-term illness—tuberculosis, cancer, mental disease.

The Belgians are deeply attached to their liberties and local traditions. On the initiative of local authorities a remarkable amount of organization in health and social welfare has been achieved, but the institutions created are often for the benefit of a particular province or commune.

On the other hand, private initiative, which plays an important part, has made some valuable contributions which supplement and complete the institutions set up by the public authorities, particularly in the sphere of hospitalization and medico-social undertakings.

The decentralized services are, in general, organized on a provincial basis. In each province there are the following services: (*a*) a health inspectorate (two in Brabant), to which are attached one or more health inspectors legally qualified to practise as physicians, surgeons, and accoucheurs and with a medical-hygienist scientific degree, and a certain number of health-instructor visiting nurses; (*b*) a food-supply inspectorate; (*c*) a meat inspectorate; and (*d*) a pharmacy inspectorate. In Brussels and Antwerp there are also the sea, frontier, and airport health services responsible for the application of the various international sanitary conventions and for the sanitary protection of frontiers. The personnel includes two medical-hygienist inspectors.

[24] Unpublished working document WHO/PHA/Panel/7

Social hygiene is the responsibility of another general directorate of the Ministère de la Santé publique et de la Famille, and here also the services are both centralized and decentralized. The centralized services comprise a directorate of medico-social activities, the nursing-school inspection service, the nosological statistics service, and the medical inspection service for mental institutions. The decentralized services include, for example, the health administration service—responsible, besides other duties, for the medical supervision of civil servants—and the medico-legal office. Welfare, assistance to families, and housing are grouped under a single general directorate.

Health control of workers includes a medical examination at the time of recruitment, supervisory medical examination of adolescents, and medical examination for occupational-disease case-finding. The purpose of the occupational-disease case-finding medical examinations is obvious. This medical aspect, together with the social and economic supervision effected by the health control of workers, is clearly defined in the provisions of the Order of 18 October 1945 instituting this control.

All individuals of whatever age occupied in work which exposes them to the risk of occupational disease are subjected to the occupational-disease case-finding examinations. The periodicity of these examinations is fixed in each particular case, according to the disease to which the worker is exposed, the nature of the operations, and the degree of risk. Case-finding examinations are at present carried out for the following diseases : poisoning from lead, mercury, arsenic, cadmium, fluorine, manganese, white phosphorus, beryllium, carbon disulfide, and the aromatic and fatty hydrocarbons ; dermatoses caused by chromium compositions, exotic woods, aniline and its compounds, tar and pitch and their derivatives, and vegetable alkaloids ; epithelial disorders of the skin caused by pitch, coal-tar, bitumen, and mineral oils ; disorders due to radiations of radium, x-rays, and ultra-violet rays ; and the pneumoconioses.

Health control of workers is carried out at the expense of heads of undertakings and is entrusted by them to medical practitioners or medical institutes at their choice. This control is, in fact, carried out by the whole of the country's medical corps. The medical inspection of labour service limits itself to ensuring the good organization and proper functioning of the medical control.

According to the terms of the articles in the regulations dealing with this subject, heads of undertakings may be required to place at the disposal of workers exposed to risks of sickness or accident, or carrying out particularly dirty work, the necessary means for individual sanitary protection.

United States of America

Historically, the great bulk of individual health care in the USA has been provided by the private physician, and that is true today in a large

number of countries. The development of health insurance and related systems of financing has often done little more than change the method of payment for services. Recognizing that this relationship is likely to continue, health authorities in the USA have long been exploring and developing complementary relationships, whereby the public authorities provide certain facilities and services. These tend to be services which are either beyond the resources of private physicians or are not likely to be sought by the individual for economic or other reasons. The pattern for communicable-disease control involves, for example, the provision of immunizing substances to private physicians as well as direct immunization by official health agencies. With the rising importance of chronic diseases, programmes are being developed by public authorities for case-finding, with referral of such cases to private practitioners for medical management. This entails, among other things, the extension of public-laboratory services beyond their former limitations to the sphere of infectious-disease diagnoses and sanitary analyses. Thus, both the public-health agency and the private physician assume a definite role in the total scheme.

A somewhat similar arrangement has developed between public agencies and private institutions. Voluntary hospitals continue to play a major role in the scheme of health care. On the other hand, the government provides funds for their construction and limited standards for their operation. At the same time public hospitals for care of long-term illness have been operated for many years and these facilities are being increased. With regard to both physician care and hospitalization, nevertheless, the role of public authority is being gradually extended, in response to needs.

France

The local health-administrative structure of France has, since the time of Napoleon I, been based essentially on the division of the country's territory into 90 departments (départements). The population varies from one department to another with an average of 400,000 to 500,000 inhabitants. A prefect represents the government as a whole and has to report before a departmental council elected by universal vote. This council approves the local budget, in which all the health expenses have to be included, for the department. The State, and the communes of the department, each contribute a part of the health expenses. These contributions vary considerably according to the average per capita income in the department.

In each department a medical officer, appointed by the Ministère de la Santé publique et de la Population and under the administrative authority of the prefect, is in charge of the direction of all health services. This officer is technically under the supervision of the Ministry and its representatives, who are known as " inspecteurs généraux ".

The director of public-health services in the department is usually assisted by one or two medical officers, one of these acting as deputy, and by a chief public-health nurse. In the majority of the French departments, district public-health nurses are engaged locally. They must have the State diploma for social workers (" diplôme d'assistante sociale "). Provision has now also been made for one sanitarian in each department, but these posts are not yet filled owing to recruitment difficulties. Administrative staff for the director of public health is also provided by the local administration.

In each city of 100,000 inhabitants and over, a full-time city health officer is appointed by the mayor from a list of selected candidates agreed to by the central authorities. This officer works under the technical supervision of the director of public health of the department. The city health officer is primarily responsible for communicable-disease control, immunization services, and environmental sanitation including housing, etc., in the city. Tuberculosis and venereal-disease control and the maternal and child welfare services are dealt with directly by the director of public health in the departments, cities of all sizes included.

The school health service is organized and supervised by full-time physicians appointed by the Ministère de l'Education nationale. The school doctors have to work in close co-operation with all the different local health personnel dependent on the director of public health in the department.

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Finally, provision is made in several countries, where federal or national and State or provincial aid is allocated to the local community, to arrange for periodic submission of a budget, showing a total plan for expenditures together with an outline of the programme contemplated. Local health departments also report their expenditures and submit reports of services and operations, although such reporting is for purposes of guidance and inventory and future planning.

Summary Note

In this report an attempt has been made to deal in a general way with some of the many important problems which are met with in health administration in different countries. Many problems have not been considered yet and, in some instances, only the surface has been scratched. The present trend in the development of health care does not warrant a fractioning of health administration. Also it is obvious that the medically trained individual will have to take upon himself more general administrative responsibility. Among numerous subjects which deserve further attention are the details of the organization and financing of health programmes to meet the needs of people in different communities and in various countries.

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