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TWENTY-SIXTH WORLD HEALTH ASSEMBLY

Technical Discussions

REPORT OF THE TECHNICAL DISCUSSIONS AT THE TWENTY-SIXTH WORLD HEALTH ASSEMBLY ON "ORGANIZATION, STRUCTURE AND FUNCTIONING OF HEALTH SERVICES AND MODERN METHODS OF ADMINISTRATIVE MANAGEMENT"

I. PREFACE

1. Preparation for the Technical Discussions

In June 1972, a preliminary document (CHS/72.2) in the form of a suggested outline for use by countries in discussing the subject was prepared and forwarded by the Director-General to Member States and Associate Members (C.L.15.1972 dated 16 June 1972). A similar letter was also sent to intergovernmental and nongovernmental organizations in official relations with WHO. The contributions from Governments and from intergovernmental and nongovernmental organizations which had been received before 15 February 1973 were used in the preparation of the Background Document (A26/Technical Discussions/1) which formed the basis for the Technical Discussions. The replies were available for reference.

2. Programme of work

The Technical Discussions on "Organization, Structure and Functioning of Health Services and Modern Methods of Administrative Management" were opened on Friday, 11 May 1973, by the General Chairman, Professor Ch. M. H. Mofidi, Vice-Chancellor for Research and Graduate Studies, University of Teheran, Iran.

After the General Chairman had delivered his opening address in the first plenary session, group discussions took place during the morning and afternoon sessions on the same day. Of the 230 participants who registered for the Technical Discussions 228 were divided into eight groups and two were appointed General Rapporteurs. The group discussions were summarized in eight reports which were distributed to participants on Saturday morning, 12 May 1973. The second plenary session took place in the morning of 12 May 1973 for presentation of reports by each of the eight discussion groups and for general discussions.

II OPENING ADDRESS BY THE GENERAL CHAIRMAN

1. Prologue

If we allowed our imagination to wander around the globe we would soon note that right at this moment, tens of millions of professional and allied health workers, from the rural midwife, traditional healer, surveillance agent, health corpsman, family doctor, medical educator, research scientist, health planner, to the top health administrators of the countries and their supporting administrative staff, under the shade of a hut in the bush, in dispensaries and health centres, medical centres, research institutions or central administrative offices, are working, walking, digging, spraying, riding bicycles or jeeps, or even flying aeroplanes, teaching and experimenting, with one goal in mind: the betterment of the health of mankind. This, of course, includes all of you here in this august gathering.

After paying well-deserved tribute to the dedicated services that these people are rendering, we would then hope that all these functions are implemented with adequacy, appropriateness, effectiveness and efficiency, and with properly determined coverage. We would hope that the potentialities, knowledge and skills of these workers, each having received proper training for the tasks they are allocated, are correctly and rationally used; that all financial, material and physical resources are efficiently utilized to combat clearly defined problems to meet well-determined essential needs of the population, following properly planned and budgeted programmes, designed according to wisely determined and clear objectives and strategies, decided upon and chosen from among a fruitful range of alternatives, with uncertainties reduced to acceptable levels, well coordinated and in harmony with national plans for socio-economic development. In other words, and using the concise terminologies of the art of administrative management, we would hope that these health systems are well managed. But are they? And if not, either partially or totally, what can be done about it?

This international concern, shared by many national health leaders, and reflected by the selection of the subject, "Organization, Structure and Functioning of the Health Services and Modern Methods of Administrative Management" for the Technical Discussions at this Twenty-sixth World Health Assembly is timely and justified. I consider it a great honour to have been invited to act as General Chairman of these discussions. The Executive Board and the World Health Assembly have not only honoured me, but through me, my country and the University which I serve.

2. The challenge

The topic under discussion is very challenging, because in this era of rapid social change, with increasing national awakenings and the demand for social welfare and justice, with a high proportion of rural populations, and the rising problems of:

environmental pollution;
uncontrolled population growth;
nutritional deficiencies;
the high risk of diseases;

with, at the same time, shortage and maldistribution of trained staff; insufficient financial, material and physical resources prevailing to higher or lower degrees in different countries, the haphazard utilization of these services and resources is neither fair nor acceptable. In the majority of countries with some or all of the problems cited above, there exists also a fragmentation of responsibilities for the delivery of health care, with overlapping, conflicting and competing organizations within the health system, and widely scattered funding mechanisms with little control over costs. Health services authorities give only token recognition to those segments of the services that are not under their direct executive or financial control, and often plan only for that part of the national budget which is said to be their responsibility. As stated by the Executive Board at its fifty-first session, this

state of affairs is unjustified and harmful. The health service must be thought of and taken as a coherent whole, public and private, national and international, curative and preventive, peripheral, intermediate and central. Thus there is a great need for a health plan, within the context and in harmony with national socio-economic development, with stated policies and definition of aims and objectives, with established priorities inside the health system, taking into account the essential needs of the population and the available resources (human, material and financial) with provision for public acceptance and participation, and political endorsement. The plan should also provide the necessary mechanism for implementation, coordination, evaluation and continuous feedback and review. It is obvious from the start that the preparation of this plan for the development of health services and the delivery of health care, with a comprehensive and integrated approach (in other words the planning and management of the health system) is not an easy task and it is certainly more so for developing countries. However, the art of administrative management and the behavioural sciences have already developed methods of management that have proved capable of coping with similar complexities in other sectors. They are available to be exploited to the best advantage of the health services.

It is not my intention in these opening remarks to go into the detail of the excellent paper referred to as the outline document for these discussions, which has been prepared by Mr J. Stringer, Director of the Institute for Operational Research in London, who is serving as consultant. The outline document, and particularly its second part, "Explanations, definitions and discussion of the problem", is a very comprehensive one, and will have considerable interest not only for this Assembly, but also for all health administrators and research workers around the world. In addition, there is the background document based on replies received from countries, prepared by the Secretariat assisted by Mr Stringer, which amplifies some points of the outline document, and includes comments on some important management problems, management skills and applications, and also gives headings under which the discussion might be structured. In fact, it has eased my task tremendously.

3. Techniques

As I have said before, there is an ever-increasing array of methods and techniques available to assist in management and it becomes a matter of some concern to decide what resources should be devoted to their adaptation and utilization in the health context. Some of these techniques are described in the outline document and their application according to their level of formality, level of management (functioning, structural, organization) and activeness of management (regulatory, service-providing and health promoting) are illustrated very clearly in diagram 5 on page 32 of this document.

The management problem whether in the health services or elsewhere, involves activities of the following kind:

(1) diagnosing present and anticipated problems in the field of concern;

(2) assessing the significance of problems leading to the definition of aims and objectives in relation to them;

(3) finding alternative means for meeting objectives, examining them and making rational choices between them;

(4) obtaining the necessary resources (material, human and financial) to implement the chosen means;

(5) defining tasks of organizations and of groups or individuals so as to make the best use of available skills;

(6) development of personnel and enlargement of skills and capabilities;

(7) motivating people to accept the objectives and to work towards them by the chosen means;

(8) monitoring, control and evaluation so as to adapt and learn in the light of experience.

The following techniques may be used for the above activities:

(a) Diagnosis of the problems and assessment of their significance through population studies (in demographic, anthropological, socio-economic, environmental, medical and epidemiological terms) and the analysis of health needs, health programmes, facilities and resources, and the utilization of health services as well as the study of other economic sectors influencing health activities and vice-versa, cost trends and comparison, international comparison, etc.

It is advisable to study the problems not only in the context of their present state, but also in terms of their projection into the future (as opposed to the projection of the solutions). The formulation of the problems is an important element of the management art, and should be carried out in such a way that they can be considered rationally. In addition to the results of analysis of the above-mentioned studies and surveys, consideration should also be given to the national health policy and the prevailaing political pressures.

(b) In the choice of alternative means for meeting objectives, use could be made of "epidemiological models" and "decision-models", to be followed by decision-making.

In regard to the problems of decision-making, these are presented as involving the reduction to acceptable levels of uncertainties of various kinds. Some techniques which could be used for reducing the uncertainty about the likely effects of possible action are as follow:

statistical analysis and forecasting techniques;
epidemiological and sociological survey methods;
field experiments and controlled trials;
use of queueing theory and simulation studies;
input-output techniques.

A second form of uncertainty concerns values and objectives, in which some assistance can be obtained from:

cost-benefit analysis;
attitude survey methods;
systematic methods for quantifying subjective judgements.

The choice between alternative means of obtaining given objectives, subject to constraints on resources, etc., is facilitated by:

cost-effectiveness studies;
linear programming.

The third form of uncertainty concerns the effects of one decision upon decisions that will have to be taken later, or in regard to different but connected subjects. This raises the problem of coordination and planning and suggests use of:

programme budgeting;
techniques for selecting decisions which are "robust" against future uncertainties.

In using these quantitative techniques, one has always to be aware that the standards of precision sought should suit the circumstances, and for managerial purposes it is often unnecessary to attempt the standards of precision that would be appropriate to a research study.

(c) Items (4), (5), (6) and (7) relate to the implementation stage. It is at this stage that managerial shortcomings must often show up in practice. The main considerations are:

detailed programming of the steps necessary to give effect to the actions decided upon - for which the technique of network analysis is helpful;

selection, training, motivation, supervision, etc. of the personnel involved - for which methods derived from behavioural sciences are useful. In this connexion, special attention should be paid to the proper classification of health manpower personnel, according to their task allocation and their responsibility at each functioning point in the structural hierarchy;

organization and communications, formation of project teams, etc. - which also derive benefits from the behavioural sciences;

efficient use of resources in individual institutions such as hospitals - for which work study and related techniques are used.

In many cases the failure of implementation is due to a defective decision-making system of the responsible authorities, over-centralization, and personalistic administration. From the other side, non-implementation of decisions leads to low interest in data, evaluation, supervision and research which, in turn, leads to poor decisions, which leads to low implementation, a state of affairs which could be called the causal circularity of underdevelopment.

The personalistic administration and the absence of delegation of decision-making power to representatives and those responsible for action programmes makes the coordination of activities between different health agencies and the various agencies whose work relates to the health sector (water and power, roads, housing, rural development, education, higher education, agriculture, etc.) either difficult or impossible. Thus the observation of basic principles of administration and management is a must for the success of health development programmes. In other words, the coordination between agencies is rendered especially difficult if the agencies themselves are inadequately managed.

Among other management techniques, the planning, programming and budgeting system (PPBS) is most commonly used for the establishment of coordination. This technique also facilitates supervision and the control of activities. At this stage the interdependence of the management techniques should be stressed and a balanced approach to development of improved management is advocated. No one technique or approach is likely to make much impact if others are absent. From the other side one has to be cognizant of the fact that these techniques achieve their real impact by helping people to perceive the problems more adequately by facilitating exact communication and by providing a basic structure of rationality and objectivity as a background to the interplay of personalities in management.

4. Research and development

The replies from governments and the literature available show that some of the techniques of administrative management have already been put into operation for research purposes, or intervention studies.

In addition, since 1960, WHO has embarked on a considerable amount of research and development effort, expected to result in better community health through improved delivery of health services and improved national planning.

Techniques used in these programmes vary from epidemiological models, cost-benefit analysis, systems analysis, planning theory, input-output study, to quantitative modelling in the planning system.

These programmes are in addition to research grants made by WHO to individual investigators, and the research training fellowships, some of which are also in the field of public health practice (research).

It is worth mentioning here that many other efforts are being made in research institutions around the world to develop new methods of planning and programming of research. In particular, the use of the network analysis technique has been tried out, leading to the development of the convergence technique (Louis M. Carrese and Carl G. Baker), which seems to fit better for the planning of biomedical research programmes. This technique has been successfully used for Special Virus - Leukemia Cancer Chemotherapy programme and the United States National Cancer Research Programme.

5. Constraints

The application of managerial techniques in the field of public health is not very old, and has not proceeded very far. This is because of numerous difficulties inherent within the health services, including difficulties of formulating precise objectives or answering the question: What is it for? as well as definition and measurement of "output" etc. on the one hand, and lack of proper communication between health workers and management technologists and scarcity of the latter group on the other.

It is necessary, however, to embark upon a well-planned educational effort for the orientation of health workers to these techniques and the art of administrative management, and their inclusion in the training programmes of schools of public health, or institutions for advanced training in public health. As a matter of fact, the fifth Meeting of Directors of Schools of Public Health, which has recently been held in Brazzaville, considered this, as well as the need for more involvement of schools of public health in research on the delivery of health care and health planning.

Several proposals are put forward in the outline document for additional measures for training and research in this area, on which governments have given their views. The participants in the Technical Discussions should pay particular attention to this area and its development through national and international efforts, and to exchange experiences they have had or may have in the application of the administrative management techniques, and compare them with the results of some of the research projects mentioned above. This is an important exercise, and the confrontation at this Assembly of the proponents of the methods available, and those facing the problems of health administration at all levels, along the lines set out in Part VI of the background document, may lead to recommendations which could be universally useful.

6. Epilogue

In conclusion, it could be stated that health and medical care can be rationalized in the majority of cases by a series of steps, on each of which standard sequences of technologically specifiable tasks and manoeuvres can be carried out, while the process of using skilled judgement or of arriving at decisions can be reduced and concentrated at critical points, and that the art of administrative management and various techniques described could help the planners and administrators in the proper formulation and implementation of the system.

It is not necessary to mention repeatedly that the traditional management attributes of leadership, responsibility, drive and enthusiasm are obviously highly relevant to the successful management of the health system, and that the system should be designed in such a way as to be comprehensive, and at the same time susceptible of accepting changes and new knowledge in medical sciences and technology, and changing socio-economic parameters, and should readily be able to absorb them.

III SUBSTANCE OF THE DISCUSSIONS

1. Introduction

There was a general agreement by participants in the Technical Discussions that this year's subject was a most interesting and timely one, particularly at this time when a quarter of a century has gone by in the life of WHO and this organization is entering a new era of activity with full cognizance of the world health needs and available methodology to meet them. The topic has come up as a logical development of previous Technical Discussions (1965, 1969, 1971 and 1972) and of various operations, intervention studies and Health Practice Research that have been carried out or are in progress.

As discussed in 1972 Technical Discussions, health programmes form an integral part of socio-economic development. Overall, the organization, structure and functioning of health services in any country are governed by the level of development achieved by the society. This, in fact, is the major element which determines available national resources which could be allocated to the various sectors. The allocation of resources between sectors is essentially a political decision based on social preferences and only partially on economic rationale. Thus, taking the allocated resources to the health sector as given, the role of the responsible authorities in the health sector is to allocate these resources to the various types of health activities within the health sector in a way that maximizes what will be referred to as "health sector objectives". Naturally, such objectives should be commensurate with the overall development goals of the nation and should form an integral part of the national planning objectives. Whatever the "health sector objectives" are, whether to tackle specific health problems, or to increase availability and/or accessibility of health services to the masses, the only way to do that is through management of the health resources, i.e. manpower, facilities and supplies in a way that enables the health sector to achieve its objectives qualitatively and quantitatively with the given resources in the specified time period.

In most countries, either developing or developed, there is an increasing dissatisfaction with regard to the organization of health services. The consensus seems to be that the population is not getting the kind and the amount of services corresponding to needs and expectations.

This state of affairs seems to be similar in most countries although the relative importance of each contributing factor might be different according to the specific situations.

Managerial Problems of Health Services

Several fundamental problems affecting health services for many countries were identified. Amongst the most important of these were the following.

Dissatisfaction arises from the poor coverage of services. It was recalled that a very high proportion of the developing world does not have ready access to health services, and it was considered that high priority had to be given to providing such services, whilst at the same time ensuring that they were efficiently managed. On the other hand, in some countries where the movement of patients between medical facilities was unrestricted, they tended to seek duplicate services, perhaps in the belief that they could thereby ensure that their treatment had been adequate. Other examples of misuse of health services by different population sub-groups were also mentioned. To some extent these problems could be attributed to the fragmentation of responsibilities between institutions, leading to lack of services in some areas and unnecessary duplication in others.

During the past decade demands on health services and the costs of meeting them have been increasing at a disproportionately high rate in both developing and developed countries. Mass movements of people towards urban areas have aggravated this situation, creating additional pressure on services which were in any case inadequate. The cost problem may also be aggravated by the tendency for resources to be pre-empted by activities whose effect on health is small in relation to their cost.

The mechanisms for financing health services are frequently not subject to effective control. This is one example or symptom of poor coordination. It was felt that one of the main areas where coordination was needed most was between the curative and preventive health fields.

There exists also a strong competition for limited resources with other major sectors of the economy, e.g. agriculture, industry, transportation, etc. Funds allocated to the aforementioned sectors provide visible, tangible benefits vis-à-vis the intangible and often invisible benefits of preventive and curative medicine, e.g. increased life expectancy, decreased infant mortality, reduced morbidity, etc. In addition, the health sector has been slow to implement quantitative techniques which demonstrate the value of a healthy population.

Problems frequently appear in terms of shortage of manpower of various kinds; the lack of manpower with managerial capabilities was regarded as especially serious. Whilst it may be that more appropriate organization and management of existing manpower might be capable of increasing their effectiveness, it will usually be necessary to train or retrain personnel in some aspects of management appreciation.

Although the kinds of problems referred to above appear in the form of shortages and inadequacies, these are not simply problems of providing additional resources. They will not be solved merely by repeating existing patterns and types of solution, e.g. urban patterns of services will not solve the rural problem; ideas derived from curative medicine in a developed context are unlikely to contribute to the need for preventive work and the extension of basic coverage. It will not meet the situation simply to provide more of the same. Furthermore, the discovery of this fact cannot be left to the natural processes of evolution, for these are too slow and too uncertain. Appropriate management should make it possible to avoid the expense of proceeding by trial and error to make it possible to develop more appropriate alternatives. The process of change must be a deliberate one and cannot be left to chance. In other words, it has to be managed.

A Change of Emphasis in Management

The need for managing the health resources stems from trying to meet the demands on the health sector by the given health resources in a specific period of time. With the increasing quantitative and qualitative demand on health services and with the continuously rising cost of rendering health services and the connected problems already referred to, managing the health resources becomes a more complicated matter than ever before, and the use of efficient and effective management techniques becomes indispensable in order to enable personnel working in the health sector to make better decisions at all levels of the health system. One can thus contrast two approaches to administrative management: one in which administrative techniques heavily rely on symptomatic diagnosis, followed by symptomatic intervention; while the second depends more on casual diagnosis to be followed by causal intervention, whether preventive, curative or rehabilitative. The first method is usually described as being "traditional", and the second as "modern". Thus, the basic difference between the two methods is in their degree of reliance on factual information, both in the diagnostic phase (i.e. analysis of the problem) and the intervention phase (i.e. solution).

The real significance of this apparently simple difference between two methods is in the different human skills and aptitudes required to apply them, but much more so in the different human attitudes and behaviour required for the successful implementation of one method or the other. Thus, the question of using one or the other method in any one country depends on a number of factors, which can be stated as follows (not in a priority order):

(i) Availability of type of data and information necessary to apply the specific managerial method chosen.

(ii) Availability of skills and aptitudes to apply the specific managerial method chosen.

(iii) The presence of human attitudes and behaviours necessary to apply and accept the specific managerial method chosen.

Based on the above analysis, one can view the problem of changing from traditional to modern administrative management as a multi-faceted process which involves changes in the three areas mentioned above, i.e. Data and information; skills and aptitudes; and behaviour and attitudes of both provider and consumer.

Information

The information system was considered an indispensable element for the identification and clear definition of problems, for the designing of intervention strategies and for sound decision-making, as well as for the monitoring of the process of change and evaluation of outcomes as part of the cyclic process of planning.

Concern was expressed about the relevance of some of the health information systems to their intended use. In other words, it was pointed out that the cost of producing, processing and publishing information is justified only to the extent that such information serves the managerial process. Several examples were cited of countries where sound health plans have been implemented with simple but relevant information. There should not be too much concern in producing data of high accuracy. Quite often it is far more important to determine the margin of accuracy that the intended use of the information can tolerate.

In this regard, many problems are related to non-standardized methods of data acquisition, compilation and analysis. Adaption of modern management methods generally leads to standardized rules being established for the various activities and to different models and alternatives being proposed to suit the operative potentialities of the system and the needs for information.

Training

Health manpower was recognized as a crucial element of resources, and health administrators should pay special attention to its proper development and utilization.

Simplifying this statement at least two types of health administrators "managers" were identified: those involved in policy making, planning, follow-up and evaluation at national or regional level, and those responsible for operational tasks.

Efficient management can only arise if health professionals receive appropriate management training. It is not the prerogative of an individual discipline. Its general recognition and acceptance will evolve understanding, cooperation and integrated endeavour. It should not be regarded as an additional training superimposed after basic training. Rather it should be incorporated into the fabric of basic training.

Many senior health professionals are "conscripted" into managerial roles without prior training. This requires the development of short courses of training compared with the more detailed training of potential career administrators.

Management training is best locally based and developed. Overseas training may often be evolved to meet requirements not found locally. Personnel trained away from their native country may thus be ill prepared to accept the responsibilities and challenges peculiar to their own country.

Practical training in good management was considered to be equally important as formal education in this field.

Manpower and career problems basically revolve around the question of opportunity for continuous promotion, in-service education, retraining. Changes in the health delivery system will occur and consequently provision should be made in advance to provide opportunities for retraining existing personnel.

Opportunities should be made available through further training for health workers to improve their knowledge and capability to meet the changing needs of the community.

In conclusion, one can state that the managerial aspects of every profession at different functional levels of the health system should be incorporated in the related programme of Education and Training. For example, the medical student at the undergraduate level should be so trained as to be able to work as a member of a team of health professionals and to understand how managerial responsibility can be delegated within such a team.

The Challenge of Change

Although information and training are important aspects of the process of change, the real challenge is concerned with behaviour and attitudes of both the providers and the consumers of health services.

It was emphasized that reluctance to change exists not only in the community with regard to habits and attitudes, but also within the professional services and in the associated educational systems. It was stressed that there was considerable lack of techniques and instruments to influence and bring about change, particularly in traditions at the operational level. Change it was thought was much more likely to occur in the local setting if it came from within the community itself, also if such change did not touch upon a vital problem it is more likely to occur. Any attempt at bringing about change should be seen to be feasible and to be for the good of the community.

Possibly one of the best approaches to change of tradition and attitude of a community is through the general educational system.

Great emphasis was placed by some participants on the mobilization of community participation in the actual delivery of the services. The community may even choose the person who will look after the health of the other people. This person will then receive the training that is appropriate to the tasks he has to perform with a built-in possibility for him to receive additional training and therefore increase his expertise if he shows interest and ability. Also the ability to utilize and build on local traditional methods of medicine that can be implemented at low cost and have their own degree of effectiveness is an example of good management under the particular circumstances.

The central problem may lie with the medical profession itself which is more marked for conservatism than flexibility. There is no doubt that there is need for change in the attitude of health personnel who in general were being applied with skills but not motivation. Changes were also required in the curricula of not only medical practitioners but also paramedical and auxiliary workers to more readily meet the needs of the people.

The Systems Approach

The requirements for a purposefully managed approach to health "systems" (which term does not only include health services as such) were discussed at various levels of the problem:

- The national/political, including the competition for resources against other sectors.

- Within the health sector itself.

- The need to construct a basic health system which is "manageable".

- Problems within such a system.

These levels are not independent, for together they form what may be called the "health management/political system", the members of which include consumers, health service personnel, the professions and government. Unless there is adequate communication between these elements efforts to improve management of health will not succeed.

The term "management" here should not imply the imposition of an arbitrary power, but rather it should carry a facilitating implication. Management is essentially a human process, which enables man to conduct himself in his day-to-day aspirations.

At present in many countries the health services are fully recognized as a system comprising several interrelated parts, and in this respect the holistic way of looking at the health services organization, or in other words the systems approach, seems to be the most appropriate way of improving the existing practices within the health administration. Ability of decision-makers to understand and apply the systems approach to the health care organization should be seen perhaps as a major revolution in the field of health administration.

The adoption of modern management methods does not necessarily entail complicated techniques. What matters is to resort to the appropriate means for making a rational choice of priorities, objectives and means. Many countries consider that the urgency and extent of their health problems on the one hand, and the limitation of available resources on the other, face them with decisions for which resort to the more elaborate management methods is not yet indispensable.

Whilst it is useful and fruitful to consider the various elements concerned with health as together forming a "system", this will only operate as a purposeful whole if an effective process of coordination exists.

It was emphasized that coordination is a multifaceted process which involves aspects of personal and organizational behaviour. Therefore, coordination needs to be considered in different contexts, as follows:

Intrasectoral coordination, which may be horizontal, i.e. among the members of the health team, among the components of any one given organization and among the different organizations of the health system; and vertical coordination, which may be among different hierarchical levels of one organization and between the different administrative levels of the health system, i.e. central, intermediate, and local. For the latter, regionalization of the health services was suggested as the policy which could effect coordination.

Extrasectorial coordination was considered of critical importance and a real challenge for administrative management. It requires the ability to plan together and create a climate favourable for formal and informal arrangements, by which the various responsible bodies and the associated professions can all participate.

It was felt that one of the main areas where coordination was needed most was between the curative and preventive health fields. The latter was also divided into two parts, namely one covering personal preventive practices, and the other, environmental health, which again needed coordinating. With regard to the curative services, it was believed coordination was fairly well established in a vertical direction and was mainly technical. However, coordination in a horizontal direction whether at central, regional or local levels, was difficult but

particularly at the local level. Also in the peripheral curative services there was the problem of coordination between the different health disciplines, this was due partly to dissipation of effort and also to competition for resources. Usually the majority of available resources being taken up by the curative services.

The point was brought up and debated as to whether it was a necessary precondition for effective management that all the elements of the health services system should come under the control of a single agency. The opinions expressed indicated that although unified control eased some of the difficulties it was neither a necessary nor a sufficient condition. The essence of the systems approach was to enable the interacting effects of the activities of all elements to be considered together and thus to work towards a state of affairs where the various services having an impact on health complement, rather than conflict, with one another. In this connexion it would be important to find means of influencing those elements of the total system that were independent, without losing their desirable characteristics and in such a way that each agency has a proper role to play.

In applying the systems approach, the discussions recognized the relevance of the large body of management technique which had been described in the background documentation. Some difficulties evidently arose from the unfamiliar terminology probably because most of the management methods had originated in industry and other non-health fields. It would be worthwhile to devote further effort to adapting the basic concepts and expressing them in a consistent terminology expressly chosen to suit the needs of management in the health sector.

Access to this body of knowledge would be partly through training, as discussed above, backed up by research, and by advisory services.

It was believed that as far as possible, existing facilities and institutions should be used for the application and development of management. Collaboration is necessary between institutions undertaking medical and non-medical training in managment techniques. Schools of public health should study field situations and not only theoretical models of health services, but look in depth into management problems and be in direct relation with the consumers.

There is already a widening gap between what is known and what is available to and being practised in the field. Results of management research in the health field are not readily available and not necessarily transferable from one country to another. Consequently each country or group of countries with similar ecological conditions have to embark on public health practice research using all institutional facilities available (schools of health sciences, research institutes, health services, etc.).

In addition, it would be most desirable that necessary mechanism be developed through regional, inter-regional and international organizations for the exchange of information and experiences obtained from these research projects. The participants felt that WHO is in the best position to fulfil such requirements.

Conclusions

The problems of management of health services should not be viewed in isolation, but as an integral part of the social, political, cultural and economic conditions of the country. The change from traditional methods of administrative management to modern methods involves a number of material and non-material costs, which should be thoroughly examined before the country embarks on such a change. It is not expected, nor feasible, that a country would make an abrupt change from traditional to modern methods, since the achievement of necessary prerequisites for change takes long periods of time, especially the development of skills and aptitudes, and the changes in behaviour and attitudes.

One must realize that change generates resistance because of vested interest and human conservatism. Thus a strategy of social change has to be elaborated within each cultural

context and change must be introduced gradually within the involvement of the population. In other words, community pressure and community participation are especially important both in forming objectives and priorities and in implementation.

Thus, change is often necessarily gradual in nature and the development of an information system hand-in-hand with the development of necessary managerial skills and aptitudes is essential. Application of modern managerial techniques may first be tried in a field demonstration area. Results obtained from such projects could then be generalized.

The required changes in skills, aptitudes, attitudes and behaviour of health manpower should start very early in their education and training. Appreciation courses or practical involvement in managerial situations could be used in the undergraduate level, while more specialization should be given to a few numbers at postgraduate levels.

Furthermore, no system can be perfect and even adequate over time. So the system of change should be changing constantly with the evolution of the population (values, social and health needs). Any health system will be a dynamic equilibrium between centralization and decentralization. No specific state of equilibrium is important per se. Decision-making must be placed where the necessary information is available and where the expected results can be provided.

International action

In considering the need and the possibilities for international action in the field of management development, it was stressed that the primary initiative must be at national level. There is, however, good scope for action by WHO in support of national efforts.

Bearing in mind the observation that there is a widening gap between the knowledge that exists and that which is being applied, it was considered that the main emphasis should be on providing whatever help is needed to ensure effective application. These needs will vary with each situation.

The means available to WHO to contribute to national strategies for managerial development are of several kinds and amongst the possibilities reference was made in the discussions to the particular importance of the following:

- provision of teams capable of advising and helping national personnel in the application of managerial methods;

- assistance in managerial training and the associated research and development. This involves the provision of assistance to existing national institutes to undertake research and training in the management field including health service development projects and demonstration areas and for the creation of such institutes at national, regional and international levels, wherever needed;

- dissemination of information and provision of documents, literature, bibliographic reviews on management and international comparative data on costs, norms, indices, etc. to national institutes of public health, institutions for application and development of health management and similar bodies concerned with management development and necessary action to be taken to develop simplified and suitable terminologies of management and guidelines as applicable to health and health services. In this connexion, the recommendation was made that publication be made of all the material prepared for this year's technical discussions, i.e. the outline and background documents, the group reports, together with this general report;

- provision of support in the development of international cooperation in research and comparative studies on management problems. Facilitation of exchange of information on research progress and results;

- organization of health management conferences, symposia, courses; provision of experts and teachers in health service management; provision of fellowships for advanced studies or orientation.

It is in the spirit of the systems approach that the national and international efforts in relation to a particular country should be considered together and designed so as to be complementary and together sufficient to produce demonstrable improvement in the standard of management.

ANNEX: LIST OF THE OFFICERS OF THE TECHNICAL DISCUSSIONS

General Chairman:	Professor Ch. M. H. Mofidi Vice-Chancellor for Research and Graduate Studies University of Teheran Iran
Consultant:	Mr J. Stringer Director of the Institute for Operational Research London England
General Rapporteurs:	Dr W. A. Hassouna Chief Health Planning Department Institute of National Planning Cairo Egypt
	Dr J. Rochon Chief Department of Preventive Medicine Université Laval Quebec Canada
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Group 1

Chairman:	Dr Gurmukh Singh Deputy Director of Planning and Research Ministry of Health Malaysia
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Secretary:	Dr A. Rossi-Espagnet Health Service Information Systems Division of Strengthening of Health Services

Group 2

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Rapporteur:	Dr M. A. Baddoo Director of Medical Services Ministry of Health Ghana

Secretary:	Dr B. Kleczkowski Resource Group Division of Strengthening of Health Services

Group 3

Chairman:	Dr A. José Gonzalez Under Secretary for Public Health Ministry of Social Welfare Argentina
Rapporteur:	Dr N. M. Chitimba Deputy Chief Medical Officer Ministry of Health and Community Development Malawi
Secretary:	Dr A. Mejia Health Manpower Planning Division of Health Manpower Development

Group 4

Chairman:	Dr S. L. Adesuyi Chief Medical Adviser Federal Ministry of Health Nigeria
Rapporteur:	Dr D. Castillo Administrative Director Ministry of Health and Social Welfare Venezuela
Secretary:	Dr E. de Maar Research Centre for International Drug Monitoring Division of Drug Evaluation and Monitoring

Group 5

Chairman:	Mr J.-E. Spek Gothenburg City Central Board Sweden
Rapporteur:	Dr M. Zamfirescu Assistant Director "Dr I. Cantacuzino" Institute Romania
Secretary:	Mr A. Manger Administrative Management Division of Administrative Management and Personnel

Group 6

Chairman:	Dr C. E. S. Weeratunge Secretary Ministry of Health Sri Lanka
Rapporteur:	Dr P. C. J. van Loon Director for Planning and Development Ministry of Public Health and Environmental Hygiene The Netherlands
Secretary:	Dr R. Strudwick Division of Family Health World Health Organization

Group 7

Chairman:	Dr H. J. Hiddlestone Director-General of Health Department of Health New Zealand
Rapporteur:	Dr M. M. Nalumango Permanent Secretary for Health Director of Medical Services Ministry of Health Zambia
Secretary:	Dr W. Barton Division of Family Health World Health Organization

Group 8

Chairman:	Dr T. Bana Directeur général de la Santé publique Niger
Rapporteur:	Dr M. F. Lechat Directeur adjoint Ecole de Santé publique de l'Université catholique de Louvain
Secretary:	Dr D. Flahault Training of Auxiliary Personnel Division of Health Manpower Development