REPORT ON THE

SEVENTH MEETING OF DIRECTORS OR REPRESENTATIVES

OF SCHOOLS OF PUBLIC HEALTH

Teheran, Shiraz, Isfahan - IRAN

3 - 10 March 1977

WORLD HEALTH ORGANIZATION

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REPORT ON THE

SEVENTH MEETING OF DIRECTORS OR REPRESENTATIVES OF SCHOOLS OF PUBLIC HEALTH IN THE AFRICAN, EASTERN MEDITERRANEAN, SOUTH-EAST ASIA AND WESTERN PACIFIC REGIONS

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The views expressed in this report do not necessarily reflect the official policy of the World Health Organization.

The group of participants at the Opening Session with Dr S Shaikholeslamzadeh, Minister of Health and Welfare, Dr A H Sharifi, Chancellor of the Universty of Teheran, Dr P Amouzegar, Under-Secretary of State representing, Dr G Motamedi, Minister of Science and Higher Education, and the three WHO Regional Directors, Dr A H Taba (Eastern Mediterranean Region), Dr V T Herat Gunaratne (South–East Asia) and Dr F J Dy (Western Pacific)

TABLE OF CONTENTS

I INTRODUCTION

This was the seventh occasion that the Directors or Representatives of Schools of Public Health* from twenty-four African and Asian countries met at the invitation of the Eastern Mediterranean Regional Office of the World Health Organization in Teheran, Iran, from 3 to 10 March 1977, to exchange information on the highlights of developments which have taken place in the schools concerned, in public health teaching/research/community service since the Sixth Meeting at Manila in 1975, and to review recent trends in the development of health services and health manpower and their implications for higher education in public health.

The participants took a close look at field training as a means of introducing students to real life situations, and of providing more learning experiences in the community setting. In particular, they reviewed the role of Schools of Public Health in research on the delivery of health care and health manpower development, with particular emphasis on primary health care. This topic was considered briefly at the Fifth Meeting in Brazzaville (1973) and discussed in some detail at the Sixth Meeting in Manila (1975), but is now under extensive research by several schools of public health in the four Regions. There has been an increasing interest in a holistic approach to the delivery of total health care particularly at the community (extra-hospital) level rather than restricted to specific health problems as the direct responsibility of public health specialists.

Visits to Teheran University School of Public Health and to the field projects on this subject at Pahlavi University, Shiraz, and the University of Isfahan, and the subsequent discussions, provided an unprecedented opportunity for the participants to elaborate further on it and to emphasize the key role of the Schools of Public Health in resolving the closely interrelated problems of health care delivery and health manpower development, including research on ways to promote new systems of health care delivery and new kinds of health workers, and their training.

Finally recommendations were made regarding co-operation and collaboration between Schools of Public Health and the measures which WHO may consider to further expand its co-operation with them.

Thus the present meeting is a follow-up of six previous meetings which were:

1. Inter-regional Conference of Directors of Schools of Public Health, 29 August - 2 September 1966 - Geneva.

2. Second Regional Conference of Directors of Schools of Public Health from African, Eastern Mediterranean, South-East Asian and Western Pacific Regions of the World Health Organization, 6 - 10 November 1967, Manila.

3. Third Meeting of Directors or Representatives of Schools of Public Health, 13 - 17 October 1969, Alexandria.

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* Throughout this document the term "School of Public Health" includes departments of Community Health, Preventive and Social Medicine etc., which offer advanced training in Public Health.

4. Fourth Meeting of Directors or Representatives of Schools of Public Health, 24 - 29 March 1971, New Delhi.

5. Fifth Meeting of Directors or Representatives of Schools of Public Health, 26 - 30 March 1973, Brazzaville.

6. Sixth Meeting of Directors or Representatives of Schools of Public Health, 10 - 14 March 1975, Manila.

The occasion was also used to hold the Fourth General Assembly of the Association of Schools of Public Health in the African, Eastern Mediterranean, South-East Asian and Western Pacific Regions and to review the programmes and activities of the Association.

1. Opening Session

The Opening Session took place at the University Club, University of Teheran, on 3 March 1977.

H.E. Dr A.H. Sharifi, Chancellor of the University of Teheran, welcomed the participants to his University, and expressed the University's pleasure at being able to host such an international meeting. After reviewing the various activities of the School of Public Health of the University of Teheran in basic and applied research and in the preparation of health manpower at the national and international levels, the Chancellor thanked WHO for the help and support which it has given to the School in many different ways.

The meeting was then opened by H.E. Dr Sheikholeslamzadeh, Minister of Health and Social Welfare who, referring to Schools of Public Health as the backbones of the health profile of a country, pointed out that their task was not only one of training, but also included health manpower planning and public health research. He stressed that a good health plan was usually the outcome of a marriage between health "needs" as analyzed statistically, and "wants" as expressed by leaders of the community. The Minister emphasized the need for close co-operation between schools of public health and health services administration, and the value of reciprocal involvement of teachers and health service staff in service programmes and teaching.

For Iran the meeting was both timely and valuable. The country was currently in the process of finalizing its Sixth Development Plan, in which the health sector was an integral part and received a very high priority. The basic approach to health and welfare schemes in Iran was to establish a regional decentralized network of integrated and co-ordinated health and welfare services, and His Excellency expected that his country would greatly benefit from the constructive recommendations and suggestions of this meeting.

In the unavoidable absence of H.E. Dr Gh. Motamedi, Minister of Science and Higher Education, a message from him was delivered by H.E. Dr P. Amouzegar, Under-Secretary of State. After referring to the development of higher education in Public Health in Iran and to the role of the School of Public Health and Institute of Public Health Research, Dr Motamedi said that the Government of Iran was following the course of events elsewhere very closely and with great interest. They looked forward to the recommendations of such an expert group and to incorporating them in their own efforts to solve their problems in the area of higher education for the health sciences, problems which were common to many developing countries.

Dr A.H. Taba, Director of the Eastern Mediterranean Region of the World Health Organization delivered an address in which he stressed the close relationship between WHO and the schools of public health, expressed WHO's gratitude to the Government of Iran, the Universities of Teheran and of Isfahan, and to Pahlavi University, Shiraz, for hosting the meeting. He welcomed his fellow Regional Directors and other participants and expressed to the officers of the Association of Schools of Public Health his appreciation of their collaboration. Dr Taba spoke of the importance of the subjects on the Agenda of the Meeting to the future development of health services and manpower, and of the fact that schools of public health had never been ivory towers but had a habit of providing well-designed learning experiences in a community setting. In addition to implied continuing co-operation in training activities, Dr Taba looked forward to WHO working in new ways with the schools, in applied research on health services and manpower development. Dr Taba hoped that the arrangements for the meeting, which was to some extent more a travelling seminar than the usual more formal meeting, would challenge the thinking of participants and enable them to conclude the meeting with a stimulating report and to go home refreshed and with new ideas and new determination to continue their commendable work.

Dr V.I. Herat Gunaratne, Director, WHO South East Asia Region thanked the hosts and supported Dr Taba's views regarding the close collaboration pledged by WHO to the schools. He stressed that there was no cause for complacency in the present situation. The academic authorities and the health administrators in each country needed to plan jointly for its own needs in a logical manner, and there was need for increasingly close collaboration between schools and the health authorities.

Dr F.J. Dy, Director, WHO Western Pacific Region, also thanked the hosts and referred to the benefits which had accrued to the vital field of public health manpower training as a result of technical discussion and exchange of ideas at a high scientific level. Pointing out that WHO's present programming procedures called for a better definition and quantification of objectives, Dr Dy stressed that this could facilitate subsequent evaluation. He suggested that meetings of this kind should themselves be evaluated and thought that in future the possibility of biennial regional meetings, with a combined meeting of the four Regions quinquenially, should be considered. He referred to the work of the Association of Schools of Public Health at whose birth WHO had assisted as "midwife", and expressed willingness on the part of WHO in his Region to support future activities of the Association.

A message from the Director-General of the World Health Organization, Dr H. Mahler, was read by Dr T. Fülöp, Director, Division of Health Manpower Development; Dr Mahler was convinced of the importance of what the participants were doing and hoped that the meeting would contribute to the furtherance of aims common with that of WHO. WHO's aim was the achievement of an equitable system of health services accessible to all and assuring health for all by the year 2000. Not only the training activities of the participants, but also those in service and research, could play an important role in the realization of this common goal. The concept of the integrated development of health services and health manpower should serve as the basis of all their activities, assuring the relevance of those activities to the real health needs and demands of the population.

A message from Dr Comlan A.A. Quenum, Director, WHO African Region, was read by Dr J.P. Menu, Regional Adviser on Health Manpower Development. Dr Quenum expressed his profound regret at being unable to be present. After a brief report on major events in

higher education in public health in his Region since the last meeting, Dr Quenum spoke of the need to devote limited resources in the most judicious way possible to the training of the most appropriate types and numbers of health personnel to best serve the needs of the population. He pointed out the need gradually to overcome the dichotomy which existed between agencies falling under Ministries of Health and those under Ministries of Education in the interests of more effective education and training of health personnel.

Concluding the Opening Session, the President of the Association of Schools of Public Health, Dr A. Nadim, University of Teheran, added his own welcome to the participants and his thanks to the Government of Iran and the other two Universities concerned, besides his own, and to WHO, for providing so much assistance to the Association, including making it possible for them to hold their Fourth General Assembly in conjunction with the present meeting.

2. Election of Officers

At the first plenary session, the participants elected the following officers:

Chairman:	Dr A.H. Nadim
Vice-Chairmen:	Dr Debhanom Muangman
	Dr Hyock Kwon
	Dr V.L. Ongom
Rapporteur:	W.K. Ng

3. Adoption of the Agenda

The Agenda (Annex I) was adopted. It was agreed that an additional item,"Factors affecting recruitment to the field of public health" should be borne in mind in all appropriate discussions.

II STATEMENTS BY PARTICIPANTS

Participants and observers reported on the progress and highlights of their activities, or about new schools, institutions or departments established since the last Meeting in Manila (item 4).

Participants had been asked to supply factual information on the courses given, students, staff numbers, research and service activities of their schools or departments. Each reported to the meeting for five minutes on the most important developments or difficulties facing their institutions.

Steady progress was being made in most schools, the major problem still being shortage of adequately trained staff. Financial difficulties had slowed down progress in some. In general, there appeared to be much better relationships between schools and Ministries of Health. Several outcomes of these improved relationships, including interchange of staff, were increasing the relevance of training to the needs of the community.

Most schools were extending their fields of influence to the training of health personnel other than physicians. The team approach in training was gaining in popularity.

Teaching methods appeared to be changing towards fewer didactic lectures and more seminar teaching and field training, and there was steady increase in the application of modern methods of educational planning and technology.

There were fewer DPH/MPH courses of the traditional type and more Master's degree courses of 16 to 24 months generally based on an academic course of one year's duration similar to the other DPH/MPH, followed by a defined period of practical or supervised field training and/or a research project. In a few schools, three to four years' courses in such special fields as epidemiology led to specialist status in that field or a doctoral degree.

An increasing number of schools was accepting a greater proportion of non-national students. Research was increasing in the field of health care, particularly in determining needs, consumer opinions, evaluation of services and the development of more appropriate health delivery systems.

The importance of short intensive courses in limited fields for various categories of health personnel was stressed, not only because of their intrinsic value and their relevance to practical problems, but their practicality for obtaining the attendance of key personnel.

The information about each school will be published by the Association of Schools of Public Health.

III SUMMARY OF DISCUSSIONS

1. Trends in Health Services and Manpower Development and Implications for Higher Education in Public Health (item 5)

At the second plenary session, Dr Fülöp presented a substantial working paper on this subject (Annex III) and spoke about the major points in his paper. These were summarized by him to include:

1. The relevance of training programmes to the needs of the health services and populations.

2. The need to review the categories of health personnel being trained.

3. Continuing education.

4. Problem-solving oriented learning, as the method of choice.

5. The relative value of a departmental single discipline or integrated approach.

6. Moves towards a learner rather than a teacher orientation.

7. Multi-professional training.

8. Why recruitment to public health is poor and how to improve this.

The participants divided into three groups which discussed a number of the points raised. Their reports were received by the plenary session and further discussed.

The general feeling was that the "disease of irrelevance" of training programmes was not so widespread in schools of public health as in schools of medicine. This did not mean that a continuing critical examination of present and probable future needs was not essential, particularly in the wider field of health services development and manpower planning.

The major difficulty in determining the need for health personnel was considered to be the general lack of overall health planning and a reluctance to make the necessary decisions as to the effective development of health personnel. Responsible authorities would not make decisions relating to the location, movement or restriction of all or any type of health manpower. Many traditional restrictions on the role of some health personnel prevented their further training and wider utilization.

Categories of health personnel should be determined by the needs of each country and uniformity between countries for its own sake was to be deplored.

Continuing education was very necessary and was an integral part of proper supervision. There was a need to inculcate appropriate attitudes to continuing learning at the earliest stages of basic education of health workers of all categories, and to establish a national system for the planning, co-ordination and management of continuing education programmes.

It was difficult, but not impossible, to depart from traditional teaching methods and the participants felt that problem-solving oriented learning (PSOL) should be developed as far as resources allowed. It was agreed that while this may require more teaching staff it also calls for a radical re-education of the teachers themselves and a restructuring of the departmental organization of many teaching institutions. In this connexion WHO should further co-operate between schools within each Region in the preparation of appropriate health learning materials.

The participants endorsed the need for the establishment in each country of a specific mechanism for achieving effective health services and manpower development. It was felt that the establishment of a national HSMD body or board with the participation of the various agencies responsible for educational services and the consumers, should be complemented by decentralization and regionalization to the extent possible in the light of each country's circumstances.

It was felt that the decentralization of health services and manpower development at regional level within each country, with powers of licensing and provision of attractive financial and welfare privileges for the regional health worker, would facilitate the implementation of this integrated approach. In these circumstances, a regrouping of various independent schools of medicine and other schools for the training of health personnel could be achieved.

One desirable approach would be the grouping or establishment of schools or institutions of health sciences and technology, with the responsibility for training of all categories of health personnel needed by a given region, and their continuing education, as well as appropriate participation in planning and health service delivery to the community. If this happens, then the national boards would be able not only to set down the national health policy and issue major directives, but also to ensure necessary coordination and harmonization of health services and manpower development. Furthermore, the schools of public health and the graduate departments of community medicine would then be in a better position to fulfill their apical role, as already referred to at the 1975 meeting in Manila, in the training of leaders, managers, decision makers, planners, teachers and research workers, or to offer advanced refresher and orientation courses, as well as to conduct health services research and contribute in health planning and in the production of problem-solving orientated learning materials for other institutions.

2. School of Public Health and the Institute of Public Health Research; University of Teheran, and Discussion of Health Services Development Project, West Azerbaijan

The participants visited the School of Public Health and were welcomed by the Dean and his staff. The Organization of the School and of the Institute of Public Health Research (a joint organization of the University of Teheran School of Public Health and the Ministry of Health and Social Welfare), several departments and the library were shown and the staff presented. In addition to teaching programmes at national and international level, a variety of research projects, in particular the Bilharziasis Project, the Shahriyar Community Health Delivery and Training Project and the Health Services Research Project, West Azerbaijan, were presented. The latter, which is conducted jointly by the School of Public Health and the Ministry of Health and Social Welfare, with WHO support, was further discussed in detail. The general principles of this project were considered by the participants as applicable in other areas, with necessary adaptation depending on local circumstances. The development of the programmes of the School, which started from single disease research and applied control projects, and its shift to a holistic approach with particular attention to the development of health services, and the impact of these activities on the content and orientation of its teaching programmes at national and international level, were noted and appreciated.

(Further discussion on the Health Service Development Research Project in West Azerbaijan took place in the Third Plenary Session).

3. University of Isfahan

The participants visited the University of Isfahan and were welcomed by the Vice Chancellors of the University, its Director of International Relations and members of the Department of Public Health and Social Medicine. After hearing a short description of the history, development, organization and teaching and research activities of the University, the participants visited the campus and several units, including the Hospital and Scientific Instruments Repair Workshops. During the third plenary session which took place in the Council Hall of the University, the teaching and research programmes of the Departments of Public Health and Social Medicine, University of Isfahan were described and discussed.

Activities of the Department of Public Health and Social Medicine, Faculty of Medicine, University of Isfahan

At the third plenary session, a brief description was given of the various programmes of this department. These include:

1. Training of auxiliary health personnel
2. Education in Public Health for all university students
3. Mental health counselling centre in collaboration with Department of Psychology
4. Bachelor degree programmes in public health
5. On-campus environmental health activities
6. Hospital administration services
7. Industrial health services
8. Teaching programme in public health for medical students
9. Amin Hospital health centre programme
10. Field training programmes for medical students in public health, including the work of students for two months (one month each at the infectious disease ward, Amin Hospital Health Centre and the Rural Health Centre of the University of Isfahan).

These activities are reported in eleven papers available on request from the Department or the WHO Regional Office.

4. Kavar Village Health Worker Project, Pahlavi University, Shiraz

The participants visited the Kavar Village Health Worker Project, conducted by the Department of Community Medicine, Faculty of Medicine, Pahlavi University in a population of some 40 000 inhabitants in Kavar area, 65 km. south-east of Shiraz. They saw the work at a variety of outposts at three health care delivery levels.

This was followed by a visit to the Kavar Training Centre for village level health workers and further discussion of the activities of the Department of Community Medicine as well as the objectives, training programmes, locally designed production and use of task-orientated audio-visual materials and the administration of the Project. Additional discussion of this Project took place during the third plenary session in Isfahan.

(These activities are reported in the submission of the Department of Community Medicine, Pahlavi University, which will be published by the Association).

Follow-up discussion

The project was further discussed by the participants and a number of points were clarified. Amongst these were the facts that:

(i) Preventive services and any consultation when patients are referred to higher echelons at Kavar network are free of charge.

(ii) Small payments for curative services are made because it had been determined that the local inhabitants would not value prescribed drugs unless they paid for them. The amount of this fee is determined in consultation with the village committee.

(iii) Many members of the department of Community Medicine either have a background specialization in clinical medicine or are drawn, through a system of double appointments, from other clinical departments.

(iv) Although the project is solely developed and administered by the University, recently several village health workers trained by the project have been engaged by the Ministry of Health and Social Welfare.

(v) The use of audiovisual materials, locally produced and designed, in the training programme, was highly commended.

5. Academic Departments' Responsibility for Health Services

During the discussion that followed, there were differences of opinion as to whether academic departments should be responsible for health services of areas other than in a limited way for research purposes. Opinion was expressed that services should be the responsibility of the Ministry of Health and the academic departments should have observer status, or otherwise develop the programme in co-operation and collaboration with each other (as is the case of West Azerbaijan Project). This is important in order to make the programme replicable and regularize the cost within the limits and possibilities of the Ministry. The earlier the Ministry of Health is involved in such programmes of alternative strategies for providing health care to rural people, the better.

On the other hand some participants emphasized that university departments ought to have greater executive capacity for the operation of health services in defined communities.

Whatever approach is taken the primary function of academic departments is evaluation of new approaches to health care delivery.

6. Educational and Organizational Aspects of Field Training in Public Health (Item 6 of the Agenda)

This topic was introduced by Dr C.M.H. Mofidi by pointing out that field training is of great importance in the preparation of graduates to meet adequately the realities in the field and that it has the same value as laboratory exercises have in basic sciences and hospital training in clinical medicine. The field utilized varies according to the activity of the health worker: it may be a public health laboratory, an outpatient department or hospital ward, or the community at large. Many aspects of basic knowledge, methodology and techniques, as well as of ecology and dynamics of population, can be learned through laboratory work or the study and building of experimental models (mathematical, animal etc.), simulated games, case studies and consultations.

It is the field training opportunity which prepares the student for handling the human element under various and complex socio-economic and health conditions. Therefore the careful selection of "real-life" situations in field training, and its proper organization and guidance, ensures the achievement of the learning objectives.

The purposes of field training could be summarized as follows:

(a) Acquisition of knowledge of the patterns of disease and health in the community, quantitative assessment of medical and social problems through field investigation and the application of the epidemiological approach, and the development of a sense of inquiry into health needs.

(b) Development of necessary confidence in the applicability of theoretical knowledge and awareness of the various approaches and solutions that are or can be applied under different conditions.

(c) Awareness of the importance of the role of various health workers and of the co-operative action of the health team, as well as the need for proper leadership, guidance and evaluation.

(d) Active participation in public health programmes and further exploration of the subjects by recourse to the library, and discussions with other students, supervisors and the faculty.

(e) Learning how to work and live under rural or less luxurious conditions and the use of field transport, field equipment and tools, as well as obtaining the co-operation and confidence of local inhabitants and participating in their activities.

Although observation visits, study visits and surveys have their own values, to make the field training an effective and enjoyable living experience for the students,it should be focussed on "Problem-Solving oriented learning". This requires proper planning of the field training area and of the programmes, as well as active participation of the faculty. In fact the best results are obtained when faculty research workers are involved in the actual programme. If the touchstone for the students is "work/study", the touchstone for the faculty is "work/teach".

In many instances, the services of community health centres and other institutions may be used for field training. In other instances, there is a need to create demonstration centres in co-operation with responsible health departments, or directly under the authority of the school, particularly where similar centres are very scarce. It should be noted, however, that in many instances the demonstration area may become saturated with services so that it may no longer be a natural setting, or the operational costs and the staffing pattern may be beyond the local standards, causing misunderstanding and doubts about its replicability by the administrators and wrong expectations by the students in their future assignments. There are real dangers that a badly designed field training experience may be worse that none at all.

During the discussion that followed it was stated that several years ago, medical students were properly tried out in clinical experience and then let loose in the world. But now medical education has tended to become so intensely academic, that field experiences are often reduced to mere observations. It is necessary to take a fresh look at the educational system and train the students in a way that they can take responsibility with confidence and motivation as early as possible in their training.

The educational objectives of field training were further elaborated. It was stated that field training in public health(and for that matter training in public health in general) should not be treated as an isolated subject and for the same reason it is difficult to propose any specific number of hours. Teachers should not be trapped again

in the fight for hours, which is treated as a prestige symbol among the members of faculties. It all depends on the total educational objectives of medical or public health education. When the objectives are defined, then it would be easy to determine the number of hours and the content. This would be also true for the number of hours necessary for hospital learning. The important issue is what the student should do, *i.e, identify and solve community problems and be able and motivated to do so.*

The importance of educational planning, as an integral part of health and manpower planning was again emphasized. The important decision is to define what kind of doctor or nurse or any other public health worker a given country needs, so that a decision can be made as to what kind of training, with what educational objectives, a health professional student has to get that cannot be got in any other place.

In the ensuing part of the discussion, the importance of teamwork, development of administrative capabilities, the involvement of students in quantitative measurement activities (and not for observational purposes alone), learning about real facts of life, were emphasized. It was also stated that field training should take place in a field area about which a considerable knowledge is available to the teaching department concerned so that a holistic approach to problem identification and problem-solving could be made possible.

Repeated emphasis was given to the importance of the co-operation and involvement of the Ministry of Health in the design and implementation of educational programmes, including field training programmes.

Stress was laid on the fundamental difference between the observation of the living conditions of people necessary for all doctors, and the specific training required for primary care physicians (post-graduate) who will combine preventive and curative medicine in the community and who would be competent to direct the work of lesser trained personnel.

If field training programmes are to be become a significant part of the training of medical and other health professional students they must be interesting, purposeful and all the academic staff concerned with primary care must actively participate. Field training experience should be the concern of the faculty as a whole, and not be left to one department alone. It should carry as much weight as suitable basic science and clinical training have traditionally done in the past.

7. <u>The Role of Schools of Public Health and Departments of Community Medicine in Research on the Delivery of Health Care and Health Manpower Development with Particular Emphasis on Primary Health Care</u>

The subject was introduced by Dr Ch. M.H. Mofidi. Basic health needs of populations, particularly in non-urban areas, were still unmet, despite efforts over the years by governments and international organizations to develop a more comprehensive health policy and strengthen the health services. The strategy so far adopted by many developing countries of modelling their health services on those of developed countries had led to the services becoming urban-oriented, mostly curative in nature, and accessible mainly to a small and privileged part of the population. The maldistribution of physicians and other health workers, the absence of proper coverage, the rising cost of services and the widespread dissatisfaction of the population, had raised the need to take a fresh look at priority health problems and at alternative approaches to solve them, taking into consideration also available resources and human attitudes and values.

He reviewed the training of health professionals and the need for integration or co-ordination in the health manpower process (planning, production and utilization) as well as between the health manpower process and the development of health services.

Universities and schools of public health were producing a great variety of health manpower; their training grounds (hospitals, dispensaries, laboratories, field visits, etc.) were also delivering various types of services. Faculty members were an important and potential source for research and development and consequently should be in the forefront of finding solutions for much needed reform of the whole delivery system for health services and of the training of health manpower who would be capable of and motivated to deliver these services.

Various research programmes in delivery of health care were being carried out in Iran, in order to develop alternative strategies for health services and manpower development particularly at primary care level. These types of studies were particularly needed in view of the situation in Iran, where socio-economic development had received great impetus with consequent urbanization and internal migration of the population. More than 50 per cent of doctors and of health services were located in the capital and a further 25 per cent in main cities. There was a multiplicity of organizations in charge of delivery of health care, a dichotomy between medical and health manpower education and the services delivery sector and a strong private medical sector, whose income was assured through the national health insurance system.

A research programme on health services and manpower development was initiated in 1971 by the School of Public Health and Institute of Public Health Research, in collaboration with the Ministry of Health and supported by WHO, in the province of West Azerbaijan, with a view to developing a total health network from the frontline to the capital of the province. A careful sociological and health survey and an evaluation and output analysis of the existing health services and resources were carried out at the inception of the programmes and alternative proposals for the development of the health network were formulated. The levels of service, the type of health workers at each level, the requirements and the training programmes and the system of supervision and inbuilt evaluation were designated. At present the programme had covered frontline care, at village and district level, and secondary health care at the country level. Future programmes included the further development of the project to reach the tertiary level at the capital, including manpower training at the supportive and referral levels.

This project was supervised jointly by the Chairman of the Department of Public Health practice of the School of Public Health and the Director General of the Health Services of the province, assisted by all the departments concerned in the School of Public Health, School of Pharmacy, School of Dentistry, School of Medicine, School of Economics, School of Public Administration and Business Management, School of Social Sciences and School of Education of the University, as well as all divisions of the Ministry of Health and Social Welfare at central and provincial levels.

Another main programme was the village health workers project of Pahlavi University that the participants had visited and the meeting had discussed in detail.

A third project, related to development of frontline health care in tribal areas, was carried out by Imperial Organization for Social Services. The same organization has earlier embarked on two other programmes:

(a) A rural project in Lorestan, where the frontline worker would also deal with other problems of the community such as agriculture, co-operatives, rural development, etc.;

(b) a system of health care network in Shemiranat, north of Teheran, using the Telemedicine approach.

After an evaluation of these programmes by WHO, at a meeting of directors of all these programmes their approaches and strategies were co-ordinated. Consequently, the Ministry of Health and Social Welfare, on the recommendation of the newly formed National Health Council, developed a national health policy adopting the West Azerbaijan project as a model and duplicating it in other provinces. A policy of decentralization was also adopted and promulgated. The effect of these approaches on medical schools had been very satisfactory. Already Isfahan University Medical School and Teheran University Darioush Kabir Medical School were embarking on development of a community base similar to the programme of Pahlavi University School of Medicine. It was hoped that this trend would be further developed in the future to cover all organizations in charge of education and service delivery.

During the discussion that followed, it was stated that schools of public health had carried out a great deal of research in the past on a wide variety of diseases, with a major overtone of collaborating works and of the type of epidemiology that requires great skill at the centre with little or no permanent field base. However, the development of close rapport with the people and the many professions in the field was a prerequisite for proper research in health services and manpower. It required that socio-behavioural techniques be used to overcome the resistance of the people and of the medical and allied professions (in the public and particularly in the private sector) to the inquiries of the research workers and their apparent interference in what the people were doing and their sacred traditions and working arrangements. The success of this type of research depended largely on the quality and motivation of the research workers, who should be ready to detach themselves from their headquarters in the schools and become local public servants.

It was stressed that research in delivery of health services was in its infancy and that no new health system should be introduced unless a mechanism of evaluation were built-in from the start. It should be recognized that a great body of effective research, using system analysis, cost-effectiveness, time and motion studies and other administrative management techniques, have been already carried out in USA and Canada, which could be easily and effectively applied to health delivery system, curiously enough, health research workers had been slow to adopt these techniques, which would place public health research at the same level as any other highly respected piece of research. It should be recognized that, as in the case of industry where no investment is made for any kind of industrial enterprise without prior feasibility and evaluation studies, the ministries of health would be reluctant to apply any new changes in the health system unless properly designed and carried out operational research with careful evaluation and demonstrable justification were placed before them. The Schools of Public Health and the Departments of Community Medicine were in the best position to act as a scientific arm of the Ministries of Health and to offer them alternative strategies with cost-evaluation as a prerequisite for sound decision-making. WHO was highly interested in these particular kinds of research and, by virtue of its mission, was ready to support them.

The case would hold true also for more affluent countries of the Region where major health problems were related to affluence and environmental pollution, where schools of public health should again be able to play a crucial role in research and formulation of practical proposals.

In this connexion, the importance of participation of ministries of health in these research and development programmes, along with the schools of public health or other research institutions, was stressed. The preparation of all categories of health professional and health related workers, sensitive to research methodology and motivated towards enquiry and co-operation, was recognized as an important element for the success of these endeavours. Training of students in simple and basic principles of research prepared them to conduct research later in the community.

It was also stressed that, in carrying out research in health services and manpower development, it was necessary that not only the schools of public health or departments of community medicine should be involved, but also that other departments of medical schools and other health-related disciplines should participate and have an equal share of the responsibility. Similarly, ministries other than the ministry of health should be involved in these endeavours. In other words, if schools of public health tried to isolate themselves from others, they would remain isolated. Every effort should be made to develop relationships and to bring others also in the picture, in programme development, curriculum design, teaching and field practice or even in examinations.

Medical specialists could play a great role in public health promotion, if they were well indocrinated and a sound professional relationship and mutual understanding developed with them. For instance, a cardiologist could easily become public health minded and advise not only on the treatment of severe cases, but educate people in the prevention of cardiovascular diseases; the same was true for cancer and other specialists. In other words, the public health workers, who are already converted, had a duty and responsibility to build up a good relationship with other professions and facilitate their participation in a concerted effort.

Another important aspect of research in health services and manpower development, that was brought out during the discussion, was the need for research in health manpower planning and in the planning of education of health manpower. Education and training itself should be subjected to evaluation as to its effectiveness. It was pointed out that the education and training programmes of the West Azerbaijan and the Kawar project were under continuous evaluation. Continuous efforts were made to see whether the health workers trained in the project had an impact on the area they serve, and the data were fed back into the planning process of their programme of continuing education, as well as into the education of the new generation of health workers.

As was clear from the discussions, although the participants were rather reluctant to discuss specific research projects and to some extent dealt with development rather than research in primary health care services, it was clear that they were all interested in embarking on this type of research and believed that despite apparent slow development, schools of public health were particularly well placed to carry out evaluative health services and manpower development research and that WHO gave great importance to these kinds of research and was ready to support them by all means at its disposal.

8. Co-operation and Collaboration between Schools of Public Health in African, Eastern Mediterranean, South-East Asia and Western Pacific Regions - WHO Assistance to Schools of Public Health

The subject was introduced by Dr Ch. M.H. Mofidi, who referred to the Associations of Schools of Public Health in North America, Europe and later in the African, Eastern Mediterranean, South-East Asia and Western Pacific Regions. Formation of the World Federation of Association of Schools of Public Health was still pending due to delay in the establishment of the Latin American Association of Schools of Public Health. There was a need for co-operation and collaboration between schools of public health, so that they could fulfil their responsibilities with regard to teaching, research and service and strive together towards efficiency and excellence through teamwork. He reviewed ways of collaborating and described activities which would lead to or facilitate the raising of standards, wider utilization of potentialities for faculty training or advanced training of students in special subjects, strengthening of faculty and continuing education and exchange of experience and ideas, co-operation in teaching, training and in research, strengthening of library resources and dissemination of information.

In the course of discussion, WHO's extensive programme of support to facilitate the development of schools of public health, through provision of consultants or long-term staff, fellowships for the preparation of faculty, equipment and supplies, library facilities etc., were described.

The programme of exchange of scientific visits, widely used by faculty members of medical schools and schools of public health in the Eastern Mediterranean as well as in other Regions, was described. It was pointed out that whenever necessary, this programme could be developed on an inter-regional basis.

As far as support of joint research programmes was concerned, it was stated that WHO did not consider it a major problem to provide financial support, as long as the technical aspects of the proposed project were sound and justifiable.

Other proposals were the possibility of holding regular or sporadic regional meetings of Directors of Schools of Public Health and provision for the participation of some directors or professors of schools of public health in Regional Committee Meetings or similar meetings, where confrontation of producers and consumers and planners was possible.

Several participants stressed that the exchange of external examiners should be a two-way traffic. In numerous cases, only external examiners from developed countries were invited. It was pointed out that in many universities of the Region rules and regulations do not permit this important activity and the authorities are reluctant to change it.

It was proposed that WHO should exert its influence on governments to facilitate, encourage and support the various programmes for exchange of professors and students, as well as the participation of faculty in international seminars, workshops and conferences.

The importance of dissemination of information about schools' activities, new courses offered and the areas of their strength or needs for assistance and of schools' catalogues or bulletins, was stressed. If such information was distributed well ahead

of the academic year, (or ahead of the meeting of Directors of Schools of Public Health), much positive action could be initiated. WHO or the secretariat of the Association would be prepared to assist in receiving and distributing necessary information.

The publication of a newsletter, (similar to the "Learner" published by WHO, in co-operation with the Teacher Training Centre in Pahlavi University, Shiraz, Iran) was suggested.

Finally, it was suggested that a workshop with the participation of Deans of Schools of Public Health and Directors of medical services would be of great use.

The participants thanked WHO for all valuable support that they have received and recommended its continuation and intensification.

Various collaborative activities proposed by the meeting could be tabulated as follows:

SOME COLLABORATIVE ACTIVITIES PROPOSED BY THE MEETING FOR THE SCHOOLS OF PUBLIC HEALTH*

ACTIVITIES**	Programme		
	Training	Research	Service & others
1. Plan, implement, and monitor the progress of collaborative and co-operative activities recommended by the Teheran Meeting. This can be done by conducting seminars, workshops, and using other simple means of communication.	x	x	x
2. Exchange students for training in public health (degree and non-degree programmes).	x		
3. Exchange academic staff for training and joint research programmes in public health.	x	x	
4. Provide assistance, guidance, consultation to strengthen public health teaching and research capabilities to institutions as needed (external examiner, development new programmes, etc.).	x	x	x

*Including all institutions which conduct graduate training in public health

**Can be done individually, institutionally, within and/or inter-Region.

ACTIVITIES*	Programme		
	Training	Research	Service & others
5. Exchange and disseminate information on curriculum development, organization, methods and approaches, and evaluation of various levels of training in public health for the purpose of comparative study and critical analysis.	x		
6. Exchange journals, books, bulletins, newsletters and results of research, in the field of public health.	x	x	x

IV RECOMMENDATIONS

The meeting recommended that:

1. The interest of schools of public health should be further extended in all aspects of the delivery and evaluation of health services (including primary care services). The schools' involvement in such activities should include the post-graduate and continuing education of physicians and other health professionals; the training of teachers of frontline health personnel, and research into the effectiveness of existing and new patterns of health service delivery.

2. Schools of public health be encouraged to impress upon their respective Governments the desirability of developing an appropriate and effective national mechanism for implementation of the concept of an integrated approach to health services and manpower development, with responsibility for planning services and ensuring that the planning production and utilization of the personnel who man them are carried out in a logical and economic manner.

3. Whether or not the health services and manpower development mechanism referred to in 2. above exists, all appropriate steps should be taken to improve effective liaison between schools of public health, ministries of health and other governmental and non-governmental agencies responsible for the delivery of health services. These steps should include continuing encouragement of the employment of ministry staff as part-time teachers, and of teaching staff in part-time service roles.

4. As a reflection of the enlarged scope of the schools of public health, their structure should include (where a departmental pattern is followed) a department or suitable unit specifically concerned with primary care.

*Can be done individually, institutionally, within and/or inter-Region.

5. Schools of public health should be urged to adopt modern approaches to educational planning and technology in the setting of educational objectives, design of learning experiences and evaluation of outcomes. In particular, wherever possible, problem-solving oriented learning techniques should be used, and responsibility should be accepted for the design and production of appropriate learning materials.

6. In the development of field training programmes in particular close attention should be paid to the specification of learning objectives relevant to the health needs of the country and the future roles of the students concerned.

7. Schools of public health should once again impress upon their respective governments the need to improve substantially the financial status of public health cadres, attention being paid, in particular, to compensation for full-time obligations and community-wide responsibilities, and the need to take steps to attract physicians in clinical practice into public health administration, teaching and research.

8. Schools of public health should pursue all possible mechanisms for improving inter-school collaboration, including (a) the development of bilateral agreements on exchange of teachers, students and examiners; (b) promotion of specific collaborative research projects; (c) the development of learning materials; (d) inter-school exchange of information regarding the facilities they can offer to others for training and research, particularly ensuring that the best strengths of an individual school can be most effectively shared by its sister institutions, and that such collaboration should seek and make effective use of the generous assistance and technical support of WHO where feasible and appropriate.

9. In planning the next meeting in this series, WHO should be asked, in consultation with the Afro-Asian Association of Schools of Public Health, to include provision for:

(a) using a problem-solving workshop approach to the design of the programme of the meeting, focussing on a specific problem or problems in health services delivery and/or education for public health;

(b) reviewing recommendations made at previous meetings in the series, since 1966, the extent to which they have been implemented by those concerned and the barriers to implementation which have been encountered;

(c) presenting one or more specific research projects in health services and manpower development, which illustrate the successful use of a research and development approach in this field.

(d) ensuring that the progress reports of participants give a clear idea of the medical, social and economic aspects of the health system in the context in which their school operates;

(e) ensuring that succinct progress reports of the participants on a proforma basis are submitted sufficiently far ahead of the meeting to be reproduced and distributed prior to the meeting.

ACKNOWLLDGEMENTS

The continuing support of WHO to the work of the schools of public health, as well as the future co-operation promised in their educational and research programmes would be most cordially welcomed, and the thanks of the participants conveyed to the Organization and, in particular, to Dr A.H. Taba, Dr V.T. Herat Gunaratne, Dr F. Dy and Dr Comlan A.A. Quenum, Directors of the four Regions represented at the meeting.

ANNEX I

ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH IN THE AFRICAN, EASTERN MEDITERRANEAN, SOUTH-EAST ASIA AND WESTERN PACIFIC REGIONS OF THE WORLD HEALTH ORGANIZATION

SEVENTH WHO MEETING OF THE DIRECTORS OR REPRESENTATIVES OF SCHOOLS OF PUBLIC HEALTH
3-10 MARCH 1977
IRAN

AGENDA

Item 1. Opening of the Meeting
" 2. Election of Chairman, Vice-Chairman and Rapporteurs
" 3 Adoption of Agenda
" 4. Progress reports and highlights of the development in public health teaching/research/community services since the last meeting at Manila in 1975
" 5. Trends in Health Services and Manpower Development and implications for Higher Education in Public Health.
" 6. Educational and organizational aspects of Field Training in Public Health
" 7. Role of Schools of Public Health and Departments of Community Medicine in Research on the delivery of health care and health manpower development with particular emphasis on primary health care.
" 8. Co-operation and collaboration between Schools of Public Health in African, Eastern Mediterranean, South East Asia, and Western Pacific Regions
WHO assistance to Schools of Public Health
" 9. Conclusions and recommendations
Adoption of the report

Association of Schools of Public Health in the
African, Eastern Mediterranean, South-East
Asia and Western Pacific Regions of the
World Health Organization

Seventh WHO Meeting of the Directors or Representatives of
Schools of Public Health
3-10 March 1977
Iran

Time Table of Activities

Thursday 3 March 1977

0800 - Departure from Hotel
0815 - Arrival of the participants at the conference hall and registration
0845-0930 - Opening of the Meeting (Item 1)
- Welcome address by H.E. the Chancellor, University of Teheran
- Address by H.E the Minister of Health and Social Welfare
- Address by H.E. the Minister of Science and Higher Education
- Address by WHO Regional Director EMRO
- " " " " " AFRO
- " " " " " SEARO
- " " " " " WPRO
- Message from the Director-General of the World Health Organization
- Address by the President of the Association of Schools of Public Health

0930-1000 - Tea Break

FIRST PLENARY SESSION

1000-1015 - Election of the Chairman, 3 Vice Chairmen, and Rapporteurs (Item 2)
- Adoption of the Agenda and Programme (Item 3)
- Explanation of the working procedure of the meeting

1015-1130 - Statements of the participants and observers on the progress and highlights of their activities or about new Schools, Institutions, or Departments established since last meeting in Manila (Item 4)

1130-1145 - Tea Break
1145-1300 - Item 4 continued
1300-1430 - Luncheon offered by the School of Public Health (University Club)
1430-1800 - Sight-seeing tour of Teheran: Crown Jewels, Golestan Palace, Negarestan Museum
2000 - Dinner reception by Iranian Public Health Association. (Imperial Hotel)

Friday 4 March 1977

0845 - Departure from Hotel
SECOND PLENARY SESSION
0900-1045 - Trends in health services and manpower development and implications for higher education in public health (Item 5)
1045-1115 - Tea Break
1115-1300 - Item 5 continued
1300-2000 - OPEN
2000 - Dinner Reception by School of Public Health (Teheran University Club)

Saturday 5 March 1977

0800 - Departure from Hotel
0830-1030 - Visit School of Public Health
1030-1100 - Return to Conference Hall and Tea Break
1100-1300 - DISCUSSION
1330 - Departure from Hotel
1930 - Arrival at the Airport
2030 - Departure from Teheran to Shiraz
Iran Air flight # 231
2230 - Arrival at Shiraz
2330 - Transfer to Hotel Kurosh

Sunday 6 March 1977

0800-1230 - Visit KAVAR PROJECT, Shiraz
1230-1330 - Luncheon offered by Pahlavi University
1330-1900 - Visit Persepolis
2000 - Dinner reception by H E. the Chancellor Pahlavi University

Monday 7 March 1977

0800 - Departure from Hotel
0915 - Departure from Shiraz
Iran Air Flight #420
1000 - Arrival at Isfahan
1030 - Transfer to Hotel Shah Abbas
1130-1300 - Welcome address by H.E. the Chancellor, University of Isfahan
- Visit University of Isfahahan
1300-1430 - Luncheon offered by Isfahan University
1530-1730 - THIRD PLENARY SESSION
Educational and Organizational aspects of field training in Public Health (Item 6)
2000 - Dinner reception by H E. the Chancellor, University of Isfahan.

Tuesday 8 March 1977

Free. Sight seeing tour of Isfahan

1730 - Departure from Hotel
1800 - Arrival at the Airport
1900 - Departure to Teheran
Iran Air Flight # 210
2000 - Arrival at Teheran
- Transfer to Hotel

Wednesday 9 March 1977

0800 - Departure from Hotel
0830-1030 FOURTH PLENARY SESSION
- Role of Schools of Public Health and Departments of Community Medicine in research on the delivery of health care and health manpower development with particular emphasis on primary health care (Item 7)
1030-1100 - Tea Break
1100-1300 - FIFTH PLENARY SESSION
Co-operation and collaboration between Schools of Public Health in African, Eastern Mediterranean, South-East Asia, and Western Pacific Regions.
WHO assistance to Schools of Public Health
1300-1430 - Luncheon offered by School of Public Health
1430-1530 - General Assembly of the Association of Schools of Public Health in the African, Eastern Mediterranean, South-East Asia, and Western Pacific Regions.
1530-1600 - Tea Break
1600-1800 - SIXTH PLENARY SESSION
General discussion, conclusion and recommendations, adoption of the report, closure of the Meeting (Item 9)
2000 - Dinner reception by H.E. the Minister of Health and Social Welfare

Thursday 10 March 1977

0900 - Departure from Hotel to Razi Institute
1100 - Arrival at Razi Institute
1100-1300 - Visit Razi Institute
1300-1430 - Luncheon offered by Razi Institute
1430 - Departure from Razi Institute to Teheran
1530 - Arrival at Teheran
1645 - Departure from Hotel to Rudaki Opera House
- Rudaki Opera House (Curtain time 1730)

ANNEX II

LIST OF PARTICIPANTS

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ANNEX III

TRENDS IN THE INTEGRATED DEVELOPMENT OF HEALTH SERVICES AND MANPOWER AND THEIR IMPLICATIONS FOR HIGHER EDUCATION IN PUBLIC HEALTH

by

Dr T. Fülöp
Director
Health Manpower Development
WHO/HQ

Summary

After reviewing some problems in the health services and manpower development (HSMD) field, and stating that the main one is "irrelevance" to the health needs and demands of the people, activities envisaged to cope with those problems are discussed

Implications of new trends for higher education in public health (HEPH) are first discussed in relation to educational programmes. The first and most important implication certainly is the need to make HEPH programmes relevant to health needs and demands of the population that the graduates are going to serve. There is a need to continuously monitor the performance of graduates and to re-adjust HEPH programmes on the basis of feed-back results. The role of HEPH programmes in developed countries in relation to developing ones will also have to be radically re-assessed. HEPH will have to take clear responsibility for the continuing education of those already engaged in public health work. HEPH programmes will have to be radically revised to be based on problems of the community, rather than on disciplines, and this may necessitate structural changes as well. The community orientation will have to find its expression also in the increasing role of field-training The expansion of independent study programmes, of multiprofessional training,and involvement of new categories of health personnel in training programmes may be further implications of new trends.

In the service and research field the building up of HSMD mechanism will deeply involve HEPH programmes which will play a key-role in this development

The time of the "classical" type of schools of public health seems to be over and new alternatives are coming up concerning the internal structure of HEPH programmes (such as the matrix-system).

All this and other implications require that the Association play an active role in the form of stimulation and co-ordination of certain activities which could best be carried out through co-operation of several HEPH programmes.

It is always an honour and a pleasure for me to meet the directors and representatives of institutes providing postgraduate public health education in Africa and Australasia. I had the privilege of attending all but one of your six meetings and of discussing with you various important aspects of health manpower development which are of direct interest to you. At the last meeting we talked about the health manpower process[1] and today we may pursue this discussion casting a glance on some new trends in the integrated development of health services and manpower with special regard to their implications for higher education in public health

In May 1976, the Twenty-ninth World Health Assembly which was held in Geneva devoted a full day's discussion to a thorough analysis of questions of health manpower development and adopted Resolution WHA29.72 (see Annex 1) on this topic In order to understand the new trends and to design a comprehensive and coherent programme in this field, there is first a need to see clearly the problems existing in this area of health manpower development. We shall therefore start here with a brief overview of these problems, which, of course, cannot be understood in isolation, but only in their proper context, observing the interrelationship between the elements of the health services and health manpower development processes.

These problems are of economic, quantitative and qualitative character. We shall not dwell here on the ever-rising and increasingly less tolerable costs of health care in general, nor on the problems of the overall shortage, maldistribution and migration of health personnel, although these are also of considerable importance, but shall concentrate on the qualitative problems.[2]

Problems encountered in the health services

In most countries the difficulty starts with the non-existence of any well-formulated health policy and plans, and with the lack of co-ordination both within the health sector and between it and other sectors of socioeconomic development In the absence of such policy and plans there could be, of course, no coherent health system, and the existing institutions function in a more or less unrelated way. The consequence of all this is that health care delivery is fragmented, it is provided mainly to the individual, and usually neglects the community and the real objective of health services which is the improvement of the health of the entire population These health services insist on highly sophisticated and centrally located medical care which unduly emphasizes the curative element, is frequently unrelated to local realities, and is provided only in urban areas to restricted and privileged parts of the population.

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1 FULOP, T., The health manpower process the role of schools of public health in health and manpower planning development. In Six Meeting of Directors or Representatives of Schools of Public Health, Manila, 1975. Final report (unpublished document of the WHO Regional Office for the Western Pacific, pp. 41-52).

2 It is quite obvious that there is an explicit gradation in the appearance of the problems which present themselves in each country - whenever they appear - in a different way and context, and with a different emphasis and flavour.

Health services have serious problems to be solved also in the field of health manpower, and it is not only the much publicized shortage which should be mentioned here There is in addition what we may call the uneconomic utilization of many categories of health personnel, the imbalance between different disciplines, categories and levels, and the inequities in geographical distribution, aggravated by the migration of qualified staff, the lack of a clear definition of functions and of a delineation of competency for the various categories of health personnel, a lack of policy in the health team concept - including the training and utilization of auxiliaries[1] and aides whose proper use as members of the health team can significantly advance the solution of certain problems - including public health problems, and, as a consequence of the above, an inadequate health coverage, characterized by limited (or no) access to health services for very large population groups in the developing countries, and by deficiencies in the quality and sometimes also in the quantity of the health care provided for certain population groups in a number of developed countries.

Problems in the health manpower development process

After reviewing problems in the health services, we turn now to those encountered in the health manpower development field proper. Casting, firstly, an overall glance at the health manpower systems, we again have to mention the frequent non-existence or inadequacy of national health manpower policies, leading to the absence of a well-conceived national health manpower system that is an integral part of the existing health system, the lack of integration, and sometimes even coordination, of the different elements of the health manpower development process (planning, "production"[2], management) even where all these elements exist (Fig. 1), the fact that health manpower plans - if there are any - are not taken into account either quantitatively or qualitatively by the training institutions, which often do not even belong to the same supervisory authority as the planning unit, also the fact that there is no monitoring[3] of health workers' activities and that there is no feedback to adjust the planning and training processes on the basis of that monitoring, and, finally, the lack of coordination between the health manpower development process and other interested development sectors and agencies, primarily in general education but also in social security, labour, agriculture, and other areas.

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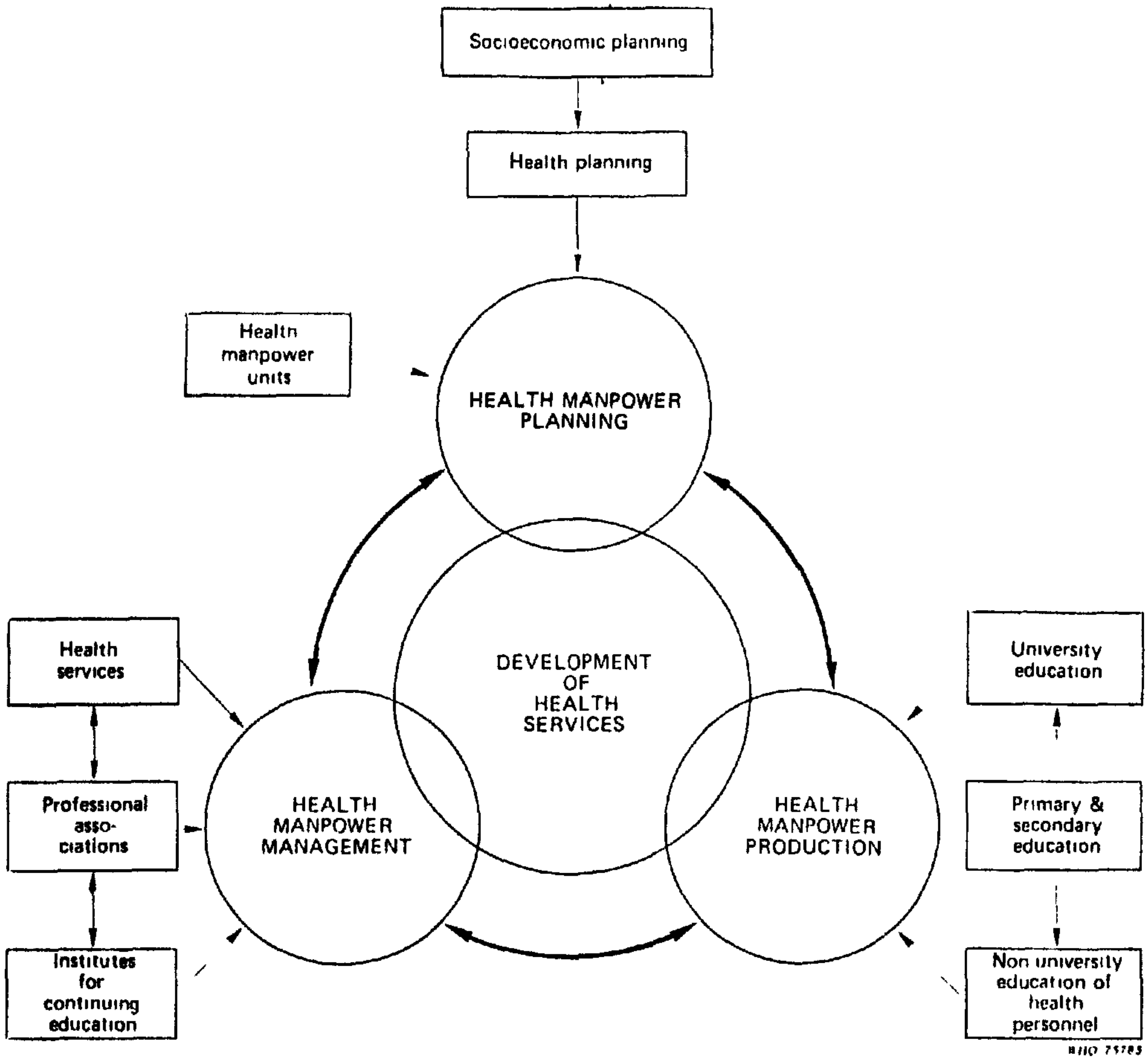
1 According to the definition accepted by all United Nations agencies, an auxiliary worker is "a paid worker in a particular field, with less than full professional qualifications in that field who assists and is supervised by a professional worker". Thus there may be auxiliary personnel in medicine, nursing, sanitation, etc. There can also be different levels within the broad category of auxiliaries, e.g. in nursing, where there are auxiliary nurses, nursing aides, etc. (see WHO Official Records, N° 127, 1963, Annex 15, p. 184).

2 Health manpower cannot of course be "produced", but conditions for the development of human resources for health services can and should be created and developed as an important element of the HSMD process. For the sake of brevity, the term "production" is used throughout the document with this meaning.

3 This means checking (i) whether the health worker is being properly utilized at the tasks he was trained for, (ii) whether he is ready and able to cope with these tasks, (iii) in what fields his competence needs updating, (iv) his job satisfaction, (v) his contribution to consumer satisfaction, and (vi) his life and working conditions.

NATIONAL ACTIVITIES IN
HEALTH SERVICES AND MANPOWER DEVELOPMENT
(HSMD)
AND SOME OF THEIR INTERRELATIONSHIPS



National bodies involved

- Ministry of Health (or equivalent)
- Ministry of Social Welfare (or equivalent)
- Ministry of Education (or equivalent)
- Ministry of Socioeconomic Development (or equivalent)
- Ministry of Planning (or equivalent)
- Ministry of Labour (or equivalent)
- National Research Institutes
  etc , etc

In the field of health manpower planning there is generally a lack of proper planning of health teams and, as a result, undue emphasis on traditional training of certain "classical" categories of health personnel, particularly physicians and nurses, at the expense of other categories.

In the health manpower production area the first problem in many countries is a shortage of facilities to train the required type and number of health personnel needed by the national health services on the one hand and, on the other, excessive student numbers in some health personnel schools, then there is a shortage of teachers in the health sciences who are also qualified to deal with educational planning and processes using a systems approach. We very often find wide divergences between academic and training goals on the one hand, and service requirements, consumers' expectations and life style, and (most important) the general socioeconomic situation, on the other. Consequently, curricula, methods and evaluation are often unsuitable to train health workers to meet community health needs and to work in teams, since educational programmes are primarily directed towards medical and institutional curative care and are largely irrelevant to the tasks required outside institutional settings or in health promotion, preventive work and rehabilitation. In short, in the absence of collaboration between those responsible for the training of health personnel on the one hand and for health care delivery on the other, educational programmes tend to develop in isolation from the constantly changing health care needs, and in some cases there is even a hostile attitude on the part of certain influential professional groups to radical changes in health personnel education which would make it more community- and team-approach oriented.

Finally, we must mention that problems are not lacking in the area of the third element of the health manpower development process, i.e. in health manpower management. Here we frequently meet with unattractive working, service and life conditions for health workers, particularly in public health and in the rural areas, with lack of security of tenure, of any career ladder, of vertical (and horizontal) mobility, and of moral and financial incentives - leading to lack of job satisfaction More often than not there is a marked absence of provision for continuing education as an integral part of the health care and educational systems, to maintain and/or improve the level of competence and performance of trained health workers.

This rather lengthy list of some of the most important problems permits the diagnosis of the main disease, namely that the health manpower development process (Fig. 1) is fragmented, its components are hardly connected with each other and even less with the health services' development process, and are thus largely irrelevant to the health needs and demands of the people. The brief name of the "disease" which we have tried to diagnose is - irrelevance.

Some problems in post-graduate public health education

The problems in this specific field present themselves in a rather similar way. It is not by chance that in the 1970s several serious studies were carried out to identify problems and recommend solutions in this field.[1,2,3] One of

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1 WHO Technical Report Series, N° 533, 1973.

2 Bowers, J.Z. & Purcell, E.F., Ed. (1974) Schools of public health present and future J. Macy, Jr. Foundation, New York.

3 Higher education for public health. A report of the Milbank Memorial Fund Commission, New York, Prodist, 1976

the main problems in this area is also what in the publication also referred to as the Sheps report[1] appears in the form of questions "about the quality and relevance of the educational programs" in schools of public health.[2] In many instances, postgraduate public health education programmes do not take sufficiently into account the real needs and tend to prepare for some ill-defined international "academic standards" and for the dimly perceived future requirements of the 21st century, while the pressing health needs of the society of today and tomorrow are often ignored. In many countries health services are being built up and are developping at a rapid pace which need professionals able and ready to plan, administer and evaluate, i.e. in brief, to manage these services and programmes at national, middle and local levels, specialists are needed, as well as technicians and scientists for public health programmes and there are few training programmes which would adequately prepare individuals for those tasks.

Other problems in this field derive from the general problems. We may mention here the characteristic discipline-orientation of curricula which are invariably based on teaching separate and often isolated disciplines whose teaching staff sometimes engage in a fight for power and prestige, outdated teaching methods which impose on the student the memorization of fragments of information -- but which do not help him to acquire the critical and independent thinking habits necessary for identifying and solving problems, and to develop the motivation and habit of continuous self-learning, teachnig methods which ignore the fact that a student will learn how to solve a problem not by being told how to do it, but rather by himself experimenting to find a solution, outmoded methods of evaluation which only give information on how the student's memory works and on its capacity, but which do not assess his ability to identify and solve the real problems that he will actually meet. This list, which is not exhaustive, gives an idea of the problems that have to be faced in the field of postgraduate public health education. Finally, it may be mentioned that more often than not programmes do not sufficiently take into account the socio-economic and political realities of the society in which graduates will have to solve public health problems that are always most intimately related to those realities

Activities proposed to solve the problems

Listing the problems may be relatively easy, but how should we set about to solve them ? What should the health manpower process (planning, "production" and management of health manpower) strive for ? It seems evident that the proposed health manpower development policy for all Member States should be to concentrate all national efforts in order to satisfy the health needs of the entire population through health services composed of balanced teams of health personnel, so that all health activities are undertaken at the most peripheral level of the health services as practicable, by workers most suitably trained to carry out these activities.

The main aim in the coming years should, therefore, be to effect a radical change in health manpower development that will make it relevant to present and foreseeable future community health needs and tasks to be performed.

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1 Higher education for public health A report of the Milbank Memorial Fund Commission New York, Prodist, 1976

2 Ibid, p. 100.

The changes should result in a sound health manpower system which will plan, develop and manage/utilize efficiently the right "mix" of health personnel to man well-conceived health and other services, which will continuously monitor whether they are functioning properly, and which will adjust the planning and "production" systems on the basis of such monitoring (Fig. 1).

The education of all categories of health personnel must be made relevant to the community's health needs and demands without reducing its basic quality, it must, in addition, prepare health professionals for their leadership role both in the health team and in community development. This means that health professionals must prepare themselves for their future in a way different from the present one.

It is clear that no one set of activities can bring about the solution of any set of problems described here, and if the objectives mentioned are to be achieved, there is a need for a logical chain of action. Such action will be required in each of the three main components of the health manpower development process, namely

(a) health manpower planning.

(b) manpower resources development (health manpower "production", education and training), and

(c) health manpower management (administration).

These components should be integrated into a single process (Fig. 1) geared to the development of health services. The realization of the concept of integrated health services and health manpower development (HSMD) is a pre-condition of success for activities undertaken in any of the above-mentioned areas, and we have already talked about this concept two years ago.[1]

Medical doctors, as well as other health workers, tend to adapt to the existing health system, even when they have been trained for different tasks. It is, therefore, first in the health system that change, or at least a careful plan for change is needed, and then in the training of personnel for that system. The type of health system required is one that is accessible to all members of the community, that is concerned with health promotion for the entire community, and one through which major decisions concerning health can be taken and implemented by the community, finally, it is a system in which the medical doctor is but one component, however important this component may be, of a team in which each member does what he/she has been trained for, and which is oriented towards identifying and solving priority health problems of the community.

The aim of such new health systems will be health for all by the year 2000, satisfaction and understanding of both community and health workers, the latter being anyway part and parcel of the community.

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[1] FULÓP, T., The health manpower process the role of schools of public health in health and manpower planning development. In Sixth Meeting of Directors or Representatives of Schools of Public Health, Manila, 1975. Final report (unpublished document of the WHO Regional Office for the Western Pacific, pp. 41-52).

It is necessary to state emphatically that the development of health manpower is only one component in the development of health services with which it must be properly integrated. "Health manpower" has no meaning in isolation it is but an instrument for effecting health care -- including public health. It is, therefore, necessary to define clearly the types of health workers who will have to be trained for these health systems. Thus, health services and health manpower should be developed in an integrated way. A country-specific permanent mechanism is required to achieve the functional integration of health services and manpower development, this will bring together all governmental and non-governmental departments, institutions and other bodies -- each of which is responsible for certain aspects in this field -- for the purposes of planning, management, and decision-making in this integrated development.

The establishment and functioning of such a mechanism should aim at a system whereby, firstly, planning of manpower defines the quality and quantity of all health workers to be trained, and secondly all those trained for their specific duties are optimally utilized and are monitored when they are working, in this way the planning and training of manpower can be adjusted on the basis of data which are obtained by monitoring and are later fed back into the system. Once the three main components of the health manpower development process -- planning, training and management of health manpower -- have been integrated into a composite whole, this composite whole should itself be integrated with the development of health services. The application of such a mechanism should result in health services which are staffed by a sufficient number of health personnel possessing skills acquired to cope with specific health problems, and which will thus meet the promotive, preventive, curative and rehabilitative health needs and demands of the entire population of a country.

This mechanism will be responsible first of all for describing all the health problems of the country concerned, as well as for alternative methods of dealing in an objective way with the priority problems, secondly it will be responsible for making, organizing, and following up the implementation of the necessary decisions based upon this evidence. In this manner, important decisions are made by society rather than by the concerned professionals.

According to this concept of integrated development of health services and health manpower, the activities of all schools for health personnel -- including public health schools and programmes -- are defined by health manpower plans which are themselves based on the overall national political framework, health policies and plans. As for the health policies and plans, they should be integral elements of the general socio-economic, educational and manpower policies and plans of a country and be based on appreciation of local resources and needs.

The health manpower plans should serve as a basis for the process of planning, implementing and evaluating the education and training of health workers for the health services. Such plans define not only the numbers and categories of health personnel to be trained, but indicate the knowledge, skills and attitude, area and level of competence needed to carry out the tasks to be performed by each of them. After job patterns have been defined on the basis of functional analysis for the different types of worker within the health team, requirements can be specified and such requirements translated into learning

objectives. Subsequently -- based on those objectives -- educational programmes, curricula and methods, including formative and summative evaluation, can be formulated which will assist the learners in achieving the objectives. Now is the time to replace the outmoded examination system used in schools for health personnel by an evaluation system which will measure the problem-identifying, problem-solving and decision-making capacity of learners, as well as their competence and attitudes, this system should also ensure both immediate feed-back and long-term assessment, by measuring the performance of former trainees in relation to the health services required by the community.

As regards the teachers, the putting into practice of this concept will necessitate learning how to apply a systems approach to educational processes, i.e. to planning, implementation and evaluation of teaching-learning, they will also have to learn how to facilitate and promote efficient and effective learning, and how to help learners to achieve their objectives. It should be noted that in this concept the centre of interest is the learner and learning -- and not the teacher and teaching.

This type of education requires that the community as a whole be used for teaching/learning purposes, and that the teaching/learning process be centered around problems of the community and not around disciplines. Similarly, if we want our students to be able, upon their graduation, to work in health teams and in certain cases even to head these teams, their training will necessarily have to be multi-professional so that they may acquire the required skills and attitudes to collaborate with the other team members.

Implications of new trends for higher education in public health (HEPH)[1]

After this sketchy overview of problems, principles, and concepts of the health manpower development process, as well as of a few of the activities to be carried out if we want the concepts to be turned into reality, we shall now try to reply to the second question put in the title of this paper what are the implications of all this for HEPH ?

We already mentioned that a few important studies have attempted to reply to this important question,[2,3,4] (the last of which is entirely oriented toward the US scene). Although the publications contain valuable ideas and recommendations, the above question has not yet been answered There is, therefore, still a need to discuss this matter as we started to do it two years ago in Manila.[5] In addition, it should be clear that any general answer, however

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1 "HEPH programmes" include also schools of public health and all other organized framework for post-graduate education in public health.

2 WHO Technical Report Series, N° 533, 1973.

3 Bowers, J.Z. & Purcell, E F , Ed. (1974) Schools of public health present and future. J. Macy, Jr. Foundation, New York.

4 Higher education for public health. A report of the Milbank Memorial Fund Commission. New York, Prodist, 1976.

5 FULOP, T., The health manpower process the role of schools of public health in health and manpower planning development. In Sixth Meeting of Directors or Representatives of Schools of Public Health, Manila, 1975. Final report (unpublished document of the WHO Regional Office for the Western Pacific, pp. 41-52)

brilliant, will have to be adapted in each country to meet the national needs and demands in the contex of national political, socio-economic and health realities.

Implications for educational programmes

The most important implication of the new trends for HEPH may be the fact that the more or less comfortable period of taking over ready-made training programmes and educational patterns is now over Each HEPH programme will have to go through a more or less painful soul-searching process, asking more or less painful questions, all aiming at relevance. We shall have to put again and again the questions Do we know the needs and demands of the society our graduates are going to serve ? Do we know the tasks they will have to perform, the problems they will have to identify and solve -- or at least to contribute to their solution ? Do we know the highly complex political, socio-economic and cultural contexts in which these problems are embedded ? Do we make an effort to learn all these factors which ought to influence our educational planning efforts ?

If HEPH programmes are to be made relevant to the health requirements of the society that the graduates are going to serve, we have to recognize that there is a long way to go until we meet this requirement. Unfortunately HEPH programmes are too often concerned with the recognition of their diplomas by foreign bodies whose norms are naturally related to foreign conditions and requirements, rather than with the preparation of health workers to serve their own societies

There is also a need to re-assess the role of HEPH programmes in developed countries in relation to developing ones. Even the Sheps' report, speaking about students coming from developing countries to the USA, states that much of the curriculum has become inapplicable to the needs these students will face when they return home. HEPH programmes have to be developed in the countries concerned or -- in case of smaller countries -- for groups of them, if they are to be really relevant to local health needs and demands. HEPH programmes in developed countries can help for a transitory period in the training of teachers and researchers for higher (e.g. doctorate) degrees, but they can no longer hold the monopolistic role they had in the past. The time has come for self-reliance also in HSMD

It is quite clear that technology and managerial skill alone (what is termed by some as "managerialism") will not solve the health problems of a country with all their political and socio-economic implications There is, nevertheless, a growing need to help individuals to learn how to act as managers of health teams and programmes,[1] and who will be aware of all the above-mentioned implications and restrictions but will still be able to work efficiently in such conditions These individuals will be leaders who understand the highly political nature of public health, all the social and political implications of leadership, the HSMD concept and all that it implies in terms of relevance of all health activities, including training, to real community needs and demands They will also understand that decision-making cannot be based on

[1] In the USA already 28% of public health workers belong to this category.

improvisation but has to be made by properly trained people who, however, know the principle that individuals must assume responsibility for maintaining their own health

In addition to capable managers who, besides being efficient technicians, are at the same time also able social and health politicians, there is a need to train firstly technicians to man the public health programmes, secondly scientists able to attack the unknown in the public health field, and finally teachers in public health. There is also a need to participate in the training of teachers for primary health workers All these "products" of HEPH should be able to cope with the complex and changing health problems of their community -- be it the entire nation or the population of a district.

In connexion with educational needs, it is clear that if we want to have health personnel whose preparation is strictly relevant to service and through them to the people's needs, these workers' knowledge and skills will require to be constantly maintained and/or improved HEPH programmes should be planned to take care of these needs, to develop into "universities without walls" where all categories of public health personnel already at work will find guidance in their efforts to maintain and/or improve the level of their technical performance and to cope effectively with changing responsibilities.

Another trend, as we have already mentioned, consists of training health workers for their tasks, i.e. in the case of public health workers to protect, promote, and restore the health, and to improve the quality of life, of the people. These tasks include the identification of health-related community problems, the development and setting of health priorities, the formulation of policy, decision-making, organization, administration, and the evaluation of implementation of decisions, quality control of health care delivered (public health included), monitoring of health services and health status of the population.

It is evident that, if we want to have individuals who are able to identify and solve problems, HEPH programmes will need to be re-thought and re-organized on a problem-basis instead of on the traditional discipline-orientation Programmes of this kind already exist, as for example that in the Universidad Autónoma Metropolitana, Xochimilco, Mexico City, where the two-year course for Master in Social Medicine offers a curriculum completely based on the study of problems of the community, where such disciplines as epidemiology, biostatistics, health service management, and others, come in only in case, and as far as, they can contribute to the identification and solution of the problem.[1]

Another implication of the new trends is the emphasis on the learner-orientation of HEPH programmes, i e the responsibility for learning rests with the student and the entire programme - teachers as well as community, laboratories and library - become resources to be exploited by the students to achieve learning objectives which the students establish for themselves. This

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[1] There are, in addition, several undergraduate medical curricula which are similarly entirely problem-based

means that we do not intoxicate students with a flood of lectures to drown their interest, activity and independent thinking capability. In the above-mentioned Mexican programme there are no lectures at all. One third of the time is spent in student-oriented seminars, one third in self-study and one third in field work and research. I repeat, no lectures at all. This also means the necessity of developing programme "units" packaged for self-directed learning. These independent study programme (ISP) packages also require, of course, to be centred around problems relevant to the type of community the graduates are going to serve. Here the collaboration of the different HEPH programmes is indispensable, as none of these programmes is able, or needed, to develop the whole range of ISP packages which are necessary. Such packages are already being developed, e.g. in CLATES (Latin American Center for Educational Technology in Health), Rio de Janeiro, Brazil

We mentioned field work and this pertains to the question of relevance Without supervised programmes of field work centred on community-problem identification and solution, graduates will not be prepared for their work. Therefore, students and teaching staff alike have to be involved in responsible, active service which is then integrated into the total educational experience.

If the HEPH programmes are to produce the right mix of health personnel within the framework of HSMD, they will have to be multiprofessional. For example, the programme in Mexico mentioned earlier admits, besides physicians, also dentists, nurses, economists, psychologists, social scientists etc. (The programme coordinator himself is a social scientist).[1]

It is obvious -- and we have amply talked about this at our last meeting in Manila -- that HEPH programmes will have to be involved in providing learning opportunities for the various categories of health workers, possibly including also new categories, which according to traditional concepts would be the concern of other schools or programmes (such as teachers of primary health workers and their supervisors, sub-professional level public health workers who can assume less complex tasks and functions under the supervision of personnel trained at graduate level, teachers of auxiliary and aid-level public health workers, and others).

Instead of extending this list of educational problems, we shall now turn to implications concerning the service and research elements of HEPH programmes. We already agreed long ago that education, service and research are inseparable components of these programmes.

Implications in the service and research fields

In the service field the involvement in planning for, organizing and evaluating the health services should widen in scope, as should also the involvement in monitoring systematically the needs for health manpower, both for the public health services and outside them. HEPH programmes have to contribute to the re-assessment of the manpower patterns of the countries concerned to ensure that these patterns are in conformity with health needs and demands, and this may require radical changes in orientation In building up

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[1] In the schools of public health in USA, 61% of students admitted in 1946/47 were physicians, while in 1968/69 only 19%, (Hall, T. et al Professional health manpower for community health programmes. Report compiled by the School of Public Health of the University of North Carolina at Chapel Hill, North Carolina, 1973).

the HSMD mechanism mentioned earlier, it is clear that the HEPH programmes and their teaching staff will play a key-role in the research and development arm of this mechanism, as well as in the information system they will need

It will be difficult to separate this role from the research tasks. The consultative, non-biased expert role in the HSMD mechanism will have, obviously, to be based on research work aiming at assessing national and local health problems, needs and demands objectively, as well as at evaluating quality, efficiency and effectiveness of health work This also shows how far problems and tasks are interwoven· to carry out these research tasks people are needed who have the know-how to monitor the health status of the population as well as the health services, i.e individuals with combined capabilities in, and knowledge of, epidemiology, quality evaluation, economics, behavioural and administrative sciences, as well as operational research. On the other hand, the data acquired will be useful for educational planning, since learning objectives at all levels (institutional/programme, intermediate and specific levels) are to be based on health needs and demands as well as on problems to be faced and if possible solved.

Implications for structure

All that has been said should now make it clear that no aspect of the HEPH programmes will remain untouched by changes resulting from the new trends. Obviously the structure of these programmes will not remain untouched either. The WHO Expert Committee already in 1973 stated that "It is unlikely that the establishment of new schools of public health of the traditional institutional type will be proposed".[1] The trend would be that "departments of preventive and social medicine in undergraduate medical schools, other health personnel schools, and more particularly the university centres for health sciences ... will take on a greater share of the responsibility for postgraduate education in public health . . In this way public health education at all levels (basic and post-basic) and for all categories of health personnel will tend to become an integrated whole" [1] Three years later the Sheps' report states that in the USA about 1/2 of the 5000 public health graduate degrees conferred each year is given outside the schools of public health [2] In the case of some programmes the majority of students learn in other schools (e.g. from 77 programmes in public health administration there are only 18 in schools of public health).[3] At the University of Toronto the school of public health was closed down and a new Division of Community Health, set up in 1975 within the medical school with an associate dean responsible for it, is now offering both under- and postgraduate education in public health [4]

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1 WHO Technical Report Series, N° 533, 1973, p. 25.

2 Higher education for public health. A report of the Milbank Memorial Fund Commission, New York, Prodist, 1976, p. 88

3 Bowers, J Z. & Purcell, E.F., Ed (1974) Schools of public health present and future J Macy, Jr. Foundation, New York, p. 9.

4 Personal communication from Dr J Hastings, 1975.

It seems obvious that the day of the classical school of public health when schools for other health personnel were not interested in public health, is over. The same can be said of the classical departmental structure which expresses a fragmented approach to reality and is usually an obstacle to the development of problem-based integration. New institutions have been created in the past few years which have a matrix system[1] instead of discipline-based departments.[2] Of course, other alternatives to the departmental structure may, and should also be considered.

Action proposed for the Association

Finally, it is evident that not every HEPH programme will be able to achieve all that has been discussed here. There should be a judicious distribution of tasks within regions and sub-regions among these programmes, whereby each of them will do what it is most able to do and in this field serve as a regional/sub-regional ressource. In this way a network of programmes can be developed which would fulfil all the tasks discussed above and others which could not be mentioned here.

The task of your Association could be manyfold in this development. It could be suggested that committees be established in order to advise on the development of this network of programmes within regions, to help in the definition of institutional/programme objectives, to co-ordinate the preparation of ISP packages, to co-ordinate research work in order to avoid wasteful duplication, etc. The first efforts may be directed to the development of health management training capacity to enable first regions, then sub-regions and eventually countries which desire it, to become self-sufficient in this field. Time is pressing for action, and discussions are only justified if they lead to actions relevant to the most pressing needs in countries.

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1 Each faculty member is located in a cell at the intersection of a programme and a discipline. For further details see Stallones, R.A. The University of Texas School of Public Health. In Bowers, J Z. & Purcell, E.F., Ed. (1974) Schools of public health present and future. J Macy, Jr Foundation, New York, pp. 41-49; and WHO Technical Report Series, N° 533, 1973, Annex 3, pp. 67-68.

2 Even the London School of Hygiene and Tropical Medicine is now considering this system (Bowers, J.Z. & Purcell, E F., Ed. (1974) Schools of public health present and future. J Macy, Jr. Foundation, New York, p. 170).

WHA29.72 Health manpower development

The Twenty-ninth World Health Assembly,

Having considered the report of the Director-General on health manpower development,

Reaffirming the main principles contained in resolutions WHA24.59, WHA25.42, and WHA27.31,

Recalling that assistance in promoting the training of national health personnel is a constitutional function of WHO,

Considering that the absolute and relative shortage of health manpower and the often inadequate and irrelevant training of such manpower have been important factors impeding health coverage of populations,

Recognizing that the remedy to these long-standing problems requires a new and vigorous effort involving the concept of the unity of medical science and health activities and a systematic and integrated approach to health manpower planning, production and management directly related to the assessed needs of populations,

1 ENDORSES the programme proposals of the Director-General as contained in his report,

2 REQUESTS the Director-General

(1) to assist Member States in the formulation of national health manpower policies that are responsive to health service requirements and consistent with policy in other sectors,

(2) to intensify efforts to develop the concept of integrated health services and manpower development so as to promote manpower systems that are responsive to health needs, and to collaborate with Member States in introducing a permanent mechanism for the application of the concept and in adapting it to the requirements of each individual country,

(3) to collaborate with Member States in strengthening health manpower planning as an integral part of overall health planning in the context of their socioeconomic conditions,

(4) to encourage the development of health teams trained to meet the health needs of populations, including health workers for primary health care, and taking into account, where appropriate, the manpower reserve constituted by those practising traditional medicine,

(5) to collaborate with Member States in the development and adaptation of effective health manpower management policies, in the establishment of a continuous evaluation process to ensure the necessary changes in a dynamic and integrated system of health services and manpower development, and in the development of measures to control undesirable migration of health manpower,

(6) to establish a long-term programme of health manpower development on the basis of these proposals in all the regions, taking into account specific needs and possibilities of the countries in each region, and on the basis of this long-term programme to build medium-term health manpower development programmes with concrete aims and target indices for evaluation of the results attained, these programmes to be discussed at the regional committee meetings in 1977,

(7) to study the extent of actions taken by governments in modifying their health manpower training programmes and to assist the Member States in restructuring the curricula for all the members of the health team, especially for physicians at both undergraduate and postgraduate levels, to make them more relevant to the needs of their societies;

3 REQUESTS the Director-General

(1) to explore ways and means of implementing the recommendations for the Organization's future activities in health manpower development as set forth in his report,

(2) to report to a subsequent Health Assembly on the achievement in carrying out this programme