

WORLD HEALTH ORGANIZATION
Regional Office
for the Eastern Mediterranean
ORGANISATION MONDIALE DE LA SANTE
Bureau régional de la Méditerranée orientale



منظمة الصحة العالمية
الكتاب اقليمي
لشرق البحر المتوسط

**REGIONAL COMMITTEE FOR THE
EASTERN MEDITERRANEAN**

EM/RC33/11
July 1986

Thirty-Third Session

ORIGINAL: ENGLISH

Agenda item 13(b)

**HEALTH MANPOWER DEVELOPMENT IN COUNTRIES OF
THE EASTERN MEDITERRANEAN REGION**

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1. INTRODUCTION

1.1. Background and purpose

In response to Resolution EM/RC32/R11 of the Regional Committee during its Thirty-second session in 1985, the Regional Director convened a study working group to:

- (a) prepare a situation analysis on the status of health personnel training in general and medical education in particular in Member States of the Region with a view to identifying the positive factors as well as the obstacles to change and the shortcomings in responding to community health needs at all levels of the health care delivery system;
- (b) propose remedial action for all the problems/obstacles to change and constraints in an endeavour to relate such medical education and other health personnel training to community health needs and to the national targets for achieving the national objectives of Health for All by the Year 2000 through Primary Health Care.

The group worked together for one week in February 1986 and for ten days in April 1986. The completed report was reviewed at a three-day meeting by a larger advisory group in June 1986 (Annex 8) before final presentation to the Regional Committee in October 1986.

From the beginning it was clear to the group that they had to consider matters beyond the education and training of health workers, and all elements of the health manpower development (HMD) process have been examined.

Health manpower development means planning, production and management of health manpower. It includes the estimation of health manpower needs together with steps to ensure that the staff needed are properly selected and trained, and subsequently placed in suitable posts, adequately paid, and given career prospects that will keep them within the service and within the country.

These stages in the health systems manpower development process are all important, and no one of them can achieve a good result without attention to the others. As a generalization it can be stated that in the past 10-20 years particular attention has been given to the stage of preparation and the educational process. Very much less attention has been given to the stages of planning and utilization of personnel, and some of the current problems may be due to this relative neglect.

This document is presented in three main sections. The situation analysis highlighting the main problems and issues is followed by various options to solve these problems while the set of recommendations focuses on particular activities which should be undertaken. The document has been supplemented by a set of annexes which includes background documents and papers to help those who wish to go in greater depth into any of the topics, in addition to a list for further reading (Annex 6).

2. SITUATION ANALYSIS

This situation analysis describes the current manpower situation in the Member States and the defects and constraints identified, and indicates some

of the main requirements to correct and improve the situation. The next section will describe possible ways in which the needs for change can be met, and the actions that require to be taken. In doing so, no attempt has been made to specify all constraints in detail, but rather to group them under major classifications and at the same time to give some examples. They are taken in a logical sequence and the order in which they are mentioned does not reflect their relative importance.

2.1. Health personnel in countries of the Region

Considering first physicians, it is clear that the number in all countries of the Region have increased progressively during the period 1950-1980, by anything up to five-fold (see Annex 1). The figures for 1980-82, the most recent available, show from 0.74 to 19.57 physicians per 10 000 population, with only three countries below 2.0 per 10 000. These compare quite favourably with figures from other countries in Africa, Asia and South America, but are roughly one third of those for European countries. An interesting comparison is with Sri Lanka, a relatively poor country, with a particularly good record for improvements in health indices during this period, where there were only 1.31 physicians per 10 000 population in 1981, the value having actually fallen since 1950. Evidently large numbers of physicians are not necessary for improvements in the health of the people.

The problem of foreign medical graduates presents a difficult situation in several of the Member States and requires special attention (Annex 2). A mixed body of physicians educated in many different countries, in education systems that are not directly relevant to their country of origin, creates problems regarding the quality and relevance of medical practice and other issues relating to the use of drugs, hospitals, licensing and continuing education. These foreign medical graduates have also produced social and political currents within the medical profession.

The information about nurses is less extensive, but for professional nurses the figures in 1980-85 range from 1.1 to 27.1 per 10 000 population and generally below 10.0 except in countries with substantial numbers of expatriate nurses. These figures have changed little since 1970. They compare unfavourably with European countries where figures range from 16-227 per 10 000.

Another way of looking at this situation is the ratio between nurses and physicians, which in 1980 ranged from 0.46 to 6.46, with only one country above 3.0. For Sri Lanka the figure was 5.11, and for European countries ratios range around 20.0. Between 1970 and 1980 the ratio decreased in more countries of the Region than it increased, so in this respect the situation has been getting worse. Furthermore, many of these nurses are men whose role in mother and child care is very limited. Untrained traditional birth attendants still play a very large role and it seems most important to give them training and to take them fully into consideration in planning health services.

In summary, there has been considerable progress in the graduation of physicians and numbers are now generally satisfactory, with some countries already having an excess. No such progress has been made with the number of nurses, which is still grossly deficient. In view of this, a paper on the

subject was commissioned and is given as Annex 7.* There are similar deficiencies in supplies of other paramedical personnel including laboratory technicians and sanitarians.

2.2. Lack of policy

In only a few instances are policies regarding health manpower agreed and clearly stated in writing by the responsible authorities of the country. Such a policy is important because it can be referred to by any authority or individual, when making a plan, in order to ensure that it is consistent with the policy. The policy need not be detailed but must be carefully thought out. It should cover the principles by which the country intends to select, train, develop and employ health manpower in relation to its health care plan.

It is essential that all parties for whom the policy has implications should contribute to its formation and agree its final form, and this includes ministries of health, other ministries and training institutions. Finally, the policy needs to be promulgated by high national authorities so that it has the force of law, and it should then be widely published.

2.3. Inadequate Health Manpower Plans

A plan for health manpower has to be based upon a policy and since, as already indicated, such policies are not often stated it is not surprising to find few countries with health manpower plans. The plan should cover quantitative and qualitative aspects and specify the numbers of personnel of different kinds estimated to be needed at various points in time and at various places. It should have regard to the numbers required to be trained in relation to the numbers to be employed and retained within the service, taking account of retirement, death, migration and change of occupation. At a greater degree of detail the plan needs to match the skills and knowledge of different groups of health workers to the tasks they will be called upon to perform within the health care system. Plans should be realistic and have regard to available resources and local circumstances and culture. Such planning can become very complicated but its complexity at this level should not deter efforts at more basic planning where relatively simple plans could ensure rational decisions to meet, so far as possible, the service needs. This will involve the use of available information or the collection of further limited data for specific purposes. It does not require complex generalized data-gathering procedures which collect data the use of which is not clearly defined. (Annex 3).

2.4. Failure to follow plans already made

Unfortunately, even in some of those countries which have made and published health manpower plans, these have not been followed by training institutions, by individuals and sometimes not even by the ministries concerned. The reasons are complex but some plans appear unrealistic when examined more closely while others become subject to unrelated political pressures.

* This paper represents the views of the author, and the working group did not have the opportunity of considering it in detail since it was prepared subsequent to its final meeting. It was, however, discussed at the Advisory Group Meeting.

A plan may be ignored by those who were not party to or did not accept the policy upon which the plan was based. As an example, a careful plan relating to the numbers of physicians in training made with the best intentions by the Ministry of Health may not be followed by the Ministry of Higher Education which is responsible for the training if it had not agreed to the original policy. Intersectoral policy-making and planning is essential for success.

2.5. Lack of coordination between health care service and training institutions

It has already been emphasized that the training of all categories of health personnel should be matched to the tasks they will perform within the service, but the matching is often poor. This is largely due to failure of coordination between those responsible for planning and administering the health services and those responsible for providing the training. The closest cooperation between these two is necessary, on a continuous basis, so that the two are inseparable. The process should ensure that:

- (a) coordination in the design of curricula and courses is followed by
- (b) participation where appropriate by health service staff in the education process, including teaching and evaluation;
- (c) assistance from the health service in making available their facilities for teaching and learning;
- (d) contribution of academic staff to the planning of health service provisions, to providing health care and conducting health service research;
- (e) cooperation and contributions from other sectors which are most valuable and should be encouraged.

The aim should be to have a teaching Ministry of Health working together with training institutions which provide health care. At present, the necessary coordinating mechanisms are generally ineffective or lacking.

Finally, with regard to these desirable features, a full understanding of the nature and purpose of primary health care, an acceptance of it and a willingness and enthusiasm to work within such a system are essential for a successful learning environment.

2.6. Deficiencies in education and training

In a variety of ways, individuals and institutions can take action to support the design and conduct of education and training so as to make it more relevant to the needs of the country. Unfortunately, these steps are often not taken, or sometimes obstructed - for reasons which may include ignorance of their purpose and importance, extra cost, inconvenience or disturbance to existing routines, self interest or lack of any conviction as to the merit of innovative programmes and doubts about quality of the final product (Annex 4).

From amongst the many desirable features which this education should possess, a few of the most important can be mentioned.

- (a) Selection of candidates for training needs more care for all categories at all levels, with more efforts to assess motivation as well as academic achievement. Studies should be made to discover the best procedures and criteria for selection such as age, sex and marital status, which favour the production of successful and effective health workers. In the case of

nursing every effort should be made to raise the educational level of students at entry.

- (b) Involvement of the community in the selection, training and monitoring of health personnel should be increased. Much training could take place close to home, which would particularly help to make nursing more attractive as a career, improve the supply of nurses, and also increase relevance of training to local needs.
- (c) Since health workers need to work together in a team to be most effective, they need to learn as a team and to share parts of their training.
- (d) Since the ability to continue learning after basic training is most important for any health worker, every effort is needed to help him to achieve this during training. An effective way of doing this is greater use of learning through problem-solving. Some institutions are based almost entirely on this approach.
- (e) Early and continuing exposure of students to families and communities with a balance of training opportunities at all levels of care - primary, secondary and tertiary, along the lines of the primary health care approach. This is equally important for students of nursing as for medical students, and will provide the nursing profession with greater community recognition and a leadership role at the level of primary health care.
- (f) Learning and reference materials in a suitable language should be available throughout his training and also afterwards when he is working in the field.
- (g) Evaluation methods should be effective and relevant, and should be used not only to examine students, but also to measure the effectiveness of the teaching process and as a learning tool.

2.7. Failure of further development of trained personnel

Completion of basic education or training for a health worker should be only the end of the beginning phase of his professional life, throughout which he should continue to develop his skills, knowledge, experience and effectiveness, and progressively take greater responsibility. A well planned and carefully applied scheme for career development is essential to achieve this result. Reality is generally far from this and it is a common experience to meet health workers who have remained in the same job for almost a lifetime after training, without advancement, increases in pay or further encouragement to learn. Discouragement and loss of interest are hardly surprising under such conditions, especially when the individual is professionally isolated and rarely visited (Annex 5).

Effective development of the potential of health workers requires a series of related measures including:

- (a) A planned career structure which provides a range of experiences, with increasing responsibility gained on merit.
- (b) Post-graduate and post-basic training programmes to include specialist training for family physicians who will be given the status of a full specialist, and for community nurses.
- (c) Regular constructive supervision by someone trained to supervise.
- (d) A referral system, developed according to needs of the service, but providing at the same time some learning feedback.

- (e) Regular continuing education so that each individual, using a range of learning methods as appropriate, learns about those topics which are relevant to his work and service requirements.
- (f) Incorporated into such a career structure should be regular assessments of performance made in the course of work, and used to guide further learning activities, and to justify promotion or other advancement.
- (g) Books and other printed materials in a suitable language.

The object of all the measures is to enable each health worker to become as effective as possible in line with his abilities and wishes. He should be able to advance within his professional field and should not be obliged to become an administrator simply in order to gain promotion. The result will be a satisfied individual with motivation to continue improving his capabilities and contribution to the health system, and for the health system the gain of a health worker who becomes progressively more experienced and competent and, if well utilized, many times more valuable than a newly trained person.

2.8. Poor utilization of trained personnel

A health worker has been trained to do a specific job in the field of health care, and it is most important that the health service should make the fullest use of his abilities. Very often this is not the case (Annex 5), some examples being:

- (a) A highly trained person directed to work in an unrelated task - a laboratory technician working as a clerk for instance.
- (b) Due to an excessive number of physicians some perform duties resembling those of a nurse, which is inefficient, wasteful and extremely expensive.
- (c) Staff may be inefficiently deployed, being concentrated in a few areas when they are required elsewhere, so that maldistribution results, typically favouring the cities and large hospitals at the expense of rural areas.
- (d) Other health workers are placed in isolated locations, without contact with others and unable to share work in a team.
- (e) They may not be provided with the equipment, supplies and drugs which their training has told them must be used.
- (f) Female staff are not offered the flexible working conditions they need especially when they have young families, nor refresher training when they wish to re-enter service.

All of these are instances of lack of support which may be linked to an absence of a progressive career structure and poor financial incentives. Many health workers live under difficult physical and social conditions, without schools and without social contacts for their families. Under such conditions, it is not surprising that many soon lose interest and look for other opportunities.

Attention to these matters, and especially the development of staff competence and the effective utilization of staff, falls within the discipline of health personnel management which is a greatly neglected activity. There can be no doubt that good personnel management greatly increases the effectiveness of available health care personnel, ensures that more are retained, and that the performance of all is enhanced.

Unfortunately many countries do not have people with managerial skills, and in particular those of personnel management, which are necessary to perform this important function. Additionally, it seems that many of those in authority do not yet recognize the need for management skills and the great contribution they can make to improving the health manpower position.

2.9. Lack of information systems

A system which provides information about each individual health worker, including data about his training, experience, performance, further education and present location, as well as more personal data is essential for effective personnel management. Such systems are only available in a few countries.

2.10. Lack of health services research

Throughout an analysis such as this, it becomes clear that the reasons for some situations are not certain, and that the best solutions cannot always be specified. In many such instances what is needed is a piece of research designed to provide information from which better decisions can be taken. Health service research aims to provide this information but it remains a neglected field, and many health service managers or administrators do not understand how to use it in their work. They need to recognize a problem which is suitable for research and one which is not, how to formulate a question for research, and how to use the results obtained. Employed in this way research becomes an integral element in health care provision, and makes a most valuable contribution to health manpower supply.

3. SUGGESTED SOLUTIONS

Having presented the major obstacles in the present situation, an attempt is now made to suggest some solutions, each of the major headings being considered in turn.

3.1. Policy

There is no simple method of arriving at a statement of policy, but it is a most important component of the health manpower development process. The policy has to be related to the general policy for the health care system itself, and all parties involved in the health manpower development process must contribute to making the policy. These include other concerned ministries as well as that of health, medical faculties and other training institutions and professional (medical, dental, nursing and other) associations and syndicates, thus providing representation from public and private sectors. The policy can only succeed if it is fully understood and agreed to by all parties, and is then given the highest official support.

3.2. Health manpower plan and its implementation

Based upon the stated policy, the planning process begins with an analysis of the present situation. An information data base of some kind is essential at this and at all subsequent stages. It will also be essential when the plan is implemented, as a tool of health manpower management.

Planning for health manpower is a part of planning for health care as a whole, and both are intersectoral activities. The element of planning

contained within the function of health personnel management makes an important contribution to this broader manpower planning.

It is important that all of those who will take part in implementing the plan should contribute to its preparation. It is then more likely that the plan will be valid and acceptable and that all parties will be committed to its success.

Initially the plan should not be too complex and detailed. A broad but comprehensive plan can be progressively developed later.

The plan should be monitored closely at all stages to determine how it is working. It is not a fixed but a dynamic entity and will need repeated modification in the light of experience of how it operates.

Planning requires experience and some training. It may be that at first some external assistance will be needed, the training of national officers being part of this assistance.

3.3. Coordination between health care service and training institutions

The most suitable mechanism for this coordination will vary, but it must be effective and continuously active. If a coordinating committee is appointed it should meet regularly and deal with all of the issues of shared concern mentioned above.

Success in this coordinating activity depends heavily on the staff of both the health service and the teaching institutions having a full understanding of the nature and purposes of primary health care and being committed to educating and delivering health care through such a system. Much effort will be needed to re-orient staff in this way, and the methods will probably include a series of joint workshops and the production of suitable explanatory and learning materials.

3.4. Educational process

This is not the place to describe the many aspects of the newer forms of educational programme which have been tested for the various health professions. A list of recommended reading is given in Annex 6, and Guidelines for Task-based Community-Oriented Training Programmes for Health Personnel will shortly be published by WHO.

It will be important to orient all staff, both health service and academic, towards the new educational ideas. The workshops about PHC already mentioned will be useful, but additional ones will be needed to deal with the educational issues. The same issues will also need to be presented to students.

3.5. Development of trained staff and their utilization

These neglected aspects of the health manpower development process are included within the general functions of health personnel management. In order to establish these functions it will generally be necessary to develop new systems of administration and management, and this may produce considerable disturbance. It is first necessary for the authorities concerned to become convinced that this is needed since only with the backing of high authority is

change possible. External assistance may be needed to develop systems, with local and external training of national staff to accompany this. The exact procedure needs careful preliminary study and the complexity must not be underestimated.

Several major components of the management of health personnel need to be mentioned specifically. It has already been emphasized how important a personnel information system is for planning and administering a personnel service. The system will provide a record of each individual, and of each sanctioned post. It will allow regular review of the individual, his progress and performance and also the distribution of personnel and the number of vacancies in different categories.

The next component relates to career structures for health workers of all kinds. It is first necessary to design a career structure which will help to develop the abilities of each individual, and about which all are fully informed. Having determined the structure to be followed, it is then necessary to monitor the progress of each individual to ensure that the planned pathway is being followed.

Continuing education is essential for every health worker of whatever category and the programmes should be determined with reference to the needs of the health care service. Continuing education therefore needs to be operated as a national system, provided by using all available resources, and administered from within the health care service. Since it is so closely involved with the other concerns of health personnel management it seems most appropriate for continuing education to be administered and organized from within the personnel management organization.

Health personnel management also includes the continuous monitoring of the completeness with which sanctioned posts are filled, the number of vacancies at present and the number predicted for future dates, and the predicted numbers who will become available after training. This will allow dynamic planning of future numbers in training, and of those required to be recruited from other sources.

Personnel management is a well developed specialty and, if the job is to be done effectively, properly trained staff must be available. The benefits to be expected from a personnel management service fully justify the expenditure on training and employing specialist staff.

The most effective way of organizing health personnel management functions will vary between countries, but it seems likely that a unit or division within the Ministry of Health, staffed by a team including some at least with training in personnel management, will be the best solution. This unit will certainly undertake some planning of health manpower development, but the details of its relationship to other planning activities within the health care sector need study in each country.

3.6. Health Services Research

The potential importance of health services research for health manpower development has been emphasized. It should be organized as an integral part of the health service, and provided with a regular budget.

Amongst the many examples of the use to which health services research can be put are studies of the utilization of facilities and services, and the factors underlying this use. Other studies could examine factors determining the recruitment of students and staff, and those influencing success or failure during training and during subsequent employment. It also permits study of the reasons for career satisfaction, and the relative value of different incentives to health workers in various situations.

An essential factor in the successful use of research is that senior health service managers should understand how to use it. They need to be able to formulate questions to which they need answers from research, and having obtained answers determine how to apply them. It is only when senior staff have this understanding that health service research workers can play a useful role.

A start can be made with seminars and workshops on the uses of research for senior health service staff and academics together. This could lead to the establishment of more effective mechanisms for controlling research in the interests of the health services.

4. RECOMMENDATIONS

(1) Each country should undertake a national review of the total process of health manpower development on the basis of their strategy for HFA in order to identify those components, including policy, plans, implementation of plans, education and training, development of trained staff, continuing education and health manpower management and utilization which need to be developed. Cooperation between health services and other concerned sectors and academic staff could be very helpful in this review.

(2) Priority attention should be given to the development of health manpower management and utilization. So far most attention has been given to supporting education and training, but it is now necessary to shift the emphasis towards the development of management and better utilization of manpower. To ensure effectiveness and continuity there is need for staff trained in personnel management, and a suitable administrative structure with an information system.

(3) Education and training of all personnel should be relevant to community needs. In order to achieve this it should be community-oriented, and use a community-based, problem-solving approach whenever possible. Learning experiences shared between different categories will help to develop a team approach to health care. The problems of graduates who train abroad need special attention.

(4) Post-graduate training for work in primary health care should be encouraged. The establishment of a career specialist grade of family physician, with an appropriate post-graduate training programme, will make an important contribution to the development of primary health care. This specialist is different from the community physician or public health specialist; both of the last mentioned are important in the organization of health services and training programmes for both will also need to be strengthened.

(5) Lack of nurses is a feature in almost all countries and priority in the above-mentioned review should be given to improving this situation. Possible

ways of motivating girls to become nurses in order to play an active role at all levels of primary health care, and of improving their training, career structure and utilization, should be explored. Further training for traditional birth attendants should be provided.

(6) Greater use should be made of health service research by decision-makers in order to solve problems related to health manpower development.

(7) It is essential that further efforts be made to inform the staff of health services and training institutions about the nature of primary health care and to convince them of the need to work through this approach. National meetings and workshops supported by suitable learning materials are an appropriate way of achieving this.

ANNEXES

ANNEX 1

NUMBERS OF PHYSICIANS AND NURSES (TOTAL OF ALL KINDS) PER 10 000 POPULATION
AND RATIO OF PHYSICIANS TO NURSES, FOR COUNTRIES OF
EASTERN MEDITERRANEAN AND OTHER SELECTED COUNTRIES IN
1950, 1970 AND 1980-1982

	<u>Physicians per 10 000</u>			<u>Nurses per 10 000</u>		<u>Ratio Nurse/</u>	
	<u>1950</u>	<u>1970</u>	<u>1980-82</u>	<u>1970</u>	<u>1980-82</u>	<u>Physicians</u>	<u>1980-82</u>
<u>Eastern Mediterranean Region</u>							
Afghanistan	-	0.5	0.7	0.6	1.1	1.2	1.6
Bahrain	-	4.1	9.1	26.4	30.2	6.4	3.3
Cyprus	6.0	7.8	12.8	19.7	40.1	2.5	3.1
Democratic Yemen	0.5	0.3	1.3	0.6	13.1	2.0	2.4
Djibouti	0.9	4.4	1.2	27.9	(8.8)	6.3	(7.3)
Egypt	2.3	5.2	12.3	10.8	16.5	2.1	1.3
Iran, Islamic Republic'	1.3	3.0	3.9	3.9	9.2	1.3	2.4
Iraq	1.5	3.1	5.6	3.5	6.1	1.1	1.1
Jordan	1.5	3.7	5.8	13.2	8.3	3.6	1.4
Kuwait	3.0	9.3	15.2	45.9	54.6	4.9	3.6
Lebanon	6.3	6.8	16.3	9.5	13.9	1.4	0.9
Libyan Arab Jamahiriya	-	3.8	15.1	15.3	31.3	4.0	2.1
Oman	-	1.2	4.0	2.9	8.5	2.4	2.1
Pakistan	0.5	2.6	3.5	1.5	1.8	0.6	0.5
Qatar	-	7.1	11.1	25.8	35.4	3.6	3.2
Saudi Arabia	-	1.0	3.8	2.7	7.2	2.7	1.9
Somalia	0.3	0.5	0.6	3.4	5.2	6.8	8.7
Sudan	0.2	0.6	1.1	6.5	7.3	10.8	6.6
Syrian Arab Republic	2.0	2.6	4.5	3.7	8.9	1.4	2.0
Tunisia	1.6	1.7	2.8	14.1	11.7	8.3	4.2
United Arab Emirates	-	10.2	16.0	10.5	40.0	1.0	2.5
Yemen	-	0.3	1.2	-	2.6	-	2.2
<u>South-East Asia</u>							
India	1.7	2.1	3.8	-	5.4	-	1.4
Sri Lanka	1.7	1.7	1.4	-	9.4	-	6.7
<u>Africa</u>							
Nigeria	0.1	0.5	1.0	-	6.9	-	6.9
Tanzania, Republic of	0.4	0.5	0.5	-	4.5	-	9.0
<u>Central America</u>							
Costa Rica	2.9	6.1	6.9	-	21.0	-	3.5
Cuba	9.7	8.7	13.8	-	27.1	-	2.0
<u>Europe</u>							
Spain	10.1	13.4	23.1	-	34.0	-	1.5
Sweden	7.0	13.6	22.0	-	253.6	-	11.5
Yugoslavia	3.1	9.9	14.7	-	32.3	-	2.2

ANNEX 2

THE ISSUE OF FOREIGN MEDICAL GRADUATES

BACKGROUND

In the first half of the twentieth century medical education in the Eastern Mediterranean Region (EMR) was limited to about a dozen medical schools only, situated in Egypt, Iraq, Lebanon, Pakistan, Sudan and Syrian Arab Republic, which educated the nationals of these countries, as well as candidates from other States in the Region. With the advent of independence and the development of education all over the Region, national medical schools were established. As a result, the number of medical graduates has increased dramatically.

Member States who had no national medical institutions were obliged to rely on Regional and European medical schools to educate their future doctors, often by means of government-sponsored fellowships. On their return, these physicians comprised the first groups of foreign medical graduates (FMG) in most countries of the Region. They had usually been screened by their national education authorities prior to their studies abroad. More often than not, they represented the élite of the crop of secondary school leavers - the high scorers. Prior to their departure, they were encouraged to prepare themselves for life in the country of their medical education. They attended intensive language courses, social conditions were explained to them and their progress was closely followed by the educational representatives abroad. These early waves of FMG figured prominently in the health manpower plans of their home countries and were easily integrated into national health care systems. Indeed, they were the pioneers of medical education and medical practice in their own countries. They underscore the efforts made by governments in the Region to prepare their critically-needed health manpower. Similar efforts were exerted in the training of nurses, health administrators and paramedical cadres. In some countries of the Region, such efforts continue to this day.

In the seventies, a new "breed" of FMG started to filter back to their countries of origin. The majority of these had gone abroad to study medicine on their own initiative, with personal or family funds or with the support of fellowships from the host country. Looking for better social and professional prospects, many of them had seen in medicine a road to success and prosperity. It is this new breed of FMG that is discussed here, in view of the issues they present to the health care systems of Member States in EMR. Supporting figures are drawn from Jordan and Lebanon, two countries that have witnessed a major influx of FMG into the medical profession over the past decade.

MAGNITUDE OF THE PROBLEM

Medical graduates trained outside Lebanon made up only 10% of the total medical manpower of Lebanon in 1967⁽¹⁾. In 1981, this proportion had become 54%⁽²⁾. In Jordan, 522 FMG registered with the Ministry of Health in 1984, as compared to only 60 for the same year who had received their undergraduate medical education in Amman⁽³⁾. (Table 1).

Table 1: Distribution of new registrants with the Ministry of Health, according to country of medical education, Jordan, 1979-84.

Year	Total No of MD registered in MOH	Foreign med.grad.		Total med.grad.		Total No of new registrants
		No.	%	No.	%	
1978	2758	-	-	-	-	-
1979	3137	339	89.4	40	10.6	379
1980	3512	315	84.0	60	16.0	375
1981	4009	437	87.9	60	12.1	497
1982	4418	349	85.3	60	14.7	409
1983	4863	385	86.5	60	13.5	445
1984	5445	522	89.7	60	10.3	582
TOTAL	27142	2347	87.3	340	12.7	2687

FMG made up 87% of all new physicians who registered with the Ministry of Health during 1978-1984. One notes, also in this context, that 49% of the medical manpower in Jordan had entered medical practice in the past six years.

Lebanon presents a similar picture, as seen in Table 2.

Table 2 : Distribution of new registrants with the Ministry of Health, Lebanon, according to country of medical education, 1936-81.

Year	Graduates from foreign med. Schools		Graduates from Lebanon med.Schools		Total number of graduates
	No.	%	No.	%	
1936-40	5	36	9	64	14
1941-50	24	21	93	79	117
1951-60	102	20	408	80	510
1961-70	454	43	596	57	1050
1971-75	448	61	281	39	729
1976-80	775	75	255	25	1030
1981	230	74	81	26	311
TOTAL	2038	54	1723	46	3761

It should be noted that the influx of FMG had started well before the civil disturbances in Lebanon.

Whereas Jordan's first medical school started graduating physicians in 1970, Lebanon's two medical schools have been in existence since 1867 and 1883. This provides evidence that the issue of FMG is not related to the presence of medical schools within the country or the Region. It appears to be

a trend far more linked to the attractiveness of medical practice. Indeed, it is believed that the majority of candidates see in medicine the gateway for better financial prospects, social advancement, prestige and political ascendancy. Some are also pressured to study medicine to satisfy parental desires. One may question the dedication of at least some of these future physicians to serve community needs and deliver primary health care to underserved populations.

THE HETEROGENEOUS MIX OF FMG

FMG present a heterogeneous mix, returning as they do from a variety of countries with different health care systems and different methodologies of medical education. Their education is certainly more relevant to the country of medical education than to the country of medical practice. In Jordan, FMG return from 35 countries as shown in Table 3.

Table 3. Countries in which medical graduates were educated. Jordan 1984-85.

Country of Medical Education	Number of Graduates	Percentage
Arab countries Egypt	503 (349)	26.0
Asian countries	111	5.7
Eastern Europe Romania	881 (572)	45.6
Western Europe	428	22.2
Other countries	8	0.4
TOTAL	1931	100

Almost half of all FMGs have graduated from Eastern European medical schools. Romania alone trained 572 Jordanian physicians. Stated differently, Jordanians represented a substantial percentage of Romania's total output of graduates in 1984-85.

In Lebanon, the diversification in the country of medical education is equally striking. The increasing trend towards studying in USSR and Eastern Europe is evident (Table 4). In 1979-80, this group made up one third of all FMGs⁽⁴⁾.

Table 4 : Distribution of FMGs according to countries of medical education, Lebanon, 1931-80.

Period	Western Europe		Eastern Europe		Arab Countries		Total
	No.	%	No	%	No.	%	
1931-40	4	80	1	20			5
1941-50	14	58			10	42	24
1951-60	71	70	3	3	28	27	102
1961-70	280	51	56	12	168	37	504
1971-80	604	49.6	348	28.6	265	21.8	1217
TOTAL	973	51.2	408	22.6	471	26.1	1852

ISSUES RAISED BY FMGs

FMGs give rise to several issues of importance to the strategies of promoting Health for All by the Year 2000. These have to be addressed by policy-makers in Member States.

Problems

(1) Selection of students for admission to foreign medical schools is often subject to political and social influence and far from objective. In some of these medical schools there are different standards for admission, one very objective and purely academic applied to local citizens and another, less objective, applied to foreign students.

(2) The training of these medical students takes place in systems that are not directly relevant to their country of origin, which certainly leads us to question the quality of their training and its relevance to their home country. It is clearly agreed by all parties involved in health care that this kind of training is not the way to primary health care which is best achieved by training in a community-based, community-oriented and problem-solving system, as part of the whole integrated health care delivery system of the country.

Even in the best medical schools outside the country, the resources used at the time of training are certainly different from those which the candidates will have at the time of practice, thus creating an imbalance in their preparation for the job.

(3) It is a great burden on a teenager who has just finished high school to adapt to a socially and ethnically different society and, after a study period of 7-8 years, it is also a burden on the medical graduate to readapt to his own country where he has to work.

(4) Financially, it is a great burden on some developing countries to transfer the foreign currency needed for students studying outside the country. A small country like Jordan which has at least 8000 students studying medicine abroad

with an average expense of US\$500/month/student has to pay US\$48 million per year which is an enormous financial burden.

(5) Returning graduates have developed different patterns of pharmaceutical prescribing habits due to their familiarity with different pharmacopeias. This leads to confusion in the pharmaceutical sector due to a far larger number of drugs on the national market. Retail pharmacies that stock these multiple items have to freeze excessive amounts of capital, thus leading to rapidly increasing cost of pharmaceutical preparations.

(6) Continuing education for graduates from 35 countries and 125 institutes, with different educational backgrounds and different strengths and deficiencies, becomes a very difficult task indeed.

(7) Programmes to reorient these candidates to PHC cannot adopt a uniform approach due to the heterogeneous mix of the practising physicians. This creates difficulties for the training institute in charge of the reorientation programme.

(8) Last but not least these graduates sometimes live in isolation, politically and socially, for different reasons. Soon they will become the majority in the medical profession and greatly influence the future of medical care.

Recommendations

(1) When preparing a health manpower development plan the number of physicians that a country needs should be identified. Efforts should be made to ensure that all required physicians are trained locally, thus the training can be community-based and community-oriented, using problem-solving techniques to prepare the candidate to be a PHC physician.

(2) If this is not possible, the selection of students who study medicine either inside or outside the country should be done with great care, with more effort exerted to assess motivation as well as academic achievement, and using objective criteria not subject to social or political pressure.

(3) The evaluation process of academic training as well as professional attitudes should match the needs of the country.

4. To guarantee this, a licensing body should be structured so that an examination tests the:

- (a) ability of the candidate in problem-solving;
- (b) ability and competence of the candidate to be a PHC physician in the country he is licensed to practice in;
- (c) the ability of the candidate fully to use the resources of the country;
- (d) his ability to integrate into a system of community health care delivery.

(5) Local internship, wherever possible, should be encouraged for all FMGs. Failing this, orientation courses are necessary. Remedial procedures should be available to those who fail the licensing examination.

(6) All of these arrangements should be made known to all students before they commence their studies.

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ANNEX 3

HEALTH MANPOWER PLANNING

INTRODUCTION

Of all the resources for health, human resources are assuredly the most important, in view of the labour-intensive nature of health care. To bring about the required and anticipated changes in the development and utilization of health manpower, systematic and integrated planning of health manpower is required. In most countries of EMR, little attention has been paid to careful planning.

The essence of the health manpower planning effort is "... that of trying to provide a supply of health manpower adequate to meet society's increasing demand for health care. Recently, this demand has been increasing especially rapidly in all countries; high population growth, rising social expectations and socio-economic development stimulate the demand for more services, and advances in health technology and the shift in the pattern of disease from the acute illness of youth to the chronic illness of the aged stimulates the demand for a greater variety of services" (Mejia and Fülöp, 1978).

Manpower is the critical resource in a labour-intensive industry. Important as it is, however, manpower is only a means and cannot be considered an end in itself, since it is the health services and not manpower that people demand. Furthermore, while it is a necessary resource input, it is by no means the sole one. Health manpower planning is thus an integral part of the health planning efforts needed for the overall national health system. An imbalance between the supply and the demand for health manpower is the result of a basic lack of coordination between the providers of health services and the producers of health manpower. Manpower is not a commodity that can be stored and hence its production cannot be left to the imperfect functioning of "laissez-faire" market forces.

The purpose of this section is to describe the processes and the outcomes of health manpower planning, the difficulties likely to be encountered and the strategies that need to be followed to initiate a manpower planning unit. Whenever possible, illustrations will be drawn from the EMR experience.

DEFINITION

A common observation is that there is little commonality of concept definitions among health officials within and between Member States. Therefore the first and most basic definition ought to be that describing the field itself.

The United States Department of Health Education and Welfare defined the field in 1975 as "... a process, whereby goals, objectives, priorities and activities for health manpower development are determined in a systematic fashion, in order to ensure that health manpower resources, both current and future, are adequate to meet the requirements for the delivery of health services to the population". In short, the major concern is to ensure the proper "manning" of the health care system.

Despite great variations between countries in the scope, methodology, and sophistication of manpower planning, several lessons have emerged from experience that appear to have wide applicability, namely:

- (1) Planning is unlikely to be effective if due account is not taken of the social, economic and especially political circumstances in which it takes place.
- (2) Health manpower planning is an integral part of comprehensive health planning and should not become an independent activity.
- (3) The three components of the health manpower development process - planning, production and utilization - must be brought into closer and more functional relationship with each other and with health services development if manpower policy is to be implemented.
- (4) Manpower studies or reports of commissions, however sophisticated, do not necessarily lead to the implementation of a plan, or to an integrated process of health manpower development, unless the necessary social, economic and political conditions and a definite national political will are present.

To accomplish these goals, planners must obtain two kinds of information: the first concerns the existing stock of manpower, while the second concerns the projected requirements - along with the possible constraints and changes that may appear in the future. Four key factors ought to be addressed:

- Manpower supply
- Manpower distribution
- Manpower utilization
- Manpower productivity.

These factors need to be analysed carefully, independently and then in concert with the resources and constraints that permeate the system. It is recommended that this analysis be carried out by health planners working very closely with senior officials of four sectors representing (i) the educational or health manpower development institutions, (ii) the professional sector (associations of physicians, nurses etc.), (iii) the providers and financing sector (national health authorities, private sector), and (iv) the regulatory bodies, including people's representatives, deputies, etc.

Finally, manpower planning is essentially an optimizing process. Among the various combinations, there will be one that comes closest to producing the desired effect, and it is the task of health manpower planning to identify it. In sum, the specific objectives of the health manpower planning process are:

- to formulate health manpower plans and establish mechanisms for their implementation;
- to influence health manpower production through the educational system;
- to ensure continuing staff development and the most effective possible distribution and use of existing manpower resources;
- to establish a monitoring system for the ongoing evaluation of manpower plans.

HEALTH MANPOWER PLANNING PROCESS: A SYSTEM APPROACH

ABT Associates defined in the mid-seventies a conceptual approach for health manpower planning. In this model, manpower planning is viewed as having interrelated components that, together, make up a unity. Although this is an "in vitro" model, it can be used as a first step in defining the components that need to be addressed in any planning effort. It can also serve to define the problems and difficulties that are likely to be encountered in EMR (see below).

Health planners identify the following basic steps in any manpower planning exercise:

- (1) The initial preparation of the plan: Factors that need to be addressed include the membership of this planning group, its organization, the resources needed to undertake this plan and, most importantly, their terms of reference. It is important to note in this context that enlisting this "mix" of professionals is often conducive to useful discussions and a meeting of minds and hence to collaboration. Also, a great deal of education takes place in such encounters.
- (2) The definition of goals and objectives: Basic to this step is the availability of a valid data base and information on the health manpower situation. This step is often an interactive process, performed as often as deemed necessary by the participants until an optimum set of goals and objectives is agreed upon. A most important prerequisite as well as by-product of this step is the development of an efficient information system.
- (3) The identification of strategies and activities: This is often a flexible process requiring sound judgment from the participants. The result of this is a list of strategies involving numerous programmes and activities all directed towards achieving the goals and objectives listed above. Various approaches may be taken to provide incentives to attract candidates to specific manpower categories or, alternatively, to allow the free market forces to operate and regulate the production and utilization cycles. These incentives or disincentives have to be closely monitored and reviewed as the plan progresses over time.
- (4) Setting priorities: The list of strategies derived from the above exercise needs to be thought of within the constraints of time and resources. Priorities have to be delineated, often based on economic, cultural and political decisions. In the best of all worlds, all strategies can be accomplished at the same time; this is however rarely the case, if ever. The best "mix" is the product of this step. Trade-offs are in order at this point.
- (5) Specification of costs and benefits: Strategies have to be analysed in terms of the resources required to accomplish these activities.
- (6) The drafting of the plan: This is the culmination of the planning exercise and demands careful organizational framework, discussion with interested parties (described above), possible lobbying for the plan, and a willingness to revise it to ensure its success.
- (7) Monitoring and evaluation: As has already been mentioned, manpower plans are by necessity long-term in nature and have therefore to be monitored and reviewed periodically on the basis of a well-designed information base.

Remedial or corrective measures may be needed to readjust or amend previously acceptable plans of action in view of changing circumstances.

DIFFICULTIES AND OBSTACLES

Several difficulties arise in health manpower planning that may render it ineffective:

(1) Manpower is a difficult and complex resource to manage - individuals vary greatly in their levels of competence; they cannot be produced at short notice; patterns, once established, are hard to change. Manpower behaviour and motivation are hard to predict or plan.

(2) Manpower plans are often not synchronized with health development objectives. As a result, the utilization of manpower is neither effective nor efficient.

(3) Manpower planning has traditionally been carried out within the narrow perspectives of numbers to the neglect of qualitative differences and distribution patterns.

(4) Whenever plans were made, little monitoring was put into action to regulate them and to correct any mismatch or deviation.

(5) Plans have often been drawn up independently, either by the universities or by the national service authorities, with little or no coordination between the producers of health manpower and the ultimate users of these resources.

SPECIFIC PITFALLS IN EMR COUNTRIES

(1) Health manpower planning, or for that matter any planning exercise, requires, in the first place, bringing together the various parties involved. It has not been easy to get scientists who have the appropriate technical knowledge and skills to work with health officials who know what the problems are. The primary issue is that of access to information. This information is usually within the purview of the national health authorities. Several scenarios may appear in this instance. They are outlined hereunder.

(a) The information may not exist, even for the health services: This deficiency is usually global and not restricted to health manpower planning (HMP), and may be due to the following:

- Health officials do realize the importance of information but do not have the necessary resources to manage this function.
- Health officials, although cognizant of the importance of this information, consider it not a priority among their daily tasks. It can wait.
- Health officials believe that information-gathering is not really needed - it is too academic - a luxury that they can ill afford at this stage.
- Health officials may be reluctant to collect information since they perceive it as a threat to the prevailing conditions and feel that it may undermine their positions.

All these possibilities - or a combination thereof - may indeed exist.

The ultimate solution to this issue consists in the development of a well-structured management information system that will encompass all

activities within the health sector, including HMP. This important activity requires training in data collection, advanced training in the management of information systems and training in support systems such as computer technology and programming.

(b) The information is indeed available but is not accessible to all parties concerned in HMP. Possible reasons that come to mind include: (i) poor linkages between the health officials and the users of information (labels such as "ivory towers" fit here) and (ii) shortage of demand for such information, thus aborting any further development.

The solution here consists in the establishment of a focal point, such as the Health Manpower Planning Unit described below.

(2) Concerned parties have not developed enough in planning to gain enough confidence to address these issues. The remedy "par excellence" here is training in planning techniques and methodology. Education in the disciplines of epidemiology, health administration and biostatistics will undoubtedly offer a long-term solution to this problem. Unfortunately, education in these fields has lagged behind in this Region. Unlike the plethora of medical schools that have mushroomed, very few schools of public health have been developed in the past thirty years in EMR.

(3) Planners do not have enough incentive to focus on HMP research. This is the interface between health services research and planning, and both disciplines are neglected aspects of health care systems. Academic research has been individualistic and remote from the interdisciplinary research that is needed for planning amongst the different parties concerned with HMP. This type of research has been called "soft", and hence not promoting the researcher's academic career or his/her service proficiency in operational positions. A good start has been made through the involvement of universities in Health for All by the Year 2000 to raise awareness of this problem.

(4) The conduct of HMP is costly and involves major support by all parties concerned, including the mobilization of resources and commitment by those responsible. Documentation is needed and has to be gathered laboriously. Often surveys and questionnaires have to be prepared and data collected. HMP has to be institutionalized and not merely left with a skeleton team to serve only as a façade.

(5) The preparation of trained manpower is essential for all aspects of health planning, including HMP. Three approaches are available to achieve this goal: (i) a market approach, that allows the laws of supply and demand to act on the manpower pool and shape the production curve of planners: no direct intervention is contemplated; (ii) a modified market approach, where incentives are differentially introduced to encourage entry into this field and discipline; and (iii) a targeted directed programme, whereby a certain proportion of needed manpower is targeted for in areas where there is a shortage; this may involve restriction in other areas. The adoption of any of these strategies depends on the accepted social norms in each country, and has a political connotation.

(6) National health services often perceive their role as being limited to service, to the detriment of teaching, research, planning or other activities. This is a spill-over from "yesteryear". Modern administration, however, is changing this image. Ministries of Health are becoming teaching ministries and

every agency is involved in training and service. This trend should be encouraged by WHO.

(7) Universities are also changing: Initially they were private institutions often financed from endowment funds. National universities, funded by the State, have progressively attracted an increasing number of resources. This "modernization" of education calls for a greater involvement of the academic world in the problems facing society.

(8) The results and findings of HMP studies must always be preceded by evaluation to ensure their accuracy and technical validity,; nothing can do more harm than inaccurate findings. Also tact should be exercised to avoid embarrassment to any or all parties involved. However, the dissemination of information has to be timely and relevant to the needs of all parties.

HMP is a dynamic, continuous process. It cannot remain idle or static. It has to keep up the momentum. Reports should always focus on recommendations and on the next steps that are needed to promote this planning exercise.

RECOMMENDED STRATEGY

The health manpower development unit is the organizational base from which the health manpower process is or should be directed, planned, controlled and influenced. The unit should contain a permanent administrative nucleus that can be expanded according to the functions to be performed. At the core of the permanent nucleus there should always be the health planner who needs a special mixture of skills. The planner is called upon to play different roles depending on the situation in which he is operating. In planning, he is the prime operator and carries full responsibility; in allied activities, his role and responsibility are not the same for all the functions he carries out. Depending on the situation, he acts as coordinator, facilitator, sponsor, negotiator, or diplomat. His sphere of activity is thus much wider than his sphere of direct responsibility and this is reflected in the function and roles of the manpower unit.

To facilitate this process of planned change, WHO has promoted the integration of health services and health manpower development (HSMD) concept to improve health services through better coordination of health manpower planning, production and management.

CONCLUSION

This section has attempted to highlight the obstacles that are usually faced by Member States in the development of health manpower planning. To a large extent, all countries have not focused as yet on this issue in a continuous, long-term, institutional manner. Activities have been episodic and targeted toward crisis-situations when information was acutely needed and was hastily gathered and digested. The major recommendation presented herewith focuses on the establishment of a health manpower unit within each Member State whose functions have been suggested above and that will encompass manpower planning, development (or production) and utilization. This unit can coordinate the efforts made by the EMR countries to target their health services towards Health for All by the Year 2000 through Primary Health Care.

ANNEX 4

HEALTH PERSONNEL EDUCATION AND TRAINING IN
THE EASTERN MEDITERRANEAN REGION

1. SHORT HISTORICAL NOTE ON DEVELOPMENTS IN MEDICAL EDUCATION AND THEIR RATIONALE

In the earliest stage of its existence, medicine was learned through apprenticeship. However, as was to be expected, the increasing growth of its scientific base resulted in a correspondingly increasing growth of a body of knowledge and, gradually, medical schools came into being. In those early times they were not generally affiliated to universities. Later stages saw the emergence of specialization, which was considered by some reformers (e.g. in Germany in the latter part of the seventeenth century) as a problem needing to be addressed. It is generally believed that the improved quality of medical education can be attributed to the influence of universities on medical schools which, in the relatively recent past, became part of universities with their own teaching hospitals.

In both the United States and the United Kingdom, new efforts started with the dawn of this century. The American Medical Association established a council on Medical Education in 1904. In the United Kingdom, although the General Medical Council had been established by an Act of Parliament in 1858, greater interest in medical education surfaced decades later, in the form of publications (e.g. Lancet 1932) and medical education reform reports (e.g. Sir George Newman, Goodenough 1944, Todd 1968). Similar efforts were seen in France and other parts of Europe.

In spite of a much earlier advocacy by Ibn Khaldoun, the Arab scholar, for comprehensiveness and integration of the sciences, the schism between basic sciences and clinical sciences in a subject-centred curriculum dominated the scene. The reader is familiar with the traditional subject-centred curriculum where medicine is taught in a fragmentary manner, each topic having a definite period of study time and all students, individually different in so many ways, made to "study the same materials, by the same methods, in the same settings and within the same time-frame." However, the drawbacks of this model became obvious and some attempts to rectify them were made. The Case Western Reserve University Medical School, Cleveland, Ohio, was the first to introduce the integrated curriculum in 1952. In the United Kingdom, the University of Newcastle-upon-Tyne did so in 1962 followed by the University of Southampton Medical School. By 1974 the integrated curriculum had been introduced in 25 schools in the United States and in 4 in Canada.

This, however, was not a major breakthrough in medical education. Such a breakthrough came with the introduction of problem-based learning (PBL) which called for a complete reconsideration of the basic ideology of medical education. After evaluation of an experimental haematology course at Case Western University in 1961 and a focal problem alternative track in Michigan State University in 1968 and following much earlier propositions as far back as 1889 (T.C. Chamberlain) and 1916 (Dewey), the problem-solving approach became a reality with the pioneering curriculum of McMaster Medical School, Canada, started in 1969. It did not take long for other schools to follow suit, each in its own way; These included Maastricht in the Netherlands, Xochilco in Mexico, Newcastle in Australia and Gezira in Sudan.

Problem-based learning derives its importance and rationale from the fact that medical practice is essentially a problem-solving activity, whether at the individual, family, or community levels. Students are trained in the ability to follow a scientific and logical methodology in solving the problems which they are likely to face. This ensures that they use their knowledge where and when it should be used. Contrary to popular belief, studies have shown that acquisition of knowledge does not ensure its use when it needs to be used.

As a general rule the problems are chosen in relation to the priority health problems in the country concerned. Learning is then relevant and hence stimulating. Because it is an active-learning process through group discussion, PBL has been proved to be educationally effective and fosters the development in students of life-long learning and group work.

One of the major factors contributing to the development of medical education and health personnel education (HPE) in general has been the support given by WHO to a collaborative interregional centre for educational development in the University of Illinois (CED, Chicago) in the late sixties. As a result of training staff from the various regions of the world, as well as publication and collaboration with various regional centres, a new spirit began to manifest and gradually a realization of the need for teacher training emerged. In EMR, the message was conveyed by the Regional Teacher Training Centre (RTTC), Shiraz, Islamic Republic of Iran, which in 1972 launched a major activity in the Region, both through short courses in Shiraz itself and through workshops in various countries of the Region. "The Learner" publication was another strong arm of this development. Simultaneously, WHO collaborated with the Centre for Medical Education, Dundee, United Kingdom, where scores of health professional teachers were trained, including some to master's degree level.

The Regional teacher training activities in the Eastern Mediterranean Region were evaluated in 1978 by which time there had developed in many institutions in the Region some national education development centres or cells taking over the activities of the RTTC at local level. The results of this evaluation were discussed at the collaborative meeting of functional Education Development Centres (EDCs) at the EDC, Khartoum, which was the first offspring of the Shiraz Centre.

In spite of the fact that there were some encouraging developments, these were of relatively little value in the absence of a model example to follow for the implementation of the approaches advocated. This model materialized in 1979 with the establishment of the Gezira Faculty of Medicine, Sudan, which has continued to provide community-oriented education to other Member States of the Region. Subsequently EMR became renowned for several community-oriented medical schools, e.g. those in Bahrain, Egypt (at University of Suez Canal), Pakistan (Aga Khan Medical College, Karachi) and Yemen (at University of Sana'a). To these will shortly be added the Medical School at Abha, Saudi Arabia. Among traditional schools, two (namely Faculty of Medicine, University of Amman, Jordan, and Faculty of Medicine, King Abdel Aziz University, Jeddah, Saudi Arabia), are seriously reviewing their curricula along these lines.

In other parts of the world as well as in this Region the input of WHO to the establishment, support and development of the network of community-oriented educational institutions for health sciences has signalled a whole new era in the development of medical education.

This Network has, since 1979, served as a forum for the exchange of ideas and experiences and as a vehicle for mutual collaboration among the eighteen schools which have opted for a new community-oriented approach to health sciences education. It has succeeded also in fostering an international awareness of the new move toward establishing a health science education which is relevant to the needs of the communities in which it exists and along the lines which help to achieve the goal of HFA/2000 through PHC. One of the most recent events in support of this awareness is the preparation of a new experimental curriculum at Harvard Medical School.

2. THE PRESENT STATE OF HPE IN EMR

Although renowned for the presence of several community-oriented institutions, the Region abounds with traditional schools, the majority of which are not even contemplating any review of their curricula. In planning the programmes there is generally little or no input from health service staff and since the ministerial consultation on an integrated approach to HSMD in Teheran, Islamic Republic of Iran, early in 1978, no major progress has been made in this direction. At present, about half the countries of the Region have HSMD national mechanisms but, on closer scrutiny, the majority of these are found to be at central level in the form of a multisectoral national council or committee mainly responsible for health planning. Worthy of mention in this context is the increasing number of paramedical and nursing training institutions falling directly under the ministries of health. The major constraint to HSMD lies in the division of responsibility between the ministries of higher education (and universities) and the ministries of health. Among the factors contributing obstacles to change are:

- (a) ignorance or lack of awareness of the HSMD concept;
- (b) anticipated threat to position/post/power/esteem of university and training personnel on the one hand and the ministries of health and health services personnel on the other;
- (c) psychological comfort of keeping to the familiar;
- (d) lack of (i) incentives for change and/or (ii) rewards for effecting change. The "what is in it for me?" phenomenon; and
- (e) extra effort and risk involved.

In addition, planning is not usually linked to any health manpower, planning per se, although at present there is a growing awareness of the place and purpose of health manpower policies and plans, as evidenced by the increasing number of countries requesting assistance with formulation of these plans. There are, however, still very few written long-term policies and plans for health manpower for the countries of the Region.

In the area of teacher training the evaluation study in 1978 referred to the above and revealed the following trends:

2.1. Improvements in teaching models, course planning and evaluation

Obstacles within traditional, rigid institutions had been overcome by some departments developing innovative approaches.

In most countries development of institutions and of "critical mass" had not materialized in spite of teacher training. Exceptions were the Faculty of Medicine, Khartoum, Sudan, and the High Institute of Nursing, Alexandria, Egypt. As for "critical mass", of the fifteen institutions visited only four

(Khartoum; Shiraz; College of Physicians and Surgeons, Pakistan; and Ein Shams Medical School, Cairo, Egypt, had "critical mass". An extreme example was that in one institution forty staff had been trained but had failed to form a critical mass.

However, self-reliance was emerging and all the countries visited had faculty capable of conducting training programmes. This pool of educational expertise was a good resource for consultants within the Region and more aggressive activities in the field of technical cooperation among developing countries (TCDC) had been launched in this area.

There was also evidence of production of teaching-learning materials.

Besides meetings and publication of "The Learner", relatively little had been accomplished in the area of communication within the Region.

2.2. Trends since 1979

2.2.1. Increasing intercountry collaboration including workshops and meetings within countries conducted by Regional consultants. In addition there were local/national workshops/meetings especially in the more affluent countries in a number of areas including the development of learning materials.

2.2.2. Establishment of EDCs. The seven EDCs are located at: the Faculty of Medicine, University of Khartoum, Sudan; the College of Health Sciences, Manama, Bahrain; the Faculty of Medicine, University of Gezira, Wad Medani, Sudan; the Faculty of Medicine, University of Amman, Jordan; the College of Physicians and Surgeons, Pakistan; the Faculty of Medicine, Ain Shams University, Cairo, and the Centre de Recherche et de Formation pédagogique, Tunis.

2.2.3. Establishment of model community-oriented medical schools (Islamic Republic of Iran: Fassa and Marmasoni; Sudan: Faculty of Medicine, University of Gezira; Egypt: Medical School, University of Suez Canal; Bahrain: College of Medicine and Health Sciences. The Suez Canal Medical School has embarked on a post-graduate degree in general practice and that of Gezira in post-basic and post-graduate training in health education. Other medical schools are being established, hopefully along similar lines. In addition, various institutions under ministries of health have continued to train PHC personnel using task-based, community-oriented approaches. "The establishment of community-based and educationally innovative medical schools in EMR can be considered a turning point in the history of medical education. Such schools provide models within the Region for other faculties that are determined to bring about educational reforms".

2.3. Teacher training for mid-level health personnel

Teacher training for mid-level health personnel is provided at: the College of Health Sciences, Bahrain; the Health Manpower Training Institute, Sana'a, Yemen; the Health Personnel Training Institute, Mogadishu, Somalia; and the Institute of Health Manpower Development (IHMD), Aden, Democratic Yemen. Although some inputs have been made to make the curricula of these institutions more task-based, the impact is not yet as expected. More recently, training in PHC management has been initiated at IHMD, Aden. The progress made in nursing has not been as great as in other categories of health manpower. With WHO assistance evaluation of the quality of nursing

services was carried out in selected hospitals in two groups of three countries each in 1980 (Kuwait, Sudan and Yemen) and in 1982 (Bahrain, Jordan and Pakistan) with the purpose of identifying strengths and weaknesses and recommending actions to improve nursing services. The impact of these evaluation studies has been somewhat disappointing, mainly due to lack of follow-up and implementation by governments. However, together with other information available at EMRO, they have brought out other dimensions to the problem hindering the development of nursing in this Region - e.g. cultural factors acting against girls taking up nursing as a profession, and an increase in the number of male nurses in some countries and expatriate nurses in others. Such expatriates are often not familiar with the health problems and cultural needs of the countries in which they are working. Other factors influencing the lack of progress in nursing are absence of clearly defined career structures and limited opportunities for continuing education. The brain-drain from the least developed to the more affluent countries within the Region is another definite trend with the serious outcome of the former countries losing manpower and, at the same time, the latter countries gaining manpower unfamiliar with their culture. There has been an increase in the number of teachers trained in education in comparison with other health professions but this has not been equally matched with activity in defining the roles of nurses. Regarding the HFA/2000 goal, the main thrust of WHO EMRO has been in supporting the role of nurses in teaching and supervision of various categories of community health workers and other primary health care workers including traditional birth attendants (TBAs). An increasing number of countries are becoming more realistic about the TBA being a main source of assistance to a large number of mothers (up to 80% in some countries) at the time of childbirth. More and more countries are training and utilizing TBAs, not only in their midwifery role but also in an extended role in health education, oral rehydration therapy and some other aspects of child health. WHO EMRO has provided assistance to some countries of the Region in developing or improving their curricula for TBAs, in training the trainers, and in reviewing TBA training programmes, for example assistance was provided to: Jordan to review the national TBA training programme, to develop a plan of action for improvements and to train the trainers; to Syrian Arab Republic in the development of a curriculum and to train mobile teams of master trainers to train the trainers; and to Pakistan to review the TBA training programme which aims at a target of training 45 000 TBAs. To determine the needs of the countries of the Region for training and maximum utilization of TBAs, a study was carried out which has clearly pointed to the need for training of trainers, developing suitable technology for training and involving TBAs in the care of mothers before, during and after childbirth and in child care in the first year after birth. It is worth mentioning that approximately 90% of TBAs are illiterate; in EMR the challenge of training them has been addressed and met with success due to the approaches used, for example (specifically in Sudan) the use of suitable visual aids, models, sensory learning and supervised practice in both simulated and real situations.

2.4. Review and exchange of learning materials for health personnel

In October 1983 the University of Khartoum hosted a learning materials workshop which led to the establishment of the EMR clearinghouse for teaching-learning materials. During the workshop the results of a needs assessment survey conducted earlier in Jordan with WHO support were presented and discussed. A similar study had been conducted in Sudan in 1980-81. However, there is no definite evidence as yet that these reviews have had any impact. Many of the more affluent countries of the Region have extensive

libraries and learning materials. The WHO EMRO contribution has been to assist the least developed countries to acquire and produce materials. The Regional Arabic Programme has translated into Arabic and distributed many learning materials including a Unified Medical Dictionary (Arabic-French-English).

2.5. Capacity for local production

There has been gradual acquisition of equipment for the local production of materials. This has had mixed success. What is clear though is that where there are teachers trained to prepare the materials there has been good use of the equipment. On the other hand there has been considerable waste. Recommendations for the acquisition of equipment in future will be linked to the training of technicians and personnel as has been initiated in the learning materials project in Sudan, which is a collaborative project between the Ministry of Health, the Ministry of Education and some other sectors.

3. MAIN OBSTACLES TO COMMUNITY-ORIENTED EDUCATION (COE) IN EMR

Permeating all the components of health manpower development (planning, production and utilization) there is lack of clarity of vision as to what ought to be done to promote the PHC approach. There are in operational terms no specific plans of action expressing details of what should be done and how: e.g. intersectoral cooperation is called for but this is "easier said than done", since involvement of manpower from other sectors in health activities continues to constitute a real problem, both at the planning stage and at the production and utilization stages. For it to succeed, concerted efforts need to be made at the basic and undergraduate levels, or even earlier. The planning and implementation of this is a formidable task.

The lack in clarity of vision is further evidenced by the lack of an operative model which could serve as an example. For this reason, countries continue to plan for manpower they are largely familiar with and know how to produce; and this tends further to propagate the traditional and maintain the status quo rather than develop a whole new approach which is a prerequisite to the attainment of HFA/2000.

The Joint Programme Review Missions further substantiated this contention. In addition to the other problems identified, there was great opposition on the part of the medical profession to PHC; many considered it poor or second-grade health care; and the goal of HFA/2000 was conceived differently by different countries. There was also poor community involvement. Planning for training to serve the PHC approach is further challenged by these obstacles. There is little or no grasp of even the basics of the HFA/PHC approach which requires complete internalization before it can be developed and promoted. It is important to remember that the existing number of health and health-related personnel will continue to be far greater than that of any new personnel that can possibly be produced by the year 2000. Therefore, alongside the care given to new institutions, concerted efforts need to be made to promote the existing traditional institutions.

In addition to these problems are those related to the quality of education and training, physical facilities, resources both human and material (equipment and supplies, including relevant learning materials) and attitudes and orientation of both trainees and trainers and of both the institutions and the community at large. Of paramount importance are the challenges of logistic support and the organizational and administrative demands of the community-oriented approach. "Guidelines for the planning, implementation and evaluation

of task-based, community-oriented programmes" were prepared at a consultation meeting in Gezira (August 1984) and developed in a recent meeting in EMRO (September 1985).

3.1. Policy, planning and programming problems

In addition to what has been previously mentioned under this heading, the community-oriented approach poses particular problems. Many well-meaning, innovative programmes have collapsed on withdrawal of their leaders. For innovations to succeed, efforts should be made at an early phase of their planning and development to involve those who would be carrying them through and all those affected by them. This will ensure the adequate preparation of human resources with both the conviction and know-how, as without these no continuity can be guaranteed. The importance of this is further stressed when one realizes the completely different orientation of these personnel. Experience with the Gezira programme has shown that to produce the desired change there was need to:

- (a) Change the attitude/knowledge and experience of the staff who had all been "traditionally" trained.
- (b) Orientate and train part-time staff from the Ministry of Health to establish and develop the HSMD concept.
- (c) Ensure initial and continued orientation and education, coupled with much encouragement and persuasion of students enrolled in the programme.
- (d) Provision of at least some relevant (albeit rare) learning materials.
- (e) Secure for field training (through interpersonal relationships, as well as a great deal of patience and cooperation) the health facilities of the Ministry of Health (hospitals, health centres, etc.). It is to be noted that, in the Gezira programme, (a), (b) and (c) were carried out both locally (intensively) and abroad.

There were many other prerequisites. Of these, patience in abundance, perseverance and, as a general rule, good interpersonal relationships feature as predominant.

These and other issues need to be well taken care of at an early stage in planning and programming.

3.2. Curriculum problems

One of the main curriculum problems is general orientation of the programme as a whole. Traditional medical schools have many features in common. Their academic and administrative set-up is based on departmentalization, with clear-out partitions between the various disciplines. There is also invariably a clear division of the curriculum into basic sciences and clinical sciences, each being taught separately. The main role of these schools is to impart knowledge to students - knowledge which is often both fragmentary and excessive. The objectives of their programmes are usually not known or defined and in the few instances when they are, they are either not clearly stated, or else stated and never used. Moreover, very few schools have programmes which are relevant to community needs and their aim has always been, especially in developing countries, to graduate doctors who

are more capable of and more prone to work in developed rather than in developing countries. These schools, for decades, kept themselves in "splendid isolation" from the health service system, whereas they should have kept up a splendid spirit of collaboration with it. In addition, they tended more to stick to the status quo than to seek ways of improvement by adopting more effective and efficient ways of teaching and learning and more sound methods of assessment and evaluation.

The role of the teacher in such a system is ill-defined. He is usually not as involved as he should be and often concentrates solely on his own speciality, both in teaching and research, an activity which generates a spirit of individualism and isolation rather than of team work. Success is judged mainly by excellence in that speciality and by the amount of information able to be transmitted to students. Accountability is generally non-existent and the evaluation procedures used are often subjective and unreliable. Very few schools have recognized the need for training their staff in pedagogy.

The students have an even more passive role. They are treated as empty vessels which need to be filled with knowledge rather than "candles which should be kindled with fire". They are considered incapable of learning by themselves, and are thus denied any responsibility for their own learning.

Rarely are they given any chance to participate actively in the teaching-learning situation and as a general rule they are not given any clue as to how they are progressing through the course while they still have time to improve; instead, they are often left to their fate at one final examination.

In short, in such a system, nobody "believes" in the students who are thus lacking in motivation; when they graduate they find themselves ill-prepared to deal with the kind of duties that will devolve upon them and inadequately equipped with the knowledge or attitude necessary to enable them to pursue their own learning thenceforth.

These are some of the limitations of the traditional or "old" medical education. It must, however, be stated here that these limitations do not necessarily apply across the board to all traditional medical schools.

The "new" schools tend, through adopting innovative approaches, to rectify these limitations and avoid as much as possible the pitfalls of the "old" system. Medical schools are described as "professional schools in which students learn both sciences and a set of professional skills through which to apply those sciences to the solution of health problems". The emphasis is on students and on learning rather than on teaching. Students are very much involved in the system and are given increasing responsibility for their own learning. Every effort is made to motivate through such means as relevant programmes, proper structuring of information and an integrated approach, e.g. problem-based learning, as well as other effective and efficient educational methodologies.

Equally, teachers in such a system have a great role to play. Although they act mainly as facilitators, managers and coordinators of the learning situation, they put a great deal of effort into the planning stage and into evaluation and revision. They communicate freely both with students and with their own peers (discussing, criticizing and inviting criticism), thus

enhancing team work and preventing the development of disciplinary barriers. Contrary to what may appear, this system makes much greater demands on staff than does the traditional system.

In addition to these features, the new schools see it as their duty to integrate themselves fully into society and the health care delivery system and to seek to develop in students some desirable attitudes and abilities which have been largely neglected in the past, such as creativity, critical thinking, self-evaluation, group work, communication (with patients and communities for teaching purposes), decision-making on priorities and independent and life-long learning.

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APPENDIX

DEFINITION OF TERMS

Community

"A group of individuals or families living together in a defined geographical area, usually comprising a village, town or city". (Duchle, 1961, cited by Salih, 1981).

Community-Oriented Education (COE)

"Focused on population groups and individual persons taking into account the health needs of the community concerned". (The fifth meeting of the Network of Community-Oriented Educational Institutions for Health Sciences, Kingston, Jamaica, 1979).

As with the term "primary health care", the meaning of the term "community-oriented education" has often been misunderstood. It has been equated with community medicine and seen as a system for graduating "barefoot doctors" or physicians who are good for nothing but working in rural areas. In the first place, it should be recognized that community-oriented education is not limited to medical students; other health personnel including nurses, dentists and physicians, may have community-oriented education and training. Also, it does not mean that its product is a new category of health personnel.

In general terms, community-oriented education may be defined as relevant education, the programme in all aspects of its operation taking into consideration the priority health problems that exist in the country in which it is conveyed. In medical education, it produces community-oriented physicians who would be able to deal effectively with problems whether at primary, secondary or tertiary levels. At whatever level of their practice or speciality, including research, these physicians are expected to adopt a community-oriented approach.

Many programmes with only a slight degree of focus on the population and the needs of the community may unjustifiably claim to be community-oriented. There is need for some quantification as well as consideration of some other components of community-oriented education, such as the following:

(a) How far are the aims, objectives and basic principles on which the educational activities are based determined by the needs and priority health problems of the community within which the institutions exist?

(b) To what extent does the programme adopt a comprehensive approach to medicine (health promotion, prevention and rehabilitation) as opposed to focusing mainly on curative activities? What activities in the programme indicate in particular its commitment to HFA/2000 through primary health care?

(c) How much of the total training is based in the community at large (e.g. families) and in peripheral health units (e.g. primary health care centres and clinics) rather than in highly equipped teaching hospitals, i.e. is there an appropriate balance in training to cover the whole spectrum of health care: primary, secondary and tertiary? Is it started early enough?

(d) How much does the training make use of the resources available in the community and the technology appropriate to it and how far does it provide for training students in real-life situations in which they are likely to work after graduation?

(e) How far is the programme integrated with the health system, thus promoting an integrated development of health service and health manpower?

(f) Is it involved in the health system throughout from the planning stage and does it involve health service personnel likewise in its activities?

(g) What are the indications that the graduate will have the ability and conviction to serve his community and perform particular duties which fulfil the objectives of community-oriented education, e.g.:

Mobilize, organize and inspire the community and participate in community development activities;

Diagnose and manage priority health problems in his country at the individual, family and community levels and contribute to the promotion of the health system; function effectively within a health team; etc.

To perform these and other required duties effectively, it is desirable that he develop, in the process of his education, sufficient self-confidence and know-how to solve problems, find out for himself and continue his own education after graduation (life-long learner). He should be able to evaluate himself, realize his limitations and so relate well to his colleagues and others whenever necessary.

Community-Based Learning (CBL)

"Learning which takes place within the community itself and in a balanced diversity of health service settings where students are actively involved". Special emphasis should be placed on learning through:

- (a) family assignments/attachments and follow-up;
- (b) learning activities in communities (urban, peri-urban, and rural);
- (c) community surveys, diagnosis and action plans; community-oriented projects and programmes, e.g. expanded programme on immunization, health education, nutrition, child care;
- (d) training in the existing health service facilities of the community at the peripheral level, i.e. health centres, dispensaries, rural hospitals and other health facilities, etc.

Problem-Based Learning

"Learning that results from the process of working toward the understanding or resolution of a problem". (Barrows and Tamblyn, 1980).

The problem is posed first. It could be an actual patient or written simulation describing presenting complaint, physical signs, laboratory findings (Ways et al, 1973), phenomena or an event in need of explanation of underlying processes, principles or mechanisms (Schmidt, 1982). "The students bring to the problems all their previous information and expertise, basic and clinical science necessary to the solution of the problem" (Walsh, 1979). As

a general rule these problems are chosen in relation to the priorities in the country. Learning is then relevant and hence stimulating. To make it more motivating, the problems should not be too easy but also not prohibitively difficult (Teare, 1980). For further features of the problems used in PBL see Engel and Clarke (1979) and Schmidt (1982).

Problem-based learning is an active learning process through group discussion and this has been proved to be educationally effective (Brewer, 1974, Blizzard & Magin, 1973; Fleming & Stuckey, 1972 quoted by Blunt & Blizzard, 1975). Among the expected benefits of PBL is the development of group work and life-long learning.

In a typical PBL situation, students are organized into small groups (up to eight students in each). Each group works under the direction of an instructor (tutor) who usually acts as a facilitator and coordinator. Students usually remain in the same group and are given a problem to solve each week or each time block consisting of a number of weeks. They meet several times to share knowledge and views before meeting their tutor for discussion of the possible solution(s) to the posed problem.

ANNEX 5

EFFICIENT UTILIZATION OF TRAINED PERSONNEL

Under this heading are considered a range of activities that contribute to the more efficient use of trained staff. Although all of them should be studied their relative importance will vary from one country to another, and possible solutions will also differ. Accordingly, no general prescription for improving utilization can be given, but a number of potentially important components will be discussed, grouped in a functional way.

PERSONNEL MANAGEMENT

(1) Good management of personnel requires in the first place a data base containing information about each health worker, including details of his training, experience and work record, present location, personal assessments and other relevant facts.

Once such a data base is established it becomes possible to know the numbers of each category of staff, and their location. Information about staff losses due to illness, death, retirement, migration and drop-out can be obtained up to the present, and trends also examined.

Staff can be deployed more effectively, and temporary deficiencies in one locality may be filled by transfer from relatively overstaffed areas. Similarly, it becomes possible to move staff in order to give them fresh and wider experience and new responsibilities contributing to a planned career development.

These records provide an invaluable resource for manpower planning, as mentioned elsewhere, and give indications as to the number of new staff that will be needed at various times in the future.

(2) Another essential feature of personnel management is the regular review and recording of each health worker's performance. This may include information about regularity and punctuality, absence due to sickness or other reasons and a personal assessment of the quality of his work by his immediate supervisor.

(3) This requires that supervisors be carefully selected and given additional training in how to supervise. Supervisors should play an important role in several areas including continuing education, which is mentioned elsewhere.

(4) Initial licensing of health workers should be required before they are employed. This licensing should be the responsibility of the Ministry of Health. Whatever examination or assessment is used before licensing should be of a practical kind and based upon the ability of the individual to work and practise in the setting of primary health care. Too often such licensing procedures test theoretical knowledge and give little information about suitability for work.

(5) The special problems posed by graduates from foreign universities and training institutions need careful consideration, since the curricula and training programmes followed are not under the control of national authorities and may not be well matched to local needs. Such graduates should be subject

to the same licensing procedures as home graduates, and may need to follow a practical course of orientation to local problems associated with training directed toward identified deficiencies. This need not be a formal course and could include periods of carefully supervised and evaluated work under supervision.

(6) Laws and regulations will be required in order to enforce postings of health workers to deprived, understaffed areas. However, a system which relies only on compulsion is not likely to be successful and there should also be inducements and rewards for service in these areas. These will vary from one country to another but would include supplements to the salary and early opportunity for post-graduate study.

(7) In countries where there is a large private health care sector a question that needs consideration is the extent to which a private physician should be controlled as to the place in which he practises. If he requires formal approval to practise in a particular place a system could be developed to direct physicians away from centres already well-supplied with doctors towards more deprived areas. This is but one aspect of a general need for coordination between government and the private health care sectors.

ORGANIZATION OF HEALTH CARE SERVICES

There are many ways in which the structure of the health care system and the pattern of working can influence the efficiency and effectiveness of the work of health personnel, and at the same time affect their feeling of satisfaction. The situation will differ between countries, so that only a few general statements can be made, and it will be necessary for each country to examine conditions of work in order to decide what constructive action can be taken.

(1) Health workers in primary health care need to be supported wherever they are situated. This support can take many forms, and it includes providing them with reasonable accommodation in which to work, equipped with the basic items which they have been trained to use, and supplied regularly with those consumable items such as drugs, vaccines and dressings which are necessary if they are to perform their functions. The quality of work deteriorates rapidly when these are inadequately supplied.

(2) Health care is likely to be more effective when provided by a team of health workers than by an individual. Grouping health workers is also likely to improve the quality of work of each individual and his work satisfaction. Professional isolation is bad for morale and for the quality of work performance. The composition of a group can vary greatly, from a small team of two or three in a village, to a group practice with three or four physicians and supporting staff in a health centre serving part of a city. In isolated locations there are additional benefits in that the families of the staff are also able to support each other in what may be an unfamiliar environment.

(3) As important as the grouping of health workers is the leadership of the group, together with good supervision. Leadership of the team by one of its members is important and it matters little from which profession the leader is drawn. Further leadership and supervision by someone at the next level in the system is important, as are regular visits and easy contact. Supervision involves monitoring and assessing the work performed, dealing with questions

and offering advice as well as the general disciplinary functions. It is one of the most critically important functions in the system, and very often neglected. Supervisors should be carefully selected from all health professions and given additional training for this new task, and subsequently some extra rewards.

(4) An effective referral system is an important element in a health care system. Very often it does not exist, or fails to operate as intended. A referral mechanism should operate at all levels, from the periphery to tertiary care. The principle is that any health worker should be able to recognize when he needs help and advice, or when a problem is beyond his abilities to handle and, having recognized the situation, to refer the patient to someone better equipped to help the patient. When referring, the health worker should give all necessary information and indicate why he is referring. In turn, the person to whom the patient is referred should state his views and describe his actions as well as any advice which he has given the patient. This feedback information to the referring health worker, so often missing, is of the greatest importance because it helps him to learn from his experiences.

(5) Closely related to a referral system is the need for a health worker to be able to consult with someone more experienced when necessary. This requires that there should exist an attitude in senior staff that encourages consultation, so that a health worker knows that he will be helped and not criticized for asking questions. It also requires means of access to the consultant, not necessarily in person, but by telephone or perhaps even by radio in some situations.

(6) The importance of health services research in suggesting solutions to problems of health care delivery and the better utilization of staff is not generally recognized. This is not highly technical or expensive research but can be most valuable for managers in solving problems. A major requirement is that senior managers should be better informed about the techniques and their potential, and how to use them in the development and improvement of health care systems.

CAREER STRUCTURE FOR HEALTH WORKERS

If a health worker is to be encouraged always to maintain and improve his performance, to build on his experience and to become a leader and supervisor of others he needs to be assured of advancement in his career. So often health workers, once they have completed basic training, are posted to work, frequently in an isolated location, where they receive no encouragement to improve their skills and knowledge and where they can see no prospect of change or progress during the rest of their working lives. It is not surprising that they become bored and discouraged, so that the quality of work deteriorates or they may give up work altogether.

All health workers should have a career structure which allows them to advance to more responsible duties, after supervised experience and appropriate further training. Such advancement and added responsibilities should of course bring extra pay and rewards. The structure should not make it necessary for a health worker to give up direct patient care and become an administrator in order to progress. Equally, a change of profession and retraining should not be a requirement for advancement, because this is wasteful. It should be possible for a nurse to advance in her profession

according to merit. A medical assistant should be able to become a senior medical assistant, supervising or training others, without feeling a need to retrain as a physician.

Since work experience is so important in career development, this should be planned. A health worker should not be expected to remain in the same job, in the same place for ever, and a rotation should be designed which takes into account not only the requirements of the service but also the interests of individual health workers. Although temporary inconvenience may result, the benefits to the service outweigh this, and health workers need to realize that such movements are an important element of the career development of any individual with ambition to improve himself.

PAY AND OTHER REWARDS

Much dissatisfaction among health workers results from what are regarded as low levels of pay - levels which may remain unchanged even after years of service. Obviously, basic pay has to be related to the pay of other workers outside the health field, and to the available resources of the country. It seems likely that low salaries at the start of a working career would be more acceptable if there were a prospect of increments for length of service, and for added responsibilities, or service in deprived areas. A pay structure that offers reward for these could play an important part in creating job satisfaction. In some countries, higher pay is offered by non-governmental organizations; this can damage the interests of the governmental service. Negotiations to equalize pay scales could therefore be crucial.

Other rewards can be very significant for health workers, encouraging them to improve their performance or to accept service in remote areas. These include opportunities for earlier post-graduate or post-basic study and more rapid promotion. Careful review of the value of such inducements and rewards is necessary in each country.

CONTINUING EDUCATION

This is so important for all health workers as a measure for the improvement of health services, that it needs to be organized as a national system. In most countries, if available at all, continuing education is provided for those who demand it rather than for those who need it. All too often, health workers receive no further training or education after their basic training, and their work performance in relation to need deteriorates. They have no opportunity to correct faulty knowledge or deficient skills, to learn about new developments, or to adapt to new service ideas.

A national system which identifies needs in relation to health care provision and then plans and provides continuing education of an appropriate kind should be seen as an integral and essential part of the total health care system. It is likely that this will be more cost-effective than expanding the basic training facilities to provide more staff. Such a national system will integrate and use all the training facilities in the country to achieve its purpose. It is important to recognize that continuing education means more than refresher courses and seminars and that it is truly a continuing process using many different approaches, such as supervision, which are built into the regular pattern of work.

COMMUNITY INVOLVEMENT

Participation by the community can play an important part in ensuring a successful career for many health workers, and especially community health workers (CHWs). Community involvement in the initial selection is important if a health worker is to be acceptable as such. Contribution by the community of incentives for CHWs, perhaps in kind or in the form of improved housing, will ensure greater satisfaction with their duties. While these considerations are especially relevant to CHWs, they may apply also to the selection and development of some other categories of health staff.

ANNEX 6

RECOMMENDED READING

1. Guidelines on Task-Based Community-Oriented Training Programmes for Health Personnel, (EMRO Publication), 1986.
2. Health Manpower Requirements for the Achievement of Health for All by the Year 2000 through Primary Health Care. Technical Report Series No 711 (1985).
3. On Being in Charge. A Guide for Middle Management in PHC (1984). WHO Publication.
4. Assessing Health Workers' Performance. F.M. Katz and R. Snow. WHO Public Health Paper No 72, 1980.
5. The Continuing Education of Health Workers - Guiding Principles for the Development of a System - Workshop Manual by Dr A. Mejia and Dr F. Abbott.
6. Guidelines for Health Manpower Planning by P. Hornby, D.R. Ray and P.J. Shipp. Ed. T.L. Hall, WHO, 1980.
7. The Supervision of Traditional Birth Attendants (HMD/NUR/84.1), WHO Geneva.
8. Materials and Methods in Continuing Education. Ed. Chester Kelvin. Kelvin Publications Inc., Los Angeles.

ANNEX 7

**REVIEW OF NURSING MANPOWER DEVELOPMENT
IN COUNTRIES OF
THE EASTERN MEDITERRANEAN REGION**

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1986

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1. INTRODUCTION

1.1. Background and purpose

The findings of the working group on health manpower development in countries of EMR revealed that progress made with the number of nurses, which is still grossly inadequate, is not sufficient. Furthermore, recent in-depth case studies and reviews of nursing roles and functions carried out in selected countries of the Region showed some alarming findings pertaining to nursing development. Hence, the Regional Director requested a review of nursing manpower in EMR that would include:

- (a) Situation analysis of nursing in Member States of the Region that would identify existing problems, constraints and facilitating factors affecting both nursing development and roles of nursing and midwifery personnel within the context of primary health care (PHC).
- (b) Outlining alternative solutions and recommendations to overcome the existing difficulties in nursing to be considered by Member States.

2. SITUATION ANALYSIS

Unfortunately, little solid data and information exist in relation to nursing manpower in EMR; this reflects the relative neglect of nursing in Member States. Hence this situation analysis is based on the writer's personal views and experiences in the Region, a limited number of reports in EMRO and discussions held with nurses and other concerned health professionals.

2.1. Nursing and Midwifery Personnel in EMR countries

Nursing and midwifery services in countries of the Region are carried out by several categories of nurses, midwives and their auxiliaries. Appendix I gives a list of persons who are rendering nursing services in Member States. The implications of the diversity in types and levels of nursing personnel pose qualitative and quantitative problems in the service being rendered, let alone the implications for planning, utilization and management of the largest group of health workers in the health system. It is noted in Appendix II that in half the Member States the number of auxiliaries and community health workers is more than that of the professional categories. This picture becomes more confusing when one realizes the following facts:

- (1) There is more than one level and type of professional nurse in the Region and even within the same country.
- (2) Qualifications for a professional nurse and nursing auxiliaries are not clear among Member States.
- (3) The role and function of professionals and auxiliaries are not clearly defined. In one country it is reported that nursing auxiliaries with no formal training perform 84% of the tasks which should be performed by professional nursing personnel.
- (4) Nursing and midwifery personnel are frequently grouped as one category and in some instances utilized to staff the service, irrespective of qualifications, while in fact they have two distinct categories of educational preparation and capabilities.

2.2. Shortage in nursing and midwifery personnel

It is very clear that every Member State of the Region suffers in one degree or another from shortage of national nursing personnel. Such a shortage is attributed mainly to low recruitment to nursing schools, high attrition among nursing personnel, and brain drain from the less privileged countries to the more affluent ones. The reasons frequently given for these factors are: low status and education of women, which reflect on the profession since nursing is predominantly a women's profession, low status and image of nurses in society and the health system, educational preparation of nurses, working conditions of nursing personnel (limited career opportunities, high workload, nature of the job, time schedule, limited remuneration including low salaries, inadequate facilities provided for nurses in their work setting, etc.) and family commitments and responsibilities, to name only a few.

While the quantitative shortage is acute there is also a qualitative shortage in the nursing services due to inadequate preparation of nursing and midwifery personnel and/or inadequate performance resulting from the system in which nurses are required to perform. This becomes more critical when viewed within the context of PHC.

However, shortage of nursing personnel could also be the result of poor utilization and maldistribution of nurses. Sometimes one encounters nurses who are charged with the responsibilities of carrying out non-nursing functions, or sees clustering of nurses in big cities leaving rural health services underserved. Moreover, in one country basic nursing preparation is considered a prerequisite for specialization as a laboratory technician, assistant pharmacist, X-ray technician, etc. This means that nurses who are prepared in this country will not contribute to nursing services but to other health-related professions.

The shortage of national nurses, needless to say, has resulted in reliance on expatriate nurses in some countries, as well as dependance on auxiliary personnel and untrained categories to staff the health services and carry out nursing functions.

2.3. Roles of nursing and midwifery personnel

Traditionally, the role of nurses was viewed as providing curative services, more specifically, carrying out doctors' orders in hospitals, while midwives were expected to function in maternal and child health services. Such a perception, although it constitutes a large portion of the nurse's function, poses certain constraints on her performance in general and within the context of PHC particularly. Involvement in community activities, health education, prevention of illness, promotion of health and participating, as a member of a health team, in meeting individual, family and community health needs, as well as supervision and training of auxiliary and traditional birth attendants, are tasks which are frequently forgotten when planning for nursing services and developing curricula for nursing personnel. The roles of nursing and midwifery personnel can expand and contract according to the needs of patients, families and society. However, a clear definition of these roles within the health system needs to be established, taking into consideration the existing nursing manpower, availability of other health workers, and needs for nursing services, be they preventive, promotive, curative or rehabilitative, as well as cultural contexts and values of the Region.

A clearly defined role - suitable for Member States - will assist in planning for nursing services, help in attracting young women to the nursing profession and developing appropriate curricula for nursing. Nurses need to take the initiative and assume the responsibility for defining and implementing their role within PHC. In doing so they should consult and collaborate with the medical and other health and non-health professionals. Changes in nursing roles have to maintain a balance between the requirements of the health system resulting from technological and scientific advances in health and medical sciences, on the one hand, and the prevalence of preventable health problems such as tetanus neonatorum, diarrhoeal diseases and other communicable diseases on the other. Furthermore, consideration must be given to functions related to direct care provided to individuals and families, training, managerial activities and research.

2.4. Policy formulation for nursing development and services

Policies for nursing, such as health manpower policies, are rarely given due consideration or stated clearly by the responsible authorities of the countries. Policies for nursing need to be an integral part of total manpower policies and should reflect the national situation. Due to the influence of United Kingdom, France and lately USA on the development of nursing in the Region, it is not surprising today to see that some of the nursing policies which could be valid for Western nursing are implemented in countries of the Region. Although it is essential that all parties involved in policy-making contribute to its formulation and agree to its final form, rarely are nurses part of the processes of policy-formulation in general and those related to nursing personnel in particular. This could be attributed to lack of participation of nurses in the decision-making process as their position within the health system structure does not allow their involvement in policy-formulation.

2.5. Nursing manpower planning

Because the role of nurses is not clearly defined and because various categories of nursing personnel exist, policies are inadequate and information about nursing personnel is neither complete nor reliable; planning for nursing manpower has, therefore, achieved only modest progress in the Region. Very few Regional countries have a registry for nursing personnel, some of these are not kept up-to-date, and only a small number of countries have conducted manpower studies. It is extremely important that countries collect and record nursing manpower information including that on the current situation and estimation of future needs. Nursing manpower planning should be strengthened and incorporated as an integral part of total health manpower. National nurses should receive adequate training in manpower planning and be charged with the responsibility for planning for nursing on all levels, i.e. national, district and local levels.

2.6. Education and training of nursing and midwifery personnel

Progress in education and training of nursing and midwifery personnel in the Region has been tremendous since the late forties, as reflected by the increase in the number of institutions for nursing education and types of training programmes, as revealed in Appendix III. Perhaps the increase in the number of national nurses graduating has not been at the rate needed or comparable to the progress made by other related health professions, e.g. medicine, but when taken in its total perspective this progress begins to look

phenomenal. For example, all countries of the Region now have nursing education programmes, eight countries have started university degree programmes, and opportunities for graduates and post-basic education are expanding in Member States of EMR. Nevertheless, the supply of nurses is still short, both in quantities produced and level of performance of the graduates.

Issues pertaining to nursing education are:

2.6.1. Variations in basic nursing education programmes

Nursing education in many countries of the world has gone through various developmental stages; one unfortunate outcome of this is the variation in preparation of nursing personnel. In EMR variation exists in requirements for entry into nursing programmes; these range from as little as seven years of general education to twelve years of schooling. Nine years of schooling is the most prevalent in Member States. Length of nursing education programmes also varies between one year and five years. The qualifications offered upon completion of nursing education could be certificate, diploma, university degree or an associate degree. These variations, which are the result of poor standardization of nursing programmes, will definitely reflect on the quality of service being rendered, and pose certain managerial and staffing problems.

For midwifery personnel, although variation still exists, the situation is less confusing. Midwifery preparation is offered either as basic midwifery training following general education, as a component of the basic nursing training or, more frequently, as a post-basic preparation leading either to a diploma or to a degree in midwifery.

It is extremely important that health authorities in Member States look rather critically at the types and levels of nursing programmes in their countries and the relevant and appropriate standards for the production of nursing manpower. The establishment of a mechanism to put forward and enforce standards for nursing education is highly needed in most Member States of the Region.

2.6.2. Recruitment of nursing students

Recruitment of students to nursing schools poses a major problem in almost all Member States. Among the reasons contributing to this problem are:

(1) The image of the nursing profession in the Region. Nursing as a profession does not enjoy the prestige which it enjoys in the more developed countries or it had during earlier Islamic times. Unfortunately, this image is not helped by the mass media which tend to portray nurses as second-class citizens.

(2) Lack of information among schoolgirls about different programmes of nursing and the potential for a career in nursing. In one country of the Region, it is reported that many high-school students did not know of the existence of a University degree programme which had been in operation for over 25 years.

(3) Strict entrance requirement for nursing programmes in terms of age, sex and marital status, all of which reduce the potential number of candidates for nursing schools.

(4) Nursing programmes often recruit candidates from the population of educated women. This population in many Member States is relatively small, since women's literacy in the Region leaves much to be desired; those who have gone through the struggle of acquiring an education find various career opportunities which are less demanding in terms of training and future workload.

(5) The boarding system of the nursing schools and the night-shift requirements often constitute barriers to recruiting students, since conservative families usually object to such Western-style systems.

(6) Some imported patterns of nursing care, totally unsuited to the cultures of this Region, have not helped in attracting young people, particularly girls, to the profession, e.g. handling of bed-pans, female nurses working on male wards or their contact with male colleagues.

2.6.3. *The nursing curriculum*

The experience in nursing education in the Region started in the nineteen-fifties through the assistance of international and bilateral agencies, due to lack of qualified nurse educators in Member States. Hence the curricula that were designed and implemented were to a large extent imported from the West and unsuited to the health problems and health systems of Regional countries. Furthermore, these curricula were hospital-based and followed the medical model, where emphasis was placed on treatment of diseases. A traditional curriculum is designed to follow what is known as a "block system" whereby students attend a period of classroom teaching, that could range anywhere between six weeks to three months, to be followed by another block of practice. The intensive classroom teaching usually overloads the teenage student and practice in many instances is not related to theory. Furthermore, students are used to fill in the gaps existing in the nursing staff of the hospital. Consequently, the learning which the students can achieve is minimal.

More recently, some Member States have gone through the process of curriculum change in order to develop curricula which are task-based, community-oriented and enhance students' capabilities in problem-solving and application of scientific principles in nursing care. However, the implementation of such curricula faces serious problems such as inadequate preparation of teaching staff, inappropriate facilities, lack of teaching-learning materials, dependance of the hospital management on the services of nursing students and utilization of traditional teaching methods such as lectures and demonstration.

Nursing curricula need to be designed and developed based on national health needs and problems, strategies for health care, roles and tasks to be performed by nurses, characteristics of the student body which will attend the programme and current trends in nursing and related health professions. While emphasis needs to be given to the nursing component, both in theory and practice, attention should also be given to inclusion of content that would upgrade the knowledge and skills of the future nurse as a member of the health team, i.e. as a community health worker, who can communicate and relate to both healthy and sick individuals, and as a professional woman who is rendering a valuable and respected service to the public.

Resources, both material and human, should be made available to nursing training institutions to ensure proper implementation of the designed curricula. There is no use for a new curriculum which is designed merely on paper and the implementation of which would follow traditional patterns of education. Library resources, teaching-learning materials in a language understood by the students, nursing skills and basic science laboratories, access to various types of community health services and, last but not far from least, appropriate facilities for learning, as well as living accommodation, are all prerequisites for proper implementation of the curriculum.

Moreover, attention needs to be given to the teaching-learning methodology in classroom, clinical and field training. The use of case studies and simulation needs to be encouraged to develop problem-solving capabilities. Nursing care planning must be an integral part of clinical teaching and the selection of teaching-learning experience, in both hospital and community settings, should be considered by the teaching staff. Furthermore, it is essential that students be supervised and guided in their experience.

Frequently, the lack of transportation for students is stated as an obstacle that interferes with implementing community field experiences. However, this need not be the case as students live in the community and the school also exists in the community. It is how the teaching staff interpret what is meant by a community experience that is the basic obstacle which calls for their reorientation.

2.6.4. Teachers' preparation for nursing education

As previously mentioned, the implementation of the revised curricula has been hampered by inadequate teacher preparation. In general, all countries of the Region are suffering from extreme shortage of qualified teachers. This situation unfortunately will persist for some time, since less than 30% of Member States have post-basic programmes for the preparation of teachers. It is therefore not surprising that only one country in the Region requires that every nurse-educator have qualifications in teaching.

The inadequate number of teaching staff in various schools of nursing in the Region has left the supervision of students' clinical and field practice in the hands of the nursing service personnel. This group of professionals, while they have a wealth of experience that could benefit the students in their learning, in reality rarely carry responsibilities for clinical teaching. This is due to several reasons, among which are: lack of time, being overloaded with patient care, unfamiliarity with what is being taught in the school and what is expected of the students, lack of preparation in educational methodology and lastly but importantly, no remuneration for the additional task of student teaching. This situation calls for closer collaboration and better communication between the nursing service personnel within the health services and the staff of the nursing schools. Furthermore, both groups need to receive preparation in educational methodology and be reoriented toward PHC, in order to contribute effectively in the preparation of the future nurse who will help in achieving the national goals of Health for All by the Year 2000.

2.7. Post-basic and graduate education

Every country in the Region has at least one post-basic programme, and within all Member States a wide range of post-basic programmes exist, as shown

in Appendix III. Yet, due to restriction on the number of students to be enrolled in most of these programmes, they do not meet requirements, particularly in the area aiming at preparation of nurses in certain nursing specialties, and in education and management. These latter programmes also recruit graduates of traditional nursing curricula who lack experience in community health. Since nurse managers and educators have the greatest impact in introducing change and reorienting nursing personnel toward PHC, special attention should be given to their preparation. Due to the costs incurred in post-basic nursing programmes, individual Member States and countries of the Region need to consider the sharing of resources for post-basic nursing programmes. A prerequisite for such sharing will be standardization of basic nursing education programmes and/or establishment of educational equivalents among nursing programmes.

2.8. Management of nursing personnel

Management of nursing personnel to ensure the provision of quality nursing services becomes a frustrating task in view of the issues outlined earlier, i.e. shortage of nursing personnel, variation in levels and types of nurses, and lack of clarity in definition of the nurse's role. The situation becomes even more complex when one realizes that regulatory mechanisms, where they do exist, are not in line with current and actual nursing practices, standards for nursing care are not established (particularly in community health nursing services), nursing procedure manuals and guidelines for practice are available only in a small portion of institutions rendering health services, career structures for nursing personnel are not well developed in most countries, opportunities for continuing education are limited, supervision is carried out by personnel who lack preparation in this area, and employment procedures and distribution of workload among nursing personnel follow rigid and sometimes impractical policies.

Nurses working in EMR are usually not adequately compensated for the work they perform, neither are they provided with the basic facilities for carrying out their job. Hence, it is not surprising to find a high level of stress and frustration which leads to low motivation and a high attrition rate.

2.9. Networking among nursing personnel

One way of enhancing professional development is through establishment of communication channels among members of the profession. Nursing personnel need to develop as a professional group to provide support to each other, as well as to gain the support of other health professionals and the community at large. As a professional body they can bring about the necessary changes required to promote and improve the image of nurses in society, critically analyse and solve professional issues and problems and take leadership roles to foster health development.

Many countries of the Region have the requisite professional organizations but unfortunately they are not very active. In EMR, there are no Regional nursing organizations, either for nurses or for nursing schools. As a result, communication and information exchanged among nurses is rather limited and usually carried out on individual bases.

2.10. Nursing and promotion of changes in national health systems based on PHC

Nursing personnel, when given the opportunity, work in all settings; they provide nursing services at all levels; they are in direct contact with individuals, facilities and the population at large; they are frequently the main connection between the health system and the public.

However, due to their position in the health system, being far from the policy level and decision-making, together with the constraints placed on them in exercising leadership roles, their impact on affecting changes is currently minimal. Development of leadership capabilities is highly needed among the nursing group if changes are to be implemented within nursing education and practice, to achieve national health goals based on PHC.

3. SUGGESTED SOLUTIONS*

In the previous section major issues, problems and constraints facing nursing development in the Region have been presented; an attempt is now made to suggest possible solutions that might bring about the desired changes. Needless to say, such solutions are "easier said than done". Any change to be introduced will encounter resistance; hence careful planning for change becomes an essential component of each solution.

3.1. Nursing and midwifery personnel

The title of "nurse" ought to be maintained, promoted, and restricted to refer to an individual who has completed a programme of basic nursing education and is qualified and authorized to practise nursing. Attempts to change the title will jeopardize the profession and will not help solve the problem of shortage of nurses. If changes are to be considered, they should focus on the working conditions of nursing personnel as well as on problems facing nursing.

Standardization of levels of nurses needs to be seriously considered; while one level of nurses would be ideal, two levels of basic nurses seem reasonable at this stage of nursing development in the Region. The International Council of Nurses (ICN) defines these levels as**:

First level nurse/nursing education - a nurse who is responsible for planning, providing and evaluating nursing care in all settings for the promotion of health, prevention of illness, caring for and rehabilitating the sick and functioning as a member of the health team. At the first level, the educational programme prepares the nurse, through study of behavioural, life and nursing sciences and clinical experience, for effective practice and direction of nursing care, and for the leadership role. Sometimes referred to as professional nurse, registered nurse, certified nurse, qualified nurse, etc.

* The suggested solutions outlined in the main document on health manpower development in the countries of EMR are all applicable to nursing and midwifery personnel.

** Derived from the ICN "Definition of Nurse", from: "Introducing the International Council of Nurses, Worldwide Voice of the Nursing Profession".

Second level nurse/nursing education - (in countries with more than one level of nursing personnel) the nurse who gives nursing care in cooperation with and under the supervision of a first-level nurse. The second-level programme prepares the nurse through the study of nursing theory and clinical practice. Sometimes referred to as enrolled nurse, practical nurse, technical nurse, nursing assistant, etc.

However, in countries with more than two levels of nursing personnel, ways and means must be promoted to amalgamate them into two levels; continuing education and recognition of equivalents in years of experience are examples of this.

3.2. Shortage in nursing and midwifery personnel

Overcoming the current shortage will be a long-term process and will have to be tackled from various angles, as outlined hereunder:

(a) Expansion in the number of schools. This, however, has to be carefully planned so that the schools will have an appropriate number of students, as well as qualified nurse educators and necessary materials.

(b) Public information and career campaigns to introduce the challenge of being a nurse and career opportunities in nursing to potential candidates and their families.

(c) Prevention of high attrition rates among nurses through improving working conditions, allowing for part-time employment, extended working hours, working days and provision of facilities, such as day care centres, for mothers with young families.

(d) Encouraging those who had left the service to rejoin through establishment of refresher courses.

(e) Proper utilization and distribution of existing nursing personnel.

3.3. Roles of nursing and midwifery personnel

Research studies need to be undertaken to determine, within the existing health system and national needs, what are the tasks which nurses of various categories are expected to perform, what are they legally authorized and trained to do and what are they actually doing in the various health settings. The findings resulting from such studies will need to be considered in relation to the roles of other health professionals and the cultural context of the country concerned. In order to investigate such complex issues, time, money and training need to be allocated for nurses to undertake such activities. New roles and different schemes for provision of nursing services need to be established.

3.4. Policy formulation and planning for nursing manpower

Adequate information needs to be kept on nursing personnel, to allow for proper planning. The establishment of a nursing personnel registry that would be updated periodically is extremely important. Coupled with this is the importance of participation of nursing in managerial positions in policy formulation and health planning in general and nursing planning specifically. Planning should also not be considered on a national level only but should

permeate to all levels of the health system. This would imply that governments accept and encourage the placement of nurses in appropriate positions, so that they can have a voice in these processes.

3.5. Education and training of nursing and midwifery personnel

WHO has put forward two publications which address the issue of curriculum review and the training of teachers. These two documents, which address most of the issues outlined in the situation analysis, are: Report of WHO Expert Committee. Education and Training of Nurse Teachers and Managers with special regard to PHC. Technical Report series No. 708, 1984; and A Guide to Curriculum Review for Basic Nursing Education: orientation to Primary Health Care and Community Health, 1985.

3.6. Management of nursing personnel

Solutions addressed by the study group for health personnel would certainly be appropriate for nursing personnel.

A few points need to be considered. Among these is the urgent need to establish and strengthen existing legislation governing nursing practice and to set standards for quality nursing care. Both standards of care and legislation will provide quality control for the services rendered and protection for both public and practitioner. Furthermore, while supervision is important, it is also necessary that nurses be supervised by nurses who can assess and guide their performance. The traditional concept of supervision as an assessment of performance for remuneration needs to be changed among supervisors; this will require retraining of those who are charged with this responsibility.

3.7. Networking among nursing personnel

Efforts should be made to strengthen existing professional organizations in Member States and establish associations in countries which so far have no such bodies. However, associations are not the only mechanism for networking; establishing national and Regional newsletters, encouraging publication of research findings related to nursing in national professional magazines, establishment of exchange programmes among schools and participation in nursing and other health-related activities, are some of the other forms of networking that could be adopted. The medical profession in this Region is a pioneer in the health field in such areas and its experience and support could greatly benefit the nursing profession.

3.8. Nursing and promotion of changes in national health systems based on PHC

In a keynote address delivered on 7 April 1986 in Tokyo, Japan, during the opening of the International Encounter on "Leadership in Nursing for Health for All" the Director-General of the World Health Organization, Dr Halfdan Mahler, indicated that "the nursing profession must consider the broader issues before it and identify the strategies and action that would be required to exercise its full leadership potential. But it would need to look both inside and outside nursing to broaden its perspective which must go beyond the expansion of its traditional roles or mere changes in the educational programme; rather, it should be based on a deeper understanding of the philosophy of PHC and a commitment to its values and goals."

4. RECOMMENDATIONS

(1) Studies of nursing manpower needs and development on the basis of national strategy for HFA/2000 need to be undertaken by each country. Such studies should not only focus on the number and levels of nurses needed but qualitative assessments are also of vital significance to ensure development of nurses who are accepted and respected by society and can be role models to attract candidates to the nursing profession.

(2) Standards for nursing education and nursing practice need to be established and implemented to assure consistency and control of the nursing training and nursing care provided. In order to achieve this, regulatory mechanisms such as licensure, registration and accreditation of nursing personnel and training programmes, as well as of nursing service institutes, need to be considered by Member States.

(3) Nursing education programmes, both basic and post-basic, should be reviewed and reoriented toward PHC and modified in accordance with national needs and available human and material resources and within the framework of certain basic cultural and traditional values. Such reviews, when implemented, need to be monitored to assess obstacles which prevent proper implementation.

(4) Nursing personnel management ought to be given a high priority by health authorities. Action should be taken to ensure: proper utilization and distribution; career structure; opportunities for continuing education; modified work schedule to allow nurses with family responsibilities or those who had left the profession to contribute to the service and thereby overcome part of the existing shortage; and remuneration commensurate with the nature of the job and workload.

(5) Public information and recruitment campaigns among high school girls should be taken up by the nursing profession and other concerned health authorities to improve the image of nursing and attract candidates to the profession.

(6) Developing leadership capabilities among nurses will be essential in order to mobilize the full potential of nurses' contribution to PHC. This will require training in leadership, policy-formulation, planning, decision-making, research, etc. This needs to be followed up by provision of opportunities, in order to implement what has been learned.

APPENDIX I

LIST OF PERSONNEL RENDERING NURSING SERVICES

Professional nurse
Qualified nurse
Registered nurse
Polyvalent nurse
Certified nurse
School nurse
Technical nurse
Specialized technician
Public health nurse
Assistant nurse
Practical nurse
Auxiliary nurse
Auxiliary community nurse
Auxiliary dispensary nurse
Mental psychiatric nurse
Assistant psychiatric nurse
Assistant public health nurse
Midwife
Nurse-midwife
Assistant nurse-midwife
Auxiliary midwife
Nursing aid

APPENDIX II

TOTAL NUMBER OF NURSING AND MIDWIFERY PERSONNEL AND
THEIR AUXILIARIES PER COUNTRY IN EMR*

Country	NUR	MID	PHN	Technical Assist.Nurse	Asst.Midwives	**others
Afghanistan	862	448	-	186	145	-
Bahrain	1116	170	-	688	106	411
Cyprus	473	229	-	965	35	-
Dem.Yemen	150	25	-	2100	304	-
Djibouti	166	2	-	122	7	99
Egypt	1197	2541	-	26563	343	-
Iran, Islamic Republic of	7354	1889	-	13069	10235	12921
Iraq	408	2273	387	4527	-	3790
Jordan	1205	272	-	1534	-	-
Kuwait	7604	-	-	975	-	-
Lebanon(79*)	2566	574	-	1115	-	-
Libyan Arab Jamahiriya	5861	1093	-	3834	125	-
Oman	1371	23	-	47	-	1190
Pakistan	10554	9947	-	-	-	-
Qatar	437	70	-	16	-	375
Saudi Arabia	a l l l e v e l s			6706	-	-
Somalia	1365	556	-	469	-	-
Sudan	250	376	-	13443	-	-
Syrian Arab Republic	5910	1776	-	647	-	-
Tunisia	624	768	-	4295	-	1947
United Arab Emirates	784	-	-	2030	-	789
Yemen	1043	95	-	829	-	-

* Latest data reported by Governments on WHO/HST/LES questionnaire No. 4 on Health Manpower, 1980-83 unless otherwise indicated.

** This includes nursing aids, nursing orderly, dresser

Types of Educational Programmes	Countries of the Region																						
	Afghanistan	Bahrain	Cyprus	Democratic Yemen	Djibouti	Egypt	Iran, I.R.	Iraq	Jordan	Kuwait	Lebanon	Libyan A.J.	Oman	Pakistan	Saudi Arabia	Somalia	Sudan	Syrian A.R.	Tunisia	U.A.E.	Yemen	Qatar	
A. <u>Basic Programmes</u>																							
-Schools awarding Diploma/Certificate in professional Ng.	D M		C	D	C	2D		2C		C D	D	D	C	M D	C	C	C	C	D	D	D	C	
-Non-degree Ng. Colleges (basic)									D								D						
-Associate Degree		X					X																
-A.Sc.																							
<u>Professional Ng. Degree</u>																							
-B.Sc.						X	X	X	X	X	X				X								
-M.Sc.						X	X				X												
-M.P.H.						X					X												
-Ph.D.						X					X												
-B.Sc. (Post-basic)		X				X	X				X												
-M.A.						X					X												
-B.A.											X												

KEY:

N = Nurse

Ng = Nursing

C = Certificate; **D** = Diploma;

M = Separate schools for male nurses only.

APPENDIX III

Types of Educational Programmes	Countries of the Region																						
	Afghanistan	Bahrain	Cyprus	Democratic Yemen	Djibouti	Egypt	Iran, I.R.	Iraq	Jordan	Kuwait	Lebanon	Libyan A.J.	Oman	Pakistan	Saudi Arabia	Somalia	Sudan	Syrian A.R.	Tunisia	U.A.E.	Yemen	Qatar	
B. <u>Other programmes Basic</u>																							
-Mental/Psychiatric Ng.											D	D											
-Assistant Psychiatric N.			C							C	C	C											
-School Health N.					C						D	D											
-Community Health N.																							
-Asst. Public/Community Health N.																							
-Asst. Community N.																		C			C		
-N./midwife					D		C											C					
-Auxiliary (Psychological)											C	X											
-Assistant N.			X	X			X		X	X	X	X			X			X	X	X			
-Practical N.		X					X		X	X	X							X	X	X			
-Auxiliary General and Child Care							X												X				

Types of Educational Programmes	Countries of the Region																						
	Afghanistan	Bahrain	Cyprus	Democratic Yemen	Djibouti	Egypt	Iran, I.R.	Iraq	Jordan	Kuwait	Lebanon	Libyan A.J.	Oman	Pakistan	Saudi Arabia	Somalia	Sudan	Syrian	Tunisia	U.A.E.	Yemen	Qatar	
<p>C. <u>Post-basic programmes</u></p> <ul style="list-style-type: none"> -Nursing Services Administration -Nursing Administration and Teaching: <ul style="list-style-type: none"> 1. Psychiatric 2. MCH 3. Medical Surgical Ng. -Psychiatric/Mental Health Ng. -Public Health N./Visitor -Nurse Tutor/Instructor/Supervisor -Dental Assistant -Medical Assistant -Operating Theatre -Anaesthetist Assistant -N./midwife -Community Ng. -Laboratory Assistant -Coronary Care and Intensive Coronary Care Ng. -Operating Theatre Ng. -Intensive Care -Physiotherapy -Anaesthesia -Obstetrics, Gynaecology and Paediatrics Course -MCH Asst. -Ophthalm. Medical Asst. -Medical Asst. (Physical Medicine) 			C			DC																	

APPENDIX III

Types of Educational Programmes	Countries of the Region																						
	Afghanistan	Bahrain	Cyprus	Democratic Yemen	Djibouti	Egypt	Iran, I.R.	Iraq	Jordan	Kuwait	Lebanon	Libyan A.J	Oman	Pakistan	Saudi Arabia	Somalia	Sudan	Syrian A.R.	Tunisia	U.A.E.	Yemen	Qatar	
<u>Post-basic course</u> -Medical Asst. (Mental Health) -Medical Asst. (Pharmacy) -Ward Administration														D			C C						

ANNEX 8

AGENDA AND LIST OF PARTICIPANTS AT THE MEETING OF
THE ADVISORY GROUP ON HEALTH MANPOWER DEVELOPMENT IN
COUNTRIES OF THE EASTERN MEDITERRANEAN REGION,
Alexandria, Egypt, 16-18 June 1986

AGENDA

1. Opening of the Meeting
2. Election of officers
3. Adoption of the Agenda
4. Situation analysis (general) - introduction and discussion
5. Foreign Medical Graduates (Annex 2)
6. Health Manpower Planning (Annex 3)
7. Health Personnel Education in EMR (Annex 4)
8. Efficient Utilization of Health Personnel (Annex 5)
9. Nursing Situation in EMR (Annex 7)
10. Suggested Solutions
11. Recommendations and Closing

LIST OF PARTICIPANTS

WORKING GROUP

- Dr John Bishop, WHO Consultant, Professor of Medicine
Dr Nabil Kronfol, WHO Consultant, School of Public Health, University of
Michigan, Michigan, USA
Dr Bashir Hamad, WHO Consultant, Dean, Faculty of Medicine and Health Sciences,
University of the Emirates, El Ain, United Arab Emirates
Dr Kamal Ajlouni, WHO Consultant, Faculty of Medicine, University of Jordan,
Amman, Jordan
Dr Haider Ghaleb, WHO Consultant, Dean, Faculty of Medicine, University,
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ADVISORY GROUP

Mr Faisal Al Hamer, Dean, College of Health Sciences, Manama, Bahrain
Dr Amin Nasher, Director, Paediatric Hospital, Aden, Democratic Yemen
Dr Mohamed Abdel Aziz Rizk, Dean, Faculty of Medicine, Alexandria University,
Alexandria, Egypt
Dr Mamdouh Gabr, Professor of Paediatrics, Faculty of Medicine, Cairo, Egypt
Dr Abdel Ghaffar Khallaf, formerly Under-Secretary of State, Ministry of
Health, Cairo
Dr Enaam Abou Youssef, Director, High Institute of Nursing, Alexandria, Egypt
Mrs Effat Kamel, Director of Nursing Department, Ministry of Health, Cairo,
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Ms Samira Kumuk, Director of Nursing School, Amman, Jordan
Dr A.J. Khan, Principal, Ayub Medical College, Abbotabad, Pakistan
Dr Faleh Zeid El Faleh, Dean, Faculty of Medicine, King Saud University,
Riyadh, Saudi Arabia
Dr A.M. El Hassan, Faculty of Medicine, Department of Pathology, King Faisal
University, Dammam, Saudi Arabia
Dr Awad Hussein Abudejaja, Secretary General, Arab Board for Medical
Specializations, Mahdi Ben Barka, Damascus, Syrian Arab Republic
Dr Awad El Sid Mustafa, Dean, Faculty of Medicine, University of Gezira
Wad Medani, Sudan
Dr Abu Bakr Qirbi, Dean, Faculty of Medicine and Allied Health Sciences
Sana'a, Yemen
Professor Geoffrey Kellerman, Professor of Medical Biochemistry, Finson
Laboratory, Denmark
Dr A. Segall, Chief, Health Manpower Research, WHO Geneva
Dr N. Sartorius, Director, Mental Health, WHO Geneva

OBSERVERS

Dr Youssef Abdel Razak, Consultant and Lecturer, Tawam Hospital, Faculty of
Medicine and Health Sciences, University of Al Ain, United Arab Emirates
Dr Abdallah Daar, Consultant Surgeon and Director of the Organ Transplant Unit,
and Emirates Institute of Medical Research, Mafraq Hospital, Abu Dhabi,
United Arab Emirates
Dr Hassan Fadlalla Ahmed, Consultant in Medicine and Head, Department of
Medicine, Al Ain Hospital, Al Ain, United Arab Emirates
Dr Brian Holmes, Former Dean, Toronto Medical School, Canada
Dr Sayed Hassan Baha, Responsible for the educational activities at the Faculty
of Medicine, National Medical Institute, Kabul, Afghanistan
Dr Ali Ahmad Omar, President of Cadre and Health Institutions, Ministry of
Public Health, Kabul, Afghanistan

Agenda item 13(b)

HEALTH MANPOWER DEVELOPMENT
IN COUNTRIES OF THE EASTERN MEDITERRANEAN REGION

SUMMARY OF RECOMMENDATIONS

The recommendations can be summarized as follows:

- (1) All countries should conduct a review of the situation in health manpower development based on their strategy for HFA/2000.
- (2) As a first priority, attention should be given to the development of health manpower management and utilization so as to strike a balance between health manpower management, training and planning
- (3) As lack of nurses is a feature of all countries of the Region, it should be given priority attention and ways for motivating girls to join the profession should be found, including better career development.
- (4) Education of all health personnel should be relevant to community health needs and should therefore be community-based and oriented toward problem-solving.
- (5) The problem of graduates training abroad should receive the attention of all governments.
- (6) Health services research is to be directed towards the component of health manpower development.
- (7) All health services training institutions should be required to utilize PHC services for training of health personnel.

- (8) Encouragement should be given to post-graduate training of physicians for primary health care, with the establishment of a career specialist grade.
- (9) Further efforts should be made to inform staff in health services and training institutions about the nature and purpose of primary health care, and of the need to work through this approach.