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HEALTH PROFESSIONS EDUCATION WITH SPECIAL REFERENCE TO FAMILY PRACTICE

CONTENTS

EXECUTIVE SUMMARY

Despite the progress achieved in recent years in reforming and improving performance of the health care system, health professional practice and health professions education, key challenges still face efforts to bring about relevance, equity, cost-effectiveness and quality.

WHO's Eastern Mediterranean Regional Office has supported reform of health professions education institutes in many of the Region's countries since the 1970s. At the same time, the number of these institutes has increased sharply during the same period. Quality improvement and assurance systems are required in addition to relevant and effective educational programmes to conform with the demands of health systems and services. There is no doubt that the changing roles and functions of health professionals in the face of changing health needs demands continuous review and reform of the process of human resources development in general, and of health professions education in particular.

Following the twenty-fifth meeting of the Regional Consultative Committee in May 2001, a number of steps and actions were taken to prepare for launching the regional reform initiative. A group of experts was established, and four regional guidelines were prepared and were later reviewed by the group. The guidelines will assist health professions institutes to implement the necessary interventions as part of the reform process of their educational programmes. The interventions include establishing an accreditation system, choosing effective learning and assessment methodologies, adopting a prototype core curriculum and design of programmes for capacity-building and optimum utilization of human resources.

The preparation of future health professionals has to be compatible with a number of external and internal factors affecting both health systems and services. Changes in the political field include decentralization, the growing role of civil society and the development of privatization policies. Health systems are also affected by a variety of economic factors, such as the growing trend towards a market economy system, the growing role of the private sector, changes in financing of health care delivery, the focus on efficiency and the escalation of health care costs. Other factors include social change, high public expectations, increasing mobility of health care providers, introduction of new techniques, epidemiological transition and the double burden of disease.

In the 21st century, the universities and medical schools will need to improve the fitness-for-purpose of medical graduates. There is a need for an academic and service continuum, as well as a stronger interprofessional approach to developing human resources. Medical education is changing in line with changes in society, to which the medical profession and other health and allied professions are responding, adapting or planning ahead.

Practical steps are outlined towards implementing and monitoring a two-year plan of action to reform the educational programmes of selected health professions education institutes representative of the different health professions and the different countries of the Region.

1. INTRODUCTION

Human resources constitute the most critical element of the health system and form the cornerstone for attainment of national health goals in any country. While the commitment of WHO's Regional Office for the Eastern Mediterranean (EMRO) to human resources for health development has remained steady, the focus of its collaborative development work in this field has shifted over the years, in parallel with the different phases of development of health systems and human resources in Member States. Health professions education includes basic university educational programmes for all health professionals: medicine, pharmacy, dentistry, nursing and all other allied health sciences.

Despite the progress achieved in recent years in reforming and improving performance of the health care system, health professional practice and health professions education, key challenges still face efforts to bring about relevance, equity, cost–effectiveness and quality. In 2000, the Regional Office began working towards the launching of a new initiative for the reform of medical and health professions education in the Region. Development of partnership was adopted as an essential strategy of the initiative and a first consensus-building workshop was held in Irbid, Jordan, in June 2000. In 2001, the Regional Consultative Committee discussed the reform proposal and recommended packaging of individual reform interventions. An in-house consultation was convened in July 2001 to prepare for an expert group meeting. Guidelines on reform interventions were prepared and finalized at the meeting in March 2002. The Regional Consultative Committee at its twenty-sixth meeting in May 2002 recommended the reform proposal.

There is no doubt that the changing roles and functions of health professionals in the face of changing health needs, demands continuous review and reform of the process of human resources development in general, and of health professions education in particular.

This paper examines the rationale for reform of health professions education in the Region and reviews the efforts so far to launch a regional reform of health professions education through reorienting, supporting and improving health professions education in order to better prepare tomorrow's health professionals to meet the expectations of health services in the future.

2. BACKGROUND

The development of human resources for health has been a vital area for EMRO's collaborative work with Member States ever since its inception half a century ago. Human resources have always been and remain the most critical factor in the delivery of health care in the Region. Fifty years ago, in almost all countries of the Region, trained health personnel in all categories were scarce: there were just 18 medical schools in the entire Region, and not a single bachelor's degree programme for nursing, for example. This is in startling contrast to the present; there are now more than 170 medical schools in the Region and hundreds of other health professions education institutions where academic and post-graduate nursing,

pharmacy, dentistry and other allied health professional programmes are in place in most countries.

In the 1960s, WHO's technical collaboration in development of human resources for health was directed towards expanding and bolstering national capacities for the production of the main categories of health personnel. In the 1970s, the Regional Office began to prioritize its assistance to selected areas, and public health, nursing and allied health personnel training programmes were specifically supported. This was in line with health care delivery strategies advocated by WHO at the time, and adopted by the countries, which emphasized delivery of maternal and child health services. Later, the integrated health care delivery model evolved out of these strategies. In the late 1970s strategies began to focus on improving the quality and performance of human resources. The Regional Office was a pioneer in the international movement towards the reform of training curricula to become community-oriented, and thus more relevant to people's needs, and supported several institutions in the Region in this regard. The University of Gezira in Sudan and Suez Canal University in Egypt were among the founding members of the international movement of community-based medical education.

Educational institutions in the Region also were supported to adopt the most effective and up-to-date training methodologies and access quality training/learning resources. Educational development centres were established in most countries of the Region. Special programmes were also established by the Regional Office to support the use of national languages in health professions education, and a rather unique leadership development training programme, to support the primary health care initiative, was developed. Currently this is delivered in one country in Arabic and it is planned to establish a permanent programme in French also.

3. ACQUISITION OF COMPETENCY BY THE HEALTH PROFESSIONAL

The practice of the health professions becomes increasingly complex with each passing year. Technological advances and research findings leading to improved methods of disease prevention, diagnosis and treatment produce a constantly changing definition of the competence a health profession student must acquire. Equally important is the setting in which the graduate will work. The knowledge, attitude and skills needed to meet the demands of the health services in countries differ. In most instances, competence is judged by ability to provide personal care for individual patients and ignores all other health care provision to communities and public.

Institutions responsible for the education of the health professions face a serious dilemma. On the one hand, there is a legitimate expectation that graduates will be proficient in the latest and most advanced techniques of preserving and promoting health and treating disease. On the other hand, it is essential not to ignore the competence required to meet the health needs of the public.

This discrepancy that often exists between health professions education curricula and the functional requirements of health professional practice has deep-rooted underlying causes.

In many countries of the world, and almost all countries of the Region, not only are curricula based on foreign models and taught in foreign languages, but academic degrees and specialty certification requirements are largely those of external institutes. In addition, many institutes are isolated from the settings where their graduates are expected to work. Consequently, there is a low correlation between what is taught and what is most needed for practice. Competence is measured largely by performance of the student in recalling material studied rather than practical and behavioural abilities to meet human needs. The most common method of curriculum change has been to revise content while preserving the subject-based structure.

Prior to 1910 doctors' professional education was achieved through apprenticeship to one teacher/practitioner who would assign the student tasks according to the student's progress until competency to practise independently was considered to be achieved [1]. This is similar to the traditional Islamic model where, according to Ibn Radhwan Al-Masry [2], small groups of students accompanied and followed their *Sheikh hakim* in his work until fit to practise independently.

The subject-based curriculum is still the most widespread model of health professions education in the world, almost a century after its introduction by Flexner in 1910 [3]. Study is divided into pre-medical sciences, basic medical sciences, paramedical sciences and clinical disciplines, each of which is taught separately, by a separate department, with no shared objective towards competency in practice and relevance to community health needs. Most of the teaching is teacher-centered and didactic in nature. Assessment of students depends largely on passing tests of recall and students are trained most of the time in the college or in high-tech university teaching hospitals.

The integrated curriculum model attempts to fuse independent disciplines into a more unified whole; didactic courses and clinical experience are brought together to target two issues: to improve learning in line with the results of research on human memory, and to connect the study topics and integrate them as would happen in real practice. This model appears to have advantages over the subject-based model in its fusing of distinct scientific and clinical parts to make learning more meaningful to students, elimination of areas of redundancy and strengthening of important areas.

A third model, the competency-based curriculum, is the latest approach and it is organized around the functions or competencies required for professional practice. The 'competent' graduate professional can correctly perform numerous, but not necessarily all, tasks that require knowledge of physical and biological sciences, and has comprehension of the social and cultural factors that influence patient care and well-being. This implies a professional role that values human life, improvement of the public's health, leadership in health care and health education. Careful identification of the components of professional practice is the most critical step in designing the curriculum through task analysis. The defined professional competencies are broken down into smaller tasks, comprising not only knowledge but attitude and skills, which together make up the full curriculum. The whole programme is divided into units or blocks, the components of which are fully integrated, and the student is assessed frequently to document the growth of competence and to provide feedback to the student.

This innovative model is subject to frequent development under different titles. It is variously referred to as a task-based curriculum [4], outcome-based curriculum and case-based curriculum [5]. All versions incorporate almost all or some of the more innovative learning strategies and methodologies, such as problem-based learning, community-oriented medical education, community-based education and student-centered learning.

4. EVOLUTION OF HEALTH PROFESSIONAL PRACTICE AND RESPONSE OF HEALTH PROFESSIONS EDUCATION

4.1 Evolution of health practice

Health systems and practice passed through a number of major changes and stages during the 20th century, from being centred around a specific disease in an individual patient, through focus on the social and preventive aspects of the health of the public, to focus on health care, as opposed to medical care. The latter change is characterized by the 1978 Alma-Ata conference on primary health care [6] which led to the Health for All movement of the 1980s [7]. A series of evaluations on the implementation of the health for all strategy in the Eastern Mediterranean Region were published periodically [8]. In 1988, a midpoint progress review was conducted at a conference in Riga (now in Latvia), and all the nations of the world were asked to accelerate their commitment to the goal of health for all through primary health care [9].

WHO, in its 1993 global review of progress towards the year 2000 goal, noted the slow progress in attempting to facilitate universal access to essential health care [10]. It found that the problems facing health professional planning, production and management, such as the uneven distribution of human resources, had frequently delayed and obstructed the delivery of an appropriate mix of health care activities.

Recently WHO elaborated on the performance of the health system, as a key factor in achieving health system goals and objectives. The Director-General, in *The World Health Report 2000 Health systems: Improving performance* stated, "Whatever standard we apply, it is evident that health systems in some countries perform well, while others perform poorly. This is not due just to differences in income or expenditure: we know that performance can vary markedly, even in countries with very similar levels of health spending. The way health systems are designed, managed and financed affects people's lives and livelihood. The difference between a well-performing health system and one that is failing can be measured in death, disability, impoverishment, humiliation and despair" [11].

4.2 Health professions education response to evolution of health systems and practice

Global response

The evolving health systems and practice have exerted a direct effect on the education of health professionals. However, the development of educational programmes in response to change in health systems and practice has varied considerably, both globally and regionally. Table 1 shows the milestones in evolution of health professions education as a response to changes in health systems and practice.

Regional response

Most health professions education institutes in the Region, and globally, generally follow a subject-based curriculum and consequently graduates face difficulties in adjusting to

Table 1. Milestones in health professions education

1910	• Flexner report leading to subject-based curriculum [3] • Accreditation of medical colleges by American Medical Association [3]
1945	• Introduction of primary care [12]
1968	• Graduates' competence to meet needs (WHA21.35).
1978	• Alma-Ata Declaration [6] • Innovative curricula: community-oriented medical education, problem-based learning [13] • Network of community-oriented educational institutions for health sciences, The Netherlands [14]
1980s	• Physicians for the 21st century (report by Association of American Medical Colleges) [15] • Edinburgh Declaration by World Federation of Medical Education [16] • Role of universities in Health for All (Thirty-seventh World Health Assembly) [17]
1990s	• Guidelines to reorient national education, 1995 (WHA48.8) • General Medical Council (UK) report: *Tomorrow's doctors* [18] • WHO report on partnership of medical education and practice [19] • WHO–World Organization of Family Doctors (WONCA) Conference on the contribution of the family doctor, 1994 [20] • WHO document on social accountability of medical schools [21] • International standards for undergraduate medical education, World Federation of Medical Education [22] • Towards Unity for Health project (TUFH), WHO [23]
2001 Onwards	• Role of family practice in Towards Unity for Health, WHO-WONCA [24]. • Global accreditation of medical colleges based on involvement in innovation and improvement of health systems and services, 2001 (Proposal by WHO and partners)

real practice conditions. At the same time, the traditional system of education followed in most countries globally, whereby medical education is under the Ministry of Education and thus separated from the health system in practice, predominates.

A number of important activities have taken place in an effort address regional reform of health professions education to better meet the needs of health care systems and professional practice. At the regional level, a conference in 1995 formulated a blueprint for change through the partnership of health care delivery and medical education [25], while a ministerial consultation the same year focused on collaboration between medical education and health services and was attended by Ministers of Health and of Higher Education [26].

A prototype core curriculum for undergraduate pharmacy programmes was developed following a regional consultation curriculum in 1999 [27] and, the same year, a workshop was held on the methodologies for introducing and integrating primary health care strategies and elements into curricula [28]. In June 2000, a consultative meeting was held as part of a regional initiative to reform health professions education [29].

To facilitate the process of nursing education reform at the basic and post-basic specialist level, the Regional Office published, in 1998, a kit entitled: *Nursing education in the Eastern Mediterranean Region*, comprising three books. The first, *Guidelines on future directions* delineates the regional standards for technical and professional nursing education, as well as regional priority areas for nursing specialization. The other two books, *Prototype technical nursing curriculum* and *Prototype baccalaureate nursing curriculum* provide core curricula for technical nursing education and university nursing education, respectively. This publication has been very well received and is regarded as an important tool for initiating change in nursing education. All countries, without exception, have taken initiatives to improve basic nursing education by increasing the number of programmes, reorienting the curriculum towards the primary health care approach, training teachers and improving the resources of libraries and clinical skills simulation laboratories. It is highly significant that most countries are now able to attract students to nursing and midwifery programmes, and that the demand for nursing schools is increasing. There is a definite positive change in this respect [30–32].

At the country level, in both Morocco and Tunisia, training institutions for the various categories of health personnel (physicians, nurses, technicians and allied health personnel) have been the responsibility of the Ministries of Health since the 1960s. This has facilitated linkage with the health needs of the population in terms of adapting to changing health scenarios and of improving service delivery at the various levels of the health system. The Ministries of Health collaborate in policy and strategic planning for human resources development with Ministries of Higher Education and related agencies. In the 1980s reforms of both medical and nursing education were implemented, aimed at adapting medical education to community needs and at creating colleges for nursing and allied health professions.

In the Islamic Republic of Iran, in 1985, the bodies responsible for health and medical education were amalgamated, leading to creation of the Ministry of Health and Medical

Education [33]. This courageous and ambitious decision and action brought the health care system, practice, research and education under a single umbrella and established peripheral medical universities in each province. Each university was assigned the designation of University for Medical Sciences and Health Services. It is an innovation that has had positive impact on health care delivery and medical education alike and is a model of integration.

The current status of curricula in the Region's countries shows that innovative programmes exist in Bahrain, Egypt, Islamic Republic of Iran, Iraq, Jordan, Pakistan, Palestine, Saudi Arabia, Sudan, Tunisia, United Arab Emirates and Republic of Yemen.

5. TOMORROW'S HEALTH PROFESSIONAL

5.1 Rationale for reform of health professions education

There are many changes and challenges affecting the health systems in the countries of the world, including those of the Eastern Mediterranean Region, which have implications for the reform of health professions education. These changes involve the political, economic, social and health fields.

- Changes in the political field include decentralization, the growing role of civil society and the development of privatization policies. The role of government is changing in response. A variety of economic factors affect health systems, such as the growing trend towards a market economy system, the growing role of the private sector, changes in financing of health care delivery, the focus on efficiency and the escalation of health care costs.

- Changes in the social field include changes in people's expectations of health services. The public increasingly expects safe, high quality interventions and good outcomes; immediate access to services and technologies; knowledgeable staff with a high level of expertise; and quality services and personal attention.

- The General Agreement on Trade in Services (GATS) has resulted in an increase in mobility of health care providers. This is likely to exacerbate provider shortages in the face of growing consumer awareness and demand for services.

- The rate of scientific advance has accelerated, driven by the quest for evidence to inform health practices. Although developments in communication technology are facilitating global communications and rapid dissemination of knowledge, barriers to developing, assessing and transferring technology in developing countries could result in widening the health divide. While technological advancements can lead to service improvements, they bring increasingly complex ethical dilemmas. It is essential to take into account the unpredictability of and pace of introduction of new technologies into health care systems. Those who plan and manage health care systems in the modern context have to be able to cope with the financial, organizational and behavioural implications of technological change.

- The worldwide epidemiological transition, which includes the increasing double burden of disease for developing countries, is broadening the demands on health systems. Ageing and disabled populations are shifting service needs to communities. The burden of mental ill-health is increasing worldwide. The focus on health determinants and promotion of healthy lifestyles will require a different health professional in the future.

- Poverty and health care are interrelated. Poor social conditions (illiteracy, malnutrition, poor sanitation, etc.) lead to high mortality and high morbidity and thus adversely affect the overall health of the people, while poor health perpetuates poverty. There is a need for poverty reduction strategies. For example, the Eastern Mediterranean Region has introduced the concept of the community-based initiative, which includes the basic development needs (BDN) approach, healthy villages and healthy cities, all of which identify the role of the community as central. This is a bottom-up integrated approach which relies on intersectoral collaboration and promotes self-reliance and sustainable socioeconomic development. It is a non-standard approach in which people are the initiators of development. The health sector thus becomes an entry point for social development and poverty alleviation. Implementation of the BDN strategy brings partnership between the community and the public sector. Linkage with the health professions, especially the nursing profession, can be created through intersectoral arrangements at the operational level. The future health professional, whether a nurse, a pharmacist, a physician or other professional, can thus be a part of the BDN support team and can both provide health and social services, and be a partner in the overall development of the community.

- Health system reform requires strengthening of the stewardship function of the health system, including: developing and strengthening the regulatory tools and mechanisms for the provision of health services to protect the public from unsafe practice; strategic planning of human resources for health; quality assurance and improvement; accreditation of health facilities and services; and strategic management and leadership development. Development of day care and home health care, the increasing demand for long-term care, decentralization of hospitals and promotion of primary health care all have significant implications for the development of the future health professional in the Region.

Preparing a health workforce to meet these challenges is more likely to be achieved if the universities in general, and medical schools and other health professions schools in particular, are strong and flexible. Curricula will need to be modernized to meet both these challenges and community needs, and should be developed in partnership with the communities, especially those most in need of help. Universities and medical schools, in particular, will need to improve the fitness-for-purpose of medical graduates. There is a need for continual integration and collaboration between the education system and the health system (an academic and service continuum), as well as an interprofessional approach to developing human resources. Medical education globally is changing in line with changes in society, to which the medical profession and other health and allied professions are responding, adapting or planning ahead.

The shift in balance between hospital in-patient services and those provided by primary and community services has tremendous influence on the practice of medicine today. Practitioners have to be aware of traditional/complementary medical practices and treatments; they have to work in a team which could be led by a non-medical health professional; and they have to work in collaboration with colleagues in primary care, social services and other organizational groups within society. Future practitioners will need to work not only with patients; but their families, relatives and friends. Thus a practitioner needs to have a holistic approach to human disorders and accept a growing demand for interventions outside the conventional orthodoxies. In many industrialized countries, if not all, medical curricula are changing to meet the changing needs of society.

5.2 The new curricula

In many industrialized countries medical curricula are changing to meet the changing needs of society. Leading the field, in 1993, the British General Medical Council, which is charged by statute with responsibility for "promoting high standards of medical education and coordinating all stages of medical education in the United Kingdom", recommended major changes to undergraduate medical education in Britain and set clear principles for the objective and process of medical education [18]. The changes were recommended in response to the rapid changes in social and health needs of communities, information technology and the associated high expectation of all social classes. As a result, almost all medical schools in the United Kingdom started adopting new educational programmes.

5.3 An academic and health service continuum

The academic agenda should correspond to the health service needs and priorities. A balance must be struck between the needs of health care delivery (the responsibility of health services) and development of human resources (mainly the responsibility of universities). The two systems (health and universities) working together to develop the human resources capable of meeting the challenges of rapidly changing disease patterns, risk factors and expectations is an essential long-term objective.

5.4 Undergraduate education and postgraduate training continuum

Both anecdotal and research evidence have clearly demonstrated that there are very limited links between these two systems in countries of the Region. In many, obtaining the MBChB is license to practise medicine. Furthermore, many of those who continue with their postgraduate training and education are satisfied with the completion of a higher degree, without any evidence of being certified with the completion of higher specialist medical or surgical training. The development of the Arab Board of Medical Specialization is the most welcome development for the setting, applying, maintaining and monitoring of standards of medical specializations. Such a development will have a very positive impact on medical human resources in the Arab countries in the future. It will open the door for the movement of the workforce across the countries of the Region, and beyond, without any professional restriction or question marks being raised about possible variations in standards.

5.5 Interprofessionalism

In the 21st century health care system, doctors are unlikely to have substantial impact on health or to meet people's health needs unless interprofessional teamwork is developed effectively. In thinking inter-professionally, in terms of education and service delivery, the following must be taken into consideration:

- many tasks that are traditionally performed by doctors, can be done equally well by other professionals (e.g. nurses);
- doctors need to devote more time to highly technical and specialized tasks;
- patients need more time and personal attention from doctors to explain risk, underlying pathology and treatment;
- patients are often confused about the role of different professionals at the various stages of care (doctors, nurses, social workers etc);
- high quality service and high standards of health care must be emphasized;
- the requirements for continuing professional development must be satisfied.

The way forward will include:

- common foundation modules shared by medical, nursing, pharmacy, physiotherapy and radiotherapy students, for example;
- delegation of greater responsibility to nurses; for example in the United Kingdom, nurses prescribe up to 30% of all medication [34];
- balanced interprofessional partnership in university education and research;
- joint continuing training for existing professionals.

6. REFORM ALONG THE ACADEMIC–HEALTH SERVICE CONTINUUM: FAMILY PRACTICE CONTRIBUTION

6.1 Disadvantages of isolated curriculum reform

The process of learning is regarded as one of the clearest examples of experimental action [35]. Thus, designing a new curriculum or introducing change in an already established curriculum should always be well planned and, once implemented, continually monitored. The importance of monitoring outcomes is illustrated by example. As part of the newly introduced educational programmes in the early 1980s, the educational setting was given the total responsibility in the process of reform, as a result of which the medical schools concerned felt that hospital settings were not necessary for training students in the

community-based curriculum and clinical training was conducted in community needs-based settings [36]. The graduates found themselves in a minority among the workforce and so found it difficult to relate their 'optimal' training to the 'real' health care settings.

Despite the fact that these graduates had received community-oriented training, their competence was incompatible with actual practice. This was not universal but it was obvious in schools where reform was confined to curriculum only, without any attempt to reform the health care system and practice. This issue brought attention to the fact that changing the curriculum is not, by itself, enough to improve the health of people in the long run, but that change should be part of a wider action that includes the entire health care system and practice of the health professions, as well as other social, educational and economic sectors.

6.2 Meeting the needs of primary health care

The increasing trend toward specialty and subspecialty practice has produced a highly developed and sophisticated system for secondary and tertiary medical care. Although this development was not intended to inhibit or supplant the production of primary care physicians, it has, in fact, done so, and has hindered the implementation of improvement in many primary health care systems and practices. This is recognized as a serious problem, and several important measures have to be undertaken to overcome these deficits in primary health care. Such measures include the recognition of family practice as a specialty in medical and other health professions practice; acceleration of involvement of medical, nursing and allied health schools in planning for the total health care needs of the people in their communities and regions; and initiation of integrated reform of the health care systems, health professions practice and health professions education.

It was emphasized as early as 1966 that the complexity of modern medicine and the health care system requires a new kind of specialist in family medicine who can provide comprehensive personal health care [37]. Given this impetus, primary care is now gradually achieving prestige through the creation of Departments of Family Medicine in academic centres, and by its recognition as an officially approved medical specialty.

Development of family health nursing in the Region would enhance the efforts directed at improving the quality of nursing practice. Referring to the functional description of nursing practice developed by the WHO Expert Committee on Nursing Practice, it becomes clear that there is a tremendous variation in terms of scope and quality of nursing practice among and within countries in the Region [38].

6.3 Health systems in 2025

Projections a quarter of a century ahead by researchers in health professions education and health systems development indicate a very different scenario in the future from the present. Health care is expected to continue to feature prominently on the public agenda, and thus continue to be subject to political considerations. External regulation calls for greater competency in meeting peoples' needs, and cost containment will have transformed the inherent trust of the doctor–patient relationship into the 'managed trust' of a doctor–funding

body–patient relationship. Health care will increasingly be delivered in ambulatory settings, with hospitals increasingly becoming referral centres for the investigation and management of a highly filtered case load [39].

6.4 Medical education in 2025

Mimicking the move to ambulatory-based health care, medical education at undergraduate, early postgraduate and vocational levels will have moved into the community. In many cases, there will have been no better rationale for this than there was for the conversion to problem-based learning late in the 20th century [40], but the "best-evidence medical education" movement will also prevail. Similar parallels to the competency movement in health service delivery will be evident in the development of the assessment tools for medical education.

Funding for medical education will be tied to the pursuit of these social imperatives, encouraging medical schools to engage in a meaningful partnership with their communities. The selection of students into medical schools and postgraduate programmes will no longer be based purely on standardized academic examinations, but will also involve the consideration of a student's prior participation with marginalized communities.

The delivery of medical education in 2025 will not be recognizable to those living now. Students and trainees will access structured internet resources using by palm-top computers; use patient simulators to learn clinical skills [41]; and engage with tutors and lecturers by video-conferencing, e-mail and list-serv [42]. Medical schools will have international teaching responsibilities. Similarly, students from different countries and medical schools will access internationally dispersed faculty online.

The health needs of developing communities will encourage a hands-on, multi-professional approach to learning at the undergraduate level. This will provide an additional stimulus for community-oriented medical education. Further integration in undergraduate curriculum design, delivery and assessment will heighten the relevance of family practice.

The need for a recognized postgraduate qualification to work as a family practitioner will be universal. There will be a far greater emphasis on information management and skills in critical appraisal of electronic information. Government mandates for this will not only emphasize quality control but also the requirement for re-certification.

6.5 Family practice in 2025

Postgraduate training in family medicine must develop the basic skills learned in the undergraduate course, and be able to refer when necessary, so common health problems are treated without over-reliance on expensive, sometimes invasive investigations and therapies, and chronic illness is well managed in the community. On top of these however, such training should inculcate curiosity about the community, respect for its individuals, and recognition of the importance of cultural and psychosocial factors in diagnosis and management, and communication skills. This should occur whether explaining a patient's illness or negotiating

a health-promoting change in lifestyle. Since the completion of training is often followed by immediate entry into practice, often in the same community, its relevance to the community is assured.

6.6 Optimal family practice

If a government or other provider institution wants to attract good quality workers into public health and primary health care, it will have to make sure that their pay and conditions approximate to those carrying comparable responsibility in the specialist sectors. Remuneration affects performance; people tend to concentrate their efforts on activities which will be professionally and financially rewarding. Those who provide personal health care services carry out a complex mixture of tasks ranging from patient reassurance to the care of the terminally ill.

Primary health care services may be delivered by providers with different levels of training; from health assistants to nurses and nurse practitioners, to fully trained family doctors. The better the training, the more likely the care is to be competent and comprehensive. In addition, if training is minimal and not specific to the community served, then patients will self-refer more often, overloading secondary and tertiary care facilities and teaching institutions with problems that could be dealt with by other providers. Therefore, health systems are more likely to benefit from investing in a maximally trained core of primary care providers.

To deliver cost-effective care, primary care professionals need an adequate infrastructure. This includes the buildings in which they see the people who come to them for care, the equipment available for diagnosis and treatment, the record system (which not only provides a management tool for the care of the individual concerned, but also the basis for performance indicators and quality assurance), and support staff.

Specialist services, both diagnostic and therapeutic are, by comparison with primary care, more expensive. They are effective only when the specialists' expertise is appropriate to the patient's needs and when the patient presents at the right point in the natural history of his or her disease. An important role for the primary care worker is to decide, with the patient, whether a referral is necessary, to whom, and when. Access to specialists should in general be through referral by primary care providers. Self-referral by patients, unaided by a primary care provider is often ineffective. It may occur too early in the course of the illness or the initial choice of specialist may be inappropriate requiring further referral. This style of practice is fragmentary and inefficient. Since the referral decision is fairly technical, the better trained primary care provider is more likely to refer cost-effectively.

In an optimal health care system there is considerable overlap in the delivery of individual and population care. Ideally the primary health care provider delivers all the clinical and personal preventive care to individual patients. Similar overlaps occur between primary care and secondary/tertiary care. For a system to be cost-effective, each sector should have the right number of workers who have been trained with an appropriate skills mix for their tasks in that sector. To achieve equity, essential services should be accessible to all and

fairly distributed geographically. This may necessitate extra investment where services have to be deployed in unsafe or unpopular areas.

7. PROPOSAL FOR REFORM OF HEALTH PROFESSIONS EDUCATION IN THE EASTERN MEDITERRANEAN REGION

7.1 Meetings of the Regional Consultative Committee

At the twenty-fifth meeting of the Eastern Mediterranean Regional Consultative Committee held in the Regional Office in May 2001, members discussed in depth health professions education with special reference to family practice. They indicated the need for more consultation and for a group of experts to be established to elaborate on each of the priority interventions directed at reforming health professions education and health professions practice and to prepare packages of regional guidelines to assist countries in planning, implementing and monitoring reform. The 26th meeting of the RCC, held in May 2002, recommended the reform, which aims at reorienting the undergraduate programmes of health professions education institutes in the Region, in partnership with health systems and services, towards improving the performance of the health professional.

7.2 Preparation for expert group meeting

An in-house consultation was convened in the Regional Office in July 2001 to prepare the groundwork for the expert group meeting. It recommended the preparation of regional guidelines, which were subsequently commissioned, on:

- development of an accreditation system for health professions education institutions;
- development of active learning and effective assessment methodologies;
- development of a core prototype curriculum for undergraduate medical education;
- capacity-building and resource utilization to support the health professions education reform initiative.

In addition, a plan for a future course of action to implement the health professions education reform initiative was developed. The expert group meeting on reform of health professions education in the Eastern Mediterranean Region was held in the Regional Office in Cairo, Egypt from 31 March to 2 April 2002 [43]. The expert group reviewed the four draft guidelines and made recommendations to facilitate reform of health professions education in the Region. The meeting was attended by experts from Bahrain, Egypt, Islamic Republic of Iran, Iraq, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia and the United Kingdom.

7.3 Regional guidelines on development of an accreditation system for health professions education institutes

Most of the medical schools in the Region are not subject to an accreditation system and thus are not keen on them. Globalization, information technology development, knowledge expansion and rapid development of communication systems that allow people to explore what is happening in different parts of the world have forced educators to think about curriculum changes that are responsive to the latest advances in biomedical sciences, social and behavioural sciences and anthropology relevant to medical practice, to the burden of disease, to the organization and financing of health care, and to the changing demography of the population. Unfortunately, most contemporary curriculum reforms have not yet been able to bring about actual changes. Members of university governing bodies and leaders of the legislative and executive branches of state government should be aware of the importance of an accreditation system to ensure curriculum reform in medical schools and its potential consequences for the nation's health care. The domains of an accreditation system, addressed by the guidelines, are: sponsorship, leadership, student admissions policy, human resources, physical technical resources, curriculum, student assessment, postgraduate and continuing professional development programmes, and involvement in improving health systems and services.

7.4 Regional guidelines on development of active learning and effective assessment methodologies

With a view to improving the learning process the guidelines describe the recently evolved effective learning methodologies employed to ensure that health professionals are able to meet the demands of health care systems. The guidelines elaborate on how to choose, plan, implement and evaluate each of the many recommended learning and assessment methodologies.

7.5 Regional guidelines on development of a prototype core curriculum for undergraduate medical education

"The core of the medical curriculum consists of the fundamental theory and practice of medicine, specifically biomedical, behavioural and social sciences, general clinical skills, clinical decision skills, communication abilities and medical ethics, and must be addressed by all medical schools aiming to produce safe practitioners of quality" [44]. The principal features of a core curriculum are that it is common to all students, covers competencies essential for the practice of medicine, and includes knowledge, skills and attitudes. Elective special study modules may be added and built on in subsequent stages of the curriculum or phases of education. The main reason for establishing a regional prototype core curriculum (Figure 1) has been the desire to effect a change in medical education in the Region.

Figure 1. Prototype core curriculum for medical schools in the Eastern Mediterranean Region: list of essential competencies

1.	Clinical methods practical skills and clinical behaviours	With a shift to community health and family health
2.	Communication skills	Listen Written as important as spoken
3.	Human biology	Structure and function of body Molecular, cellular, organ and whole body level
4.	Human disease	Abnormal structure and function Natural pattern of disease
5.	Man in society	Human development aspects: psychology, sociology and anthropology (throughout the 5-year programme)
6.	Public health medicine	Should figure prominently the impact of changing needs in society, prevention, early detection of diseases and promotion of health Health system/management
7.	Management of diseases and rehabilitations	Responses to illness and help towards recovery. Management of diseases and disabilities
8.	Crisis management	Medicine in wars/emergencies
9.	Self-learning	Should start from 1st year and continue
10.	Special study modules	Should start from 1st year and spread over 5 years

7.6 Regional guidelines on capacity-building and resource utilization to support the health professions education reform initiative

One of the key problems in managing reform is the staff and faculty development programme that will precede and accompany that reform. For many years it was widely assumed that expertise in one's discipline was sufficient preparation for an academic career. However, faculty development is used to mean programmes for training physicians to become medical school members, to prepare them for their various academic roles and to sustain their productivity and promotion. Also, it is a tool for improving the educational vitality and excellence of our institutions. A sufficiency of faculty members who possess basic teaching skills and are familiar with the academic values, norms and expectations of the institution is required. The question is, how to estimate this sufficiency according to assessment of institutional needs, which take into consideration institutional vision, mission, goals, objectives, curriculum approaches, and teaching/learning strategies? The guidelines describe how to plan, implement and evaluate programmes for capacity-building and optimum utilization of human resources.

7.7 Initiation and monitoring of reform of health professions education

a) Initiation of reform of health professions education

- Policy-makers and administrators in the health professions education institutes in the Region will be approached and provided with the reform documents including the regional guidelines.

- The potential institutes will then be short-listed to participate in a regional conference to discuss and select those who are ready to initiate and implement the reform. The institutes will be representative of the countries in the Region, and will include both established and newly established institutes. A clear and documented commitment to implementation of the reform will be produced by the institute.

b) Monitoring of reform of health professions education

The following three steps are recommended for implementing and monitoring the reform:

1. Official institutes consent to promoting awareness among decision-makers, staff and students about the reform.

2. At the level of colleges, action will be taken, with Regional Office technical support, to: promote awareness within each college; identify tasks related to the reform; nominate a group of staff who will be responsible for managing the reform process; establish a curriculum committee and an educational development centre; recruit and train the group of staff nominated in initiation and management of active learning; produce the curriculum document and disseminate it to staff, partners (e.g. Ministry of Health and

students); organize training sessions for staff to develop skills related to introducing reform methods.

3. Implementation of the reformed educational programme will be gauged by a number of efficacy criteria in regard to institutional vision, philosophy, learning methodologies, evaluation, inputs and outcomes. The detailed set of criteria is part of the reform project, to assure quality of implementation in regard to, for example, the active involvement of all staff working in the health sector in addition to the staff and students, and to consider that in any activity related to capacity-building. Programmes should be well-defined, relevant and continuously evaluated and monitored.

7.8 Human resources strategy

One of the areas that needs immediate attention in the Region is development, in each country, of a comprehensive national human resources strategy as part of the overall health development strategy. There was consensus among the expert group that without such a strategy, it will not be possible to make substantial improvements in the overall performance of the health sector. Coordination between ministries of health, ministries of education, ministries of higher education, other sectors providing health care, professional organizations, universities and educational institutes is essential to develop a well coordinated and comprehensive human resources for health strategy. It requires national capacity-building in the area of human resources for health policy development, planning and management. It also requires political commitment and a policy decision to move forward with the development of such a strategy. Last but not least, it requires a reliable and accurate human resources for health information system.

The recommendations of the expert group are incorporated in the overall recommendations at the end of this paper.

8. CONCLUSION

Fundamental changes must occur in health care systems to make them more equitable, cost-effective and relevant to people's needs. All people and communities should receive essential public health and personal care services known to improve health status. The family practitioner should have a central role in the achievement of these goals by being highly competent in providing quality essential personal care and by integrating individual and community health care. There should be a formal regular dialogue between governments, health care policy-makers and planners, the medical profession (generalists, specialists and public health doctors) and medical schools and other health professions institutions to devise a national response to people's health care needs.

Health professions and medical education are changing. The graduate output of many universities in many developing countries may not fit with the needs of the 21st century's agenda for health and health care. While change is a must, this cannot be achieved without dedicated leaders with vision for the future of education, research and services. Evidence from

countries all over the world shows that such changes can be achieved and that education and services are responding and shaping themselves to meet the challenges and the evolving needs of society.

9. RECOMMENDATIONS

To Member States

1. Institutions responsible for health professions training and education should be supported to adopt a holistic reform rather than piecemeal changes.

2. Family practice at all levels, including education, services and research, should be promoted.

3. Intersectoral support for reform of health professions education should be secured.

4. Partnership should be promoted between the health system, health professions institutions and the community, and strategic alliances developed to implement the reform of health professions education.

5. A national accreditation system should be established to guarantee the quality of health professions education institutes and their graduates.

6. The use of national languages in health professions education should be promoted.

7. An educational development centre/unit should be established in each health education professions education institute to develop and monitor the reform process.

8. Health professions education institutes, including newly established institutes, should be properly prepared in order to be able to accredit programmes.

9. Reform of health professions education should be included as a priority within the collaborative programme with WHO.

To WHO EMRO

10. The regional guidelines on the reform of health professions education should be published and disseminated.

11. The reform project proposal should be finalized with a view to obtaining financial resources from extrabudgetary sources.

12. Member States should be supported in the adaptation and implementation of the regional guidelines for reform of health professions education.

13. Reform of health professions education should be tested through pilot schemes to assess the validity of the standards and outcomes, estimate the services required and mobilize resources both financially and technically to implement, and support reform in selected schools representative of the Region's Member States and of different professions.

14. Member States should be supported in developing a national strategy for human resources for health and the lessons learnt documented.

15. The use of national languages in health professions education should be supported.

16. Family practice in education and service delivery should be promoted.

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