



INTERNATIONAL CONFERENCE ON PRIMARY HEALTH CARE  
CONFERENCE INTERNATIONALE SUR LES SOINS DE SANTE PRIMAIRES



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REPORT OF THE REGIONAL DIRECTOR FOR THE EASTERN MEDITERRANEAN  
WORLD HEALTH ORGANIZATION

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INTRODUCTION

The Eastern Mediterranean Region of WHO is a fast developing region which includes some of the richest countries in the world as well as some of the poorest. It presents a great variety of physical and social conditions. Many of its people are going through an industrial and social revolution that is changing their way of life profoundly. Yet the patterns of living of large numbers, including millions of nomads, have changed little in centuries

These features are reflected in the health problems of the Region and in the measures which are being taken to deal with them. The rapid economic growth which some countries have been experiencing in recent years is enabling their governments to go far in providing for their people the material and social amenities that lead to better living. At the same time, they realize that they have it within their means to enable their people to be liberated from the age-old burdens of ignorance and disease so that they may achieve the dignity, integrity and self-realization which one associates with good health, good education and economic independence.

The primary health care concept has found ready acceptance in the countries of our Region. Indeed, it is gratifying to me that the Region has played a pioneering role in this respect and provides some unique examples for other countries to emulate.

Work in the Region in primary health care began with the isolated attempts of a few pioneering health authorities, and in the last few years it has been promoted by a number of governments with the collaboration of WHO and UNICEF. Much has already been achieved; many countries have primary health care programmes of increasing size, coverage and variety, and others are planning to introduce their own programmes. Some of the more established programmes are described in this report. However, I should like to consider some aspects of this primary health care movement as I see it, and some of the ways in which it may be promoted.

Primary care is more complex, less easy to define, more all-embracing and also perhaps more important than many of the earlier major programmes in which WHO and our Member States have been associated. "Primary", as dictionaries define it, can mean first in order of time - primary care is that provided at the first contact between a patient and a health worker. This is the sense in which it is generally used. However, primary can also mean first in order of importance. In our context it should, I feel, have both these meanings, but it is the second, broader, meaning that I wish to emphasize.

The achievement of balanced primary health care for everyone, or nearly everyone, is an aim of all the governments in our Region. It is an enormous task. Of the many endeavours necessary to achieve it, three are perhaps particularly important.

Our first task must be to define in detail just what procedures are sufficiently important to be included in primary care in its broader sense. Upon the thoroughness with which we do this will depend the relevance of the way in which we train our workers. This is not to say that agreement will be unanimous or that the same measures will be considered equally important in every country. Nevertheless, I am sure that there will be sufficient agreement to make detailed definition possible.

Our second endeavour must be a long-term manpower plan for primary care, and by long-term I mean a decade or more, in which the steadily increasing quality of the various primary care cadres is no less important than their size. Having provided some minimally trained workers, the next challenge to the primary health care movement must be to re-train and, where possible, replace them by more skilled health workers. This determination to improve continuously the quality of care requires that each country should develop a long-term plan for its primary health care manpower, forming one cadre out of another, and altering the size and nature of each cadre as needs and opportunities permit. For this we need better information, better ways of using it, and much better educational planning.

As we do this we should be continually asking ourselves some critical questions.

- Just who in the community is getting what kind of care and how well is it being given?
- What are we doing to remedy the deficiencies we find?
- How effective are our training institutions in producing the desired knowledge, skills and attitudes in our primary health workers?
- How efficient are they in doing this at minimum cost?

Meanwhile, it is heartening to observe the increasing importance accorded to auxiliaries in our Region and indeed in most industrial countries. It may be that, by the end of the century, the manpower patterns of primary health care of much of the world will look remarkably similar.

For many years, I have been saying that educational programmes should be designed to respond to the needs of communities. So, our third endeavour must be to see much greater scientific rigour applied to assessing the relevance of what primary workers do, the quality of the care they give, and the coverage they provide. This evaluation will be the basis for the continuous improvement and extension of the primary care service and of our training systems. If we can learn to measure quality of care, we shall have taken an important step towards achieving it. We have also to make the community more aware of the quality of primary care and invite the community to share our responsibility for its improvement.

I have, I hope, made a case for important practical collaborative action to resolve problems which are widely similar in many parts of the world. Can our Member States and the international health organizations combine to promote primary health care in this important sense?

Such an endeavour requires dynamic health manpower planning and continuous upgrading of the quality of its training. It also requires widespread and extensive collaboration and exchange of experience between Member States and international organizations on a regular basis. It is my fervent hope that history will not consider our meeting at Alma Ata the climax of a movement which quickly waned, but, rather, a major step towards the ultimate goal of providing better health care for everyone.

A handwritten signature in dark ink, appearing to read 'A. H. Taba', with a stylized flourish at the end.

A. H. Taba, M.D.  
Regional Director



## PRIMARY HEALTH CARE

The primary health worker involves the community in environmental sanitation activities aimed at prevention

An important health promotion function of the primary health worker during home visits is preparing and maintaining records of health status

The community participates in protection of its water supply under the guidance of the primary health worker





Health promotion activities of the primary health worker focus especially on vulnerable groups (e.g. expectant mothers).



Health problems of vulnerable groups (e.g. children under five years of age) can be prevented by observations during regular home visits.



The frontline health worker is responsible for primary curative services for various age groups in the village health units

## I. THE REGION AND ITS PEOPLE

The Eastern Mediterranean Region of WHO comprises 23 Member States and stretches from Tunisia in the west to Pakistan in the east. It includes almost all the Arab countries and considerable parts of Central and West Asia and of Africa. At the crossroads of three continents, it is home to some 240 million people, as varied as any people on earth.

With its well-watered, heavily populated, river valleys and its uninhabited desert wastes, the Region includes some of the most fertile and some of the most arid portions of the earth's surface.

Inextricably tied to aridity and fertility is the population density, which varies enormously from one area to another.

Some of the oldest known civilizations - Egyptian, Persian, Sumerian and Indus - originated in this Region. "Here, civilisation began", Julian Huxley wrote. "Everywhere else, civilisation diffused in from somewhere else. Only in the Middle East are to be found the first spontaneous developments of that novel form of human organisation we call civilised society." The Arab and Persian legacies to modern civilization include algebra, geology, botany, ceramics, medical chemistry and treasures of medical knowledge basically drawn from the common fountain of Greek medicine.

Of the 530 million Moslems in the world today, nearly 200 million live in the Eastern Mediterranean Region. Christianity also originated in this Region and its believers are grouped in over 20 different religious communities such as Copts in Egypt, Maronites in Lebanon and Armenians in Iran and Syria. Judaism although concentrated in Israel has widely scattered adherents.

A significant fact in this multilingual Region which produced the first known written system of communication is the still widespread illiteracy - 50-90% of the population in large areas is illiterate. Compulsory elementary schooling is, however, steadily gaining ground with a consequent increase in literacy.

Another noteworthy fact is that today's harvests in some areas are still inadequate to satisfy man's hunger and meet his health needs. A staggering task for most Middle Eastern countries is to remedy nutritional deficiencies suffered by many who still lead a precarious hand-to-mouth existence, and to provide for their newborn millions. Drought, floods, locusts, pests and parasites still threaten life and often impede agricultural advances.

Still counted in millions, despite a marked trend toward settlement, are the nomads - shepherds, tent-dwellers, camel breeders - who drive their herds across mountains and deserts, following the seasons, the rains and the growth of grass. Ten million nomads roam this Region with their own tribal laws, and their well-set grazing and trading patterns, not always confined by national borders.

Agriculture still remains the foundation of the Region's economy. Farming occupies over three-quarters of the population. The Region's limited arable land yields sizable crops which account for up to 90% of export revenues in countries with no oil income.

A modern feature of the economy of the Middle East is the large oil reserves estimated at well over half the world's total and, apparently, increasing in potential.

Eastern Mediterranean countries today face the sometimes considerable stress of adapting ancient ways and modes of thought to the space age and a high-speed electronic world. After ages of existence as pastoral and agricultural lands, their entry into the industrial era has too often resulted in urban sprawl and tribal disintegration. Many areas are caught up by the frantic urge to industrialize that seized several Middle Eastern countries after World War II, and by the consequent massive drift of nomads and peasants into the cities. But, as towns replace tribes, the mainly agrarian society of many countries is undergoing deep structural changes under the impact of fundamental reforms, including agricultural and land reforms. Concurrent with social and economic development efforts of governments, emphasis is being placed upon integrated community development which includes strong elements of agriculture, education, health and environmental sanitation. Most countries have realized that only this approach can bring about the better health of their rural communities.

## II. PRIMARY HEALTH CARE: EARLY EXPERIENCE IN THE EASTERN MEDITERRANEAN REGION

The governments of the Eastern Mediterranean Region had for some years before 1975 become increasingly concerned that large population groups were receiving no health care. It had become clear to them that new policies and approaches were needed if the situation was to improve significantly in the years to come. Indeed, a number of our governments had been pioneering the primary health care approach for several years before that time. It had been tested specifically in one particular province of Iran and had been shown to be feasible; simple and effective measures, in terms of cost, technique and organization, were being made easily accessible to the people and had begun to make a positive impact on their living conditions. Other countries had had similar experience.

Therefore, when, in 1975, the Director-General of WHO proposed to the World Health Assembly a new approach to the promotion of national health services particularly for the underserved millions of the developing world, there was a ready response in several countries of the Region.

A number of governments soon began to reorient their health programmes and policies. In the light of the variety of sociopolitical characteristics of the countries of the Region, it was clear that there was no one solution for all of them. Health authorities began to promote pragmatic, step-by-step, activities to solve priority problems and to meet long-term as well as short-term needs.

### Community participation

The experience gained so far confirms that if the primary care approach is to be effective and to provide total coverage, communities should themselves undertake or share the responsibility for initiating a service and maintaining it. Community participation is basic to the concept of primary health care. It is one of its distinctive features. The forms which it takes do not vary very much although the level or degree of participation or involvement varies with the state of development of a country. In its most common form the community selects a prospective health worker who is then trained in a health-service setting, returns to the village to "practise" from premises and other facilities provided by the community, and may be supported by and is responsible to the community.

The health worker involves the community in health and related activities often concerned with the control of environmental problems such as the provision of safeguarding of a convenient water supply. Gradually communities gain experience in running their own health affairs and communicating with the health authority at the next level.

In more developed societies community participation tends to be expressed in its more conventional political and bureaucratic forms. These include health insurance schemes such as those in Egypt, Iran and Israel, which provide comprehensive primary care services staffed mainly by physicians and nurses, for employed workers and their families.

Community responsibility and involvement cannot, however, be taken for granted. It has had to be fostered and continuously supported. Experience in those countries of the Region which have been pioneering the primary health care approach amply confirms the findings of the study on community involvement in primary health care made by the Working Group of the UNICEF-WHO Joint Committee on Health Policy, and reported in 1977. The report<sup>1</sup> lists a number of factors which favour community participation, among them: strong government commitment to community participation and the strengthening or creation of structures which allow active community involvement; government administrative decentralization; the availability of local resources, particularly of respected local personnel such as traditional birth attendants and of primary-level workers in fields other than health; and development programmes in other sectors which can serve as an entry point for comprehensive programmes.

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<sup>1</sup>Report for the 1977 UNICEF-WHO Joint Committee on Health Policy.  
"Community involvement in primary health care: a study of the process of community motivation and continued participation."

The more successful programmes in our Region demonstrate these factors in varying degrees; the absence of those which could be considered as crucial constitutes a very serious constraint to programmes, even threatening their viability. Some are external to the community and others internal. They cannot easily be separated, however: they interact, and their interaction reinforces them. They constitute a set of conditions which need to be systematically fostered by governments and other organizations concerned with primary health care.

Internal factors which have been associated in the Region with a high level of community participation include, particularly, the availability of local traditional health workers, especially birth attendants, and of other primary-level workers who have been able to undertake health work as well as their tasks in other development sectors.

The presence of local leaders with organizational skills and the capacity to attract external resources has been strongly associated with effective community participation.

A partly external, partly internal, factor of great importance is the existence of good infrastructures such as roads and transport, telephones and electricity. In a few countries many communities are isolated in winter, making the supervision of health workers and their access to advice and referral facilities very difficult or impossible.

Group friction within communities has been found occasionally. A project may stand or fall on whether group rivalries or feuds can be resolved, or a health worker designated by a village leader becomes acceptable to an opposition group.

Nomad communities pose special problems in regard to participation, some countries, notably Afghanistan, Iran, Somalia and Sudan, have special arrangements for primary care for nomads

An evaluation of primary health care projects carried out by the Regional Office in one country (Iran) in 1976 showed that communities participated most effectively when environmental sanitation was a component of health care, and that front-line rural development workers other than health workers had been more effective than health workers in promoting participation. When primary health care was a component of a well-functioning rural development programme very active community participation was noted. Not surprisingly, when central or regional organizations planned and executed services, community participation tended to be minimal

The delegation by central health authorities of decision-making responsibilities and functions to local communities, while at the same time supporting those communities in their new roles, can be an extremely complex undertaking. But it is essential, if local communities are to gain experience in running their own services. Such a major policy change has many implications for the allocation of resources, for education and for the structures of health and other services.

In some areas special attention has been given to fostering conditions for effective community participation. Participation that had already resulted in perceptible benefits greatly stimulated further community involvement and the assumption of responsibility. It is in this context that health education appears to have its greatest potential. Communities have learned health-promoting behaviour from their participation in health-related activities much more effectively than had they been merely passive recipients of information about health.

It is clear too that development in sectors other than health depends also on community participation - satisfying the conditions for effective community participation is therefore a multisectoral responsibility.

The programmes in our different countries demonstrate very well the reversal of earlier principles and practices which had aimed at reaching out from central facilities to peripheral populations. The people have begun to appreciate the virtue of relying upon their own judgement and resources, with needed technical support from the other levels. The reversal of the roles of the centre and of the periphery does not, of course, occur easily or rapidly but experience confirms it as an essential principle of primary care even if it can be implemented only in graduated steps by area and time. Self-help and mutual aid are inherent cultural values of many of the societies in the Region and are manifest in the day-to-day life of the people: community participation and self-reliance are thereby facilitated.



### Primary health care and medical education

In several countries of the Region because of a ready supply of national or expatriate physicians it is established practice and government policy that primary care be provided mainly by teams of general medical or family practitioners and nurses, based in health centres. Health authorities in these countries are variously concerned with ensuring an adequate supply of professional health workers to cover their populations, and with improving and maintaining the quality of primary care.

In most cases, countries that are at present dependent on expatriate medical manpower plan to become entirely or largely self-sufficient. It is recognized also that arrangements must be made for the continuing education of primary care personnel, and for forms of organization of primary care which will make it an effective medium of community health and a challenging and rewarding form of professional practice.

Conventional undergraduate medical education is increasingly recognized as an inappropriate and often irrelevant preparation for primary care practice. It is unnecessarily complex, it relies too much for clinical training on hospital specialty medicine, it depends on ineffective education methods, and there is a widespread lack of commitment by many university medical educators to meeting the real health needs of society. Also, with few exceptions, education and health authorities have not yet instituted the postgraduate and continuing medical education systems which are needed to support primary care.

There are encouraging trends in the Region, however, towards relating medical education more closely to the needs of health services. A number of medical schools have introduced fundamental educational innovations directed specifically at primary care. The training of medical teachers in educational methods, which the Regional Office has been promoting for some years in order to improve the quality of medical education throughout the Region, is expected to result ultimately in higher standards of primary care.

Almost all health ministries are strongly committed to working more closely with medical educators, and vice versa, to develop a more relevant pattern of education. Very strong evidence of this was demonstrated at our recent Ministerial Consultation on Health Services and Manpower Development.

### Traditional health workers and traditional medicine

Rural communities in most countries of the Region have a strong traditional reliance on indigenous systems of medicine as practised by various kinds of workers over many centuries. That traditional workers have continued to occupy a place for themselves in society shows that they can respond to certain needs of the people amongst whom they live.

There are generalist and "specialist" traditional practitioners. The generalists include the "tabibs" and the "hakim". "Specialists" have very specific functions and techniques. The "specialist category" includes traditional midwives or birth attendants, who assist expectant mothers in remote areas and offer guidance in maternal and child health.

Official attitudes and policy towards traditional medicine vary greatly. In at least one country, traditional practitioners are officially recognized and legally registered; in others, they are prohibited by law from practising their art. In general, most countries do not officially recognize them but equally they do not debar them. The professional attitudes of physicians and others from outside the traditional systems are often flexible, perhaps because there is no organized relationship between the systems. The main exception is the traditional birth attendant, who is becoming accepted in modern health systems in several countries.

Health planners are now beginning to take into account the potential of traditional health workers. With proper screening and selection, many of them from rural communities can be trained as primary health workers or to assist in primary care.

The effective integration of traditional medicine into primary health care, though highly desirable, depends on solutions to a number of problems. Some of the issues are:

- (a) the nature of the organizational relations between the two systems;
- (b) the extent to which community development mobilizes and supports the integration of traditional and modern systems of medical care,
- (c) how to supervise the work of traditional health workers, to whom are they to be responsible and accountable, how to assure their credibility and acceptability in communities;
- (d) the establishment of priorities in the care which can be provided and its economic aspects;
- (e) the degree to which traditional health workers can contribute to health care;
- (f) the transfer of appropriate health technology to improve the quality and extend the scope of traditional health practice.

The Regional Office of the Eastern Mediterranean is sponsoring research to find a solution to these problems and to discover how traditional medicine may best be used in primary health care. A study is being made of all "unorganized health services" and underlying sociobehavioural factors. A study of the hakim and his functions, for example, is needed to find out how many there are, what he does, what he prescribes, how his patients behave, and his impact on health

### III. PRIMARY HEALTH CARE IN AN AFFLUENT AND RAPIDLY ADVANCING SOCIETY

For the past 20 years, Iran has experienced exceptionally fast economic growth and one of the world's most rapidly rising gross national products.

This economic growth has generated much social change. The programmes which comprised the Iranian social development plan of 1962, the "White Revolution", affected many sectors and included land reform, workers' profit-making schemes, the formation of an Agricultural Extension Corps, an Education Corps and a Health Corps, as well as a new status for women. The changes thus initiated set the scene for a new social policy.

The short-term objectives of the programme included rectification of economic and social inequalities, and raising the standard of living of the entire population, especially its rural component.

Though substantially increased finances had been made available to the health sector, shortages of manpower and organizational shortcomings continued for some time to prevent the health services from becoming fully responsive to the needs of the people.

In 1971, it was decided to undertake a series of research and development projects, in four regions, to test different approaches to primary health care. Their main goal was "to discover and test better ways to solve multiple health problems through an effective and efficient national health delivery system."

Since that time, with a massive investment of national will and effort, and with considerable collaboration from the World Health Organization and other international agencies, the country has come to be recognized as a veritable laboratory for experimentation in new approaches to the delivery of health care

At the time of writing, a national decision has been made to extend primary health care to all underserved areas of the population, rural and urban. However, this decision was not arrived at without a great deal of intensive national planning, experimentation, and rigorous monitoring and evaluation

The four projects, which have formed the basis for what has now become a national programme, are

(1) The West Azerbaijan project

The Health Services Development Research Project was started in West Azerbaijan in 1972, jointly by the Ministry of Health and the School of Public Health of the University of Teheran, in collaboration with the World Health Organization. The province has a population of about 1.3 million, living in an area of about 640 km<sup>2</sup>. To begin with, health needs were identified by means of surveys, which showed a remarkable disproportion between health needs and the utilization of health services. It was noted, for instance, that the impact of the most peripheral units (rural health centres), intended to serve a population of 20 000-50 000, was limited to the population closest to them (3000-5000 people). It became evident that it was the primary care level that required the greatest attention in any endeavour to improve community health coverage. It was subsequently decided to introduce two types of front-line health workers: a female worker (behvarz) and a male worker (behdasht yar).

(2) The Fars (Kavar) project

In December 1972, the Department of Community Medicine of the Pahlavi University School of Medicine, at Shiraz, undertook to design and implement a programme for the training and utilization of village health workers. In early 1973, as part of a health services development research programme, a village health worker project was established at Kavar, a village of about 2000 population, located 35 km east of Shiraz. The purpose of this pilot project was to study the feasibility of training villagers, only basically literate, to provide primary health care to the rural population. The project had two main objectives:

- (i) to provide a partial solution to Iran's shortage of health manpower, through the training and deployment of auxiliary health workers for work in rural areas;
- (ii) to provide information on the effort involved in and the impact which results from such a programme.

(3) The Fars (Alashtar) project

In line with its endeavours to raise the standard of health of the rural population, within the framework of overall community development, the Imperial Organization of Social Services initiated a pilot project, in 1974, for the training and utilization of front-line health workers in the tribal areas of the Fars province. The population of those areas is about 400 000, a considerable proportion of which is nomadic.

(4) The Lorestan project

The Selseleh Regional Development project began in 1974, with the aim of developing the people's inner resources and promoting community advancement within the context of an integrated endogenous development programme. The project is funded by the Plan Organization, through the Prime Minister, who has direct authority over the project. Authority has been delegated to one individual, the Project Commissioner. The Imperial Organization for Social Services is responsible for implementing the health component of the project.

The projects evaluated

In 1976, at the request of the Government, WHO sent an international mission to make an evaluation of the various primary health care projects in the country, with particular reference to those four. The terms of reference of the mission, as specified by the Ministry of Health, were as follows:

- (i) to spell out common goals in terms of quantifiable objectives;
- (ii) to develop common methodologies for an evaluation of the extent to which goals and objectives have been reached, and
- (iii) to determine which of the techniques and methodologies now in use is the most likely to achieve the objectives defined under (i) within the limitations of manpower and funds assigned to the Fifth and Sixth Five-Year Plans of Iran.

Following an in-depth examination of the whole situation on all four projects, it was agreed that, in Iran, as those research and development projects had shown, an important contribution to primary health care could be made by front-line health workers.

The West Azerbaijan project was found to provide the most comprehensive integrated primary health care. There, as a result of a detailed initial analysis of health needs and problems, the emphasis is on family health care and environmental sanitation, with curative care playing a less important role. The core workers are young male front-line health workers (behdasht yar) with primary responsibility for environmental health, and female workers (behvarz) with principal responsibility for personal and family health problems.

As a result of a series of subsequent steps, it is now national policy to cover the country as a whole with primary health workers closely integrated into a national health service network. It is noteworthy that, although the basic pattern for the national programme is that which was begun in West Azerbaijan, strong national encouragement continues to be given to other approaches.

For the purpose of the Conference, the most important aspect of the Iran experience is that it shows a steady progress from the recognition of a national need for a major change in the total national health delivery system to a decision to implement a new kind of national health system. The recognition of the need for change stimulated a determined national will and a political decision to tackle the problems. This led to the initiation of a series of carefully designed alternative, experimental, approaches with substantial support from national and international sources. When they had been in operation for a reasonable period they were evaluated by an international team, in which WHO collaborated. Then, on the basis of that evaluation, it was decided to implement a national health system incorporating the proven features of the experiments.

- the primary health worker is to be genuinely integrated in the system,
- the service will be rooted in community participation,
- it will draw on the collaboration of the sectors, other than the health sector, concerned with community development;
- its administration will be decentralized to provincial governments;
- it will have access to a planned referral system which will ensure for the most deprived citizen a direct line through his own primary health worker to the best available scientific medical care in regional and central hospitals.

It is also of importance for the purpose of this Conference to note that, probably, such a development could have taken place only in the kind of situation that has existed in Iran in recent years, where there has been, concurrently, a ferment of reorganization of the entire educational system for medical and all other health professional workers.

Many of the reforms which have taken place in medical education have come about quite directly as a result of the involvement of leading medical educators. Several new medical schools - in West Azerbaijan (Rezayieh), in Hamadan, and in Fars (Fassa) - have adopted completely new approaches to curriculum planning, which have stemmed directly from experience in primary health care. Teams of primary health care workers and their colleagues in the health services network, including medical students, are being trained together in a coherent manner designed to produce genuine community teamwork.

Much of the research begun in the early days of the primary health care movement in the country is being used in order to determine what kinds of doctor the country needs to produce. It is clear that the days of the relatively isolated medical professional completely preoccupied with curative medicine are numbered. Thus the primary health care movement is seen to affect not only the hitherto underserved areas, which it was first designed to help, but also the forms of organized health care at the other levels as well as the whole structure of the health professional educational system.

#### IV. THE LARGEST COUNTRY IN AFRICA TACKLES ITS HEALTH PROBLEMS

The Sudan, with a population of about 16 million, is the largest country of Africa. It has introduced a national health programme for the period 1977/78 to 1983/84 which is an outcome of an elaborate country health programming exercise in which WHO collaborated, as well as a component of a Phased Programme of Action for overall socioeconomic development. The Phased Programme of Action gives top priority to preventive and social medicine and rural health care, and aims at maximum population coverage and a fair distribution of services.

The national health programme is directed specifically at (a) the control or eradication of endemic and epidemic diseases and the improvement of environmental conditions; (b) the strengthening of rural health care so as to ensure an extensive coverage of the population and a fair distribution of services; and (c) the provision of training facilities for all levels of professional, technical and auxiliary health workers.

The national health programme covers the eight main health problems of the country, and incorporates primary health care for rural and nomad populations. The main programme areas are: malaria, man-made malaria, primary health care, schistosomiasis control in irrigated areas, provision of a safe water supply, environmental health, food supplies in certain regions, and onchocerciasis. Some are considered to be health development programmes and others, intersectoral development programmes.

Primary health care, being a component of the national health programme, is an expression of national policy and conforms to the policies, objectives and strategies of the national health programme. It meets criteria of accessibility and cost, and is thought to be acceptable on social, cultural, professional and technical grounds. It is oriented to community health and development rather than only to the medical care of individuals. It does not operate independently of other community development activities. It employs traditional tools and methods as well as appropriate modern technology which can be used by non-professional health workers.

Maximum population coverage is being achieved by a planned programme of training for health workers and supervisors. Prospective health workers are selected by the community they are to serve. The manpower target for 1984 is one community health worker for 4000 persons in settled areas, and one for every 1500 nomads. Their training is specifically directed at the prevalent diseases which the programme is designed to cover.

With a force of approximately 3520 health workers and 574 points of supervision and referral, the programme is planned to cover 80% of the hitherto unserved rural population by the end of the present plan period in 1984.

##### Community participation

An important feature of the programme is community participation, by means of which the people can exercise control over the health services and promote other services leading to social and economic improvement. Such self-help efforts are being mediated through community institutions such as village development committees, village and fariq (nomad) councils, basic units of the Sudanese Socialist Union, and parent-teacher associations.

These bodies are expected to enlighten the people and promote health education, mobilize resources in support of primary care, organize the mass prevention of certain diseases, foster cooperative multisectoral development projects, and provide incentives to the community health worker.

To foster community participation, administrative and financial coordination has been provided for at central, provincial, district and local levels. Furthermore, coordination at the same levels between the various ministries concerned with community development has been provided for, in order to meet the technical and developmental needs of the programme and to keep the public fully informed.

The primary health care strategy in the Sudan is consistent with the Government's policy of making health care available at no direct cost to the consumers and with maximum coverage of the rural population. The people have expressed their needs through their representatives in the People's Assembly, who have persistently demanded control of endemic diseases, adequate population coverage, sufficient health personnel, drugs, supplies and equipment, and the evaluation of health services. The primary health care programme can thus be said to be meeting the political and social aspirations of the people. Financial feasibility requires that funds can be made available from internal and external sources.

#### A special strategy for nomads

There is a special strategy to meet the needs and expectations of nomadic populations. Criteria for personnel, drugs and supplies, and the information system are flexible, simple and designed so as to be acceptable to the nomads, whose participation must be ensured. Their health services are coordinated with other activities related to the nomadic mode of life such as animal husbandry and veterinary services, agricultural schemes and water-supply development, and social and educational services.

Differences between particular nomadic tribes are taken into account, particularly those that distinguish the purely nomadic from the semi-nomadic ways of life, and the differing circumstances of camel-owners and cattle-owners as regards their routes and periods of sojourn. Camel-owning nomads have permanent but mobile community health workers. Static primary health facilities are being located for them at the main summer gathering points, these are available also to locally settled tribes. Cattle-owning nomads are being provided with mobile primary health care units which can be available to them throughout the year. A unit with a community health worker includes also a dispensary with a medical assistant.

The aim is to have at least one community health worker for every 1500 nomads, and this ratio may be increased. Nomad communities select their own health workers from among themselves. They are preferably male with at least primary schooling but, if possible, junior secondary education. Training arrangements are as for the community health workers. They are paid by the rural council of the area concerned, and the nomad communities provide them with accommodation and transport by camel.

#### V. PRIMARY HEALTH CARE WITH A DIFFERENCE

Primary health care in the sense in which it is the subject of this Conference depends mainly on new kinds of front-line health workers, non-professionals chosen by, and trained for, rural communities where there are no professional health workers. However, there are countries in our Region where primary care is delivered by the conventional forms of health professionals - physicians, nurses and other paramedical colleagues, and where it is government policy to maintain and develop this type of primary care.

Notable examples of these are Israel, Egypt and a group of the smaller and more affluent states, including Bahrain, Kuwait, Lebanon and Qatar. In these countries, the situation can be summed up by saying that, either there are no problems of providing health care to underserved populations (as in Bahrain and Israel), or they already have very large numbers of medical and other relatively high-level personnel (such as Egypt and Kuwait).

In other countries such as Iraq and Tunisia it is the policy to increase the production of physicians and nurses and at the same time to correct the maldistribution of primary care practitioners as between urban and rural areas in order to bring about the ready access by their total populations to primary health care.

In Israel, there are few, if any, underserved population groups, and there are adequate numbers of general practitioners. Nurses tend to be in short supply mainly because of early loss of graduate nurses to assume family responsibilities. The problem is, rather, how to assure the high quality of care and the range of health services already available in urban areas to the entire country. Associated with it is how to remove the sharp demarcation which exists between the primary care sector and facilities for secondary and tertiary care.

Another factor which is considered to affect the quality of primary care is divided responsibility for preventive and curative medicine. The Ministry of Health is responsible mainly for preventive services and the health insurance system for curative services. Integration of services is seen as a high priority in order to avoid overlapping and facilitate continuity in health care.

It is the policy of the Government to make high-quality primary medical care available to the entire population within the framework of a national health insurance system, and with ready interaction between the primary, secondary and tertiary care sectors. A number of groups, based on the existing health insurance system, Ministry of Health services and medical schools, are developing different approaches to the implementation of this policy. The Israeli health and medical education system is sufficiently flexible to permit administrative units like hospitals, regions and university departments to experiment with patterns of organizing health services so that much empirical knowledge has been gained about the feasibility, cost, advantages and disadvantages of different approaches.

One of the most interesting experiments in that country is the programme of the Centre for Health Sciences of the Ben Gurion University of the Negev, Beersheba, opened in 1974. In this centre, medical education is closely associated with medical care; an integrated programme of preventive, curative and rehabilitative care for 300 000 people of the Negev is merged with the medical education programme under a single authority. The educational aim is to produce a physician who will serve in a fully integrated hospital and community health care system.

The medical school participates as a full partner with the Ministry of Health and the health insurance system in planning and implementing all levels of health services for the Negev region. It involves in the educational process all sectors of the health care system from a major teaching hospital to the peripheral ambulatory services in the rural and developing areas. It has thus the opportunity to examine the role of the physician in different settings in terms of the competencies required for professional performance and to formulate educational objectives accordingly. As the educational programme both stimulates and reflects changes in the health services, new ways of relating education and health services are developed.

All the health resources of the Negev are available for clinical and public health instruction, which begins with the first year of the curriculum. The heads of medical school departments are responsible also for hospital and community services in their specialties. The Chairman of the Primary Care Teaching Unit and the Director of Clinics, an official of the health insurance system, are responsible for developing and maintaining the teaching potential and administrative standards of primary care teaching facilities. They are also members of a working party along with representative primary-care team members (two nurses, a paediatrician, a family physician, a psychiatrist, a social worker), which plans the activities and the teaching programme of the primary care unit.

The University Centre for Health Sciences is a WHO Collaborating Centre, and the educational experiment is monitored continuously by WHO for its potential as a model of education and health care for other areas of the developing world.

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Egypt enjoys a long tradition of public health services in its rural communities, and for some years has been producing very large numbers of physicians. Although like many other countries, its production of nurses had lagged behind that of physicians, a programme initiated in 1973 is now producing some 5000 new nurses each year from a network of secondary technical nursing institutions. In collaboration with the World Health Organization, USAID and the World Bank, and in close integration with the country's massive efforts in family planning, the existing network of rural health services is being substantially upgraded, programmes of continuing education are being introduced throughout the country and detailed scientific investigations are under way to discover how best to link the now decentralized services of the Ministry of Health to activities in community development as a whole.

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One of the smallest countries in the Region, Bahrain, has a population of about 300 000, all of whom have access to primary medical care. It is the policy of the Government to develop its system of primary care on the basis of a combination of family and community medicine delivered through a network of health centres staffed by physicians, nurses and associated health workers. Every family in the state is being registered and being assigned a health centre physician to be responsible for its health care needs. The state depends for the present mainly on expatriate physicians for its primary medical care services. A special training programme has been initiated to orient them to the practice of family medicine in the specific circumstances of Bahrain. At the same time, a residency training programme in family medicine is being prepared which, over the next several years, will make available specialist family physicians to lead the health centre teams and assure high-quality comprehensive primary care for all citizens. Model forms of coordination with hospital and public health services are being developed as well as continuing education for all health professionals and auxiliaries. It is noteworthy that several research studies have been made in one of the first new health centres in order to obtain information on the operation of the service, to be fed into its further planning.

The Bahrain experience is expected to provide a model or basis for similar services in neighbouring countries, some of which are assisting the Government of Bahrain in this development.

#### VI. SOME EARLY STEPS TOWARDS PRIMARY HEALTH CARE

A number of countries are at relatively early stages of developing primary health care programmes. They include Afghanistan, where a programme has been under way for more than a year, and Pakistan where, over several years, a considerable number of workers have been trained to provide primary health care in some of the most remote and inaccessible parts of the country.

The nature and scope of the problem of providing health care to the population of Afghanistan (approximately 17 million) may be appreciated when it is realized that (1) there are 23 000 villages many of which are remote from any road, (2) there are about 2.5 million nomads, (3) one-third of Afghan babies do not survive for five years, (4) the adult literacy rate is less than 12%, and almost all village women are illiterate, and (5) per capita annual income is about \$ 100.

It is the Government's policy to expand the health services to cover the whole country. The priority health objectives set in the current Seven-Year Development Plan are to improve the health of infants, children and expectant mothers, to reduce maternal mortality and to improve the health of the labour force. The national health programme is being implemented through 10 medium-term programmes with which are associated, besides the Ministry of Public Health, the Ministries of Higher Education, Water and Power, Public Works, Agriculture and Planning.

Primary health care is a specific function of the Ministry of Public Health. Its Division of Preventive Medicine includes a General Directorate of Basic Health Services under which is a Directorate of Primary Health Care Development.

The unit for rural health services is the basic health centre staffed by a physician, a male nurse, a sanitarian, an assistant laboratory technician, two vaccinators and, in about 25% of centres, a female auxiliary nurse-midwife. There are 121 such centres and it is planned that by 1983 there will be a centre for each of the 197 districts of the country. Each centre is intended to serve a rural population of 30 000 to 50 000. However, because of poor roads and disrupted communications during winter about 75% of the district population have no direct access to the centres.

#### The village health worker

The Ministry of Public Health has concluded that the only way of ensuring primary health care in most villages is to train as village health workers candidates selected by villages



themselves to serve them. Accordingly, in 1977, the Ministry embarked upon such a programme. Male candidates selected by villagers must be literate but females need not be. All those selected for the early courses came from villages at least 20 kilometres from a basic health centre.

The initial training for groups of 15, at the nearest basic health centre, is for three weeks. It is almost entirely practical with its major emphasis on enabling trainees to help villagers to acquire good health habits. Further training is undertaken at three to six-month intervals.

Village health workers are part-time and unpaid but can make an income by selling at a small profit pre-packaged drugs purchased at the basic health centre. They provide simple curative services and prenatal and post-natal care, and refer patients as necessary to the basic health centre. Female health workers conduct deliveries when no birth attendants are available. Regular home visits are made, particularly to identify and follow up malnourished young children and to educate families in personal hygiene, environmental sanitation and maternal and child health including family planning. They work with villagers to construct simple water supply systems and organize communities for immunization programmes. They are supervised by the health centre sanitarian who visits them once a month except when the villages are inaccessible in winter.

The health worker is responsible to a village committee of elders.

The current Seven-Year Plan provides for 1500 such health workers to be trained by 1983. Complete coverage of the rural population will require about 20 000. On the basis of the experience gained with the early programmes a rapid nation-wide expansion is expected thereafter.

#### The traditional birth attendant

The Ministry of Public Health has recently begun to train traditional birth attendants (dais) in five-week courses in midwifery and the care of young children.

The early courses have shown that the dais, although usually over 40 years old and always illiterate, can learn new methods and techniques very readily. It is planned to train up to 5000 during the current Seven-Year Plan period, and to associate them with health centre doctors in an integrated village-based MCH programme.

The programme has shown the great potential for primary care of recruiting and training indigenous health workers who are already respected for their health activities.

#### Female health workers for basic health centres

Most Afghan health centres have no female health workers and hence many village women do not attend the centres. Until the centres can include auxiliary nurse-midwives, female health workers are to be provided, and accordingly a training programme was launched in 1977.

Trainees are girls who have completed the sixth grade and live near a health centre, and illiterate traditional birth attendants (dais) who will work in health centres where no educated girls can be recruited.

#### Nomad health workers and birth attendants

The Ministry of Public Health is planning a programme to provide primary care for most of the 2.5 million nomads, whose routes of migration keep them far from health facilities for most of the year.

Nomad health workers and birth attendants selected by leaders of the tribes are trained in brief practical courses. The nomadic way of life makes their supervision and continuing training extremely difficult. There are the additional problems of supplying them with drugs and of the referral to health centres of patients with complicated problems.

The multipurpose village worker

Besides the Ministry of Public Health, the Rural Development Department is active in primary health care. Multipurpose village workers with 12th grade education are trained in health as well as agriculture and education. There are now more than 150 of them and by 1983 there are planned to be 496 assigned to rural areas throughout the country.

As part of its integrated rural development programme, the Rural Development Department maintains its own basic health centres of which there are planned to be 20 by 1983.

The contribution of sectors other than health to primary health care

As indicated above, the Rural Development Department shares responsibility with the Ministry of Public Health for primary health care. A specific role is planned for agricultural extension workers. It is expected that the Ministry of Education will run literacy programmes for village health workers; village teachers, whose training includes health education, may be associated with primary care. At provincial and district levels, district administrators of the Ministry of the Interior cooperate in primary health care programmes.

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More than 70% of Pakistan's 74 million people live in its villages. Most are landless peasants, tenants, share-croppers or very small landowners.

Over the country as a whole, there is only one physician for nearly 7000 people and only one nurse for about 20 000; about 80% of the staff and facilities of health services are in towns. The great need for services is well shown by the infant mortality rate of 115 per thousand. The difficulty of providing adequate services can be appreciated in the context of an annual population growth rate of 3% and a literacy rate in any language of only 21%.

The rural development programme in Pakistan has as its main objectives: a more balanced ownership of land; more and more evenly shared social services, particularly primary care, increased agricultural output; a framework of effective rural institutions that would enable villagers to participate in the development process; comprehensive extension services, credit facilities and banks for the villagers; and the decentralization of planning and administration.

Primary health care

The aim of the primary health care programme is to provide a basic minimum of preventive and curative care for everyone. A three-tier primary health care system has been devised, to be staffed by primary health workers, auxiliaries, nurses, doctors and associated medical workers. For every village of 1000 people, two primary care workers are to form the lowest tier. Basic health units, manned by four to six auxiliaries, will serve 10 000 people and form the middle tier. The upper tier will be formed by rural health centres with two physicians, eight auxiliaries, and 10 beds, serving 40 000 to 100 000 people. The most notable features of this programme are the use of primary health workers, or health guards, who are being trained for the northern areas, and the part-time health worker role that some of the village priests or "pesh imams" are now assuming.

Health guards in the northern areas

The "health guard" programme was initiated in an area in the north of Pakistan where 470 000 people live in 650 villages high in the Karakurram range of the Himalayas. Health conditions there are particularly bad; the infant mortality rate is more than twice that of the country as a whole. Endemic goitre and anaemia of pregnancy are particularly common disease problems.

Since 1972 a determined effort has been made to develop the area. There are two government district hospitals, 11 voluntary-agency hospitals, 90 dispensaries and five maternal and child health centres. However, many established posts for medical and associated staff are unfilled, and there is no prospect that conventional health staffing will be possible in the foreseeable future. As much of the disease of the area is preventable or amenable to simple remedies, it was decided to train part-time primary health workers called health guards.

Health guards, as far as possible, are chosen by the people. They are permanent residents in a village, mostly between 15 and 30 years of age, and already employed in work which they are not expected to leave. About half the males have completed primary education only, a quarter have had two years of secondary education, and 13% have matriculated, about 10% are illiterate. Of the females, 60% are illiterate and only a quarter have completed primary education.

Trainers are chosen from among community-oriented physicians and paramedical staff; they are formed into teams and given an orientation course in teaching methods and the use of audio-visual aids, and in group dynamics, at the Institute of Hygiene and Preventive Medicine at Lahore.

Trainee health guards receive a course of instruction of about two months. After six weeks of training, two weeks are devoted to evaluating their work in the areas to which they are assigned. Some health workers are trained specially for maternal and child health. Trained workers receive a medical kit which contains basic drugs for the common diseases, female health workers are given the equipment required for home deliveries and child care. Drugs are replenished from stocks held by village councils. The cost of training a health guard is about \$ 50.

By June 1976, 1620 health guards and maternal and child health workers had been trained at 67 sites. A moderate deficiency of suitable female trainees had been compensated for by a corresponding excess of males. This was enough to provide half the villages and three-quarters of the population with one or more health workers. The remaining smaller and more remote villages had not at that time been included in the programme because access to them was difficult.

The health guards are responsible to the community, whose opinions are used to assess their performance and the effectiveness of the programme. Technical supervision and continuing training are provided by members of the instructing team, who visit them in their villages and reconvene them for further training every two or three months. Future supervision will be undertaken by the auxiliaries who will work from the basic health units.

The programme was initiated by the Health Section of the Planning Commission and then transferred to the local administration, whose responsibilities include health care and which is represented on an advisory council which is responsible for the health guards.

The Institute of Hygiene and Preventive Medicine at Lahore has undertaken the responsibility of evaluating the programme, and the evaluation findings are fed back to the training programme.

#### Pesh imams as health workers in rural development

In the North West Frontier Province, in a district of 89 villages, a pilot programme of integrated rural development has been started with the aim of developing community organizations to improve agriculture, health, education, forestry, animal husbandry, banking and marketing.

The health component of the programme is a primary health care service in every village. This is achieved by giving the local religious leaders or "pesh imams", of whom there is at least one in each village, a health role in addition to their purely religious one. One pesh imam is being trained for each population cluster, except where dispensaries

are already available. Village organizations choose their own candidates, most of whom have completed primary education only. They are trained, by multipurpose paramedical workers or medical technicians, to treat 20 common diseases, to give first aid, and to screen patients for referral. They receive an initial supply of \$ 25 worth of drugs for which patients are expected to pay prescribed prices; the money thus obtained is used to replenish the supply.

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In the Yemen Arab Republic primary health care has been identified as one of its eight priority health programmes. Its target is to achieve coverage of 20% of the rural population by mid-1981. This modest aim reflects manpower, financial and administrative constraints and the difficult topography of the country. The responsibility for primary health care is vested in a Directorate in the Ministry of Health.

At the most peripheral level, the village or ozlah (group of villages), a primary health care unit will be the point of first contact between the population and the health services. It will serve, on an average, about 2250 people, a total of 1770 such units will be required for the whole country. Each will be staffed by two workers and where possible with local birth attendants.

The health subcentre is the next level of health facility; it serves a cluster of five primary care units and about 14 750 people. There, a medical assistant is to lead the health team. Next in the chain of referral is the rural health centre with facilities for 20 inpatients. Two physicians are assigned to each health centre in addition to other staff. Among their duties will be the training of staff, particularly health care workers and birth attendants.

The primary health care workers will be trained to give first aid, to treat minor surgical and medical problems, to diagnose and treat some of the prevalent diseases, and to refer patients to the health subcentres. Other functions include health education and collaboration with community leaders and development boards in the general development of the area, particularly in environmental sanitation. The local birth attendant will provide a basic maternal and child health service.

The primary care programme, in which the Ministry of Health cooperates with the other ministries concerned with development, is an expression of a national policy of promoting community self-reliance.

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Besides the countries which have been mentioned and which have already gone some way in implementing primary health care programmes, there are a number, such as Iraq, Somalia and Tunisia, that are in the process of planning the expansion of their health services so as to achieve total coverage of their populations. While Somalia proposes to follow the pattern of primary health care pioneered in Iran and Sudan, the other countries are committed to extending the conventional pattern of health services based on networks of rural health centres. These will be staffed by primary health care teams of physicians, nurses and environmental health workers.

## CONCLUSION

In this report I have tried to give an overall view of the present state of primary health care in the Eastern Mediterranean Region.

The primary health care movement has already made considerable impact in the countries of the Region. Its pioneers are beginning to see the fruits of their early endeavours. Others now know, and have accepted, that the concept and the approach can provide a feasible alternative to former, more conventional, health services which, however well founded on apparently sound public health principles, have so far failed to reach the majority of our population.

A short report such as this can hardly do justice to those pioneers, nor to all those in our various Member States who have contributed in so many ways to the birth and growth of the movement. What it can do, however, and what I hope it has done, is to give at least some impression of what is going on, as well as some of the atmosphere of reform and renovation which characterizes our efforts in health services and manpower development in the Eastern Mediterranean Region at the present time.

The primary health care movement has grown not only from the determination of political leaders, educators and administrators directly concerned with health matters, but also from the interest and endeavours of many others who have zealously and imaginatively sought ways by which age-old practices and new technologies could be harnessed in the interests of better health for all our people.

Obviously it has not only been a matter of new technologies. It is more difficult to change entrenched attitudes than to introduce new ways of doing things in old systems and institutions. We are seeing, however, very encouraging evidence of progress in both domains. People have begun to appreciate the innate resourcefulness of simple unsophisticated inhabitants of rural and poor urban communities, while at the same time discovering the merits of simple, and sometimes ancient, technologies.

Health leaders no longer look to so-called scientific medicine alone to work miracles. Instead, they appreciate that it takes its place along with a range of other technologies in bringing about conditions for healthful living.

Attitudes to research are also changing. Research in the interest of health is seen to be not necessarily the same as the medical research so long carried out in the laboratories of our Region. It is realized that there is another kind of research: that which sets out to evaluate, in the community, what is being done to help those who live and die there, and who, in between, are sometimes sick and sometimes well.

Many disciplines can contribute to health, and one strength of the primary health care movement is that it recognizes that it is only one component, although a necessary one, among a number of components of overall national efforts to improve the health of the people.

This has profound implications for the different sectors of government administration concerned with social development, for professional education and research, and for the education of the public in healthful living. It calls especially for a massive intersectoral effort of coordination in order to couple effectiveness with efficiency. This is one of the main challenges to national governments and institutions, and to international agencies concerned with social development.

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It is my sincere wish that, while the achievements of our primary health care pioneers over the past few years receive adequate recognition at this Alma Ata Conference, this meeting of the minds of health leaders from all over the world will stimulate and encourage those who are now setting forth on the same road.

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