EMRO *at* 50

The work of the World Health Organization's
Regional Office for the Eastern Mediterranean

Public health and the Eastern Mediterranean Region

The need for international health cooperation

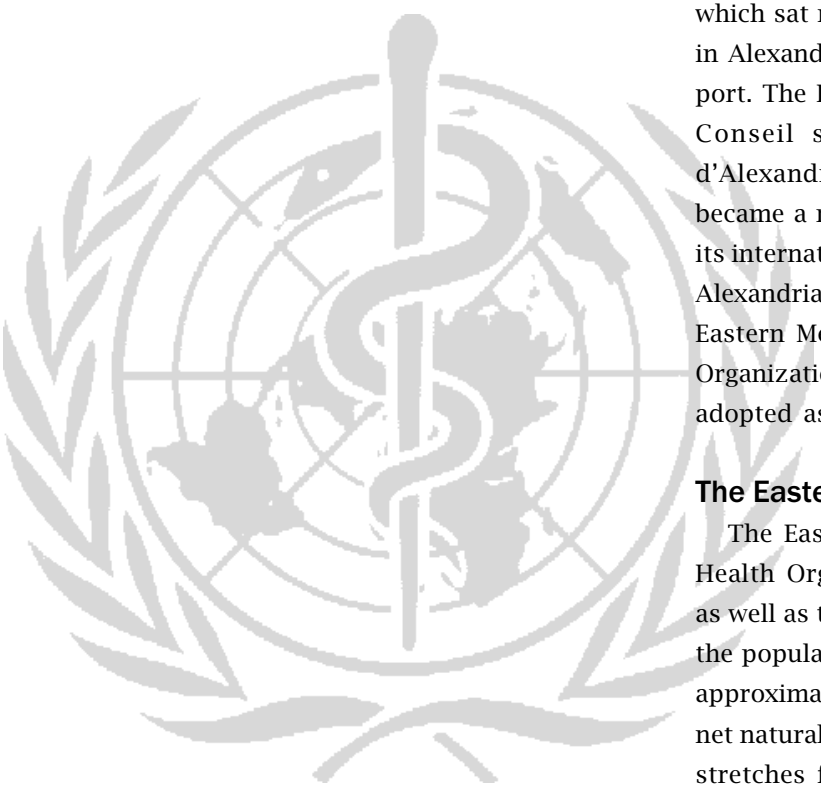
Disease knows no national borders. But until recent times, populations were relatively static and mixing between communities infrequent. However, the age of empire saw the development of steamships and railways with a consequent increase in maritime trade, migration and intermingling of peoples, increasing the risks of the spread of disease between communities. In addition, the industrial revolution saw the birth of the phenomenon of urbanization, still a health threat today. Urban public hygiene, in the form of potable water supply and sewers, tends to lag behind migration to the city: the nineteenth century saw four devastating cholera pandemics. At the same time, fast and reliable communications systems were developed, and progress was made in understanding how contagious diseases are transmitted. The need for international cooperation in health matters was clear.

First steps

From 1851 a series of international sanitary conferences and conventions were established to combat the spread of cholera, yellow fever, plague, smallpox and typhus. In 1903 the International Sanitary Bureau (later the Pan American Sanitary Bureau) was established, and in 1909 the Office international d'hygiène publique (OIHP) in Paris. The creation of the League of Nations in 1921 saw the birth of the Health Organization of the League of Nations. Thus it was that in 1948, when the World Health Organization was founded, there had been a tradition of international health cooperation for nearly a century.

Alexandria, why?

Until perhaps the middle of the nineteenth century the biggest killer on the battlefield was not the enemy but disease. It is no surprise then that in 1820,



Muhammad Ali, the visionary founder of modern Egypt, recruited a number of European physicians to start a medical service for the Egyptian army. In 1831 he created a General Egyptian Board of Health, on which sat representatives of foreign legations, based in Alexandria, which at the time was Egypt's largest port. The Board's name was changed in 1881 to the Conseil sanitaire, maritime et quarantenaire d'Alexandrie (later d'Egypte). In 1926 the Conseil became a regional office of the OIHP thus extending its international mandate. It was natural therefore for Alexandria to become the seat of the newly created Eastern Mediterranean Region of the World Health Organization in 1949, and the Conseil's premises were adopted as the site of the Regional Office.

The Eastern Mediterranean Region

The Eastern Mediterranean Region of the World Health Organization comprises 22 Member States, as well as the Palestinian Self-governed Territory and the population cared for by UNRWA, having in all an approximate population of 450 million (1998), with a net natural increase of around 10 million each year. It stretches from Morocco in the west to Pakistan in

the east. It covers an area that was the cradle of three major religions and was home to renowned ancient civilizations. It has witnessed long periods of peace, prosperity and highly developed cultural and technological achievements. During the modern era, the Region struggled for liberation from colonial powers. The geopolitical situation of the Region, its position as the world's largest reservoir of oil, the great wealth of certain countries and the extreme poverty of others (five of the United Nations–defined Least Developed Countries are in the Region) have all had their effects on the Region, as have civil conflict and natural disasters.

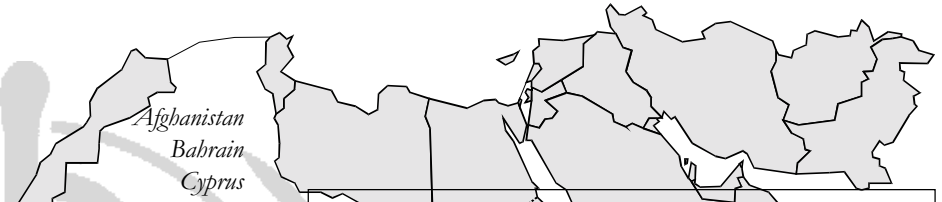
The fact that an executive arm of WHO is actually situated at the heart of the Region is a major strength in the realization of this task. For, although the Eastern Mediterranean Region covers a varied geographical terrain, there is considerable social, cultural and religious unity to the Region. The Regional Office for the Eastern Mediterranean (EMRO), with a staff drawn mostly from the Region, is well placed to understand the needs and wishes of Member States and to interpret and implement the policies worked out at the World Health Assembly.

How are we doing?

In recent years a number of countries have made significant progress in economic development, enabling them to devote greater resources to combating poverty, disease and lack of education. At the same time, global economic forces and increasing urbanization play an evermore dominant role in the lives of ordinary people. Disease patterns are changing and traditional lifestyles are breaking down to be replaced by sometimes alien modes of being with all the concomitant social problems. Nevertheless, after five decades of concerted and positive effort, with the support, guidance and coordination of EMRO, major progress has been made in improving the health status of the Region. The following data illustrate the great advances that have been made in basic health in the Region since the 1950s.

	1950–55	*1998*
Crude births per 1000 population	48.7	32.1
Crude deaths per 1000 population	26.4	8.9
Infant mortality per 1000 live births	383	71
Life expectancy (years): Male	40.5	62.4
Female	40.9	63.9

Member countries of the Eastern Mediterranean Region of WHO



Afghanistan
Bahrain
Cyprus
Djibouti
Egypt
Islamic Republic of Iran
Iraq
Jordan
Kuwait
Lebanon
Libyan Arab Jamahiriya
Morocco
Oman
Palestine
Pakistan
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Republic of Yemen

WHO in a nutshell

The headquarters of WHO are located in Geneva, Switzerland, and there are six Regional Offices located around the world, which are the focal points for the six regions. WHO country offices are located in many of WHO's 191 Member States. The WHO Constitution was signed on 7 April 1946 and the Organization officially came into being in 1948. The Regional Office for the Eastern Mediterranean was established in 1949. Member States choose which Region they wish to belong to. The budget of WHO is made up of assessed contributions from Member States and Associate Members. This is known as the regular budget. WHO also receives voluntary contributions from Member States and from other sources, often referred to as extrabudgetary contributions.

The two main functions of WHO are technical cooperation with countries and directing and coordinating international health work.

These data show that in the past 50 years, life expectancy has increased by more than 20 years and the crude death rate has fallen by two-thirds. Most impressive of all, the infant mortality rate—the number of children who die in the first year of life—has fallen by more than 80%. The 1950s data are based on United Nations estimates, as more systematic data collection only began in recent years. The gathering of statistics is essential to monitor progress in health status. For example, the probability of a child in the Region dying before reaching 5 years of age averaged 185 per 1000 live births in 1975, which was when this data began to be collected in the Region; by 1999 this had fallen to 108 per 1000, a very clear improvement.

However, one of the lessons learnt in recent years is that there is no room for complacency. Although the threat of infectious diseases, for example, has been reduced considerably, they remain a challenge, while some diseases are reasserting themselves with renewed vigour. At the same time, as people live longer, non-infectious and lifestyle-related diseases, such as cancer and heart disease, both of which can be smoking-related, are emerging as the main threat to health.

Governance in WHO

WHO's Regional Office for the Eastern Mediterranean (EMRO) is responsible for formulating health strategies adapted to the needs and wishes of its Member States. These countries are represented by the Regional Committee—composed of delegates from all the Region's countries—which meets once a year to review the work of the past year and a range of technical issues. Every two years it reviews the proposed programme and budget for the next biennium. The plans elaborated by the Regional Committee are amalgamated with those at WHO headquarters in Geneva and the resulting draft programme budget goes before the World Health Assembly, which is a global version of the Regional Committee, for approval. Thus EMRO, and WHO as a whole, belong to the individual Member States.

Although fully accepted by the Member States as a partner of individual ministries of health, EMRO still stands outside of the countries as a neutral adviser, facilitator, moral conscience and source of ideas. The local impact of EMRO is ensured by the WHO country representatives, or WRs, present in 17 Member States. The WR is the senior officer responsible for WHO

activities in a country; supports the government in the planning and management of national health programmes; and cooperates in the strengthening of national capacity to prepare and implement national health for all strategy. WRs also liaise with other agencies at the national level.

That's the way the money goes

One important, though often not appreciated, fact about EMRO (and WHO) is that it is not a donor organization. The annual budget of EMRO is around US$ 86 million. Some two-thirds of this are allocated to support of ongoing national programmes or to initiate and promote new priority programmes. The rest is used to support intercountry activities, such as training workshops, to finance rapid emergency response, specialist consultancies and administrative overheads, and to support specific projects not included in initial budgetary considerations. It should be emphasized that there are no *EMRO* programmes as such. The Regional Office works through and with national governments to support *national* health programmes. EMRO also works closely with national and international partners which provide both technical expertise and additional financial support.

In order to be responsive to the constantly shifting real requirements of countries, and to ensure good programming and that the budget accurately reflects perceived needs, EMRO has introduced a unique initiative, the Joint Programme Review Missions (JPRMs). These take place every two years and, as the name suggests, they are joint EMRO/government exercises to review programmes of collaboration, assess programme implementation, effectiveness and impact, and plan for collaboration in the next biennium. Throughout the two-year period EMRO advisers keep in regular contact with national programme officers to ensure programme development and to adjust and adapt where necessary.

EMRO offers its Member States expertise through technical cooperation. Its four divisions—Communicable Disease Control, Health Protection and Promotion, Health Systems and Community Development, and General Management—together with the Office of the Regional Director, are permanent "think-tanks" continually interacting with Member States to provide ways, and sometimes means, for them to develop and improve their health services.

Approaches to health care

Early strategies: vertical programmes

WHO's objective, as laid down when the Organization was founded in 1948, is the "attainment by all people of the highest possible level of health", where health is defined as a state of "complete physical, mental and social well-being and not merely the absence of disease or infirmity". While this broad statement of intent has not changed, the approaches towards its realization have moved with the times and prevailing conditions. In 1984, as a result of significant efforts on the part of the representatives of the Member States of the Eastern Mediterranean Region, the World Health Assembly adopted a resolution inviting Member States to consider including a spiritual dimension in their strategies for health for all.

The first twenty-odd years of WHO were essentially doctor-dominated and disease-oriented, the primary thrust of activities being concentrated on attempts to control, and where possible to eradicate, communicable diseases. These were structured in so called "vertical programmes", which were targeted at a narrow-focus activity or even a single disease. Thus, mass campaigns were undertaken to combat tuberculosis through widespread screening and BCG vaccination, to eliminate malaria through spraying with insecticides and the provision of prophylactic and curative drugs, and to eradicate smallpox through a worldwide vaccination and surveillance programme.

This approach registered some remarkable successes, most spectacularly in the case of smallpox, a disease that no longer exists. The Eastern Mediterranean Region saw several such successes in the 1950s and 1960s, such as the elimination of bejel, a syphilis-like infection, and the eradication of malaria from a number of countries. However, there was a growing global awareness that "vertical" attack was not the best use of resources, particularly in the case of larger, more persistent public health

Eastern Mediterranean Region countries: pioneers in primary health care

Egypt

Egypt was a pioneer in the concept of primary health care back in the 1940s. In the 1950s it adopted a strategy of combined health, educational and agricultural development in the rural areas through the establishment of combined units that incorporated activities related to all three areas. Coverage with primary health care now reaches almost 100% of the population, with a primary health care unit never more than 5 km away. Egypt is now pioneering the family doctor scheme in the Region within the context of the overall primary health care system.

Islamic Republic of Iran

In the early 1970s four projects were launched to address the country's lack of health human resources. The projects' broad aims were to introduce new categories of frontline primary health workers, more accessible to the previously underserved rural population, and develop community self-reliance. The projects were evaluated positively by WHO and became the basis for a national primary health care policy; medical curricula were revised in line with the new thinking.

Pakistan

In 1972 a scheme to train part-time primary health workers called "health guards" was started to serve 650 underserved and inaccessible villages in the Karakoram range in the north of the country. By 1976 half the villages and three-quarters of the population had access to one or more health worker. In North-West Frontier Province, pesh imams*—local religious leaders—were assigned a health role, in addition to their religious one, and trained accordingly.*

Sudan

Since the late 1970s Sudan has made a concerted effort with Regional Office support to provide primary health workers to rural and nomadic populations, working with community elders and village councils, together with a decentralized system of administration and finance. Both static and mobile primary health centres have been established.

problems. The potential benefits of using the same structures to cover a broad range of public health programmes in an integrated way were not being realized. While the special campaigns had managed to reduce mortality from certain diseases, they had not served to strengthen the overall health services that were essential for maintaining the gains that had been achieved. Moreover, the vision of such services was still largely technocratic and paternalistic; health care was considered something to be delivered to passive recipients by medical professionals whose knowledge and skills were exclusively theirs. There was not enough recognition of the importance of community needs and involvement.

Primary health care

A radical rethinking was required and this came about at a special conference, jointly convened by WHO and UNICEF at Alma-Ata (now Almaty in Kazakhstan) in September 1978. It was at this ground-breaking international meeting that the banner of "Health for All" was hoisted. This was not a genuinely new idea, since the notion was implicitly part of WHO's original Constitution. Indeed Member States of the Eastern Mediterranean Region had pioneered many primary health care initiatives much earlier. However the means for its implementation represented a break with the past. The global strategy of Health for All by the Year 2000, as adopted in 1981 by the World Health Assembly, developed the concept of primary health care (PHC), the framework for delivery of which was to centre around community participation, intersectoral collaboration and appropriate technology. It comprised eight essential elements:

- education concerning prevailing health problems and the methods of identifying, preventing and controlling them
- promotion of food supply and proper nutrition
- an adequate supply of safe water, and basic sanitation
- maternal and child health care, including family planning
- immunization against the major infectious diseases
- prevention and control of locally endemic diseases
- appropriate treatment of common diseases and injuries
- provision of essential drugs.

Here then was a major shift towards a broader focus that included the socioeconomic causes of illness. The global strategy emphasized that health was a part of the overall development process, and should no longer be delivered in vertical programmes, from the top down, but more broadly, or "horizontally", and from the bottom up. The treatment of diarrhoeal diseases by drugs is in vain if the environment and sanitation of the community is substandard. The establishment of a high-tech hospital within a city is of limited use if a country's population is largely rural. A fully qualified doctor—expensive and time-consuming to train—is often not needed to deliver basic health care, since auxiliaries, volunteers and mothers can all help if given the necessary education.

The eight elements of PHC were to act as a core around which programmes of appropriate and sustainable intervention could be elaborated. Medical care was to be demystified and made to incorporate notions of equity and social justice. Empowerment and involvement from the community to the national levels were aimed at allowing countries to build up their own health infrastructure and professional expertise from within. The relevance of the PHC

Underlying principles of the primary health care approach

- *Equitable distribution: health services must be equally accessible to all population groups—urban, rural, isolated, nomadic, old, young, able, disabled, male or female.*
- *Community involvement: active participation by the community in decisions affecting their own health is essential and a right.*
- *Focus on prevention: preventive and promotive rather than only on curative services should be the central focus of health care.*
- *Appropriate technology: the methods and materials used in the health system should be socially acceptable and relevant.*
- *Multisectoral approach: health must be seen as integral to overall development.*

approach within the Eastern Mediterranean Region is immediately apparent.

As the Region has moved away from vertical programmes towards integrated services provided through primary health care units and centres, and seen the benefits, so countries have become more committed to increasing the accessibility of these services to people. In 1983, the earliest date for which data are available, 69% of the Region's population had access to basic health care services within one hour's travel. By 1999 this had risen to 84% with much of the increase being in rural and poor urban areas. Now the Region is shifting its emphasis to ensure not just availability, but also quality of those services.

Basic development needs and the community

Experience has shown that mere provision of health services is not enough to ensure good health. It must be set in a holistic and sustainable health environment embracing other remedial action, such as better public knowledge of health issues and lifestyle choices affecting health, and political and community commitment to good health. Taking advantage of the Region's long traditions of self-help and mutual aid, EMRO evolved the complementary concept of "basic development needs" (BDN, initially termed "basic minimum needs", or BMN), which places health development very firmly within the context of grassroots socioeconomic development.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, stated in his report to the Regional Committee of 1988, "It would be a mockery to exhort people to lead healthy lifestyles when they do not have sufficient or safe water to drink, no nourishing food, no access to education for themselves or their children, no income to provide such 'vitals' as clothes or soap—and by no means last—no sense of spiritual values". These basic needs must be available before direct medicinal aid can be of much use. Thus the BDN programme is designed to motivate and assist communities, generally at the village level, to organize themselves and their own human and material resources and to establish their own priorities in the struggle for a better quality of life. As Dr Aly Shousha, the first Regional Director, said, addressing the first Regional Committee in 1949, "Health is not something that can be done to the people; it must be done for themselves by themselves".

Somalia: a case study in BDN

The essence of the basic development needs approach is to allow small, socioeconomically deprived communities to decide upon and implement those projects that they themselves deem most important for their own well-being. Somalia, already one of the Region's least developed countries and now suffering severe dislocation after a protracted and bloody civil war, has proved fertile ground for such an initiative.

A group of 36 villages with a total population of 20 000 in the region of Mirka was targeted by WHO as a possible centre for BDN activity. The notion of the project was presented to local leaders who were then encouraged to elicit from their community a list of essential needs. Five of these were recognized and listed in descending order of importance: water supply; food supply; shelter; animal health; and human health. WHO's role was simply one of facilitator, providing an interest-free loan and technical advisers. The actual work was to be done by the community, for the community.

Altogether 21 covered wells equipped with manual pumps were dug by the villagers to improve water supply, and a basic home-delivery system was established. An agricultural specialist was contracted by WHO to advise on animal husbandry and cultivation. Tractors and other heavy machinery were provided as jointly owned equipment to be shared by the community. The need for improved accommodation was answered by local cooperation in the construction of traditional housing, with WHO on hand to advise on the design and construction of basic and hygienic latrines. The villagers were given training in health care for their cattle and the herds were vaccinated against rinderpest, blackwater fever and haemorrhagic septicaemia. A primary health care clinic was established and equipped to provide essential medicines and health education. Within the first year of its operation all children under 5 years of age were immunized against the major childhood diseases, leading to a significant drop in the infant mortality rate. A dental clinic was also set up in answer to a community request and was staffed by volunteer dentists.

The result of these basic developments was seen in a revitalized community. The local committees created to administer the initial projects met regularly to discuss further needs and programmes. Some 57 income-generating cooperative activities were begun, ranging from bee-keeping to basket weaving. The local school was renovated and attendance rose from 4% of children to 33%. Some villages began adult literacy classes.

The fact that the BDN programme was managed and implemented by the beneficiaries themselves ensured sustainability. The community-owned improvements became a source of pride and self-confidence that led to further developments and WHO's initial loan of some US$ 36 000 was repaid in full. But the most clear sign of the success of BDN in Somalia is that the programme was begun before the outbreak of war and carried on regardless of the turmoil that gripped the country.

Initiatives and achievements

A selective look at what the Regional Office is doing and what it has done

Immunization

In the mid-1970s an estimated 5 million children worldwide were dying each year from vaccine-preventable diseases. In response to this shocking situation, WHO set in motion the global Expanded Programme on Immunization (EPI), the aim of which is to immunize, by the end of 2000, all children in the world against six killer diseases: diphtheria, whooping cough, tetanus, measles, poliomyelitis and tuberculosis. The overall success of the programme has been striking. Already, by 1994, roughly 80% of children in the Eastern Mediterranean Region had been covered by the programme, and immunization services were in place in nearly all health facilities, private and public, throughout the Region. Better reporting and analysis has led to better targeted planning and campaigns, and has helped set the stage for the eradication and elimination drives.

The strengths of this programme are several: EPI is inexpensive, technically straightforward, easily integrated into other health services, and brings immediate, highly visible benefits. If children thrive, then parents might be encouraged to limit the number of births, thus ensuring better health for mother and children and a better quality of life for all. EPI is, in brief, good public health and good politics.

The challenge now is to keep up the momentum and achieve the goal of full coverage. Political unrest, armed conflicts and general economic depression have slowed the advance in certain Member States, leading EMRO to focus special attention and technical support on these troubled areas. In recent years, for example, the WHO Representative in Afghanistan managed to negotiate ceasefires so that health services could carry out mass immunization of children. WHO has been involved in similar initiatives in southern Sudan. Specialist training in the logistics of EPI and in the use, repair and maintenance of "cold

Afghan ceasefire for immunization days

WHO's role as a non-partisan but determined promoter of health for all was finely exemplified in Afghanistan during November 1994. The people of this troubled country have not only been suffering from the bombs and bullets of the conflict but also all the concomitant disruption to normal public services that a civil war entails. While the politicians have so far been unable to reconcile the different factions, WHO, through the almost incredible efforts of its Country Representative, managed to secure a window of peace.

From 19 to 26 November, fighting ceased in order to allow vaccination teams and health centres to implement a mass immunization programme covering children under five years of age and mothers, either pregnant or of reproductive age.

Even under normal circumstances, such a programme involves massive organization and a high level of preparedness. Vaccine supply and cold chain equipment must be secured. A large staff of vaccinators needs to be trained and in place. Publicity in all forms of media, from posters to radio broadcasts, has to be spread throughout the country. The provision of transport alone can prove a huge headache, especially in a poorly developed region. That WHO personnel and Afghan health workers managed to overcome all the logistical problems is wonder enough. Coupled to all this work was the need for countless meetings with the various parties in the war to ensure that hostilities would indeed cease.

The result of this vigorous activity and delicate diplomacy was that some one million children were immunized against major childhood diseases and roughly 320 000 mothers were given doses of tetanus toxoid in an effort to protect their babies from neonatal tetanus. This experience was successfully repeated in summer 1996. The work of one week covered more people than in the entire previous year and, moreover, it demonstrated that the fighting was not inevitable. Ceasefires for immunization were also observed in 1998 and 1999. Peace is possible where there is a will for it.

chain" equipment (standard and solar refrigerators) continues under the guidance of EMRO.

Integrated Management of Childhood Illness

Each year in the Eastern Mediterranean Region five common, preventable and easily treatable diseases—pneumonia, diarrhoea, measles, malaria and malnutrition—are responsible for almost 70% of childhood deaths and a good deal of childhood illness, with the attendant psychological and financial burdens on families and health services.

WHO and UNICEF have jointly developed a strategy called Integrated Management of Childhood Illness (IMCI) to improve child health globally. It addresses the main causes of death in children under 5 years of age, emphasizing both curative and preventive interventions, and complementing and enhancing existing programmes. The three main prongs of the strategy are improvement of health worker skills, improvement of health systems and improvement of family and community practices.

At a meeting in Rabat, Morocco, in 1998, the countries of the Region called on all governmental and nongovernmental bodies involved in child health and development to adopt the IMCI strategy and provide the political and financial commitment to do so. By July 1999 three countries of the Region (Islamic Republic of Iran, Syrian Arab Republic and Republic of Yemen) had implemented introductory IMCI programmes—orientation, information, and building of national capacity for ICMI—and a further four (Egypt, Morocco, Pakistan and Sudan) had progressed to early implementation—adaptation of IMCI guidelines to local conditions, selection of pilot areas, planning and capacity building at district level, and setting up monitoring systems to evaluate the effectiveness of activities. The third phase—expansion of existing activities and geographic coverage—will be a challenge for the new century.

Oral rehydration therapy

Other major killers of young children in the Region are acute diarrhoeal diseases. The 25 or more bacteria, viruses and parasites that are known to be responsible for these diseases have one thing in common—the faecal–oral transmission route. This means that the long-term solution is to be found in improved sanitation and personal hygiene, something

that underpins the PHC approach and requires great intersectoral commitment from Member States. However a simple and cheap treatment—oral rehydration salts (ORS)—exists. When reconstituted with clean water, the prepackaged ORS replace lost body fluids and essential salts, thus saving life. The great advantage of this approach is that it can be promoted by paramedical and village health workers and given in the home by mothers, avoiding the need for children to be treated in hospitals or clinics. Oral rehydration therapy was promoted in the Region long before it was accepted internationally in the 1980s as a major tool for managing cases of acute diarrhoea and incorporated into national action plans. In Lebanon the Najjar formula, very similar to that now used, was well known and in use for many years, while Egypt introduced the use of ORS in some hospitals in Alexandria in the 1960s. In the 1980s EMRO made major efforts to introduce the therapy into training courses in Egypt and Pakistan from where it spread throughout the Region, and led to the development of a massive USAID-supported programme in Egypt that gained international recognition for its success in combating diarrhoeal disease.

Breastfeeding

Related to the campaign against diarrhoeal diseases is EMRO's continued promotion of breastfeeding, there being no cheaper or safer food for a baby. In an attempt to bolster the practice against the threat posed by widely available and actively marketed powdered substitutes, the International Code of Marketing of Breast-Milk Substitutes, jointly drawn up by WHO and UNICEF, is promoted throughout the Region. EMRO provides Member States with technical assistance in its implementation as well as disseminating promotional publications in English and regional languages. Breastfeeding is also being encouraged as a safe method of decreasing fertility.

Setting standards/quality assurance

Among the functions of WHO are to develop and promote international standards, both in relation to foods and food safety, biological, pharmaceutical and other health products, and in relation to education and practice in the health professions.

The provision of essential drugs—one of the basic elements of primary health care—is an obvious

example of an area where standards are essential. The WHO Action Programme on Essential Drugs aims to assist member countries to formulate their own comprehensive national drug policies, from producer to dispenser, together with the associated legislation and quality control. To date, 90% of the Member States in the Eastern Mediterranean Region have formulated national drug policies in collaboration with EMRO.

Another field in which WHO sets the standards is in assisting Member States to develop laboratory technology. The ability to make accurate diagnoses often rests on the efficient analytical capabilities of health laboratories. EMRO has produced manuals, check-lists and guidelines for the establishment and quality control of such facilities.

The creation and maintenance of blood transfusion services also falls under this general heading of technological development, and EMRO, with financing from the Arab Gulf Programme for United Nations Development Organizations (AGFUND), has helped the Region take great steps in ensuring the safety of blood and blood products. An integral part of a blood transfusion service is a broad-based donor system. Blood must be seen as a community resource with regular voluntary donations. EMRO is working with all Member States to set up donor motivation and coordination units. Two regional training centres, in Jordan and Tunisia, have been upgraded through EMRO sponsorship and have forged international links with units in the Netherlands and Switzerland.

In recent years, as more health care services have been made available, so the "quality" of those services has become a priority area for the Region. Following a 1995 resolution of the Regional Committee for the Eastern Mediterranean, countries of the Region have begun to take specific steps towards the introduction and implementation of quality assurance measures in their primary health care services. EMRO is playing a proactive role in advancing and institutionalizing quality assurance in order to improve standards of service: orienting and training national officers on the related issues, promoting the development of strategies for the planning and organization of quality systems and encouraging the measurement of standards in primary health care within countries.

Micronutrient deficiency

Micronutrients are essential in the human diet for healthy growth and development. Three micronutrient-deficiency disorders—iodine deficiency disorder, iron-deficiency anaemia and lack of vitamin A—are easily and cheaply remedied. Seventeen countries of the Region have recognized iodine deficiency, which leads to major disorders in physical and mental development, as a public health problem. Fortunately, the remedy is simple: iodized salt. Thirteen countries have started salt-iodization programmes with Regional Office support; of these, six have achieved universal iodization, and Islamic Republic of Iran and Tunisia have demonstrated that the problem is under control.

Iron deficiency, which leads to anaemia and is moderate or severe in all countries of the Region, can be combated by fortifying wheat flour with iron. Working with UNICEF and the Micronutrient Initiative, the Regional Office has encouraged countries to develop fortification programmes. The Micronutrient Initiative has established a US$ 1 million fund to support such programmes, to be administered by the Regional Office.

Although clinical vitamin A deficiency is relatively rare, subclinical vitamin A deficiency, which causes a lowered immunity to many diseases, is rather common in young children and pregnant and lactating women. Vitamin A capsules have been distributed during the national polio immunization days, and some countries (Pakistan, Oman, Morocco) are exploring fortification of edible oil with vitamin A.

Nutrition and food safety

Poor nutrition is associated with poverty in general, but ironically lifestyle changes such as urbanization and more sedentary work, coupled with higher fat intakes as dietary patterns change, have also seen the emergence of nutrition-related disorders such as obesity. The Regional Office is working with countries to increase knowledge of healthy eating among the population and develop strategies to make the healthy choices the easy choices. The Regional Office also encourages countries to establish nutrition surveillance and management systems. More than half the countries of the Region are developing such systems, and

every year the Regional Office runs a training course on nutritional training and management with the Nutrition Institute in Cairo. The training modules used in the course have been developed so that countries can adapt them for their own training needs.

Food safety is an increasingly important issue with the growth of world trade and the World Trade Organization's requirements of harmonized standards to be met by its members. At the 46th Regional Committee, held in Cairo in 1999, the ministers of health of the Region resolved to prepare national plans of action for food safety and to introduce into their countries hazard analysis critical control point (HACCP) methods, demonstrably the best way to ensure safe food production (and a requirement of the World Trade Organization). However, most foodborne illnesses occur in the home, and the Regional Office continues its work with countries to ensure that the public knows about safe food handling, preparation and storage practices and has access to accurate and timely information, especially in case of food-related disease outbreaks.

Healthy cities, healthy villages

The Healthy Cities concept aims to put health at the centre of the social and political agenda of municipalities; the Healthy Villages concept, introduced by the Regional Office in 1989, extended the principal to village level. The emphasis is on community action to improve health conditions through for example better sanitation using primary health care principles. The idea has generated great interest in the Region with some 40 cities having programmes under way, and many countries are beginning to implement Healthy Villages projects.

An ageing population

As nutrition, disease prevention, health care and education have improved so life expectancy in the Region has risen, from an average of 40 years in 1950 to 63 years in 1999; a significant proportion of today's population will live well into their seventies and eighties. The rise in the number of elderly people has wide implications for society in general, and for the health and social services in particular. In the 1980s, EMRO alerted its Member States to the significant trend of higher life expectancy in the Region and

developed a regional strategy for the health care of the elderly. It issued a manual for training health workers in the health care of the elderly as part of national primary health care programmes, and assisted Member States in developing policies and strategies for the welfare of the elderly. Most countries now have homes for the elderly and special homes for elderly people without family or financial support. Although few in number and urban-based, these homes are an indication of the gradual breakdown of extended families. While the traditional, religious and cultural norms of the Region ensure that there is considerable awareness, concern and care for the elderly, the social and health problems of old age, seen in all dimensions of life, are a mass problem and one that will increase without a coherent national response.

Action-oriented School Health Curriculum

Based on the idea that improved health practices at home and in the school can lead to improved health throughout the community, the Regional Office developed the Action-oriented School Health Curriculum (AOSHC) for primary school education. It is an attempt to educate and instil good habits in the most impressionable, most adaptable and often the most vulnerable. As of 1998, 17 countries of the Region had implemented the AOSHC, and its use is being closely monitored.

The AOSHC consists of two components. The Teacher's Guide incorporates the principles and methodologies recommended for teaching health in primary schools. The Teacher's Resource Book presents a number of health subjects in the form of teaching units divided into topics, each with related activities to be learned or performed by pupils.

The material reflects a spirit of self-reliance and personal responsibility, as well as the essential element of community involvement that underlies the primary health care approach. The AOSHC has been designed as a prototype because of the wide range of physical, social, economic and political conditions in the Region, and even the differing levels of qualification held by teachers within one country. It is a flexible resource intended for adaptation and adjustment to suit real situations and needs and is available in Arabic, English, Farsi, Urdu and other languages.

Tobacco or health ?

The Eastern Mediterranean Region, like everywhere else in the world, suffers terribly from the scourge of tobacco. It is now well established and accepted that tobacco use, especially cigarette smoking, is a major cause of illness and premature death. It is responsible for most cases of ischaemic heart disease and lung cancer, and among other things causes respiratory and other illness in children and in so-called "passive" smokers who are involuntarily inhale the smoke of other people's cigarettes. Smokers are true addicts in all senses of the word, enslaving themselves and their pockets to the habit. The burden of disease that results from tobacco likewise enslaves national well-being, draining health resources and resulting in millions of lost days of work each year.

Having lost some of their market in the industrialized world as a result of successful campaigns against smoking, the multinational tobacco companies are now investing astronomical sums of money in enticing new and ever younger smokers in developing markets, including this Region.

For many years EMRO worked hard to raise awareness in the Region about the dangers of smoking and the cost to the national health, informing and educating both policy-makers and the public. In recent years governments have begun to take notice, recognizing the cost to both health and the national economy.

EMRO took the lead in encouraging Islamic scholars to address the problem from a religious standpoint and published an important monograph on the subject, *Islamic ruling on tobacco*. In 1995 it coordinated the drawing up of a regional plan of action for tobacco control in the Region which outlined a number of strategies that countries can follow to combat the problem. Some countries have now stepped up their actions to curb smoking in public places, including public transport and government premises, and to enact legislation and increase taxation on tobacco products. Others have banned advertising of tobacco in the media. Ten countries of the Region took part in 1999 in the first meeting of a WHO initiative that will eventually result in an international Framework Convention on Tobacco Control. There is still a long way to go.

Informing and educating

Health information

EMRO reaches out directly to inform health professionals, publishing, translating and distributing WHO and EMRO literature. The WHO Arabic programme is based in EMRO and translates many publications of interest to the Region into Arabic. The Regional Office issues the internationally distributed, peer-reviewed *Eastern Mediterranean health journal*, an important forum for exchange of experience and knowledge. It publishes books on priority issues of interest to the Region. For example, in recent years it has published manuals and guides on quality assurance, quality systems and selection of equipment, for people working in laboratories, on establishing a national blood transfusion system, and on community control of genetic and congenital disorders. EMRO also recognizes the important role that religion can play, in this Region especially, in promoting health. It has developed a series entitled *The right path to health* covering such wide-ranging areas as smoking, water and sanitation, environmental health, healthy living and circumcision from an Islamic standpoint. The series enables health educators and religious leaders to promote healthy lifestyles by showing that the changes in behaviour required to improve health conform with religious teaching. The series has been published in several languages of the Region, including Arabic, Dari, English, Farsi, French, Somali and Urdu.

EMRO publishes information electronically on its website (*www.who.sci.eg*). As well as the full text of many EMRO publications, the site provides information on WHO's work in the Region, country health statistics and progress made in regional health status.

EMRO also assists countries to improve their medical libraries and set up health information programmes that will allow them to generate and publish literature serving their own needs.

Education and development of human resources for health

Human resources are the most critical factor in the delivery of health care and for the attainment of national health goals in any country. While EMRO commitment to human resources development has remained steadfast through 50 years, 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. Early on, there was an immense scarcity of trained health personnel in all categories in almost all countries of the Region. Indeed, there were only around 10 medical schools in the entire Region, and not a single bachelor degree programme for nursing. This is in startling contrast to the current situation, where there are almost 150 medical schools and hundreds of higher institutions offering academic and postgraduate nursing programmes, pharmacy and programmes for the many other categories of health personnel.

Up to the late 1960s EMRO technical collaboration in human resources development was directed towards expanding and supporting national capacity for the production of the main categories of health personnel. Later this assistance was directed to more selected areas, such as public health, nursing and allied health personnel training programmes to support health care delivery strategies which emphasized services for maternal and child health. When the health for all and primary health care strategies were launched, WHO in coordination with other partners such as UNICEF, started to embark on support to on-the-job national training activities which were instrumental in the implementation of key activities such as immunization, diarrhoeal disease control, nutrition and maternal health services. At the same time countries were encouraged to develop specialist training programmes and national human resources policies, and to build up human resources databases from regular health information systems and surveys.

Since the late 1970s, the focus has been on strategies to improve the quality and performance of human resources. EMRO has been a pioneer in leading the international movement towards the reform of medical training curricula so that they are more community oriented and relevant to the needs

of the population. The universities of Gezira (Sudan) and Suez Canal (Egypt) are among the founding members of the international movement of community-based medical education. The development of educational skills has also beentargeted, and educational institutions have begun to adopt the most effective and up-to-date training methodologies and to seek access to quality training/learning resources. Educational development centres have been established with the support of WHO in most countries of the Region. Special programmes have also been established by WHO/EMRO to support use of national languages in health, and to produce training/learning materials in these languages. In the Arabic-speaking countries of the Region it is hoped that the Unified Medical Dictionary, development of which was sponsored by EMRO, will support this move. It comprises over 180 000 terms in English and Arabic and is available as a book and on CD-ROM.

Health professionals in the Region can also benefit from WHO fellowships, often returning to their countries as trainers of trainers to sustain and increase the quality of in-country training. EMRO takes a positive view of improving the quality of health human resources, both with respect to initial training and continuing medical education.

In health services management, EMRO took up the challenge in the early 1990s posed by a shortage of health leadership skills in the Region. It established a leadership development training course that is now delivered in three countries. Key management personnel in the health sectors of the Region, including many ministers of health, have graduated from this programme, enhancing the capacity of health systems and supporting health sector reform.

What are we dealing with? Know your enemy

The old scourges

It is a sad fact that the number and variety of diseases afflicting humankind is bewilderingly large. Despite the great advances in public health over the past 50 years many of the old scourges are still with us and continued vigilance and continuing programmes are required to ensure their control.

Tuberculosis, the object of a sustained attack since the inception of WHO and once thought to be on the retreat, appears to be making a comeback. EMRO is urging Member States to toughen up their national control programmes. It also provides support through fellowships, procuring necessary drugs, diagnostic reagents and laboratory equipment, and has published technical documents, guidelines and training modules.

Malaria is another disease that can all too easily acquire epidemic proportions if control measures are slackened. While certain countries of the Region (those of north Africa and west Asia) have achieved near eradication, the turmoil in Afghanistan and Iraq has allowed for reappearance on a vast scale, and malaria is still highly endemic in the Afrotropical states of Sudan, Somalia, Djibouti and Republic of Yemen. As with all diseases, malaria does not recognize international frontiers, and EMRO is supporting and promoting coordinated efforts to contain and diminish the problem. The WHO Roll Back Malaria initiative, in partnership with other international agencies, academia, governments, the private sector and nongovernmental organizations aims to do just that.

Rays of light

Fortunately, certain other diseases seem to be disappearing. Also, concerted and largely successful efforts are being led by EMRO to eliminate, or eradicate where feasible, some diseases, for example

Malaria

WHO's efforts to control malaria over the past 50 years are a good example of how vertical health programmes and throwing science and money at a problem can, with the best intentions, be misguided. They also reflect the changing nature of disease and how primary health care–based programmes, the basis for all WHO activities today, can tailor prevention and control activities to local conditions.

Initial efforts to eradicate malaria involved treatment of cases with chloroquine, and vector control through larviciding, drainage of mosquito breeding grounds and residual spraying with DDT. Despite initial successes, the huge cost of operations (and the development of insecticide and drug resistance) led in 1955 to the creation of the WHO Global Malaria Eradication programme, to focus on eradication through spraying the inside of homes with insecticide. In the Eastern Mediterranean Region there was some success, but poor administration in some countries, the difficulty of reaching nomad populations and the continuing development of resistance to DDT created difficulties. Human factors were also at work: political interest faded; and when in 1969 the strategy was abandoned, most senior personnel left the programme for more lucrative positions in other fields then in the limelight such as smallpox eradication. Without funds, national programmes and malaria epidemiology systems began to collapse. It was clear that eradication based on a single strategy would not work.

It would be unfair to characterize the malaria eradication campaign as a failure: many countries managed to stabilize incidence at rates much lower than before, and this success has, by and large, been sustained. Only in countries where the public health system has been totally disrupted by war, as in Afghanistan, have achievements been completely obliterated.

In 1978, the World Health Assembly readdressed malaria, this time within the context of primary health care; however human and financial resources were few. There were some subsequent success stories, though. In highly malarious Gizan Province, Saudi Arabia, the disease was eliminated between 1981 and 1987 in a scheme that was a model of its kind. In 1993, a regional plan of work for malaria control was adopted.

In 1998, WHO launched the Roll Back Malaria (RBM) campaign, with initial emphasis on Africa, where 80% of the problem is concentrated. RBM will work through new tools for controlling malaria and also by strengthening the health services of affected populations. RBM will implement its activities through partnerships with other international organizations, governments in endemic and nonendemic countries, academic institutions, the private sector and nongovernmental organizations.

The overall aim of RBM in the Eastern Mediterranean Region is to ensure that by 2030, malaria is neither a major contributor to morbidity and mortality in any country nor of significant socioeconomic consequence.

Three African countries of the Region have a serious malaria problem, Djibouti, Somalia and Sudan; and Republic of Yemen is considered as part of Africa for the purposes of RBM as its malaria is ecologically similar. These countries have received considerable attention and substantial extrabudgetary funds for the fight against malaria.

neonatal tetanus, polio, measles, dracunculiasis (guinea-worm disease) and leprosy, from the Region by the target dates set by the World Health Assembly.

Manuals for medical and paramedical personnel, prepared by the Regional Office and laying out the methods for surveillance, control, elimination or eradication for specific diseases, are available in Arabic, English, Farsi and Urdu. Efforts are being made to ensure that this seemingly old style, one-issue type of campaign helps other priority public health programmes.

National plans for the elimination of leprosy have been established throughout the Region and, although eradication of this ancient disease is not feasible, the year 2000 has also been set as the date for its elimination as a public health problem, that is, achieving an incidence of less than one case per 10 000 population per year. The number of cases registered for treatment has fast decreased over recent years, and the adoption and implementation of multidrug therapy has increased coverage to roughly 95% of the Region's population.

A key to elimination, eradication and control of diseases is the development of regional self-sufficiency and self-reliance in vaccine and drug production, a long-term strategy which EMRO is actively pursuing and supporting.

New trends

While communicable diseases are well recognized and the object of established campaigns, new and alarming trends in noncommunicable diseases are appearing within the Region. Diabetes, cardiovascular problems and cancer, for example, used to be seen as complaints of the affluent West but their increased prevalence in the Region gives the lie to this notion. They can more accurately be viewed as lifestyle-related and, with growing urbanization and changing dietary patterns, they pose a new and potentially widespread threat to health. Already 10% of the population in parts of the Region suffers from diabetes, and hypertension has been reported to affect up to 30% of adults in one country.

As infant mortality declines, thanks to the control of communicable diseases and malnutrition, congenital abnormalities and genetic diseases have become a proportionately larger problem in the Region. In many places, congenital and genetic

Polio and measles: you won't be missed

The international drive to eradicate polio is well under way; the effort to eliminate measles will follow. During the decade of the 1990s polio incidence in the Region fell by around 80% . This was thanks to effective routine immunization programmes supported by supplemental immunization activities, such as national immunization days and "mopping up" activities that target high-risk areas and populations, supported by good epidemiological surveillance. At the beginning of 2000, 12 countries had been free of polio for at least 3 consecutive years in the presence of good surveillance. The Regional Office has played an important role in coordinating cross-border activities in neighbouring endemic countries, both in central Asia and the Horn of Africa, and establishing an effective regional laboratory network for timely analysis of suspected cases; all the 12 laboratories in the network were accredited in 1999. With its international partners, the Regional Office is now entering the final, most difficult stage of regional eradication, but the end is in sight.

Now, efforts to eliminate measles are also moving into high gear. A similar strategy to polio eradication is being followed: raising routine coverage, improving surveillance and strengthening laboratory capabilities, and supplemental immunization activities. The regional target is elimination of measles by 2010.

disorders are the second commonest cause of death in infancy and childhood. If multifactoral conditions of late onset such as cardiovascular diseases, diabetes mellitus, psychosis, hypertension and familial cancers, are added to these figures, it is estimated that up to 60% of a population will suffer from a genetically determined condition during their lifetime.

Countries of the Region are becoming increasingly aware of this growing problem and are collaborating with EMRO in the collection of epidemiological data and the establishment of national control programmes. In particular such programmes aim to promote healthier lifestyles, particularly prevention of smoking, attention to physical exercise and proper dietary habits.

Nutrition

The question of nutrition also has to be addressed as a factor affecting overall health. Some countries in the Region suffer from too little nutrition and others suffer from too much, and, increasingly often, of the wrong sort. Wealth and changing lifestyles have seen fat, sugar and oil consumption soar over the past 20 years, while fruit and vegetable consumption has remained static. The results of such a situation include obesity, and an increased risk of heart disease and diabetes. Member States are being encouraged to study eating habits and review the type and quality of food that is being both imported into and manufactured within countries, something that clearly falls beyond the remit of the health ministry alone.

HIV/AIDS

The Eastern Mediterranean Region has been lucky in its ability so far to withstand the global HIV/AIDS epidemic better than other regions. This is in part thanks to the sociocultural characteristics of the Region and the strong religious influence on people's behaviour. Nevertheless the number of cases continues to rise each year and there is no room for complacency. It is estimated that over 200 000 people are living with HIV/AIDS in the Region. A cumulative total of over 7000 AIDS cases had been reported by the end of 1998, with 45% of all new cases being registered in the past three years only. In 1998, 89% of all AIDS cases were due to sexual transmission, mostly heterosexual; however injecting drug use

Let's unite to stop TB...

Tuberculosis kills more youth and adults than any other infectious disease in the world today, as well as 100 000 children each year. Most TB patients start to feel better after just a few weeks of medication and are often tempted to stop taking their pills too soon—one way that pathogens develop antibiotic resistance. DOTS (directly observed treatment, short-course) is the name for a comprehensive strategy to detect tuberculosis and make sure tuberculosis patients finish their treatment. As part of the DOTS strategy, health workers counsel and observe their patients swallowing each dose of a powerful combination of medicines, and the health services monitor the patients' progress until each is cured. The regional strategy for tuberculosis control aims to achieve DOTS ALL OVER—national implementation of the DOTS strategy as soon as possible and elimination of tuberculosis in low-incidence countries by 2010. The strategy covers not only DOTS but TB programme reviews, development of human resources and laboratory capacity, intersectoral collaboration, and awareness-raising through distribution of educational material and through the mass media.

By the end of 1999, 10 countries of the Region had achieved DOTS ALL OVER and 8 countries had expanded DOTS activities covering more than 40% of their populations. Five countries had implemented pilot DOTS projects. All DOTS areas have produced impressive results: in 1998, DOTS areas achieved an 81% cure rate as against only 58% in non-DOTS areas.

(through sharing needles) is the most common cause of AIDS in some countries. Public health education, particularly for young people, to raise awareness of the dangers of high risk behaviour such as promiscuous sexual relations and drug abuse, remains one of the most important means of prevention of this deadly and incurable disease.

Health and the environment

The Healthy Cities/Villages initiative is designed to raise awareness of the importance of the physical environment. The provision of good sanitation and housing, potable water supply, and social, educational and recreational facilities are important factors within the health equation.

The environmental health programme of EMRO is promoting the message of intersectoral collaboration through its technical arm, the Centre for Environmental Health Activities (CEHA), based in Amman, Jordan. At this stage in the Region, the need is primarily for accurate data and the development of human resources specialized in the environment. Thus CEHA trains trainers, publishes training and educational materials, provides technical cooperation

and assists Member States in evaluating and tackling their own particular problems.

Health and development

The global Health for All by the Year 2000 strategy recognized health as an integral part, a determinant, of socioeconomic development. Furthermore, improved health will be a direct result of greater development. The interdependence of health and development thus necessitates a great degree of national intersectoral cooperation.

It has been estimated, for example, that 64% of all cases of communicable disease have environmental causes and if such is the case then responsibility for improved health lies as much at the door of other ministries as it does with ministries of health. The root causes of mental health problems lie, as often as not, within the community. AIDS, which is being tackled by a relatively new organization, UNAIDS, with input from a number of UN agencies, is another example of a disease that requires a massive and well coordinated effort from educators, social scientists and researchers in all fields. In order tackle iodine deficiency, it is essential to bring together the private and public sector manufacturers of salt to explain why and how iodization should be done.

EMRO is addressing this need for intragovernmental dialogue in a number of ways. Building on the experience and success of the Health for All by the Year 2000 strategy, the Regional Committee for the Eastern Mediterranean at its 1999 session adopted a strategy for the new century—Health 21—which will carry forward the work of the Regional Office and regional ministries of health, taking into account recent and forecast developments in health.

Looking back ... and ahead

Great strides have been made in the past 50 years towards the goal of health for all. Infant mortality has fallen by more than 75%; overall life expectancy has risen by 20 years; smallpox has been eradicated and the Region is on the verge of eradicating polio; neonatal tetanus and measles are no longer the major killers they were; malaria has been eliminated from many countries; smoking is now widely recognized as harmful to health and the Region is taking steps to combat it. More than 80% of the population of the Region have access to essential health services within a reasonable distance, and countries are now beginning to look at the quality of those services. There is growing awareness that medical education needs to be relevant and community-oriented. The number of health personnel has increased enormously but there is still a tremendous imbalance between the number of doctors on the one hand and the number of nurses and paramedical personnel on the other.

While many of the communicable diseases that so affected the Region are now on the retreat, new and equally serious problems are appearing. Noncommunicable diseases, especially those related to lifestyle, are on the rise. Mental ill-health is expected to account for many of the health problems in the 21st century as the stresses of modern life increase. New areas of expertise, in research methodology, health systems management, health economics and health sector reform, for example, are required.

EMRO's double role as a leader in health matters and as a responder to the needs and wishes of Member States puts EMRO in a privileged position to influence health policy throughout the Region. It is there to give technical advice and support, to provide neutral territory for the debate of sensitive issues, to advocate equity and social justice. The commitment to health for all is firm.

Text by Colin Clement and John Shimwell
Design by John Shimwell

WHO-EM/XXX/XXX/E/L/3.00/XXX