# Chapter 1
# Health development and health security

# 1. Health development and health security

## Strategic objective 1: To reduce the health, social and economic burden of communicable diseases

### Issues and challenges

Substantial progress has been made in the Region in terms of reducing communicable disease-related morbidity and mortality. However, the burden of these diseases is still relatively high considering the availability of strong control and prevention tools such as vaccines. Access to high quality and regular immunization services is still low in several areas in Somalia and southern Sudan, and new life-saving vaccines, like pneumococcal and rotavirus vaccines, are very under-utilized in the Region. This is mainly because of their high prices, the lack of decision-makers' awareness about their importance, the weak vaccine procurement mechanisms in the Region and the lack of finance or support for their purchase in middle-income countries.

As a result, vaccine-preventable diseases are still an important cause of mortality in some countries and endemic transmission of wild poliovirus continues in Afghanistan and Pakistan. Impaired access to children in security compromised areas in Pakistan and the southern region of Afghanistan are the main reasons behind continued circulation of wild polioviruses in these areas. Risk of importation is a real challenge to the polio-free countries, especially in the Horn of Africa. Importations were recorded in Sudan and followed by several cases reported from six different states in southern Sudan. Other challenges facing the programme include securing financial resources and maintaining the commitment of national authorities in both polio-endemic and polio-free countries.

The tropical disease programmes require strengthening, particularly as regards implementation at different operational levels, capacity-building for data collection and analysis, and monitoring and evaluation of interventions. These actions are strategic for two main reasons. First, countries are facing a resurgence of diseases such as schistosomiasis and leishmaniasis in controlled areas for multiple reasons, including weak primary healthcare systems. Second, there is a commitment to reach regional and global goals in the coming years, particularly the elimination of guineaworm, expected to be achieved by end 2009. Rabies remains a public health problem, with under-reporting and laboratory surveillance among the main operational constraints. Approximately 300 human cases are reported annually, while several hundred thousand post-exposure treatments are administered.

Communicable disease surveillance continues to face important challenges, including lack of transparency among Member States, especially during outbreaks that could affect the economy of the country; lack of core capacity for implementation of IHR 2005 in most countries; and lack of financial resources to implement some key activities, such as assessing national capacities and supporting countries during major outbreaks. Several countries face difficulties in maintaining their own capacity due to limited national resources and high turnover of trained human resources.



Vector-borne diseases are still a major public health problem. Capacity to implement vector control interventions within the framework of integrated vector management (IVM) is still weak. Concerted efforts to strengthen this capacity is critical and the launching of the regional MSc degree course in medical entomology and vector control is an attempt to achieve this.

The small grants scheme for operational research aims at generating new knowledge concerning communicable diseases; evaluating new or improved tools, interventions and public health policies; strengthening research capacity; and disseminating research results to promote their translation into policy and practice. Despite the substantial achievements in this area, there are still major challenges in research capacity and in translation of research results into policy and practice. Research results are also not being published. During the period 1992–2006, 274 projects were supported and completed but only 115 (42%) resulted in publication in peer reviewed journals. Although the number of publications has increased in the past five years as a result of Regional Office support for capacity-building, the gaps cannot be addressed with the currently available resources.

## Achievements towards performance indicator targets in each expected result

In the area of *vaccine preventable diseases and immunization* routine vaccination coverage data indicate that the regional expected result for 2008 was achieved in 16 countries. The level of 90% coverage for DPT3 was achieved for the first time in Sudan, and Yemen is close to achieving this target as well. Expanding immunization services beyond infancy is on track also. Currently 18 countries (82%) are providing immunization services during the second year of life and 16 (73%) during primary school entry.

National ownership of, and commitment to, the immunization programme are key factors in its success. WHO technical support in developing multiyear plans and district microplans and in providing necessary technical support in implementation, advocacy and awareness-raising, at the highest national level, as well as in mobilizing technical and financial resources, were also key success factors. WHO support for development of applications to the GAVI Alliance and GAVI financial input were imperative as well. However, insecurity, weak managerial capacity and inadequate human resources continue to constrain the immunization programme in priority countries.

Strengthening of vaccine procurement and management systems was also on track. Eighteen countries are currently providing 100% of the support for classic EPI vaccines and injection equipment. In addition, Sudan is currently covering the cost of injection equipment and co-financing the newly introduced pentavalent vaccine. Afghanistan's national contribution is expected to increase significantly in 2009 with co-financing of new vaccines.

WHO is working hard on establishing regional pooled vaccine procurement systems: raising the awareness of decision-makers, finalizing the regional pooled vaccine procurement feasibility study, and assisting the Maghreb countries in establishing a pooled vaccine procurement system. Review of the pooled procurement of vaccines of the GCC countries and analysis of other procurement mechanisms is being undertaken to assist countries in making decisions based on evidence.

With regard to measles elimination, significant progress has been made in reducing measles mortality. The Region

A Somali child benefits from a "child health day"

achieved the Global Immunization Vision and Strategy (GIVS) goal (90% reduction in estimated deaths from 2000 to 2010) 3 years earlier than the target date, an achievement that was applauded by the international community. The support of the Regional Office was a key factor in this achievement, providing technical support for developing national plans, including planning and implementation of the campaigns, and establishing the regional partnership for resource mobilization.

Seventeen countries have achieved maternal and neonatal tetanus elimination, which is in line with the regional expected result. To scale up the elimination efforts, an intercountry meeting was held for the remaining countries, followed by Joint WHO/UNICEF missions to Afghanistan, Pakistan and Yemen to discuss the constraints and develop national plans to address the different components of the maternal and neonatal tetanus elimination strategy, including supplementary immunization activities. In Somalia, tetanus toxoid vaccination is being provided during Child Health Days and Yemen started with phase 1 of maternal and neonatal tetanus elimination in mid 2008.

New vaccines introduction gained momentum. With GAVI financial support, Hib vaccine was introduced into Pakistan and Sudan, and Afghanistan is ready to introduce it early in 2009. Pneumococcal conjugate vaccine is currently in use in the national immunization programme in Bahrain, Kuwait and Qatar while Oman, Saudi Arabia and United Arab Emirates will introduce it

The children of Pakistan put on a happy face for the measles campaign



early in 2009. Yemen received GAVI approval for introduction of pneumococcal vaccine in 2010. The opportunity of the financial support offered by GAVI, the national commitment to co-financing and the extensive technical support offered by the Regional Office for preparation of GAVI applications, preparation of the introduction plan and national capacity-building, together with the financial support for implementing the introduction plan were major success factors.

The commitment of the countries eligible for support from the GAVI Alliance to co-financing and gradual increase in the government contribution to EPI vaccines are the only means for ensuring sustainability. The main challenge facing the Region in the area of new vaccines introduction concerns the financial constraints facing the low–middle income countries that are currently behind the GAVI-eligible and the higher income countries in terms of introduction. Therefore, the Regional Office conducted a side meeting with the heads of delegations during the World Health Assembly in order to raise awareness and advocate for EPI in general, and new vaccines introduction in particular. In addition, an advocacy and sensitization workshop was organized for the introduction of Hib vaccine in Iraq.

With regard to surveillance, monitoring and evaluation, the achievements in surveillance for diseases preventable by new vaccines exceeded the target. Currently, sixteen countries are implementing bacterial meningitis surveillance; 4 countries are implementing surveillance of other invasive baterial diseases (pneumonia and sepsis) and the rotavirus surveillance network covers 13 countries. These surveillance networks cover some of the most challenging countries, including Afghanistan, Iraq, Pakistan, Sudan and Yemen. Intensive support was provided by the Regional Office, through provision of supplies and equipment, intensified national capacity-building, quality assurance/quality control, and monitoring and evaluation through follow-up visits. As a result of capacity-building, 11 countries have capacity for conducting rotavirus genotyping and four of them are capable of performing rotavirus sequencing. National ownership of this programme and countries' keenness to have data that support evidence-based decision-making on new vaccines introduction, and the availability of financial resources through GAVI accelerated development and introduction plans (ADIPs) were instrumental.

Achievement of the regional expected results for monitoring and evaluation of EPI is on track. 18 countries are currently regularly monitoring district level coverage data. To further strengthen monitoring and evaluation of EPI at district level, capacity-building in data quality assessment was conducted for six priority countries (Afghanistan, Iraq, Pakistan, Somalia, Sudan and Yemen) in addition to Jordan. Customization and installation of the EPI data management system, together with training of national officers, was conducted in Iraq, Jordan, Lebanon and Pakistan. Technical support was also provided to Afghanistan, Egypt, Oman and Yemen for assessment of the data management systems and development of the necessary software. Data analysis and use of data for action to improve vaccination coverage at district level, especially in the priority countries, needs to be further strengthened through national efforts.

Nineteen out of the 22 countries have nationwide surveillance to monitor measles incidence by district. Capacity to conduct measles case-based surveillance and to map genotypes of circulating measles virus was strengthened. It is expected by end

2009 that Morocco, Pakistan and Somalia will have implemented nationwide measles case-based surveillance as well. Conduct of research, especially vaccine clinical trials, is an area of weakness in the Region due to the reluctance of the countries to get involved in such research. Nevertheless, six research proposals were approved under the small grants scheme.

The regional expected results concerning injection safety and monitoring of adverse events following immunization (AEFI) were partially achieved. Fifteen countries are now making exclusive use of auto-disable syringes (AD) and 15 countries have established an AEFI system. Injection safety re-assessment was conducted in Oman, using the updated WHO tool. Capacity was built to further strengthen AEFI monitoring systems. The main impediment to achieving the regional expected results is the absence of financial resources necessary to implement the planned intercountry activities.

Efforts to achieve *poliomyelitis eradication* in the Region continued on all fronts. In endemic countries, campaigns were conducted from house to house, targeting all children less than 5 years of age. Extensive efforts were made to ensure high quality. The commitment of politicians and community leaders was obtained and multisectoral approaches were implemented to involve

HE Mr Hamid Karzai, President of Afghanistan, HE Mr Yusuf Raza Gillani, Prime Minister of Pakistan and Dr Tabitta Botros Shokai, Federal Minister of Health of Sudan, were among those supporting launch of polio vaccination campaigns



both governmental and nongovernmental sectors. These included intensified social mobilization and supervision activities. Detailed micro-plans with maps were developed and used to reach every child, with special focus on risky areas and difficult-to-reach groups. Monovalent vaccine was used to maximize type-specific immune response. Finger-marking was used to guarantee that no child was missed. Independent monitors observed campaigns, and their findings helped to pinpoint problems to be resolved by the responsible authorities. National immunization days were coordinated between neighbouring countries and supplementary immunization activities were also used to provide other services, such as delivering life-saving vitamin A and deworming tablets.

The pattern of a decrease in the number of polio cases and in the genomic diversity of the isolated viruses from Afghanistan and Pakistan continued during the first 6 months of 2008. Significant increase in the number of cases started from July 2008 with the total number of cases in Pakistan reaching 118 cases in 2008 compared to 32 in 2007 and 31 cases in Afghanistan in 2008 compared to 17 in 2007. Consultations were held to understand the epidemiological situation and the reasons for continued circulation of the wild virus in Pakistan, and special plans were developed to address the issues. The reasons for the increase in Pakistan include increased inaccessibility of children in security compromised areas which are endemic foci, and significant population movement out of these areas to other parts of Pakistan. Significant efforts were made on all fronts, including advocacy and mop-up campaigns, and these are showing a positive impact. Updated provincial plans for 2009 were prepared and efforts made to ensure their implementation. In Afghanistan, in addition to using windows of opportunity to access and immunize children, efforts continued with all parties in order to cease hostilities during supplementary immunization activities and allow access of vaccinators to children. Through indirect contact, agreement was reached with anti-government elements to issue a statement of support for supplementary immunization activities in their areas of influence. These efforts have resulted in improved access to children in some parts of the southern region. However, since this access is not sustained it cannot have real impact on the immunity profile and cessation of cases. In September 2008, the programme lost two national staff and a driver in an explosive attack on their UN vehicles on the way from Kandahar to Spinboldak.

In Sudan, a detected importation from Chad was not followed by secondary cases which reflects the high immunity level of children, due to the highly improved routine immunization, as well as the large-scale high quality immunization response to this importation. However, an importation in southern Sudan resulted in spread to six different states due to the low level of immunity in the population, weak routine immunization and severe logistic constraints facing national immunization days in the country. Supplementary immunization activities using mainly mOPV1 have been conducted since May 2008, synchronized with similar activities in Ethiopia. The success achieved in Somalia in stopping viral circulation that followed the 2005 importation was maintained. Somalia regained its polio free status in March 2007 and maintained it in 2008, through ensuring adequate population immunity.

In polio-free countries, priority continued to be given to implementing supplementary immunization activities, with the aim of ensuring that all children under 5 years are immunized against polio, especially in

countries with low routine coverage, in order to guard against spread after importation. Some polio-free countries conducted campaigns addressing mainly high-risk areas and areas with low routine coverage (Djibouti, Egypt, Iraq, Lebanon, Jordan, Libyan Arab Jamahiriya, Saudi Arabia, Sudan, Syrian Arab Republic and Yemen). Coordination between neighbouring countries within the Region, especially between Afghanistan and Pakistan, is maintained at a very comprehensive level. Coordination is being extended to neighbouring countries of other WHO regions. Technical Advisory Group meetings and coordination meetings for the Horn of Africa took place and synchronization of activities and exchange of information between countries has improved greatly.

The acute flaccid paralysis (AFP) surveillance system in the Region continues to perform at the accepted international standard and exceeds the required indicators in many priority countries. All countries achieved the target of non-polio AFP rate of at least 1 per 100 000 under 15 years and exceeded 2 per 100 000 for all high-risk countries. All countries except Djibouti, Kuwait and Lebanon achieved and exceeded the target of 80% stool adequacy for AFP cases. Despite an increase in workload, the performance of the regional polio laboratory network was sustained at certification standard and all network laboratories were accredited. AFP surveillance data are analysed weekly and published in the weekly polio fax with feedback to the countries. The quality of AFP surveillance is assessed through in-depth review missions with actual field evaluation. By the end of 2008, the surveillance systems of all countries had been reviewed at least once since 2004. The only exceptions were Palestine and Somalia for which desk reviews were conducted. The Regional Office is following closely the implementation of the recommendations of these reviews and supported capacity-building to address identified gaps.

Through supplementary surveillance activities, namely environmental monitoring, an imported wild virus from Ethiopia/southern Sudan was detected in Egypt in September 2008. Immediate response with two mop-up rounds was conducted by the Egyptian authorities and heightened surveillance activities have not shown any secondary spread. Special attention is being given to improving the quality of life of polio survivors through implementation of rehabilitation programmes and other supportive activities. These efforts are currently under way in Pakistan and Yemen, in collaboration with the International Islamic Relief Organization.

The Regional Director meets a polio survivor during a visit to the rehabilitation centre at King Edward Medical College, Lahore



Certification and containment activities are gaining momentum. The regional target is to complete phase one of laboratory containment by all countries and submit a report on quality of activities. All polio-free countries except Somalia and Yemen have reported completion of Phase 1 of the laboratory survey and inventory activities and documentation of the quality of Phase 1 of containment activities was submitted by 15 countries. The Regional Certification Commission continued to review various national documents submitted by the National Certification Committees. Basic documents have been accepted from 19 countries, final reports from 14 countries and progress reports are regularly submitted by Afghanistan and Pakistan. All countries continue to submit annual updates.

Technical support to the regional polio eradication programme is continuing, using about 70 international and over 1000 national polio staff in addition to teams of experts constituting both regional and country TAGs, which are advising the national programmes on strategic directions. At the same time, all polio staff are extending support to EPI as well as helping to address other priority health programmes at country level. With the goal of stopping transmission in the Region closer than ever, regional commitment to poliomyelitis eradication is now at its highest level, with national authorities in both endemic and polio-free countries showing great commitment.

In *tropical diseases and zoonoses*, further technical support was provided to Somalia and Yemen with regard to the schistosomiasis control initiative, particularly for surveillance system strengthening and development of new initiatives to scale up the initiative. The Regional Office was actively involved in the preparation and launch of the Yemen national schistosomiasis elimination campaign, based on four main rounds throughout 2008. School-age children (6–18 years) in 15 governorates are the target of the drug distribution campaign. The campaign reached more than 2 400 000 children. Support was provided to conduct a community-wide pilot in one highly-endemic district (Al Shehel) where the adult population was also included. Preliminary data analysis showed an overall coverage rate of about 80%. Anecdotal reports describe a massive compliance to drug distribution activities, fostered by the social mobilization efforts. Somalia continued to receive support for case detection and treatment campaigns and drug provision for mass drug distribution. The initiative targets not only school-age children, but also the adult population in the Lower Juba and Lower Shabelle regions, considered to be endemic. Approximately 12 900 cases were covered during campaigns, of which almost 95% were school-age children.

The Regional Director and the Minister of Public Health and Population, HE Dr Abdulkarim Rasa'a, visit Al Mahweet Governorate, Yemen, during the launch of the national schistosomiasis elimination campaign

The Regional Office is supporting the development and implementation of dracunculiasis surveillance in all

guineaworm-free areas of southern Sudan, in coordination with the Ministry of Health and Guinea Worm Eradication Programme for southern Sudan. Technical guidance was provided to relevant partners in the country to initiate the certification process for Sudan, given the global eradication target to be achieved by December 2009. The Regional Office contributed to preparation of the zero case surveillance road map, which will cover 13 out of the 26 counties found to be guineaworm-free, in coordination with the Ministry of Health and the Carter Centre. The 13 selected counties are priority areas, since they are nested in endemic areas. WHO also provided special support to establish a cross-border surveillance system between southern Sudan and Ethiopia. The ultimate goal of this specific intervention is to build strong surveillance systems at border areas through training of volunteers and to raise awareness on guineaworm transmission through dissemination of information, education and communication materials in local languages on the border of both countries.

The Regional Office provided technical support to strengthen the provision of adequate and high quality services to leprosy cases at the national and sub-national levels, particularly among those countries with a major burden of leprosy. The WHO Technical Advisory Group on Leprosy Control made recommendations to guide the leprosy control and elimination strategy at country level. Available data since the beginning of 2008 indicate the registered prevalence of leprosy in the Region was 4240 cases. The regional detection of new cases was 4091 cases, which represents an increase compared to 3261 cases reported in 2006. This increase in detected cases is related to improvements in data collection and reporting.

Rabies programmes received support for strengthening of control activities, vaccine provision and education activities. The Islamic Republic of Iran, Jordan and Syrian Arab Republic contributed to the 2008 World Rabies Day, focusing on campaigns and raising awareness about prevention of rabies.

As regards human African trypanosomiasis, only endemic in southern Sudan, WHO supported capacity-building at the Lui hospital for screening, diagnosis and treatment of the disease. An average of 252 people were screened each month at the laboratory, 1988 people were actively screened in a 6-day campaign in targeted villages and 16 patients were diagnosed and treated each month. The overall situation of human African trypanosomiasis in southern Sudan remains a concern after the withdrawal of most of the implementing partners in areas where the Ministry of Health has not yet developed the capacity to take over control activities. This puts pressures on WHO to scale up operational control activities to sustain the low annual incidence rate (<500 new cases in 2008) which is certainly biased due to the low screening coverage rate (<5%, at risk population 1.8 million).

Capacity-building for diagnosis and treatment of visceral leishmaniasis was supported in Sudan. Due to a shortage at the global level of the medicine regularly used in Sudan (sodium stibogluconate), WHO facilitated the introduction of an alternative antimonial (meglumine antimoniate) to guarantee access to treatment. For cutaneous leishmaniasis, WHO is strengthening a regional network to standardize diagnosis and treatment protocols, and to provide evidence-based approaches for better control of the disease. Re-emergence of the disease is observed in different foci and a multisectoral approach is crucial to control the disease due its environment-related features.

In the area of *communicable disease surveillance, forecasting and response*, in order to strengthen national early warning, surveillance, epidemic preparedness and response systems, in accordance with the International Health Regulations (IHR 2005), an assessment tool was developed which is being used by countries to assess the national core capacities required for the implementation of the regulations. Other support included: assessment of national core capacities in Afghanistan and Morocco; review of the public health law in Oman to ensure compliance with the regulations; and advocacy missions to Morocco and Sudan. Progress towards implementation by countries was monitored. The Regional Office supported strengthening of national public health laboratories through capacity-building on laboratory surveillance and shipping of dangerous pathogens.

The Regional Office continued to support the development and implementation of the regional web-based surveillance system (RASDOON), testing it in Jordan and Tunisia. The Regional Office also supported regional response capacity-building for containment of known epidemic-prone infections, emerging infectious risks and unexpected disease threats. Three consultative meetings targeted outbreak-prone diseases: cholera, blood-borne hepatitis and meningococcal meningitis, and came up with strategic directions that will be condensed into a regional strategy to assist countries to prevent, control and respond to outbreaks of these diseases. Regional capacity was strengthened in outbreak investigation and response.

Seventeen outbreaks were confirmed in nine countries. Acute watery diarrhoea (cholera) outbreaks were the most reported outbreaks, affecting six countries and resulting in a total of 19 652 cases and 111 related deaths. Cases of dengue/dengue haemorrhagic fevers were reported from four countries with a total of 2163 cases. Sporadic cases of Crimean-Congo haemorrhagic fever were reported from Afghanistan and Islamic Republic of Iran, while hepatitis E, Gulran disease, thalium poisoning and myasis were reported from Sudan, Afghanistan, Iraq and Djibouti, respectively. Egypt continued to report human cases of avian influenza due to H5N1 virus for a third year. A total of 8 cases including 4 related deaths were reported in 2008, bringing the number of human cases of H5N1 in Egypt to 51 with 23 deaths.

As part of the Regional Office support for preparedness planning for human pandemic influenza at regional and country level and for reduced opportunities for human infection with H5N1, capacity-building was supported on avian influenza, including pandemic influenza preparedness planning. In regard to laboratory technical support to countries to establish laboratory influenza surveillance, technical support was provided to the United Arab Emirates to develop phases 4, 5 and 6 of the pandemic influenza preparedness plan. Capacity in laboratory influenza surveillance was strengthened and the laboratory capacity

for establishing a national influenza centre was assessed in Bahrain, Jordan, Morocco, Qatar and Yemen.

With regard to *vector control* in the Region, countries were supported to implement the integrated vector management (IVM) approach for the control and prevention of vector-borne diseases. This is the strategy endorsed by the Regional Committee in 2005 (EM/RC52/R6) and on which progress was reported during the 55th Session. Nine of the 12 disease-endemic countries have IVM plans and have established national intersectoral coordination mechanisms, and four have a vector control unit responsible for all vector-borne diseases. A recent review highlighted some major challenges and constraints in the following areas: political commitment; intersectoral coordination; institutional arrangements; capacity to scale up vector control interventions; regulatory environment for sound pesticide management; and community mobilization and awareness.

To address some of these issues, a regional operational plan was developed to be implemented over two years. Countries which do not have national plans on IVM were requested to initiate the process by undertaking comprehensive vector control needs assessment to develop such plans, for which tools and guidelines from WHO are available. Support was also provided to countries for sound management of public health pesticides. The support included critical review of pesticide specifications; determination of equivalence; quality control; procurement; application; storage/disposal; and monitoring of insecticide resistance, among others.

Indoor residual spraying and the use of insecticide-treated nets are the key interventions for the prevention of vector-borne diseases in the Region. Support to countries included revision of national plans to scale up the use of insecticide-treated nets from individual personal protection to community protection for mass impact. With support largely from the Global Fund, a population of approximately 30 million people was expected to have access to this intervention by the end of 2008. Afghanistan, Djibouti, Somalia and Sudan made good progress in scaling up this intervention. In the absence of any other vector control intervention, the goal is universal access to long-lasting insecticidal nets, i.e. one net for every two persons. Implementation of this strategy must be based strictly on epidemiological stratification and, where resources are limited, a phased approach is recommended. However, reporting on the two interventions as part of monitoring and evaluation, is very weak and needs strengthening. The other area of support was in the response to outbreaks of vector-borne diseases and the appropriateness of vector control interventions. This, coupled with current efforts to monitor and manage insecticide resistance, will provide evidence for rational use of insecticides, which are very costly. The ongoing collaborative work with the small grants scheme research programme to monitor and manage pyrethroid resistance on malaria vector species in Sudan will provide useful information that can be used elsewhere in the Region.

National and institutional capacities in entomology and vector control are essential for scaling up interventions in the context of IVM implementation. A regional MSc degree in medical entomology and vector control was launched in Sudan with financial support and international facilitators from WHO. Similar programmes were also finalized in Pakistan and in the Islamic Republic of Iran and short training courses were also supported. Moreover, collaborating institutions were supported to implement operational research with other international partners, especially



in the area of monitoring and management of insecticide resistance.

The *small grants scheme research programme* supported 13 projects in 2008: 6 in vaccine-preventable diseases for Afghanistan, Islamic Republic of Iran, Pakistan, Palestine, Sudan and Yemen; 4 in leishmaniasis for Sudan, Islamic Republic of Iran and Lebanon; one in dengue for Sudan; one in international health regulations for Sudan; and one in Crimean-Congo haemorrhagic fever for Islamic Republic of Iran. In addition, one project was commissioned on hepatitis in Egypt. The programme was very active in the area of capacity-building, especially in protocol development and scientific writing. Ten articles originating from previously supported projects were published or accepted for publication in peer reviewed journals.

Research results of completed studies were communicated to the control programmes for their use to guide policy and practice in different areas. These included: the immune status of the population and constraints against high immunization coverage for vaccine-preventable diseases in Lebanon, Egypt, and Pakistan; the burden of *Haemophilus influenzae* type B diseases in Pakistan and rotavirus diarrhoea in Egypt to guide vaccine introduction in these countries; and the successful use of behaviour change communication to increase tetanus toxoid coverage in Pakistan. A latex agglutination test for the detection of urinary antigens in visceral leishmaniasis was evaluated in Sudan, and a noninvasive antigen-based ELISA assay for diagnosis of visceral leishmaniasis in Islamic Republic of Iran. The efficacy of local heat therapy for cutaneous leishmanisis was evaluated in Islamic Republic of Iran, and the use of glycerol-preserved direct agglutination test (DAT) antigen as an alternative to freeze-dried DAT antigen for visceral leishmaniasis in Sudan was also evaluated. The resistance of *Leishmania tropica* to meglumine antimonate was studied in Islamic Republic of Iran. In vector control, new insecticide-treated materials were evaluated and factors affecting the efficacy of long-lasting bed nets were reported in the Islamic Republic of Iran; factors affecting the community use of bed nets were reported from Syrian Arab Republic; and insecticide resistance was studied in several countries as part of the monitoring and evaluation of insecticide resistance in the Region. In hepatitis, the risk factors for hepatitis B and C were studied in a multicounty study in Egypt, Morocco and Pakistan, and genotyping of hepatitis virus was reported from Palestine. New sensitive diagnostic tools for low schistosomiasis endemic areas were evaluated in Egypt, the impact of zinc supplementation on diarrhoeal morbidity and mortality in children was evaluated in Yemen, and the dengue burden was studied in Pakistan.

## Future directions

In order to achieve the regional expected results relating to communicable diseases, the Regional Office is planning to adopt a sub-regional integrated approach. The main objectives behind this approach are to identify the common constraints that still hinder the implementation of the regional recommended strategies for communicable disease control in these sub-regions and to propose more integrated and specific solutions, including a more adequate and operational input from the Regional Office. These meetings will include decision-makers from the different countries, in addition to the communicable disease control directors and the different programme managers in these countries, and will stress important and cross-

cutting areas of work, such as surveillance, information sharing, data management and use of data for action. This will prepare the way for more efficient implementation of recommended strategies and improve the benefit to be gained from the Regional Office input in the different areas of work, including access to high quality immunization services, polio eradication, measles elimination, new vaccine introduction, international health regulation implementation, strengthening national early warning, surveillance and response systems and epidemic preparedness, and operational research. With regard to polio eradication, the regional priorities are to: interrupt transmission in Afghanistan and Pakistan through intensification of supplementary immunization activities; interrupt the shared transmission of P1 virus in southern Sudan/Ethiopia; avoid large immunity gaps in polio-free countries; maintain certification-standard surveillance in all countries; maintain and further strengthen coordination activities between neighbouring countries; continue with containment and certification activities; mobilize the financial resources required to implement the regional plan for eradication; and optimize collaboration with routine immunization programmes.

# Strategic objective 2: To combat HIV/AIDS, tuberculosis and malaria

## Issues and challenges

HIV/AIDS, tuberculosis and malaria are an important public health problem in the Region, accounting for an estimated 200 000 deaths annually. Each control programme has different challenges, while weak health systems, including lack of human resources and service delivery infrastructure and weak governance, are challenges common to all.

The estimated number of people living with HIV in the Region was 530 000 in 2007. In Djibouti and parts of Sudan and Somalia, HIV prevalence is above 1% in the adult population (age 15–49 years) (Table 1.1). Estimating the sizes of the most-at-risk populations, monitoring risk behaviour and HIV prevalence, and developing culturally appropriate and efficient HIV prevention and care interventions for these groups are key challenges. By October 2008 only 9622 people living with HIV had received antiretroviral therapy, representing just 6.6% of the estimated population in need.

With regard to malaria, spreading resistance to medicines and insecticides necessitates continuous and strong systems for monitoring and containment of resistance. The key challenges in malaria-endemic countries are: limited coverage and low quality of laboratory services for confirmation of diagnosis; inability to provide reliable data on the malaria burden; limited capacity and weak management skills; lack of community structures to deliver the treatment to inaccessible populations; and limited involvement of the private health providers. Tables 1.2 and 1.3 show the current reported malaria morbidity in malaria-free countries



**Table 1.1** The burden of HIV/AIDS in the Eastern Mediterranean Region, 2008

| Country | Estimated HIV prevalence in adult population (%)[a] | Estimated number of PLHIV[a] | Estimated number of people needing ART based on UNAIDS/ WHO methodology[b] | Number of adults needing ART according to country estimation[c] | Reported number of people receiving ART[c] |
|---|---|---|---|---|---|
| Afghanistan | <0.1[d] | <1000[d] | NA | NA | 0 |
| Bahrain | NA | <1000[a06] | NA | 40[d] | 40[d] |
| Djibouti | 3.1 | 16 000 | 4 500 | NA | 816 |
| Egypt | <0.1 | 9200 | 2 200 | 450[d] | 291 |
| Iran, Islamic Republic of | 0.2 | 86 000 | 19 000 | 8 600[d09] | 921[d09] |
| Iraq | NA | NA | NA | NA | 5 |
| Jordan | <0.1[d] | <1000 | NA | 100 | 68 |
| Kuwait | NA | <1000 | NA | NA | 117[d09] |
| Lebanon | 0.1 | 3000 | 940 | 432 | 611 |
| Libyan Arab Jamahiriya | NA | NA | NA | 1 500 | 1 200[d] |
| Morocco | 0.1 | 21 000 | 5 300 | 2 230[e] | 2 207 |
| Oman | 0.5[d] | 3854[d] | NA | 400[d] | 412 |
| Pakistan | 0.1 | 96 000 | 20 000 | 12 000[d09] | 907 |
| Palestine | NA | NA | NA | NA | 6[d09] |
| Qatar | NA | NA | NA | NA | NA |
| Saudi Arabia | NA | NA | NA | 820[d] | 865 |
| Somalia | 0.9 | 24 000 | 6 300 | 5 659[d] | 413 |
| Sudan | 1.6 | 320 000 | 87 000 | 52 272 | 2 317 |
| Syrian Arab Republic | NA | NA | NA | 200 | 75[c07] |
| Tunisia | 0.1 | 3700 | 1 000 | NA | 346 |
| United Arab Emirates | NA | NA | NA | NA | 59 |
| Yemen | 0.2[d] | 20 000[d] | NA | 3150[d] | 189 |

NA not available
PLHIV: people living with HIV

[a] Report on the global AIDS epidemic 2008. Geneva, UNAIDS, 2008
[a06] Report on the global AIDS epidemic 2006. Geneva, UNAIDS, 2006
[b] Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2008. Geneva, WHO/UNAIDS/UNICEF, 2008
[c] Country Universal Access Reports, 2008
[c07] Country Universal Access Reports, 2007
[d] National AIDS programme, 2008
[d09] National AIDS programme, 2009
[e] UNGASS reporting to UNAIDS/WHO

and countries targeting elimination, and in countries with a high malaria burden, respectively.

Low case detection is the main challenge in tuberculosis control. Although the regional case detection rate increased from 52% in 2006 to 60% in 2007, only nine countries reached the global target of 70%. The causes of low case detection are complex: insufficient quality of care; incorrect care for suspected cases; incomplete involvement of the different health sectors; limited awareness of tuberculosis; and limited partnerships. Inaccuracy in estimated incidence remains an issue, while the increasing threat of multi-drug resistant tuberculosis, including extensive drug-resistant tuberculosis, is an important challenge.

While operational research activities in these three areas are promoted through the small grants scheme, conduct of quality research remains a challenge. Research

capacity in control programmes, translation of research results into policy and practice, contribution to the scientific literature and financial resources for research activities all need to be addressed.

## Achievements towards performance indicator targets in each expected result

The Regional Office provided concerted support for scaling up of HIV/AIDS, malaria and tuberculosis prevention, treatment and care. This included joint advocacy for the three diseases and expanding partnerships, particularly with the Global Fund to Fight AIDS, Tuberculosis and Malaria, partnership with which was extended to include health systems strengthening activities in relation to the three diseases. The Regional Office supported capacity-building for proposal development to the Global Fund round 8 and health systems gap analysis. The Global Fund approved 11 proposals from 7 countries totalling US$ 265.3 million, including two on HIV, five on tuberculosis, one on malaria and three on health systems strengthening.

WHO focused its support to national *HIV/AIDS* programmes in three thematic areas: strengthening HIV epidemic surveillance; expanding access to HIV testing and counselling, and care and treatment; and promoting advocacy for appropriate health sector policies and approaches to address the needs of populations most at risk of HIV. WHO increased its capacity to respond to the growing need for technical guidance and support, assisted in mobilizing resources and emphasized capacity-building of national experts. Partnerships with other agencies, new technical partners and nongovernmental organizations at national and regional levels were expanded.

In collaboration with UNAIDS and the World Bank, a review of the HIV epidemic situation and projections for potential epidemic spread in future is ongoing. A regional guide on HIV surveillance in low prevalence and concentrated epidemics was finalized, and regional training modules on surveillance methodologies were developed. The Regional Office supported HIV surveillance surveys in Islamic Republic of Iran, Somalia, Sudan and Yemen and a review of the HIV surveillance system in the Syrian Arab Republic.

The second global survey on the progress of the health sector contribution towards the goal of universal access was carried out, and showed some improvement in availability of information compared to the previous year. However, the remaining information gaps highlighted the urgent need for continued emphasis on strengthening systematic monitoring systems.

All countries made successful efforts to expand access to HIV prevention and care services in the health sector, resulting in increase in the number of people living with HIV reportedly receiving anti-retroviral

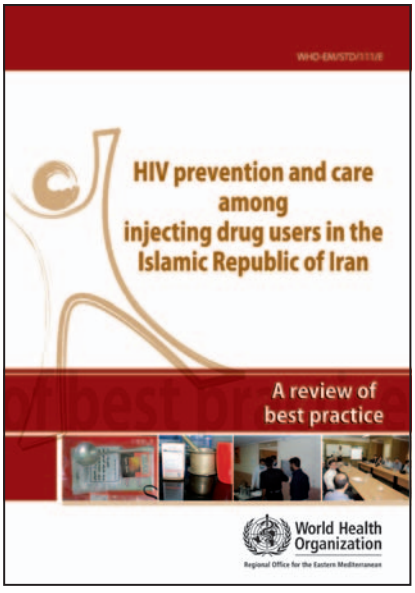




**Table 1.2** Parasitologically confirmed cases of malaria in countries with no or sporadic transmission and countries with low malaria endemicity

| Country | Cases in 2006 | | Cases in 2007 | | Cases in 2008 | | Species transmitted locally |
|---|---|---|---|---|---|---|---|
| | Total | Autoch-thonous | Total | Autoch-thonous | Total | Autoch-thonous | |
| Bahrain | 70 | 0 | 103 | 0 | 92 | 0 | nil |
| Egypt | 29 | 0 | 30 | 0 | 80 | 0 | nil |
| Iran, Islamic Republic of[a] | 15 909 | 13 127 | 15 712 | 13 278 | 11 460 | 8 349 | *P. vivax* > *P. falciparum* |
| Iraq | 24 | 23 | 3 | 2 | 6 | 4 | *P. vivax* |
| Jordan | 116 | 2[c] | 83 | 0 | 65 | 0 | nil |
| Kuwait | 235 | 0 | 317 | 0 | 392 | 0 | nil |
| Lebanon | 42 | 0 | 67 | 0 | 81 | 0 | nil |
| Libyan Arab Jamahiriya | 10 | 0 | 5 | 0 | 7 | 0 | nil |
| Morocco | 83 | 0 | 75 | 0 | 142 | 0 | nil |
| Oman | 443 | 0 | 705 | 4[d] | 965 | 8 | nil |
| Palestine | 2 | 0 | 0 | 0 | 0 | 0 | nil |
| Qatar | 198 | 0 | 195 | 0 | 216 | 0 | nil |
| Saudi Arabia[b] | 1 278 | 269 | 2 864 | 467 | 1 491 | 61 | *P. falciparum* > *P. vivax* |
| Syrian Arab Republic | 34 | 0 | 37 | 0 | 51 | 0 | nil |
| Tunisia | 36 | 0 | 39 | 0 | 62 | 0 | nil |
| United Arab Emirates | 1 663 | 0 | 2 119 | 0 | 2 696 | 0 | nil |

NA not available

> Predominance of one species

[a] Endemic areas mainly in the south-est

[b] Endemic areas mainly in the south-west

[c] Introduced falciparum cases

[d] Introduced vivax cases

**Table 1.3** Recorded and estimated cases of malaria in countries with high malaria burden, 2008

| Country | Total cases reported | Cases confirmed | Cases estimated[a] | Species transmitted |
|---|---|---|---|---|
| Afghanistan | 467 123 | 82 564 | 568 000 | P. vivax > P. falciparum |
| Djibouti | 3 569 | 119 | 39 000 | P. falciparum > P. vivax |
| Pakistan | 4 658 701 | 104 454 | 1 500 000 | P. vivax > P. falciparum |
| Somalia | 24 136 | 23 905 | 609 000 | P. falciparum > P. vivax |
| Sudan | NA | NA | 5 000 000 | P. falciparum > P. vivax |
| Yemen | 158 648 | 44 028 | 287 000 | P. falciparum > P. vivax |

NA not available
> Predominance of one species

[a] World Malaria Report 2008

treatment, from 7129 in 2007 to 9622 in 2008. However, the proportion of estimated people living with HIV in need of treatment and receiving antiretroviral therapy in the countries with the highest burden is still low, ranging from 2% in Sudan to 20% in Djibouti.

WHO initiated a review of national clinical management guidelines for HIV care and treatment, prevention of mother-to-child transmission and post-exposure prophylaxis. Several countries (Afghanistan, Somalia, Sudan and Yemen) benefited from technical support and training to develop HIV care and treatment services. A regional review of HIV testing and counselling policies and practices was carried out and findings were discussed in a regional consultation.

In collaboration with the International Harm Reduction Association, the Regional Office has been supporting The Middle East and North Africa Harm Reduction Association (MENAHRA) and the establishment of harm reduction services and capacity-building. MENAHRA developed a strategy for strengthening harm reduction in the Region which prioritizes countries according to the epidemic situation and the preparedness to implement harm reduction interventions.

A regional strategy for prevention and control of sexually transmitted infections was endorsed by the Regional Committee.

Coverage with long-lasting insecticide-treated nets (LLINs) and artemisinin-based combination therapies (ACTs) for *malaria* is increasing, although still far below the targets. In Sudan, the country with the highest malaria burden in the Region, the percentage of households with at least one LLIN has increased, from 21% in 2005 to 43% in 2007. In 2005, only 10.5% of malaria cases were treated with ACTs (latest available figure 27.6%). With recent mass distribution of LLINs and ACTs, it is expected these figures are higher now. The Regional Office supported monitoring of resistance of ACTs in all endemic countries except Somalia (due to insecurity). The Regional Office

Long-lasting insecticide-treated nets are providing essential protection against malaria in Somalia



supported monitoring of resistance of ACTs in all endemic countries except Somalia (due to insecurity). The Regional Office procured supplies and equipment for diagnosis, treatment and prevention of malaria for Somalia and Sudan, based on an agreement with UNDP and UNICEF, respectively, for use of Global Fund grants. Access to reliable data on indoor residual spraying coverage is a challenge that needs coordination between WHO and partners in order to develop new tools for monitoring and evaluation of vector control, including insecticide resistance profiles of vectors.

WHO continued capacity strengthening activities and maintained technical staff presence in five countries; similar capacity is being established in two more countries. Capacity-building on malaria microscopy was supported for six countries through the second international WHO course. The Regional Office supported several subregional meetings between countries aimed at strengthening border coordination and surveillance for drug resistance. A network (PIAM-net) for coordination of interventions between Afghanistan, Islamic Republic of Iran and Pakistan was established. Efforts to strengthen malaria surveillance continued. The Regional Office supported malaria prevalence and coverage indicator surveys and assessment of malaria monitoring and evaluation systems in Afghanistan, Djibouti, Somalia, Sudan and Yemen.

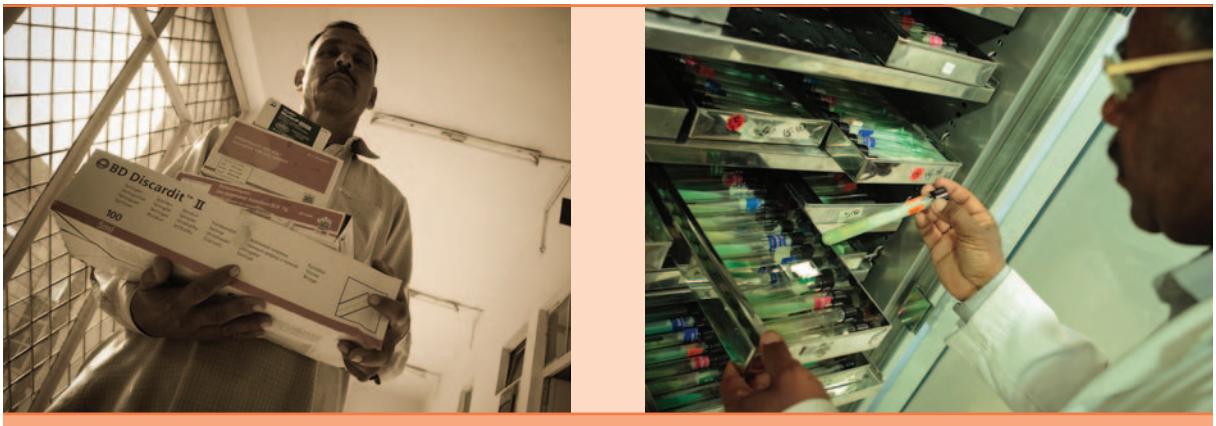
The Regional Office continued to support malaria elimination activities. The malaria programme in Socotra Island, Yemen, was evaluated. The evaluation showed that no malaria cases had occurred in the public sector since 2006 and therefore malaria is no longer a public health problem on the island. However, the situation in the private sector is not known and so a strategy for malaria elimination was developed that will include involvement of the private sector. A first review mission took place for certification of malaria-free status in Morocco. The malaria surveillance system in Oman was assessed. The system was found to be relatively weaker in the area where an outbreak occurred in 2007. Recommendation was made to update the strategy for prevention of malaria reintroduction, and guidance on preparation of certification of malaria-free status was provided. In Pakistan, malaria elimination in Punjab province was assessed to be feasible and based on this assessment a strategic outline for malaria elimination was developed. Under a formal agreement, the Regional Office provided technical support for implementation of the Central Sudan Malaria-Free Initiative, funded by the Islamic Development Bank.

A number of resource mobilization efforts were conducted with successful outcome. The Regional Office supported Afghanistan's bid to raise resources from USAID to strengthen laboratory diagnosis in three northern provinces and to support capacity-building, and from the International Islamic Relief Organization to implement home management of malaria in basic development needs villages in Nangarhar province, as well as from the Global Fund. A proposal to the Patient Helping Fund Kuwait, for home management of malaria in selected villages in Somalia and Yemen, was developed and implementation started.

The *Stop Tuberculosis* strategy has been adopted by all countries, and multi-year national strategic plans and national guidelines have been developed and are being implemented. Expansion of DOTS, the basic package that underpins the Stop Tuberculosis strategy, and its components remains the main thrust of scaling up of tuberculosis care. The laboratory network was expanded and 18 countries now have


sufficient laboratories (i.e. one laboratory per 50 000 to 250 000 population). The Supra-National Reference Laboratory of Egypt provided technical support to almost all national reference laboratories in the Region. Regular supply of high quality medicine was secured, particularly in 13 countries which were able to make use of either grants or direct procurement support and technical assistance from the Global Drug Facility.

Improvement of monitoring and evaluation was given special attention. Upgrading of surveillance took place through introduction of the WHO revised recording and reporting forms which all countries will adopt. The web-based regional reporting system was also upgraded. Computerized surveillance is in full force in Egypt, Jordan and Syrian Arab Republic, and is expanding in other countries. Revision of estimated incidence was carried out in Egypt and Syrian Arab Republic using an innovative new method. Pakistan made preparations for a nationwide disease prevalence survey, the first to take place in the Region.




Stop Tuberculosis: supporting countries to build effective drug supply and management systems


Dr Margaret Chan, WHO Director-General, marches with the Region to Stop Tuberculosis

Collaboration with private health care providers was expanded. Five countries established a reporting system to record notifications from the private sector. In Pakistan, for example, 20% to 30% of patients are now notified from the private sector. Care for patients with multi-drug-resistant (MDR) tuberculosis was expanded. Egypt, Jordan, Lebanon and Syrian Arab Republic scaled up MDR care, enrolling around 500 patients with MDR-tuberculosis in total. Another 12 countries are introducing MDR care in collaboration with the Green Light Committee. However, the overall coverage with regard to proper care for people with multi-drug resistant tuberculosis is very low at 3% in the Region, and rapid scaling up of such care is urgently needed. Nine countries have completed anti-tuberculosis drug-resistance surveys, with results ranging from 0.5% MDR prevalence among new patients in Morocco to 5.4% in Jordan. The Practical Approach to Lung Health was supported in four countries: Jordan, Lebanon, Morocco and Syrian Arab Republic. In Morocco, it was expanded nationwide and contributed to the improved management of patients with chronic respiratory symptoms.

Expanding partnerships was a priority in the Region. The Eastern Mediterranean Partnership to Stop Tuberculosis was launched on 6 May 2008 with more than 50 individuals and groups from health, business and civil society. The Partnership extended advocacy support to high burden countries like Afghanistan and Pakistan, and also to patients with MDR-tuberculosis in Egypt, Jordan, Pakistan and Syrian Arab Republic. National partnerships were launched in Afghanistan and are under development in several other countries. Media and celebrities have been involved in support for tuberculosis care. Collaboration with the GFATM and other bilateral donors was expanded. All 14 countries eligible for GFATM support have now received grants totalling US$ 300 million. As a result, the number of patients receiving proper care has been increased in the Region, from 318 973 in 2006 to 383 364 in 2007. The case detection rate has also increased from 52% to 60%. The treatment success rate is steady at 86%.

The Small Grants Scheme continued to support generation of new knowledge on HIV/AIDS, tuberculosis and malaria, evaluation of improved tools, interventions

and public health policies, strengthening of research capacity, and dissemination and translation of results into policy. The scheme accepted 21 proposals on HIV/AIDS, tuberculosis and malaria during 2008 and supported capacity-building in protocol development and scientific writing, and in data analysis to estimate the tuberculosis burden. Twelve articles originating from previously supported projects were published in peer reviewed journals.

Research results of completed studies were communicated to the control programmes for their use to guide policy and practice. These included studies on the knowledge, attitudes and practice of university students in Palestine with regard to HIV/AIDS and sexually transmitted diseases; barriers to adherence to ART in Lebanon and Pakistan; the prevalence and behaviour of different risk groups in Sudan; second-generation surveillance in Sudan; evaluation of the voluntary counselling and testing centres in Egypt; the economic burden of HIV in the Islamic Republic of Iran; HIV drug resistance in Islamic Republic of Iran and Morocco; the role of the private sector in tuberculosis in Afghanistan and Syrian Arab Republic; the impact of community participation on DOTS implementation in Egypt and southern Sudan; evaluation of diagnostic techniques for improving sensitivity of direct microscopy for detection of acid-fast bacilli in sputum specimens in Egypt; evaluation of a new methodology for estimating tuberculosis burden in Egypt; a multi-country study on the molecular epidemiology of vivax malaria in Afghanistan, Islamic Republic of Iran and Pakistan; evaluation of rapid diagnostic tests in Sudan; estimation of malaria burden in different epidemiological categories in Sudan and Yemen; evaluation of new models for home-based management of malaria in Sudan; a randomized control trial of eight-week primaquine using single weekly doses for treatment of *Plasmodium vivax* malaria in Afghanistan; drug sensitivity in Islamic Republic of Iran and Sudan; and cost-effectiveness of pre-season treatment with ACT therapy and its impact on interruption of malaria transmission in Sudan.

## Future directions

In order to achieve the regional expected results relating to communicable diseases, the Regional Office is planning to adopt a sub-regional integrated approach. The Regional Office will continue to support countries in scaling up disease-specific strategies and expanding partnerships with GFATM and others. WHO's strategic directions for the health sector contribution to achieving the goal of universal access to treatment and care involve: investing in strategic information to guide a more effective response; enabling people to know their HIV status through HIV testing and counselling; accelerating access to treatment and care; and maximizing the health sector's contribution to HIV prevention. In line with resolution EM/RC55/R.9 on malaria elimination in the Region, the regional strategic plan for malaria control and elimination will be updated. The Regional Office will continue to support universal access to reliable and affordable prevention, diagnosis and treatment measures for malaria and capacity-building. Scaling up of tuberculosis care to achieve 70% case detection as well as scaling up of care for people with multi-drug resistant tuberculosis will receive focus. Key targets will be three supra-national laboratories; universal adoption of revised recording and reporting; revision of estimates in five countries; start and expansion of multi-drug resistance care and public–private mix in 18 countries; and national partnerships in six countries.



# Strategic objective 3: To prevent and reduce disease, disability and premature death from chronic noncommunicable conditions, mental disorders, violence and injuries

## Issues and challenges

The global financial recession has compounded the existing levels of poverty among vulnerable populations and increased the extent to which people in the Region are at risk of noncommunicable diseases, injuries, mental health disorders and physical disabilities. The situation is further compounded in the Region by man-made and natural disasters which limit access to quality health care for the treatment of chronic diseases, mental health disorders and injuries and for managing disabilities, and limit opportunities for prevention of these conditions.

There was increasing evidence and realization that the renewed vision for primary health care will have to take into account the rising burden of noncommunicable diseases, mental health disorders and injuries and disabilities, otherwise equity and equality in health will not be achieved. The World Health Report 2008 underpins this argument. The recently published update on the global burden of disease reveals that out of every 10 deaths in a given year, 6 are due to noncommunicable conditions; 3 to communicable, reproductive or nutritional conditions; and 1 to injuries (Figure 1.1), globally as well as in the Region. This defies the traditional belief that communicable diseases are the major public health issue as far as mortality is concerned. What is even more worrying is that the burden of death due to these conditions is greater in low-income and middle-income countries and is projected to increase many times by 2030 if the current trend continues.

Limited resources are available to prevent the rising burden of noncommunicable diseases, mental health disorders and injuries, compared to the resources spent on prevention and treatment of communicable diseases. However, the transition to a strategic framework based on strategic objectives has provided opportunities for seeking synergies across the Organization's work, which has resulted in sound mechanisms to ensure integration. A major challenge to arresting

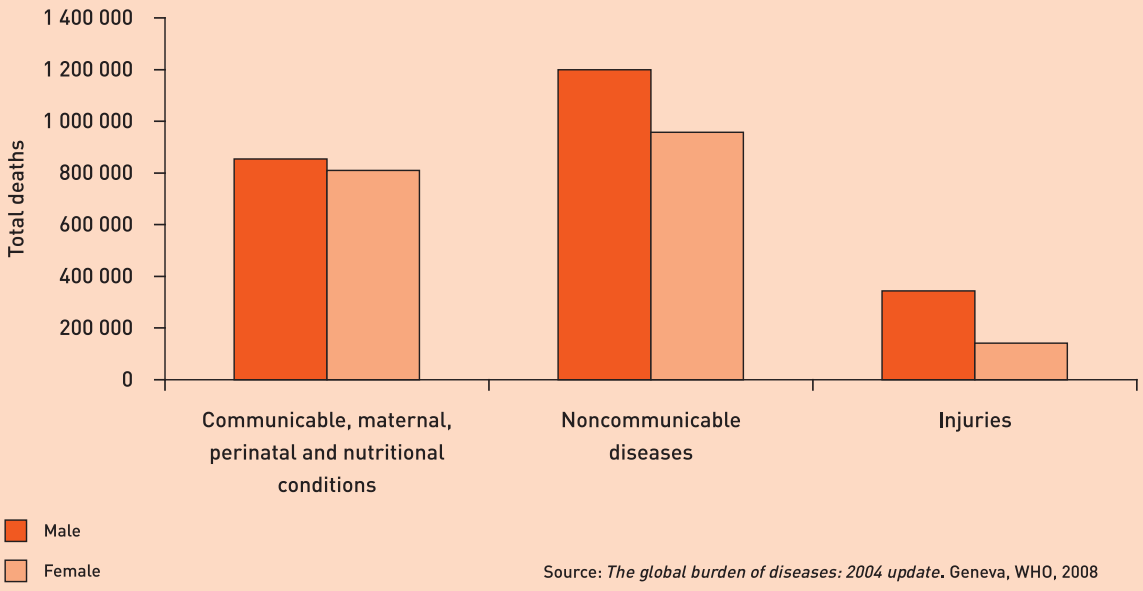



**Figure 1.1** Burden of deaths in the Eastern Mediterranean Region, 2004

the growth in noncommunicable diseases, mental health conditions, injuries, blindness and disabilities is the focus of most health systems in the Region on curative care rather than promotive and preventive care. This also limits the ability of the health systems to initiate and inform multisectoral actions since the determinants of noncommunicable disease conditions lie beyond the health system. Reorientation of the health system (coupled with robust risk factor information systems), to integrate the prevention and promotion components of these conditions, and employing multisectoral mechanisms within the existing health systems, are the crucial milestones that need to be achieved.

## Achievements towards performance indicator targets in each expected result

To address the many challenges in preventing and managing noncommunicable diseases, mental health disorders and intentional and unintentional injuries, a major focus has been to develop regional strategies, gather data about the burden and causality of these conditions and develop evidence-based policies, not only to mitigate the burden but also to inform the policy process at the national level for evidence-based interventions. In the area of *noncommunicable disease prevention and control* some milestones were achieved. A regional cancer strategy was finalized and shared with countries. The strategy and plan of action will support countries in developing/updating their national cancer plans and programmes. A regional alliance of nongovernmental organizations against cancer was created and the secretariat established in Morocco. The alliance represents a collaboration between WHO, the Lalla Salma Association Against Cancer and a number of nongovernmental organizations working in the field of cancer in the Region. Close collaboration was established between

HRH Princess Lalla Salma of Morocco visits WHO headquarters in support of cancer prevention and control

the Regional Office and the regional cancer alliance, the establishment of which will strengthen the implementation of national cancer control plans. Resources were allocated to selected countries to support tobacco cessation efforts. In collaboration with St George's Medical School in London capacity was strengthened in tobacco cessation through the fellowships programme and further capacity-building will take place in countries.

Technical support continued to be provided for strengthening of STEPwise surveillance in the Region. Eight countries completed the surveillance in 2008 bringing the total of countries that have completed the surveillance to 13. Two countries are in the process on conducting the surveillance. In addition, three countries conducted the World Health Survey of which STEPwise surveillance is an essential component. Training on the new electronic stepwise methodology was initiated for the first time in the Libyan Arab Jamahiriya. The Regional Office provided technical support for finalization of reports and will continue to support countries to conduct new surveys.

Technical support was provided to several countries to develop/update their noncommunicable diseases strategies and programmes (Islamic Republic of Iran, Morocco, Palestine, Saudi Arabia, Sudan, Syrian Arab Republic and United Arab Emirates) and to develop management guidelines. Integration of noncommunicable diseases into primary health care is one of the most cost-effective interventions. Efforts are under way to assess the situation in the Region and to promote integration at the country level. An integration package with tools was prepared for implementation in 2009.

Five out of eight targeted countries have *mental health* units with specific budgets and enhanced allocations for the programme. In order to enhance the capacity of the mental health systems to deliver services while respecting the rights and dignity of the consumers, the "chain-free" initiative was launched in Sudan, and is now in phase II in Afghanistan and Somalia. In

progress towards building an evidence base to guide the policies and development of mental health and substance abuse delivery systems, the WHO Assessment Instrument for Mental Health Systems (AIMS) has now been completed by nine of the 15 targeted countries, while four countries are nearing completion and three are in the preparatory phase. The World Mental Health Survey was completed for Iraq, while Saudi Arabia is preparing to conduct it. Field trial of epilepsy educational intervention materials is in the final phase.

A regional strategy for maternal, child and adolescent mental health is in its final stages and 10 countries received technical support for development of policy and legislation in this area. Regional guidelines for epilepsy are in the process of being peer reviewed prior to finalization. Support for development of guidelines for prevention and management of mental and substance use disorders was provided to several countries including Afghanistan, Pakistan, Somalia and Sudan, however, human resource development programmes are stalled owing to lack of funding. Life skills educational guidelines are also under development.

With regard to *injury and violence prevention and disabilities*, the Regional Office embarked upon a multi-country study as part of a global exercise to collect data, not only on the magnitude of deaths and injuries due to road traffic crashes, but also to assess the capacity in countries to respond to the growing burden of deaths and injuries due to road traffic crashes, in the form of policies, mechanisms and structures. The results of this study will be published in a global status report and will be a powerful tool to influence national policies for road safety. In order to promote effective programme planning and implementation for injury and violence prevention, capacity was strengthened in public health institutes for teaching of the WHO TEACH-VIP curriculum.

The availability of quality data serves as a strong argument to inform policy dialogue



and reach evidence-based and targeted decisions. For this reason, the Regional Office supported four countries (Egypt, Jordan, Oman, and Yemen) to establish a national injury surveillance system. These efforts were complemented by a national survey on the economic cost of injuries in Egypt while a national household survey on the burden of injuries is also being conducted. Seven countries (Egypt, Jordan, Oman, Iran, Iraq, Pakistan and Yemen) received support to develop national multisectoral injury prevention policies, taking into account the results from the injury surveillance databases in these countries. An important milestone this year was the publication of the WHO/UNICEF *World Report on Child Injury Prevention* which captured many inputs from the Region. The WHO guide on preventing child maltreatment is being implemented in two countries (Jordan, Yemen) and a project is being implemented in collaboration with UNICEF on the assessment of response towards violence against children.

With the number of intentional and unintentional injuries rising in the Region due to many reasons, the number of individuals with various forms of physical disability is also registering an upward trend. In order to respond to this situation, the Regional Office finalized a draft regional strategy on community-based rehabilitation which was prepared through an extensive consultative process and will be piloted in three countries (Afghanistan, Islamic Republic of Iran and Pakistan) in 2009. With the UN Convention on Disability coming into force in May 2008, the Regional Director established a Regional Task Force on Disability to pursue access audits, develop tools and guidelines and support Member States in effective implementation of disability and rehabilitation programmes in the Region. Technical support was provided to review primary and secondary care services and the training needs for disability assessment and rehabilitation centres (Bahrain), as well as to establish national plans of action (Jordan, Oman) for integration of rehabilitation into primary health care. Since injury prevention is a widely multisectoral issue requiring active engagement of many governmental and nongovernmental sectors, including civil society, efforts were directed towards engaging partners and advocacy initiatives to draw in all sectors and bring the issue into the highest political arena.

Preventing and controlling *blindness* requires immense advocacy. To strengthen that advocacy, World Sight Day 2008 was observed, in collaboration with IMPACT-EMR and many other partners, in most countries. The theme was vision impairment in older people under the slogan "Eye on the future: Fighting vision impairment in later life". With regard to the scaling up of prevention of blindness programmes, all countries have reported the establishment of national committees, but many of these are not functioning. Around 20 countries have drafted a Vision 2020 national plan, of which 60% are implementing the national plan with limited resources. To strengthen the baseline information on causes of blindness in the Region, capacity was built for seven countries in rapid assessment of avoidable blindness, through a workshop held in collaboration with the Ministry of Public Health, Tunisia and IMPACT-EMR. The Regional Office participated in the 8th General Assembly of the International Agency for the Prevention of Blindness (IAPB) to discuss the global public health issues of blindness and vision impairment, in which the Region was recognized as a leader in eye care delivery and implementation of prevention of blindness programmes under Vision 2020.


Vision 2020: the National Eye Centre, Mogadishu, conducts free cataract surgery supported by WHO and Al Manhal Charitable Organization

The Regional Office continued to support the outreach programme for cataract surgery. In spite of limited resources, WHO, together with Ministries of Health was able to support 5000 free cataract surgeries in Afghanistan, Somalia and Yemen in collaboration with Manhal Charitable Organization and the Arab Medical Union. Progress in implementation of prevention of blindness activities from 2003 to 2008 was reviewed and a strategy for 2009–2013 was developed through a workshop held in collaboration with the International Agency for the Prevention of Blindness (IAPB) and IMPACT-EMR. The Regional Office participated in a consultation held in Geneva to review and discuss the first draft action plan for the prevention of avoidable blindness and visual impairment, to be incorporated in the agenda of the 124th session of the Executive Board. The action plan aims to scale up efforts by Member States, the Secretariat and international partners in the field of prevention of blindness and visual impairment.



## Future directions

The Regional Office will focus on integration and therefore on positioning the prevention and control of noncommunicable diseases, mental health disorders, injuries and prevention and control of blindness within the framework of a renewed vision and revitalization of primary health care. It will actively pursue the mainstreaming of these conditions in primary health care, ensuring that health system responses are planned and implemented in a cohesive manner and that multisectorality figures strongly in the prevention and management of these conditions. As the integration of noncommunicable diseases and prevention and control of blindness into primary health care is one of the cost-effective interventions, the Regional Office will pilot the noncommunicable disease integration packages in several countries. The Regional Office will co-sponsor the first regional conference on injury prevention and safety promotion, which will serve as an opportunity to bring the issue of injury and violence prevention to the attention of political leaders. Major focus will be on putting prevention of noncommunicable diseases, injuries and mental health disorders and prevention of avoidable blindness high on the political and development agendas through implementation of the recommendations of the world reports, translating regional strategies and policies into national actions, and generating evidence on the effectiveness and cost-effectiveness of interventions. Priority areas will be the strengthening of WHO country offices, development of partnerships within and outside WHO, and mainstreaming of these programmes within all WHO policies.

# Strategic objective 4: To reduce morbidity and mortality and improve health during key stages of life, including pregnancy, childbirth, the neonatal period, childhood and adolescence, and improve sexual and reproductive health and promote active and healthy ageing for all individuals

## Issues and challenges

Improving maternal, neonatal and child health has been endorsed as a key development target by Member States, through resolutions EM/RC51/R.4 on maternal and child health, and EM/RC54/R.2 on neonatal mortality. An estimated 57 000 mothers and 1.1 million children under 5 years of age, 510 000 in the first 4 weeks of life, die every year as a result of pregnancy and childbirth complications and common childhood illnesses. Only an 18% reduction in maternal and child mortality has been achieved in the Region since 1990. Maternal and child deaths occur in countries that suffer from political instability, inadequate financial and human resources, lack of supportive regulations, poor socioeconomic conditions and gender-based discrimination, and poor access to and utilization of health services. Of these deaths, 95% take place in seven countries in the Region. Unless extensive efforts are made in

these countries, they are unlikely to achieve Millennium Development Goals 4 and 5.

Despite this situation, financial and human resources have shifted dramatically away from health protection and promotion programmes, especially maternal and child health. Lack of necessary resources in some countries is now coupled with the global financial crisis to further aggravate the quality and coverage of maternal, child and reproductive health services. This is especially the case where the services are most needed, in both remote and peri-urban areas which are characterized by high turnover of health workers, inadequate supplies and equipment and poor health services. Competing health priorities, vertical programme approaches and lack of coordination between the concerned national health authorities and international and local development partners have resulted in working with different plans of action rather than one concrete national workplan, programme fragmentation, missed opportunities and inefficient use of the limited resources that are currently available.

Information on major determinants of health throughout the life span is still insufficient to enable evidence-based programme development and implementation in countries of the Region. Health information systems and research capacity need strengthening in several countries to improve monitoring and evaluation of programmes aimed at reducing morbidity and mortality during key stages of life, including pregnancy, childhood and adolescence, and at improving sexual and reproductive health and active and healthy ageing. Moreover, lack of accurate information on health throughout the life cycle has led to insufficient political recognition of the need to prioritize these programmes on the national public health agenda.

## Achievements towards performance indicator targets in each expected result

The Regional Office maintained technical support to build national capacities in implementation of WHO cost-effective interventions and guidelines that ensure integrated approaches in *maternal and neonatal health care* delivery, including the Integrated Management of Pregnancy and Childbirth (IMPAC). The IMPAC guidelines were adopted and are being implemented in 10 countries in the Region: Afghanistan, Djibouti, Iraq, Islamic Republic of Iran, Lebanon, Morocco, Pakistan, Sudan, Syrian Arab Republic and Yemen. These countries are implementing strategies for ensuring skilled care throughout pregnancy, childbirth, and the postpartum and neonatal periods, particularly for poor and disadvantaged populations.

In order to review progress achieved in strengthening national maternal and newborn health programmes and to update the participating countries on emerging priority issues in this context, the Regional

Office held a follow-up meeting with national programme managers of Making Pregnancy Safer. The outcome of the meeting was an implementation framework for operationalizing the recommendations and technical support was provided to enhance their implementation.

Capacity-building in making pregnancy safer was supported for Afghanistan, Iraq, Morocco, Pakistan, Sudan, and Yemen through the global orientation workshops which familiarized participants with WHO guidance on interventions and related health system issues for maternal and newborn health. They also enhanced their skills to improve related programmes and to plan, implement and evaluate services in countries with high maternal and neonatal mortality. Capacity-building was supported for seven countries (Afghanistan, Egypt, Jordan, Iraq, Pakistan, Palestine and Yemen) in order to improve the introduction, adaptation, utilization and scaling up of proven effective technical and managerial practices. Jordan formulated and implemented a workplan to introduce post-abortion services to essential obstetric care.

In order to support strengthening of national health care services, the Regional Office collaborated with the International Federation of Gynaecology and Obstetrics in its initiative for prevention of unsafe abortion through the conduct of unsafe abortion situation analysis in the Region. National plans of action responding to deficiencies identified were formulated in three countries (Egypt, Sudan and Syrian Arab Republic). In collaboration with the Ministry of Public Health and Population, Yemen, necessary preparations were initiated to conduct a national survey on maternal, neonatal and child health. This survey is expected to update the available data on progress made towards achieving Millennium Development Goals 4 and 5 and help in accelerating the reduction of maternal and child morbidity and mortality in the country. Preparations were also initiated to conduct a demographic and health survey in Afghanistan. This will be a unique national activity that is expected to outline the health needs of mothers and children in the country. The GCC member countries began implementation of the World Health Survey. The findings are expected to update existing data on reproductive and family health in these countries.

The Region witnessed 19.5% reduction in under-5 child mortality compared with the year 2000. More than three quarters of those 1.1 million deaths occur in just four countries, Afghanistan, Pakistan, Sudan and Yemen. There is slow progress in reducing child mortality in countries with high under-5 mortality rates and large populations. This is mainly due to lack of financial resources and

IMCI is primary child health care


Infant and young child feeding is a key component of IMCI

of qualified human resources to lead the *child health* programmes. Even in countries where national and external resources are allocated to child health, progress has remained very slow in some.

To promote child health, support was provided to two countries to develop child health policy documents as part of the child health policy initiative promoted by the Regional Office. Oman outlined some broad child health policies in a written document and Afghanistan started a similar process. The Regional Office also supported four priority countries, Egypt, Pakistan, Sudan and Yemen, to develop national plans towards the attainment of universal coverage of primary health care facilities with the integrated management of child health (IMCI) approach. Almost two thirds out of 47 892 primary health care facilities in 13 countries are equipped with staff trained in IMCI. Of those, three countries are moving closer to reaching 100% coverage of facilities, namely Djibouti (87%), Egypt (84%) and the Islamic Republic of Iran (99%).

The decrease in resources available for IMCI implementation was accompanied by a decreasing trend in the total number of health providers trained in the past two years compared with earlier years. Nevertheless, regional support was provided to build capacity in IMCI clinical training in the Libyan Arab Jamahiriya, where the approach has not yet been implemented. Support was provided to Yemen for expansion of the mobile team approach to provide child health services to remote areas. To build planning capacity, the Regional Office published a *Guide to planning for implementation of IMCI at district level*, which was introduced to national coordinators from six countries (Egypt, Jordan, Morocco, Sudan, Tunisia and Yemen).

The number of countries that incorporated IMCI intervention for care in the first week of life increased from four to a total of 13. Given the importance played by adequate feeding practices in child health, technical support was provided to two additional countries, Iraq and Tunisia, to introduce the regional training package on counselling on infant and young child feeding.

Introduction of IMCI into teaching programmes was promoted and supported. The regional work to guide and standardize teaching methodology and evaluation for medical schools led to the drafting of modules for an IMCI pre-service education package. This was reviewed by a group of senior academic staff of paediatrics departments of medical schools from countries in the Region together with national IMCI coordinators from ministries of health and WHO staff.



Support was also provided for the conduct of national orientation and planning workshops to introduce IMCI into six more medical schools in Egypt—bringing the total number of schools involved to 14 in Egypt, six in Pakistan and two in Yemen.

A quick review of *adolescent health* programmes was conducted in Egypt, Sudan and Yemen, and collection of data on adolescent health activities in countries of the Region was undertaken to complete the related situation analysis. The school health programme is gaining increasing support in the Region. Several countries made extensive efforts to strengthen school health, including Oman and Jordan which developed national strategies for school health. Thirteen countries have now adopted the health-promoting schools initiative and plans are being considered by the Regional Office to expand the implementation of this initiative to cover all schools in these countries. In this context, Libyan Arab Jamahiriya launched a website advocating the concept and providing necessary information to facilitate its application in the country. In recognition of this initiative as an approach for health protection and promotion in the community, several countries organized national conferences, forums and symposia for school health and health-promoting schools, including the second national forum of health-promoting schools in Oman. The Regional Office prepared an electronic distance access to the national profiles as effective tools for data collection and sharing experiences for the Eastern Mediterranean Network of Health-Promoting Schools (EMNHPS).

The Regional Office maintained its technical support to countries to build national capacity for developing responsive policies and strategies and implementing and monitoring programmes for improving sexual and *reproductive health* and achieving health-related MDGs. The WHO global strategy on reproductive health was introduced to all Member States and necessary follow-up was maintained to strengthen and scale up the existing national reproductive health policies and strategies. Country profiles on reproductive health were formulated and completed by all countries of the Region to serve as a baseline for monitoring progress in implementing national programmes.

In-depth review of the national reproductive health strategy and plans was undertaken in collaboration with the Ministry of Public Health and Population and major concerned stakeholders in Yemen resulting in a supportive workplan aimed at accelerating the achievement of the Millennium Development Goals, implementation of which started and is being monitored. A 5 year project with the American University of Beirut was initiated in support of national capacity-building in reproductive health operations research.

Emphasizing an evidence-based approach for strategic planning for promoting reproductive health, the Regional Office completed a reproductive health research directory, through linking with the Index Medicus for the Eastern Mediterranean. This tool is available through the Regional Office website to ensure wide dissemination of information. It currently provides information on 3713 reproductive health research studies conducted in the Region and published in the period 1990–2007. Other activities in reproductive health research supported by the Regional Office included: a long-term institutional development grant to the Afghanistan Public Health Institute, Kabul, Afghanistan; a haemoglobin colour scale multi-centre study in Afghanistan; WHO multicountry study on maternal and perinatal health in Afghanistan and Pakistan; research

on female genital mutilation and sexuality in Egypt; research on the impact of environmental pollutants on reproductive health in Egypt; and institutional development of the Lebanese National Collaborative Perinatal Neonatal Network (NCPNN) in Lebanon.

Despite the lack of trained human resources and insufficient financial resources, it is increasingly noticed that the active ageing approach and old age care is attracting special attention at national, sub-regional and regional levels. The regional strategy on active, healthy ageing and old age care: 2006-2017 continued to guide national efforts towards responding to the health needs of the elderly. The Regional Office extended its technical support to Bahrain, Jordan, Libyan Arab Jamahiryia and Syrian Arab Republic in developing national strategies and plans on healthy ageing. Similar activities were initiated in Egypt and Saudi Arabia and are expected to be completed in the coming year.

Community-based activities were supported in countries to improve the public awareness of health and ageing issues. The city of Hama in Syrian Arab Republic joined the age-friendly cities initiative, joining Amman, Jordan, Islamabad, Pakistan and Tripoli, Lebanon. In order to further support the implementation of this successful initiative in countries of the Region, the Regional Office translated into Arabic the WHO guide on global age-friendly cities. Bahrain and Oman are heading firmly towards age-friendly primary health care practice. Oman developed packages for improving the primary health care services for ageing population.

## Future directions

By the end of 2008, only 15% of the planned budget for this strategic objective had been received. The extreme financial constraints under this strategic objective are having a


negative impact on support for countries to implement WHO resolutions and achieve international goals, including the Millennium Development Goals. WHO will maintain close monitoring of national efforts to ensure achieving the national targets in line with resolutions and goals. It will support countries to develop synergies and strengthen integrated interventions among relevant programme areas (such as health promotion, nutrition, HIV, emergency and humanitarian action), and address the specific health needs of people while ensuring continuum of care through the life stages, from home to the health facility. Geographical areas with high morbidity and mortality levels, especially among mothers and children, need to be the focus of sustained attention. Capacity-building in operational research and managerial skills and use of the generated information in advocacy, fund-raising and evidence-based programme development and implementation will continue to be supported. Generation of information and evidence to enhance the translation of the political commitment expressed to maternal and child health into



actual investment of resources in priority areas and universal coverage with the package of cost-effective interventions will be strengthened. Strengthening national health database, reporting and information systems will facilitate monitoring of progress towards achieving the Millennium Development Goals and help evaluate the cost-effectiveness of the interventions implemented in promoting health in key stages of life.

At national and sub-national levels, the Regional Office will support the building of partnerships that encourage effective and coordinated involvement of civil society, private sector, donors, international organizations and United Nations agencies in promotion of maternal, child and adolescent health and healthy ageing. It will also support community-based activities that promote the role of the community in life-saving practices. The Regional Office will continue to provide guidance and coordination of donor inputs in maternal and child health in accordance with national plans and strategies, to avoid duplication of efforts and to ensure optimal utilization of available resources.

## Strategic objective 5: To reduce the health consequences of emergencies, disasters, crises and conflicts, and minimize their social and economic impact

### Issues and challenges

Although disaster preparedness and risk reduction, along with improved response, readiness and recovery were the intended focus of efforts this year, newly emerging threats such as the global crises in the food and economic sectors compounded existing complex and protracted emergencies in the Region. Acute events, particularly in Afghanistan, Iraq, Palestine and Somalia further contributed to an increasing avoidable mortality and morbidity burden, with significant additional population displacements. Hostilities in the Gaza Strip further added to the regional humanitarian burden, stretching thin the resources of partners and host governments. Violations of international humanitarian law, including the Geneva Conventions, and security restrictions curtailing access to health services and basic amenities continued in Afghanistan, Iraq, Palestine, Somalia and Sudan, further compounding the challenges faced by vulnerable populations The events in these countries underscore the need to advocate for the availability of humanitarian space to provide relief assistance, particularly within the health sector.

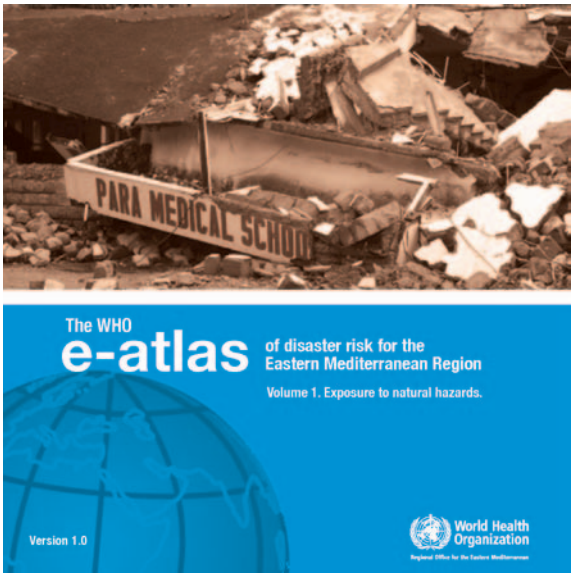
Despite the fact that the trend of increased financial and in-kind support from Member States in the Region continued, resources to support humanitarian health activities in

crisis-affected countries paled in comparison to the needs on the ground. Humanitarian health appeals in all countries continue to be grossly under-funded. WHO's efforts to perform effectively the health cluster lead role in crises continued with increasing focus on capacity-building of national counterparts and stakeholders in emergency preparedness, risk reduction and response readiness. Emergency preparedness and risk reduction using an all hazards approach received increasing emphasis with funds and programmatic interventions aimed at avian influenza and human pandemic influenza acting as a catalyst. With the formalization of World Bank interest in risk reduction, countries have an opportunity to synergize efforts towards risk reduction for the health sector. Special focus was placed on raising awareness of the need to invest in making health facilities structurally safer and capable of retaining functionality in the face of emergencies.

## Achievements towards performance indicator targets in each expected result

At the regional level, emergency preparedness and disaster risk reduction were accorded strategic focus. Several activities aimed at institutionalizing capacity-building were implemented to ensure necessary support to countries to reduce health risks through identifying the magnitude and scope of respective hazards, their risk management, and building organizational readiness to ensure WHO's operational response capacities. Technical support was provided in formulation of emergency preparedness strategy and plans using an all hazards approach and their integration with mainstream health development in Djibouti, Iraq, Jordan, Pakistan, Palestine, Somalia, Sudan, Syrian Arab Republic and Yemen. A global campaign on ensuring health facilities are safe from disaster was launched at regional and country level. A regional framework and health facility safety checklist were developed and a safe hospitals programme was instituted in Djibouti, Iraq, Pakistan, Sudan and Yemen. Capacity was strengthened in management of public health in emergencies, to improve emergency preparedness and response readiness.

Strategic technical and financial support for provision of essential health care services was provided to reduce avoidable morbidity and mortality in crisis-affected populations in countries experiencing either an on-going protracted crisis and/or an acute disaster over and above the existing complex emergency situation. Increasing violence in Afghanistan, Pakistan, Somalia, Sudan and Yemen forced further displacement both inside and outside respective country borders, with WHO leading humanitarian response and coordination in the health sector with help from other cluster partners. Although Iraq witnessed improved security, the damage sustained to the health system in





terms of infrastructure and outflow of health workforce continued to impede gains in the health sector.

In Yemen, the third tropical cyclone of the season caused heavy rains and flash floods that killed about 100 persons and left approximately 20 000 people homeless, the most affected region being the Say'un district with an estimated 75% of buildings destroyed or severely damaged. The crisis had multiple negative effects on people's lives including casualties, displacement of families, disruption of basic social services, and restriction of movement and accessibility. WHO established a health emergency operations centre in conjunction with the Ministry of Health to oversee relief activities and coordination of the health sector response.

In response to the military offensive by Israel against the Gaza Strip, on 29 December WHO issued a statement calling for an immediate end to the hostilities and urged Israel to ensure urgently needed provision of fuel and critical life-saving/trauma care supplies. A health emergency operations centre was established within 48 hours to guide relief interventions and coordination of humanitarian response.

In addition to the acute disasters, technical support was also extended to relevant line ministries in Djibouti and Somalia to scale up their plans to address the growing food crisis in the Region by developing a common framework of strategic approaches and interventions to identify vulnerable groups and deliver the appropriate preventive and response interventions.

Core institutional capacity was strengthened in management of public health in emergencies, project management, and public health pre-deployment trainings to improve emergency response readiness. The fourth annual regional course on the management of public health risks in emergencies focused on the management of critical public health issues as a result of both natural and man-made emergencies. A total of 96 professionals from the Region have now attended this course. Capacity was strengthened in health cluster leadership and tri-cluster (health, water and sanitation, and nutrition) coordination was conducted with Inter-Agency Standing Committee partners. Operational capacity was strengthened at regional level. This included procurement of specialist response/operations equipment, support for contingency planning with other regional UN agencies in Egypt and Yemen, and strengthening of regional interagency coordination and collaboration.

With incremental gains in security and peace on the ground, early recovery and rehabilitation activities in the health sector continued in Afghanistan, Iraq, Pakistan, Somalia and Sudan. Institutional capacity was strengthened in the area of health systems recovery, with the second annual training programme focusing on the analysis of health systems of countries affected by, or recovering from protracted crisis, and for improving response strategies and plans, organized in collaboration with the International Rescue Committee and Medical Emergency Relief International (MERLIN).

Efforts aimed at risk profiling and establishing early warning surveillance systems for communicable diseases were successful in all acute crises faced in Palestine, Somalia and Yemen. Additionally, a key achievement in Pakistan, Somalia and Sudan was the strengthening of the early warning/outbreak alert system in complex emergencies.

Addressing morbidities and health outcomes associated with poor environmental health, overcrowding and unsafe water during crises, through assessment and other

remedial measures, was a key part of response planning in ongoing protracted crises as well as in acute disasters in Afghanistan, Iraq, Pakistan, Palestine, Somalia, Sudan and Yemen. Similarly, to improve intersectoral coordination in acute disasters, capacity was strengthened of operational managers and technical field staff from WHO, UNICEF and other health and water and sanitation cluster partners.

Improving emergency preparedness, response and recovery potential through effective communication and partnerships, and exploring synergies with relevant partners/stakeholders was a key overarching focus of efforts. A number of key initiatives were started. UN interagency collaboration in the areas of emergency preparedness and response was strengthened through the formalizing of a UN Inter-Agency Middle East and North Africa emergency operational leadership, endorsed by the Regional Directors of the agencies concerned. Capacity was strengthened in community-based disaster preparedness and response in collaboration with the Johns Hopkins University, School of Public Health, USA and the International Islamic Relief Organization, and in emergency preparedness and response among emergency professionals in Lebanon in collaboration with the American University in Beirut. Research and research ethics in disasters were fostered in collaboration with Aga Khan University, Karachi, Pakistan and the Centre for Biomedical Ethics, Sindh Institute of Urology, Karachi, Pakistan.

## Future directions

Progress in developing awareness, resources and capacities, especially for community-based preparedness and risk reduction, continues to be inadequate. The need and urgency to scale up national/local capacity is further underscored by the increasing vulnerabilities and threats to development posed by climate change and global financial crisis. Advocacy for critical health needs and health care delivery challenges in chronic crisis situations will be increased, as will coordination with stakeholders at regional level. Design and implementation of disaster preparedness and hazard mitigation programmes will be accelerated. Increased focus will be placed on institutional capacity-building in terms of human resource training, contingency planning, stock piling and other response readiness interventions to improve predictability and effectiveness of emergency response. The Regional Office will support evaluation to document practice-based evidence and to gauge performance in previous emergencies, and will facilitate operational and culturally relevant research to support community-based disaster preparedness and guide application of best practices. A technical advisory group will be established to address the need for operational research on emergencies, and to give technical guidance in adaptation and mitigation efforts to counter the humanitarian consequences of climate change and global financial crisis.



# Strategic objective 6: To promote health and development, and prevent or reduce risk factors for health conditions associated with use of tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex

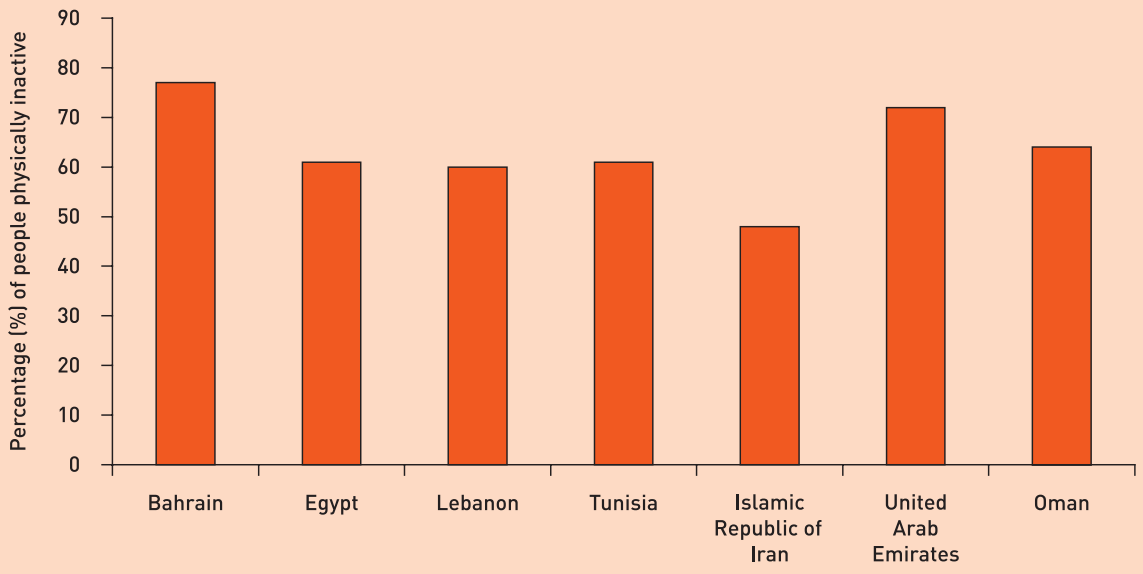
## Issues and challenges

The global public health landscape has witnessed some dramatic changes over the past few years. Important new players are changing the way countries address health challenges. Globalization poses new threats, while emerging epidemics are increasingly difficult to contain and complex emergencies threaten the health of vulnerable populations. This Region, in particular, is experiencing a phenomenon in which, on the one hand, the benefits of economic development and prosperity in some countries have added to the rising burden of noncommunicable diseases and injuries, and on the other hand, the persistent nature of the burden of communicable diseases is placing enormous strain on scarce resources. The evolution of health promotion—from concept to action—has generated debate over the decades. While the Ottawa Charter in 1986 clearly outlined key action areas for health promotion, a uniform mechanism to articulate health promotion and make health promotion "everybody's business" has never been achievable.

Major risk factors that affect the health of populations are witnessing a sharp rise in the Region, particularly those contributing to noncommunicable diseases. Physical inactivity alone is taking a heavy toll in most countries (Figure 1.2). The use of tobacco has been identified as a major risk factor for many chronic diseases. At the same time, although resources were allocated in the past 6 years to data collection and completion of country profiles, no serious analysis of the existing information and data took place to redirect national policies and plans. Social, economic and environmental determinants of health are rarely taken into account. There is a serious gap in resources with regard to what is required to address the rising burden of disease due to these risk factors and what is currently available, both at the level of WHO and in the ministries of health. The success of the renewed primary health care movement will largely depend on the way it transforms itself to embrace the practice of health promotion and whether it has a strong in-built multisectoral component so that determinants lying outside the health sector are addressed. Health education has traditionally been used just to produce information, education and communication materials, with some emphasis on improving knowledge of individuals. Similarly, the provision of *health education* through schools is through the Ministry of Education and is ad hoc rather than systematic. This is because the health curriculum is not an integral part of the school programme. Finally, evaluating the impact of the health education interventions is a challenge.

## Achievements towards performance indicator targets in each expected result

The Regional Office endeavoured to redress the imbalance in health systems' orientation



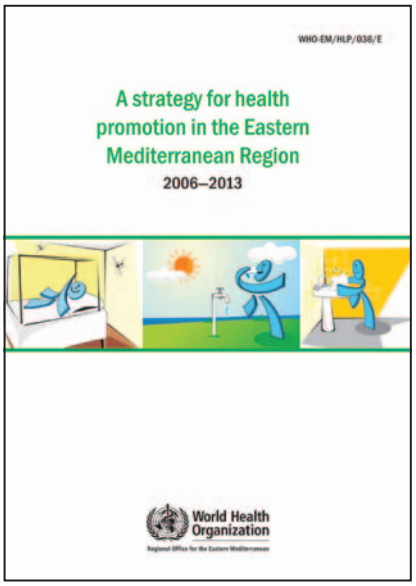

Source: *The World Health Report 2002*. Geneva, WHO, 2002

**Figure 1.2** Percentage of population physically inactive in selected countries, 2001

with regard to *health promotion* by advocating for health promotion to be high on political agendas; establishing health promotion and education policies; articulating mechanisms to address the important risk factors for noncommunicable disease; and moulding political and public opinion towards health promotion and risk factor reduction through effective health education and communication strategies.

A major achievement was the establishment of the Regional Parliamentarian Forum on Health and Development. The Forum, previously conceived as the Regional Parliamentarian Forum on Health Promotion, will serve as an entry point for the work of WHO and Member States into cross-sector policy-making, where legislators have the opportunity to engage other sectors in health promotion, and to work towards enhancing the resource base for health promotion and putting health into all public policies. Pakistan volunteered to host the secretariat of the Forum for a period of two years. Following the adoption of World Health Assembly resolution WHA57.17 (Global Strategy on Diet, Physical Activity and Health), a regional framework for adaptation of the strategy was developed through a consultative process involving experts from the Region and WHO, and will be used to develop national plans in 2009.

Major focus was placed on supporting countries to develop national multi-sectoral health promotion strategies and plans. Four countries (Bahrain, Oman, Syrian Arab Republic and Yemen) were supported to develop national level strategies. Oman and Bahrain have been the leading countries in designing multisectoral mechanisms for health promotion action where community-based initiatives and health education are used as effective tools for health promotion delivery. Oman also embarked upon some very




innovative techniques in health promotion, such as applying the communication for behavioural impact methodology (COMBI) in health promotion.

The Regional Office was actively engaged in the planning process for the seventh global conference on health promotion to be held in Kenya in 2009. The conference is an opportunity for Member States not only to learn from the best experiences around the world but also to effectively present their work. In order to increase the human resource capacities and financial outlook for health promotion in the Region, the Regional Office entered into a partnership with the International Union for Health Promotion and Education (IUHPE) to establish a regional chapter. This will facilitate the efforts of WHO and Member States in learning from (and applying) the experience of effective health promotion interventions in the European Region.

In collaboration with CDC, implementation of the Global School Health Survey was expanded to Pakistan, Tunisia and Yemen. The Regional Office participated in a global consultation to review policies/ strategies to address the marketing of food and nonalcoholic drinks to children, and consulted with national partners on the diverse *health education* curricula implemented through schools. Capacity in health education was strengthened through a workshop on working with nongovernmental organizations to mainstream health education and better respond to health needs of adolescents, held in collaboration with ISESCO.

The Regional Office strengthened its technical capacity and provided increased technical support to countries for effective planning and implementation of *tobacco control* programmes. Based on successful proposals prepared with the support of the Regional Office, US$ 3 million was granted by the Bloomberg Initiative to Reduce Tobacco Use to support national level activities in Egypt and Pakistan. The Regional Office supported capacity-building on policy development for tobacco-free public places and on implementation of pictorial health warnings. In collaboration with regional partners, the Regional Office also supported capacity-building in relation to the forthcoming protocol of the Framework Convention on Tobacco Control on the illicit tobacco trade. A document was also developed on the illicit tobacco trade in the Region. National level activities are taking place to support individual countries in implementing the Framework Convention and in speeding up the process of ratification where a country is not yet a party it.

Implementation of the Global Tobacco Surveillance System (GTSS) continued. Seven countries are conducting the third round of the Global Youth Tobacco Survey and five countries are conducting the Global Health Professions Students Survey for the first time. Implementation of the Global Adult Tobacco Survey started in the Region


with a pilot phase in Egypt and Pakistan; already more countries are requesting support to implement it. The Regional Office will extend all possible support to countries to conduct the survey. The first *WHO Report on the Global Tobacco Epidemic, 2008* was released in Arabic. The Regional Office is providing technical support to countries in data collection for the second global report.

With regard to *substance abuse*, the Regional Office finalized country profiles on substance abuse for all countries; these can be found on the Regional Office website. Six countries have completed the Global Survey on Alcohol and Health and the global survey for the ATLAS for resources for prevention and treatment of substance abuse in the world, with technical support from WHO. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and the associated module on brief intervention have been adapted and translated into Arabic and field testing in primary health care and specialist settings completed. The draft life skills education manual was reviewed.

## Future directions

Future efforts under this strategic objective will focus on mainstreaming health promotion in national programmes through advocacy for health promotion as an important component of public health, for preventing not only noncommunicable diseases but also many communicable diseases. Related programmes (e.g. health education, tobacco control) will be used as entry points for effective health promotion action. Major activities will include working with the Regional Parliamentarian Forum,



strengthening partnerships, promoting integration with primary health care, revising the essence and role of health education and capacity-building. A regional consultation will be held to propose strategic positioning of health education within ministries of health and to identify capacity-building needs. A generic health education curriculum with related life skills will be developed for schools. Implementation of the Global School Health Survey will be expanded. The Regional Office will collaborate at global level to address the marketing of food and nonalcoholic drinks for children. Technical support for implementation of the Framework Convention on Tobacco Control and the Global Tobacco Surveillance System and collaboration with regional organizations to strengthen and coordinate tobacco control efforts at both regional and national levels will continue. The Global Survey on Alcohol and Health and the global survey for the ATLAS for resources for prevention and treatment of substance abuse will be completed by at least 15 countries. The life skills education manual will be finalized and the development of model substance and alcohol treatment facilities will be initiated.

## Strategic objective 8: To promote a healthier environment, intensify primary prevention and influence public policies in all sectors so as to address the root causes of environmental threats to health

### Issues and challenges

About one quarter of the disease burden in the Region could be reduced through available environmental health interventions and strategies. Yet environmental determinants of health remain inadequately identified and addressed by the public health systems. Health institutions face both the challenge of controlling health costs and the opportunity to do so through more effective environmental health strategies and interventions. Rapid changes in lifestyles, increasing urbanization, production and energy consumption, increasing use of chemicals, and climatic changes could have even greater consequences for public health and health costs than is already the case, if the health sector fails to act on currently emerging environmental hazards to health. In addition to these emerging hazards, the Region is still struggling with traditional problems such as water contamination and insecurity of drinking-water supplies, solid waste, indoor air pollution, liquid waste management, occupational hazards, and inadequate policies and public awareness. The arid nature of the Region poses especially demanding challenges, such as water shortage, extreme temperature changes and seasonal

dust storms, all of which will increase with climate change, which will directly and indirectly affect health security. For health sector action to be effective, risks have to be reduced in the settings where they occur, such as homes, schools, workplaces and cities, and in sectors such as energy, transport, industry and agriculture. In order to counter the economic and developmental determinants of environmental health risks, health must be at the centre of intersectoral action.

## Achievements towards performance indicator targets in each expected result

With regard to support for countries to adapt and implement evidence-based normative guidance and adopt appropriate environmental initiatives and interventions for managing and reducing environmental public health risks, a number of activities were offered to support countries in adopting the WHO guidelines on: drinking-water quality; wastewater reuse; health care waste management; and solid waste and food hygiene. Funds were raised through joint projects with ISESCO and the International Development Research Centre (IDRC) to promote water and wastewater guidelines. One pilot project was completed and preparations were made for further capacity-building at regional and national level.

The 55th Session of the Regional Committee for the Eastern Mediterranean issued a resolution to support stronger measures to protect health from climate change and endorsing a regional framework for action. Practical steps were taken to support countries in implementing this framework at the national level. The Regional Centre for Environmental Health Activities (CEHA) in partnership with the UN country team in Jordan succeeded in raising US$ 4 million from the Government of Spain for a joint UN programme on the environment and climate change in Jordan, of which CEHA will implement US$ 1.6 million. Partnerships for prevention of environmental risks to health were promoted with ISESCO, IDRC, International Islamic Relief Organization, AGFUND and the Environment Agency Abu

Children demonstrated their concerns about the effects of climate change on health in many powerful paintings and collages submitted for World Health Day 2008



Dhabi, in support of environmental health activities in the Region.

Technical support was provided for development of national environmental health strategies and action plans in Afghanistan and the United Arab Emirates. In collaboration with AGFUND, access to 75% of the worldwide published research findings on the environment was made available to professionals and institutions in Iraq, Jordan, Palestine, Syrian Arab Republic and Yemen through Online Access to Research in the Environment (OARE), a project sponsored by UNEP and supported by over 340 publishers and scholarly societies. The health and environment information centre of Iraq was also strengthened through capacity-building and human resources development.

With regard to support for countries to develop policies and actions, and to encourage and motivate the implementation of environmental health measures in healthy settings, including workplaces, schools, homes and the community, the Regional Office continued to support countries in their efforts to implement resolution WHA60.26 on the Global Plan of Action on Workers' Health. A regional framework for implementing the plan for 2008–2012 was shared with countries and adopted. Capacity-building and partnership with the Arab and GCC Labour Organizations and the ILO were strengthened through several joint activities: the third Arabian conference on occupational safety and health, the Pan Arab course on protection of health care workers from workplace hazards, and an expert meeting on primary and periodical medical examination of workers. Regional and national activities were carried out to support countries in building capacity to develop policies and plans of action for strengthening their occupational health services. This included a workshop in CEHA to familiarize health professionals with the guidance and initiatives for influencing policies in other sectors.

The Regional Office continued to support countries to strengthen capacity for monitoring trends and assessing the impact of environmental and socioeconomic development on health, especially the health of vulnerable populations. A gap analysis study of the environmental health services delivered to the people of Darfur was conducted. The study indicated that many services are delivered in accordance with the standards agreed by the humanitarian community. Environmental health emergency missions responding to cholera outbreaks and other diseases were conducted in Iraq, Sudan and Syrian Arab Republic, to safeguard vulnerable populations. Rudimentary environmental health laboratory equipment for water analysis and food was provided to Somalia to monitor food and water quality and safety.

## Future directions

Technical support and capacity-building for countries will continue to be provided for implementation of the Regional Committee resolution on climate change and health (EM/RC55/R.8). Tools and methods for assessing the health effects of climate change will be developed. Technical guidance and support will be provided to countries to facilitate the adoption of WHO's guidance on water quality, air quality, wastewater reuse, health care waste and chemical safety at the national level; to secure basic occupational health services and integrate them into primary health care systems; and to build capacity for chemical and radiological alert and response mechanisms. Support will also be extended to monitor trends and assess the health impact of environmental and socioeconomic development; and to improve access to reliable information to support environmental health action at national level.

# Strategic objective 9: To improve nutrition, food safety and food security, throughout the life-course, and in support of public health and sustainable development

## Issues and challenges

The Region is confronted by the double challenge of acute and chronic undernutrition among infants and young children in low-income and middle-income countries, and rapidly growing overweight, obesity and other nutrition-related chronic diseases in almost all countries. Despite the impact of all these forms of malnutrition on mortality, morbidity and national economies, nutrition is not given priority attention in national development plans and lacks direct programme investment. The most serious constraints are lack of recognition by governments of nutrition as a central element of public health and economic development, and lack of adequately trained human resources and leadership, resulting in poor capacity to translate nutrition into national policies and programmes, to operationalize knowledge-based strategies and policy guidelines, and to implement effective nutrition interventions.

Today's food safety systems are the realization that food safety is multi-sectoral; that food safety should be addressed from "farm to fork"; and that any decision or approach should be science-based. Food safety is a major public health issue in the Region, both for consumers and for manufacturers. Almost all countries lack consumer protection legislation. Most of the food safety units in Ministries of Health require technical development and capacity-building. Avian influenza has pushed food safety to a higher level on the public health agenda, resulting in strengthened intersectoral collaboration in this area and enabling establishment of a national food and drug authority in several countries. However, interministerial coordination and effective involvement of the concerned ministries and institutions in a well coordinated and complementary manner still needs to be strengthened. Countries in complex emergency situations are exposed to serious food and nutrition insecurity, with implications for food safety.

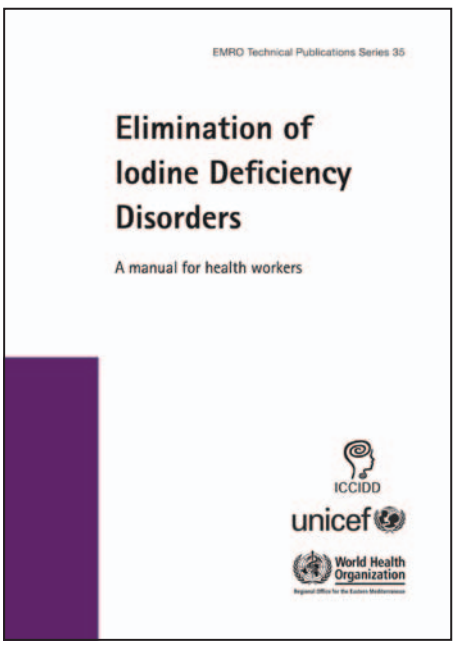
## Achievements towards performance indicator targets in each expected result

In the area of *nutrition*, strengthening of adequate assessment of nutritional status using the new evidence-based WHO growth standards was promoted at regional level. The new standards were introduced at national level in Jordan, Palestine, Syrian Arab Republic and Sudan in close collaboration with UNICEF and WFP. These standards have re-emphasized the importance of growth monitoring as an effective intervention to ensure proper infant and young child nutrition. The Regional Office continued its efforts to improve the nutrition status of populations and to prevent unhealthy and inadequate dietary patterns, which contribute to around 30% of preventable morbidity and mortality from diet-related noncommunicable diseases. In this regard, 13 science-based generic food-based dietary guidelines were developed and are being adapted to the specific conditions of groups of countries. Support for the establishment of national nutrition policies and programmes

and streamlining them into the public health system is a continuing activity in countries where the nutrition component is not translated into action.

Recognizing that accurate, timely and sustainable nutrition surveillance is necessary for effective programme and financial planning, an innovative approach was developed to integrate nutrition surveillance into existing tools for assessment of health conditions and noncommunicable disease risk factors; the approach will be pilot-tested before large-scale application. Data on the prevalence of different nutritional disorders and the progress of interventions are priority issues and efforts were made to upgrade the current databases. Sharing of information with national counterparts was enhanced.

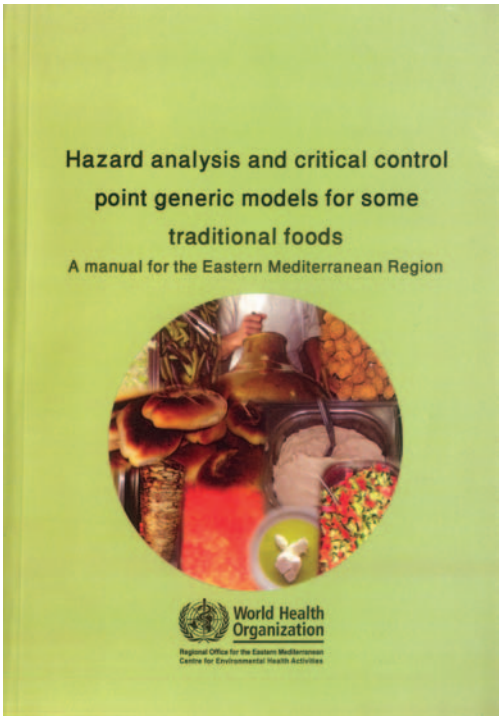
In order to promote the micronutrient status of the populations of the Region, a technical consultation on iron and folic acid examined the persistence of anaemia in countries and the ongoing flour fortification programmes which have yet to demonstrate significant improvement in iron and folic acid status of the population. National capacity to deal with vitamin A and iodine deficiency disorders was strengthened in collaboration with UNICEF and CDC. Strengthening of the vitamin A supplementation programmes through existing health facilities, particularly after the cessation of the national immunization days, was presented as a priority intervention for the control and prevention of vitamin A deficiency disorders. National iodine deficiency disorders programmes were expanded and strengthened in several countries. Three countries have now declared the elimination of iodine deficiency disorders as a public health problem. A manual for health workers on elimination of iodine deficiency disorders was published.




International and national multisectoral *food safety* collaboration was enhanced in the member countries of the Gulf Cooperation Council where several meetings were conducted on food safety and consumer health protection. Most countries participated in capacity-building in global salmonella stereotyping which is expected to improve detection, prevention and management of foodborne diseases and monitoring of food safety and quality. Zoonotic and nonzoonotic foodborne disease surveillance and hazard monitoring programmes have not been adequately improved as planned. Most countries are members of the WHO Global Salmonella Surveillance network and have strengthened their laboratory capacity to identify and serotype salmonella and other related bacteria. Capacity-building in microbiological risk assessment was completed by the WHO Salmonella Surveillance project; 13 countries are contributing to global salmonella surveillance. Pulsenet supported capacity-building in molecular identification of microbes in zoonotic and nonzoonotic microbes to strengthen the surveillance of foodborne disease.

Although, many countries have modernized and strengthened their microbiological and chemical laboratories in order to participate in the international food safety surveillance network, most countries have no laboratory capacity to detect chemical hazards, such as melamine, dioxins and furans, in food. Following implementation of the International Health Regulations (IHR 2005) many countries have integrated foodborne disease surveillance into national disease surveillance. Countries of the Region participated in meetings of the Codex Alimentarius Commission and other international standard setting bodies. The Region has a Near East Codex Committee to assess risks in food and prepare standards for traditional foods of the Region. As a result of the work of the Committee, *Hazard analysis and critical control point generic models for some traditional foods* was published by CEHA.

Although capacity was built in the previous biennium for food chemical risk analysis and exposure assessment, no country has yet conducted a total diet study, owing to lack of funds. "The 3 fives" posters were translated into Arabic. The five keys for safer food approach was implemented in disadvantaged areas of Cairo; training of mothers will continue and their food safety behaviour will be assessed. In collaboration with CEHA and ISESCO, support was offered to countries for adopting the WHO food hygiene practices. All countries are now members of the International Food Safety Authorities Network (INFOSAN) and INFOSAN emergency network for rapid food alert systems.




In view of the escalating effects of the emergency and food crises on food and nutrition security in at least eight countries, the Regional Office supported capacity-building of country teams for effective preparedness and response to the growing problems. Four countries received support from the United Nations Central Emergency Response Fund to respond to the food crisis and address national food and nutrition policies and strategies. Due to the complex emergencies in several countries, emerging nutritional challenges will be under surveillance as a priority activity.

## Future directions

Nutrition activities will focus on appraising the level of direct programme investment in nutrition, assessing the gaps and constraints in the implementation of the various strategies in maternal, infant and young child nutrition, nutrition education and communication, and micronutrient deficiency control and prevention, and in operationalizing new strategies and guidelines in the areas of nutrition surveillance, promotion of adequate nutrition and healthy diets, and management of severe acute child malnutrition, both at



health facility and community level. In view of the escalating effects of the emergency and food crises on food and nutrition security in at least eight countries, capacity-building of country teams for effective preparedness and response will be a focus of attention. Food safety activities will focus on technical guidance and support for strengthening capacities and monitoring food safety. Risk assessment capacity in food safety will be strengthened further and regulatory and legislative activities at national level will be enhanced. The focus will be mainly on the harmonization of food safety systems. Organizational aspects of food safety and control systems, food laws, revision of regulations and standards, introduction of the "The 3 fives" posters and promotion of the five keys to safer food as consumer education for all sectors of the community will be accelerated.