The Work of WHO in the Eastern Mediterranean Region

Annual Report of the Regional Director

1 January—31 December 2011

World Health Organization
Regional Office for the Eastern Mediterranean

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Abbreviations

AFP	Acute flaccid paralysis
AGFUND	Arab Gulf Programme for United Nations Development Organizations
AIDS	Acquired immunodeficiency syndrome
BDN	Basic development needs
CDC	Centers for Disease Control and Prevention, Atlanta, USA
CEHA	Regional Centre for Environmental Health Activities
CIDA	Canadian International Development Agency
DPT	Diphtheria, pertussis and tetanus
EM/ACHR	Eastern Mediterranean Advisory Committee on Health Research
ESCWA	Economic and Social Commission for Western Asia
EPI	Expanded Programme on Immunization
FAO	Food and Agriculture Organization of the United Nations
FCTC	Framework Convention on Tobacco Control
GCC	Gulf Cooperation Council
GDF	Global Drug Facility
GEF	Global Environment Facility
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HIV	Human immunodeficiency virus
IDD	Iodine deficiency disorders
ILO	International Labour Organisation
IMCI	Integrated management of child health
IOM	International Organization for Migration
IOMS	Islamic Organization for Medical Sciences
ISESCO	Islamic Educational, Scientific and Cultural Organization
JPRM	Joint programme review and planning mission
MDT	Multidrug therapy
MZCP	Mediterranean Zoonoses Control Programme
NID	National immunization day
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OHCHR	Office of the United Nations High Commissioner for Human Rights
OPV	Oral poliovaccine
PAPFAM	Pan Arab Project for Family Health
RBM	Roll Back Malaria
SIDA	Swedish International Development Cooperation Agency
TDR	UNICEF/UNDP/WHO/World Bank Special Programme for Research and Training in Tropical Diseases
TT	Tetanus toxoid
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNODC	United Nations Office on Drugs and Crime
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees in the Near East
USAID	United States Agency for International Development
WFP	World Food Programme
WTO	World Trade Organization

In the name of God, the Compassionate, the Merciful

Introduction

I am delighted to present this annual report on the work of WHO in the Eastern Mediterranean Region. 2011 was a momentous year in many ways. The world witnessed a unique health occasion at the United Nations with the endorsement of the Political Declaration of the General Assembly on the Prevention and Control of Noncommunicable Diseases by heads of state and government around the world. With this declaration the world has committed itself to a clear path of action to tackle chronic illnesses, such as cardiovascular disease, cancer, diabetes, chronic respiratory diseases and the associated risk factors. The Eastern Mediterranean Region faces a rapidly rising burden of noncommunicable disease as populations age, urbanization increases and lifestyles change. The Region has the highest prevalence of diabetes among all WHO regions. It is one of the two most physically inactive regions in the world and its population, both adults and children, is increasingly overweight. At a time when many countries in other regions are managing to reduce smoking rates, our region is failing in implementing comprehensive measures to control tobacco use. In response to the Declaration, we are working with Member States to develop clear strategies on strengthening surveillance, preventing risk factors and improving health care, including integration at the primary health care level. There are very cost-effective measures we can put in place to prevent noncommunicable diseases and I would urge Member States to study and implement these as quickly as possible.

As we edge towards 2015, the target set for achievement of the Millennium Development Goals, several of our Member States still have maternal and child mortality rates among the highest in the world. Malnutrition sits side by side with obesity in the Region, sometimes within the same country. Poverty and lack of access to basic health care conspire against mothers and children across the Region. The most effective evidence-based interventions to reduce maternal and child mortality are well known and there is a pressing need to scale up implementation and coverage of these. Action in the health sector must prioritize these vulnerable sections of the population, but this is not enough on its own. Coordinated and integrated action is needed across all relevant sectors as well as with other key areas of intervention, such as nutrition and immunization. This is an area that will receive higher priority over the coming five years. WHO will do its part to promote integrated and comprehensive strategies within and beyond the health sector.

Immunization is a key element in preventing childhood illness. The second regional vaccination week, in April 2011, was a major success, with almost all Member States participating to raise awareness and reach more children with essential vaccines. Nevertheless, there are challenges in most countries and the quality and coverage of immunization programmes varies across the Region. Until we can eliminate such disparities we will not get rid of the killer childhood diseases. Polio still remains in parts of Afghanistan and Pakistan. Heartening steps have been taken in the past year. Both the countries concerned and WHO have now raised polio eradication to emergency status and put in place emergency plans of action. Momentum needs to be maintained to ensure diligent implementation of these plans, oversight and timely identification and overcoming of obstacles.

At the heart of all these, as well as other, health challenges in the Region is the need to strengthen health systems. Major health system challenges are encountered in every country. Clearly there cannot be a single model that would address all the components of such a complex entity as the national health system, or that would address the diverse needs of all the countries of the Region. Member States differ in socioeconomic conditions, in epidemiological and

demographic profile, in infrastructure, in workforce needs and in terms of expenditure on health. Equally important, they differ in the degree of horizontal integration within the health sector, and in the extent of collaboration with other sectors. Nevertheless, I believe some clear evidence-based approaches can be put in place to provide a shared vision and direction that would help Member States to strengthen their existing health systems. I look forward to working with Ministers of Health on identification of the best way forward for each country.

It would be impossible for me to ignore the tremendous movement for social and political change witnessed by the Region in 2011. The roots of the popular demand for equal participation in how countries are shaped, and in how decisions that affect individual, community and national development are made, lie in social inequity. WHO has long expressed concern at the impact of such inequity on people's health. This was most clearly articulated in the report of the WHO Commission on Social Determinants of Health in 2008. Poverty, lack of access to education and employment opportunities, and the lack of universal social protection against the hardships imposed by illness and ill health have been highlighted as key determinants of health. The correlation between health, education, socioeconomic conditions and human rights, and long-term national development is now firmly established. As leaders in the health sector we all have a major role to play in working closely with the non-health sectors to advance the cause of population health and sustainable development in the Region.

The immediate impact of the social and political upheaval in countries around the Region has been increased violence, insecurity and unemployment, which in turn have taken their toll on people's physical and mental well-being. WHO is responding on two fronts. First, through its role in leading the United Nations health cluster in the various countries, it is monitoring the unfolding situation and providing support to emergency response. Second, it is working with concerned ministries of health to realign priorities and review health sector approaches. We are still in the early stages of the process of change and we will continue to advocate strongly for an equitable approach to health care. We are also now faced with an unprecedented opportunity to shape the future of health in the Region.

This is the first annual report on the work of WHO in the Eastern Mediterranean Region since I took office in February 2012. It was prepared based on the same principles and content as past years. I would welcome your views on it and on how its usefulness to Member States can be improved. In the weeks following my arrival, I sought to engage the views of Member States, experts and colleagues with regard to the priorities in the Region, and how we should, collectively, work to address these. The outcome is a document "Shaping the future of health in the Eastern Mediterranean Region" which sets out five key areas in which we can, and must, make progress in the next five years: health systems, maternal and child health, noncommunicable disease, communicable disease, and emergency preparedness and response. I have taken steps to realign the structure and priorities of the Regional Office and country offices with these new realities. The continuing WHO reform process will undoubtedly support our efforts. I look forward to working with Member States to implement this agenda, and to reporting to you on the challenges and progress as we move forward.

Ala Alwan
Regional Director for the Eastern Mediterranean

Executive summary

Health development and health security

- In general, and despite the political instability that affected several countries, previous achievements in the area of communicable diseases prevention and control were sustained, in particular through reinforced coordination and collaboration with countries.
- With regard to control, elimination and eradication of vaccine-preventable diseases, achievement of the regional expected results was on track in the majority of the indicators in 2011. Despite the fact that the prevailing situation in the Region resulted in some drop in routine vaccination coverage in Libya, Syrian Arab Republic and Yemen, sixteen countries have achieved the target of 90% routine vaccination coverage and three more countries are close to doing so. Significant increase in routine vaccination coverage in Somalia was achieved. Although the measles elimination target was not achieved in 2010, nine countries are close to validating measles elimination. However, Afghanistan, Pakistan and Sudan experienced measles outbreaks due to delay in implementation of follow-up campaigns. New vaccines were introduced in several countries, increasing the number of countries using Hib pneumococcal and rotavirus vaccine to 18, 8 and 4, respectively. The Regional Office is working hard to further expand new vaccines introduction, especially in the middle-income countries, through establishing a regional pooled vaccine procurement system, advocacy and strengthening national capacity for evidence-based decision-making. The second regional Vaccination Week was successfully celebrated in April 2011.
- The Region continued to proceed towards achieving the poliomyelitis eradication target. All countries are free from poliomyelitis except Afghanistan and Pakistan. Engagement of the senior political leadership to achieving the target was more visible in 2011 but the significant challenges remaining require concerted and highly coordinated action by both governments and international partners. The regional and sub-regional technical advisory groups continued to advise on the appropriateness of strategies to achieve the target. Mitigating measures were taken to maintain the status in the polio-free countries. In Somalia, the efforts to gain access to children currently inaccessible continued. In Yemen, a national immunization day was conducted towards year end. Efforts were made to increase cooperation between WHO regions. The regional AFP surveillance system continued to perform at the accepted international standards. Securing adequate financing for supplementary immunization activities, and ensuring continued political commitment in both polio-endemic and polio-free countries were among the main challenges for the programme. In 2012, the first priority will be to interrupt wild poliovirus transmission in Afghanistan and Pakistan. In Pakistan, the main emphasis will be full implementation of the national emergency action plan, and in Afghanistan, special emphasis will be on periods of tranquillity, strict oversight and performance-based accountability.
- Similar achievements were made in the fight against neglected tropical diseases. In 2011, cases of dracunculiasis (guinea-worm disease) decreased by 42% compared to the previous year, with now more than 75% of the total cases coming from one state in South Sudan. The elimination target (prevalence less than 1 per 10 000) was sustained in all countries except South Sudan, and some districts in Egypt, Sudan and Yemen, where the situation

needs to be re-assessed. Regional schistosomiasis activities were slightly disrupted in some countries by the political situation. Nevertheless, more than 1.5 million people were covered by praziquantel in Yemen. Only two countries, Sudan and South Sudan, remain hyper-endemic for schistosomiasis. Regarding lymphatic filariasis, Egypt finalized development of the sensitive tools needed for post-mass drug administration surveillance. Sudan remapped the disease and is ready to initiate a mass drug administration control programme. In South Sudan, the new treatment protocol for human African trypanosomiasis was introduced for late-stage patients in all centres admitting this type of patient and WHO provided free diagnostic kits. However, the number of new detected cases was far below expectation; this is mainly because of the scaling down of control activities due to lack of implementing partners.

- The number of major outbreaks was significantly reduced, and there was great improvement in outbreak early detection, response and control. The dengue outbreak in Pakistan was the biggest event in 2011, and dengue continues to pose the greatest threat to public health security in the Region. The Regional Office is taking this threat very seriously and initiated several interventions to support ministries of health to strengthen the disease early warning surveillance systems and improve outbreak preparedness and management, especially for countries in humanitarian crisis.
- National core capacities for implementation of the International Health Regulations 2005 improved with the initiation of WHO advocacy and assessment missions. Provision and translation of the guidelines, guidance documents and related standard operating procedures facilitated the implementation of activities at country level. Coordination was promoted among the different partners involved in implementation of the Regulations. Monitoring of the national core capacities by the national focal points, to meet the requirements by 15 June 2012, was a big challenge. WHO provided support to the countries that will not meet the requirements on time to request an extension for an additional two years, to 15 June 2014. The Regional Office will continue to provide support to countries to fill the gaps in assessed core capacities, implement the recommendations of the International Health Regulations review committee, and sustain the capacities achieved so far.
- The HIV epidemic continued its expansion of the past decade. The estimated number of people living with HIV was 560 000 in 2010. Although the overall HIV prevalence is still low (0.2%), there were an estimated 82 000 new infections (including 7400 children) in 2010. This places the Eastern Mediterranean among the top two regions in the world with the fastest growing HIV epidemic. AIDS-related deaths are increasing also, reaching an estimated 38 000 in 2010. Local epidemiological information in countries is improving and points to increasing infections in people with high-risk behaviour and their partners. Availability of, access to and quality of health-sector interventions vary considerably between countries. Access to treatment has improved steadily, with an almost 25% increase between 2009 and 2010. However, the Region continues to demonstrate the lowest coverage of all regions in key HIV health sector interventions, including treatment coverage. Current approaches to increasing the coverage of HIV testing and prevention services for people at risk of HIV and the coverage of treatment for people living with HIV are often not effective enough. However, examples of strategies and service-delivery models that succeed in reaching those in need are emerging in the Region.

- Significant progress was made towards elimination of malaria in Islamic Republic of Iran, Iraq and Saudia Arabia. The other seven endemic countries increased coverage with the main interventions for vector control and treatment while remaining far below the 80% target. The limited access to and poor quality of facilities for parasitological diagnosis in these seven countries require urgent action. To reach the target of universal coverage, diagnostic and treatment services should be expanded into the private sector and community, with strong training and supervision. Spread of insecticide resistance in many areas of the Region is a great threat. Coordinated action is needed to develop a comprehensive plan for monitoring, prevention and management of insecticide resistance. The occurrence of local outbreaks of malaria in some malaria-free countries highlights the weakness of the surveillance and vigilance systems. With increasing population movement, importation of malaria and political complexities, urgent measures are needed to prevent any setbacks.
- In 2010, the tuberculosis burden in the Region was classified as low to intermediate, with 421 834 cases reported, representing 7% of the global burden. Around 61% of these cases were reported by one country: Pakistan. The regional detection rate has been improving and reached 63% in 2010, but has not yet reached the target (70%). Nevertheless, 88% of the 2009 cohort of sputum smear-positive pulmonary tuberculosis cases were successfully treated (exceeding the target of 85%). The regional case detection rate for multidrug-resistant tuberculosis continues to be low (5.9%), with only 829 cases notified out of an estimated 14 000. This is mainly due to the limited capacity for management of multidrug-resistant tuberculosis at country level, and its complexity. In addition, the programme is facing financial constraints that might put its main achievements at risk in the future. Consequently, focus will be placed on improving tuberculosis notifications, scaling up management capacity for multidrug-resistant tuberculosis, revitalizing the tuberculosis elimination initiative and developing sustainable cost-effective strategies to avoid reliance on the Global Fund.
- Significant impetus to prevention and control of noncommunicable disease in the Region was provided by the Political Declaration of the General Assembly in September 2011, a historic event for global health. In line with this new landmark, the focus on raising the priority accorded to noncommunicable diseases at the regional level was addressed in all regional consultations and conferences. An increasing number of countries have developed noncommunicable disease action plans in line with the WHO action plan, bringing the total to nine, although implementation of the plans has been variable. Surveillance of risk factors expanded. The e-STEPS survey was completed in three more countries, bringing the total to 18. Technical capacity for surveillance remains weak in most countries. Technical support on implementing a package of essential interventions for noncommunicable disease in primary health care was provided to three countries. Also, technical support was provided to six countries on screening for noncommunicable diseases in primary health care. Collaboration with regional and international partners for cancer control programmes focused on cancer assessment, palliative care training and strengthening breast cancer screening. The Regional Office is committed to supporting countries in implementing the Political Declaration on Prevention and Control of Noncommunicable Diseases in the Region. The Regional Office continued to support implementation of the WHO Framework Convention on Tobacco Control, particularly the guidelines on cessation and support for treatment of tobacco dependence.

- Based on the evidence generated by the WHO assessment instrument for mental health systems (AIMS) and the regional mental health ATLAS, a regional strategy for mental health and substance abuse was developed, and endorsed by the Regional Committee. There has been an increase in mental health expenditure as a proportion of the health budget, and the proportion of spending on institutional-based care has been reduced significantly in the Region, from over 65% to 38% of total mental health expenditure. Technical support for the development of strategies and legislation continued to be provided. Capacity-building for integration of mental health into primary health care was initiated in Jordan and Sudan. Mental health and psychosocial support was provided for Egypt, Jordan, Libya and Syrian Arab Republic and capacity-building in psychological first aid was supported in the Darfur Region in Sudan.
- The instability in the Region added to the already existing burden of injuries and disability. The exact impact has yet to be studied. The Decade of Action for Road Safety 2011–2020 was launched at the regional level and in many countries. The exercise for the second global status report on road safety was undertaken by 20 countries, and preliminary plans drawn up based on its findings. A strategic framework for child and adolescent injury prevention was developed and the regional initiative to upgrade prosthetics and orthotics training programmes continued. The new community-based rehabilitation guidelines and the World report on disability were translated into Arabic. The Regional Office continued to support countries to develop or strengthen injury surveillance and disability records, to plan for disability and injury control and prevention more effectively and to improve trauma care and rehabilitation services. The Regional Office will continue to support countries in developing effective national planning that integrates visual and hearing care into broader health development plans, increases human resources, strengthens the infrastructure for delivery of effective visual and hearing care programmes and promotes wider international development support, focusing on priority countries like Afghanistan, Sudan, Somalia and Yemen.
- The achievement of universal access to, and coverage with, effective public health interventions to improve reproductive, maternal, newborn, child and adolescent health, and promote healthy and active ageing for all individuals continues to face major challenges. A higher level of political commitment is needed, together with increased resources, financial and human, to promote the health of vulnerable populations, especially women and children. However there have been successful experiences in some countries. Egypt, in particular, has made an outstanding achievement in regard to both Millennium Development Goals 4 and 5. The networks of age-friendly cities and age-friendly primary health care centres, which provide a model for promoting healthy lifestyles among older persons, are being expanded throughout the Region. The Regional Office developed a standard package that is planned to be used for scaling up national school health services. A regional guide to conducting an adolescent health situation analysis was published to support countries in the process of planning and implementing programmes addressing the health of adolescents. The Regional Office will continue advocating initiatives to bring maternal and child health higher up the public health agenda of Member States and to allocate the required human and financial resources. Special attention will also be addressed to promoting an integrated primary health care approach, strengthening vital registration and surveillance, improving coordination and

collaboration with other relevant public health work areas, and documenting and sharing successful experiences. .

- An unprecedented number of countries in the Region were affected by all kinds of disaster. WHO continued to support countries through an overall framework for health emergency response and early recovery. This required significant organizational support to establish operations in affected areas and advocate for public health needs for the affected communities. Faced with such increased demands, global health partners in support of ministries of health used the cluster as a vehicle to coordinate the delivery of essential services, as well as the strengthening of preventive public health programmes. Expanded regional humanitarian partnerships forged through the health cluster enhanced response time and technical support to countries in crisis. Capacity-building activities were conducted nationally and regionally, incorporating disaster risk reduction at all levels. The first regional risk communication programme for health was developed for schoolchildren in collaboration with UNISDR. WHO has embarked on developing a new operational framework that will guide WHO's work in future health security and emergency operations. The next biennium will focus on developing and testing systems to manage all acute onset events within the Region. Organizational and national level capacities to manage such events will be enhanced, with a strong emphasis on information and knowledge management and bringing forward best practices in public health.
- In order to reduce mortality and morbidity related to risk factors associated with use of tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex, focus is required on strengthening high-level political commitment, legislative interventions and articulation of public health policies. This is especially so in areas such as regulating marketing of foods and beverages to children, providing preventive, treatment and rehabilitative services for substance abuse, and expanding the network and strengthening partnerships in health promotion and health education at all levels. A real reduction in tobacco consumption is needed through scaling-up implementation of the WHO Framework Convention on Tobacco Control including adoption of the maximum measures proposed by its guidelines.
- Countries recognize the importance of environmental health in reducing the double burden of traditional and new environmental risks imposed on health. However, many ministries of health have not yet identified the environmental determinants of health as a key priority for improving public health. WHO estimates that more than one million deaths in the Region each year could be prevented through the availability of appropriate environmental health interventions. The Region continues to struggle with traditional problems, such as solid and liquid waste management, and indoor and outdoor air pollution. Declining water availability and quality, increasing populations, rapid changes in lifestyles, urbanization, unsustainable energy consumption and inefficient use of water resources are major public health concerns. Natural and manmade disasters and climate changes aggravate most of these problems and exacerbate their public health impacts. Actions are required, both in the health sector itself and across sectors to tackle environmental health risks. Countries need to develop national environmental health preparedness plans for emergencies, and to improve access to information for research and decision-making. To ensure effective action in the health

sector, risks have to be reduced/controlled in the settings where they occur – homes, schools, workplaces and cities – and in sectors such as energy, transport, industry and agriculture.

- The prevalence of malnutrition is alarming and considered severe in many low-income countries, especially Afghanistan, Pakistan, Somalia and Yemen where more than 50% of the children under 5 years of age are stunted. The situation has been worsening due to the emergency situations, internal conflict and financial crises in the Region. Diet-related chronic diseases and obesity exert a heavy cost and contribute to increasing morbidity and mortality, especially among high-income countries. Ensuring food safety and elimination of foodborne diseases is still a big challenge for all countries. In line with the regional nutrition strategy, most countries have now developed national action plans addressing the double burden of malnutrition. Capacity-building on management of severe malnutrition, obesity prevention and control and nutrition surveillance was introduced in all countries. The Regional Office will work closely with countries to ensure functional implementation plans are in place to address nutrition disorders and foodborne diseases, to institutionalize surveillance systems and to build national capacity in nutrition and food safety.

Strengthening health systems

- High-level political commitment, community participation and leadership, and intersectoral collaboration are needed to address the social determinants of health, and reach the goals of gender and health equity, and achieve full realization to the right to health. The uneven distribution of resources, rapid urbanization, insufficient social security for the poor, gender inequity, and the financial crisis are driving forces in the disparities of access and utilization of health and social services and the increase in the number of vulnerable people. The Regional Office supports countries in developing effective intersectoral collaboration towards the development of national health and development policies that are equity, gender and human rights-oriented. Capacity-building, operational evidence on gender and health inequities, and strengthened health sector response to gender-based violence will be the focus of work in 2012–2013.
- The importance of health systems in contributing to better health outcomes is beyond doubt. Nevertheless, many challenges exist to the improved performance of health systems and their various building blocks in the Region. Countries are realizing that more needs to be done to ensure that health systems are properly financed, are provided with adequate resources, are monitored to ensure effective delivery of health services and that policies are formulated and plans developed based on reliable evidence.
- Key areas for strengthening health systems were supported. These included: developing and strengthening national strategic health plans and policies; promoting transparency and good governance policies, social health protection and national health accounts; intersectoral collaboration to tackle social and economic determinants of health; capacity-building of nationals, including designing training modules and training workshops; following up implementation of global initiatives to strengthen health systems in eligible countries; strengthening governance and developing capacities for planning for human resources for health at the national level; scaling-up production of nurses, midwives and allied health

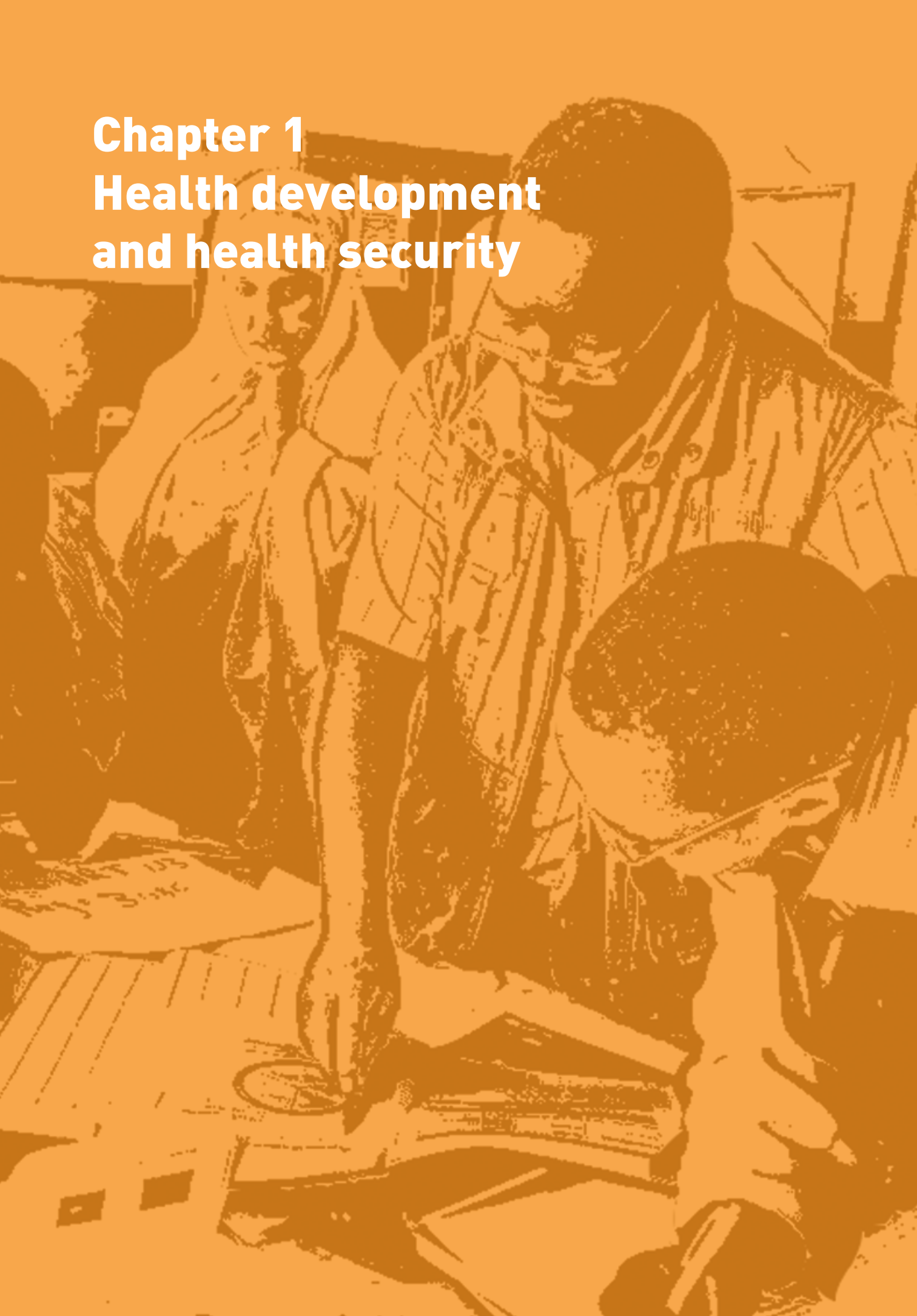
professionals and building up their leadership and management capacities; accreditation of health professions education to ensure graduation of competent practitioners; mobilizing regional resources to support the regional strategic plan (2010-2015) for implementing primary health care-based service delivery plans; and creating partnership and coalitions with other strategic partners to respond to countries' needs for health system strengthening and services development.

- Many countries still lack access to health information. Improving access to and availability of up-to-date and valid health and biomedical sciences information is a key challenge for these countries. Regional capacity in better utilization of health information resources has improved significantly, but still needs more efforts. Development of e-libraries and the medical libraries network are essential steps to improve knowledge management and sharing. Regional capacity in publishing quality medical journals continued to expand during the past year. The Regional Office continued to work to promote a culture of research for health at the national and regional level. The Regional Committee endorsed strategic directions for scaling up research for health in the Region, and a consultation recommended establishing a regional clinical trial registry. The regional health observatory, incorporating statistical information from all technical areas, was developed. Advocacy for adoption of policies supportive of primary health care, including universal coverage, will continue. Particular efforts will be made to advocate for the family practice-based approach to be at the heart of the development of health systems and provision of health care.
- The public sector in the Region consumes around 50% of recurrent public health budget on medical products and services in the form of blood, medicines, vaccines, devices, clinical investigations, and surgical procedures. However, the ability of existing under-funded and weakly staffed national systems to manage such health technologies is extremely weak. This has become an increasingly visible policy and operational issue for many countries, especially those facing complex emergencies and disasters. As an important input to the health care system, health technologies should be properly managed, utilized and integrated in order to produce an efficient health intervention. Assessment of the regional situation reveals major challenges associated with availability, equitable access, appropriateness and affordability of health technologies and accountability. To overcome these challenges a comprehensive health system approach needs to be adopted. This includes: establishment of transparent procurement and supply mechanisms; development of adequate country-specific profiles; promotion of transparency, good governance concepts and rational use; and capacity-building. Some steps were taken in this direction, including: developing strategies for health technology management; drafting rules for and strengthening national regulatory authorities; ensuring high quality and safety standards; promoting transparency and good governance policies; disseminating guidelines, tools and standards for good practices; performing functional review studies on existing national health technology programmes, promoting good manufacturing practice (GMP) concepts for quality and safety for manufactured medical products; generating a research agenda for manufacturers; and capacity-building. Further efforts are needed to identify and overcome regional and national challenges. Partnership and coalitions with other strategic partners to identify common interests, financing mechanisms and potential resources will be necessary to ensure sustainability of WHO technical support.

Partnerships and WHO performance

- 2011 marked a difficult and challenging period for the Regional Office due to the complex situation affecting 13 Member States, including the host country, Egypt. In spite of these difficulties, as well as the continuing financial crisis, WHO continued to strengthen its country presence, promote functional partnerships and engage Member States in the work of the governing bodies. Providing innovative ways for health communications and enhancing partnership with all stakeholders has become a priority for the Regional Office and has resulted in the increasing use of social media as a viable means for spreading WHO's messages to a wider audience. The Regional Office continued to address the challenges in knowledge management and sharing by improving accessibility to and availability of health knowledge, as well as promoting use of electronic information resources. The major project to redevelop and redesign the Regional Office web site continued and a new internal intranet site was launched. WHO continued its strong collaboration with Member States to improve the health situation and mitigate emergencies in the Region, demonstrating its commitment to leadership and fostering partnership.
- The disparity between available funds and human resources, and their distribution across the Organization remains a challenge. The securing of additional, flexible funding, and working to ensure better allocation of available resources, are among the priorities. The extent of the civil unrest and ongoing crises around the Region resulted in high costs to programme delivery. Essential medicines, vaccines and other medical supplies were delivered as quickly as possible, including to security-compromised areas. The final implementation incurred for the 2010–2011 biennium represented 100% of the total available funds under the assessed contribution budget. Implementation against voluntary contribution funds amounted to US$ 411 million, exceeding the assessed contribution budget by more than four times. Although upgrading of the Regional Office information technology and telecommunications infrastructure was postponed, several enhancements were made. In addition, the first stage of implementation of the Global Synergy project in the Regional Office, which will align WHO systems across all major offices, was completed. The approved capital and security master plans for the Region were implemented, resulting in enhanced security and an appropriate working environment for implementation of programme activities. A number of measures were introduced which enabled the Regional Office to address the scarce financial resources without compromising essential logistical and administrative services.

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

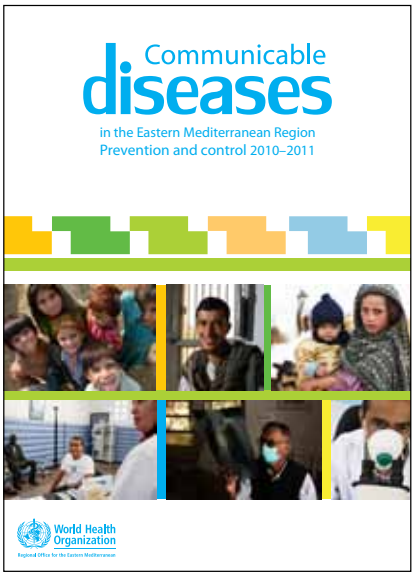
Expansion of dengue fever to new geographic areas was confirmed in 2011 and the most widespread mosquito-borne infection in humans is now an emerging public health problem in the Region, with an increasing number of outbreaks reported in recent years. Factors in this expansion include unplanned urbanization, climatic change and population movement. Increased focus is needed on surveillance for dengue disease and its vector, reporting and preparedness, including appropriate vector control response. The magnitude of this public health problem and the worsening epidemiological trends urgently require coordinated intensive efforts for prevention and control. Noting the resistance of *Aedes aegypti* to common insecticides, judicious use and sound management of insecticides is crucial to sustainable control of the disease.

2011 confirmed the remarkable improvement in immunization programmes achieved during the past few years. DTP3 coverage is now close to or higher than 90% in the majority of the countries and substantial improvement in routine immunization coverage was observed in Somalia and South Sudan. The regional average for DTP3 coverage, based on national reported data, reached 88% in 2010. The measles mortality reduction target was achieved 3 years before the target date, several countries are close to achieving the measles elimination target and laboratory-based measles surveillance is being continuously strengthened. Introduction of new vaccines was highly successful, especially in the low-income countries. However, around 1.8 million infants were not reached with their third dose of DTP vaccine, around 90% of whom are in seven countries (Afghanistan, Iraq, Pakistan, Somalia, Sudan, South Sudan, Yemen). The regional measles elimination goal was not achieved on time and the Region witnessed an increase in the number of measles cases in 2010. Lower middle-income countries continue to be behind in introducing new vaccines. The existing and emerging emergency situations around the Region, varying technical and managerial capacity, varying strength of the health systems, competing priorities, insufficient government financial allocation and low community awareness continued to be the main hindrances to reaching the target populations.

In 2011, Afghanistan and Pakistan were the only two countries of the Region that reported polio cases. The situation of poliomyelitis in Pakistan is serious and complex. The reasons for continued circulation include insecurity in certain areas and issues of governance and management, particularly in the infected high-risk areas. In Afghanistan, cases in 2011 were not limited to the southern region, but spilled over to several other provinces. Political commitment at the higher level is definite but still needs to be translated into action at the implementation level. Some countries of the Region are at a particularly high risk of occurrence of cases following importation, mainly because of lower immunity levels among children.

This is particularly the case in Somalia where target children have now been without vaccination for 2 years due to Al-Shabab's refusal to allow access. Maintaining highly sensitive AFP surveillance systems in endemic, as well as in polio-free countries, is critical. Securing adequate financing for supplementary immunization activities, and managing continuous political commitment in both polio-endemic and polio-free countries are challenges for the programme.

In the area of control of tropical diseases, although the incidence of cases of dracunculiasis (guinea-worm disease) continued to fall, the challenge was to ensure continuous and complete reporting and adequate verification of rumours and documentation in the areas that became free of the disease. These areas are continually being extended and some remain insecure. Most countries in the Region have very low endemicity for leprosy. Egypt, Morocco and Yemen, have reached the elimination target at country level but still have districts where this target might not be achieved. Leprosy programmes in Afghanistan, Somalia, South Sudan and Sudan are affected by the complex



Medical supplies are delivered to South Sudan to support the leishmaniasis control programme

emergency and security situations and need strengthening. In addition to stigma related to leprosy, an important challenge is the decrease in national capacity due to rarity of leprosy cases in most countries. This situation can lead to delay in case detection and increase the possibility of occurrence of disabilities. In countries that have succeeded in eliminating lymphatic filariasis (Egypt and Yemen) and those that have eliminated schistosomiasis or reached low endemicity (Egypt, Islamic Republic of Iran, Libya, Saudi Arabia and Syrian Arab Republic), there is a need to build capacity and skills in order to introduce new sensitive tools to verify and certify elimination for both diseases. The overall situation of sleeping sickness in South Sudan remains a major concern since most implementing partners have pulled out of the programme or scaled down control activities without being replaced by nationals. The ongoing outbreak of visceral leishmaniasis in South Sudan represents an enormous challenge due to the large number of returnees in the transmission areas and insecurity, which is hampering implementation of control activities.

Emerging and re-emerging diseases constitute a major threat to public health security and disruption of social and economic development. In the past 20 years, the Region has witnessed a marked increase in the number of outbreaks and pandemics caused by emerging and re-emerging diseases, such as alkhurma, chikungunya, cholera, dengue, ebola, influenza A/H5N1, pandemic A/H1N1 2009 and Rift Valley fever. This situation has been exacerbated by acute and chronic humanitarian crisis in many countries. The Regional Office continued to support countries to strengthen their capacity to detect early and respond adequately to threats of outbreaks and pandemics, in addition to coordinating regional and international response to such outbreaks.

Following entry into force of the International Health Regulations 2005 on 15 June 2007, countries were given 5 years to assess and build core capacities to reach full implementation by 15 June 2012. Maintaining high levels of transparency and sharing information on a timely basis during events that might be of national, regional and international concern have been a main concern of WHO. For this purpose, countries were given access to the Event Information Site (EIS), to share and keep track of all events occurring globally. Strengthening the infrastructure of the Regulations requires a strong foundation. This can be achieved by empowering the national focal points and by setting appropriate communication mechanisms for better coordination among all stakeholders involved in implementation of the Regulations. Maintaining surveillance and response capacities and strengthening capacity at points of entry remain a major challenge at national, regional and global level. Monitoring and sustaining the core capacities, before and after 15 June 2012, to detect, verify, notify and respond to events and other potential hazards, within the context of the Regulations will require huge national efforts, supported by WHO at all levels.

Vector biology and control continued to be challenged by the limited national capacity to effectively coordinate and scale up vector control interventions to ensure sound management of pesticides and to control spread of insecticide resistance, especially for pyrethroids.

Achievements towards performance indicator targets in each expected result

In the area of *vaccine preventable diseases and immunization*, the level of 90% routine DTP3 coverage was achieved in 16 countries. In addition, Djibouti and Pakistan are close to this level. The deteriorating security situation in several countries contributed significantly to the delay in achieving the target. The Regional Office focused support on improving planning, national capacity-building, advocacy and mobilizing necessary resources to implement planned activities. Capacity-building and updating of national comprehensive multiyear plans were undertaken in several countries. Extensive support was provided to the priority countries, especially Somalia and South Sudan, in order to reach all children through suitable approaches, including the Reach Every District (RED) approach, child health days and acceleration campaigns that entail multi-antigen vaccination campaigns and other child survival interventions. Extensive support was also provided to Yemen for the integrated child health intervention, and to Pakistan to strengthen routine immunization and provincial capacity to respond to the needs of the immunization programme following devolution. In-depth programme review was conducted in Qatar. Capacity-building in vaccine management was supported and vaccine store management assessment was conducted in three countries. The second regional vaccination week was conducted in April 2011 with participation of 19 countries, despite the political situation in several countries.

A child is vaccinated against measles at a health facility in Somalia

Although the measles elimination target was not achieved in 2010 and the target date was moved to 2015, several countries are close to validating measles elimination. Fourteen countries achieved above 95% MCV1 coverage at national level and in the majority of the districts. Nine countries have reported measles incidence of below 1 case per million persons in the presence of a sensitive and well-functioning surveillance system (Bahrain, Egypt, Iraq, Islamic Republic of Iran, Jordan, Oman, occupied Palestinian territory, Syrian Arab Republic and Tunisia).

Measles outbreaks occurred in Afghanistan, Pakistan, Sudan and Yemen. The situation was aggravated by a stock-out of measles vaccine in Pakistan, for which the Regional Office provided 3 million doses. Across the Region, 16 million children were vaccinated through follow-up measles supplementary immunization activities, child health days and emergency campaigns. Considerable resources were mobilized for these campaigns, as well as technical support, to ensure high quality.

Measles case-based laboratory surveillance has been implemented in all countries. Nineteen countries perform nationwide surveillance and Pakistan is close to doing so, while Djibouti, Somalia and South Sudan are conducting sentinel surveillance. Countries have made remarkable progress

in identifying circulating measles virus as a result of the increased capacity of the laboratory network for virus detection and genotyping. Twenty countries have identified local measles genotypes. Regional Office support was a key factor in these achievements.

New vaccines introduction witnessed unprecedented success, especially in low-income countries. Pneumococcal conjugate vaccine (PCV) was introduced in Yemen and rotavirus vaccine in Sudan. Several countries obtained approval of the GAVI Alliance for new vaccines introduction: Djibouti for both PCV and rotavirus vaccines, Afghanistan for PCV, Yemen for rotavirus vaccine, Somalia for pentavalent vaccine and Sudan for a campaign for meningococcal conjugate vaccine. With regard to the middle-income countries, Hib vaccination was resumed in Tunisia. The total number of countries that have introduced Hib, pneumococcal and rotavirus vaccines is now 18, 8 and 4, respectively. In addition, Iraq undertook the necessary preparation to introduce Hib and rotavirus vaccines in January 2012. Pakistan is preparing for introduction of pneumococcal vaccine in 2012. Introduction of rotavirus and PCV vaccine in Libya was postponed due to the political situation and is now expected in 2012. The financial support offered by the GAVI Alliance, together with the national commitment to co-financing by the low-income countries and the financial allocations by middle-income countries, were the direct factors that resulted in this achievement. In addition, extensive support was provided by the Regional Office. This included supporting burden of disease assessment through the regional surveillance network and use of the data generated for advocacy and evidence-based decision-making, for developing/updating comprehensive multiyear plans, for preparation of applications to the GAVI Alliance and for preparation for new vaccines introduction. It also included national capacity-building and strengthening of national immunization technical advisory groups.

Special efforts are being made to establish a regional pooled vaccine procurement system in line with the request of the Member States to further facilitate the introduction of new vaccines, particularly in the middle-income countries. The regional surveillance network for assessment of the burden of disease preventable by new vaccines is being strengthened. In line with the target of the regional indicators, currently 18 countries are implementing bacterial meningitis surveillance; 8 are additionally implementing surveillance of other invasive bacterial diseases (pneumonia and sepsis) and 19 collect information documenting the rotavirus disease burden. With regard to programme monitoring and evaluation, most countries currently monitor district level immunzation data and 19 returned the WHO/UNICEF Joint Reporting Form according to the agreed timelines, which is in line with the regional indicator.

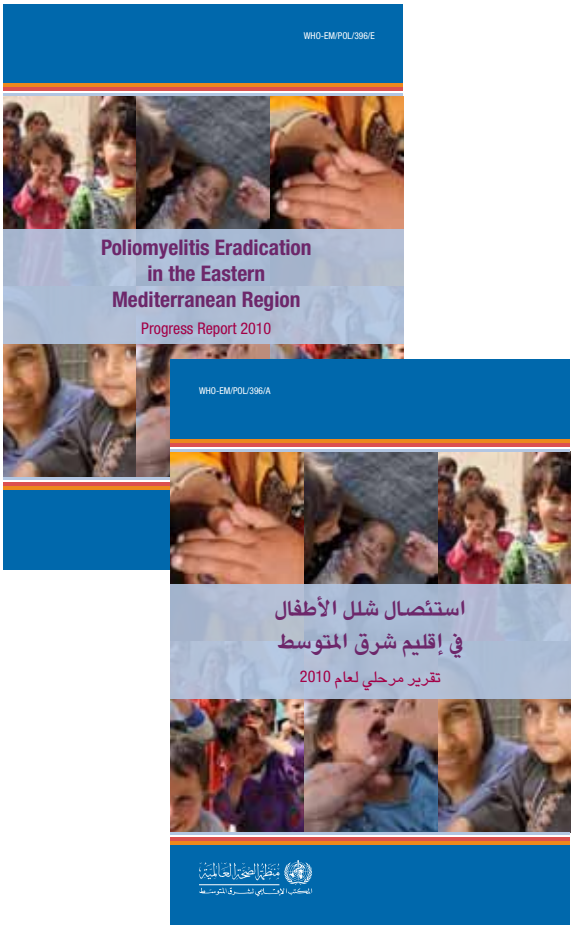
In spite of the multiplicity of challenges facing *poliomyelitis eradication*, the Region continued to proceed towards achieving the target. All countries are free from poliomyelitis except the two endemic countries, Afghanistan and Pakistan. Engagement of the senior political leadership in achieving the target was more visible in 2011. Significant efforts and initiatives were made by the programme, particularly the adequate and appropriate use of bivalent OPV, introduction of short interval additional doses (SIADs), the development of comprehensive sub-district plans, increase in support staff at the implementation level, improvements in the monitoring

Monitoring the polio campaign in Pakistan

system through introduction of lot quality assurance and maintenance of a very sensitive surveillance system supported by a well-functioning network of laboratories. The Regional Technical Advisory Group (RTAG), and technical advisory groups for the Horn of Africa, Afghanistan and Pakistan continued to advise on the appropriateness of ongoing strategies, and additional strategies/approaches to achieve the target. Through close work and advocacy efforts with national authorities, polio eradication was declared an emergency by the leadership of Pakistan and Afghanistan.

Pakistan's national emergency action plan targeted 2011 for interruption of transmission. However, the plan was not implemented fully, particularly at the delivery level and so the target was not achieved. The Government of Pakistan has augmented the existing plan, initiating remedial measures to address the problems, including consistent government oversight, ownership, and accountability at each administrative level. With the aim of achieving interruption by the end of 2012, similar efforts are going on in Afghanistan to strengthen the planning and implementing phases of the supplementary immunization activities and to improve population immunity, with special emphasis on the southern endemic zone. The programme is continually taking innovative measures to increase access and staff safety.

In the polio-free countries, mitigating measures were taken to maintain their status. Supplementary immunization activities were conducted in Djibouti, Iraq, South Sudan and Sudan (with additional rounds in Darfur). To address the possibility of importation in Djibouti, Libya and Sudan, joint efforts by the regional offices for the Eastern Mediterranean and Africa were successful, ensuring the vaccination of the travellers at border crossings. Libya is planning to conduct a sub-national immunization day in all the border target populations, especially in the south. In Somalia, national immunization days and child health days were conducted in the



accessible areas as planned. A national immunization day was conducted in Yemen towards year end, to improve population immunity which has been compromised due to current political unrest, with the second round to take place in 2012.

The regional AFP surveillance system continues to perform at the accepted international standard and exceeds the indicator standard in many priority countries. In 2011, all countries achieved the target non-polio AFP rate, except Morocco (0.68) and Djibouti (1.83). The laboratory network continued its excellent performance and now all laboratories are accredited. Containment and certification processes are continuing satisfactorily. Independent AFP surveillance reviews were conducted in South Sudan and rapid assessment in the border-states of Egypt and Sudan, and Punjab province of Pakistan. A full review is planned in Sudan in January 2012. Supplementary surveillance activities included contact sampling and environmental monitoring.

The weekly *Polio Fax* continues to provide a means of monitoring and evaluation of performance indicators, with timely feedback to ministries of health, partners and donor organizations. The risk of wild poliovirus outbreak following importation is regularly monitored for each country particularly high-risk countries, with the objective of alerting them in a timely manner and ensuring that mitigation measures are conducted in response. The Regional Office increased cooperation with the regional offices for Africa and Western Pacific to support Horn of Africa countries and China (in response to importation from Pakistan), respectively.

In *tropical diseases and zoonoses*, progress was made despite the challenges faced by these "neglected diseases". Cases of dracunculiasis (guinea-worm disease) in South Sudan fell from 1797 in 2010 to 1028 in 2011 (data up to Nov. 2011); 76% of cases are now reported from only one state: Eastern Equatoria. Pre-certification activities and standard operating procedures were initiated in Sudan in former endemic areas. These activities need to be intensified in the areas bordering South Sudan.

The Eastern Mediterranean Region remains the region with the lowest leprosy burden. All countries have eliminated leprosy (prevalence of 1 per 10 000 population or less), except South Sudan whose situation needs to be re-assessed. In response to the challenge of decreasing capacities among health care workers in countries with low endemicity, capacity-building was

conducted for the Eastern Mediterranean and African Region. In collaboration with the Global Leprosy Programme, the Regional Office obtained support from the Sasakawa Memorial Health Foundation for a proposal on leprosy to be implemented in Somalia in 2012 by World Concern International, WHO's main implementing partner in that country.

Egypt was able to sustain its progress towards the elimination of schistosomiasis. Prevalences below 1% of both urinary and intestinal schistosomiasis were reported, and only a few hotspots now remain in the Delta and upper Egypt. In Yemen, despite the civil unrest, 1.68 million people were treated in some accessible affected areas. Egypt finalized the development of sensitive tools and initiated their use for the verification/confirmation of the elimination of lymphatic filariasis. Technical support was provided to Sudan in order to correctly re-map lymphatic filariasis distribution in eight States in order to enable the initiation of an evidence-based mass drug administration control programme.

Mass distribution of ivermectin for control of onchocerciasis continued to be implemented in Sudan in three States (River Nile, Gedaref and South Darfur) where the foci are isolated. The main partner of the programme is The Carter Center. In South Sudan, the African Programme for Onchocerciasis Control supported the activities in the nine affected states. The affected areas coverage and population coverage reached 60% and 80%, respectively, in 2011. In Yemen, where the infection takes the form of a severe and debilitating dermatological condition, locally called *sowda*, a clinic-based ivermectin treatment of severe skin lesions continued to be implemented in most accessible areas.

Refresher training on the new nifurtimox-eflornithine combination therapy for sleeping sickness, Yambio, South Sudan

WHO provided medicines and reagents for case management of human African trypanosomiasis. The use of the eflornithine-nifurtimox combination therapy introduced in 2010 was monitored. The new treatment protocol has proved effective with no major adverse side-effects. Human African trypanosomiasis in South Sudan remains a major public health problem because disease control activities and surveillance are not implemented at the appropriate level (only 0.3% of the 1.8 million people living in the endemic area were screened for this disease). In some foci, the disease is already re-emerging.

With respect to visceral leishmaniasis, WHO played a major role in responding to the ongoing outbreak in South Sudan, where more than 18 000 cases have been treated since October 2009, at an average of 1000 cases per month in 2011. WHO provided diagnostic tests and specific medicines, including logistic support to access very remote areas. A regional group of experts was appointed by the Regional Office to support countries on cutaneous leishmaniasis. The first regional strategic plan (2012–2016) and regional guidelines for case management of cutaneous leishmaniasis were drafted and

will provide a new standardized framework for the control of the disease across the Region.

In the area of *communicable disease surveillance, forecasting and response*, the surveillance systems in all the countries have greatly improved. Several (Afghanistan, Oman, Pakistan, Somalia, South Sudan and Yemen) have adopted the WHO training guidelines for all communicable diseases of public health importance for their countries and built capacity on surveillance and outbreak response in 2011. The Regional Office continued to provide support to countries to develop, strengthen and maintain the capacity to detect, assess and notify public health events of national and international concern. Capacity-building in the Region was supported for outbreak and pandemic preparedness and mitigation in refugee and displaced settings; standard infection control practices for health care facilities; preparedness for outbreak-prone infections and pandemic influenza; and development of guidelines, protocols and standards on sentinel surveillance for influenza.

This year, 15 out of 20 rumours of disease outbreaks from 11 countries were confirmed after follow-up and verification. Apart from three major outbreaks (chikungunya/dengue in Yemen, acute watery diarrhoea/cholera in Somalia and dengue in Pakistan), most of these were small outbreaks, that were detected early and contained rapidly by the countries, with support from WHO country offices. Afghanistan reported several small outbreaks of pertussis, diphtheria and measles. These were rapidly contained by the Disease Early Warning System (DEWS) teams with active support from the WHO country office and the Regional Office. Egypt continued to report human cases of avian influenza A/H5N1. Countries, in general, are now better prepared for outbreak response and effective control of epidemic-prone diseases. However, the large dengue outbreak in Pakistan required the WHO Global Alert and Response Network (GOARN) to be called in to provide support. The Regional Office and NAMRU-3 collaborating centre continued to respond to requests for technical support.

The Regional Office embarked on several initiatives to develop regional guidelines and protocols to support countries in control of outbreak-prone infections. In response to the re-emerging and expanding situation of dengue fever in the Region, the Regional Office brought together affected countries to discuss and agree on a common approach to recurrent outbreaks. The outcome of the discussions is being developed into a regional strategic guidance document for control of dengue in the Region. The Regional Committee also discussed the issue and emphasized (EM/RC58/R.4) the importance of high-level political commitment, national capabilities at all health care levels, strong coordination in the management and judicious use of pesticides, and exchange of information. The guidelines, protocols and standards on the sentinel surveillance system for influenza (ILI/SARI) were developed and several countries have started to adapt and implement them. A draft guidance document was developed for training health workers on the use of epidemiological concepts in public health services. A framework for the implementation and integration of the syndromic surveillance system into routine public health surveillance system was also developed.

In support of national capacity-building, an international training programme was introduced to develop capacity for control of cholera. It was developed jointly by the Regional Office and headquarters

and the first course was successfully completed in collaboration with the American University of Beirut. A sub-regional meeting focused attention on the threats posed by viral haemorrhagic fever and made recommendations that will complement Regional Committee resolution EM/RC54/R.4 and form the basis of regional guidelines for the control of viral haemorrhagic fever.

With regard to implementation of the *International Health Regulations* (2005), core capacities have improved following the support provided by the Regional Office to conduct advocacy, assessment and monitoring missions at national level. In 2011, such missions were conducted in Djibouti, Egypt, Islamic Republic of Iran, Kuwait, Lebanon, Pakistan, Saudi Arabia and Syrian Arab Republic. All countries that have assessed their core capacities since the Regulations entered into force have now developed national plans of action to meet the technical requirements and capacities by 15 June 2012. Specific missions to build capacities at points of entry and to amend public health laws in line with the Regulations were supported for Egypt, Lebanon, Oman and Pakistan. A monitoring framework developed at headquarters was implemented at regional level to support countries in monitoring their progress and capacity-building was conducted to enable countries to use the tool. Analysis of the outcome showed that good progress has been made in the Region. However, there are still gaps in event-based surveillance, peripheral response capacities, biorisk management and laboratory security, risk communication strategies, coordination with other sectors and stakeholders, points of entry and human resources. The Regional Office contributed to the development of global guidance and training modules to support countries in developing their core capacities at points of entry, strengthening risk communication strategies and developing human resources capacities to meet the requirements.

The Regional Office and the International Civil Aviation Organization (ICAO) met to discuss the Cooperative Agreement for the Prevention of Spread of Communicable Diseases through Air Travel (CAPSCA) in the Region. The Regional Office also provided technical support for exchange of information during mass gatherings and other global events, biorisk and biosecurity and laboratory networking. A framework to include the "all-hazards" approach within the context of the International Health Regulations is being developed in collaboration with the emergency and humanitarian action programme. The secretariat for the International Health Regulations provided countries with the tools and procedures necessary to request an extension for an additional two years to be able to meet the technical capacities for implementation.

In the area of *integrated vector management*, a regional consultation on sound management of public health pesticides was held jointly with the WHO Pesticide Evaluation Scheme (WHOPES) which resulted in a framework for action on the sound management of public health pesticides (2012–2016). This framework will guide the implementation of the Regional Committee resolution on this issue (EM/RC58/R.10). The framework defines specific actions in the areas of pesticide policy and legislation; pesticide registration schemes; procurement, storage and distribution of pesticides, and disposal of pesticide containers and waste; effective pesticide quality control, enforcement of regulations and post-registration monitoring; and safe and judicious application of pesticides for

control of vectors and pests of public health importance.

The Regional Office supported countries to implement the Global Environmental Facility (GEF) project for development of alternatives to DDT and to strengthen the national capacity for vector control. The fourth meeting of the Regional Scientific and Technical Advisory Committee (STAC) of the WHO/UNEP project supported by the Global Environmental Facility recommended all countries to implement the strategies for insecticide resistance management, even where resistance has not been detected. With GEF support, countries reactivated the steering committee for integrated vector management. Islamic Republic of Iran, Jordan and Morocco received support for repackaging and disposal of obsolete pesticides, in collaboration with FAO. Sudan started to implement action for management of insecticide resistance by shifting to another, more expensive, insecticide for indoor residual spraying in Gezira State. The Regional Office continued to support monitoring of insecticide resistance by supplying filter papers and test kits for conduct of fields assays in Djibouti, Egypt, Iraq, South Sudan, Sudan and Syrian Arab Republic, capacity-building in Jordan, and strengthening the national entomological laboratory in Sudan. Additional resources were mobilized for Sudan from the Bill and Melinda Gates Foundation to support a 3-year project on impact of insecticide resistance in *Anopheles arabiensis* on effectiveness of malaria vector control. The project is being implemented by the national malaria control programme, in close collaboration with WHO, Kassala University, Blue Nile National Institute for Communicable Disease, London School of Hygiene and Tropical Medicine and Liverpool School of Tropical Medicine.

The *small grants scheme* research programme supported eight new projects in 2011. Of projects previously supported and results received in 2011, those that informed policy and strategy evaluated: the quality of immunization services and effectiveness of MMR vaccine; the impact of training facility managers and vaccinators and engaging the private sector in immunization services; travellers' adherence to the International Health Regulations; risk of transmission of arboviral diseases; molecular tools for diagnosis of leishmaniasis; vectors of sandfly fever; and the role of occult hepatitis in transmission of the disease during blood transfusion.

Following the 2010 meeting of the disease reference group on zoonoses and marginalized infectious diseases, the Regional Office contributed to an annual report and an article, published in 2011.

Future directions

Strengthening routine vaccination coverage, especially in countries with DPT3 coverage below 90% at national level and/or below 80% at each district, will continue to be a priority. Support will focus on improving national managerial capacity and other capacity-building, developing comprehensive multiyear plans and supporting countries to implement the RED approach, supplemented by other approaches suitable to the local situation. The third regional vaccination week in April 2012, with the theme of "reaching every community", will be an opportunity to leverage more support to further improve vaccination coverage. Strengthening of monitoring and evaluation systems to use data for action will be a top priority. More support will be devoted to strengthening capacity in Pakistan to assure performance

Strengthening routine vaccination coverage is a priority in order to reach every child in the Region

following devolution. Implementation of the provincial plans, developed in 2011 with Regional Office support, will be followed closely and the necessary technical support will be provided.

Efforts to accelerate measles elimination will focus on establishing and strengthening the regional and national committees for measles elimination, conducting measles surveillance system review and validating measles elimination in countries reporting zero cases. Focus will continue on ensuring timely implementation of follow-up campaigns through technical support for planning and implementation, and advocacy for resource mobilization. Advocacy for implementing the regional strategy for achieving the goal of hepatitis B control, especially implementation of a hepatitis B birth dose, will continue. Support will continue for countries introducing new vaccines or preparing for introduction. National capacity for informed decision-making will be further strengthened.

The regional priorities for polio eradication are to interrupt wild poliovirus transmission in Afghanistan and Pakistan. Collaboration will be strengthened in order to achieve periods of tranquillity to ensure access to children during supplementary immunization activities. Involvement of nongovernmental organizations and oversight will be strengthened and performance-based accountability will be institutionalized. In Pakistan, emphasis will be on full implementation of the emergency action plan by the federal and provincial governments. Special emphasis will be placed on accountability at the delivery level, increasing human resources at the district and union council level, encouraging innovative local solutions, and expanding partnership. The next priority will be to maintain high population immunity, certification standard AFP surveillance, and capability for early detection of importations and optimal response in all polio-free countries. This will be achieved through conducting preventive campaigns, use of the risk assessment tool and development of a sub-national risk assessment model, coordination activities between neighboring countries, and collaboration with partner organizations.

In tropical diseases, focus will be on intensifying interventions against dracunculiasis in the remaining endemic areas in order to achieve the eradication target. Technical support will continue in order to ensure the integration of surveillance with the national surveillance system in all freed areas, including former foci. A specific surveillance programme needs to be implemented in the border area between Sudan and South Sudan, to prevent the introduction of cases. National leprosy programmes are expected to continue implementing the enhanced global strategy for further reducing the disease burden due to leprosy 2011–2015, as well as the guidelines to strengthen participation of persons affected by leprosy in leprosy services. WHO will continue supporting

national leprosy programmes, including establishing district level reporting systems. Sudan requires continuous support to finalize the mapping of lymphatic filariasis, in order to initiate mass drug administration in the affected areas. Post-mass drug administration surveillance activities need to be extended in Egypt and initiated in Yemen. The introduction of sensitive techniques to certify the interruption of schistosomiasis transmission will be continued. Advocacy, proposal development and fund-raising activities will continue in order to ensure adequate implementation of elimination activities in the two remaining countries with high endemicity, and in Yemen in regard to onchocerciasis. Disease control activities and surveillance for human African trypanosomiasis in South Sudan need urgently to be scaled up to prevent an outbreak, since the disease is already re-emerging in some foci. There is a need to implement the new standardized approach to leishmaniasis case management, focusing on prompt diagnosis and treatment for both the cutaneous and visceral forms. Disease surveillance and data analysis are key to design of more cost-effective control strategies.

The Regional Office will continue to support strengthening of national surveillance systems for communicable diseases and to promote the syndromic surveillance and integrated disease surveillance approach, with a strong early warning mechanism for outbreak early detection and timely response. In this regard, the Regional Office will work closely with countries to identify and address gaps. The Regional Office will also work with regional institutions and academia to develop a network to support Member States during outbreaks and other disasters. Support will continue to be provided in assessing and monitoring the core capacities required for implementation of the International Health Regulations. Translation and distribution of the necessary guidelines, standard operating procedures and guidance documents will facilitate implementation at country level. Capacity-building will be supported in surveillance and response capacities, improving legislation, quality management in laboratories, biorisk management and biosecurity, and points of entry and cross-border surveillance at ground crossings.

Support in vector biology and control will focus on scaling up of vector control interventions to reach universal coverage of all at-risk populations; implementing the results of studies supported by the GEF project; strengthening capacity to monitor and manage vector resistance to insecticides; updating vector mapping, including insecticide resistance to important vectors in priority countries; and implementation of the regional framework for sound management of insecticides.

The small grants scheme programme will focus on mobilizing resources for research. It will continue to support capacity development and to monitor and evaluate implementation of ongoing projects, and the use of research results by the national programmes. The activities of the programme during the past 10 years will be evaluated.

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

Issues and challenges

The HIV epidemic has been on the rise in the Region since 2001. Although the overall prevalence is still low, annual estimated new infections among adults and children have

substantially increased in the past decade. Approximately 560 000 people are living with HIV (Table 1.1), among them 42 000 children aged 0–14 years. It is estimated that 82 000 adults and 7400 children were newly infected in 2010. AIDS-related deaths have almost doubled in the past decade among both adults and children, reaching a total of 38 000 in 2010, including 4100 children.

A number of challenges face the control of HIV. Infections in people with high-risk behaviour and their partners (e.g. injecting drug users and their spouses) are increasing. Investment in interventions that reach out to marginalized and stigmatized population groups is insufficient. Most people living with HIV do not know their HIV status and are not known to the health care system. The

Table 1.1 Burden of HIV/AIDS, 2011

Country	Estimated HIV prevalence in adult population (%)[a]	Estimated number of PLHIV[a]	Estimated number of people needing ART based on UNAIDS/WHO methodology and WHO 2010 ART guidelines[b]	Reported number of people receiving ART[c]
Afghanistan	<0.5[d]	NA	1 600	116
Bahrain	NA	NA	NA	40 (2010)
Djibouti	2.5	14 000	5 700	1 328
Egypt	<0.1	11 000	5 100	760
Iran, Islamic Republic of	0.2	92 000	26 000	2 752
Iraq	<0.2	NA	NA	NA
Jordan	NA	NA	NA	108
Kuwait	NA	NA	NA	186
Lebanon	0.1	3 600	1 100	425
Libya	<0.2	NA	NA	NA
Morocco	0.1	26 000	11 000	4 047
Oman	0.1	1 100	1 100	661
Pakistan	0.1	98 000	22 000	2 491
occupied Palestinian territory	NA	NA	NA	NA
Qatar	<0.1	<200	NA	NA
Saudi Arabia	NA	NA	NA	1 961
Somalia	0.7	34 000	25 000	NA
South Sudan	NA	260 000 (Sudan + South Sudan)	49 000[c]	3 442
Sudan	NA		26 246[c]	2 500
Syrian Arab Republic	NA	NA	NA	NA
Tunisia	NA	2400	4 000	483
United Arab Emirates	NA	NA	NA	229
Yemen	0.07[d]	30 000[c]	4 500[c]	625

NA: not available
PLHIV: people living with HIV
Sources:
[a] *Report on the global AIDS epidemic 2010*, Geneva, UNAIDS, 2011
[b] *Global HIV/AIDS response: epidemic update and health sector progress towards universal access: progress report 2011*. Geneva, WHO, UNAIDS, UNICEF, 2011.
[c] Country Global AIDS Response Progress Reports 2012
[d] Country UNGASS Reports 2010

approaches being undertaken to increase coverage of HIV testing do not target the people most at risk and therefore do not contribute sufficiently to the diagnosis of new cases. Civil unrest in several countries has deflected attention from health in general, and from HIV programmes in particular. Finally, a decrease in donor funding for HIV programmes and inadequate allocation of domestic resources threatens the sustainability of HIV services.

An estimated 47% of the regional population live in malaria risk areas. In 2010, 7.3 million malaria cases were reported in the Region, of which only 28.5% were confirmed parasitologically (Tables 1.2 and 1.3). National capacity in planning and response to impending malaria epidemics and complex emergencies is low. The quality of, and access to, diagnostic facilities for confirmation of suspected malaria fevers is limited. Compliance with national treatment guidelines is poor. Community-based programmes are lacking or weak and the private sector is unregulated. Leadership and management capacity is also limited, particularly at district and lower levels, with high staff turnover. Procurement and supply management systems are inefficient, and malaria surveillance, monitoring and evaluation systems are weak.

Tuberculosis case detection rates did not yet reach the target, mainly because of weaknesses in the tuberculosis laboratory network, ad hoc management of non-national tuberculosis cases, and the limited

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

Country	Cases in 2009		Cases in 2010		Cases in 2011		Species transmitted locally
	Total	Autochthonous	Total	Autochthonous	Total	Autochthonous	
Bahrain	103	0	90	0	186	0	–
Egypt	94	0	85	0	116	0	–
Iran, Islamic Republic of [a]	6 122	4 477	3 031	1 847	3 137	1 676	*P. vivax* › *P. falciparum*
Iraq	1	0	7	0	11	0	–
Jordan	53	0	61	2	58	0	–
Kuwait	NA	NA	343	0	476	0	–
Lebanon	72	0	NA	NA	NA	NA	–
Libya	27	0	NA	NA	NA	NA	–
Morocco	145	0	218	0	312	0	–
Oman	898	0	1 193	24	1 532	13	–
Occupied Palestine territory	1	0	NA	NA	0	0	–
Qatar	239	0	440	0	673	0	–
Saudi Arabia [b]	2 333	58	1 941	29	NA	NA	*P. falciparum* › *P. vivax*
Syrian Arab Republic	39	0	23	0	NA	NA	–
Tunisia	49	0	71	0	67	0	–
United Arab Emirates	3 018	0	3 264	0	5 242	0	–

NA not available
› Predominance of one species
[a] Endemic areas mainly in the south-east
[b] Endemic areas mainly in the south-west

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

Country	Cases in 2009		Cases in 2010		Cases in 2011		Species transmitted locally
	Total cases reported	Cases confirmed	Total cases reported	Cases confirmed	Total cases reported	Cases confirmed	
Afghanistan	390 729	64 880	392 463	69 397	482 748	77 549	*P. vivax* › *P. falciparum*
Djibouti	2 686	2 686	3 962	1 019	NA	230	*P. falciparum* › *P. vivax*
Pakistan	4 242 032	167 579	4 281 356	240 591	NA	NA	*P. vivax* › *P. falciparum*
Somalia	72 362	25 202	24 553	24 553	NA	NA	*P. falciparum* › *P. vivax*
South Sudan	325 634	NA	900 283	900 283	603 397	NA	*P. falciparum* › *P. vivax*
Sudan	2 361 188	711 462	1 465 496	720 557	NA	NA	*P. falciparum* › *P. vivax*
Yemen	138 579	55 446	198 963	106 697	142 152	90 954	*P. falciparum* › *P. vivax*

NA: not available
› Predominance of one species

collaboration between the different sectors. National engagement in scaling up capacity to manage multidrug-resistance is insufficient. So far only 10 countries have started multidrug resistance management. The 28% funding gap for tuberculosis control in 2010–2011 (out of US$ 233 million required) is expected to widen in 2012–2013.

Collaboration with partners in these areas, particularly the Global Fund to Fight AIDS, Tuberculosis and Malaria, has improved financial status and technical support to the countries, but the sustainability of this support through 2012–2013 is in doubt. Reductions in funding will also affect operational research.

Achievements towards performance indicator targets in each expected result

In the area of *HIV/AIDS*, all regional expected results were achieved except that related to coverage with anti-retroviral therapy (ART). In terms of HIV care and treatment, ART coverage increased from 15 473 in 2010 to 19 050 in 2011, but the estimated regional coverage remains low, at 10%. Oman has the best estimated coverage in the Middle East and North Africa region, with 45% of adults and children living with HIV receiving treatment by the end of 2010, followed by Lebanon (37%) and Morocco (30%). Most countries are falling short of the goal of universal access to treatment. However, it is worth noting that four countries contribute 85% of the number of people eligible for antiretroviral therapy: Sudan (93 000), Somalia (25 000), Islamic Republic of Iran (26 000) and Pakistan (22 000). The Regional Office concentrated on providing technical support to Pakistan, Somalia, South Sudan and Sudan to strengthen their HIV care and treatment programmes and service delivery. A continuum-of-care model is being developed in Pakistan in collaboration with UNICEF.

In order to strengthen country capacities for HIV prevention, a regional consultation on progress and challenges in the prevention of mother-to-child transmission (PMTCT) was held involving both national AIDS and reproductive health programmes. Some promising approaches have been developed in a few countries, including Morocco, Oman and Pakistan. More countries (in particular those of the Gulf Cooperation Council) are about to adopt HIV testing of pregnant women in antenatal care as a routine intervention, following the example

of Oman. A review of the situation and programmes for sex workers and men who have sex with men was carried out and is being finalized for publication.

The Regional Office continued to provide support to countries to strengthen their capacity to carry out surveillance of HIV and sexually transmitted infections in accordance with WHO/UNAIDS recommendations, and to monitor coverage of essential prevention and treatment services. A follow-up survey of the development of national HIV surveillance systems was carried out to identify strengths and weaknesses. The number of countries with up-to-date information on behaviours and HIV in populations most at risk has increased and by the end of 2010 included Afghanistan, Egypt, Islamic Republic of Iran, Jordan, Lebanon, Morocco, Pakistan, Palestine, Sudan and Tunisia. The Regional Office continued its support to the regional knowledge hub on HIV surveillance in Kerman, Islamic Republic of Iran, which provides capacity-building and technical support to surveillance activities in countries of the Region. The Regional Office, in collaboration with UNAIDS and the World Bank, convened a regional resource group of experts in HIV surveillance. The group exchanged experiences and best practices in conducting HIV surveys and committed itself to supporting quality assurance of surveys, standardization of indicators and tools to improve comparability of data, and collaboration on a joint publication on HIV epidemiology in the Region.

WHO field staff in Somalia train health workers on HIV record-keeping

Several countries (Afghanistan, Djibouti, Pakistan, Somalia, South Sudan, Sudan and Yemen) were prioritized for support to prevent interruption of supplies of HIV/STI medicines and diagnostics. All these countries benefit from Global Fund grants and, in most of them, UNDP/UNICEF have been selected as grant recipients for procurement and supplies management. The role of WHO is focused on technical guidance regarding the specifications of medicines and laboratory supplies. Only Djibouti and South Sudan reported interruption of supplies for 2010.

In view of the important role that advocacy, the private sector and civil society organizations play in HIV prevention, control and treatment, the World AIDS Campaign in 2011 tackled the issue of stigma

and discrimination against people living with HIV in health care settings. In this context, the Egyptian film "Asmaa" received an award from the Regional Office in acknowledgement of its pioneering work in promoting human rights in health. The Regional Office continued its efforts to strengthen the role of civil society organizations in harm reduction through its support to the Middle East and North Africa Harm Reduction Association (MENAHRA). In Lebanon, a service-delivery model for women and men at risk of HIV has been developed in collaboration with the nongovernmental organization MaRSA. Six countries (Afghanistan, Djibouti, Islamic Republic of Iran, South Sudan, Tunisia and Yemen) receive support for resource mobilization from the Global Fund and other donors.

In operational research, focus was placed on continuing national capacity-building on methodologies of HIV epidemiological studies, with more than 60 experts from countries in the Region now trained. Two further modules in the series on epidemiological methods for assessment of HIV epidemic trends in different populations groups were published. Technical support was provided to Morocco, Oman, occupied Palestinian territory, Somalia, Sudan and

Civil society organizations, such as MENAHRA, have an important role to play in harm reduction and HIV prevention, particularly in vulnerable and marginalized populations

Yemen for planning and/or implementation of HIV bio-behavioural surveys and to Morocco to establish a regional reference centre for *Neisseria gonorrhoeae* drug-resistance monitoring.

Substantial progress was made with respect to *malaria control and elimination*, in line with the regional vision for malaria elimination. Islamic Republic of Iran, Iraq and Saudi Arabia, in particular, achieved more than 80% coverage with the main malaria control and elimination interventions. The other seven endemic countries (Afghanistan, Djibouti, Pakistan, Somalia, South Sudan, Sudan and Yemen) increased coverage with the main interventions for vector control, treatment and diagnosis but remain considerably below the target.

Four countries (Afghanistan, Somalia, Sudan and Yemen) updated their national malaria control strategy 2011–2015. Djibouti initiated a programme review to develop the pre-elimination strategy based on new eco-epidemiological evidence. Afghanistan developed and endorsed its national strategies for community-based management of malaria, with WHO support. However, full implementation is challenged by the sustainability of involving unpaid community volunteers and by financial constraints. Iraq finalized an in-depth programme assessment and the results were used to guide the development of the national strategy for prevention of reintroduction of malaria 2011–2015. The malaria treatment policy/guidelines in Somalia and Sudan were updated with WHO support. Afghanistan, Sudan and Yemen developed and implemented a dual strategy for universal confirmation of malaria diagnosis by microscopy and rapid diagnostic test.

Capacity-building was supported in planning and management of malaria control programmes, advanced malaria microscopy and quality assurance, methods of antimalarial therapeutic efficacy testing and malaria microscopy, advanced malaria surveillance, monitoring and evaluation.

WHO supported the procurement of long-lasting insecticide-treated nets, insecticides, spraying equipment, artemisinin-based combination therapies and rapid diagnostic tests for Afghanistan, Islamic Republic of Iran, Morocco, Pakistan, Somalia and Yemen, using resources from WHO, the Global Fund, the Gulf Cooperation Council, USAID and the Kuwait Patient Helping Fund. The Regional Office is working to secure a regional stock of artemether-lumefantrine, which is distributed to malaria-free countries free of charge, as needed, to treat cases of imported malaria falciparum.

In the area of surveillance, a regional malaria database was developed and made accessible to country offices through the intranet. Technical and capacity-building support was provided to Sudan and Yemen for development of a national database. Afghanistan received support to conduct a malaria indicator survey and Djibouti to plan for a health facility survey in 2012. As part of the global surveillance on antimalarial drug resistance, support was provided to Afghanistan, Pakistan, Somalia, Sudan and Yemen to conduct drug efficacy monitoring studies. Several countries received test kits, and capacity was built to conduct field bioassays for monitoring insecticide resistance. In Djibouti, the second phase of the programme review and evaluation of the malaria information and surveillance system was conducted. With regard to operational research on malaria, the Regional Office partially supported a doctoral study comparing diagnostic tools for malaria in Yemen.

Instability and insecurity around the Region affected the smooth implementation of planned *tuberculosis* activities (Table 1.4). Nevertheless, 17 countries are developing or updating national strategic plans for 2011–2015 and 14 countries have achieved a case detection rate of 70% or above (Bahrain, Djibouti, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia and Yemen). Eleven countries achieved a treatment success rate of ≥85% (Afghanistan, Bahrain, Egypt, Iraq, Kuwait, Morocco, Oman, Pakistan, Somalia, Syrian Arab Republic and Yemen). The main reasons for not reaching the target in case detection or treatment success in other countries are weak health systems, limited laboratory capacity, weak treatment monitoring and defaulter tracing, and the political situation in some countries.

The laboratory network has expanded, especially for culture and drug susceptibility testing. Liquid culture was introduced in several countries. The quality of laboratory diagnosis has significantly improved. The

Table 1.4 Notifications of tuberculosis cases in 2011

Country	New smear-positive	All forms	Notification rate[a] (smear-positive)	Notification rate[a] (all forms)	% of pulmonary tuberculosis cases that are smear-positive
Afghanistan	13 789	28 167	43	87	77
Bahrain	89	225	7	17	65
Djibouti	1 336	3 723	148	411	70
Egypt	4 508	9 307	5	11	82
Iran, Islamic Republic of	5 539	11 495	7	15	78
Iraq	3 059	9 248	9	28	59
Jordan	103	344	2	5	60
Kuwait	222	672	8	24	61
Lebanon	188	496	4	12	65
Libya	731	1 545	11	24	71
Morocco	11 822	29 770	37	92	84
Oman	180	337	6	12	85
Pakistan	105 733	270 394	60	153	50
Occupied Palestinian territory	11	32	0	1	69
Qatar	197	553	11	30	62
Saudi Arabia	2 055	4 015	7	14	80
Somalia	5 884	12 021	62	126	77
South Sudan	2 797	7 583	28	76	62
Sudan	7 266	20 385	22	61	58
Syrian Arab Republic	1 027	3 675	5	18	72
Tunisia	1 031	3 015	10	28	80
United Arab Emirates	46	106	1	1	64
Yemen	3 135	8 713	13	35	63
Region	170 748	425 821	28	70	57

[a] rate per 100 000 population

Somalia has achieved a tuberculosis success rate above 85% thanks to treatment centres such as this one in Garowe

tuberculosis laboratory in Agha Khan University in Pakistan was designated as a regional supra national reference laboratory. The task force on new diagnostics was developed to guide regional and national implementation. An effective monitoring and evaluation system is in place. The public–private mix and practical approach to lung health (PAL) initiatives have been widely introduced in the Region. Awareness of the need to address prevention, control and care among contacts, refugees, prisoners, tuberculosis among people living with HIV and children, and steps taken in these areas, are rising.

In the area of effective drug management systems and regular access to high quality tuberculosis medicine, WHO continued to provide technical support through Global Drug Facility (GDF) missions, national capacity-building in drug management and promotion of prequalification of pharmaceutical companies. All countries have access to tuberculosis medicines and have a drug management system in place. Quality-assured medicines are provided through government or Global Fund resources. Countries are receiving GDF support in procuring anti-tuberculosis medicines as grants for paediatric medicines (22 countries) or as direct procurement for adult medicines (16 countries). The Green Light Committee (GLC) mechanisms are in place in 11 countries (Djibouti, Egypt, Jordan, Iraq, Lebanon, Pakistan, Morocco, Tunisia, Somalia, Sudan and Syrian Arab Republic). Greater support is needed to properly address the challenges of over-the-counter sale of drugs of unknown quality, non-adherence to the recommended regimens, and reliance on Global Fund support for medicines instead of local resources.

In terms of monitoring and evaluation, the electronic nominal recording and reporting system (ENRS) is used nationwide in six countries (Egypt, Iraq, Jordan, Somalia, Syrian Arab Republic and Yemen). The patient-based web-based surveillance system (WEB TBS) was introduced in five countries (Djibouti, Iraq, occupied Palestinian territory, Tunisia and United Arab Emirates). Countries regularly submit quarterly reports to the Regional Office through the DQ online system, and reports giving feedback are returned. Twelve countries now have reliable estimates of tuberculosis burden, while Iraq's estimates are being revisited through a CAPTURE TB study and Pakistan's estimates through a prevalence survey. The revised estimates will be reported in the global tuberculosis report 2012.

WHO supported technical capacity-building in monitoring and evaluation, surveillance and surveillance of multidrug-resistant tuberculosis in five countries (Djibouti, Iraq, occupied Palestinian territory, South Sudan and Tunisia). Eleven countries received support in conducting surveys to assess the burden of drug-resistant tuberculosis. Review missions to monitor and evaluate programme performance were conducted in six countries (Afghanistan,

Islamic Republic of Iran, Lebanon, Pakistan, Tunisia and United Arab Emirates). The Regional Office is represented in the global task force on impact measurement.

Technical support was provided for establishment of functional national partnerships for tuberculosis control. Most countries have developed advocacy, communication and social mobilization (ACSM) plans. Only eight have officially launched functional national partnerships (Afghanistan, Egypt, Jordan, Kuwait, Morocco, Pakistan, Sudan and Syrian Arab Republic). The impact of ACSM activities is being evaluated through periodic surveys of knowledge, attitudes and practice.

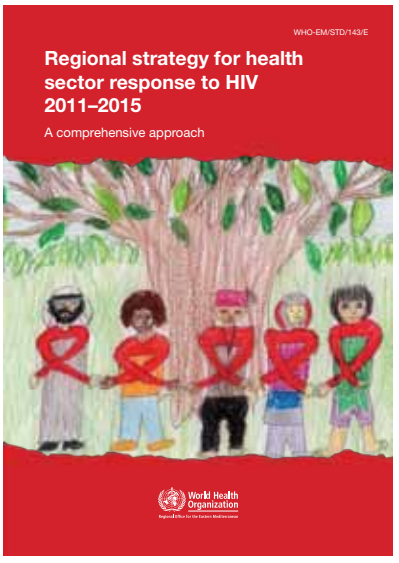
The small grants scheme research programme supported eight operational projects for HIV, malaria and tuberculosis and provided technical support to several other projects supported by the Global Fund. The final report summaries for research conducted in 2007–2008 were published, as well as articles in peer reviewed journals. Capacity-building on research methods and proposal development was supported and 11 protocols were developed for targeted diseases.

Future directions

The Regional Office will support countries in implementing the regional strategy for health sector response to HIV 2011–2015, which targets enrolment of at least 80% of known people living with HIV in HIV care and region-wide coverage of at least 50% of the estimated number of people living with HIV in need with anti-retroviral therapy by 2015. It also promotes strategies for accelerating access to prevention and treatment interventions for people at increased risk of HIV, with the aim of reaching at least 20% with prevention interventions. Particular emphasis will be put on improving strategic information, and on better understanding of factors facilitating access of populations in need to prevention and treatment interventions, within the political and cultural context in the Region. A regional initiative for the elimination of paediatric HIV will be launched.

The Regional Office will continue to support countries to reach universal coverage with quality and effective prevention, diagnosis and treatment of malaria by all means, including involvement of the private sector and the community. Technical support will be provided to implement countries biennial plans and donor-funded projects. Efforts will be exerted to strengthen capacity for epidemiological and entomological surveillance. Targeted countries will be supported to conduct comprehensive malaria programme review and update their national strategies. Support for capacity-building will include support to strengthen capacity for judicious use and sound management of public health pesticides, including management of insecticide resistance.

Support for tuberculosis control will concentrate on improving notifications, scaling



up management of multidrug-resistance, revitalizing the tuberculosis elimination initiative, and developing sustainable cost-effective strategies to avoid reliance on Global Fund support in achieving targets.

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

Issues and challenges

Noncommunicable diseases account for 60% of the disease burden and over 50% of mortality in the Region. Based on the *Global status report on noncommunicable diseases 2010*, the regional prevalence of diabetes is the highest of all regions, ranging from 12% to 29%, and cardiovascular diseases account for 27% of all deaths in the Region. Physical inactivity, overweight and obesity were also reported to be highest in the Eastern Mediterranean Region, with almost 50% of women and 36% of men insufficiently active and over 50% of women overweight and 24% obese. Insufficient political commitment and budgetary provision for noncommunicable diseases continue to be a challenge to the provision of efficient and equitable preventive and institutionalized care for patients with noncommunicable diseases. Integration of tobacco cessation services into primary health care continues to be a challenge due to lack of both technical capacity and adequate resources. However, with the adoption of the guidelines for implementation of article 14 of the Framework Convention on Tobacco Control, it is expected that understanding will increase at country level of what exactly is needed in regard to demand reduction measures concerning tobacco dependence and cessation.

Neuropsychiatric disorders account for 12% of the total burden of disease in the Region. Community-based studies show estimated prevalence rates for mental disorders in adults ranging from 8.2% to 21%, with the rates of common mental disorders significantly higher in women. There has been an increase in mental health expenditure as a proportion of health budgets, and the proportion of spending on institutional-based care has been reduced significantly in the Region, from over 65%

HE the Minister of Health and the WHO Representative inaugurate the first national users association for mental health "Our step" in Jordan

to 38% of total mental health expenditure. However, mental health is still not prioritized in allocation of health budgets, and inefficient and inequitable use of resources in providing institutional care continues. The major challenges in mental health are stigma and discrimination; insufficient political commitment and understanding of the role of mental health in a holistic health care system; limited regional and national resources and capacities; and lack of integration of the mental health component at policy, system and service delivery levels.

Globally and in the Region, the injury burden has continued to grow. Injuries rank as the leading cause of death among certain age groups in many countries of the Region (burden of disease database, 2008). Road traffic injuries stand out in terms of resultant deaths, ranking as the sixth leading cause of death and the first in the 15–29 years age group. Resultant deaths have also shown an alarming rising trend in the Region, which, at 32.2 deaths per 100 000 population, now has the highest death rate due to road traffic injuries among all regions. This compares with a 2002 death rate of 26.4 per 100 000, which was then second to the African Region. In addition, the economic consequences cannot be overlooked, these having been estimated at between 1% and 1.5% of gross national product. The recent instability in the Region has added to the already existing huge burden of injuries and disabilities. Major challenges in the prevention and control of injuries and disabilities remain much the same in terms of human, financial and other resources. There is a need for more coordinated multisectoral collaboration, stronger political commitment, and better coverage and quality of hospital and hospital-based trauma care.

There is a pressing need to address visual and hearing impairment and their risk factors as a public health priority. The challenges to prevention and care of visual and hearing impairment include the need for greater political awareness of the magnitude of the problem and translation of this into financial and human resources; for effective national planning that integrates visual and hearing care into broader health development plans; for strengthening the infrastructure for delivery of effective visual and hearing care programmes, and for wider international development support.

Achievements towards performance indicator targets in each expected result

2011 witnessed a historic event in the commitment to prevention and control of *noncommunicable diseases*. Global leaders agreed at the United Nations in New York on the need for action on the prevention and control of noncommunicable diseases, with the General Assembly issuing a political declaration in this regard. At a regional level, member states of the Gulf Cooperation Council took the lead in action and response to the declaration by developing national plans for prevention and control. The

Regional Office actively participated with WHO headquarters and Member States in preparation for the United Nations high-level meeting, providing support to facilitate Member States' contributions to the meeting. Following the Declaration, the Regional Office continued to support Member States in the global consultation process to set global targets and monitoring indicators. The Regional Office continued to provide technical support for piloting integration of noncommunicable diseases into primary health care, with the addition of three more countries (Jordan, Qatar and Tunisia), bringing the total to six countries. The Regional Office also continued to provide technical support for review and development of national action plans to reflect the six objectives of the regional action plan and for review of surveillance. Technical support was provided for Egypt and Qatar to conduct the e-STEPS survey. Efforts to strengthen cancer control interventions focused on the priority areas of prevention, registry, breast cancer screening and palliative care. National capacity-building was supported in screening and raising community awareness of breast cancer in Kuwait, Jordan and Saudi Arabia, in collaboration with the Gulf Federation for Cancer Control and King Hussein Cancer Center. Support was provided to three countries to operationalize national cancer control plans with national frameworks for monitoring implementation (Jordan, Oman and Sudan).

Multicountry research projects were established with support from regional collaborating centres and international partners Komen for Cure and the European School of Oncology. The national palliative care programmes in Egypt and Islamic Republic of Iran were reviewed in collaboration with the European School of Oncology. A regional prioritized research agenda was developed, guided by the global agenda, in consultation with Member States. The Regional Office continued to collaborate with collaborating centres in the Region to build regional and national capacity. Work to support prevention and control of genetic diseases and haemoglobinopathies focused on data generation and review of existing guidelines and resources. Following a consultative meeting, organized in collaboration with CDC, a regional task force, was formed to develop a strategy on haemoglobinopathies and common genetic diseases.

The Regional Office continued to support capacity-building for *tobacco control* with a subregional activity on integration of cessation services into primary health care, in which Egypt, Iraq, Jordan and Oman participated. At the annual regional workshop on the Framework Convention on Tobacco Control, a session was held on the implementation of the guidelines on tobacco dependence in which all State Parties participated. A WHO collaborating centre was designated in the Islamic Republic of Iran with the implementation of cessation-related activities as its main focus. Capacity-building was supported also in implementation of cessation services and "quit lines".

Based on the evidence generated by the WHO assessment instrument for *mental health* systems (AIMS) and the regional mental health ATLAS, a regional strategy for mental health and substance abuse was developed which was endorsed by the Regional Committee. The ATLAS of maternal, child and adolescent mental health resources in countries of the Region was published. Support was provided to several more countries (Kuwait, Qatar, Somalia, South Sudan and United Arab Emirates) to draft and finalize evidence-based policies and strategies for mental health and substance

abuse. Professionals from Afghanistan and Islamic Republic of Iran were supported to participate in the mental health diploma course organized by the University of Pune, India, in collaboration with WHO headquarters.

Capacity-building of primary health care personnel in recognition and management of common mental disorders to promote integration of the mental health component into primary health care is an important plank of the mhGAP initiative and continued to be supported, with training conducted in Sudan. Project proposals for integration of mental health into primary health care in Afghanistan and Somalia were developed with national authorities, and are currently under review by donors.

Development of community-based services under the chain-free initiative for people with neuropsychiatric disorders, aimed at providing mental health services in a humane manner, and respecting the rights and dignity of the service users and their families, continued in Afghanistan, Somalia and Sudan. In collaboration with the emergency and humanitarian action programme, mental health and psychosocial support was provided during the Egyptian and Libyan crises, as well as for Somalia and Sudan and for displaced Iraqis in Egypt, Jordan and Syrian Arab Republic. In collaboration with the nutrition and school health programmes, a training module for project officers, aimed at integration of social and emotional well-being in health-promoting schools, was developed. A training module for early recognition and management of mental disorders during the peri-natal period was also developed, in collaboration with the women's and reproductive health programme.

Community activities for mothers and children, such as this one in Jordan, help build and maintain mental health

Momentum around vi*olence, injuries and disability* has increased globally and regionally, with Member States undertaking a number of international commitments. However, this needs to be translated into action at the country level to curb the escalating burden of injuries and to manage disabilities more effectively. The Decade of Action for Road Safety 2011–2020 was launched globally and regionally and more than 14 countries designated national decade focal points. The first biennial road safety progress report was submitted to the Regional Committee. Twenty countries participated

in the exercise for the second global status report on road safety and this was followed by a regional meeting to capitalize on the exercise and plan activities in countries. This exercise was exemplary of successful collaboration within WHO, between WHO and Member States, and between concerned sectors within Member States. The collection of reliable data on all forms of injuries remains a challenge. The Regional Office provided support for injury surveillance to Egypt, Iraq, Oman, Saudi Arabia and Yemen. Road safety efforts continued under *The Road Safety in 10 Countries Project* (RS10) in Egypt. A strategic framework for child and adolescent injury prevention was developed in collaboration with the child and adolescent health programme to support concrete and constructive steps for country implementation.

Disability and rehabilitation continued to gain momentum following the launch of the new community-based rehabilitation guidelines and the *World report on disability*. Support continued for collection of disability data based on the International Classification of Functioning, Disability and Health (ICF) in Egypt, Islamic Republic of Iran, Iraq, Jordan and Syrian Arab Republic. The regional initiative to upgrade prosthetics and orthotics training programmes continued, with support for selected training institutions to become internationally recognized centres. An increasing number of countries were actively engaged in a variety of activities, particularly Egypt, Islamic Republic of Iran, Iraq, Jordan, Libya, Pakistan, Saudi Arabia, Sudan and Syrian Arab Republic.

Translation of the community-based rehabilitation guidelines and the *World report on disability* into Arabic was completed. The Regional Office was actively involved in the global launch of the report and in the ongoing development of an e-learning

package for the guidelines. The Regional Task Force on Disability continued to collaborate with the Global Task Force and to undertake its own activities. A seminar was organized on the United Nations Convention on the Rights of Persons with Disabilities, with the participation of WHO and key players from regional and global organizations. Efforts were made to mainstream disability in WHO programmes. National capacities were strengthened through participation in international conferences and international, regional and national-level training courses in injury surveillance and prevention. Together with WHO technical support, these activities and country missions helped the identification of priorities, gaps and constraints facing national programmes and future steps to operationalize interventions and activities at country level.

In an effort to improve eye health and *prevention of blindness* activities, the Regional Office supported capacity-building in integrating and strengthening primary eye care within primary health care. Progress made at country level in the implementation

of the WHO action plan for the prevention of avoidable blindness 2009–2013 was reviewed at a regional meeting held in collaboration with the EMR-International Agency for the Prevention of Blindness.

World Sight Day, 13 October, was celebrated in collaboration with the Ministry of Health, Egypt and Lions Clubs–District 352 in Ashmoon, Menoufia Governorate with the inauguration of the Lions Ashmoon Eye Hospital, which aims to provide eye care services and facilities to the rural blind population in Egypt. The Regional Office developed advocacy materials to raise awareness and deliver key messages on the importance and effectiveness of cataract surgery, avoiding complications in diabetic patients, and promoting periodic testing and wearing of spectacles when needed.

To reduce blindness due to cataract in Afghanistan, over 1500 cataract surgeries were conducted with the financial support of the Patients Helping Fund Society, Kuwait. The training centre at the Kabul Noor Eye Hospital in Afghanistan was strengthened, in collaboration with the College of Ophthalmology and Allied Vision Sciences, King Edward Medical University, Lahore, Pakistan. Over 3000 cataract surgeries were performed by the National Eye Center, Mogadishu, Somalia through eye camps organized in collaboration with the Ministry of Health and Manhal Charitable Organization, funded by the Patients Helping Fund Society, Kuwait.

The Ophthalmic Research Centre of Shahid Beheshti Medical University, Teheran, Islamic Republic of Iran, was designated as a WHO collaborating centre for the prevention of blindness, and the Otolaryngology, Head and Neck Research

Participants in the regional meeting on primary health eye care

The Governor of Menoufia opens the Lions Eye Hospital in Egypt on World Sight Day 2011

Centre, Iran University of Medical Sciences, Teheran, as a WHO collaborating centre for research and education on hearing loss. Eye care equipment and kits were provided for Afghanistan, Somalia, Sudan and Yemen. The Regional Office, in collaboration with the King Saud University, supported capacity-building for strengthening and integrating ear and hearing care programmes within primary health care.

Future directions

The Regional Office will continue to support countries in implementing national plans guided by regional strategies. Support will be provided for integration of noncommunicable diseases, tobacco cessation, visual impairment, injuries and mental health and substance abuse into primary health care and for capacity-building in support of integration activities. Advocacy will be directed towards increasing political commitment and resources in all areas. More countries will be supported to complete the Stepwise survey, WHO AIMS and rapid assessment of avoidable blindness survey, and for development of evidence-based information. Tapping on strengths within the Region and pursuing collaboration between countries will be enhanced. The Regional Office will focus on translating the commitments undertaken by United Nations agencies and Member States at the global and regional level into actions at the country level in different areas, particularly noncommunicable diseases, road safety, child injuries and disability.

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

The Region witnessed a reduction in under-five mortality of 32% between 1990 and 2010. However, countries have not progressed at the same pace. Four countries have achieved Millennium Development Goal 4 and six countries are on track; the other countries are most unlikely to achieve this goal. Six countries have achieved Millennium Development Goal 5, nine countries are on track, while eight are not expected to achieve the goal. There is evidence that universal coverage with the interventions under the Integrated Management of Child Health (IMCI) strategy have contributed to the substantial reduction in under-five mortality rate. Nevertheless, the pace of IMCI implementation in most countries remains slow and far from reaching universal coverage. High turnover of qualified staff, lack of plans for reaching universal coverage with IMCI and severe reduction in the level of funds allocated to maternal and child health remain major challenges to progress. Practical implementation of the WHO guidelines on integrated management of pregnancy and childbirth (IMPAC) is also facing difficulty, hindering efforts to improve the quality of maternal and neonatal health services. Despite the international movement towards adolescent health, not all countries have established an adolescent health structure that has a clear mandate, with allocation of required human and financial resources. Scarcity of age and sex disaggregated data continues to be a challenge to the process of adolescent health situation analysis report writing. A lack of tools and guidelines is another major challenge to the implementation and monitoring of adolescent health interventions.

Achievements towards performance indicator targets in each expected result

In the area of *maternal and neonatal health*, efforts were made to promote the use of evidence, products and technologies of regional and national relevance available to improve maternal and newborn health. Regional tools and norms were developed that will facilitate monitoring and evaluation of national programmes and assess their impact on maternal and newborn health. The reproductive health research directory continued to support strategic planning for promoting the health of mothers and their newborn infants. Since effective surveillance, analysis and reporting of maternal and newborn morbidity and mortality is key in guiding efforts to improve quality and management of vital services, the Regional Office embarked on developing generic facility-based maternal and newborn health client record forms. This will further standardize maternal and newborn health information systems.

The Regional Office continued to foster national activities that aim at providing maternal and neonatal quality care by skilled health workers through developing training manuals for facilitating the review, adaptation and implementation of IMPAC guidelines. Country work plans were developed at an intercountry meeting for promoting maternal and neonatal health. These were taken into account in the planning for the joint WHO/country collaborative programmes for 2012–2013.

In the area of protection and promotion of *child and adolescent health*, the Regional Office continued its support to countries to increase IMCI coverage as the main strategy that addresses child health needs in an integrated and standardized manner. Currently, IMCI is being implemented in 71% of primary health care facilities in 13 countries, five of which are expected to achieve universal coverage with IMCI (Figures 1.1 and 1.2). Analysis of IMCI implementation in Egypt showed that universal coverage with IMCI interventions substantially contributed to accelerating the progress towards MDG4. Between 1990 and 2010, Egypt achieved a 77% reduction in under-5 child mortality. This is considered an outstanding accomplishment. To ensure the quality of implementation of child health interventions, the Regional Office provided support to review IMCI and child health programmes in Jordan and Qatar. The IMCI package in the countries implementing the strategy has a strong neonatal component that addresses the most common problems of newborns and includes a preventive component of breastfeeding and ensuring appropriate vaccination status.

Sustainability of IMCI implementation continued to be emphasized through the pre-service education package. Currently, 61 medical schools have taken steps to introduce IMCI into their paediatric teaching programmes. The Regional Office provided technical support to evaluate IMCI teaching in one medical college in Pakistan. Support was also provided to orient teaching staff in 14 medical schools in Jordan and Pakistan. The scope of IMCI pre-service education was expanded and technical support provided for conducting the first orientation and planning workshop for five nursing schools in Jordan.

To support countries in developing adolescent health programmes, the

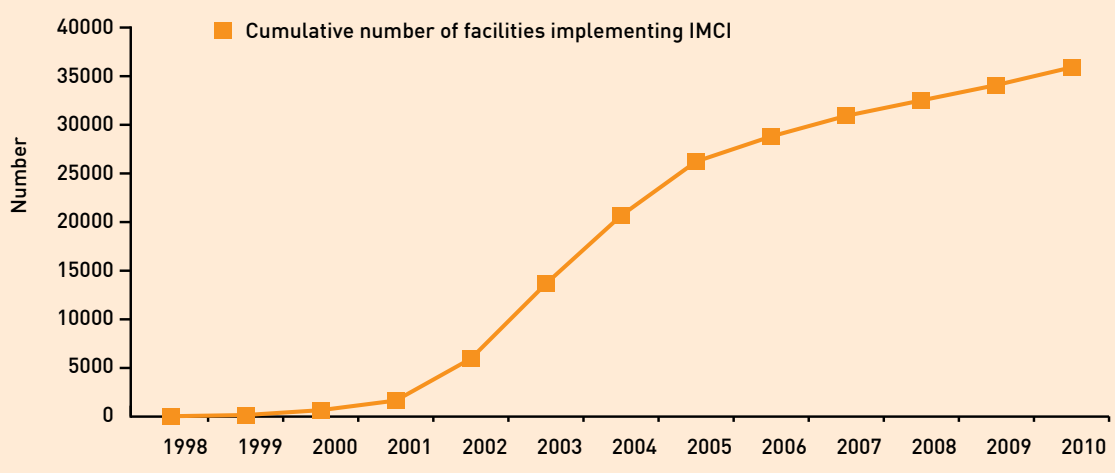


Figure 1.1 Health facilities implementing IMCI in the Region, 1998–2010

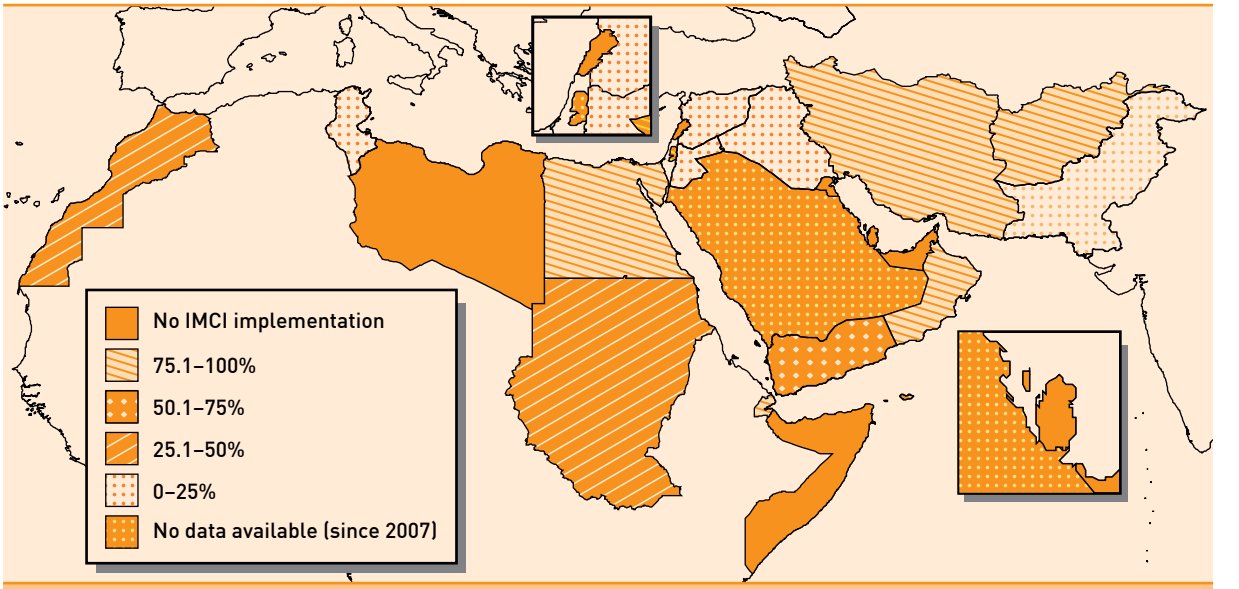
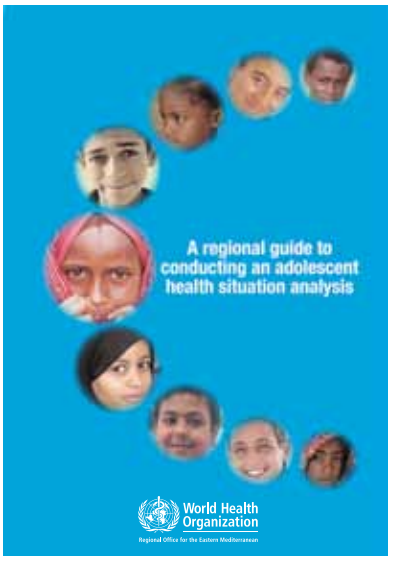


Figure 1.2 Status of implementation (%) of IMCI health facilities in the Region

Regional Office developed a programmatic approach demonstrated by the adolescent health strategic framework. This proposes a stepwise and phased approach towards a comprehensive adolescent health programme and was adopted by countries during a regional meeting. The Regional Office continued to work with countries to establish an adolescent health programme and structure. To date 10 countries have established such a programme within the structure of the Ministry of Health. A regional guide to conducting an adolescent health situation analysis was published to support countries in the process of planning and implementing programmes addressing the health of adolescents. Technical support was provided to eight countries to develop such analysis reports. A regional guide to adolescent health core indicators was developed in consultation with countries and capacity built in identification of adolescent health priorities. This resulted in identification of the general outlines of the preliminary adolescent health package. A draft regional guide on the review of adolescent health programmes was developed. A review and planning workshop for the adolescent health programme in Oman was supported.

Following the 2010 Muscat Declaration on strengthening of school health services to address current and future challenges, a standard package for scaling up school health services was developed. The outcome of the



intercountry survey on school health services conducted in 2010 was used to provide evidence and guide capacity-building on school health and nutrition promotion.

In the area of *reproductive health and research*, the Regional Office sustained its technical support to national efforts to accelerate progress in achieving international development goals and targets related to sexual and reproductive health. Afghanistan, Iraq, Somalia and South Sudan received support for development of their national reproductive health strategies and plans of action for 2011–2015. The Regional Office extended its technical support to Afghanistan and Yemen to develop their national commitment framework to accelerate achievement of Millennium Development Goals 4 and 5.

Together with UNFPA Regional Office for the Arab States, the Regional Office supported capacity-building on reproductive health counselling. This resulted in development of plans for eight countries to strengthen providers' capacity in reproductive health counselling and establishment of a regional core of trainers. This exercise will be repeated in 2012 to cover the other countries.

The Regional Office conducted a survey to map the implementation of evidence-based best policy and programme practices in family planning. Responses were received from 18 countries, out of which 17 confirmed the availability of the majority of the essential components for successful family planning programmes. Fifty-eight geographic information system maps were produced to describe the findings of this survey and an article was submitted for publication.

In the area of *active and healthy ageing*, the Regional Office supported documentation of national activities using a regional comprehensive tool. This activity was complemented by fact-finding field visits to Islamic Republic of Iran, Jordan and Syrian Arab Republic. In order to strengthen capacity-building for providing age-friendly health services in primary health care centres, a regional training guide was developed by a group of regional experts, planned to be published in 2012. Several countries (Bahrain, Egypt, Jordan, Oman, Qatar, Syrian Arab Republic, Tunisia and United Arab Emirates) expressed interest in adopting the age-friendly primary health care initiative. The age-friendly cities initiative continued to attract attention of countries. The Syrian Arab Republic continued its efforts to institutionalize this initiative in cities such as Hamah, Deir Atiyeh and Suwaida. Amman in Jordan continued on its track towards improving the quality of life of older persons in its capacity as an age-friendly city. The Regional Office supported the participation of countries in the first international conference on age-friendly cities aimed at linking global efforts and sharing experiences. As the theme of World Health Day 2012 will be "Ageing and health", a comprehensive work plan for celebrating this event was prepared and discussed in an intercountry workshop.

Future directions

Millennium Development Goals 4 and 5 are unlikely to be achieved in some countries unless major efforts are made. Specific attention needs to be given to a number of priority areas: revision of training curricula of medical and paramedical schools based on contemporary evidence; scaling-up provision of skilled health care for key stages of life; promoting healthy lifestyle practices, such as birth spacing, breast-feeding and health screening for early disease detection and prevention; expanding research on cultural and operational factors contributing

to provision and utilization of health services; and supporting countries to establish and strengthen maternal, neonatal and child health surveillance systems in order to be able to target interventions effectively.

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

Issues and challenges

An unprecedented number of countries in the Region were affected by all kinds of natural and manmade disasters. In addition, the "Arab Spring", and its impact generated civil unrest in several countries placing a burden on the health system in provision of urgent medical services. Faced with such increased demands, global health partners in support of ministries of health used the United Nations cluster system as a vehicle to coordinate the delivery of essential services as well as preventive public health programmes in Bahrain, Libya, Syrian Arab Republic, Tunisia and Yemen. In addition to ongoing complex emergencies, floods in Pakistan and Sudan required significant organizational support to establish operations in the affected areas and to advocate for public health needs for displaced populations. The drought in the Horn of Africa and subsequent famine in Somalia presented a huge challenge to the international humanitarian community to obtain access to those most in need, to manage a number of outbreaks and to support displaced populations. The limited capacity in the health sector in these countries further constrained the collective efforts of the aid community.

The number of internally displaced persons (IDP) in the Region has almost tripled in the past 10 years (according to the Internal Displacement Center), with four countries among the top 10 countries in the world hosting large percentages of IDPs per population – Iraq 9%, occupied Palestinian territory 9%, Somalia 16% and Sudan 13%. These vulnerable populations continue to face threats to their physical integrity, difficulties in obtaining access to basic health services and insecurity, hindering any growth and development.

Achievements towards performance indicator targets in each expected result

WHO played a key role in establishing pooled humanitarian funding for Pakistan, Somalia and Sudan and expanded regional humanitarian partnerships through the health cluster by signing new technical collaboration agreements. These included agreement with the Arab Medical Union, which has more than 10 000 medical staff registered who can be deployed in an emergency context for health service provision. Collaboration and interaction with the members of the Inter-Agency Standing Committee for Middle East and North Africa resulted in developing contingency plans for the crises in Egypt, Libya, Syrian Arab Republic and Yemen. The United Nations health cluster was also established in Djibouti and Libya.

WHO continued to support countries in crisis through an overall framework for emergency response and early recovery in the health sector. The concept of operations

(ConOps) tool developed for different scenarios was tested and used in Egypt, Libya, Pakistan, Somalia, Tunisia and Yemen. In the absence of a functional WHO office during the crisis in Libya, WHO and most United Nations agencies operated from Cairo and, to some extent, later on from Zarzis in Tunisia. The Regional Office took the lead in coordinating the health sector response, expanding partnerships and ensuring gaps were covered. Technical support was also provided to countries recovering from a disaster or conflict, in particular with post-conflict assessments and early recovery planning, in conjunction with national authorities, the World Bank and other partners, for example in Djibouti, Libya, Pakistan, South Sudan and Sudan.

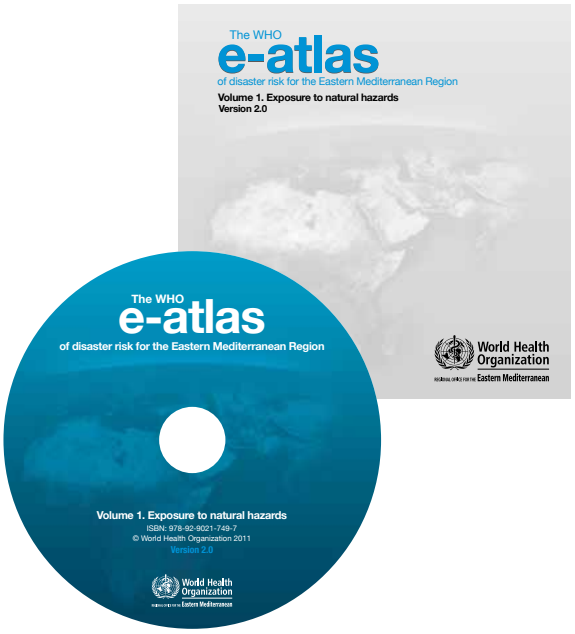
Capacity-building was supported in relation to emergency management, dealing with response to emergencies, preparedness and early recovery, and incorporating disaster risk reduction at all levels. National capacity-building activities were supported on the management of public health risks in emergencies in Oman, occupied Palestinian territory and Qatar, outbreak response and control in emergencies in Egypt, Jordan and Lebanon, and communicable disease control in emergencies in Egypt. Regional capacity-building was supported on analysing disrupted health systems, in collaboration with Merlin and the International Refugee Committee, on public health pre-deployment, and on national hospital preparedness with the support of the Asian Disaster Preparedness Centre. Emergency and humanitarian action training packages were evaluated in order to develop a suitable training course to prepare health professionals for the immediate response in an emergency.

A patient in the trauma section Aljalaa Hospital, Benghazi receives care from a Libyan doctor

Regional emergency supplies were prepositioned in Dubai in preparedness for future emergencies and disasters. Standard operating procedures as well as a business continuity plan were developed for the Regional Office.

The all-hazard framework for emergency management was promoted and rolled out in several countries to institutionalize emergency management in the health sector. Resolutions were adopted by the Regional Committee, World Health Assembly and Executive Board, further emphasizing the need for emergency preparedness and disaster risk reduction in the health sector. All countries have incorporated disaster risk reduction into their health systems. A key component of the strategy is the health facilities' safety programme. This was widely promoted and implemented in Lebanon and Oman, while Afghanistan and Sudan initiated it. Community-based disaster risk reduction activities were strengthened in Islamic Republic of Iran, Pakistan and Sudan.

The first regional risk communication programme for health was developed for schoolchildren in the form of a comic, in collaboration with the United Nations International Strategy for Disaster Reduction (UNISDR). This was pilot tested by the countries and will now be further developed. Coordination and collaboration continued with other regional offices in developing



new protocols and practices. These included a national capacity assessment tool and a global safe hospital action plan.

Partnership with other agencies, including UNISDR, UNDP, UNOCHA, WFP, UNICEF, King Saud University, the League of Arab States, and the Asian Disaster Preparedness Center, was strengthened to ensure collaboration for emergency management and planning and support for capacity development. WHO's response to the crisis in Libya demonstrated organizational and neighbouring countries' readiness to respond to such events.

Future directions

Disasters and crises have resulted in increased regional insecurity, instability, population vulnerability, displacement and poverty. A wealth of lessons can be extracted from these events to incorporate into future planning and programmatic development. However, after almost a decade of managing chronic situations, building national capacity and attempting to reduce risks, the need to reform the emergency programme is both evident and timely. WHO has embarked globally on developing a new operational framework that will guide its work in future health security and emergency operations. Growing criticism from Member States and donors and recent evaluations have concluded that the international community has not harmonized its capacities to collectively reduce morbidity, mortality and disability in the wake of a large-scale emergency. The creation of the transformative agenda led by the United Nations Emergency Relief Coordinator and the Inter-Agency Standing Committee will focus on a number of areas, including information management, leadership, accountability and coordination of relief partners. The need to invest in disaster resilience measures at local and national levels remains a key priority for the health sector and is grossly underfunded. The next biennium will focus on developing and testing systems to manage all acute onset events within the Region. Organizational and national level capacities to manage such events will be enhanced, with a strong emphasis on information and knowledge management and bringing forward best practices in public health. New partnerships will be established with the aim of accelerating risk reduction and preparedness activities.

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

There is increasing political attention and commitment to combating the risk factors for health conditions, especially noncommunicable diseases, associated with the use of tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex. This was made clear by the political declaration adopted by the United Nations General Assembly in 2011 on prevention and control of noncommunicable diseases. However, these risk factors continue to present a challenge to the Region, with negative impact not only on the health status of the population but also on the achievement of the Millennium Development Goals and on national development. The estimated regional rates of smoking, physical inactivity and overweight and obesity range from 11% to 30%, 30% to 87% and 30% to 75%, respectively. The prevalence of substance use-related disorders is estimated to be 3500 per 100 000 population and that of injecting drug use 172 per 100 000. These account for a loss of 4 disability-adjusted life years (DALYs) per 1000 and 9 deaths per 100 000 of the population, compared with the loss of 2 DALYs per 1000 and 4 deaths per 100 000 of population globally. The Region has the lowest rates of alcohol use disorders, with more than 80% of men and 95% of women abstaining, compared to 46% and 73% globally.

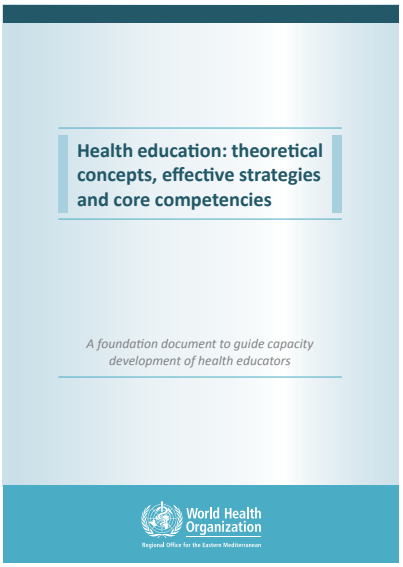
High level political commitment, legislative interventions and articulation of public health policies are needed. Additional human and financial resources also need to be committed, existing resources used more efficiently, synergies fostered across sectors, capacities strengthened to enable better implementation of legislation and policy, and integrated preventive, treatment and rehabilitative services developed. Additional challenges stem from lack of a common conceptual framework for health education and promotion to develop the competencies of professionals, on the one hand, and interventions focused on reducing the health risk factors, on the other. The complex and acute emergency situations prevailing in the majority of the countries is also an important contextual issue, which is tending to divert attention and resources away from actions on these risk factors. Focused, sustained and coordinated commitment of resources to prevent or reduce risk factors is needed if measurable impact on mortality and morbidity, and better quality of life are to be achieved for the people of the Region.

Achievements towards performance indicator targets in each expected result

Health promotion and education are essential approaches and tools for addressing the risk factors associated with communicable and noncommunicable diseases. In order to strengthen capacity for health promotion

and education at national and field levels, the Regional Office continued to pursue two initiatives. The first was development of a regional course for health promotion and education managers, in collaboration with academic institutions from within and outside the Region. This includes a set of core competencies identified by experts at global and regional level. It has been piloted in Kuwait and Qatar and is planned for launch at regional level in collaboration with selected academic partners. The second initiative builds on the health promotion leadership programme, PROLEAD, initiated in the Western Pacific Region, which has already been implemented in six countries and will now be expanded to others. While the first two rounds of the PROLEAD programme focused on strengthening partnerships for health promotion, the next round will focus on strengthening infrastructure and financing for health promotion.

Following up on the recommendations from the Nairobi conference on health promotion, an online tool was developed to promote documentation of health promotion and education initiatives in countries with the aim of building a database of successful interventions. Following launch of the regional framework on diet, physical activity and health in 2010, support was provided to several countries to implement their action plans.



In the area of oral health, the Regional Office conducted a rapid survey to assess oral health status and country capacity. As a result of this exercise, a concept paper highlighting the key challenges and proposed strategic directions in oral health was discussed at an intercountry meeting and led to the Isfahan Call for Action and to Promote Oral Health in the Region. Priority areas include the development of a regional strategy on oral health promotion, a core set of oral health promotion indicators, and development of an oral health surveillance system. Fourteen countries developed plans of action on oral health.

Special attention was given to addressing the health needs of vulnerable population groups, particularly of refugees of the Libyan crisis and schoolchildren. The Regional Office developed health education resources targeting refugees living in camps. Health education materials for schoolchildren were developed in partnership with UNISDR called the Friends Power Series, to address health issues such as healthy lifestyle, environment, food and chemical safety, influenza and risk reduction in drought, flood and earthquake situations. Capacity-building was supported for community mobilization in influenza outbreaks.

In the area of surveillance, and in collaboration with WHO headquarters and the Centers for Disease Control and Prevention, Atlanta, the Global School Health Survey has now been completed in 18 countries. The results so far reveal alarming findings, particularly with regard to

overweight, obesity and mental well-being, due to lack of physical activity and healthy diet, as well as life skills education.

In the area of alcohol and *substance abuse*, the training package for implementation by health personnel of the alcohol, smoking and substance involvement screening test (ASSIST) and linked brief intervention, and the opoid substitution treatment guidelines developed by WHO in 2009 were piloted in regional training workshops to enhance regional capacity to implement them. Technical support was provided to Oman for development of an information and reporting system for substance use. A joint project on substance use treatment and care funded by UNDODC was implemented in selected countries.

In *tobacco control*, the Regional Office continued to support the implementation of the WHO Framework Convention on Tobacco Control with a joint regional workshop, held with the Convention Secretariat for all Parties in the Region, to enhance implementation at regional and national levels. Technical support was provided through an intercountry meeting on the implementation of article 14 on demand reduction, with multisectoral representation from four countries (Egypt, Iraq, Jordan and Oman). Capacity-building was also supported, in collaboration with WHO headquarters and the Gulf Cooperation Council, on tobacco taxes. Ten countries (Egypt, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Syrian Arab Republic and United Arab Emirates) received technical support to strengthen their tobacco control programme in advocacy, cessation and development of legislation, as well as to strengthen their national direction.

In advocating for tobacco control, the Regional Office and Kobe Center jointly developed and released online a report entitled *Tobacco-free cities for smoke-free air: a case study in Mecca and Medina*, one in a series of global reports released on this topic. The report was translated into Arabic. Technical support was provided to Egypt to conduct two national tobacco control radio campaigns, a public relations campaign, a social media campaign and a 'rebranding of tobacco control' exercise. The rebranding exercise is intended to evaluate tobacco control activities in Egypt over the past 10 years in order to re-plan and re-strategize, with completion scheduled for mid 2012.

The regional celebration of the 2011 World No Tobacco Day took place in Oman under the theme "WHO Framework Convention on Tobacco Control". A set of fact sheets were published to accompany the campaign. The Regional Office supported the release of a report entitled *The economics of tobacco and tobacco taxation in Egypt* online, as part of the Bloomberg Initiative to Reduce Tobacco Use. The report was disseminated to media personnel, decision-makers and policy-makers.

Support continued to be provided to countries to implement the Global Tobacco Surveillance System. In collaboration with international partners, the Regional Office is in the process of reviewing the methodology and tools for continued implementation. Implementation of the Global Adult Tobacco Survey is under way in Qatar and preparation for implementation was supported in United Arab Emirates. In collaboration with Johns Hopkins University, technical support for the completion of second-hand smoke testing was provided for 11 countries, with the report scheduled for release in 2012. The regional portion of the Third Global Tobacco Control Report was completed and the report was published online and is being translated into Arabic.

Future directions

The Regional Office will continue to support strengthening of organizational and human capacities for health promotion and education, focusing on building competencies for multisectoral collaboration and action within and outside the health sector. It will further advocate for the development of legislative action and public policy in support of needed health actions, such as regulating marketing of food and beverages to children and promotion of physical activity. The Global School Health Survey will be expanded to include the 12–18 years age group. This initiative will be supported by the piloting of a new project of Global School Health Policies and Practices Surveillance which looks at the school policy environment in order to support promotion of healthy behaviour.

The Regional Office will continue to provide support to implement the WHO Framework Convention on Tobacco Control, and the Global Tobacco Surveillance System, based on the new methodology. The Global Adult Tobacco Survey will be expanded and core questions included in other ongoing surveys, such as STEPS. A regional strategy for tobacco control will be developed.

Implementation of the regional strategy for mental health and substance abuse will be started, with focus on developing regional information and reporting systems to help countries develop evidence-based policies, strategies and integrated services. In line with the regional strategy and the mhGAP provisions, tools for enhancing the capacity for general health care providers to screen and provide services for alcohol and substance use disorders will be finalized. Technical support will continue for developing national strategies, guidelines and services for management of substance use disorders.

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

Evidence is growing that environmental health is a major determinant for both communicable and noncommunicable diseases. According to WHO estimates (2009), more than one million deaths could be prevented in the Region each year through the availability of appropriate environmental health interventions. Declining water availability and quality, increasing populations, rapid changes in lifestyles, urbanization, unsustainable energy consumption and inefficient use of water resources are major public health concerns. Ministries of health have not yet identified the environmental determinants of health as a key priority for improving public health. The Region still struggles with traditional environmental health problems, such as solid and liquid waste management, and indoor and outdoor air pollution. Environmental health policies are inadequate and public awareness for influencing such policies is low. Natural and manmade disasters and climate change aggravate most of these problems and exacerbate their public health impacts. Destruction of environmental health facilities is a major concern in countries affected by man-made disaster or civil strife. Shortage of environmental health personnel and limited funding are also major challenges. Actions are required, both in the health sector itself and across sectors. Countries need to develop their national environmental health preparedness plans for emergencies, and to improve the access to information for research and decision-making. In order to ensure effective action in the health sector, risks have to be reduced/controlled in the settings where they occur –homes, schools, workplaces and cities – and in sectors such as energy, transport, industry and agriculture.

Achievements towards performance indicator targets in each expected result

Technical support was provided to countries for updating environmental health norms and standards, and adopting WHO norms on drinking-water quality, wastewater reuse, and health care waste management. The Islamic Republic of Iran, Jordan and Oman started updating their drinking-water standards in response to the 3rd edition of the WHO guidelines, adopting the approach of developing water safety plans. Morocco, Oman and Tunisia completed reporting requirements for the Global Annual Assessment of the Water Supply and Sanitation Sector (GLAAS). Dissemination and adaptation of WHO guidelines, such as the guidelines for drinking-water quality, health care waste management, and healthy and safe workplaces, supported efforts to reduce environmental public health risks. South Sudan and Somalia received technical support to draft environmental health strategies.

In terms of health care waste management, in collaboration with the GAVI Alliance, technical support was provided to Jordan,

Lebanon, Pakistan, Syrian Arab Republic, Sudan and Yemen to develop their national guidelines. Autoclaves were purchased to demonstrate appropriate hospital waste treatment in Pakistan and Yemen and a desk study of the situation of hazardous waste management was developed. A model plan for the safe management of wastes generated from health care facilities was drafted and a regional study of the situation of indoor and outdoor air pollution was launched. Regional training on environmental health risk analysis was conducted in Jordan in which 14 countries were participated.

The Regional Office was involved at global and country levels in strengthening occupational health programmes and plans, in particular in the preparation of a regional model for action to promote healthy wokplaces for employers, workers, policy-makers and practitioners. Egypt was one of the first countries in the Region to launch a national campaign on healthy and safe workplaces and launched the Egyptian Decade of Occupational Safety and Health (2011–2020). Regional capacity-building was supported for protecting health care workers from needle stick injuries and exposure to occupational bloodborne pathogens, in collaboration with Cairo University, Egypt.

The Centre for Environmental Health Activities (CEHA) continued to provide access to the Online Access to Research in the Environment (OARE) and Health Internetwork Access to Research Initiative (HINARI), through which health and environment-related institutions can access more than 8000 online refereed journals and several online databases. The Regional Office supported Iraq, Syrian Arab Republic and Somalia in conducting environmental health situation analysis. Iraq and Syrian Arab Republic are in the process of completing national environmental health strategies.

Several countries continued to take steps towards the implementation of the 2008 Regional Committee resolution on climate change and health. Health authorities in Jordan, Lebanon, Syrian Arab Republic and Tunisia participated in the annual update of the health chapters of the National Communications to the United Nations Framework Convention on Climate Change. Morocco is implementing its national health and climate change strategy. Jordan continued to implement the health component of the United Nations Joint Programme on Adaptations to Climate Change to Sustain Jordan's MDGs Achievements, and to implement the regional component of the WHO/UNDP global project on piloting adaptations to protect health from climate change.

Future directions

The Regional Office, supported by CEHA, will continue to provide technical advice and expert support with regard to capacity-building, research and technology transfer programmes, environmental health vulnerability assessments and situation analyses, and facilitating the adoption of WHO guidance on different aspects of environmental health.WHO will also continue to support the development and implementation of national frameworks for action on climate change and health; to strengthen capacity for monitoring trends and assessing the risks and health impacts of environmental and socioeconomic development; and to improve access to reliable information to support national environmental health strategies and actions. Technical support will be provided to: improve chemical safety systems; secure

basic occupational health services and integrate them into primary health care systems; operationalize healthy workplaces at national level; and protect and promote the health of health care workers. Advocacy and support will be provided to ministries of health and other governmental sectors to promote inclusion of environmental health in all development policies.

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

Malnutrition remains a serious health problem among children and the single biggest contributor to child mortality in the Region, particularly in low-income countries. Nearly one-third of children in the Region are either underweight or stunted, and more than 30% of the population suffers from micronutrient deficiencies. Unless national policies and priorities are changed, the scale of the problem will prevent many countries from achieving the Millennium Development Goals. While undernutrition still exists, the burden of overweight, obesity and diet-related chronic diseases is also increasing. There is need for improved data, as well as knowledge about the importance of nutrition among political leaders in order to make progress in tackling nutritional problems.

Food safety is a major public health issue in the Region, both for consumers and for manufacturers, with many challenges. These include lack of political commitment, inadequate resources, outdated food safety laws and systems, and lack of consumer awareness and consumer protection legislation. Modern food safety systems recognize that food safety is a multisectoral responsibility, that food safety should be addressed throughout the continuum "from farm to fork", and that any decision or approach should be science-based. This approach requires a high degree of intersectoral collaboration, especially between the health and agricultural sectors at all levels, and this is often lacking. In 2011, many food contaminations and foodborne outbreaks were reported from Member States in the Region and beyond, the most notable being the contamination of ready-to-eat fenugreek sprouts in Germany and neighbouring countries with *Escherichia coli* O104:H4. This outbreak alone caused 54 deaths, more than 3800 confirmed cases of disease and disruptions to food trade. Countries are striving to implement the approaches recommended by the WHO global strategy for food safety.

Achievements towards performance indicator targets in each expected result

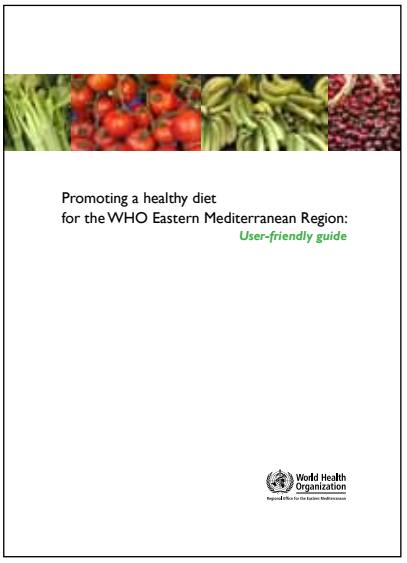
The regional *nutrition* strategy, which was endorsed by the Regional Committee in 2010, is contributing to the global movement to scale up nutrition action to improve maternal and child nutrition during the 1000 days between pregnancy and age two, launched in 2010. The strategy envisages multi-stakeholder processes at local and national levels that aim to help programme staff, organizations and society effectively

expand activities in nutrition. In this context, a regional technical consultation for scaling up nutrition action was held with participation of all key stakeholders.

WHO continued to provide technical support for implementing the WHO growth standards. These have been adopted by 17 countries while the remaining countries are in the process of changing their national growth standards. WHO is working to strengthen the nutrition surveillance system through capacity-building and technical support. Tools have been developed and a training package is being finalized for publication. Technical support was provided in policy development and programming to Afghanistan, Iraq, Pakistan, Qatar and South Sudan. Capacity-building in management of severe malnutrition was supported for priority countries. A training manual in nutrition education for schoolchildren is under development. A user friendly guide on healthy diet was finalized for publication.

Most countries are members of the International Food Safety Authorities Network (INFOSAN) and the INFOSAN Emergency network for rapid food alert systems. Regional capacity-building on food safety and consumer health protection was supported. Countries continued to participate in the ongoing global capacity-building to detect, prevent and manage foodborne diseases and monitor food safety issues.

Apart from countries in complex emergencies, most countries have laboratory ability to detect traditional chemical hazards in food. Countries continued to participate in Codex Alimentarius Commission and Committee meetings as well as in other international standard setting bodies to improve their food safety laws. The Near East Codex Committee, which assesses risks in food and prepares standards on



traditional foods of the Region, met in Tunis. Countries continued to strengthen their microbiological and chemical laboratories to enable them to participate in the international food safety surveillance network. Following implementation of the International Health Regulations (2005), many countries have integrated foodborne disease surveillance within their national disease surveillance. However, availability of foodborne disease and monitoring data remains limited.

Most countries are members of the WHO Global Foodborne Infections Network surveillance although not all are yet contributing actively to the surveillance. Planning for the second cycle of the global foodborne infections training course was initiated. Undertaking the full five cycles of the course will strengthen food surveillance systems in the Region. Countries continued to strengthen laboratory capacity to identify and to sub-type food-related pathogenic bacteria. Pulsenet continued to support capacity-building in molecular identification of zoonotic and nonzoonotic microbes to strengthen the surveillance of foodborne

disease. Continuation of regional capacity-building through the WHO global foodborne infection courses is essential. These courses and laboratory support will create a critical mass of trained personnel to deal with food safety. Distribution and field application of the "five keys to safer food" poster in several languages of the Region was augmented by the distribution of promotional material/consumer education and advocacy.

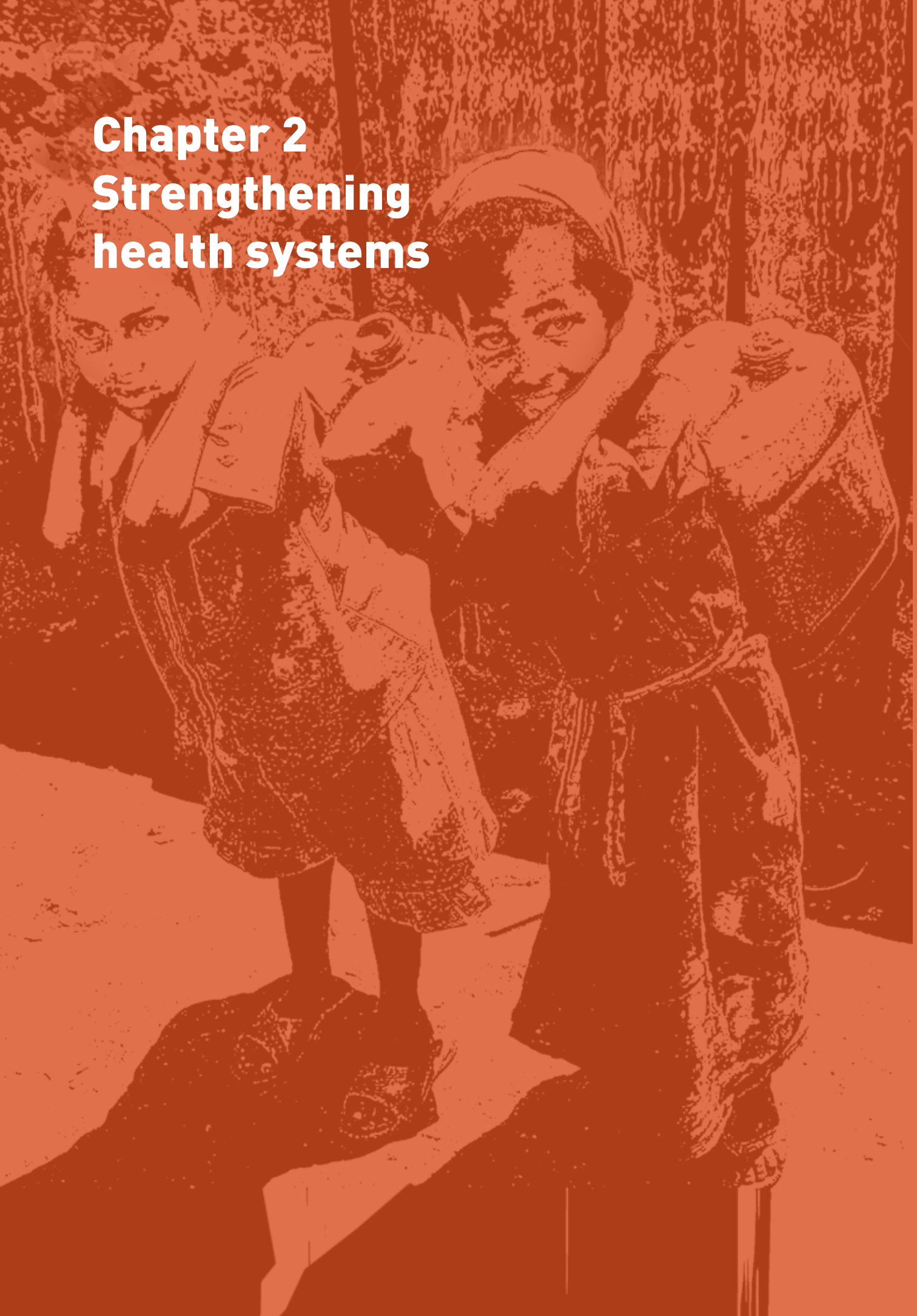
A comprehensive questionnaire on food safety structure and activities was disseminated to the Member States. The outcome of this questionnaire was discussed at a regional meeting of food safety focal points and laid the foundation for identification of regional priorities in food safety for the next two years.

Future directions

The Regional Office will continue to focus on strengthening the identification and treatment of severe acute malnutrition through the provision of guidelines for facility-based and community-based management, providing technical support and resource mobilization support for countries in need, capacity-building of staff and supporting implementation of monitoring systems. It will promote healthy diets and physical activity in schools and communities through the Nutrition-Friendly Schools Initiative (NFSI), focusing on the preparation of school nutrition policies, awareness-raising, capacity-building, promotion of healthy dietary practices and supportive health and nutrition services.

Food safety activities will continue to focus on provision of technical guidance and support for strengthening capacities and monitoring of food safety. Risk assessment capacity in food safety will be strengthened and regulatory and legislative activities at national level will be supported. Modernization and harmonization of food safety systems in the Region will continue to be an important focus. Efforts to implement the global strategy for food safety in the countries of the Region will continue.

Chapter 2
Strengthening health systems



2. Strengthening health systems

Strategic objective 7: To address the underlying social and economic determinants of health through policies and programmes that enhance health equity and integrate pro-poor, gender-responsive and human rights-based approaches

Issues and challenges

Health challenges in the Region are becoming more acute and complex due to rapid urbanization, man-made and natural disasters, economic recession, poor quality of life, issues related to governance of the health system and lack of universal access to quality health care services. Vulnerable groups, including mothers, children, orphans, refugees, the poor, disadvantaged, disabled and people living in urban slums, are more affected than other groups, and in a wider variety of aspects. Gender inequity, insufficient intersectoral collaboration and partnership between stakeholders, high unemployment rates and inadequate funding are the driving issues of this strategic objective. Rapid increase in population density and serious environmental problems affect most of citizens. Insufficient social protection for the poor and maldistribution of human resources for health are all among the major challenges that affect health service provision and social well-being, particularly in low-income countries. There is insufficient intersectoral collaboration to have a positive impact on the social determinants of health. Insufficient political commitment to and resources for the social determinants of health is impeding achievement of gender and health equity goals and full realization of the right to health.

Achievements towards performance indicator targets in each expected result

Egypt introduced community-based initiatives in the Meet Hawy District of Algharbia Governorate. Technical support was provided to the Ministry of Health and Population, through orientation sessions, establishment of the local development committee and training of community health workers and community nurses in primary health care. Provincial governments in Pakistan received technical support to carry out a rapid assessment on implementation of the basic development needs programme. The assessment resulted in an action plan that will assist the provincial governments to adopt and expand the programme based on local capacities and needs. A meeting with the Ministry of Health, Sudan, resulted in a set of key activities that will facilitate institutionalization and expansion of community-based initiatives. A plan of action was also developed to expand community-based initiatives in three localities of Gezira State, namely South Gezira, Um-Ul Qura and Madani. In the Syrian Arab Republic, the healthy village programme was expanded to the governorates of Aleppo, Daraa and Hama, covering 42 villages and 568 beneficiaries. The Regional Office and Ministry of Health, Sudan, developed and field-tested a manual on community-based disaster risk reduction. The manual contains simple

Community members, and local volunteers and nurses participate in orientation sessions and training for community-based initiatives in Algharbia Governorate, Egypt

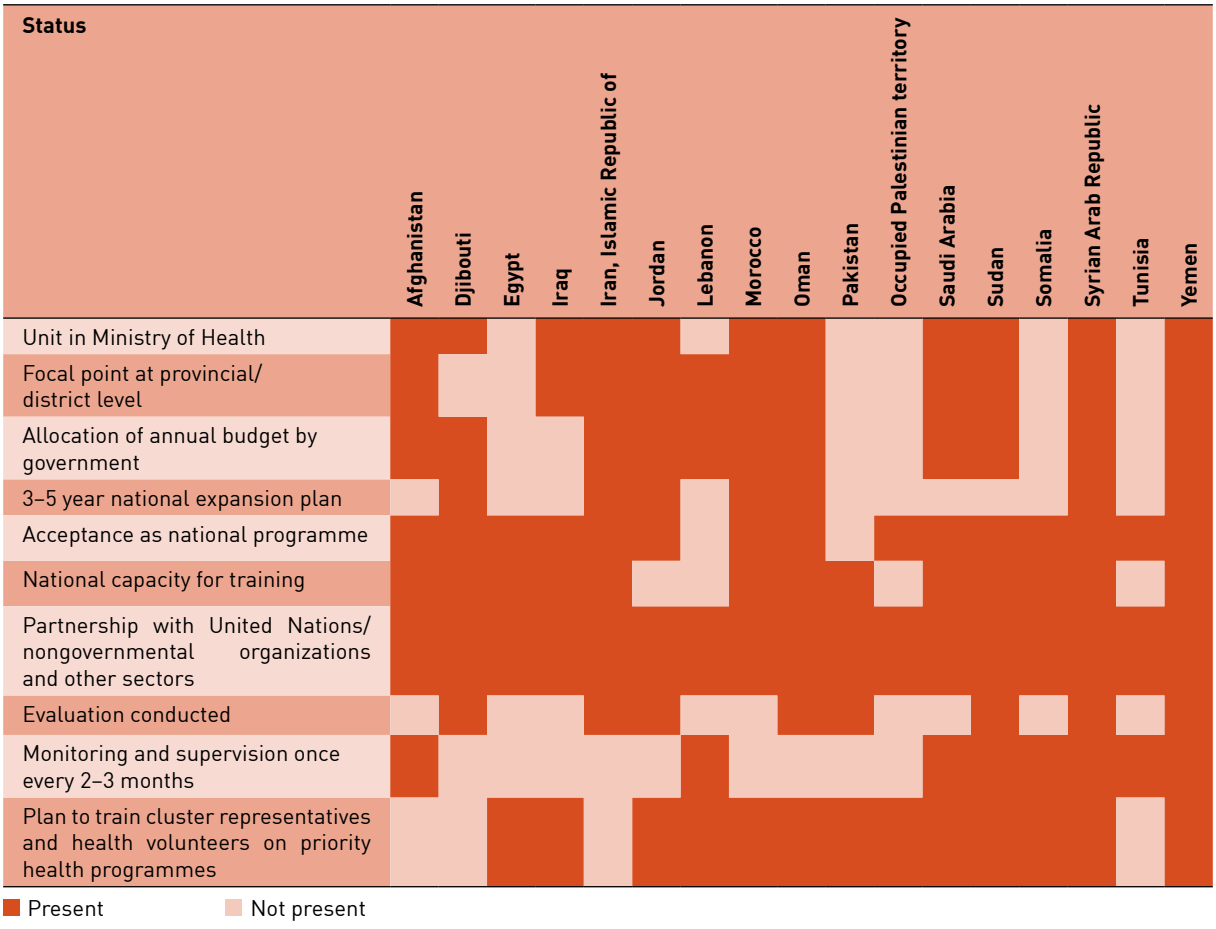
guidelines on the role of the community in disaster risk reduction and vulnerability assessment. A survey of the managerial status of community-based initiatives was conducted in all countries. Table 2.1 shows the status of the programme in 17 countries.

With regard to programme advocacy, the *CBI newsletter* continued to promote success stories of community empowerment from around the Region. *Monitoring, supervisory and evaluation tools for community-based initiatives* was published in French and *Training manual for the healthy city programme* and *Training manual for community-based initiatives* were translated into Arabic.

Urbanization and health was a major area of concern. The Regional Office worked with eight localities in Sudan to develop plans of action for introduction of the healthy cities programme, focusing on building appropriate infrastructure for community leadership and sustained intersectoral collaboration for improving urban health and social development. A web site was developed allowing many cities to join the Regional Healthy City Network. The municipality of Tripoli, Lebanon, held an orientation session on the healthy city programme for an intersectoral team and developed an annual plan to work on food safety, school health, tobacco control and solid waste management as priority interventions. The Regional Director participated in the Asian Mayors' Forum in April 2011, sharing the experience of WHO on urbanization and health, including urban health equity.

Collaboration between the community-based initiatives and vaccine-preventable diseases and immunization programmes resulted in agreement to scale up immunization coverage in selected basic development needs sites of Djibouti, Somali and Pakistan. A sustainable follow-up mechanism was set up for defaulters and achieved 95% immunization coverage for children under 1 year of age in these selected sites. Development of a manual on community-based injury prevention is also in process, focusing on child injury prevention (including road traffic injuries), prevention of disabilities and community-based rehabilitation. This will initially be introduced in eight selected countries (Afghanistan, Egypt, Islamic Republic of Iran, Jordan, Morocco, Pakistan, Sudan and Yemen).

Table 2.1 Status of the community-based initiatives programme in 17 countries of the Eastern Mediterranean Region



The Regional Office participated in the World Conference on Social Determinants of Health in Rio de Janiero, contributing posters illustrating community-based case studies from Afghanistan, Oman, Pakistan, Tunisia and Yemen. Technical papers on social determinants of health from five countries (Egypt, Islamic Republic of Iran, Jordan, Morocco and Pakistan) contributed to the technical documentation. These were on: social participation in Ezbet El Hagana, a disadvantaged area in Cairo; a school scouts programme in the Islamic Republic of Iran; capacity-building to address social determinants of health through Health in All Policies (HiAP) and intersectoral collaboration in Jordan; health equity and its measurement in Morocco; and a HeartFile study of social protection in Pakistan.

The Regional Office continued to invest in building national capacities in social determinants of health and development of tools to address equity in health. In Morocco the national programme on health equity was reviewed in a workshop and a plan of action to address social determinants of health and health equity was outlined. A joint mission between WHO and UNICEF was conducted to promote health equity in Morocco. Iraq and Jordan were also among target countries for

promotion of social determinants of health. Training materials on ensuring health is included in all development policies were distributed to a number of countries and collaboration with other regional offices was strengthened through developing a system of networking within WHO.

The Regional Office organized a seminar entitled "The UN Convention on the Rights of Persons with Disabilities (UNCRPD): from theory to practice", to advocate for the implementation of the Convention at country level. Technical and financial support was provided for health and human rights activities in Afghanistan, Iraq, the occupied Palestinian territory and Yemen. WHO Afghanistan helped to raise awareness about human rights among policy-makers in the Ministry of Public Health, encouraging inclusion of human rights principles in

A health worker collects data to support the measurement of health equity in an urban area in Morocco

Civil strife and poverty are major determinants of ill health in Somalia, exposing children to stresses and risks beyond their years

health policies and strategies. As a result, a national health and human rights strategy was adopted, and further work is planned to support its implementation.

The health and human rights advocacy project in the occupied Palestinian territory is continuing with regular monitoring reports on the right to health. These include documenting the ability of patients to access health services, for example reporting on decisions and delays with regard to permit requests, interrogations by Israeli security services, arduous travel procedures to destinations and in the worst cases, complete denial of access. These restrictions have serious implications for health, in extreme scenarios having caused deaths when life-saving health services were not accessed in time.

To build health and human rights capacities in the Region, the Regional Office, in agreement with Heidelberg University, Germany, sponsored 11 fellowships from six Member States to attend a 2-week course held by the university on health and human rights. At the regional level, Human Rights Day 2011 was celebrated in December. A press release on focusing on social media as a tool to defend human rights was released, a media campaign was launched, and a short video clip to promote health as a human right was posted on all media.

Gender-based violence, gender and HIV, and the health-seeking behaviours of men and women were the focus of the gender and health development programme. Technical support was provided to Afghanistan, Iraq, Pakistan and Yemen on strengthening health sector response to gender-based violence and the Ministry of Health, Pakistan, committed to developing a national health sector protocol on gender-based violence. In addition, the Regional Office, working with WHO headquarters and the Regional Office for Europe, as well as with the Knowledge Hubs of the Islamic Republic of Iran and Lebanon, made progress in addressing gender issues in HIV bio-behavioural surveillance.

Health and human rights: Regional Director (Emeritus) Dr Hussein A Gezairy presents actress Hind Sabry with a special award to the Egyptian feature film "Asmaa" which tackled the right of people living with HIV to health care

Capacity-building and technical support facilitated the integration of gender and health equity into health programmes and policies, both in-house and in countries. Capacity-building activities were conducted on addressing gender-based violence in emergency response and in integrating gender into Global Fund proposals. Capacity was also built in country offices and the Regional Office on addressing gender and health equity. Technical support was provided to Afghanistan on a national health sector strategy on gender, and capacity-building activities were conducted on gender and health equity in Afghanistan, Pakistan, Iraq and Oman.

Operational evidence is required on successful approaches to addressing root causes of gender and health inequities. For this reason, operational research on gender and HIV was supported in Afghanistan,

Integration of gender and health equity into health programmes and policies was the subject of this training session for health managers in Iraq

Egypt, Jordan, Lebanon and Yemen, and an assessment of health sector readiness to address gender-based violence was supported in Pakistan. A WHO gender assessment of health-seeking behaviour provided evidence to support development of the Ministry of Public Health gender strategy in Afghanistan.

Future directions

WHO will boost its technical support to Member States for institutionalization of community-based initiatives and reduction of health inequity, and for building evidence on the importance of social determinants of health, gender mainstreaming and health as a human right for health outcomes. Efforts will continue to be made to include community-based initiatives as an integral part of national health policies and plans. Technical support will be provided to improve intersectoral collaboration among government agencies and to enhance partnerships with civil society to tackle social and economic determinants of health, with interventions at the policy as well as community levels. The Regional Office will implement a regional action plan to operationalize the Rio political declaration following the World Conference on Social Determinants of Health. Afghanistan and Oman will be supported to develop and analyse national disaggregated databases related to health and development, and to use the results for planning and scaling up interventions. Efforts will be made to integrate health as a human right into national health systems through implementation of the WHO strategy on health and human rights. The Regional Office will continue to develop and publish evidence on gender and health to support Member States in gender-responsive health planning and programming. Countries will continue to be supported to integrate gender perspectives in planning, implementation and monitoring of national health policies and programmes. Future focus in addressing gender and health inequities will include strengthening health sector response to gender-based violence. Further operational research is planned on programme-specific gender and health issues, including in the areas of HIV and mental health.

Strategic objective 10: To improve health services through better governance, financing, staffing and management, informed by reliable and accessible evidence and research

Issues and challenges

Equitable access to health care is a key component to achieving the Millennium Development Goals. The importance of health systems in contributing to better

health outcomes is beyond doubt. Many challenges nevertheless exist to the improved performance of health systems in the Region.

Improving governance in health is a major challenge. A positive step is the recognition by all countries of the importance of addressing governance in health with a focus on policy analysis and strategic health planning. Most ministries of health have limited capacities in policy analysis, policy development and planning. This is more serious in countries in crisis, where there is also a lack of institutional capacity at national and sub-national levels in these countries to translate national health policy into action. Ongoing crisis is continuously weakening the health system while emergency-oriented services dominate system development. Accountability and transparency is a major issue in low-income countries. Similarly, there is need to engage with partners and non-state actors. The role of the private sector in health care delivery is expanding, however, regulation of the services they provide remains a challenge. Donor coordination a is another challenge, especially in countries in crisis where the health sector depends largely on external assistance and has to coordinate a large number of donors to ensure alignment and harmonization with the national health agenda and priorities.

Promotion of social health protection is a major issue. Moving towards universal coverage and limiting the share of out-of-pocket health expenditure has attracted much attention. Political commitment, a clear vision and availability of funding remain the main challenges facing successful initiatives, such as promoting prepayment options, in health care financing.

A key challenge to the adequate delivery of health care services in terms of effectiveness, efficiency and quality is the lack of management and leadership capacity at the central and district levels and the organization of health care services, which does not support the integrated district health system approach. Another challenge is orienting countries eligible for the global health initiatives to enable them to benefit from the single health system funding platform so that all programmes can work more effectively, ensuring integration and harmonization.

Promoting and strengthening primary health care remains a priority. Major challenges include securing adequate political, financial, human and material commitments; optimal use of available resources; changing management approaches including decentralization; and ensuring effective community participation and intersectoral collaboration. Financing and management of primary health care, quality assurance and health systems research in support of primary health care are also challenges.

Patient safety is a global public health concern. WHO has adopted a multi-faceted approach to this issue. Efforts to improve the safety of patients in health care facilities must take into consideration political commitment, training and capacity-building of health personnel, facility infrastructure, availability of essential medicines, patient health literacy, community engagement, and a productive dialogue between patients and health care personnel.

Research for health provides the essential evidence needed to inform health policy and practice to address the causes, impact, prevention and treatment of poor health. Generating and sustaining high quality national health research systems and promoting evidence-informed policy-making contributes to the achievement of social and economic development, health equity and the Millennium Development

Goals. The main challenges to research for health are: insufficient resources, lack of a supportive research environment, absence of adequate multisectoral approaches to the conduct and use of research for health, lack of intercountry and intra-country research collaboration and coordination, national priorities which are not necessarily aligned with the changing health scene, and insufficient preparedness (based on research-evidence) to respond to immediate emergencies and needs. The importance of high quality medical journals for transfer and dissemination of knowledge is increasingly recognized. However, greater recognition is needed of the potential role of editors in creating links between researchers and policy-makers.

Some countries still suffer from being unable to access up-to-date health information. Therefore, improving health services through better management and utilization of reliable and accessible health information, research and evidence to support health systems is a key challenge. Strengthening the Region's capacity by improving access to health information and better utilization of electronic resources which are available in Research4Life programmes (HINARI, OARE and AGORA) for eligible countries is another key challenge to bridging the know–do gap. There is a great need to build the capacity of nationals in the development of e-libraries and the medical libraries network.

Weaknesses in national health information systems, in terms of reporting quality and timely information, continue to reflect systemic shortage of resources, especially well-trained human resources in the health information and statistics areas, and inadequate basic technologies. There is duplication and fragmentation of data collection and lack of rigorous validation within the different programmes. Vital registration systems are not well functioning in most low income countries. There is need to expand the capacity of health information systems to monitor quality indicators of resources, coverage and new areas, such as social determinants of health and health system performance, and to immediately address the needs for monitoring the health-related Millennium Development Goals. Support for health sector reform through decentralization will require appropriate capacity of sub-national health information systems to support measurement of population-based health status, prioritization, planning, costing and budgeting, monitoring and evaluation of health care. There is a need to develop country-led monitoring and evaluation strategies as part of the national health plans with clear objectives and indicators.

Human resources development for health is widely acknowledged as the most critical asset for health systems. Evidence repeatedly shows a direct correlation between health workforce density or availability and population health indicators. While countries in the Region differ in terms of socioeconomic development, the main issues are either shortage, primarily in low-income countries, or surplus and deployment difficulties. Most countries lack national strategic planning and evidence-based policy development. Countries with a crisis in human resources for health and experiencing conflict suffer additional burdens, primarily due to brain drain and massive migration. Challenges facing ministries of health include weak governance at the macro level and imbalances (geographic, skills and facility-based) at the micro level. Moreover, countries still lack coherent coordination among partners and effective regulation, in addition to the limited availability and

reliability of information systems and evidence generation for informed decision-making and policy formation. Regional coordination to address migration and movement of health workforce is an additional and evolving challenge.

Nurses and midwives increasingly face rising levels of complexity in health care, coupled with expanding scopes of practice and responsibility. This requires more educated nurses and midwives with expanded skill sets capable of responding to change, greater demands and new priorities in health care and the social realities in the places they live. The need to scale up capacity was stressed by the Regional Committee in 2008 as critical to addressing the demand–supply gap. The concept of scaling-up is complex and multi-dimensional and touches on issues such as increasing retention rates, reform of education, maximizing and utilizing the full scopes of practice, introducing appropriate skill mix, and developing new roles, such as advanced nursing practice and family health nursing.

The attitude and understanding of the role and purpose of professional regulation of health professionals has undergone considerable change in the Region as governments realize that effective regulation is an important element in delivering the safe and quality services sought by citizens. Much effort in this area has been focused on the registration and licensing of health care providers although a plethora of standards, sometimes conflicting or outdated, plague this area in the nursing field. The nursing and midwifery profession also struggles to exert the same level of control over its own affairs as that accorded to other health professionals in a country. Few legislative instruments deal in depth with the regulation of the profession. Legal requirements are mostly couched in prescriptive terms, and may be scattered throughout several laws or other legal instruments.

The Region has been recognized globally as a pioneering region in adopting innovative approaches to medical and other health professions education. Nevertheless, some countries still face serious challenges from either shortages of skilled health workforce and/or inadequate quality and inappropriate skill mix. Lack of quality education and training in the higher health institutions is one of the major shortcomings. Accreditation of health professions education programmes and institutions to assess the quality of the educational process and ensure graduation of competent practitioners is a major area of concern in most countries and is receiving more attention. Efforts are being made to assess the role and functions of the fellowships programme, to make it more cost-effective and responsive to national and regional needs and expectations.

Achievements towards performance indicator targets in each expected result

Support was provided to 11 countries (Afghanistan, Bahrain, Iraq, Morocco, Oman, Pakistan, Saudi Arabia, Somalia, South Sudan, Tunisia and Yemen) to develop national capacity in *health policy and strategic planning*. The Regional Office has been instrumental in advancing the public sector modernization project in Iraq, undertaking two major studies: a functional review of the health sector and health system performance assessment. As a result a plan for modernizing the health system was developed and an integrated district health system based on family practice was initiated.

Support was provided to South Sudan in developing the national health strategy and operational plan for the next five years. In

addition, a basic package of health services was successfully defined and finalized. A health system review to define existing gaps was conducted in Somalia and technical support was provided to implement the national policy and health strategic plan in Afghanistan. The national health system profile was updated in nine countries.

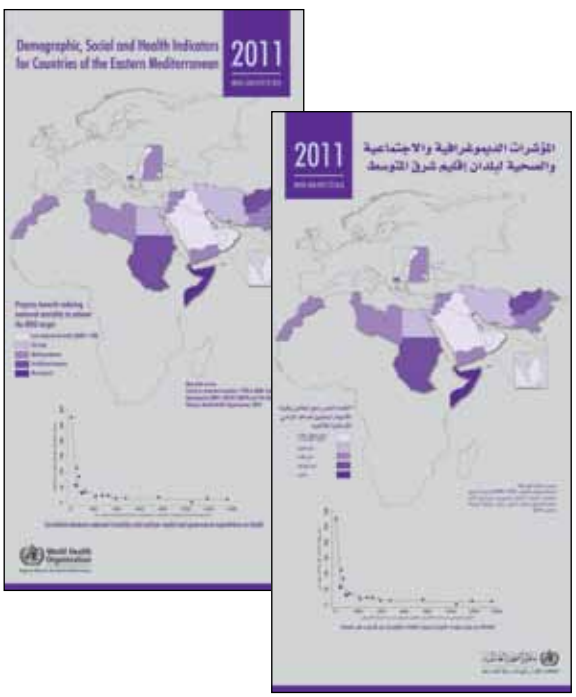
Capacity development was supported in health strategic planning and policy analysis for senior public health professionals and planners in South Sudan and Somalia, and to improve the knowledge and skills of nationals on key components of the health system in Oman. A training package for strategic health planning was developed and a pilot course organized in Nairobi for South Sudan and Somalia. This course will be rolled out to other countries in 2012. AWHO flagship course on health system development is being redesigned and updated.

The Global Learning Programme on National Health Polices, Strategies and Plans was rolled out in the Region. This is an initiative to foster WHO capacity to facilitate meaningful sectoral and intersectoral policy dialogue between national stakeholders and global partners on developing sound national health policies, strategies and plans, within the context of primary health care and in line with the Paris Declaration on Aid Effectiveness. A total of 116 staff participated in the various workshops and their capacity to contribute to sound national health policies, strategies and plans was built.

There was increased interest in developing efficient and equitable systems of *health care financing* and reforming existing financial arrangements. Technical support was provided to six countries to identify, assess and implement viable health care financing options and enhance the social health protection goal of their health care systems. Capacity-building was supported to develop local capacities in health economics and health care financing in nine countries (Bahrain, Kuwait, Islamic Republic of Iran, Iraq, Oman, South Sudan, Sudan, Syrian Arab Republic and Yemen). In addition, four countries (Islamic Republic of Iran, Iraq, occupied Palestinian territory and Sudan) finalized extensive work on national health accounts, with the Islamic Republic of Iran publishing a time series of 7 years, in sequence, of detailed national health expenditures information. Bahrain made substantial progress towards publishing its first round of national health accounts, and Kuwait, Syrian Arab Republic and Saudi Arabia initiated work in health accounting. On the occasion of the 10th Anniversary of the Abuja Declaration, a joint workshop was held with the Regional Office for Africa which strengthened the capacity of two countries to track domestic contributions to the health sector in a manner that will support advocacy for further health care funding and provided the first step towards institutionalizing health accounting. As a result of an interregional consultative seminar to discuss the path to universal coverage through efficient use of resources, national capacities to promote equitable health outcomes by making efficient use of available resources were enhanced. The work carried out in health care financing brought further attention to the importance of moving away from direct payments in financing health care by introducing and promoting prepayment options.

In the area of *evidence-based health situation and trends assessment*, technical support was provided in conducting assessment of health information systems using tools developed by Health Metrics Network and WHO. Support for the implementation of the GCC World Health Survey continued. The Regional

Office provided technical support also for implementation of the Afghanistan mortality survey, analysis of the results and drafting of the report, in collaboration with international partners. The Regional Office supported the assessment of mortality and cause-of-death data in several countries, and introduced the rapid and comprehensive assessment of civil registration and vital statistics, using standard WHO tools. It also worked with countries to improve the reporting of mortality and cause-of-death data and provided support in the use of international death certificates to better report on cause of death, national capacity-building in ICD10 coding and developing strategic plans for strengthening national health information systems. The dissemination and monitoring of several disease programme interventions were enhanced through provision of geographic information system (GIS) services and capacity-building and statistical data analysis. The Regional Office conducted in-depth analyses on child mortality and effective coverage, in collaboration with the Institute of Health Metrics and Evaluation, and participated in the preparation for the report on the health of the people of Africa. It also developed a state-of-the-art regional health observatory.



In the area of *health care delivery*, as part of the regional strategic plan (2010–2015) for primary health care, significant support was extended to countries in implementing integrated district health systems based on the family practice approach. Five pilot districts in Iraq and Jordan started the initial phase, with comprehensive assessment under way. The Regional Office undertook an exploratory study to map the current status of family practice in the Region and to draft a way forward. A consultative meeting to review the status of family practice training and service delivery structures in the Region resulted in a recommendation to develop national modalities for family practice which respond to national needs and context. Support to countries for accreditation of health facilities has continued.

The Patient Safety Friendly Hospital Initiative (PSFHI) has been the flagship initiative of the Regional Office to respond to the challenge of improving patient safety in the Region. The patient safety assessment manual, developed over a period of two years with rigorous internal and external peer review and pre-pilot and pilot testing in seven countries, was published. The manual comprises 140 standards of which 20 are critical for any hospital to enrol itself in the initiative as a Patient Safety Friendly Hospital. Eleven countries have now pledged to adopt and test the WHO hand hygiene guidelines, 14 countries PSFHI, 8 countries the patients for patient safety programme and 14 countries the second patient safety challenge (Safe Surgery Saves Lives). A patient

safety curriculum guide was developed (for medical, nursing, midwifery, dental and pharmacy schools) and will be launched at a regional level in early 2012.

The report of the decentralization study conducted in nine countries (Egypt, Jordan, Morocco, Oman, Pakistan, Saudi Arabia, Sudan, Syrian Arab Republic and Yemen) was presented and discussed at a regional consultation to map the way forward in this area. In line with the 2009 Regional Committee resolution on hospital management and autonomy, a study was conducted in seven countries (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Jordan, Syrian Arab Republic and Tunisia) to assess hospital performance in the past 10 years, and the results were presented at a regional consultation. Technical support was provided to the 10th Arab Administrative Development Organization conference focusing on new trends in hospital performance improvement. The Regional Office participated in the 37th World Conference on Hospitals in Dubai and in special consultation meetings in Lyon and Geneva to develop a global curriculum to strengthen organizational management in laboratories.

With regard to global health initiatives, technical support was provided to follow up implementation of successful proposals to the GAVI Alliance on health system strengthening in the eligible countries. Two countries have finalized their first five-year proposals. Joint missions were undertaken to support four countries (Afghanistan, Pakistan, South Sudan, and Sudan). Also, technical support was provided to eight countries for the development of proposals to the Global Fund and support was provided to Djibouti, Pakistan and Sudan in collaboration with IHP+. Capacity-building in health system strengthening was supported with a view to having a single health system funding platform for global initiatives.

A regional strategy for *human resources for health* was developed and is being used as a guiding framework to strengthen national human resources development processes. Also, a regional guide for the development of an accreditation system for health professions education at the national level was finalized in consultation with national, regional and global partners in medical education. Support to scale up production of health personnel was provided to several countries in crisis (Afghanistan, Iraq, Pakistan, Somalia, Sudan and Yemen). With financial assistance from the European Commission, technical support was provided to countries in need to streamline information, through establishment of national human resources for health observatories. Countries with pressing challenges received support to

strengthen overall governance and use of evidence for planning and policy formation in regard to human resources for health. To build national capacity in human resources development, a plan is being developed to organize regional capacity-building in strategic planning and evidence-based policy formation for human resources for health, regulatory frameworks, continuous professional development and effective health workforce management modalities.

Technical support continued to be provided to South Sudan and Somalia to scale up production of nursing, midwifery and allied health professionals. Support was provided to several countries (Djibouti, Egypt, Iraq, Libya, Sudan, United Arab Emirates and Yemen) to improve pre-service nursing, midwifery and allied health education. The Syrian Arab Republic received support to establish a bridging programme at Tichrin University to allow nurses with a nursing diploma to obtain a university degree. Regional capacity was built in infection prevention and control and injection safety, in collaboration with WHO headquarters and the Safe Injection Global Network (SIGN).

Iraq received support to review and update its national nursing and midwifery strategic plan. The Islamic Republic of Iran initiated the leadership and management training programme developed by the International Council of Nurses, with support from the Iranian Nursing Organization and WHO. Technical support was provided to the nursing and midwifery councils of Oman, Sudan and United Arab Emirates to strengthen regulation. The regional strategy for nursing and midwifery development 2012–2020 was developed during the eighth regional advisory panel meeting, based on the analysis report of the country nursing profiles, review of the present challenges facing nursing, and the achievements and lessons learned over the past decade. The Regional Office supported international nursing conferences organized by universities in Jordan, Sudan and the Order of Nurses in Lebanon and provided technical support to sub-regional nursing forums, such as the Arab Scientific Society of Faculties of Nursing to strengthen nursing education and the GCC Technical Committee for Nursing to develop public

Participants in the eighth meeting of the Regional Advisory Panel on Nursing

health nursing within the context of primary health care.

In the area of networking of educational development centres and WHO collaborating centres in health professions education and nursing development, monitoring continued of the current collaborating centres in Bahrain, Egypt, Islamic Republic of Iran, Jordan, Pakistan and Sudan. Re-designation of two other centres was successfully completed.

A total of 218 fellowship requests were awarded. The highest number of requests was from Sudan, followed by Afghanistan (Table 2.2). The majority of fellows (137 fellows) continued to be placed within the Region. The European Region was the second most frequently chosen host for placement (38 fellows). Figure 2.1 shows those whose placements were finalized during 2011. Distance learning was well utilized, reaching 35 in number enrolled, of which the majority was distributed between public health, mental health and health professions education. Figure 2.2 shows the distribution of fellowships by area of study. Training in public health was the most frequent area of study followed by training in communicable diseases.

In the area of *research policy and cooperation*, the Regional Committee (EM/RC58/R.3) endorsed strategic directions for scaling up research for health in the Eastern Mediterranean Region. These were in line with the global strategy on research for health. Capacity-building on ethical issues in research for health was conducted for WHO staff involved in research. The status of the Regional Office Ethics Review Committee was reviewed, with the aim of optimizing the functionality of the Committee in ethical review of WHO-supported research protocols. To ensure transparent, evidence-informed conduct of health research, a pilot project to establish knowledge translation platforms and develop policy briefs in three countries (Jordan, Lebanon and Sudan) was initiated. Support tools for evidence-informed health policy-making were translated into Arabic. In collaboration with McMaster University, Canada, the Regional Office translated the health systems evidence website of the McMaster Health Forum into Arabic to support knowledge-sharing of global research with researchers in the Region.

Fifteen proposals were selected for funding under the grant for research in priority areas of public health through a rigorous review process, including internal and external review. Capacity-building was supported for researchers in Somalia, to institutionalize health systems research and set national priorities for research for health.

Table 2.2 Number of fellowships awarded by country of origin, Eastern Mediterranean Region, 2011

Country	Number	Percentage (%)
Afghanistan	34	15.6
Egypt	26	11.9
Iran, Islamic Republic of	1	0.5
Iraq	17	7.8
Jordan	1	0.5
Kuwait	2	0.9
Morocco	12	5.5
Oman	13	6.0
Pakistan	13	6.0
Occupied Palestinian territory	7	3.1
Somalia	3	1.4
Sudan	45	20.6
Syrian Arab Republic	10	4.6
Tunisia	4	1.8
United Arab Emirates	1	0.5
Yemen	29	13.3
Total	218	100.0

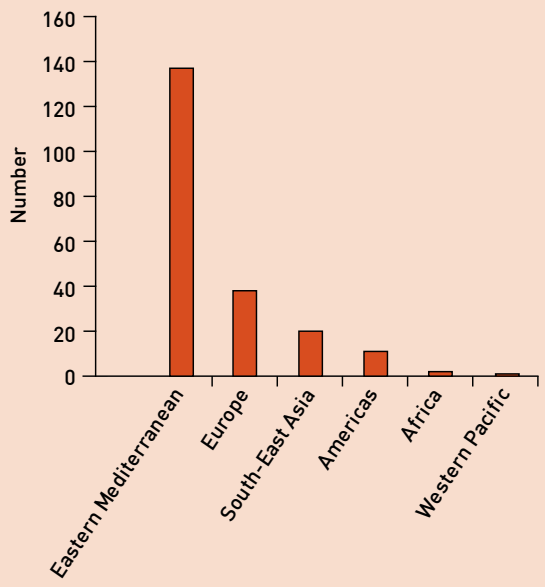


Figure 2.1 Distribution of fellowships by region of placement, 2011

The Regional Office also supported efforts to identify regional research priorities in noncommunicable disease. The Regional Office and COMSTECH (Standing Committee for Science and Technology of the Organization of Islamic Countries) continued its work in reviewing and selecting qualifying proposals for funding under the grant for research in applied biotechnology and genomics in health to strengthen national capacity in this area. A working session was held for researchers to improve the proposals submitted, focusing on tuberculosis.

Capacity-building in ethical issues in research for health for national ethics committees was supported in Egypt and Pakistan. A consultation on establishing clinical trials in the Region recommended

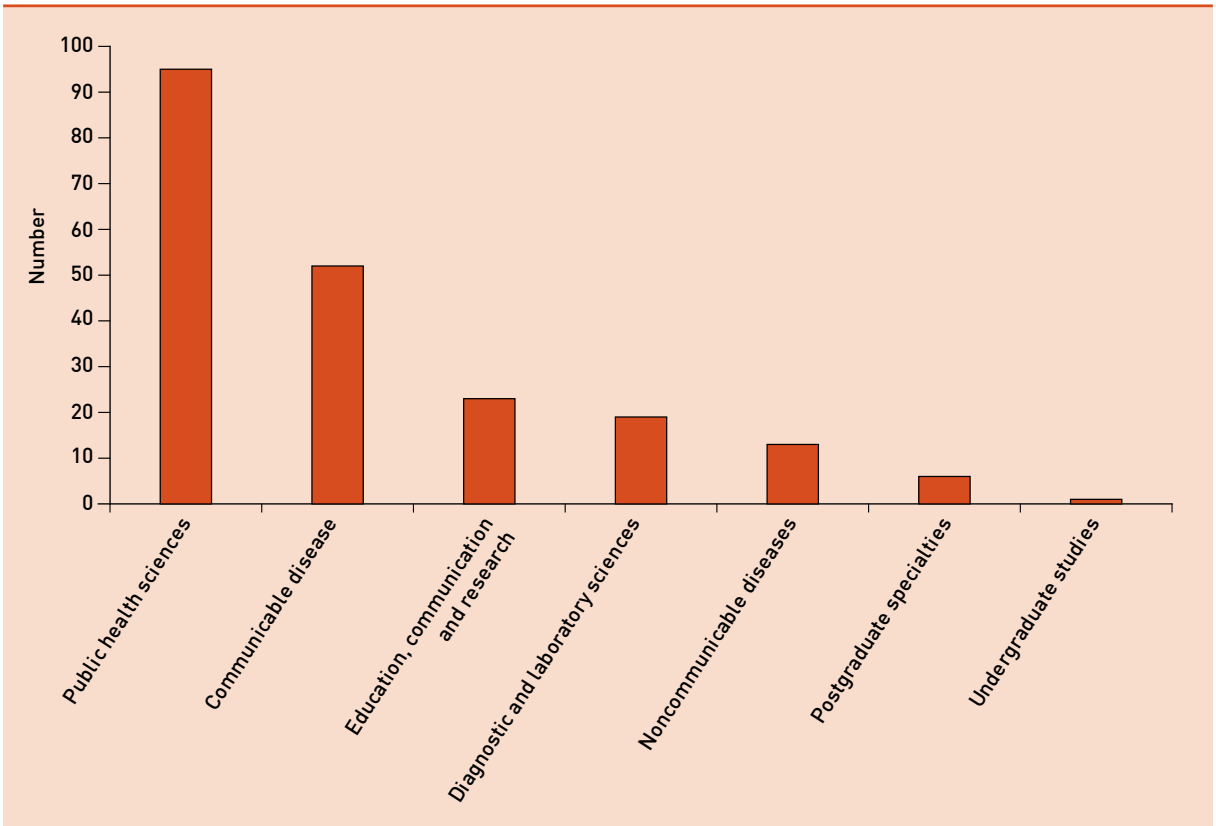


Figure 2.2 Distribution of fellowships by area of study, Eastern Mediterranean Region, 2011

the establishment of a regional clinical final registry. Regional capacity in publishing quality medical journals continued to expand. Following the second regional training course in medical journal publishing, thirteen countries now have trainers available in this field. The Eastern Mediterranean Association of Medical Editors continued to expand its network, with more than 300 now subscribing to the listserv.

Efforts continued in line with the regional strategy for knowledge management to support public health by improving access to health information and building capacity at national and regional level. National and regional capacity-building in Research4Life programmes (HINARI, OARE and AGORA) was supported, with trainers trained from nine countries (Iraq, Jordan, Morocco, occupied Palestinian territory, Somalia, Sudan, Syrian Arab Republic, Tunisia and Yemen). Twenty-eight health institutions from 11 countries joined the regional e-journals consortium, an increase of 100% compared with 2010. The consortium allows access to the full-text of more than 850 journals based on subscriptions to the printed journals with no additional cost. Collaboration continued at global level for development of the Global Health Library which will improve the equitable access to health information for all.

Future directions

Advocacy for adoption of national policies supportive of primary health care, including universal coverage, will continue. Particular efforts will be made to advocate for the family practice-based approach to be at the heart of the development of health systems and provision of health care. Accreditation of health facilities and services will be revisited to ensure quality assurance. Public awareness and health education to improve patient safety will be promoted and a patient safety improvement toolkit to assist hospital administrators in establishing a patient safety programme will be developed. Patient safety concepts and approaches will be integrated in pre-service education of all health professionals, using a multidisciplinary approach.

Technical support in strategic health planning, policy development and good governance in health will be strengthened, with support provided during the national planning and mid-term review cycles. National capacity will be developed, with special attention to how the various health systems components interact with the social determinants of health, in order to create a broader and more holistic approach to health and development. User friendly tools for assessment of health system performance will be developed. Region-specific strategies for harnessing the role of the private sector and strengthening public–private partnerships will be implemented. Social determinants of health will be integrated into national health policy and strategy and countries will be supported in establishing national strategic plans for social determinants of health with focus on inclusion of health in all policies.

Social health protection will continue to be promoted through comprehensive review of health financing arrangements and support for development effective and efficient health financing policies. Particular attention will be given to building national capacity in use of the new system of health accounts and the OneHealth Costing analytical tools, and to promoting partnerships to advocate evidence-based health care financing reforms.

Technical support to strengthen management systems for effective delivery of health care will continue, including hospital

performance assessment and improvement and monitoring of decentralization. Implementation of global health initiatives and the single health system funding platform based on sound national health plans will be promoted. National capacity-building efforts in health system strengthening will continue.

Support to strengthen national health information systems, quality of routine data collection and civil registration and vital statistics systems will continue, as will work on implementing the recommendations of the Commission on Information and Accountability for Children's and Women's Health. Steps will be taken to embark on an in-depth analysis and comparative studies on progress towards the Millennium Development Goals, risk factors, health status, noncommunicable diseases and burden of disease, using the wealth of information collected though national surveys and studies. The health information system platform to support countries to improve their routine data collection systems, and communicable and noncommunicable surveillance systems will be developed.

Adoption of the regional human resources for health strategy to strengthen governance, production and management of human resources will be promoted. National capacities to generate evidence on human resources for health dynamics, including sustaining existing observatories and establishing new ones, will be strengthened. In addition, national capacities to develop policy briefs, as well as skills in governance and management of human resources for health, will be built through a series of competency-based learning courses. The establishment of policy forums at the national level will be facilitated.

The draft regional strategy for nursing and midwifery development 2012-2020 will be circulated within the Region to achieve consensus before finalization. It will be used as a guiding framework for developing nursing and midwifery services and for WHO collaboration with countries in this area. The role of the nursing profession in leading infection control and patient safety at the national level will be supported through development of a regional framework on infection control and prevention and patient safety. Partnership and collaboration with the WHO collaborating centres for nursing will be enhanced and technical support to the sub-regional forums will be continued to further improve nursing education and services. Technical support will be provided to post-conflict countries in reform of education and human resources policy development, and planning and scaling-up production of nurses, midwives and allied health professionals.

Countries will be supported in their efforts to establish and strengthen their national health professions education accreditation systems and to advocate for social accountability in medical education. The regional guide and standards for accreditation will be translated and published. Networking, collaboration and information sharing between different educational development centres will be further supported. The focus of the fellowship programme will be on streamlining the placement process, updating rosters of training institutions and monitoring the quality of training and post-fellowship impact.

The Regional Office will continue to work with Member States to promote and strengthen a culture of research for health at the national and regional level through implementing the strategic directions endorsed by the Regional Committee for scaling up research for health in the Region, building national capacities to

conduct research for health that is needs-driven and addresses the priorities of the countries, and expanding collaboration with academia and research centres to address emerging regional and national research for health needs. Efforts will be made to establish, at the Regional Office, a regional clinical trial registry that complies with the International Clinical Trials Registry platform and to promote adherence to ethical considerations in research for health involving human participants. The role of WHO collaborating centres in promoting and contributing to the implementation of the research for health agenda at the national level will be enhanced, and dissemination and translation of research results will be facilitated. With the presence of the regional networks, such as the Evidence-Informed Policy Network (EM-EVIPNet) and the regional network of academic institutions (EMRAIN), knowledge translation platforms at the national level will be established and evidence-informed decision-making will be encouraged. Capacity-building of editors will continue to be supported in the next biennium to promote quality and standards in medical journal publishing in the Region, in particular at country level.

The Regional Office will continue to support the medical and health libraries network by strengthening and improving the utilization of information resources through the e-resources consortium for medical libraries in the Region. Capacity-building for medical librarians, health workers and professionals at national level will continue.

Strategic objective 11: To ensure improved access, quality and use of medical products and technologies

Issues and challenges

The delivery of equitable, quality and efficient health services requires an array of properly balanced and managed resource inputs. Health technologies, in the form of medicines, vaccines, devices and clinical procedures, are principal resource inputs that require countries to establish systems for standardizing and regulating their selection, procurement, use and management. The public sector in the Region consumes around 50% of the recurrent public health budget on health technologies. However, the ability of existing under-funded and weakly staffed national systems to manage them is extremely poor. This has become an increasingly visible operational and policy issue for many countries, especially those in situations of complex emergency and/or disaster. Countries face five major challenges: availability – lack of capacities and resources needed to make essential health technologies available to the public; accessibility – lack of equitable access to safe, quality and adequate health technologies and clinical services; appropriateness – failure to promote essential health technologies that are scientifically valid, adapted to needs, acceptable to patients and users, and easy to use and maintain; affordability – continuous growth of expenditure on health technologies leading to escalation in service delivery costs; and accountability – fragmentation of regulatory authorities, ineffective control over the private sector,

lack of coordination between programmes and/or regulatory bodies, and weaknesses in prequalification and post-marketing surveillance mechanisms. Although the overall implementation rate from available funds for the health technology programmes is reasonable, a major challenge will be to continue to implement successfully in the midst of the political changes and upheavals affecting much of the Region.

Achievements towards performance indicator targets in each expected result

In the area of *essential medicines and pharmaceuticals policies*, technical support was provided to countries to formulate, review and implement evidence-based policies. The Regional Office continued to build national capacity in operational research to measure critical indicators such as access (availability/affordability), quality/safety and use of medicines. Capacity was built in Bahrain, Iraq, Qatar and Saudi Arabia on conduct of pharmaceutical sector assessment using WHO level II methodology, and in Egypt, Iraq, Kuwait, Oman and Sudan on transparency assessment as part of the good governance for medicines programme.

Rapid assessment of the medicines regulatory structure was conducted in Libya during the crisis, and technical support was provided to the supply system. More than 40 regulators and essential medicines producers from 11 countries were introduced to the principles of WHO quality standards. Manufacturers from Egypt, Islamic Republic of Iran, Morocco, Pakistan, Saudi Arabia and United Arab Emirates expressed interest in the WHO prequalification of medicines programme, submitting essential medicines product dossiers. In addition, capacity-building on medicines quality control was provided to Egypt, Islamic Republic of Iran, Oman, Saudi Arabia, Sudan, Tunisia and Yemen.

In the area of *essential vaccines and biologicals policies*, advocacy on behalf of the WHO policy for strengthening vaccine regulations and prequalification measures was conducted in Saudi Arabia and Sudan. Technical support was provided to build the technical capacity of the national regulatory authorities and EPI staff on regulation of influenza vaccines. A guidance document on the registration of vaccines in emergencies was drafted. The terms of reference of the regional technical committee for evaluation of vaccines were reviewed and finalized. In collaboration with the Supporting Independent Immunization and Vaccine Advisory Committee (SIVAC), a consultation was organized to strengthen the coordination between national regulatory authorities and national immunization technical advisory groups.

Capacity-building of health professionals and regulators through specialized training on monitoring and causality assessment of adverse events following immunization was conducted in the Islamic Republic of Iran. In Sudan, technical and financial support was provided to strengthen intussusceptions surveillance, and capacity built on causality assessment. As part of the regional activities related to the regional vaccine pooled procurement initiative, the vaccine regulatory systems of Algeria and Tunisia were reviewed.

In the area of *blood safety, laboratory and imaging*, the implementation of regional external quality assurance (REQA), national networks of public health and food regulatory agency laboratories, and laboratory biosafety and biosecurity were advocated. Egypt, with the technical support of the Regional Office and the Italian Government, is embarking on

creating a new BSL-3 diagnostic laboratory. Oman was the focus and model for implementation of most laboratory schemes and activities during the past biennium.

Capacity was built in good manufacturing practices (GMP) for blood and plasma establishments in 17 countries. The training of inspectors on GMP for the purpose of creation of national regulatory authorities for blood transfusion services was completed. The Islamic Republic of Iran, supported by the Regional Office, is currently seeking accreditation for its national authority in this regard. Capacity-building was supported for Afghanistan on surgical care at the district level. Following the promulgation of the law on transplantation, Pakistan is working with the Regional Office to designate a WHO collaborating centre in this area of expertise.

In the area of *medical devices*, the results of the global survey on medical devices, in which over 60% of countries of the Region participated, were published. The results will aid policy-makers and decision-makers in: estimating future needs for medical devices in the context of available resources; comparing performance with countries with similar conditions, thus establishing national benchmarks; and developing evidence-based health technology policies within existing national health systems.

Technical support was provided to: Sudan, Syrian Arab Republic and Tunisia in development, review and implementation of national policies, rational procurement, selection, management and use of health technology; Oman in addressing essential health technology-related problems at different delivery levels; Libya in restoring and/or developing their health services; and Jordan in initializing a health technology assessment programme. Collaboration with WHO headquarters resulted in the development of 19 different WHO publications covering the whole range of health technology management.

Future directions

Improving management of health technologies will remain a serious challenge and require a comprehensive health system approach. Establishment of transparent procurement and supply mechanisms, development of adequate country-specific profiles, promotion of transparency and good governance concepts, rational use, and capacity-building are possible solutions. Support will continue through development of a regional strategy on health technologies based on available data and results of the global survey. The capacity of national regulatory authorities to implement WHO recommendations for strengthening health technology regulation will be enhanced. Training modules on management of medical devices will be developed, based on WHO guidelines, to support national capacity-building. Functional review studies will be conducted on existing national health technology programmes with a view to improving their management. GMP concepts for quality and safety of manufactured medical products will be promoted. Partnership and coalitions with other strategic partners to identify regional and/or national mismatches in terms of the five challenges, common interests, financing mechanisms, and potential resources will be necessary to ensure sustainability of WHO technical support services.

Chapter 3
Partnerships and WHO performance

3. Partnerships and WHO performance

Strategic objective 12: To provide leadership, strengthen governance and foster partnership and collaboration with countries, the United Nations system and other stakeholders in order to fulfil the mandate of WHO in advancing the global health agenda as set out in the Eleventh General Programme of Work

Issues and challenges

2011 marked a difficult and challenging period for the Regional Office due to the complex situation affecting 13 Member States, including the host country, Egypt. In spite of these difficulties, as well as the continuing financial crisis, WHO continued to strengthen its country presence, promote functional partnerships and engage Member States in the work of the governing bodies. The situation in the Region hindered the operation of health programmes and consequently their funding. High turnover among senior government staff in some countries made planning for partnerships a difficult task.

Health communications, enhancing partnership with stakeholders, academia, communities and civil society and building consensus on regional priorities are key communications areas, based on the pattern of communicable and noncommunicable diseases in the Region and the status of progress towards the Millennium Development Goals. The increasing prominence of social media in the Region is beginning to have an impact on WHO's strategic approach to health communications. There is still a considerable need for capacity-building in health communications throughout the Region. Health messaging needs to complement the integrated approach to health care and support behaviour change for healthy lifestyles.

Accessibility to health information in national languages is critical to improving health status. Demand from policy-makers, health professionals and the public for accurate and timely information on health in different languages, whether in print or other formats, as well as through the internet, continues to be high. The Regional Office continued to address the challenges in knowledge management and sharing by improving accessibility to and availability of health knowledge, as well as promoting use of electronic information resources.

Achievements towards performance indicator targets in each expected result

WHO continued its strong collaboration with Member States to improve the health situation and mitigate emergencies in the Region, demonstrating its commitment to leadership and fostering partnership. The Joint Programme Review and Planning Missions were completed, despite the difficult circumstances in many countries, and the development of the collaborative

health programmes for the 2012–2013 biennium was successful. WHO mobilized resources and, in many instances such as in Libya, led the United Nations response which required a heavy engagement of health stakeholders.

The humanitarian crisis in the Region, Millennium Development Goals, adolescent health and risky behaviours, and health equity were among the priority areas of collaboration discussed at the annual joint coordination meeting of the Regional Director with the Regional Directors of UNICEF, UNESCO, UNAIDS, WFP, FAO and UNFPA. For each action point adopted, the participating agencies agreed to strengthen coordination at the regional and country levels. The Regional Consultative Committee made recommendations to improve the contents of the technical papers for submission to the Regional Committee and to guide the Regional Office on action to be taken in the areas discussed. The Fifty-eighth Session of the Regional Committee was successfully conducted in the Regional Office, and resolutions pertaining to policy and strategy of the technical areas discussed were adopted. In addition, a new Regional Director, Dr Ala Alwan, was nominated to the Executive Board and the outgoing Regional Director, Dr Hussein A. Gezairy, was named Regional Director Emeritus.

WHO actively participated in the activities and meetings of the regional United Nations Development Group (UNDG). It also contributed to the process of the Common Country Assessment (CCA) and United Nations Development Assistance Framework (UNDAF) for countries as a member of the peer support group. The Regional Office contributed to the development of policy directions and strategies of the regional UNDG. In Egypt, the Regional Office collaborated in and supported the reshaping of health action within the UNDG.

The Regional Office further developed the Country Cooperation Strategy (CCS) initiative to strengthen WHO's presence at country level and to guide planning, budgeting and resource allocation. It embarked on a series of efforts to strengthen its external coordination and resource mobilization function, to expand operational capacity and to enhance collaboration with other partners. The CCS document has now become a major reference in all countries, as well as being well known among United Nations country teams. By early 2011, updated CCS documents had been finalized for 14 countries, including for the first time, Somalia. In Islamic Republic of Iran, Iraq, Pakistan and Somalia, the support and collaboration of the Regional Office was influential in setting the agenda for United Nations and other partners' support for the health sector. WHO country offices and the Regional Office continued their efforts in countries to utilize the outcome of the CCS process for strengthening and guiding planning, budgeting and resource allocation on strategic and priority activities and programme. A major challenge is the lack of human and financial resources to increase the capacity of WHO country offices to implement the strategic priorities.

The Regional Office initiated development of an e-partnership information system, and an e-course on partnership and resource mobilization, to assist it in its resource mobilization efforts, which have been a particular challenge in the political and financial crisis facing the Region. Several governments and foundations responded positively and rapidly to the crisis in the Region, offering support to the public sector through WHO for humanitarian aid, medicines and mobile clinics. This

crucial response by the regional partnership establishment succeeded despite the prevailing financial and political challenges.

With regard to resource mobilization, capacity was built in Afghanistan, Jordan and the Regional Office. Country offices were trained on how to promote unfunded health activities with partners, donors, foundations, charities and interested health nongovernmental organizations. The Regional Office was instrumental in securing funds from Saudi Arabia to assist in the Somali famine for food and medicines, from the Kuwait Patient Helping Fund for activities in Somalia, Afghanistan, Yemen and Libya, and from the Islamic International Relief Organization.

The Regional Office was active its media and communications response to the Libyan crisis and Somali famine and ensured that Flash appeals, press releases and statements were issued in a timely manner. Production of health messages and advocacy materials expanded to raise health awareness during emergencies for prevention of epidemics and other health hazards. Booklets covering community health, first aid and health of mass gatherings were issued and distributed. Collaboration with partners was enhanced to provide appropriate response to emerging situations. A television campaign to raise famine relief funds was conducted in collaboration with regional television channels for Somalia. The capacity of communications officers to support emergency response and make use of modern trends in communications was strengthened. Social media sites were set up and used to raise awareness of the work of WHO in the Region. A health kiosk which enables the public to measure blood pressure and body mass index was developed as a tool to promote healthy lifestyle.

As success in improving the health of all people depends mainly on meeting their needs, increasing their awareness and engaging them in making decisions related to their lives and health, the Global Arabic Programme continued to provide people with valid and up-to-date health information in their languages. The Regional Office implemented 79 contracts for translation of health information materials into Arabic, among them six new information products in the Teaching and Learning Materials for Medical Students series and Medical Books series. Partnership and collaboration were enhanced (Table 3.1).

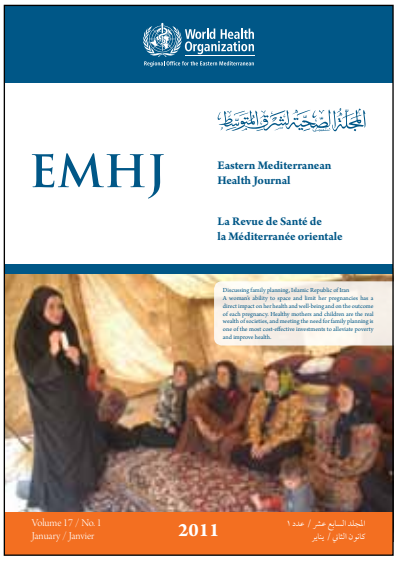
The Regional Office continued its collaboration with headquarters, exchanging staff to assist in translation of documents relating to the work of the governing bodies, and supporting the Arabic version of the Bulletin of the WHO, translating and posting it on the WHO web site each month. Development of the *Unified Medical Dictionary* continued, through software enhancement, addition of more terms, including Farsi terms, and improving accessibility through the internet and CD. The Arabization of Health Science Network (AHSN) continued to support terminology development. To support implementation of the WHO policy on multilingualism, the Regional Office participated in the second meeting of the Association of Arabization of Medical Education.

The Regional Office web site is an increasingly important means of sharing and disseminating knowledge for those countries that have good internet access. The major project to redevelop and redesign the Regional Office web site continued. Content providers in the Regional Office and country offices were trained over four months and submission of new material commenced towards the end of the year. Regional events,

Table 3.1 Partnership and collaboration in Arabic language health information materials

Institution	Activity
Syrian Centre for Teaching and Learning Material, Ministry of Health, Syrian Arab Republic	Health education materials
Syrian Ministry of Higher Education	Partnership with Egyptian Universities
College of Public Health and Health Informatics, King Saud Bin Abdulaziz University for Health Sciences, and the Saudi Association for Health Informatics	King Abdullah Arabic health encyclopaedia
Medical Education Department of Suez Canal Medical School, Egypt, Ministry of Higher Education, Syrian Arab Republic	Diploma in medical education in Arabic
Sebai Institute	Teaching and learning materials for students in paramedical institutes, and teaching books in health education, nutrition and school health
American University of Beirut	Arabic version of Public health in the Arab World, currently in press by Cambridge University Press
Arab Centre for Authorship, Translation, Arabization and Publishing (ACATAP), Damascus, Syrian Arab Republic	Books for students in medical and health-related colleges

lack of resources and competing priorities contributed to some delay in achieving the launch target, which is now expected in the first quarter of 2012. The entire redevelopment process, including training and content development, was managed in-house using an open-source content management system, saving considerably on investment in external development. A new internal intranet site was launched, using the WHO headquarters content management system, providing quick, efficient and integrated access to knowledge on WHO policy and administrative procedures for staff throughout the Region.



The Regional Office issued 46 English, 21 French and 29 Arabic publications and 17 periodicals (see Annex 4). Figure 3.1 shows the increasing trend in information production in the official languages since 2000, reflecting the demand for knowledge. Also issued were 49 meeting reports, 10 country cooperation strategy documents, 20 Regional Committee documents in the three official languages, 21 executive action documents arising from consultant assignments and 109 speeches of the Regional Director. Over 700 papers were submitted for publication in the *Eastern Mediterranean Health Journal* in 2011. The Journal continued to come out on time, with a total of 169 papers published.

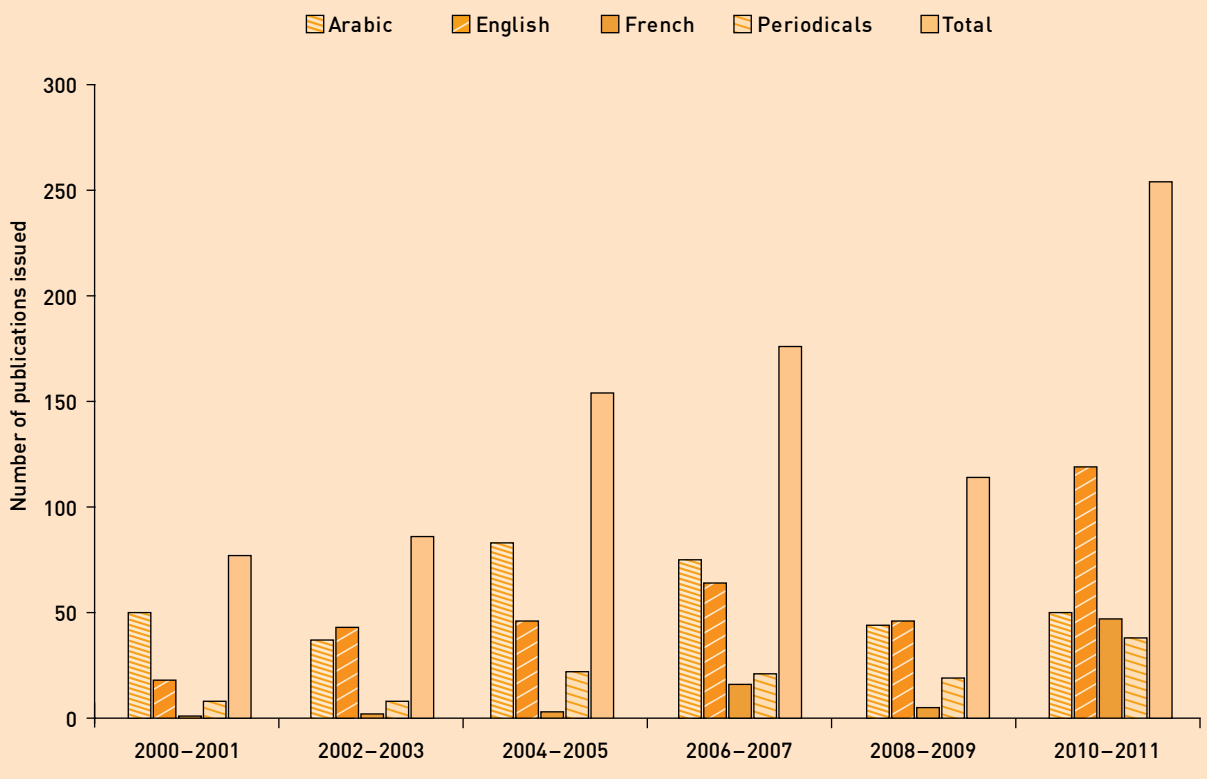


Figure 3.1 Trend in information production in the Regional Office 2000–2011

Provision of health literature – books, journal subscriptions, CD-ROMs and online access, increased 37.8% compared with 2010, with purchases amounting to a total value of US$ 1 086 737, an increase of 60.4% compared with 2010. Figure 3.2 shows the percentage distribution of procurements of health literature. The Regional Office continued to provide staff and Member States with the full text of publications free of charge through the Inter-Library Documents Delivery Services, with an increase of 48% compared with 2010.

In the area of knowledge management and sharing, the Institutional Digital Repository was launched with the aim of improving accessibility to and availability of the Organization's knowledge. The repository is a database of the documents

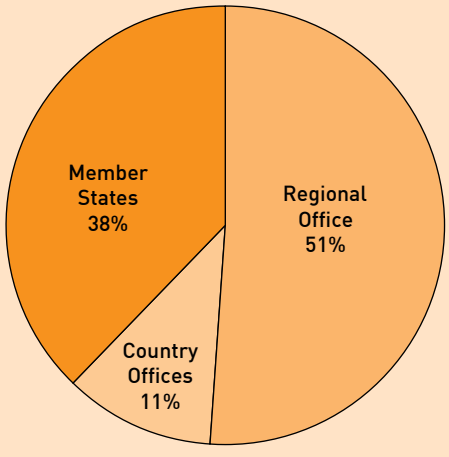


Figure 3.2 Procurement of health literature for Regional Office, country offices and Member States in 2011

of the Regional Office from 1948 to the present and as such comprises an important institutional and historical resource. Figure 3.3 shows the percentage growth in the repository since it was created in 2006, to end 2011. The Regional Office also continued to support the development of the WHO global Institutional Repository of Information and Sharing (IRIS).

Abstracting and indexing services for the 523 health and biomedical sciences journals published in 19 countries of the Region continued. Figure 3.4 shows the trend in the number of bibliographic citations that were indexed and published in Index Medicus for the Eastern Mediterranean Region from 2006 to 2011. In order to improve access to health information related to emergencies and risk management in remote areas of the Region, the Regional Office prepared 17 Red Trunk Libraries to be sent to country offices.

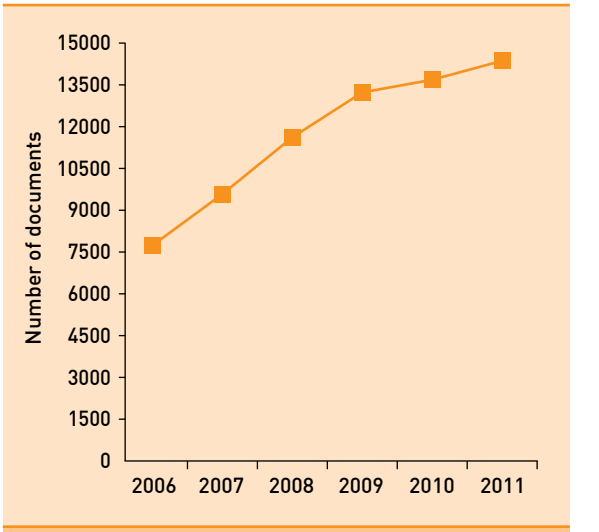


Figure 3.3 Growth in the institutional digital repository, 2006–2011

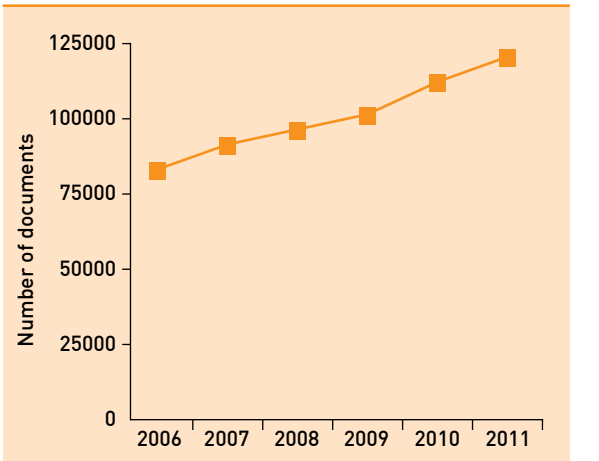


Figure 3.4 Trend in health and biomedical bibliographic citations indexed and published in Index Medicus for the Eastern Mediterranean Region, 2006–2011

Future directions

In a situation of extended social movement and change, the Regional Office was able to arrange timely and effective response, in spite of the fact that the WHO staff were also affected. However, a more active role could be developed in regard to promoting WHO principles and policies, including equity, universal coverage, social justice, poverty reduction, social inclusion and the primary health care approach, in order to address some of the root causes of the complex situation emerging in the Region. The Regional Office will continue to collaborate with Member States for the implementation of Country Focus policy. A partnership policy will be developed and support provided for management and coordination of relations with the United Nations agencies, civil society, private sector and other stakeholders.

Countries will be given support to strengthen partnership, external coordination and resource mobilization capacities. The importance of planning a wide range of collaboration and cooperation under the United Nations system as "one United Nations" will be pursued at the regional and country level. The Regional

Office will develop a strategic direction for media and communications in collaboration with communications focal points in the Member States and WHO country offices. Capacity-building in media and communications skills will continue.

It is essential to invest in generating and disseminating health information using the most up-to-date technology, the friendliest format and the most accessible channels. Building new and more productive partnerships with local, national, regional and international organizations is the key to disseminating health information in national languages. Increased emphasis will be placed on enhancing use of the internet for knowledge dissemination, in particular through the launch of a new, more accessible user-friendly web site. The Regional Office will continue to improve accessibility and availability of health knowledge and better utilization of electronic information resources. Strengthening the capacity of the Regional Office in electronic publishing will be a key challenge.

Strategic objective 13: To develop and sustain WHO as a flexible, learning organization, enabling it to carry out its mandate more efficiently and effectively

Issues and challenges

The disparity between available funds and human resources, and their distribution across the Organization remains a challenge. The securing of additional, flexible funding, and working to ensure better allocation of available resources are among the priorities. The total approved regional assessed contribution of the financial period 2010–2011 was US$ 90.6 million, including the Director-General's reserves. In addition, voluntary contributions for the same period amounted to US$ 646 million. Strategic objectives 1 and 5 continued to be well funded and represented 75% of the total income received as voluntary contribution. The capacity of country office staff to deal with the realities imposed by the introduction of the global management system (GSM) continues to be a challenge, particularly with regard to the transition from the former country level accounting system to the new integrated GSM accounting system. GSM continues to pose some operational challenges and requires additional capacity-building at country level to improve efficiency.

The Region continued to be affected by crises, with five countries affected by civil unrest. This resulted in high costs to programme delivery. Emergency recruitment and additional human resources and services had to be provided. Communications and other services were maintained with minimum down time. However, upgrading of the information technology and telecommunications infrastructure was postponed. Essential medicines, vaccines and other medical supplies were delivered as quickly as possible, including to security-compromised areas. Sustainable financing of location-specific security costs continues to be a challenge despite having secured funding for overall security needs.

Achievements towards performance indicator targets in each expected result

Joint Programme Review and Planning Missions were conducted successfully using the GSM functionalities for all countries, including South Sudan which became a Member State on 27 September 2011, resulting in operational plans for the biennium 2012–2013. The Regional Office continued its efforts in building capacity among country office staff to expand the utilization of the results-based management framework.

The Region took the lead in developing generic post descriptions for a specific occupational group in the professional category – epidemiologists – at regional and country levels. Improved methods were developed to monitor and track implementation of the recruitment process. Annex 1 shows the organizational structure of the Regional Office and Annex 2 shows the distribution of professional staff by number and nationality.

The final implementation incurred for the 2010–2011 biennium represented 100% of the total available funds under the assessed contribution budget. Implementation against voluntary contribution funds amounted to US$ 411 million, exceeding the assessed contribution budget by more than four times.

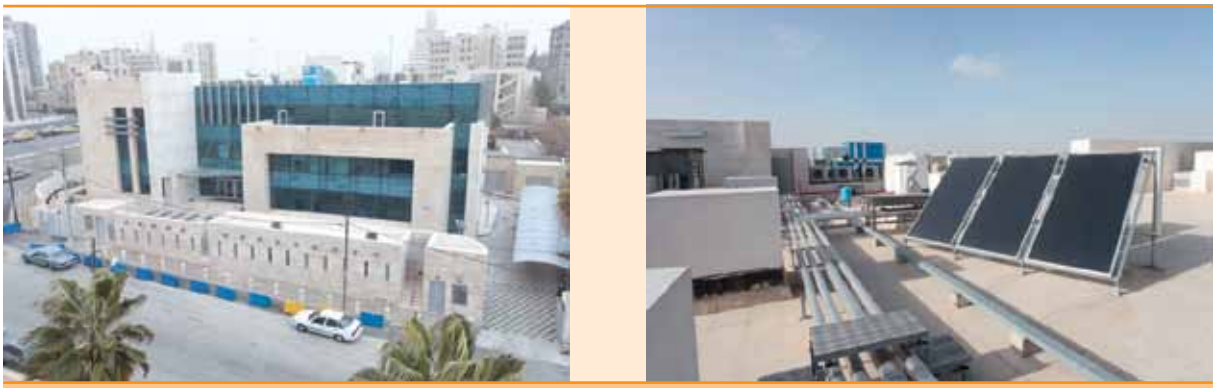
Although upgrading of the Regional Office information technology and telecommunications infrastructure was postponed, several enhancements were made. These included increasing internet bandwidth, upgrading videoconference facilities, improving the efficiency of networks, and enhancing voice and other telecommunications infrastructure to align with best practices in the industry and better support operations. In addition, the first stage

Regional Director Dr Ala Alwan, together with HRH Princess Muna Al Husseini and HE the Minister of Health, at the opening of the new WHO building in Jordan

procurement of appropriate products, such as computer assisted translator for the Global Arabic Programme. An agreement was reached with UNRWA to collaborate on further development of the UNRWA eHealth system to support the work of both organizations. A business continuity plan was prepared for both the Regional Office and country offices, based on the experience gained during 2011, as well as a risk assessment and mitigation framework based on the headquarters' model.

Following the completion of the new WHO building in Jordan, the first and only United Nations "green" building in the Region, the relocation of staff from the Jordan and Iraq country offices and CEHA to the new building was completed efficiently.

The approved capital and security master plans for the Region were implemented, resulting in enhanced security and an appropriate working environment for implementation of programme activities. A number of measures were introduced which enabled the Regional Office to address the scarce financial resources without compromising essential logistical and administrative services. These included some



The new WHO building in Jordan is the first and only United Nations "green" building in the Region

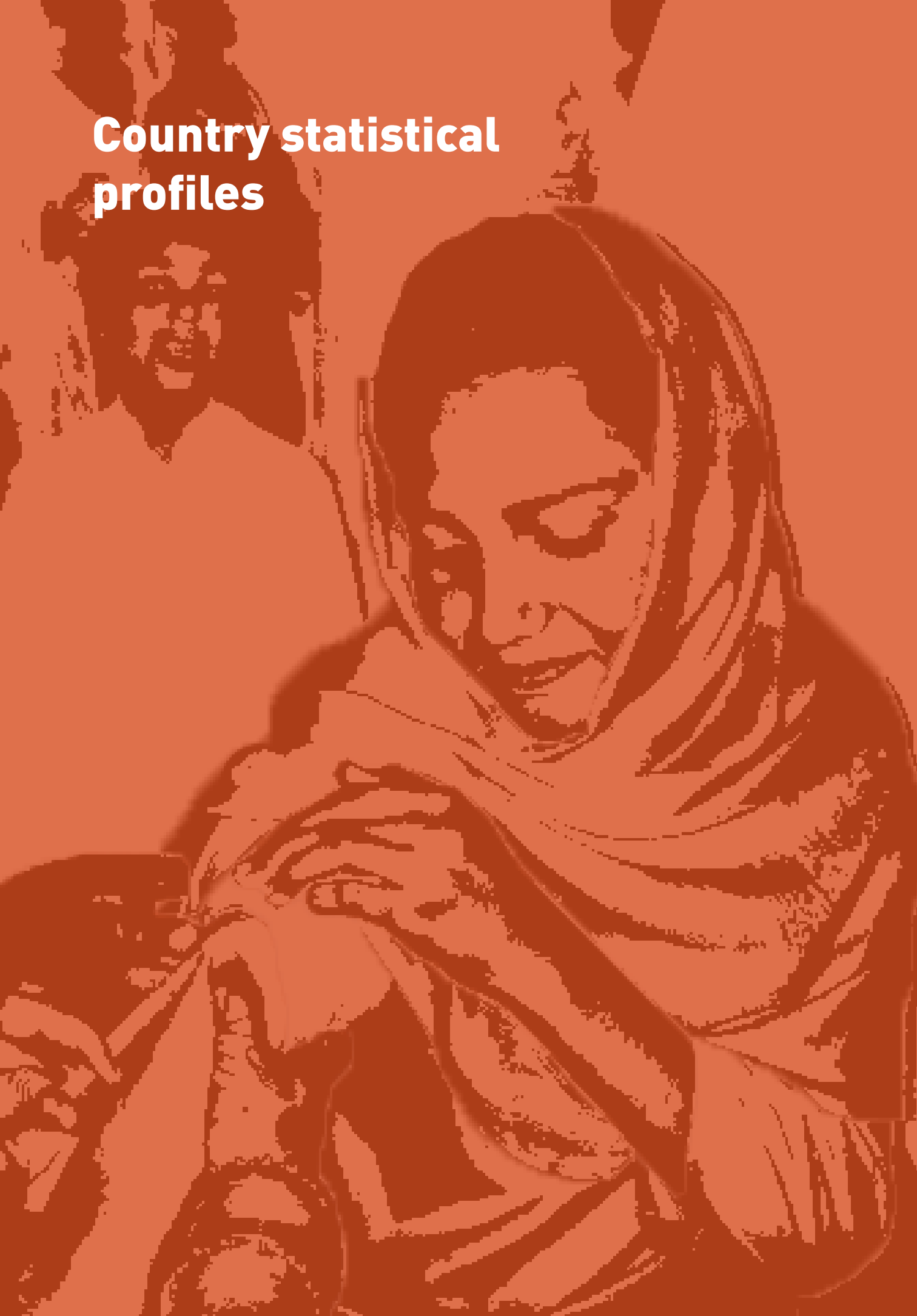
human resources restructuring, reduction in travel and implementation of more cost-effective measures in building maintenance and operation.

Out of a total value of US$ 140 million in reimbursable procurement for the Government of Libya, requests for the purchase and delivery of medicines and medical supplies worth US$ 54 million were processed.

Future directions

Upgrade of GSM and further capacity-building for results-based management should ensure effective strategic and operational planning and an adequate monitoring and evaluation tool. The use of core voluntary contributions (flexible funding) will be rationalized to enable the Regional Office to assure maintenance of appropriate technical support and of standard monitoring reports on programme budget implementation by strategic objective and budget centre. The Regional Office will introduce resource planning as a mandatory element in 2014–15. The infrastructure in the Regional Office and country offices will be prepared to host a number of global projects including global email and global synergy. More attention will be paid to supporting emergency and eHealth programmes in cooperation and coordination with concerned technical and administration units. Relocation of the country office for Somalia in Nairobi and construction of a new WHO office in Garowe, Somalia, will be undertaken.

Country statistical profiles



Demographic indicators

Country	Area	Population 2011		Population dynamics					Age distribution and dependency ratio				Total fertility rate (*R*) (per woman)	
									Age distribution		Dependency ratio[f]			
		Total	Urban	Crude birth rate	Crude death rate	Growth rate			<15 years	65+ years				
	km^2	000	%	‰	‰	Y	%	Y	%	%	%	Y	*R*	Y
Afghanistan	652 225	26 500	23.0[a]	35.6	29.6[b]	2010	2.6	2010	46.0	4.0	100.0	2008	5.1	2010
Bahrain	762	1 235[a]	100.0[a]	15.0	2.0	2009	5.8	2010	20.1	2.1	28.5	2010	1.9	2010
Djibouti	23 000	865	84.0[b]	42.0	15.0	2006	3.9	2009	35.2	4.1	64.7	2009	...	...
Egypt	1 009 500	80 410	42.9	30.4	6.1	2011	2.4	2011	31.7	3.7	55.0	2011	3.0	2011
Iran, Islamic Republic of	1 648 195	75 801	72.5	18.5	4.6	2009	1.5	2010	22.5[a]	5.1	37.9[a]	2011	1.8	2006
Iraq	435 052	33 227	66.0[a]	38.0	4.2	2011	3.5	2011	40.0	3.0	75.4	2011	4.3	2010
Jordan	89 318	6 113[a]	82.6	28.9	7.0	2011	2.2	2011	37.3	3.2	68.2	2011	3.8	2009
Kuwait	17 818	3 632	100.0[b]	16.0	1.8	2011	1.5	2009	21.2	1.9	30.0	2011	0.9	2011
Lebanon	10 452	4 263	85.0	24.3	5.8	2011	1.9	2011	24.6	9.7	52.2	2011	1.9	2009
Libya	1 665 000	5 812	86.0	24.9	4.1	2010	2.8	2011	31.1	4.2	57.9	2010	2.7	2010
Morocco	710 850	32 245	58.3	18.7	5.7[a]	2011	1.1	2010	29.0	6.8	55.4	2011	2.6	2011
Oman	309 500	3 174[b]	72.0[b]	29.5	3.0	2009	2.7	2009	34.5	2.3	58.0	2009	2.5	2010
Pakistan	796 096	177 100	34.7	27.5	7.3	2011	2.1	2011	33.4	4.1	60.0	2010	3.5	2011
occupied Palestinian territory	6 020	4 169	73.8	29.1	2.7	2011	2.9	2011	40.4	2.9	75.0	2011	4.2	2011
Qatar	11 607	1 733	100.0	11.9	1.1	2011	...	...	13.7	0.8	17.2	2010	2.1	2010
Saudi Arabia	2 000 000	28 376	85.0[b]	22.9	3.9	2011	3.2	2011	31.4	2.9	52.1	2011	3.9	2011
Somalia	637 700	8 698[a]	37.0[b]	44.0	16.0	2009	2.6	2009	44.4	2.6	88.7	2007	6.4	2009
South Sudan	640 000	8 260 490	10.0	...	...	2008	2.2	2008	51.0	2.6	88.0	2008	6.7	2008
Sudan	1 882 000	32 671[a]	32.9[a]	29.6	15.9	2008	2.8	2008	42.6	3.4	85.2	2008	3.9	2010
Syrian Arab Republic	185180	21 124	53.5	34.2	3.8	2010	2.5	2010	37.2	4.1	70.3	2011	3.5	2009
Tunisia	154 630	10 549[a]	66.0[b]	18.6	5.7[b]	2010	1.3	2010	23.7	9.9	50.6	2010	2.1	2010
United Arab Emirates	83 600	8 264[a]	81.0[c]	9.6	0.9	2010	6.1	2008	19.1	0.9	25.0	2008	2.0	2009
Yemen	555 000	22 879[a]	29.2	39.7	9.0	2006	3.0	2011	42.4	3.2	83.5	2011	5.2	2006

Y Reference year for the data provided
... Not available for 2006–2011 or not reported
[a] 2010
[b] 2009
[c] 2008
[d] 2007
[e] 2006
[f] Calculated from available data on age distribution

Socioeconomic indicators

Country	Adult literacy rate 15+ years				Gross school enrolment ratio						
					Primary			Secondary			
	T	M	F		T	M	F	T	M	F	
	(%)	(%)	(%)	Y	(%)	(%)	(%)	(%)	(%)	(%)	Y
Afghanistan	27.0	39.0	12.0	2008	...	75.0	66.0	34.0	44.0	22.0	2008
Bahrain[g]	93.5	96.6	90.4	2010	111.5	111.3	111.8	98.2	99.9	96.5	2010
Djibouti	...	...	47.5	2007	72.9	...	...	42.0	...	...	2010
Egypt	70.4	77.7	64.7	2006	94.2	95.3	93.1	92.0	93.0	91.0	2006
Iran, Islamic Republic of	83.2	88.3	78.1	2009	101.6	...	...	103.9	...	...	2011
Iraq	...	78.2	...	2011	89.1	92.7	85.3	89.0	87.0	91.0	2011
Jordan	93.3	96.4	90.1	2011	99.4	97.8	101.2	79.1	72.5	86.3	2011
Kuwait	95.0	96.0	94.0	2008	100.0	100.0	100.0	100.0	100.0	100.0	2008
Lebanon	91.0[h]	94.0	88.0	2007	108.0	110.0	105.0	79.0	74.0	84.0	2007
Libya	88.5	94.0	83.0	2009	97.5	97.1	97.0	...	...	...	2009
Morocco	56.1	68.9	43.9	2011	111.6	115.6	107.4	77.3	88.8	69.6	2010
Oman	86.0	89.0	79.0	2008	99.2	99.2	99.2	91.3	93.1	89.4	2009
Pakistan	55.0	67.0	42.0	2010	91.0	98.0	82.0	57.0	65.0	49.0	2011
occupied Palestinian territory	95.7	97.9	92.6	2011	94.7	97.4	91.7	75.7	67.0	84.8	2011
Qatar	96.4	96.6	95.6	2011	103.0	102.1	104.0	96.5	94.6	98.6	2010
Saudi Arabia	88.0	91.0	85.0	2009	96.6	...	...	...	...	...	2011
Somalia	25.0	...	...	2006	...	42.0	23.0	...	...	...	2009
South Sudan	37.0	44.0	30.0	2008	31.0	33.0	29.0	...	...	...	2011
Sudan	55.7	57.7	42.4	2008	71.0	77.0	65.0	30.0	31.0	29.0	2008
Syrian Arab Republic	85.8	91.2	80.1	2009	96.1	96.3	96.0	67.0	66.3	67.7	2009
Tunisia	77.7	86.4	69.2	2008	107.2	106.0	108.3	86.5	80.7	92.7	2011
United Arab Emirates	92.4	92.2	92.8	2008	86.0	84.1	87.7	62.5	60.5	64.5	2008
Yemen	33.6	41.0	26.3	2006	75.0	85.0	66.0	37.0	47.0	27.0	2009

[g] Bahrainis only

[h] Aged 10+

Socioeconomic indicators *(concluded)*

Country	Population with sustainable access to improved water source (%)	Population with access to improved sanitation (%)	Unemployed			Smoking prevalence among adults (aged 15+)			
			Y	(%)	Y	T (%)	M (%)	F (%)	Y
Afghanistan	27.0	5.0	2008	36.0	2010	...	...	...	...
Bahrain	100.0	100.0	2010	4.3	2010	21.0	34.0	8.0	2011
Djibouti	93.5	67.0	2007	...	...	25.4	41.0	9.0	2007
Egypt	94.0	94.0	2006	9.4	2009	20.0	40.0	0.4	2011
Iran, Islamic Republic of	98.0	93.0	2010	12.3	2011	14.0	26.0	2.0	2011
Iraq	89.0	95.7	2011	11.1	2011	18.0	31.0	4.0	2011
Jordan	97.7	60.0	2011	12.9	2011	26.0	47.0	6.0	2011
Kuwait	100.0	100.0	2009	1.0	2007	19.0	35.0	4.0	2011
Lebanon	98.0	100.0[d]	2009	6.4	2009	39.0	46.0	31.0	2011
Libya	97.6	99.0	2009	11.3	2009	24.0	47.0	0.4	2011
Morocco	78.6	87.5	2011	8.9	2011	18.0	33.0	2.0	2011
Oman	96.0	99.0	2008	...	...	6.0	12.0	0.4	2011
Pakistan	54.0	78.0	2009	9.5	2010	20.0	34.0	6.0	2011
occupied Palestinian territory	89.0	98.8	2009	23.3	2011	20.2	37.6	2.6	2011
Qatar	100.0	100.0	2011	0.6	2011	11.0	19.9	2.2	2006
Saudi Arabia	96.0	100.0	2010	5.4	2009	12.0	24.0	1.0	2011
Somalia	29.0[d]	30.0	2008	47.0	2007	...	...	...	...
South Sudan	50.0	7.0	2008	12.0	2008	...	...	...	...
Sudan	60.5	27.0	2010	16.8	2008	13.0	24.0	2.0	2011
Syrian Arab Republic	89.7	98.6	2009	14.9	2011	26.5[b]	42.0	8.0[b]	2011
Tunisia	97.8	84.2	2011	18.3	2011	32.0	58.0	5.0	2011
United Arab Emirates	100.0	100.0	2008	4.0	2008	10.0	19.0	2.0	2011
Yemen	...	23.0	2008	16.0	2008	23.0	35.0	11.0	2011

Health expenditure indicators

Country	GDP per capita	Per capita total expenditure on health	Per capita government expenditure on health	Total expenditure on health as % of GDP	General government expenditure on health as % of total health expenditure	Out-of-pocket expenditure as % of total health expenditure	General government expenditure on health as % of total government expenditure		Ministry of Health budget as % of government budget	
	US$ exchange rate	Average US$ exchange rate	Average US$ exchange rate	(%)	(%)	(%)	(%)	Y	(%)	Y
Afghanistan	497	38	4	8	12	83	2	2010	4.0	2009
Bahrain	17 379	864	634	5	73	14	11	2010	7.4	2010
Djibouti	1 266	92	60	7	65	34	14	2010	...	...
Egypt	2 646	123	46	5	37	61	6	2010	...	...
Iran, Islamic Republic of	5 655	317	127	6	40	58	11	2010	4.7	2008
Iraq	2 932	247	200	8	81	19	9	2010	6.6	2011
Jordan	4 445	357	242	8	68	25	19	2010	6.3	2011
Kuwait	46 537	1 223	983	3	80	18	7	2010	6.6	2011
Lebanon	9 262	651	255	7	39	45	10	2010	2.7	2011
Libya	12 461	484	333	4	69	31	5	2010	5.7	2010
Morocco	2 848	148	56	5	38	54	7	2010	5.7	2010
Oman	20 764	574	460	3	80	12	6	2010	...	...
Pakistan	992	22	8	2	38	50	4	2010	1.5	2008
occupied Palestinian territory	1 697	248	91	16	37	37	10[d]	2008	11.0	2011
Qatar	82 248	1 489	1 153	2	77	16	6	2010	4.0	2011
Saudi Arabia	15 836	680	427	4	63	19	7	2010	6.9	2011
Somalia	284	...	...	...	...	...	...	2007	...	...
South Sudan	1 285	...	14	...	...	...	1	2011	3.0	2011
Sudan	1 328	84	25	6	30	67	10	2010	6.6	2010
Syrian Arab Republic	2 835	97	44	3	46	54	6	2010	5.0	2011
Tunisia	3 831	238	129	6	54	40	11	2010	7.9	2010
United Arab Emirates	39 619	1 450	1 078	4	74	19	9	2010	...	...
Yemen	1 219	63	15	5	24	75	4	2010	3.6	2007

Source: *WHO global health expenditure online database* (http://apps.who.int/nha/database/DataExplorerRegime.aspx)

Human and physical resources indicators

Country	Personnel					Infrastructure		
	Physicians	Nursing and midwifery	Dentists	Pharmacists		Hospital beds	Primary health care units and centres	
	Rate (*R*) per 10 000 population							
	R	*R*	*R*	*R*	Y	*R*	*R*	Y
Afghanistan	2.9	3.6	0.1	0.3	2011	4.4	0.8	2011
Bahrain	21.0	41.0	3.0	6.0	2010	17.0	0.2	2010
Djibouti	2.1	5.1	0.2	2.2	2010	14.2	0.5	2010
Egypt	11.3	15.4	1.8	3.2	2011	5.2	0.6	2011
Iran, Islamic Republic of	3.1	25.4	3.2	2.2	2011	17.4[b]	3.2	2010
Iraq	7.8	14.9	1.8	2.0	2011	13.0	0.7	2011
Jordan	25.5	43.7	9.8	12.6	2011	18.0	2.4	2011
Kuwait	16.7	44.3	3.5	2.8	2011	18.5	0.2	2011
Lebanon	32.0	27.2	14.7	15.7	2011	34.5	2.3[bi]	2010
Libya	20.0	71.0	6.0	6.0	2010	37.0	2.6	2010
Morocco	6.1	9.0	1.3	2.7	2011	8.5	2.9[b]	2011
Oman	17.5	38.1	2.0	3.4	2009	17.7	0.7	2009
Pakistan	8.0	6.0	1.0	1.4	2011	6.0	1.0[e]	2011
occupied Palestinian territory	20.8	18.2	5.1	9.8	2011	13.0	1.8	2011
Qatar	34.9	61.9	5.8	11.7	2010	12.0	2.0	2010
Saudi Arabia	24.4	47.4	3.5	5.1	2011	21.4	0.8	2010
Somalia	0.3	0.8	...	...	2009	...	...	...
South Sudan	0.15	0.2	0.02	0.02	2010	...	...	2010
Sudan	...	4.2	0.2	0.3	2010	8.4	1.7	2010
Syrian Arab Republic	15.7	19.1	7.8	8.2	2011	15.5	1.0	2011
Tunisia	12.3	32.5	2.1	3.1	2011	20.9	2.0	2010
United Arab Emirates	14.7	22.6	3.7	0.7	2010	10.7	2.6	2010
Yemen	4.0	6.5	1.0	0.4[b]	2011	7.0	1.2	2011

[i] Including dispensaries

Indicators of coverage with primary health care services

Country	Population with access to local health services				Contraceptive prevalence		Maternal care		
	Total	Urban	Rural				Antenatal care coverage	Births attended by skilled health personnel	
	(%)	(%)	(%)	Y	(%)	Y	(%)	(%)	Y
Afghanistan	57	79	54	2008	15.4	2010	60	34	2010
Bahrain	100	100	na	2010	...	...	100	100	2010
Djibouti	95	100	85	2010	35.5	2009	79	56	2009
Egypt	100	100	100	2011	57.6	2008	74[a]	92	2011
Iran, Islamic Republic of	98	100	95	2010	59.6	2005	...	...	...
Iraq	83	86	80	2011	51.2	2011	66	87	2011
Jordan	99	...	...	2011	41.9	2009	99	99	2007
Kuwait	100	100	na	2009	...	...	100	100	2010
Lebanon	...	...	...	...	59.0	2009	...	...	...
Libya	100	100	100	2010	60.0	2010	93	99.8[c]	2009
Morocco	...	...	...	...	56.7	2011	77	73.6	2011
Oman	98	100	95	2009	24.4	2008	99	99	2010
Pakistan	97	100	94	2010	38.0	2010	61[d]	87	2009
occupied Palestinian territory	100	100	100	2011	53.0	2010	100	100	2011
Qatar	100	100	na	2011	36.0	2008	100	100	2011
Saudi Arabia	100	...	...	2011	...	...	98	98	2011
Somalia	...	...	...	...	15.0	2009	26[e]	33	2009
South Sudan	44	...	...	2011	4.0	2010	17	19	2011
Sudan	71	...	...	2008	7.1	2010	74	73	2010
Syrian Arab Republic	95	100	90	2011	37.5	2009	88	96	2009
Tunisia	95	...	...	2006	60.0	2006	96	95	2006
United Arab Emirates	100	100	100	2011	37.0	2007	100	100[a]	2011
Yemen	68	...	...	2011	28.0	2006	45	36	2006

na not applicable

Indicators of coverage with primary health care services *(concluded)*

Country	One year-olds immunized in 2011 with				
	BCG	DPT3	OPV3	Measles vaccine	HBV3
	(%)	(%)	(%)	(%)	(%)
Afghanistan	90	89	89	82	82
Bahrain	73[j]	100	100	100	100
Djibouti	89	87	87	84	87
Egypt	98	97	97	96	97
Iran, Islamic Republic of	99	99	99	99	99
Iraq	69	89	89	91	89
Jordan	95	98	98	98	98
Kuwait	99	99	99	99	99
Lebanon	...	95	95	98	95
Libya	...	...	...	...	...
Morocco	99	99	98	95	98
Oman	100	100	100	100	100
Pakistan	95	89	89	88	89
occupied Palestinian territory	98	100	100	99	99
Qatar	97	93	93	100	93
Saudi Arabia	98	98	98	98	98
Somalia	52	60	79	79	na
South Sudan	57	46	46	64	na
Sudan	92	93	93	87	93
Syrian Arab Republic	100	91	91	97	81
Tunisia	98	98	98	96	98
United Arab Emirates	...	...	...	...	...
Yemen	59	81	81	71	81

[j] Given only to non-nationals

Health status indicators

Country	Life expectancy at birth (years)				Newborns with low birth weight		Children underweight		Neonatal mortality rate	Infant mortality rate	Under-5 mortality rate	Maternal mortality ratio		
												Country report		UN-MMEIG estimate 2010
									Per 1000 live births			Per 100 000 live births		
	T	M	F	Y	(%)	Y	(%)	Y	*R*	*R*	*R*	*R*	Y	
Afghanistan	...	64.0	62.0	2010	1.6	2011	...	...	59.0	77.0	97.0	327.0	2010	460
Bahrain	76.4	75.0	78.3	2010	9.7	2010	...	...	3.2	7.2	8.6	16.9	2009	20
Djibouti	52.9	51.8	54.1	2011	20.0	2007	28.9	2007	45.0	67.0	94.0	546.0	2006	200
Egypt	73.2	70.9	75.5	2011	6.0	2009	6.0	2008	6.5	16.5	19.6	54.0	2009	66
Iran, Islamic Republic of	72.1	71.1	73.1	2006	...	...	...	...	11.2[b]	18.0	20.0[b]	22.0	2010	21
Iraq	72.7	70.9	74.6	2010	6.1	2011	9.7	2007	9.6	21.0	25.0	24.0	2011	63
Jordan	73.0	71.6	74.4	2011	7.1	2011	3.6	2009	8.0	23.0	28.0	19.1	2008	63
Kuwait	77.7	77.5	78.6	2009	8.3	2011	...	...	6.4[b]	10.7[b]	12.6[b]	9.9	2010	14
Lebanon	81.5	79.6	83.2	2009	...	...	...	...	10.8[c]	9.0	10.0[b]	23.0	2008	25
Libya	72.3	70.2	74.9	2009	4.0	2009	4.8	2009	11.0[b]	11.0	18.0	23.0	2010	58
Morocco	74.8	73.9	75.6	2010	...	...	3.1	2011	18.8	28.8	30.5	112.0	2010	100
Oman	72.7	70.0	75.7	2009	11.5	2010	8.6	2008	7.3	9.6[b]	12.0[b]	13.3	2010	32
Pakistan	66.0	64.2	67.9	2011	26.0	2007	31.5	2010	54.0[d]	65.1	95.2	276.0	2007	260
occupied Palestinian territory	72.5	71.0	73.9	2011	6.4	2011	2.1	2011	9.9	18.8	21.0	28.0	2011	64
Qatar	78.2	78.0	78.7	2010	5.3	2011	...	...	4.6	7.4	8.8	10.3	2010	7
Saudi Arabia	73.8	72.7	75.1	2011	7.5	2010	...	...	16.9[a]	16.5	19.1	14.0	2010	24
Somalia	50.0	...	...	2010	5.0	2006	36.0	2009	52.0	109.0	180.0	1 044.0	2006	na
South Sudan	42.0	...	...	2008	...	...	12.5	2010	52.4	75.0	105.0	2 054.0	2006	1 000
Sudan	59.8	...	...	2008	31.0	2011	32.2	2010	32.9	57.0	78.0	216.0	2010	730
Syrian Arab Republic	73.1	71.6	74.7	2009	10.3	2009	10.3	2009	12.9	17.9	21.4	52.0	2009	70
Tunisia	74.7	72.7	76.6	2010	3.8	2006	3.0	2006	12.2[c]	16.8	22.0[e]	35.7	2009	56
United Arab Emirates	77.4	63.5	...	2008	3.2	2010	...	...	4.9	7.1	9.8	0.0	2008	12
Yemen	62.0	61.1	62.9	2010	32.0	2010	...	...	37.3	68.5	78.2	...	...	200

UN-MMEIG: United Nations Maternal Mortality Estimation Inter-Agency Group (MMEIG)

Selected morbidity indicators 2011

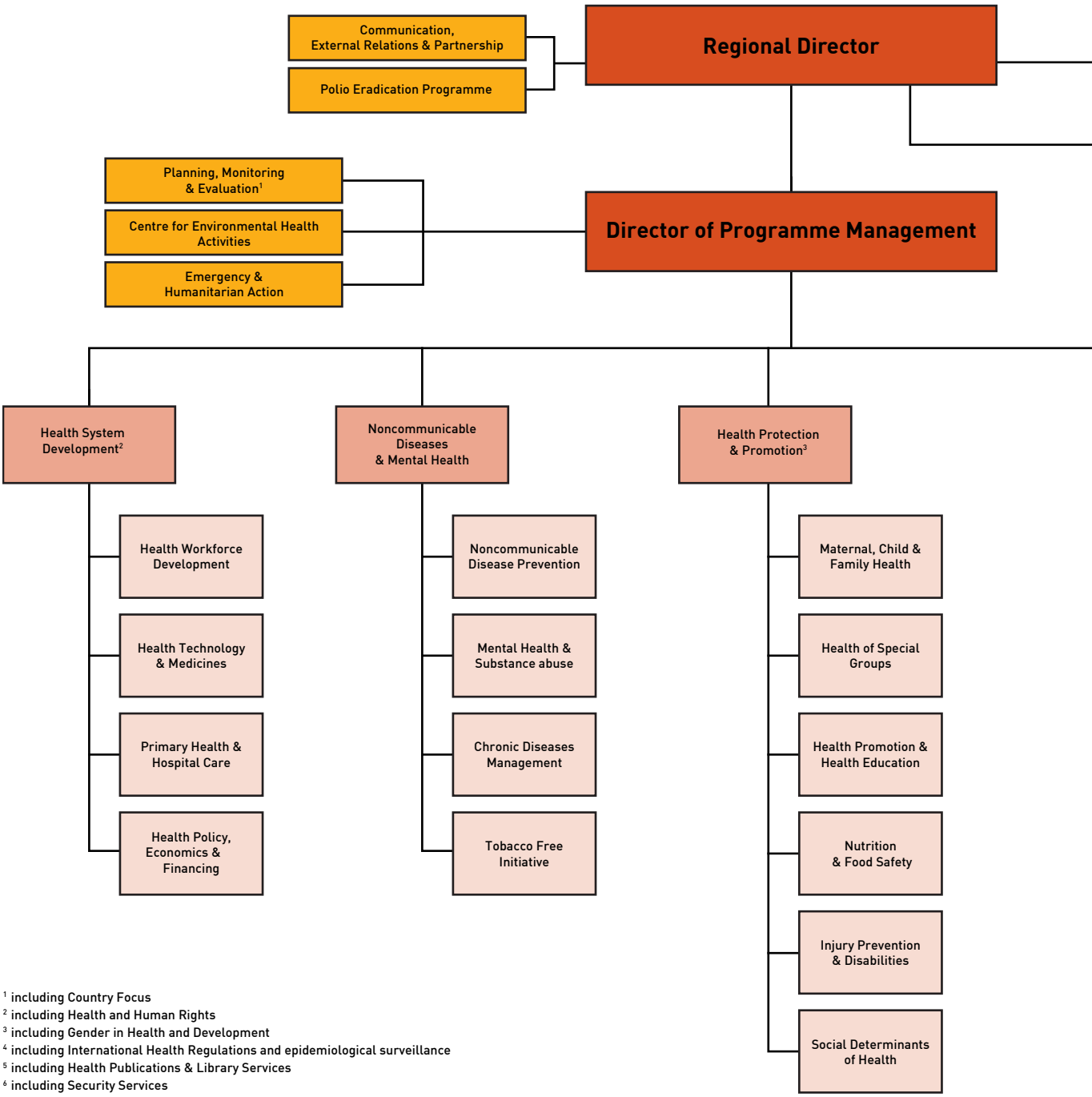
Country	Malaria		Measles		Polio myelitis	All forms of tuberculosis		Meningococcal meningitis	AIDS		Cholera
	Number of reported cases	Incidence rate per 1000 population	Number of reported cases	Incidence rate per 1 000 000 population	Number of reported cases	Number of reported cases	Notification rate per 100 000 population	Number of reported cases	Estimated number of PLHIV	Reported number of people receiving ART	Number of reported cases
	N	*R*	*N*	*R*	*N*	*N*	*R*	*N*	*N*	*N*	
Afghanistan	482 748	4.4	3 013	9.3	80	28 167	87	...	...	116	3 733
Bahrain	186[n]	...	0	0.0	0	225	17	...	...	40[a]	0
Djibouti	235[p]	2.3[q]	34	3.8	0	3 723	411	...	14 000	1 328	...
Egypt	116[n]	...	28	0.0	0	9 307	11	1 394	11 000	760	0
Iran, Islamic Republic of	3 239	0.7	17	0.0	0	1 1495	15	12	92 000	2 752	1 187
Iraq	11[n]	0.0	15	0.0	0	9 248	28	15	...	...	0
Jordan	58[n]	...	0	0.0	0	344	5	9	...	108	0
Kuwait	476[n]	...	91	3.2	0	672	24	5	...	186	1
Lebanon	72[nb]	...	9	0.2	0	496	12	4	3 600	425	0
Libya	27[nb]	...	126	2.0	0	1 545	24	...	...	...	0
Morocco	312[n]	...	982	3.0	0	29 770	92	1 045	26 000	4 047	0
Oman	1 532[r]	...	5	0.2	0	337	12	1	1 100	661	...
Pakistan	4 281 356[a]	2.6	4 386	2.5	198	270 394	153	0	98 000	2 491	11 489
occupied Palestinian territory	0	...	0	0.0	0	32	1	152	...	...	0
Qatar	673[n]	...	101	5.7	0	553	30	4	<200	...	2
Saudi Arabia	1 941[a]	0.0	574	2.0	0	4 015	14	6	...	1 961	...
Somalia	24 553[a]	2.6	17 298	181.0	0	12 021	126	...	34 000	...	77 636
South Sudan	603 397	98.8[q]	1 256	...	0	7 583	76	271	...	3 442	0
Sudan	1 465 496[a]	21.1[q]	5 616	16.2	0	20 385	61	754	...	2 500	0
Syrian Arab Republic	48[n]	...	0	0.0	0	3 675	18	490	...	...	0
Tunisia	67[n]	...	6	0.1	0	3 015	28	21	2 400	483	...
United Arab Emirates	5 242[n]	...	147	1.9	0	106	1	...	...	229	...
Yemen	142 147	4.9	2 676	10.8	0	8 713	35	1 520	30 000[c]	625	31 789
Total cases	7 013 932		36 380		278	425 821		5 703	<312 300	22 154	125 837

[k] Calculated by adding reported confirmed cases to estimated confirmed cases among clinical cases, using reported slide positivity rate, per 1000 population at risk
[m] Based on estimated population at risk in 2010
[n] Imported cases; no local transmission
[p] Confirmed cases only
[q] Calculated for reported confirmed cases per 1000 population at risk
[r] Of which 13 cases were local

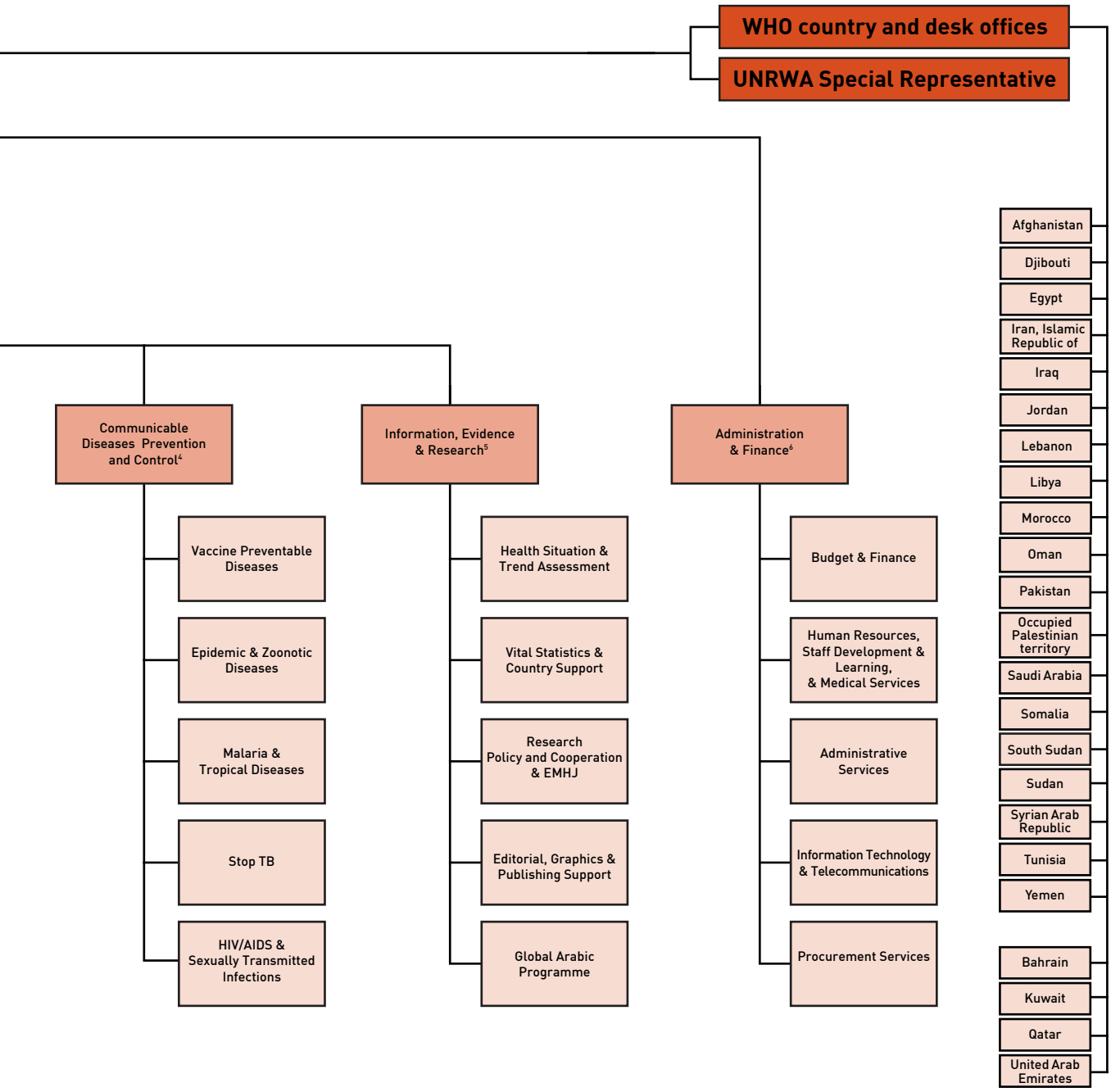
Annexes


breathe
ean air
2011
No smoking
Regional strategy for
sector response to HIV
2011–2015
A comprehensive approach
Poliomyelitis Eradication
in the Eastern
rranean Region
ress Report 2010
Patient safety
essment manual
Restez sur la bonne voie
Mettez en oeuvre la Convention-cadre de
l'OMS pour la lutte antitabac
World Sight Day
13 October 2011
اليوم العالمي للإبصار
Le tabac tue près de six millions de personnes chaque année
FCTC
CONVENTION-CADRE DE L'OMS
POUR LA LUTTE ANTITABAC
Organisation
mondiale de la Santé
استئصال شلل الأطفال
في إقليم شرق المتوسط
Communicable
diseases
in the Eastern Mediterranean Regi
Prevention and control 2005–200
VISION 2020: Working together to eliminate avoidable blindness
الرؤية 2020: نعمل سوياً للتخلص من العمى الممكن تفاديه
World Health
Organization
EMHJ
La Revue de Santé de
la Méditerranée orientale
Introduction to
HIV, AIDS and
sexually transmitted
infection surveillance
MODULE 2
Surveillance of HIV risk

Annex 1. Organizational structure of the WHO Regional Office for the Eastern Mediterranean, June 2012



[1] including Country Focus
[2] including Health and Human Rights
[3] including Gender in Health and Development
[4] including International Health Regulations and epidemiological surveillance
[5] including Health Publications & Library Services
[6] including Security Services


WHO country and desk offices
UNRWA Special Representative
Communicable Diseases Prevention and Control[4]
Information, Evidence & Research[5]
Administration & Finance[6]
Vaccine Preventable Diseases
Epidemic & Zoonotic Diseases
Malaria & Tropical Diseases
Stop TB
HIV/AIDS & Sexually Transmitted Infections
Health Situation & Trend Assessment
Vital Statistics & Country Support
Research Policy and Cooperation & EMHJ
Editorial, Graphics & Publishing Support
Global Arabic Programme
Budget & Finance
Human Resources, Staff Development & Learning, & Medical Services
Administrative Services
Information Technology & Telecommunications
Procurement Services
Afghanistan
Djibouti
Egypt
Iran, Islamic Republic of
Iraq
Jordan
Lebanon
Libya
Morocco
Oman
Pakistan
Occupied Palestinian territory
Saudi Arabia
Somalia
South Sudan
Sudan
Syrian Arab Republic
Tunisia
Yemen
Bahrain
Kuwait
Qatar
United Arab Emirates

Annex 2. Professional staff in the Region

a) By number and nationality as at 31 December 2011

Nationality	Regional/Intercountry	Country	Total
Egypt	18	3	21
Pakistan	6	13	19
United States of America	7	5	12
Sudan	5	6	11
Tunisia	4	4	8
United Kingdom	7	1	8
Lebanon	3	3	6
Canada	4	1	5
Jordan	3	2	5
Syrian Arab Republic	4	1	5
Iran, Islamic Republic of	4	-	4
Italy	2	2	4
Yemen	2	2	4
Afghanistan	-	3	3
Bangladesh	2	1	3
Morocco	2	1	3
Netherlands	1	2	3
Saudi Arabia	2	1	3
Somalia	3	-	3
Trinidad and Tobago	1	2	3
Bahrain	2	-	2
Belgium	1	1	2
Djibouti	1	1	2
Ethiopia	-	2	2
Germany	1	1	2
France	2	-	2
Iraq	-	2	2
Uganda	-	2	2
Algeria	-	1	1
Azerbejian	-	1	1
Denmark	1	-	1
Eritrea	-	1	1
Georgia	1	-	1
Japan	-	1	1
Libya	-	1	1
New Zealand	1	-	1
Philippines	-	1	1
Seychelles	1	-	1
Spain	1	-	1
Sweden	1	-	1

Nationality	Regional/Intercountry	Country	Total
Switzerland	1	-	1
Uzbekistan	1	-	1
Total	95	68	163

Note. The above figures a) do not include staff on leave-without-pay, nor interregional staff who are located in EMRO, b) are funded from all sources

b) From Member States, by number and nationality as at 31 December 2011

Country	Global recruitment priority list[1]	Global range[2]	Total in WHO	Of which in EMR
Egypt	C	003-012	28	21
Pakistan	C	005-014	26	19
Sudan	C	001-010	19	11
Iran, Islamic Republic of	C	004-012	13	4
Jordan	C	001-008	13	5
Lebanon	C	001-008	13	6
Tunisia	C	001-008	13	8
Morocco	B1	001-010	6	3
Somalia	B2	001-008	5	3
Syrian Arab Republic	B1	001-008	5	5
Afghanistan	B1	001-008	4	3
Iraq	B1	002-009	4	2
Saudi Arabia	A	005-011	4	3
Yemen	B1	001-008	4	4
Djibouti	B1	001-007	3	2
Bahrain	B1	001-007	2	2
Libya	B1	001-008	1	1
Kuwait	A*	001-008	-	-
Oman	A*	001-008	-	-
Qatar	A*	001-007	-	-
United Arab Emirates	A*	002-008	-	-
Total of EMR nationalities			163	102
Total of other nationalities			2014	61
Grand Total			2177	163

Note. The above figures a) do not include staff on leave-without-pay nor interregional staff who are located in EMRO, b) are funded from all sources.

[1] A Countries from which recruitment of professional posts is to be encouraged as a first ranking priority
B1 Countries from which recruitment of professional posts is to be encouraged as a second ranking priority
B2 Countries from which recruitment for professional posts is permissible
C Countries from which recruitment for professional posts is restricted

[2] Current range of recruitment permitted based on assessed contribution

Annex 3. Meetings held in 2011

Meeting title, location and date
Regional workshop on integrating and strengthening primary eye care within primary health care, Dubai, United Arab Emirates, 14–16 February 2011
Intercountry training workshop on the principles and practices of biosafety in influenza laboratories, Casablanca, Morocco, 21–24 February 2011
Meeting of the technical advisory group on poliomyelitis eradication in Afghanistan and Pakistan, Islamabad, Pakistan, 24–25 March 2011
EMR-AFR joint workshop on data analysis and reporting of the global school-based student health survey, Casablanca, Morocco, 4–7 April 2011
Consultative meeting to strengthen partnerships for integrated prevention and control of noncommunicable diseases, Dubai, United Arab Emirates, 9–11 April 2011
Regional workshop on the patient safety friendly hospital initiative: consolidation and regional expansion, Amman, Jordan, 11–14 April 2011
Twenty-fourth meeting of the Eastern Mediterranean Regional Commission for Certification of Poliomyelitis Eradication, Dubai, United Arab Emirates, 12–14 April 2011
Thirty-fifth meeting of the Regional Consultative Committee, Cairo, Egypt, 20–24 April 2011
Regional meeting on promoting maternal and neonatal health, Dubai, United Arab Emirates, 24–27 April 2011
Technical Advisory Group meeting on the Afghanistan mortality survey, Dubai, United Arab Emirates, 25–26 April 2011
Regional workshop on preparedness for and mitigation of pandemic influenza in refugee and displaced population settings, Amman, Jordan, 2–5 May 2011
Regional consultation to develop a mental health strategy and initiate the implementation of the mental health gap action plan, Cairo, Egypt, 2–5 May 2011
Regional workshop on reviewing country experiences in pandemic H1N1 influenza vaccine deployment and vaccination activities, Beirut, Lebanon, 10–12 May 2011
Intercountry meeting of oral health focal points, Isfahan, Islamic Republic of Iran, 31 May–2 June 2011
Regional consultation on strategic directions for scaling up research, Cairo, Egypt, 5–6 June 2011
Regional consultation on revising and updating the regional environmental health strategy and plan of action, Amman, Jordan, 6–8 June 2011
Joint coordination meeting of the Regional Directors of WHO/EMRO and UNICEF/MENARO in partnership with FAO, UNAIDS, UNDP, UNESCO, UNFPA and UNOCHA, Cairo, Egypt, 12 June 2011
Ninth meeting of the Regional Technical Advisory Group on Poliomyelitis Eradication, Sharm El Sheikh, Egypt, 22–23 June 2011
Regional meeting on haemoglobinopathies and genetic diseases, Amman, Jordan, 27–30 June 2011
Tenth regional programme review group (RPRG) meeting on lymphatic filariasis elimination, Cairo, Egypt, 29–30 June 2011
Regional consultation on the development of prosthetics training programmes, Amman, Jordan, 11–13 July 2011
Fourth meeting of the regional scientific and technical advisory committee (STAC) of the WHO/UNEP/GEF-supported project, Marakech, Morocco, 13–17 July 2011
Subregional meeting on dengue fever for the Red Sea Rim, Cairo, Egypt, 20–22 July 2011
Intercountry meeting for feedback on phase 1 of good governance for medicines, Cairo, Egypt, 25–27 July 2011
Workshop on ethical issues in health research, Cairo, Egypt, 6–8 September 2011
Intercountry workshop on Global Fund round 11, Cairo, Egypt, 6–8 September 2011
Training workshop on developing comprehensive multiyear plans for countries of the Eastern Mediterranean Region, Khartoum, Sudan, 11–15 September 2011
First meeting of the regional task force on cutaneous leishmaniasis control, Cairo, Egypt, 12–14 September 2011
Subregional workshop on infection prevention and control for acute respiratory infections in health care facilities, Cairo, Egypt, 12–15 September 2011
Regional workshop on strengthening recording and reporting of multidrug resistant tuberculosis cases, Cairo, Egypt, 13–15 September 2011

Annex 3. Meetings held in 2011 *(continued)*

Meeting title, location and date
Sixth meeting of Global Health Initiative and health system focal points, Khartoum, Sudan, 15–16 September 2011
Eighteenth meeting of the Eastern Mediterranean Regional Working Group on the GAVI Alliance, Khartoum, Sudan, 17–18 September 2011
Regional workshop on strengthening quality management systems for parasitological diagnosis of malaria, Muscat, Oman, 17–21 September 2011
Regional workshop on tools and methods of environmental health and chemicals risk assessment, management and communication, Amman, Jordan, 18–21 September 2011
Intercountry meeting of national malaria programme managers from HANMAT and PIAM-NET countries, Muscat, Oman, 22–24 September 2011
Intercountry workshop on ageing and health, Cairo, Egypt, 20–22 September 2011
Joint WHO/UNICEF intercountry consultation on the prevention of mother-to-child transmission of HIV, Beirut, Lebanon, 25 September 2011
Technical consultation on the regional nutrition surveillance system, scaling up nutrition in the Region and development of action plans, Teheran, Islamic Republic of Iran, 25–28 September 2011
Twentieth intercountry meeting of national AIDS programme managers, Beirut, Lebanon, 25–29 September 2011
Regional consultation on developing a framework for the implementation of the recommendations of The World Report on Child Injury Prevention, Cairo, Egypt, 26–28 September 2011
Research methodology and proposal development workshop, Sharm El Sheikh, Egypt, 8–10 October 2011
Intercountry meeting on measles control and elimination, Dubai, United Arab Emirates, 17–19 October 2011
Meeting on 2011 Vaccination Week evaluation and 2012 preparations, Dubai, United Arab Emirates, 20 October 2011
Eighth meeting of the Regional Advisory Panel on Nursing, Muscat, Oman, 23–25 October 2011
Fifteenth intercountry meeting of directors of poliovirus laboratories in the Eastern Mediterranean Region, Kuwait, Kuwait, 24–26 October 2011
Regional meeting of national food safety focal points, Cairo, Egypt, 25–27 October 2011
Regional meeting on strengthening regulation of pandemic human influenza vaccines, Sharm El Sheikh, Egypt, 28 October–1 November 2011
Regional workshop on establishing clinical trial registries, Cairo, Egypt, 31 October–1 November 2011
Consultative meeting on strengthening coordination between national regulatory authorities and national immunization technical advisory groups, Sharm El Sheikh, Egypt, 31 October–1 November 2011
Twenty-fifth meeting of the Regional Commission for Certification of Poliomyelitis Eradication, Cairo, Egypt, 2–3 November 2011
Technical consultation on scaling up nutrition, Amman, Jordan, 2–3 November 2011
Consultative meeting to develop basic epidemiological concepts in public health practice for emerging and re-emerging diseases, Beirut, Lebanon, 14–16 November 2011
Programme managers' meeting on leprosy elimination, Cairo, Egypt, 16–17 November 2011
Regional consultation on health education and promotion, Kuwait, Kuwait, 16–18 November 2011
Regional workshop on health promotion leadership training, Doha, Qatar, 20–23 November 2011
Training workshop on school health and nutrition promotion, Amman, Jordan, 20–24 November 2011
Thirteenth meeting of the CEHA Technical Advisory Committee, Amman, Jordan, 21–22 November 2011
Interregional seminar on quality control laboratories involved in WHO prequalification programme, Amman, Jordan, 21–24 November 2011
Regional consultation on accreditation for health professions education, Tunis, Tunisia, 22–25 November 2011
Technical consultation on the role of hospitals in today's health system, Amman, Jordan, 27–29 November 2011
Subregional meeting on viral haemorrhagic fever, Teheran, Islamic Republic of Iran, 27–30 November 2011
Regional workshop for national health statistics focal points, Kuwait, Kuwait, 27–30 November 2011

Annex 3. Meetings held in 2011 *(concluded)*

Meeting title, location and date
Second training workshop on documentation of quality and bioequivalence data in common technical document format for submission to the WHO prequalification programme of medicines, Casablanca, Morocco, 27–30 November 2011
Consultation on scaling up the utilization of new tuberculosis diagnostics in the Region, Cairo, Egypt, 28–30 November 2011
Regional workshop on strategies, ethics and modern trends in health communication for journalists and media professionals, Sharm El Sheikh, Egypt, 3–6 December 2011
Intercountry workshop on reproductive health counselling, Beirut, Lebanon, 4–8 December 2011
Regional workshop on IHR implementation and monitoring of core capacities in the Eastern Mediterranean Region, Cairo, Egypt, 5–7 December 2011
Regional consultation on public health pesticides management, Oman, Muscat, 5–7 December 2011
Workshop on adolescent health situation analysis and core regional indicators, Dubai, United Arab Emirates, 11–13 December 2011
Consultative meeting on building a regional noncommunicable disease research agenda and enhancing implementation of the noncommunicable disease action plan, Dubai, United Arab Emirates, 11–13 December 2011
Regional workshop on vaccine store management, Sharm El Sheikh, Egypt, 11–16 December 2011
Health systems progress and performance reviews workshop: analysis, methods and tools, Doha, Qatar, 12–15 December 2011
Regional workshop on environmental health and related occupational exposures in health care facilities with special focus on health care waste management, Amman, Jordan, 12–14 December 2011
Regional workshop on implementation of the Framework Convention on Tobacco Control, Sharm El Sheikh, 12–15 December 2011
Consultative seminar on the path to promote universal coverage in countries of the Eastern Mediterranean Region, Beirut, Lebanon, 13–15 December 2011
Eastern Mediterranean Drug Regulatory Authorities Conference (EMDRAC), Amman, Jordan, 13–15 December 2011
Subregional meeting on syndromic surveillance, Dubai, United Arab Emirates, 18–20 December 2011
Follow-up meeting for national data coordinators for global status reports, Cairo, Egypt, 19–21 December 2011
Regional workshop of integrating and strengthening primary ear and hearing care within primary health care, Riyadh, Saudi Arabia, 20–21 December 2011

Annex 4. New publications issued in 2011

Title	Originator
Publications	
Addressing prevention among stigmatized populations: experience of the Moroccan AIDS Control Association Language: French	Regional Office
A regional guide to conducting an adolescent health situation analysis Language: English	Regional Office
A short guide to implementing the healthy city programme Language: Arabic/French	Regional Office
ATLAS: child, adolescent and maternal mental health resources in the Eastern Mediterranean Region EMRO Technical Publications Series 39 Language: English	Regional Office
Communicable diseases in the Eastern Mediterranean Region. Prevention and control 2005-2009 Language: English	Regional Office
Communicable diseases in the Eastern Mediterranean Region. Prevention and control 2005-2009. Executive summary. Language: English	Regional Office
Demographic, social and health indicators for countries of the Eastern Mediterranean 2011 Language : Arabic/English	Regional Office
Division of health protection and promotion Language: English	Regional Office
Division of Health Systems and Services Development. Biennial report 2008-2009 Language: English	Regional Office
Egypt: A national decade of action for road safety 2011-2020 Language: Arabic/English	Regional Office
Eastern Mediterranean status report on road safety: call for action Language: Arabic	Regional Office
Face to face with HIV stigma and discrimination in health care Language: Arabic/English/French	Regional Office
Field guidelines for surveillance of measles, rubella and congenital rubella syndrome EMRO Technical Publications Series 36 Language: English	Regional Office
Global strategy for further reducing the leprosy burden 2011–2015. Operational guidelines (updated) Language: Arabic	Headquarters
Global strategy for further reducing the leprosy burden 2011–2015. Operational guidelines (Plan) period (updated) Language: Arabic	Headquarters
Guidelines for medico-legal care of victims of sexual violence Language: Arabic	Headquarters
List of basic sources in English for a medical faculty library 14th ed. Language: English	Regional Office
Maternal, child and adolescent mental health. Challenges and strategic directions for the Eastern Mediterranean Language: English	Regional Office
Module 2-Introduction to HIV, AIDS and sexually transmitted infection surveillance for the Eastern Mediterranean Region/Middle East and North Africa: surveillance of HIV risk behaviours Language: English	Regional Office
Module 3. Introduction to HIV, AIDS and sexually transmitted infection surveillance for the Eastern Mediterranean and Middle East and North Africa: surveillance of most-at-risk populations Language: English	Regional Office

Annex 4. New publications issued in 2011 *(continued)*

Title	Originator
Publications	
Monitoring, supervisory and evaluation tools for community-based initiatives Language: French	Regional Office
Patient safety assessment manual Language: Arabic/English	Regional Office
Plan of action for the prevention and control of noncommunicable diseases in the Eastern Mediterranean Region Language: English	Regional Office
Poliomyelitis eradication in the Eastern Mediterranean Region: progress report 2010 Language: Arabic/English	Regional Office
Rapid assessment on health sector capacity and response to gender-based violence Language: English	Country office Pakistan
Regional strategy for health sector response to HIV 2011-2015 Language: Arabic/English/French	Regional Office
Regional strategy on nutrition 2010-2019 Language: Arabic/English/French	Regional Office
The situation of HIV testing and counselling policies and practices in the Eastern Mediterranean Region EMRO Technical Publications Series 38 Language: English	Regional Office
The work of WHO in the Eastern Mediterranean Region. Annual report of the Regional Director 1 January–31 December 2010 Language: Arabic/English/French	Regional Office
Fact sheets	
Implementing the WHO Framework Convention on Tobacco Control WHO's Framework Convention on Tobacco Control ... saving lives Increasing taxes on tobacco products Tobacco-free public places Pictorial health warnings on tobacco packs Education, communication and training for tobacco control Banning tobacco advertising, promotion and sponsorship Cessation Surveillance Protecting tobacco control policies from the tobacco industry Sources Language: Arabic/English/French	Regional Office
Evidence for action on HIV/AIDS and injecting drug use Policy brief: reduction of HIV transmission through outreach Policy brief: provision of sterile injecting equipment to reduce HIV transmission Policy brief: reduction of HIV transmission through drug-dependence treatment Language: Arabic/French	Regional Office
CAP 2012, Media launch December 2011, Yemen fact sheet CAP 2012, Media launch December 2011, Syrian Arab Republic fact sheet Language: Arabic/English	
Muscat declaration on strengthening of school health services to address current and future challenges Language: Arabic/English	
Periodicals	
CBI Newsletter Vol. 6 Issue 3 CBI Newsletter Vol. 6 Issue 4 Languages: Arabic/English/French	Regional Office

Annex 4. New publications issued in 2011 *(concluded)*

Title	Originator
Periodicals	
Eastern Mediterranean Health Journal; Vol.17 No.1 Eastern Mediterranean Health Journal; Vol.17 No.2 Eastern Mediterranean Health Journal; Vol.17 No.3 Eastern Mediterranean Health Journal; Vol.17 No.4 Eastern Mediterranean Health Journal; Vol.17 No.5 Eastern Mediterranean Health Journal; Vol.17 No.6 Eastern Mediterranean Health Journal; Vol.17 No.7 Eastern Mediterranean Health Journal; Vol.17 No.8 Eastern Mediterranean Health Journal; Vol.17 No.9 Eastern Mediterranean Health Journal; Vol.17 No.10 Eastern Mediterranean Health Journal; Vol.17 No.11 Eastern Mediterranean Health Journal; Vol.17 No.12 Languages: English/Arabic/French	Regional Office
IMEMR current contents Vol. 10 No. 1 Vol. 10 No. 2 Vol. 10 No. 3 Language: English	Regional Office
	Headquarters
Publications online	
The WHO e-atlas of disaster risk for the Eastern Mediterranean Region. Volume 1. Exposure to natural hazards. Version 2.0 Language: English	Regional Office
Country Cooperation Strategy for WHO Afghanistan 2009–2013 Language : English	
Egypt 2010–2014 Language : English	
Islamic Republic of Iran 2010–2014 Language : English	
Lebanon 2010–2015 Language : English	
Libya 2010–2015 Language : English	
Oman 2010–2015 Language : English	
Occupied Palestinian territory 2009–2013 Language : English	
Somalia 2010–2014 Language : English	
Tunisia 2010–2014 Language : English/French	
Publications on CD/DVD	
The WHO e-atlas of disaster risk for the Eastern Mediterranean Region. Volume 1. Exposure to natural hazards. Version 2.0 Language: English	Regional Office
Demographic, social and health indicators for countries of the Eastern Mediterranean 2011 Language : Arabic/English	

Annex 5. WHO collaborating centres in the Eastern Mediterranean Region

as at March 2012

Field	Title	Country	Institution name
AIDS	WHO Collaborating Centre for Acquired Immunodeficiency Syndrome	Egypt	US Naval Medical Research Unit No. 3
AIDS	WHO Collaborating Centre for Acquired Immunodeficiency Syndrome	Kuwait	University of Kuwait
Biomedical equipment	WHO Collaborating Centre for Biomedical Equipment Services, Maintenance, Training and Research	Jordan	Ministry of Health
Blindness	WHO Collaborating Centre for Eye Health and Prevention of Blindness	Islamic Republic of Iran	Shahid Beheshti Medical University
Blindness	WHO Collaborating Centre for Prevention of Blindness	Pakistan	Al-Shifa Trust Eye Hospital
Blindness	WHO Collaborating Centre for Prevention of Blindness	Saudi Arabia	King Khaled Eye Specialist Hospital
Blood Transfusion	WHO Collaborating Centre for Training and Research in Blood Transfusion	United Arab Emirates	Sharjah Blood Transfusion and Research Centre
Cancer	WHO Collaborating Centre for Research on Gastrointestinal Cancer	Islamic Republic of Iran	Digestive Diseases Research Centre
Cancer	WHO Collaborating Centre for Cancer Education, Training and Research	Jordan	King Hussein Cancer Centre
Cancer	WHO Collaborating Centre for Metabolic Bone Disorders	Lebanon	American University of Beirut
Cardiovascular disease	WHO Collaborating Centre for Research and Training in Cardiovascular Diseases Control, Prevention, and Rehabilitation for Cardiac Patients	Islamic Republic of Iran	Isfahan Cardiovascular Research Centre
Dental Public Health	WHO Collaborating Centre for Training and Research in Dental Public Health	Islamic Republic of Iran	School of Dentistry, Shahid Beheshti University of Medical Sciences (SBMU)
Diabetes	WHO Collaborating Centre for Research and Education on Management of Osteoporosis and Diabetes	Islamic Republic of Iran	Teheran University of Medical Sciences
Diabetes	WHO Collaborating Centre for Diabetes Research, Education and Primary Health Care	Jordan	National Centre for Diabetes, Endocrine and Inherited Diseases
Diabetes	WHO Collaborating Centre for Treatment, Education and Research in Diabetes and Diabetic Pregnancies	Pakistan	Diabetic Association of Pakistan
Drugs	WHO Collaborating Centre for Drug Registration and Regulation	Tunisia	Directorate for Drugs and Pharmacy, Ministry of Public Health
Educational development	WHO Collaborating Centre for Educational Development	Bahrain	Arabian Gulf University
Educational development	WHO Collaborating Centre for Research and Development in Medical Education and Health Services	Egypt	Suez Canal University

Annex 5. WHO collaborating centres in the Eastern Mediterranean Region *(continued)*

Field	Title	Country	Institution name
Educational development	WHO Collaborating Centre for Educational Development	Islamic Republic of Iran	Shahid Beheshti University of Medical Sciences and Health Services
Educational development	WHO Collaborating Centre for Training in Research and Educational Development of Health Personnel	Pakistan	College of Physicians and Surgeons
Educational development	WHO Collaborating Centre for Research and Training in Educational Development	Sudan	University of Gezira
Educational development	WHO Collaborating Centre for Education Development for Health Professions	Sudan	University of Khartoum
E-Health	WHO Collaborating Centre on E-Health	Saudi Arabia	King Faisal Specialist Hospital and Research Centre
Emerging and re-emerging infectious diseases	WHO Collaborating Centre for Emerging and Re-emerging Infectious Diseases	Egypt	US Naval Medical Research Unit No. 3
Health promotion	WHO Collaborating Centre on Health Promotion and Behavioural Science	Lebanon	American University of Beirut
Health promotion	WHO Collaborating Centre for Emergency Medicine and Trauma Care	Pakistan	Aga Khan University
Hearing loss	WHO Collaborating Centre for Research and Education on Hearing Loss	Islamic Republic of Iran	Otolaryngology, Head and Neck Research Centre
Infection prevention and control	WHO Collaborating Centre for Infection Prevention and Control	Saudi Arabia	King Abdulaziz Medical City, King Fahad National Guard Hospital
Leishmaniasis	WHO Collaborating Centre for Research and Training on Leishmaniasis	Tunisia	Pasteur Institute of Tunisia, Ministry of Public Health
Leishmaniasis	WHO Collaborating Centre for Leishmaniasis Control	Syrian Arab Republic	Leishmaniasis Control Center
Mental health	WHO Collaborating Centre for Mental Health Research and Training	Egypt	Ain Shams University Hospitals
Mental health	WHO Collaborating Centre for Mental Health	Islamic Republic of Iran	Iran University of Medical Sciences
Mental health	WHO Collaborating Centre for Mental Health	Morocco	Ibn Rushd University
Mental health	WHO Collaborating Centre for Mental Health Research, Training and Substance Abuse	Pakistan	Rawalpindi Medical College
Nursing	WHO Collaborating Centre for Nursing Development	Bahrain	College of Health Sciences, Ministry of Health
Nursing	WHO Collaborating Centre for Nursing Development	Jordan	Jordan University of Science and Technology (JUST)
Nutrition	WHO Collaborating Centre for Research and Training in Nutrition	Islamic Republic of Iran	National Nutrition and Food Technology Research Institute, Ministry of Health and Medical Education
Nutrition	WHO Collaborating Centre for Research, Training and Outreach in Food and Nutrition	Lebanon	American University of Beirut

Annex 5. WHO collaborating centres in the Eastern Mediterranean Region *(concluded)*

Field	Title	Country	Institution name
Nutrition	WHO Collaborating Centre for Nutrition	United Arab Emirates	College of Food and Agriculture-United Arab Emirates University
Oral Health	WHO Collaborating Centre for Primary Oral Health Care	Kuwait	University of Kuwait
Pharmaceutical	WHO Collaborating Centre for Pharmacovigilance	Morocco	Centre Anti Poison et de Pharmacovigilance du Maroc
Quality assurance	WHO Collaborating Centre for Quality Control and Clinical Chemistry	Islamic Republic of Iran	Reference Laboratories of Iran, Ministry of Health and Medical Education
Quality control of medicine	WHO Collaborating Centre for Quality Control of Medicines with a Focus on Training, Research & Evaluation of Marketing Applications	Tunisia	National Laboratory for Drugs Control
Rabies	WHO Collaborating Centre for Reference and Research on Rabies	Islamic Republic of Iran	Pasteur Institute of Iran
Reproductive Health	WHO Collaborating Centre for Training and Research in Reproductive Health	Tunisia	International Training and Research Centre in Reproductive Health and Population
Schistosomiasis	WHO Collaborating Centre for Schistosomiasis Control	Egypt	Theodor Bilharz Research Institute
Traditional medicine	WHO Collaborating Center for Traditional Medicine	Sudan	National Centre for Research
Traditional medicine	WHO Collaborating Centre for Traditional Medicine	United Arab Emirates	Zayed Complex for Herbal Research and Traditional Medicine (ZCHRTM)
Transfusion medicine	WHO Collaborating Centre for Transfusion Medicine	Jordan	National Blood Bank, Ministry of Health
Transfusion medicine	WHO Collaborating Centre for Transfusion Medicine	Tunisia	National Blood Transfusion Centre of Tunis, Ministry of Health
Tobacco	WHO Collaborating Centre on Tobacco Control	Islamic Republic of Iran	National Research Institute of Tuberculosis and Lung Disease (NRITLD)
Tuberculosis	WHO Collaborating Centre for Tuberculosis Educational	Islamic Republic of Iran	Shahid Beheshti University of Medical Sciences & Health Services
Water supply	Centre collaborateur de l'OMS en matière de Formation et de Recherche dans le domaine de l'Eau potable et de l'Assainissement	Morocco	Office National de l'Eau Potable (ONEP) Bou-Regreg Complex, Station de Traitement


9 789290 218678