The Work of WHO in the Eastern Mediterranean Region

Annual Report of the Regional Director

1 January—31 December 2010

World Health Organization

Regional Office for the Eastern Mediterranean

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WHO Library Cataloguing in Publication Data
World Health Organization. Regional Office for the Eastern Mediterranean
The work of WHO in the Eastern Mediterranean Region: annual report of the Regional Director, 1 January-31 December 2010 / WHO Regional Office for the Eastern Mediterranean
p.
Arabic edition published in Cairo (ISBN: 978-92-9021-769-5)
(ISBN: 978-92-9021-770-1) (online)
(ISSN: 9220-1020)
French edition published in Cairo (ISBN: 978-92-9021-767-1)
(ISBN: 978-92-9021-768-8) (online)
(ISSN: 1816-2061)
1. Regional Health Planning 2. Health Policy 3. Health Services Administration 4. Health Promotion 5. Communicable Disease Control I. Title II Regional Office for the Eastern Mediterranean
(ISBN: 978-92-9021-765-7) (NLM Classification: WA 541)
(ISBN: 978-92-9021-766-4) (online)
(ISSN: 1020-9166)

Photographic acknowledgements: WHO Representatives' Offices of Afghanistan, Egypt, Islamic Republic of Iran, Iraq, Jordan, Oman, Pakistan, Somalia and Sudan.

Design, layout and printing by WHO Regional Office for the Eastern Mediterranean, Cairo

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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

2010 was a year of consolidation. Major work was undertaken in key areas which will have impact over the long term.

One of these key areas is childhood immunization. 2010 saw the launch of the first annual vaccination week in April, in which all countries took part. The commitment and enthusiasm displayed in spreading the message that immunization remains one of the most cost-effective tools in public health was heartening. The awareness raised through this annual campaign will surely strengthen national immunization programmes and have long-term impact on the survival and health of children in the Region.

A number of diseases saw simultaneous gains and setbacks, including poliomyelitis. Sudan joined the 19 poliomyelitis-free countries and polio now remains only in Afghanistan and Pakistan. In Afghanistan, the poliovirus has been contained within a localized area in the south. However, despite significant efforts by the government, supported by WHO and its partners, a way has still not been found to gain sustained access to the children of the south for immunization campaigns. In Pakistan, similar access difficulties continue to hinder control efforts in the border areas with Afghanistan. The managerial and programme performance issues in other parts of Pakistan, on which I reported last year, are being addressed by the government. The President of Pakistan declared an emergency but the subsequent action plan has yet to be implemented in a satisfactory and sustained manner at the peripheral level to achieve overall success. The situation in Somalia is of great concern due to continued lack of access to a very large part of central and southern Somalia for the past two years. A continued risk facing the Region is the large migrant population in the Horn of Africa, which is mobile and underserved by health services and which continues to introduce the virus from neighbouring infected countries. The regional programme has introduced several tools and approaches to ensure quality including use of environmental surveillance, independent monitoring and lot quality assurance. The eradication of poliomyelitis will remain unfinished business in the Region until the very last case is declared and we must all remain vigilant and committed.

Measles too saw gains and setbacks. Measles mortality in the Region has fallen by 93% since 2000 but there are still challenges to be overcome before we can claim elimination of measles. These challenges necessitated revision of the target for elimination from 2010 to 2015. Routine vaccination coverage remains below the key figure of 95% in several countries and outbreaks occurred in Afghanistan and Pakistan.

Vaccine-preventable diseases are responsible for more than 20% of under-5 mortality. Therefore scaling up childhood vaccination is a key strategy for achieving Millennium Development Goal 4 since, at a regional level, under-5 mortality rate has dropped by 30% since 1990. Three countries – Egypt, Lebanon and Oman – have already surpassed the target while six others are on track to achieve it. The Region still has the second highest maternal mortality ratio among all WHO regions, at 360 maternal deaths per 100 000 live births, with only around a 30% reduction since 1990. Based on the current trends, the Region as a whole is expected to remain far below the targets of Goals 4 and 5 relating to reduction of under-five mortality and

maternal mortality, respectively. Efforts to achieve the targets are being challenged by many factors, including inadequate political commitment and lack of universal access to quality primary health care services. Health information systems are another major challenge, not only because inadequate information makes it difficult to assess progress towards health targets such as the Millennium Development Goals, but also because it makes it difficult to make decisions that are properly informed by the evidence.

Two countries in the Region have now been certified malaria-free, United Arab Emirates and, in 2010, Morocco, and other countries are working towards certification. A malaria-free Arabian Peninsula is foreseeable. However the challenges to elimination in the Region as a whole are still considerable. Principle among these challenges are the lack of security, population movement and weak surveillance and diagnostic systems in countries where malaria is endemic, as well as spreading resistance to insecticides and the key antimalarial, artemisinin.

Outbreaks of dengue fever occurred in several countries, particularly in areas along the Red Sea and Arabian Sea coasts, as well as in Pakistan. This is a re-emerging disease in the Region that has now established itself and must be dealt with. The countries concerned showed great commitment in reporting these outbreaks and in taking action. This transparency is to be commended and will open the door to greater coordination, collaboration and partnership. The means to prevent and control dengue fever and its sequel dengue haemorraghic fever are well known but it is not a disease that can be controlled by the health authorities alone. Other sectors, municipalities and communities must all be involved, led by the Ministry of Health.

Over the years I have highlighted the growing importance of chronic noncommunicable diseases in the Region. These diseases not only represent the majority of the disease burden in the Region, over 60%, with major impact on quality of life, but have long-term impact on national health financing, on socioeconomic development and on family income. Yet, they are preventable to a large extent, and if detected early can be well controlled in the individual patient. There is ample evidence of cost-effective interventions that have proven effectiveness to reduce the burden disease and these now constitute best practice globally. It makes no sense not to put in place strong prevention programmes to raise public awareness, focusing on healthy lifestyles, tobacco cessation, physical activity, balanced diet and frequent timely health checks. While countries are moving towards greater access to appropriate screening, prevention and treatment within a primary-health care based system, this remains a challenge and needs greater prioritization. The global strategy and regional action plan provide clear guidance for countries in this respect.

There is little good news for environmental health in the Region. Neglect of the environment accounts for an estimated 24% of disease burden in the Region, taking into account pollution, poor waste management, water shortage and degradation, and overcrowding. This burden can be expected to rise if the implications of climate change for health are not taken into account in health planning. The environment is not high on national agendas in the Region and the result can be seen around us every day, wherever we are. The impact on human health and development, as well as national development, is not being adequately addressed. Around a third of the countries in the Region still cannot provide more than 90% of the population with sustainable access to safe water and proper sanitation. Improper disposal of domestic, industrial and health care waste poses a threat to all, and in particular the poor and marginalized, the very young and the elderly. This should be of greater concern to governments.

Publication of *The World Health Report 2010. Health systems financing: the path to universal coverage* and endorsement of a resolution on health care financing by the Regional Committee at its 57th session were important events. Despite the global financial crisis, countries have taken heed of the need to sustain support for health and education. The strategic directions endorsed by the Regional Committee provide clear guidance on a way forward. Policy-makers now need to take action to reduce the out-of-pocket share of health expenditure and, at the same time, to improve efficiencies in health system delivery.

New WHO premises were formally opened in Tunis, housing the WHO Representative's office and the WHO Mediterranean Centre for Health Risk Reduction. I thank Tunisia for its support throughout this project. Work is progressing on the construction of the first truly "green" building in our region, which will serve as new offices for the Centre for Environmental Health Activities and the WHO Representative's Office in Jordan. More important, I hope it will also provide a model for the Region of green building design which, as the impact of climate change really begins to be felt in the Region, takes into account the local environment, the increasing need to conserve energy and water and the need to reduce our "carbon footprints". I thank the Government of Jordan for its support for this project, including the donation of land. I thank also the Government of Oman which provided the WHO Representative's office with new premises in 2010. The support of Member States for the work of WHO in the Region benefits both the individual country and the Region as a whole.

As we look to the future in the Region we see a great deal of change taking place in the political, economic and social landscape. This is a time of great hope and of some trepidation. As long as universal human rights, including the rights to health and education for all, remain the principle objective and as long as our core human values of dignity, compassion, tolerance and mutual respect are honoured, there can only be brightness on the horizon.

Hussein A. Gezairy MD FRCS
Regional Director for the Eastern Mediterranean

Executive summary

Health development and health security

- In the area of vaccine-preventable diseases and immunization, 2010 was marked essentially by the launching in April 2010 of the first regional Vaccination Week, with unprecedented success as all countries actively used this opportunity for advocacy, communication and social mobilization for their national immunization programmes. Achievement of the regional expected results was on track in 2010. At least 16 countries in the Region have achieved 90% routine vaccination coverage. Significant increase in routine vaccination coverage in Somalia and southern Sudan was achieved, thanks to the continued support of WHO and partners. New vaccines uptake has progressed with 18 countries now using Hib vaccine, 8 countries pneumococcal vaccine and 3 countries rotavirus vaccine. The Regional Office is working to further enhance new vaccines introduction, especially in the lower middle-income countries, through establishing a regional pooled vaccine procurement system, advocacy and strengthening of evidence-based decision-making through surveillance of diseases preventable by new vaccines and establishing and strengthening national immunization advisory groups. The Region achieved 93% reduction in estimated measles deaths between 2000 and 2010. Although the measles elimination target was not achieved in 2010, 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. Measles case-based laboratory surveillance is implemented in all countries. Strengthening of immunization programmmes, especially in countries with DPT3 coverage above 90%, will continue to be the top priority. Regional Office support will focus on developing comprehensive multi-year plans, implementing the RED approach and child health days, and strengthening monitoring and evaluation systems to use data for action. Scaling up introduction of new vaccines and enhancing measles elimination activities will be focused on as well.
- Despite the challenges, man-made and natural, and their negative impacts on polio eradication efforts, the Region continued to proceed towards achieving the polio eradication target, with 19 countries maintaining their polio free-status. The regional AFP surveillance system is meeting certification standards. Independent AFP surveillance reviews were completed in nine countries. Half of the 20 polio-free countries in the Region conducted supplementary immunization activities in 2010 with a focus on high-risk populations. The laboratory network continued its excellent performance and all laboratories are accredited. Containment and certification processes are ongoing with significant progress. Use of the bivalent OPV and independent monitoring of supplementary immunization activities were introduced. The endemic circulation of poliovirus in Afghanistan and Pakistan is the major challenge. In Afghanistan transmission is localized in the war-affected southern part, and in Pakistan polio cases are reported from some endemic areas. Recent progress in Pakistan, including development of a national emergency action plan to interrupt transmission in 2011 and constitution of a national task force headed by the Prime Minister to review its progress, is very encouraging. Due to circulation of wild polioviruses in neighbouring countries of Africa, Somalia, southern Sudan and Yemen are at high risk of importation of wild polioviruses. The

Regional Office continued its efforts to increase cooperation with other WHO regions and support to countries, through regular exchange of information and experience, and extending technical support.

- The guinea-worm disease-endemic areas continued to shrink and the disease is now limited to 226 villages (compared with 594 in 2009) in only six of southern Sudan's 80 counties. The goal of elimination of leprosy was achieved and sustained in all countries, except in complex emergency countries such as Somalia and Sudan. Following the successful launch of the 6-year schistosomiasis elimination project in Yemen, jointly supported by the World Bank and WHO, the Region has only one hyper-endemic country (Sudan). Yemen and Egypt finalized their programmes for the elimination of lymphatic filariasis, although verification of the interruption of transmission by sensitive tools is still required. Sudan (both the northern and southern areas) is in the mapping phase. Although a new shorter and easier to deliver treatment protocol for human African trypanosomiasis for late-stage patients was introduced in all centres admitting such patients and the provision by WHO of free diagnostic kits, the number of new detected cases is far below expectation, mainly because of the lack of implementing partners.
- The improvement in the performance of the surveillance systems, and in transparency and capacities of many countries has led to better early detection and reporting of outbreaks and other public health emergencies and has resulted in reduced morbidity and mortality. The current challenge is to continue to provide support to all countries for further developing, strengthening and maintaining the surveillance capacity to appropriately detect, assess, notify and adequately respond to public health events of both national and international concern. The lessons learnt from human pandemic influenza due to H1N1 and avian influenza due to H5N1 illustrated the importance of maintaining the achievements made during preparedness for and response to influenza at regional and country levels.
- Implementation of the International Health Regulations (2005) by 2012 is dependent on building national core capacities, including those related to surveillance and response. Functioning of the regulations in the Region was tested between the emergence of pandemic (H1N1) 2009 and declaration of the post-pandemic phase. The Regional Office and countries reviewed the functioning of the regulations during the pandemic and capacity was built on using a WHO tool to monitor the progress of implementation. A technical unit was established to support countries in meeting the requirements for implementation of the regulations. An advocacy mission was conducted in Egypt and assessment missions were completed in Bahrain, Kuwait and Qatar. Bio-risk management projects were supported in Egypt, Jordan and Oman. A regional framework for public health response to radiation emergencies is being developed.
- The main issues and challenges in relation to vector control include the capacity to effectively coordinate and scale up vector control interventions at country level and the problem of vector resistance to insecticides and pesticide management within the framework of integrated vector management. Scale-up of vector control interventions for universal access, strengthening of capacity to monitor and manage vector resistance to insecticides, advocacy

at the highest political level and mobilization of resources for sound pesticide management will continue to be supported.

- In most countries prevalence of HIV has remained low in the general population. An increasing number of countries are reporting concentration of the HIV epidemic in populations at increased risk. Epidemics among injecting drug users exist in Afghanistan, Islamic Republic Iran, Libyan Arab Jamahiriya and Pakistan, and are emerging in Egypt, Morocco and Tunisia. Elevated HIV prevalence among men who have sex with men was detected in some countries of northern Africa. Information on magnitude, behaviours and needs of most-at-risk populations is increasing but still insufficient. Appropriate service delivery models that facilitate access for the people at risk of and affected by HIV have to be developed and adapted to each country's context. Stigma and discrimination are still major barriers to people accessing prevention and care services. As a result the Region continues to have the lowest antiretroviral therapy coverage rate globally. The relatively high coverage achieved in some countries is masked by the low coverage in the countries with the highest burden. A major threat to sustainability of HIV programmes in low and low-middle income countries is the increasing dependence on external resources for funding. The regional strategy for health sector response to HIV 2011–2015, developed through a broad consultative process with national AIDS programmes, regional experts and partner agencies, was endorsed by the Fifty-seventh Regional Committee.
- Malaria-endemic countries have increased coverage with artemisinin-based combination therapies and long-lasting insecticide-treated nets. However, there is a huge gap between the current coverage and the target of 80% coverage by 2010 as adopted in by the World Health Assembly in 2005, and the United Nations Millennium Development Goal related to malaria. The six countries with a high burden of malaria need sufficient and substantial support, from both donors and domestic resources, to reach the adopted target of universal coverage of interventions. Elimination of malaria is showing real success in some countries. In 2010, Morocco was granted certification of malaria elimination, following the United Arab Emirates in 2007, and three countries (Islamic Republic of Iran, Iraq, Saudi Arabia) are currently implementing elimination programmes with significant progress. Iraq has reported no local cases since 2009.
- Tuberculosis incidence has been reduced by 8% in comparison with the 1990 baseline figures. A more notable decrease in prevalence and mortality has been observed, by 33% and 47% respectively. Countries have maintained the regional treatment success rate at 88% for three consecutive years. The main challenge for tuberculosis control is to ensure universal access to care. The case detection rate is still far short of the 2015 universal access target (63% by 2009). The Regional Office will continue to provide support to countries to meet the global targets for tuberculosis, with concentration on issues hindering universal access to diagnosis, treatment and care.
- Despite limited financial resources, the small grants scheme continued to support operational research in communicable diseases prevention and control, with a total of 16 projects supported in 2010. The TDR disease reference group on zoonoses and marginalized infectious diseases

was hosted by the Regional Office in 2010. A task force was established in order to devise new directions for the small grants scheme.

- Social and economic development in the Region has had impact on both the determinants and patterns of diseases. As a result, noncommunicable diseases, represent a major public health threat and also pose a significant drain on economic and social development. A regional action plan for noncommunicable diseases was developed guided by the global action plan and four countries developed national plans. Technical support was provided to all countries to complete the global noncommunicable disease capacity assessment tool. Two countries piloted the integration of noncommunicable diseases in primary health care, bringing the total to six. Three more countries completed the STEPS survey during the review period. Partnership with regional nongovernmental organizations resulted in development of an effective training programme in cancer control. The Regional Office held a consultation to ensure a regional contribution to the high-level meeting of the United Nations on noncommunicable diseases in September 2011.
- Neuropsychiatric disorders account for 11% of the total burden of disease in the Region. Community-based studies in the Region show estimated prevalence rates for mental disorders in adults ranging from 8.2% in United Arab Emirates, to 21% in Islamic Republic of Iran. Regional strategic directions for maternal, child and adolescent mental health were adopted by the Regional Committee. Technical support was provided to four countries to draft and finalize evidence-based policies and strategies for mental health and substance abuse. Eleven countries now have a specific unit responsible for development and monitoring of mental health and substance abuse policies, plans and services. The assessment of mental health systems using WHO-AIMS has now been completed in 18 countries in the Region and the evidence generated from this exercise is being used to formulate a regional mental health strategy. Integration of the mental health component in primary health care is an important part of the overall vision of mental health, and a package for training of primary health care personnel in recognition and management of common mental disorders was developed and shared with countries.
- Injuries continued to grow in magnitude and now rank as the leading cause of death among certain age groups in many countries of the Region. A framework for the implementation of road safety policies and programmeswas developed for the effective implementation of resolution EM/RC56/R.7 on road traffic injuries. One country from the Region was included in the Road Safety in 10 Countries Project (RS10) 2010-2014 which aims to implement good practices in road safety in line with national road safety strategies. The Regional Office continued to support countries to develop or strengthen injury surveillance systems and disability records using the International Classification of Functioning, Disability and Health.
- It is essential to continue to invest efforts in eliminating noncommunicable eye diseases. Unless additional eye-care services are provided, the number of people suffering from vision loss due to age-related eye diseases will rise as a result of increased life expectancy and population growth. 2010 marked the halfway point since the launch of the global initiative VISION 2020: the Right to Sight. In order to prevent avoidable blindness and visual impairment at the

national level, provision of adequate eye-care services requires the development of specific human resource skills, technology and infrastructure. At the community level, primary eye-care services need to be strengthened. In addition, further development of sustainable, affordable, equitable and comprehensive eye-care services as an integral part of national health systems is needed.

- National capacity-building in maternal and neonatal health continued to receive special attention, focused on improving the coverage with and quality of skilled birth attendants and birth spacing services. National programme officers from 11 countries were trained in methods for fostering change to scale up effective family planning service practices. National plans for strengthening maternal and neonatal health surveillance systems were developed in 10 countries through a regional consultative meeting. Technical support was extended to 18 countries in developing national workplans for strengthening capacity in monitoring and evaluation.
- Under-five mortality was reduced in the Region by 30% between 1990 and 2009. Extensive efforts are still needed to achieve Millennium Development Goal 4 in the Region. Five countries are on their way to achieving universal coverage with the Integrated Management of Child Health (IMCI) strategy. 34 088 targeted primary health care facilities (67%) are now implementing IMCI in 13 countries in the Region. Regional initiatives have been adopted to increase access to primary health care (community child health care) and to accelerate the pace of IMCI implementation (pre-service education). Inadequate commitment, high turnover of staff, reduced funding and weak health systems remain the main obstacles for achieving universal coverage.
- The Region witnessed the largest natural disaster ever responded to by WHO (and the United Nations) in the past 50 years, with more than 20 million people affected by the floods in Pakistan. Conflict in Afghanistan, Pakistan, Palestine, Somalia, Sudan and Yemen continued, with some violation of humanitarian principles, severely restricted access to health care and stifled health sector recovery. With WHO support, several countries launched national emergency preparedness and disaster risk reduction programmes based on an all-hazards approach. Two regional strategies for disaster risk reduction, targeting African countries and Arab countries respectively, were also developed with active support from WHO. In ongoing humanitarian crises, WHO continued to lead the humanitarian response and coordination in the health sector, including communicable disease control and environmental health, as well as early recovery and rehabilitation activities. Other priorities under response readiness and operations were capacity-building across all Member States in humanitarian reform and implementation of the cluster approach across all crises.
- High-level political commitment, legislative interventions and public policies are needed in order 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. This is especially so in areas such as marketing of foods to children and setting up of treatment and rehabilitative services for substance abuse. Networks need to be expanded and partnerships strengthened in health

promotion and health education at all levels. Better implementation of existing legislation is needed, especially in areas such as banning of tobacco use in public places. Additional human and financial resources and intersectoral collaboration are vital at this stage to bridge existing gaps and will be a main focus in 2011.

- With regard to healthy environments, declining water availability and quality, increasing populations, unsustainable development, rapid changes in lifestyles, urbanization, unsustainable energy consumption, and inefficient and polluted water resources are the major public health problems in the Region. Traditional problems, such as solid waste, indoor and outdoor air pollution, liquid waste management, inadequate policies and lack of public awareness, continue to pose challenges. WHO estimates that more than 1 million deaths in the Region could be prevented each year if appropriate environmental health interventions were available. Health systems are not yet identifying the environmental determinants of health as a key priority for improving public health. Climate change is expected to aggravate these problems and exacerbate their public health impact. WHO supported Member States in adopting the regional guidelines and norms on drinking-water quality, wastewater reuse, health care waste management and solid waste. It will continue its support to countries to assess the health risks and impact of emerging environmental development, minimize the impact of development projects, secure basic occupational health services, integrate occupational health services into primary health care systems, and build capacities for chemical safety and radiological alert and response mechanisms.
- The burden of disease associated with inadequate nutrition continues to grow. As in many developing regions, there is unprecedented nutritional and demographic transition, with a broad shift in disease burden. While problems of under-nutrition still exist, the burden of overweight, obesity and diet-related chronic diseases is increasing. This nutrition transition has already started to have a negative impact on health systems. The Regional Committee endorsed a regional strategy on nutrition 2010–2019 to address the situation.
- Countries are making efforts to enhance food safety through a number of key strategies, such as risk assessment, foodborne surveillance, national standard setting and guidelines, and contributing to the work of the Codex Alimentarius commissions at regional and global level. The Member States of the Gulf Cooperation Council implemented a coordinated approach to solving problems relating to imported foods. Food safety is increasingly recognized in the Region as an essential public health function in view of the need to reduce the health and economic burden of foodborne diseases. Member States, consumers, industry and other interested parties continue to strive to implement the global strategy for 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 full realization of 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 between access to and utilization

of health and social services, and the increase in the number of vulnerable groups. Support was provided to strengthen intersectoral collaboration among government agencies and civil society to tackle social and economic determinants of health, with action at policy and country level.

- The strengthening of health systems continues to be directed by the principle of equitable access to life-saving or health-promoting interventions. These address the underlying social and economic determinants of health, health services including evidence and research, resource generation – financial and human – and medical products and technologies. Equitable access to health care is a key component to achieving the Millennium Development Goals. While the importance of health systems in contributing to better health outcomes is beyond doubt, many challenges exist to the improved performance of health systems and their various building blocks in many countries. Countries are realizing that more needs to be done to ensure health systems are properly financed, are provided with adequate resources and are monitored to ensure effective delivery of health services.
- Support was provided to eight countries in formulating, reviewing and updating their national strategic health plans and health policies. Health care financing received particular attention in 2010 at the global and regional levels, with the publication of The World Health Report on health care financing. Technical support was also provided to follow up on implementation of successful proposals to the GAVI Alliance on health system strengthening in eligible countries. A review of currently active WHO collaborating centres in the Region was conducted to identify and use centres that have the capacities to assist in enhancing/promoting research for health at the national level. Comprehensive assessment of the health information system was conducted in several countries. Technical support was provided in the use of the International Classification of Diseases (ICD-10), statistical analysis and Geographical Information Systems.
- Six countries were supported to establish human resource development units to strengthen governance of human resources for health at the national level, to scale up production of nurses and midwives and to build up nurses' leadership and management capacities. Accreditation of health professions education received more attention to ensure graduation of competent practitioners. The primary health care approach will remain central to the development of health systems and provision of health care. Particular efforts will be made to mobilize regional resources to promote primary health care. A six-year regional strategic plan (2010–2015) was developed, providing countries with a roadmap for implementing service delivery based on primary health care.
- The public sector in the Region consumes around 50% of the recurrent public health budget on medical products and services. 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 operational and policy issue for many countries, especially those facing complex emergencies and disasters. As an important input to the health care system, 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. Technical support was provided in: developing strategies; drafting rules 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; generating a research agenda for manufacturers; and capacity-building. 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.

Partnership and WHO performance

- The current financial crisis has had critical implications for gains achieved in public health and has reshaped how programmes are implemented in the Region. WHO, as a key player in shaping and responding to public health demands in a rapidly evolving environment at country level, is engaging with United Nations agencies and partners to foster harmonization and avoid duplication. The use of country cooperation strategies as a key tool in alignment with national priorities has become essential in all collaborations, to improve priority-setting, planning and consensus-building among partners. Technical and managerial support for implementation of country focus policy and renewal and utilization of country cooperation strategies in strategic and operational planning as well as programme management continued.
- Demand for accurate and timely information on health in different languages of the Region continues to be high. Improving access to and availability of the most up-to-date and valid health knowledge are key challenges. In order to enhance the dissemination of quality and timely information, a process of redevelopment of the Regional Office web site was initiated. Redesign will take into account the need for a one-WHO identity to be preserved across the Region and with the rest of WHO, and for different language versions. Following implementation of the revised WHO publishing policy, a more streamlined approach to planning of information products was implemented. The Regional Office issued 74 English, 27 French and 28 Arabic publications in different formats and 21 periodicals. The Eastern Mediterranean Health Journal successfully moved to monthly publication with a new design and format. The Global Arabic Programme continued to build capacity in countries by providing health workers, professionals and the public with health and biomedical information in Arabic. Partnerships with regional stakeholders continue. The Arabic version of the Bulletin of the WHO continued to be posted on time on the headquarters and Regional Office web sites. The Regional Office continued to support the development of the WHO Global Institutional Repository project, in-collaboration with headquarters and other regional offices, and the abstracting and indexing services for the health and biomedical sciences journals published in the Region. The first two issues in the Eastern Mediterranean Region e-Publications Series were produced on CD-ROM.
- In response to the health priorities and needs, communications-related activities were planned in line with the regional strategic objectives and emerging issues. Advocacy and

communication activities and production continued to support the raising of public awareness regarding health issues of great concern. Capacity-building was supported in advanced communication, facilitation and presentation and a capacity-building programme was started with headquarters to develop a communications survival kit.

- Greater support for and increase in resource mobilization efforts are needed urgently in view of the financial situation, both at regional and country level. Progress was made in expanding and strengthening partnerships, especially with respect to the United Nations Development Group (UNDG) at regional level and roll-out of the United Nations Development Assistance Framework (UNDAF). However, enhancing WHO internal capacity at regional and country level to ensure a more effective contribution and positioning of health is still needed. Advocacy is also needed with other stakeholders, demonstrating the importance of health within the UNDAF and across sectors and the role that WHO could play.
- Following the successful roll-out of the Global Management System (GSM), implementation of operational workplans significantly strengthened the technical and managerial capabilities of the Regional Office and enhanced the relevance and effectiveness of operations. Mail security devices were installed to secure mail services in country offices and to improve messaging communication. Several components of the Regional Office infrastructure, including video conferencing and telephony systems, were updated.
- Internal office restructuring took place to rationalize office operations and the associated workforce, resulting in merging of key units and reduction in associated human resources costs. Measures were put in place to reduce the cost of recurring utilities by 40%. Travel was reduced and alternative measures were put in place to maintain the same level of support to countries. Following resolution WHA63.6, appropriation of funding for high security risk areas was approved and implementation is under way. The construction of the new building in Tunis, which will house both the WHO Representative's Office and the WHO Mediterranean Centre for Health Risk Reduction, was completed and formally handed over and the second phase of the construction of the new building in Jordan commenced. Selected new learning programmes and mechanisms as well as tools are being prepared to meet staff needs.

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

Three major events marked 2010 in terms of communicable diseases. There was a substantial increase in the incidence of poliomyelitis in Pakistan with expansion to new districts, mainly due to the massive flooding the country faced, together with inadequate country management of the eradication programme. The first regional vaccination week was launched in which an unexpected 100% of countries actively participated. A 6-year schistosomiasis elimination project was launched in Yemen jointly supported by WHO and the World Bank. Regional Office support to all countries, in particular priority countries, to reduce the health, social and economic burden of communicable diseases continued through the five major programmes under this strategic objective.

Substantial improvement in access to high quality routine immunization services was achieved. DTP3 coverage is now close to or higher than 90% in most of the priority countries and relative improvement in access to routine immunization was observed in Somalia and southern Sudan so that the regional DTP3 coverage reached 88% in 2009. However, despite this recent achievement, in 2009 around 1.9 million infants did not complete their basic vaccination schedule; half of them are in Pakistan and the majority of the remaining half are in four other priority countries. Difficult and emergency situations, varying technical and managerial capacity, stresses on the health system, competing priorities, inadequate ownership and insufficient government financial commitment, and poor community awareness and attitudes are all factors that have hindered the progress towards achieving the set objectives in some countries.

Measles mortality has dropped by 93% compared to 2000 figures. Several countries are close to achieving the measles elimination target and laboratory-based measles surveillance has been established in the majority of the countries. Yet, the Region still faces challenges to reaching the measles elimination target. Routine vaccination coverage in several countries has not reached the 95% coverage with two doses of measles vaccine in all districts that is necessary to support achievement of elimination. Hence, several countries still need to conduct measles follow-up campaigns and that needs support from government and financial partners. Measles surveillance needs to reach the standard that can support validation of measles elimination.

Although introduction of new vaccines gained momentum during the past few years, especially in the high-income and low-income countries, it still faces severe constraints in the middle-income countries. Four lower middle-income countries, which include 32% of the birth cohort, still have not introduced Hib vaccine and the situation with regard to introduction of the rotavirus and pneumococcal vaccines is much worse. The high prices of these vaccines, together with a lack of awareness by decision-makers about the cost–effectiveness of introduction and

The Expanded Programme on Immunization in Iraq ensures immunization for all

weak vaccine procurement mechanisms are the main underlying factors.

The continued transmission of poliovirus in Afghanistan and Pakistan is a major challenge for the Region. In Afghanistan, circulation is localized in the southern part of the country, to insecure areas with impaired access. In Pakistan, poliovirus is continuing to cripple children because of the failure to reach all children with sufficient doses of vaccine. The reasons for this included access problems due to insecurity, particularly in Federally Administered Tribal Areas (FATA), inadequate oversight and ownership, operational and planning challenges, and the failure to identify and include all high-risk underserved population groups. With continued circulation of wild polioviruses in neighbouring countries in Africa, Somalia, southern Sudan and Yemen are at high risk of importation of wild polioviruses. The probability of subsequent spread relates to the large proportions of insufficiently immunized children, due to weak health care infrastructure and difficulties in accessibility, caused by natural and manmade factors. Securing adequate financing for supplementary immunization activities, in endemic and risk-prone countries, maintaining certification standard acute flaccid paralysis (AFP) surveillance, and ensuring continued political commitment in both polio-endemic and polio-free countries are challenges for the programme.

Although the areas with dracunculiasis (guinea-worm disease) continued to shrink, the challenge is to be able to sustain adequate surveillance and verification activities in the freed areas, which are continuously extending. Leprosy programmes remain weak in complex emergencies countries such as Somalia and Sudan. Similarly in these latter countries, the sustained control and elimination of schistosomiasis and lymphatic filariasis remain a challenge despite the availability of effective and cost-effective tools. In countries that have succeeded in eliminating lymphatic filariasis, such as Egypt and Yemen, more efforts are required in lymphoedema management and disability alleviation. Countries that have eliminated schistosomiasis or have reached low endemicity still require verification by sensitive tools, which may require expertise and funds that are not always available. Trypanosomiasis in southern Sudan remains a concern since most implementing partners have scaled down control activities.

The movements from the north of large non-immune populations to southern Sudan constitute an important risk for the occurrence of more outbreaks of visceral leishmaniasis if they settle in transmission areas.

In the past few years the countries of the Region, like the rest of the world, have experienced frequent and severe outbreaks of emerging and re-emerging diseases. These outbreaks were often detected and responded to too late. Moreover, the responses were generally inadequate, resulting in high burden and high mortality. The main issues are weak surveillance systems for early detection of outbreaks and inadequate human and other resources. The current challenge is to continue to provide support to all countries to assess their core capacities for implementation and monitoring of the International Health Regulations (2005) by June 2012, as well as to develop, strengthen and maintain the capacity to appropriately detect, assess, notify and adequately respond to public health events of both national and international concern. With regard to influenza, the challenge is to support preparedness for influenza at regional and country levels taking the opportunities and lessons learnt from the last pandemic and to reduce the opportunities for human infection with avian influenza (H5N1).

The main remaining challenges in the area of vector control, are national capacity to effectively coordinate and scale up vector control interventions, vector resistance to insecticides, and pesticide management within the framework of integrated vector management. Substantial achievements were made in operational research through the Small Grants Scheme, despite the limited financial resources available generally for communicable disease research.

Achievements towards performance indicator targets in each expected result

In the area of *vaccine-preventable diseases and immunization,* based on reported country data, the regional average of routine DTP coverage reached 91% in 2010. The level of 90% routine DTP3 coverage was achieved in 16 countries (target is 18 countries for 2010), while Afghanistan, Djibouti, Pakistan and Yemen are very close to this target. The security situation in most of these countries contributed significantly to the delay in achieving the target. Joint efforts by WHO, UNICEF and other partners to improve access to immunization services in Somalia and southern Sudan resulted in significant increase in routine vaccination coverage between 2008 and 2010 (from 31% in 2008 to 66% in Somalia and from 26% to 71% in southern Sudan). WHO continued to provide extensive support to the priority countries in order to "reach the unreached" through suitable approaches, including the RED (Reach Every District) approach, child health days and acceleration campaigns that entail multi-antigen vaccination campaigns and other child survival interventions in Somalia.

The Regional Office support focused also on building country capacity in planning, management, advocacy and mobilization of resources to implement planned activities. Updating of national comprehensive multi-year plans was undertaken with WHO support in several countries. The Regional Office developed a regional manual for comprehensive review of EPI which was field tested in Pakistan and implemented in Egypt. Regional training on vaccine management assessment was conducted and the software and guidelines for use of the vaccine supply stock management system were updated and

The Regional Director visits the vaccination week exhibition in Oman

translated into Arabic, and the data of several countries were migrated to the new version. To further strengthen national immunization programmes and obtain greater support for them from national governments as well as partners, the Regional Office launched the first Vaccination Week in April 2010 with unprecedented success and the participation of all countries in the Region. This event received comprehensive media coverage in all countries, heeding the message that immunization remains one of the most cost-effective tools in public health.

The Region achieved in 2010 a 93% reduction in estimated measles deaths in comparison with 2000. Unfortunately the regional measles elimination target, planned for 2010, could not be achieved and had to be moved to 2015. Nevertheless, 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. Nineteen countries provide a routine second dose of measles vaccine with variable levels of coverage and countries that need to conduct follow-up campaigns are doing so on time so far. Afghanistan and Pakistan experienced measles outbreaks, largely because of the security situation and the devastating flood that affected Pakistan. The quality of the reported follow-up campaign data is of concern. Measles case-based laboratory surveillance is being implemented in all countries, with 20 countries performing nationwide surveillance and three doing sentinel surveillance. The monitoring of elimination indicators improved substantially in several countries. As a result of the increased capacity of the laboratory network for virus detection and genotyping, 20 countries succeeded in identifying the local measles genotypes circulating. Regional Office support was a key factor in these achievements. The Regional Office also provided technical support for planning and implementation of the national plans of action and in resource mobilization for strengthening surveillance and implementing the follow-up campaigns in the countries in need.

New vaccines introduction moved forward, especially in middle-income and low-income countries. Morocco introduced rotavirus and pneumococcal vaccines, and in early 2011, Yemen started pneumococcal vaccination and Tunisia resumed Hib vaccination, which brought the total number of countries that have introduced Hib, pneumococcal and rotavirus vaccines in the Region to 18, 8 and 3 respectively, which is quite in line with the 2010 target. In addition, Iraq undertook preparation for introduction of Hib and rotavirus vaccines in 2011. Libyan Arab Jamahiriya is planning to introduce rotavirus and pneumococcal vaccines, Sudan rotavirus vaccine and Pakistan pneumococcal vaccine in 2011. National commitment and increasing government financial allocation in the middle-income countries and the opportunity of the financial support offered by the GAVI Alliance were among the main factors that contributed to this achievement. The extensive support offered by the Regional Office, in terms of supporting burden of diseases assessment through the regional surveillance network

and using the data generated for advocacy and evidence-based decision-making, as well as in terms of preparation of comprehensive multi-year plans (cMYP), applications to the GAVI Alliance and vaccine introduction were the other major success factors.

The Regional Office is working hard to further enhance new vaccines introduction, especially in the middle-income countries. Establishment of a regional pooled vaccine procurement system is under way. Raising the awareness of decision-makers, finalizing the feasibility study, reviewing the procurement mechanism in the different countries and analysis of the different procurement options are being undertaken. Implementation of the first phase of pooled vaccine procurement, through UNICEF, is expected to start in 2011.

The Regional Office is paying due attention to strengthening national capacity for evidence-based decision-making, particularly through strengthening the national immunization technical advisory groups and surveillance. The Regional Office continues to support the establishing and strengthening of such groups through advocacy, standardization, information sharing and briefing of the chairpersons. Currently, 21 countries have established technical advisory groups, the highest proportion compared to any other region. The regional surveillance networks for assessment of burden of diseases preventable by new vaccines is being strengthened and the data generated are used continuously for evidence-based decision-making on introduction of new vaccines. Currently, 17 countries are implementing bacterial meningitis surveillance; 5 countries are additionally implementing surveillance of other invasive bacterial diseases (pneumonia and sepsis) and 17 countries are documenting the rotavirus disease burden. These figures are in line with the targets of the regional expected results. Regarding monitoring and evaluation of EPI, most countries are currently monitoring district level data and 20 countries have submitted the WHO/UNICEF Joint Reporting Form according to the agreed timelines.

The Region is making progress towards *poliomyelitis eradication.* Despite the challenges, man-made and natural, faced by the regional programme, and their negative impact on polio eradication efforts, particularly in the two remaining endemic countries, Afghanistan and Pakistan, the Region continued to proceed towards the eradication target, with 19 countries maintaining polio free-status and Sudan successfully regaining its polio-free status, after recovering from the epidemic that occurred as a result of importation. Half of the 20 polio-free countries in the Region conducted supplementary immunization activities with a focus on geographic areas with high-risk populations and low routine immunization coverage. In addition, several initiatives were introduced in the programme, namely use of the very effective bivalent oral poliovaccine (OPV), and independent monitoring of supplementary immunization activities.

The regional AFP surveillance system continues to perform at the accepted international standard and exceeds the indicator standard in many priority countries. In 2010, all countries achieved the target non-polio AFP rate and all countries except Bahrain, Djibouti, Lebanon and Morocco achieved the target of 80% stool adequacy for AFP cases. Independent AFP surveillance reviews were completed in three of these four countries (Djibouti, Lebanon and Morocco) and also in Egypt, Somalia, southern Sudan and Tunisia. The weekly *Polio Fax* provides a means of continued

monitoring and evaluation of performance indicators with timely feedback to ministers of health. In an effort to ensure timely and effective intervention in the face of probable epidemics due to importations, the Regional Office developed a model which is being applied to national surveillance and immunization data and the output is used to alert countries and advise them on appropriate actions. The laboratory network continued its excellent performance and all laboratories are accredited. Containment and certification processes continue with significant progress. Monitoring of global polio eradication milestones relevant to the Region shows that southern Sudan, having re-established circulation, achieved the target of less than 10% missed children.

Pakistan has come a long way in its struggle to eradicate polio. In the early 1990s the annual incidence of polio was estimated at more than 20 000 cases a year. The national polio eradication effort has made major strides in reaching children with immunization in all parts of the country over the past 15 years, resulting in a decrease in the number of cases to fewer than 100 cases per year over the past 5 years, confirmed through a very sensitive and effective surveillance system. This tremendous progress towards the eradication of polio in Pakistan faced serious challenges in the past 3 years, represented in instability and war in the border areas with Afghanistan, limiting safe access to children. The programme also faced managerial problems in some areas without accessibility problems. These factors resulted in children in key high-risk areas not receiving adequate numbers of doses of OPV, and hence an increase in the number of cases of polio to 140 in 2010, the highest figure seen since 2000. More than three quarters of the cases are reported from these high-risk districts. Wild viruses isolated from cases in other areas are mostly genetically linked to those of high-risk areas. Significant efforts and initiatives were made by the programme in Pakistan during the past 2 years, particularly the introduction of bivalent OPV, the development of comprehensive district-specific plans, improvements in the monitoring system through introduction of finger marking, and independent monitoring and enhancement of the Prime Minister's plan focusing on intersectoral collaboration in polio eradication. At the same time, emphasis was placed on maintaining a very comprehensive surveillance system supported by a well-functioning network of laboratories. After evidence of some improvement in the epidemiological situation in the first half of the year, the country was faced by a devastating flood, resulting in significant population movement, mostly from high-risk areas to other polio-free areas, and massive destruction to health infrastructure and disruption of health care services. This resulted in significant increase in the number of cases, particularly in the last 5 months of 2010. In light of the situation, the Director-General and Regional Director visited Pakistan and met with the President, who directed the immediate development of an emergency action plan to stop transmission of polio in Pakistan by end of 2011. This plan, developed in close collaboration with WHO, focuses on achieving consistent government oversight, and ownership and accountability at each administrative level, ensuring consistent access to security compromised areas, and ensuring that all children are consistently immunized in the districts/agencies and populations that are at highest risk of sustaining transmission of poliovirus. A national task force, headed by the Prime Minister, was constituted and includes the Governor of Khyber Pakhtunkhwa/

The Regional Director visits Baluchistan, Pakistan where polio is still endemic, in support of the National Emergency Action Plan to reach every child, each vaccination round

Federally Administered Tribal Areas and the chief ministers of provinces to monitor the progress.

The polio eradication programme in Afghanistan is continuing innovative measures to increase access and staff safety. More than 80% of the population lives in areas without any established circulation and poliovirus is very much localized in the southern region. The vast majority of the cases are reported from the 13 conflict-affected districts in the south. District-specific planning, hiring of district managers, special training for staff implementing supplementary immunization activities, de-worming and communication efforts were introduced to improve the campaign acceptability, management and quality in the southern region, particularly in the 13 high-risk districts. The Minister of Public Health constituted a policy group to monitor progress, address strategic issues and take appropriate actions. A consultative group was also constituted to focus on the 13 high-priority districts in the south. To address the increased risk of importation to Afghanistan, as a result of the recent intensified circulation in the area bordering the Federally Administered Tribal Areas/ Khyber Pakhtunkhwa of Pakistan and the outbreak in Tajikistan, mop-ups, vaccination of cross-border population movement and enhancement of the surveillance sensitivity were the key steps taken.

In addition to the technical support extended to the national programmes, especially in the endemic and high-risk countries, the Regional Technical Advisory Group on polio eradication and the technical advisory group for Afghanistan, Pakistan and the Horn of Africa continued to advise the programme on the appropriateness of ongoing strategies and on additional strategies/approaches to achieve the target. The Regional Office continued its efforts to increase cooperation with other WHO regions in polio eradication, through regular exchange of information and experience, and extending technical support.

In the area of *tropical diseases and zoonoses*, the dracunculiasis (guinea-worm disease) eradication programme continued to make progress in southern Sudan. The endemic areas continued to shrink and the disease is now limited to only 6 of southern Sudan's 80 counties. The number of villages with indigenous cases decreased from 594 in 2009 to 226 in 2010 (a more than 60% reduction). The progress was also illustrated by a reduction in the number of cases, from 2733 in 2009 to 1646 in 2010. These results are due to the sustained improvement of the containment rate, from 50% during 2006–2008 to 76% in 2009–2010, the almost 100% use of water containers with cloth filters and of pipe filters by people in 60% of the endemic villages. However, in the north, although transmission has been interrupted since 2003, adequate surveillance and reporting activities required during the pre-certification stage are still weak and need to be intensified.

The Regional Director and Mr Yohei Sasakawa, WHO Goodwill Ambassador for Leprosy Elimination, at the annual regional meeting of leprosy programme managers

The Eastern Mediterranean Region remains the region with the lowest leprosy burden, with all countries having reached the elimination goal of prevalence of 1 per 10 000 population or less. The reported incidence of new cases was 4029 in 2009 and 4080 in 2010 (data from 19 countries). This nearly stable incidence, in spite of the wide use of multidrug therapy, is mainly due to the improvement of reporting and incorporation of data from southern Sudan since 2007. In 2010, the Chairman of The Nippon Foundation and WHO Goodwill Ambassador for Leprosy Elimination paid a visit to the Regional Office as well as to Egypt and Lebanon. This visit was an opportunity to confirm the commitment of The Nippon Foundation to leprosy programmes in the Region, to encourage national health authorities to provide continuous support to leprosy programmes, even in very low burden settings where efforts need to be maintained to ensure proper elimination strategies are applied, and to convey important messages to the media on leprosy and the rights of affected people.

Two major achievements are highlighted in schistosomiasis. First, preparations for the 6-year World Bank/WHO-supported national project for the elimination of schistosomiasis in Yemen were completed and a mass drug distribution campaign launched, with more than 2.6 million people treated in endemic foci. Second, the interruption of urinary schistosomiasis transmission in Morocco was confirmed, as demonstrated by WHO- supported sero-epidemiological and malacological studies. 2010 witnessed a substantial increase in the coverage by drugs of the schistosomiasis-affected areas in Somalia, following WHO support for 50 000 tablets of praziquantel for the local programme.

Egypt completed the tenth round of mass drug administration for lymphatic filariasis elimination in 29 villages and an independent evaluation study indicated that almost 75% of the target populations in Egypt were covered by at least 3 rounds. In Yemen, mass drug administration was stopped on the mainland after 5 rounds but needs to be completed in Socotra Island. In Sudan, both the northern and southern areas are in the mapping phase.

WHO provided treatment centres for human African trypanosomiasis with the necessary medicines and reagents for screening, diagnosis and treatment of the disease in southern Sudan, where the disease is endemic. A new, shorter and easier to deliver treatment protocol for late-stage patients based on eflornithine-nifurtimox combination was introduced in all centres admitting such patients. In addition, a pharmacovigilance system aiming at monitoring the adverse events occurring when using the new protocol was established. However, as of November 2010, only 5232 and 445 people out of 1.8 million living in the endemic area benefited from the passive and active screening, respectively, mainly because of the lack of implementing

partners. As a result, only 156 new cases were diagnosed and treated in the same period.

WHO played a major role in responding to the ongoing outbreak of visceral leishmaniasis in southern Sudan, with around 1000 cases having been treated every month since October 2009. WHO provided the implementing partners with technical support, as well as diagnostic tests and the medicines required for the combination therapy that shortens hospitalization from 30 to 17 days. Progress was made in standardizing the surveillance system for cutaneous leishmaniasis, in the countries of the Region and WHO supported capacity-building for implementation.

In *communicable disease surveillance, forecasting and response*, the Regional Office continued to support development, strengthening and maintaining of capacity to detect, assess and notify public health events of national and international concern. In particular, capacity-building was supported for field investigation and response to outbreaks of influenza and other epidemic-prone respiratory infections, preparing all countries in the Region to maintain their routine surveillance focusing on influenza-like illness and cases of severe acute respiratory infections and to monitor for unusual events, such as clusters of severe respiratory illness or death during the influenza season. Also, technical support was provided to southern Sudan to build additional capacity in field investigation of influenza and other epidemic-prone acute respiratory diseases. Capacity-building was also supported in collaboration with NAMRU3 in influenza viral sequencing for the established national influenza centres in the Region.

In order to support better understanding of the risk factors for occurrence, transmission and effective control of epidemic-prone diseases, the Regional Office contributed to the development of an event-based risk assessment guideline by WHO headquarters, which will help countries to conduct risk assessment during an acute public health event in a systematic way. Technical support was extended to the health authorities in Saudi Arabia during the pilgrimage season to strengthen field surveillance for influenza and other epidemic-prone respiratory infections.

In order to support countries in developing proper preparedness plans and operating procedures for human pandemic influenza and other major epidemic-prone diseases, all the WHO country offices in the Region continued to be provided with appropriate equipment and logistics supplies to facilitate in-country investigation and risk assessment missions for pandemic (H1N1) 2009. The national influenza laboratory focal points were brought together in a meeting to strengthen the laboratory network of national influenza centres and to encourage countries to build and expand laboratory-based surveillance for influenza, influenza-like illnesses and severe acute respiratory infections.

To strengthen regional partnership for outbreaks and other public health emergencies of national and international concern, technical support was provided, in collaboration with WHO headquarters and NAMRU-3, to control outbreaks of dengue in Pakistan, Sudan and Yemen. The Regional Office also collaborated with the Government of Singapore to build capacity in Saudi Arabia, Sudan and Yemen for control of dengue fever and dengue haemorrhagic fever. Technical and capacity-building support was provided, with NAMRU-3, for assessment of the virus isolation units at the influenza laboratories under the central public health laboratories in Qatar and the United Arab Emirates.

Technical support was also provided to establish and strengthen the surveillance system for outbreak detection during the Pakistan floods. Weekly epidemic reports were issued, epidemic investigation and risk assessment for dengue were carried out, and the deployment was supported of three teams from the global outbreak, alert and response and network (GOARN) which were instrumental in abating cholera, dengue and Congo-Crimean haemorrhagic fever in the flood- affected parts of the country.

With regard to the implementation of the *International Health Regulations (2005),* countries started to evaluate the functioning of the regulations during the pandemic (H1N1) 2009, especially capacities for diagnosis, surveillance, response and communication. An intercountry meeting on monitoring the progress in implemention of the regulations resulted in a set of recommendations to be implemented by countries and WHO. This was followed by capacity-building on the latest tool for monitoring the progress in implementation of the regulations. Almost all countries (86%) completed a questionnaire on monitoring the core capacities required for implementation, providing relevant data for the monitoring indicators, and analysis was completed at WHO headquarters. As a result, a report on the status of the core capacities in the Region was produced.

In order to support countries in meeting the requirements for implementation of the regulations by June 2012, a technical unit was established which will support countries in implementing the regulations and develop mechanisms to monitor their implementation. In order to include key national partners in the implementation exercise, advocacy was conducted in Egypt which will be followed by an assessment. Assessments were completed in Bahrain, Kuwait and Qatar.

Technical support was provided to Oman to develop a master plan on laboratory bio-safety preparedness and response under a joint project of the WHO, European Union and the Ministry of Health. The project aims at improving the laboratory bio-safety and bio-security preparedness within the framework of the European Union's strategy against proliferation of weapons of mass destruction. Similar preparations were supported in Jordan and Egypt. Capacity-building was supported for diagnostic capabilities, especially for avian and pandemic influenza. A regional framework for public health response to radiation emergencies is being developed in all countries.

With regard to the implementation of *integrated vector management*, a regional strategy for the control and prevention of vector-borne diseases was developed. Eleven of the 13 disease-endemic countries now have integrated vector management plans and have established national intersectoral coordination mechanisms, and eight have a vector control unit responsible for all vector-borne diseases. Efforts continued in order to strengthen capacity in medical entomology and vector control to ensure that countries have the appropriate capacity to implement integrated vector management. The second

Fogging and spraying of water collection sites in Iraq help prevent vector-borne disease

batch of graduates completed the regional MSc in medical entomology and the third batch was enrolled at the University of Gezira, Sudan. The first batch of a similar course in Pakistan also graduated. A total of 72 people have now been trained in the Region at postgraduate level.

As part of the efforts to scale up vector control interventions in disease-endemic countries, support continued to be provided to countries that have indoor residual spraying as their main intervention for malaria and anthroponotic cutaneous leishmaniasis to use WHO-approved products for safety and impact. This included the use of other interventions (space spraying and larviciding), especially in response to disease outbreaks such as dengue and Rift Valley fever. Relevant guidelines continued to be made available to countries. However, reporting on basic indicators for these interventions still requires a lot of improvement.

In addition to these interventions, a number of countries in recent years have opted to scale up the use of long-lasting insecticide-treated nets (LLINs). These are treated nets with a residual life-span of about three years. The number of people that have access to this intervention has increased significantly (24 million in 2008, 34 million in 2009 and 40 million in 2010) (see Table 1.1 and Figure 1.1). However, for meaningful interpretation of this data, there is a need to estimate the total population at

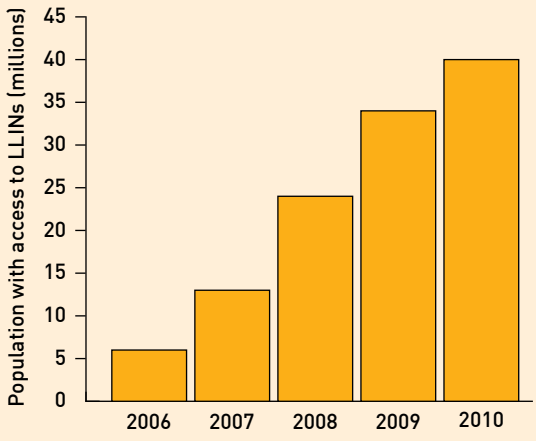


Figure 1.1 Estimated population with access to LLINs since 2006

Table 1.1 Number of LLINs distributed in vector-disease endemic countries between 2008 and 2010 and the estimated current population with access to LLINs

Countries	2008	2009	2010	Population covered to date[a]
Afghanistan	961 044	223 88	856 621	4 081 906
Djibouti	130 000	53 000	28 000	422 000
Iran, Islamic Republic of	50 000	80 000	120 000	500 000
Morocco[b]	6 084	3 892	6 316	32 584
Pakistan	840 000	839 400	2 094 274	7 547 348
Somalia	303 825	476 517	126 567	1 8138 18
Sudan	2 782 710	6 114 447	2 911 339	23 616 992
Sudan (northern)	1 756 540	3 999 000	1 303 350	14 117 780
Sudan (southern)	1 026 170	2 115 447	1 607 989	9 499 212
Syrian Arab Republic[b]	–	–	6 700	13 400
Yemen	333 251	66 547	505 000	1 809 596
Total	5 406 914	7 857 091	6 655 317	40 000 000

[a] An LLIN has a residual life-span of between 3 years; between two and three people use one net
[b] Nets distributed for the control of anthroponotic cutaneous leishmaniasis

risk of vector-borne diseases. Guidance on what to do with expired nets (6.5 million distributed before 2008) is not yet available and WHO and partners are working on this. Countries' efforts to scale up both indoor residual spraying and use of long-lasting insecticide-treated nets continue to face the problem of insecticide resistance, particularly in central Sudan and possibly in eastern Afghanistan.

The small grants scheme research programme supported 16 projects in 2010. Of these, eight were related to the communicable diseases under this strategic objective: three on leishmaniasis and one each on hepatitis, dengue, Crimean–Congo haemorrhagic fever, schistosomiasis and filariasis. Of the three accepted proposals on leishmaniasis, two were from Islamic Republic of Iran (both on evaluation of new regimens for anthroponotic cutaneous leishmaniasis) and the other was a multicountry study on the impact of insecticide resistance on the prevalence of the disease in Egypt, Iraq and Syrian Arab Republic. The hepatitis and filariasis proposals were for epidemiological studies in Yemen and Egypt, respectively. The dengue study was to evaluate the impact of community-based vector control interventions. The schistosomiasis and Crimean–Congo haemorrhagic fever studies were to evaluate new diagnostic tools in Egypt and Islamic Republic of Iran, respectively. In 2010 the TDR disease reference group on zoonoses and marginalized infectious diseases was hosted by the Regional Office which organized a stakeholder meeting and the second meeting of the group. The final report will feed into the global report on infectious diseases of poverty due to be published in 2011.

Future directions

Strengthening routine vaccination coverage, especially in countries with DPT3 coverage above 90% at national level, will continue to be a priority. Support will focus on improving national managerial capacity and other capacity-building, developing comprehensive multi-year plans and supporting countries to implement the RED approach, supplemented by other approaches appropriate to the local situation, such as child health days and periodic intensification of routine immunization. Strengthening monitoring and evaluation systems will be a priority, and advocacy for increasing national financial allocation to meet the increasing demand for EPI will also be emphasized. In terms of control and elimination of vaccine-preventable diseases, efforts will focus on ensuring timely implementation of measles follow-up campaigns through technical support for planning and implementation and advocacy for resource mobilization, as well as on strengthening measles surveillance and implementing measles elimination validation activities. Implementation of the regional strategy for achieving the goal of hepatitis B control will continue. As the 2015 deadline for achieving Millennium Development Goal 4 approaches, introduction of new life-saving vaccines will accelerate. Actions will focus on further strengthening national capacity for informed decision-making through advocacy, strengthening the technical advisory groups and regional surveillance networks for burden of disease assessment and establishing the regional pooled vaccine procurement system. The second regional vaccination week in April 2011, with the theme of "Partnership for immunization" will be an opportunity to leverage more support to further expand and formalize

relations with communities, media and the private sector.

To address the challenges to polio eradication, the priorities will be to interrupt wild poliovirus transmission in Afghanistan and Pakistan and maintain the polio-free status elsewhere to maintain certification standard AFP surveillance in all countries at both national and district levels and continuous monitoring of the risk through the use of the newly developed risk assessment model. Strengthening coordination activities between neighbouring countries, particularly between Afghanistan and Pakistan and the Horn of Africa countries, will also be a priority. Certification efforts, including of containment, will be given attention in preparation for regional certification of eradication. Ensuring the availability of required financial resources will continue to be a regional priority.

Although progressing, dracunculiasis eradication efforts will need to be intensified in the remaining endemic areas of southern Sudan, and adequate surveillance of guinea-worm should be reinforced in all freed areas, including former foci in northern Sudan. National leprosy programmes will be requested to implement the guidelines developed in 2010 to strengthen participation of persons affected by leprosy in leprosy services, especially as this initiative will also be effective in improving compliance to treatments and combating the stigma related to leprosy. Focus on lymphatic filariasis will include post-mass drug administration surveillance and evaluation in Yemen and Egypt to document whether disease transmission has been interrupted, mapping the needs in southern and northern Sudan and clarifying status and needs in Saudi Arabia, particularly in the southern areas adjacent to Yemen. Schistosomiasis elimination needs to be completed in countries where very limited foci remain, such as the Libyan Arab Jamahiriya. Verification of elimination surveys or evaluation surveys are planned in countries that have reached low endemicity. Advocacy, proposal development and fund-raising activities will be necessary to ensure adequate programmes of elimination are adopted in the two remaining countries with high endemicity. There is an urgent need to scale-up control activities to reduce morbidity and mortality from human African trypanosomiasis in Sudan, by improving access to diagnosis and treatment. It is crucial to create a response team for reactive screening in targeted areas. Failure to strengthen control activities will lead to re-emergence of the disease. There is a need to consolidate a standardized approach to case management of leishmanisis, focusing on prompt diagnosis and treatment for both the cutaneous and visceral forms.

In terms of communicable diseases forecasting and surveillance, focus will be on: conducting resource mapping and gap analysis to develop a baseline on the status of epidemiological surveillance for outbreak detection and response; developing a harmonized approach to tackling the emerging public health threat of dengue fever in the coastal areas of the Red Sea; establishing/strengthening surveillance for influenza-like illnesses and severe acute respiratory infection; and establishing or strengthening infection prevention and control programmes at all levels including at health-care facilities level. The Regional Office will continue to support countries in assessing the core capacities needed for implementation of the International Health Regulations (2005) by June 2012. Coordination with other related programmes at the regional level will be strengthened to support countries in building capacities related to chemical, radiological and environmental hazards. In vector

control, priority will be given to scaling up of interventions to ensure universal access, strengthening capacity to monitor and manage vector resistance to insecticides, advocating at the highest political level and mobilizing resources for sound pesticide management. The small grants scheme programme, will focus on translating into action new strategic approaches identified by the communicable diseases research task force. This is aimed at harmonizing communicable disease research activities and maximizing and measuring the impact of research on communicable disease control.

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

Issues and challenges

While in most countries of the Region HIV prevalence has remained low in the general population, an increasing number of countries are reporting concentration of the HIV epidemic in populations at increased risk (Table 1.2). Epidemics among injecting drug users exist in Afghanistan, Islamic Republic of Iran, Libyan Arab Jamahiriya and Pakistan, and may be emerging in Egypt, Morocco and Tunisia. Elevated HIV prevalence has been observed in some countries of northern Africa. More than 1% of the general population are infected with HIV in Djibouti, parts of southern Sudan and some areas in Somalia. Major challenges facing control of HIV/AIDS include insufficient information on magnitude, behaviour and needs of most-at-risk populations. Appropriate service delivery models that facilitate access for the people at risk of and affected by HIV, who often belong to marginalized and stigmatized population groups, have to be developed and adapted to each country's context. Stigma and discrimination are still major barriers to people accessing prevention and care services, and accordingly being enrolled in HIV care and treatment. As a result, the Region continues to have the lowest anti-retroviral therapy (ART) coverage rate globally. Moreover, countries are becoming increasingly dependent on external resources, particularly the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), for HIV programme funding, which poses a serious threat to sustainability.

In malaria control and elimination, the Region still faces several challenges. Financial resources within WHO to meet the increasing demand for technical support from countries are limited. Artemisinin and insecticide resistance are spreading

Table 1.2 The burden of HIV/AIDS in the Eastern Mediterranean Region, 2010

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	NA	46
Bahrain	NA	NA	NA	NA
Djibouti	2.5	14 000	6 400	1 008
Egypt	<0.1	11 000	3 300	525
Iran, Islamic Republic of	0.2	92 000	40 000	1 800
Iraq	<0.2	NA	NA	5
Jordan	NA	NA	NA	83
Kuwait	NA	NA	NA	NA
Lebanon	0.1	3 600	1 900	412
Libyan Arab Jamahiriya	<0.2	NA	NA	NA
Morocco	0.1	26 000	9 800	3 500
Oman	0.1	1 100	<500	469
Pakistan	0.1	98 000	36 000	1 892
Palestine	NA	NA	NA	11
Qatar	<0.1	<200	NA	NA
Saudi Arabia	NA	NA	NA	1 524
Somalia	0.7	34 000	10 000	878
Sudan	1.1	260 000	74 000	4 302
Syrian Arab Republic	NA	NA	NA	113
Tunisia	NA	2 400	<1 000	412
United Arab Emirates	NA	NA	NA	121
Yemen	0.07*[d]	NA	NA	531

NA: information not available
PLHIV: people living with HIV
Sources:
[a] *Report on the global AIDS epidemic 2010*. Geneva, UNAIDS, 2010.
[b] WHO/UNAIDS/UNICEF. *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2010*. Geneva, WHO, 2010.
[c] Country Universal Access Reports for 2010.
[d] Country UNGASS Reports 2010
*prevalence of HIV in total population

(pyrethroid resistance has been confirmed in some areas in Sudan). Many areas of malaria-endemic countries (Afghanistan, Pakistan, Sudan, Somalia) have security problems. Countries with a high burden of malaria have limited access to parasitological confirmation and weak malaria surveillance. Tables 1.3 and 1.4 show the current reported malaria morbidity in malaria-free countries and countries targeting elimination, and in countries with a high malaria burden, respectively.

The main challenge for tuberculosis control is to ensure universal access to tuberculosis care. The case detection rate is still far from the target of universal access by 2015 (63% by 2009). The underlying reasons for this are insufficient identification of tuberculosis suspects at all levels, weak

Table 1.3 Parasitologically confirmed cases in countries with no or sporadic transmission and countries with low malaria endemicity

Country	Cases in 2008		Cases in 2009		Cases in 2010		Species transmitted locally
	Total	Autoch-thonous	Total	Autoch-thonous	Total	Autoch-thonous	
Bahrain	92	0	103	0	NA	NA	nil
Egypt	80	0	94	0	NA	NA	nil
Iran, Islamic Republic of[a]	11 460	8 349	6 122	4 609	3 016	1 510	*P. vivax* > *P. falciparum*
Iraq	6	2	1	0	7	0	*P. vivax*
Jordan	65	0	53	0	61	2	nil
Kuwait	392	0	NA	0	343	0	nil
Lebanon	81	0	72	0	NA	NA	nil
Libyan Arab Jamahiriya	7	0	27	0	NA	NA	nil
Morocco	142	0	145	0	218	0	nil
Oman	965	8	898	0	1 193	24	nil
Palestine	0	0	1	0	NA	NA	nil
Qatar	216	0	239	0	NA	NA	nil
Saudi Arabia[b]	1 491	61	2 333	58	1 941	29	*P. falciparum* > *P. vivax*
Syrian Arab Republic	51	0	39	0	23	0	nil
Tunisia	62	0	49	0	71	NA	nil
United Arab Emirates	2 696	0	3 018	0	3 261	0	nil

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

Table 1.4 Recorded and estimated cases of malaria in countries with high malaria burden, 2010

Country	Total cases reported	Cases confirmed	Cases estimated[a]	Species transmitted
Afghanistan	392 463	69 397	568 000	*P. vivax* > *P. falciparum*
Djibouti	3 962	1 019	39 000	*P. falciparum* > *P. vivax*
Pakistan	NA	240 591	1 500 000	*P. vivax* > *P. falciparum*
Somalia	15 650	NA	609 000	*P. falciparum* > *P. vivax*
Sudan[b]	900 283	NA	5 000 000	*P. falciparum* > *P. vivax*
Yemen	198 963	106 697	287 000	*P. falciparum* > *P. vivax*

NA: information not available
> Predominance of one species
[a] World Malaria Report 2008
[b] Only 15 northern states

laboratory capacity, limited active case finding among high-risk groups and limited notification of tuberculosis cases in other sectors. In addition, tuberculosis incidence estimates are questionable in some countries and need careful revision. Support for operational research for HIV, tuberculosis and malaria through the small grants scheme has been constrained by the limited financial resources available for communicable disease research.

Achievements towards performance indicator targets in each expected result

In the area of *HIV/AIDS*, the regional strategy for health sector response to HIV 2011–2015 was developed through a broad consultative process with national AIDS programmes, regional experts and partner agencies, and was endorsed by the 57th Regional Committee. In addition, technical support was provided to Syrian Arab Republic and Yemen to develop national costed strategic and operational plans in collaboration with the World Bank and UNAIDS.

ART coverage increased in 2010 to reach around 13%, as compared to 5% in 2007. Some countries have now achieved relatively high coverage, as for example Djibouti, Lebanon, Morocco, Oman and Tunisia. However this achievement is masked by the low coverage in the countries with the highest burden in the Region, which are Pakistan and Sudan. Orientation was given to national AIDS programme managers and treatment experts on the updated WHO guidelines for ART and for prevention of mother-to-child transmission. Adaptation tools have been developed with regional experts. By the end of 2010, two thirds of the countries had revised their national guidelines accordingly or were in the process of doing so. WHO provided support for clinical mentoring, to Afghanistan, Palestine, Sudan and Yemen, participation in international courses for Palestine and Sudan, and clinical attachment for Afghanistan to improve HIV care and treatment service delivery. An in-depth HIV care and treatment programme review was conducted in Pakistan. As in previous years, WHO supported national capacity-building for procurement of antiretroviral medicines and supplies management. The Regional Office developed a case study reporting the experience of Morocco in reducing antiretroviral medicine prices. The introduction by Oman in 2009 of provider-initiated HIV testing and counselling for all pregnant women attending antenatal care was a real success. By the end of 2010, the uptake of the voluntary HIV test had reached almost 100% and all women testing positive received anti-retroviral medicines for prevention of mother-to-child transmission.

In terms of HIV prevention, the Regional Office continued its efforts to strengthen the role of civil society organizations in harm reduction in the Region through technical support for and strengthening of the Middle East and North Africa Harm Reduction Association (MENAHRA). Through this support, MENAHRA was able to mobilize US$ 8.3 million from the Global Fund for capacity-building, advocacy, technical support and direct support to civil society organizations in the Region. In addition, and in collaboration with UNAIDS, the Regional Office supported capacity-building on managing HIV prevention, treatment and care programmes for men at increased risk of HIV for 10 countries that have, or are in the process of establishing, such programmes. An assessment of gender differences in access to HIV prevention, treatment and care in Egypt, Jordan and Yemen was also conducted.

Improving national HIV/AIDS surveillance was a key activity. A baseline assessment of the status of HIV surveillance systems in countries was carried out and strengths and weaknesses were identified. In future, annual surveys will assist the Regional Office and United Nations partner agencies in monitoring progress and identifying persisting challenges. The number of countries with up-to-date information on behaviours and HIV in populations most-at-risk increased and included, by the end of 2010, Afghanistan, Islamic Republic of Iran, Jordan, Lebanon, Morocco, Palestine, Pakistan and Tunisia, while Egypt, Sudan and Yemen are in process of collecting and analysing information. The Regional Office continued its support to the first regional knowledge hub on HIV surveillance in Kerman, Islamic Republic of Iran, founded in 2009. The knowledge hub provided capacity-building and technical support to surveillance activities in countries of the Region and is developing into a useful resource in this regard. In addition, in collaboration with World Bank and UNAIDS, an in-depth review of epidemiological data on the HIV epidemic, including conclusions on policy implications, *Characterizing the HIV/AIDS epidemic in the Middle East and North Africa: time for strategic action*, was published.

In the area of *malaria control and elimination,* and in line with the regional vision for malaria elimination and the prerequisite to reach universal coverage of interventions, technical support was provided to Somalia, Sudan and Yemen to update their national malaria control strategies 2011–2015. To scale up coverage, effective diagnosis and treatment beyond public facilities, a project was supported in Yemen to generate the evidence needed for developing the national strategy for involvement of the private sector in malaria case management. Technical

Community leaders in Sudan express their support for a malaria research project on home management and training of community volunteers

support was provided to Afghanistan and Sudan to develop a strategy for community-based management of malaria. Programme reviews were conducted in the Syrian Arab Republic to prepare for certification of malaria elimination and in Iraq to develop an elimination strategy. Morocco completed the process of certification of malaria elimination and developed a strategy for preventing reintroduction of malaria.

During the malaria programme managers meeting and the meeting of the Horn of Africa Network for Monitoring Antimalaria Treatment (HANMAT) and the Pakistan, Islamic Republic of Iran, Afghanistan Malaria Network (PIAM-NET), countries were updated on issues related to prevention, diagnosis and treatment interventions. The Regional Office provided support to Yemen to develop and implement a dual strategy for universal confirmation of malaria diagnosis, by microscopy and rapid diagnostic tests. This strategy is being implemented in some provinces in northern Afghanistan, and will be evaluated for expansion to other parts of the country in 2011. In addition, and in order to ensure supply of quality and effective malaria diagnosis and treatment, WHO supported procurement of artemisinin-based combination therapies and rapid

diagnostic tests for Afghanistan, Islamic Republic of Iran, Pakistan and Yemen using resources provided by the Global Fund, Gulf Cooperation Council and USAID. Pakistan received support to develop a comprehensive strategy for response to the flood crisis. The Regional Office used all available mechanisms for resource mobilization with emphasis on procurement and donation of the commodities required for case management and prevention. The Regional Office is securing a regional stock of artemether-lumefantrine, for distribution to malaria-free countries free of charge, in order to treat imported falciparum cases.

Strengthening malaria surveillance and monitoring and evaluation for malaria control and elimination is a priority activity. For proper management of malaria data, a regional malaria database was developed and the process of development of a country level database started in Yemen and will be expanded to other priority countries in 2011. The results of malaria indicator surveys reported in Sudan showed a significant increase in 2010 in the proportion of households with at least one insecticide-treated net in comparison to 2005 (41% and 22%, respectively). However, the proportion of children sleeping under an insecticide-treated net "last night" is only 16%. In Yemen, these indicators are 16% and 8.3%, respectively. These figures show that priority countries are far below the 80% target coverage for the key interventions. In collaboration with the Roll-Back Malaria partnership and the Global Fund, capacity-building on malaria programme performance review for priority countries was conducted. Capacity-building on estimation of malaria burden, malaria surveillance, monitoring and evaluation was also conducted for all malaria-endemic countries. The Regional Office supported the participation of four

Senior officials of the "G5" group meet in Tehran, Islamic Republic of Iran, to discuss intercountry cooperation in communicable diseases

countries' representatives in the malaria surveillance course in Moscow. As part of global surveillance on antimalarial drug resistance, Afghanistan, Sudan and Yemen received support to conduct drug efficacy monitoring studies.

Border coordination is crucial, particularly for those countries that are targeting malaria elimination. In this regard several activities were supported, including the "G5" initiative (Afghanistan, Islamic Republic of Iran, Iraq and Pakistan and WHO), the malaria-free Arabian Peninsula initiative, and an interregional initiative between Afghanistan and Tajikistan. Five operational research projects on different aspects of malaria were supported in malaria-endemic countries, of which three were funded by the small grants scheme.

In *tuberculosis* control, the Regional Office continued its focus on building the capacity of national tuberculosis programmes in the areas of management of multidrug-resistant tuberculosis, drug management, infection control, advocacy, communication and social mobilization (ACSM) surveillance, revision of estimates and measuring tuberculosis impact. Additionally, the Regional Office supported

countries in developing national strategic plans and updating national guidelines. Reviews of programme performance were carried out in Afghanistan, Islamic Republic of Iran, Pakistan and United Arab Emirates, and technical support was provided for the Practical Approach for Lung Health (PAL), drug management, management of multidrug-resistant tuberculosis, drug resistance surveys and infection control. The first annual report on progress in tuberculosis control was published.

The laboratory network has expanded with an external quality assurance system now in place. The national reference laboratory in Oman and the tuberculosis laboratory in Agha Khan University, Pakistan, are still under assessment for possible designation as supranational laboratories. The national reference laboratories were linked to supranational reference laboratories in Islamic Republic of Iran, Iraq, Jordan, Lebanon, Morocco, Oman, Sudan, Syrian Arab Republic and Tunisia. The Regional Office communicated the latest advancements in new diagnostics and a task force to provide guidance for their introduction was established. The Global Drug Facility continued to support 16 countries in procuring tuberculosis medicines, through grants for paediatric medicines and direct procurement for adult medicines. Egypt and Islamic Republic of Iran limited the sale of anti-tuberculosis medicines to prescriptions.

The revised recording and reporting system is now used in all countries, with local adaptations. Countries are regularly submitting quarterly reports online to which the Regional Office provides regional feedback reports. The Electronic Nominal Recording and Reporting System (ENRS), is used nationwide in Egypt, Iraq, Jordan, Somalia and Syrian Arab Republic and a

Global soccer star and Stop TB ambassador Luis Figo talks to children in Amman, Jordan, about the Stop TB campaign

similar system is used in the Islamic Republic of Iran. A web-based version (WEB TBS) was developed for the Region. To assess the tuberculosis burden, a disease prevalence survey was launched in Pakistan, a capture-recapture (CAPTURE-TB) study was conducted in Yemen, and capacity-building was conducted for Iraq, Jordan, Pakistan and Palestine. Tuberculosis care among contacts, refugees, prisoners, people with tuberculosis and HIV, and children was also addressed. Five countries received nine grants from the WHO headquarters TB REACH mechanism to increase case detection. Several countries developed advocacy, communication and social mobilization plans and national partnerships.

Management of multidrug-resistant tuberculosis was expanded in Egypt, Jordan, Lebanon, Syrian Arab Republic and Tunisia. Proposals to the Green Light Committee were approved for Iraq, Morocco and Somalia, a proposal to manage multidrug-resistant cases in the Gulf Cooperation Council countries was submitted through the Gulf Cooperation Council mechanism. Follow-up of Regional Committee resolution EM/RC56/10 on the threats posed by multidrug-resistant and extensively drug-resistant tuberculosis focused on scaling up management of

multidrug-resistant tuberculosis. An online survey was conducted and technical support, including support for developing guidelines, was provided. Countries were supported in conducting drug resistance surveys to assess the burden of multidrug-resistant tuberculosis.

The achievements in 2010 were mainly due to the implementation of the Stop TB strategy with concentration on country needs. The financial support of donors, mainly the Global Fund, increased the quality of implementation. However, this does not exclude the need to ensure sustainable financing and improve government allocations to support tuberculosis control. As a result of the ongoing activities, the incidence of tuberculosis has shown a reduction of 8% (Table 1.5) (111 per 100 000 compared to a baseline of 121 per 100 000 in 1990). A significant decline in the regional prevalence and mortality rates has also been reported (67% and 52% of the baseline values in 1990, respectively). The treatment success

Table 1.5 Notifications of tuberculosis cases in the Eastern Mediterranean Region during 2009

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	12 497	26 358	44	94	67
Bahrain	131	326	17	41	64
Djibouti	1 377	3 804	159	440	73
Egypt	5 201	10 037	6	12	81
Iran, Islamic Republic of	5 152	10 536	7	14	73
Iraq	3 347	9 668	11	31	56
Jordan	109	387	2	6	63
Kuwait	386	933	13	31	71
Lebanon	179	501	4	12	66
Libyan Arab Jamahiriya	936	2 110	15	33	67
Morocco	11 907	27 664	37	86	85
Oman	164	334	6	12	82
Palestine	10	36	0	1	53
Pakistan	101 887	267 451	56	148	47
Qatar	220	619	16	44	68
Saudi Arabia	2 201	4 093	9	16	79
Somalia	6 047	11 271	66	123	70
Sudan	10 541	27 037	25	64	54
Syrian Arab Republic	1 143	4 151	5	19	59
Tunisia	931	2 155	9	21	80
United Arab Emirates	71	116	2	3	83
Yemen	3 576	8 562	15	36	63
Region	168 013	418 149	28	70	54

[a]Per 100 000 population

rate for smear-positive tuberculosis was 88% for the 2008 cohort and has been sustained above the 85% target for 3 successive years.

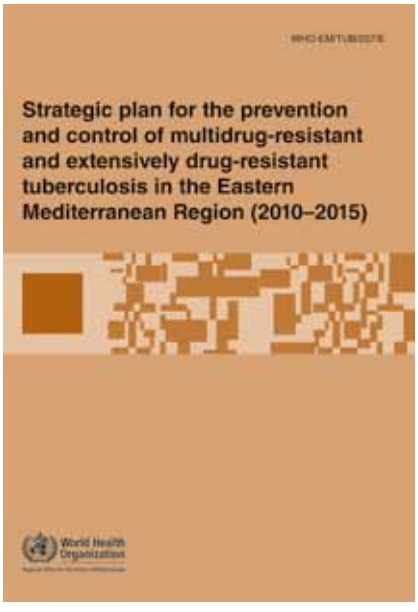
With regard to *the small grants scheme research programme*, out of the 16 proposals funded in 2010, eight were related to tuberculosis, malaria and HIV/AIDS. Of these, three were on the estimation of tuberculosis burden (CAPTURE TB studies), from Jordan (1) and Pakistan (2 proposals merged into one nationwide study). The fourth proposal was on the validation of a rapid and reliable diagnostic test for tuberculosis (Pakistan). Three malaria proposals were accepted: two from Sudan on the impact of urban agriculture on insecticide resistance and the impact of vector control interventions and the third was a pilot public–private mix (PPM) model from Yemen where the baseline PPM situation had been previously described with support from the small grants scheme. The only proposal accepted for HIV/AIDS was on bio-behavioural surveillance of HIV infection among drug addicts in Saudi Arabia.

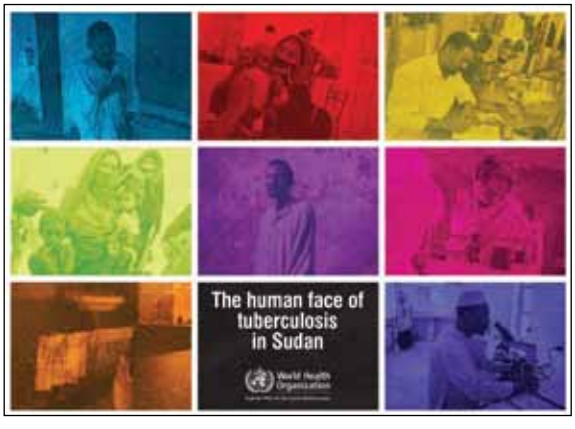
In order to support countries in mobilizing the required financial resources, the Regional Office continued to provide technical support for development of proposals to the Global Fund. WHO, in collaboration with UNAIDS, supported Sudan, Yemen, Syrian Arab Republic and MENAHRA in the development of proposals for HIV prevention and care in round 10. The Islamic Republic of Iran, Pakistan, Somalia and Sudan were successful in their proposals for malaria control and Afghanistan, Djibouti, Jordan, Morocco and Somalia applied successfully for support for tuberculosis. In addition, funds were secured for Somalia from the Kuwait Patients Helping Fund for management of severe malaria, and resources were mobilized by WHO from USAID for the Afghanistan and Pakistan malaria control programmes.

Future directions

The future directions in HIV/AIDS are in line with the new global and regional strategies for the health sector response to HIV. The components of the regional strategy include: strengthening health information systems for HIV; fostering political support, broad participation, coordination and adequate and sustained financing; providing quality prevention, care and treatment services and enhancing their utilization; strengthening the capacity of health systems for effective integration of HIV services; and promoting an enabling policy environment. Particular emphasis will be put on improving strategic information on magnitude, behaviour and needs among populations at risk and on better understanding of factors that facilitate the access of populations in need to prevention and treatment interventions in the political and cultural context of the Region. WHO will continue to support countries to reach universal coverage of quality and effective preventive, diagnostic and treatment interventions for malaria, including involvement of the private sector and the community. Efforts to strengthen capacity for malaria control and elimination will continue, with emphasis on malaria surveillance, planning and management and microscopic diagnosis. Targeted countries will receive supported to conduct comprehensive malaria programme performance review and to update their national strategies to reach universal coverage. The Regional Office will continue to provide support to countries to meet the global targets for tuberculosis, with concentration on increasing case notification and ensuring universal access to tuberculosis care. Action will focus on scaling up the network of laboratories, implementation of public–private mix, the Practical Approach for Lung Health, management of multidrug-

resistant tuberculosis, tuberculosis management among vulnerable groups, utilization of national resources through national partnerships, and collaboration with partners.





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

Issues and challenges

Social and economic development in the Region has had impact on both the determinants and patterns of diseases. As a result, noncommunicable diseases (cardiovascular diseases, cancers, diabetes and chronic respiratory conditions), represent a major public health threat and also pose a significant drain on economic and social development. Without serious action, it is projected that the number of people dying from noncommunicable diseases will exceed 2.6 million in 2015 and 3.8 million in 2030 in the Eastern Mediterranean Region.

Despite considerable progress made by many countries, translation of the regional action plan for noncommunicable diseases into comprehensive national policies and plans and their effective implementation remains inadequate in many countries. While more than 80% of the countries have established units in the ministries of health to address noncommunicable disease, only six countries have operational national plans in place. An agenda that conflicts with that of the private sector and limited technical and financial resources are the main challenges to strengthening of tobacco dependence treatment and integration of cessation services into health systems.

2010 marked the halfway point since the launch of the global initiative VISION 2020: The Right to Sight. Unless additional resources are provided, the number of people suffering from vision loss due to age-related eye diseases and which will rise as a result of increased life expectancy and population growth. In order to prevent avoidable blindness and visual impairment at the national level, provision of adequate eye-care services requires the development of specific human resource skills, technology and infrastructure. At the community level, primary eye-care services need to be strengthened. In addition, further development of sustainable, affordable, equitable and comprehensive eye-care services as an integral part of national health systems is needed.

Neuropsychiatric disorders account for 13% of the total burden of disease globally and 11% regionally. Community-based studies carried out in countries of the Region show estimated prevalence rates for mental disorders in adults ranging from 8.2% in United Arab Emirates, 16.6% in Iraq and Pakistan and 16.9% in Egypt and Lebanon, to 21% in Islamic Republic of Iran. In all these studies the rates of common mental disorders were significantly higher in women. Despite such evidence, the median allocation for mental health as a proportion of the overall national health spending is just 2% in countries of the Region with only US$ 0.15 per capita expenditure, half the global median expenditure. Even this is inequitably used in providing institutional care at regional level and caters for only 7% of the population in need. This has resulted in an estimated treatment gap of 98% for depressive illness and 85% for schizophrenia across the Region. 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.

Vision 2020: schoolchildren in Saudi Arabia take part in a survey to identify active trachoma

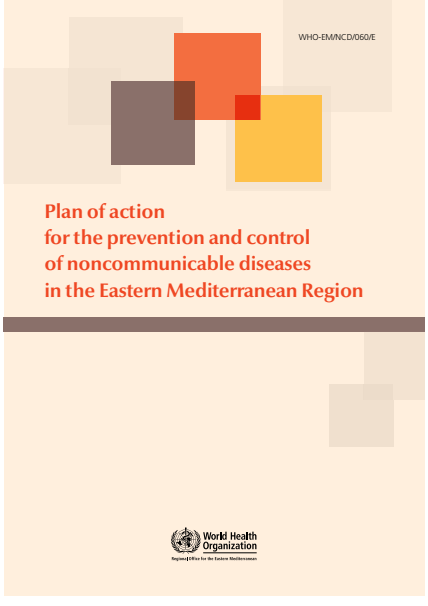
Injuries continued to grow in magnitude and now rank as the leading cause of death among certain age groups in many countries of the Region, according to the latest burden of disease database (2008). Road traffic injuries stand out among all other types of injuries in terms of resultant deaths. Of all injury causes, deaths due to road traffic crashes have shown an alarming rising trend and, at 32.2 deaths per 100 000 population, the Region now has the highest death rate due to road traffic crashes in the world. This indicates a drastic rise compared to 2002 when the rate stood at 26.4 deaths per 100 000 and the Region ranked second to the African Region. Road traffic injuries currently stand out as the 6th leading cause of death in the Region, compared with the global ranking as the 9th leading cause of death. Unless immediate and effective action is taken, road traffic injuries will rise to the 5th leading cause of death globally and the 3rd in the Region by 2030. Moreover, the economic

consequences cannot be overlooked, these having been estimated at between 1% and 1.5% of gross national product in countries.

One of the major challenges in the prevention and control of noncommunicable diseases, mental disorders, injuries and disabilities is inadequate political commitment. This is demonstrated by the low priority given to noncommunicable diseases in health development plans, and the scarce resources allocated to prevention and control of noncommunicable diseases. National policies and plans are often underfunded. In addition, the high share of acute emergencies and man-made and natural disasters and political instability that characterizes the Region has a negative impact on the sustainability of prevention and control programmes.

Achievements towards performance indicator targets in each expected result

A regional action plan for *noncommunicable diseases* was developed, guided by the global action plan (2008–2013) and is being used to support countries to develop national plans along with review of associated plans (Bahrain, Jordan, Morocco, Oman, Saudi Arabia, Syrian Arab Republic, Tunisia). Technical support was provided to all countries to complete the WHO noncommunicable disease country capacity tool. The Regional Office continued to provide technical support for piloting integration of noncommunicable diseases in primary health care with the addition of two more countries (Jordan, Tunisia), bringing the total to six countries. Three countries (Qatar, Tunisia and Morocco) received support to update their national cancer control plans guided by the regional strategy for cancer prevention and control. The Regional Office also developed its partnership with the Regional Cancer Association in order to initiate capacity-building programmes, in particular for breast cancer screening and palliative care.Efforts to improve surveillance are continuing in the Region. A regional framework, including indicators for risk factors, morbidity and mortality, and health system responses were developed and technical support was provided for five countries (Bahrain, Morocco, Qatar, Syrian Arab Republic, Tunisia) in developing monitoring indicators. In addition, reports of the WHO STEPwise approach to noncommunicable disease surveillance (STEPS) were released in Lebanon, Libyan Arab Jamahiriya and Palestine. Following the historic step by United Nations resolution (A/RES/64/265) to give unprecedented attention to the fight against noncommunicable diseases, a consultation was held to ensure regional contribution to the high-level United Nations summit meeting in September 2011. Recognizing the critical role of research in generating the evidence required for programme development and implementation, the Regional Office

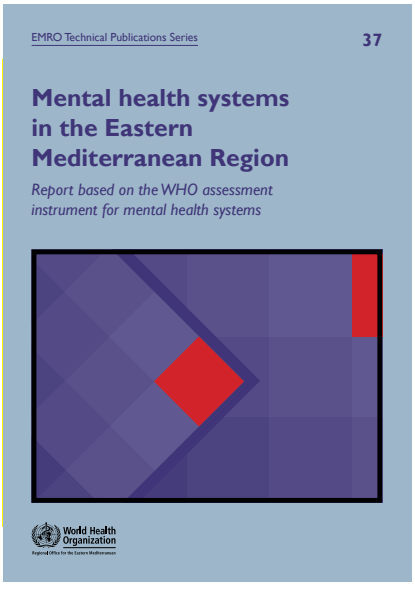


continued its support for regional centres of excellence in Islamic Republic of Iran, Jordan, Lebanon, Saudi Arabia and Syrian Arab Republic to be designated as new WHO collaborating centres for noncommunicable disease research and training. The Regional Office was also involved in two multicountry research projects, on cardiovascular diseases and the impact of urbanization on noncommunicable diseases.

In support of *tobacco control*, technical and financial support was provided to four countries in support of their cessation services. A policy brief on integration of cessation services into already existing tuberculosis clinics was developed and will be translated into Arabic. Four countries received support to participate in the negotiations of the Framework Convention on Tobacco Control on tobacco dependence guidelines.

With regard to neuropsychiatric disorders, three countries received support to complete assessment of the *mental health* system using the WHO assessment instrument for mental health systems (AIMS) bringing the total number of countries that have now completed such an assessment to 18. A composite regional report based on the assessment conducted in 14 countries was published. Countries are also participating in the exercise to update the mental health ATLAS which was last published in 2005. The ATLAS for maternal, child and adolescent mental health resources in countries of the Region countries was also completed and is now under peer review.

Policies and legislation provide the necessary scaffolding for development of services. The regional strategic directions for maternal, child and adolescent mental health were adopted by the Regional Committee (EM/RC57/R.3). The Regional Office continued to provide support to countries (Jordan, Morocco, Lebanon and Sudan) to draft and finalize evidence-based policies and strategies for mental health and substance abuse. Egypt received support in initiating implementation of the mental health legislation which was adopted by the government in 2009. Furthermore, professionals from Egypt, Jordan and Sudan were supported to participate in the mental health diploma course organized by the University of Pune, India in collaboration with WHO headquarters. An intercountry meeting, held in collaboration with the regional health and human rights and healthy lifestyles and health promotion programmes, reviewed the provisions of mental health legislation in countries to bring them into conformity with international instruments, especially the United Nations Convention on the Rights of Persons with Disabilities. During the period under review all countries designated a mental health focal point. Furthermore, 11 countries (Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Iraq, Jordan, Morocco, Palestine, Saudi Arabia, Sudan and Tunisia) assigned a



specific unit responsible for development and monitoring of mental health and substance abuse policies, plans and services. Integration of the mental health component into primary health care is an important part of the overall vision of mental health and in this regard a package for training of primary health care personnel in recognition and management of common mental disorders was developed and shared with countries. A project proposal to integrate mental health into primary health care in Palestine was developed jointly with UNRWA and is currently under review. Similarly a proposal was developed, in collaboration with national counterparts, for capacity development for Afghanistan. WHO is also a participant in a proposal to the European Union for mental health in Somalia. Capacity-building for primary health care personnel was conducted in Erbil, Iraq. Jordan was selected to initiate implementation of the mental health gap action programme (mhGAP).

The chain-free initiative, aimed at providing mental health services in a humane manner and respecting the rights and dignity of the service users and their families, continues in all regions of Somalia. It was also extended to two sites in Afghanistan and one site in Sudan. Regional capacity for responding to emergencies in the area of mental health and pychosocial support is being enhanced for Palestine and for displaced Iraqis in Egypt, Jordan and Syrian Arab Republic. A situation analysis was initiated using the tools developed by WHO and the Reference Group on mental health and psychosocial support in emergencies for the Inter-Agency Standing Committee, to which the Regional Office contributes.

In order to promote evidence generation to support action a systematic review of suicide was submitted for publication and a multisite study protocol was finalized. A systematic review of nutrition and mental health was completed and is being peer reviewed. A regional report on epilepsy was published.

In the area of *violence, injuries and disability*, a major achievement was the development of a framework for the implementation of road safety policies and programmes to ensure the effective implementation of resolution EM/RC56/R.7 on road traffic injuries. This framework draws further importance from the Decade of Action for Road Safety 2011–2020. Together with the global plan for the decade of action, the framework proposes a structured way forward for the implementation of the global and regional resolutions. The Regional Office will support countries to develop and implement their own policies, programmes and national plans to address the deadly toll on the roads. Egypt was selected as the only country from the Region to participate in the Road Safety in 10 Countries Project (RS10) 2010–2014. The goal of the project is to support selected countries to implement good practices in road safety in line with their national road safety strategies.

The WHO Regional Office cosponsored the Arab Child Health Congress held in the United Arab Emirates, on Accidents and injuries: prevention of injuries among children, with the participation of 11 countries. The conference provided an opportunity to highlight the issue of child injuries in the Region and the available strategies and evidence-based tools for prevention and control. As a follow-up to this conference, the Regional Office, in collaboration with UNICEF and the Dubai Health and Education Authorities, conducted a joint peer-led injury prevention project to empower youth and enhance their knowledge and skills towards building

a culture of safety in selected schools. The Regional Office continued to provide support to countries to develop or strengthen their injury surveillance systems and disability records using the International Classification of Functioning, Disability and Health.

The *Global status report on road safety* was produced in Arabic, providing up-to-date information on the road safety situation in 178 countries, including 20 from the Region, using data drawn from a standardized survey. The exercise for the second global report is under way. The *Eastern Mediterranean status report on road safety* was published. WHO hosted the third global meeting for Ministry of Health focal points for violence and injury prevention in London issues at the country level. This was followed by the 10th World Conference on injury prevention and safety promotion at which the Regional Office and countries presented different aspects of injuries and prevention in the Region, and which provided opportunities for sharing experiences.

Sixteen countries are now parties to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD). An increasing number of countries are actively engaged in a variety of activities to put the provisions of the convention into effect, particularly Afghanistan, Egypt, Islamic Republic of Iran, Iraq, Jordan, Pakistan, Saudi Arabia and Syrian Arab Republic. Despite the limited resources available, several major milestones were achieved in disability and rehabilitation. A draft regional strategy on community-based rehabilitation is being piloted in three countries (Afghanistan, Islamic Republic of Iran and Pakistan). The Regional Office also provided support to UNRWA for their community-based rehabilitation programme. The new community-based rehabilitation guidelines, a co-publication of WHO, ILO, UNESCO and the International Disability and Development Consortium, which comprises international nongovernmental organizations, were launched in 2010. The Regional Office actively contributed to development of the guidelines and to the collective endeavour to envision the future steps for their implementation. An Arabic version of the guidelines is being

produced and the Regional Office is in joint planning with countries for their implementation. The Regional Task Force on Disability, established by the Regional Director in September 2008, continued to work at the regional level and contributed to the WHO task force at the global level.

In the area of prevention of avoidable blindness and visual impairment, an action plan was developed to support the implementation of WHO's Eleventh General Programme of Work 2006-2015 and the medium-term strategic plan 2008-2013. The action plan proposes effective measures that can be taken to reduce the prevalence of avoidable blindness and visual impairment and which countries and partners can adapt to local settings and needs.

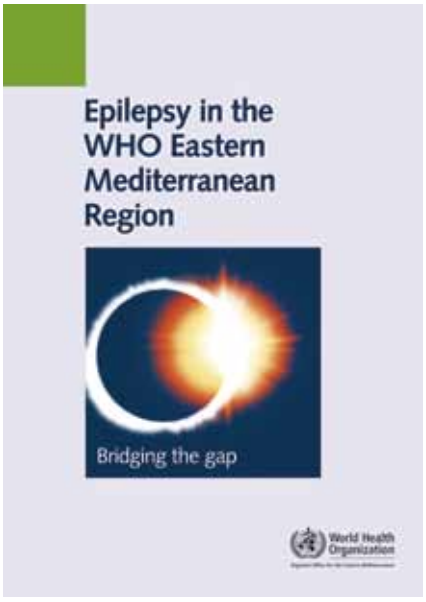
Capacity-building was supported for the national teams in Afghanistan, Egypt, Libyan Arab Jamahiriya, Somalia, Sudan and Yemen to conduct a rapid assessment of avoidable blindness and prevalence of blindness among people above the age of 50 years. To strengthen advocacy for the prevention of blindness, many countries celebrated World Sight Day 2010 on 14 October under the theme of 'Countdown to 2020'. To strengthen partnerships and mobilize resources, the Regional Office is working closely with partners, including the EMR-International Agency for the Prevention of Blindness, IMPACT-EMR, Sightsavers Pakistan, the Lions Clubs-District 352, and Egypt. The Regional Office is also closely collaborating with the Patients Helping Fund Society, Kuwait, to eliminate avoidable blindness in the Region.

Future directions

The Regional Office will continue to support Member States in development of comprehensive multiyear national plans guided by the regional strategies and action plans. Strengthening the health system and integrating noncommunicable diseases, injuries and mental health and substance abuse surveillance within the health system will remain critical for implementation in the coming year.

The Regional Office will seek to maximize the contribution of other sectors and improve partnership to reduce the exposure to common modifiable risk factors.

Integration of noncommunicable diseases, mental health, tobacco cessation and eye care programmes into primary health care will be pursued through building up the capacity of primary health care personnel. Advocacy will be directed towards increasing political commitment and eventually resources and contribution to work plans in the area of noncommunicable diseases, mental health, visual impairment and injuries. More focus will be given to strengthening of national capacity to identify and meet tobacco cessation needs. Implementation of the newly adopted guidelines of the Framework Convention of Tobacco Control on tobacco



dependence will be a key approach in the coming phase. 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 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

With only 5 years to go to the target of 2015 set for achievement of the United Nations Millennium Development Goals, under-five mortality has been reduced in the Region by 30% since 1990, while maternal mortality has been reduced by 24%. While Egypt, Lebanon and Oman have passed the target set for Millennium Development Goal No. 4 and five countries are on track, extensive efforts are still required to achieve goals 4 and 5 in the Region as a whole. Several countries are not expected to achieve these goals. While five countries are on their way to achieving universal coverage with the Integrated Management of Child Health (IMCI) strategy, it would take the other countries from 5 years to 43 years to reach this target if scaling up continues at the same pace. Inadequate commitment to maternal and child health, high turnover of programme managers, serious reduction in maternal and child health programme allocations, and lack of or unreliable data on progress made in countries remain the main obstacles facing maternal, neonatal and child health in the Region.

Adolescent health has not yet been sufficiently prioritized by countries. Not all countries include adolescent health within the structure of the Ministry of Health. Appropriate indicators are not incorporated into the national health information system and minimum funds are allocated to adolescent health. The creation of alliances to expand the health-promoting schools network in the Region and the promotion of related research activities continue to be major challenges for promoting the health of school students and for family and community health protection and promotion. Age-friendly cities and communities and age-friendly primary health care are also crucial to meeting the health needs in relation to the visible growth in the ageing population.

Achievements towards performance indicator targets in each expected result

The Regional Office continued its work to build national capacity in *maternal and neonatal health* through evidence-based strategies aimed at ensuring skilled care for every pregnancy, delivery and postpartum period; collecting and analysing health information to support informed decisions in programme management; promoting adoption of clinical guidelines and protocols and enforcement of their implementation at facility level; identifying effective service practices; and improving public awareness about life-saving practices through community-based programmes.

Special attention was focused on countries that are not on track to achieve Millennium Development Goal 5. Afghanistan, Pakistan, Sudan and Yemen received support for in-depth review of national safe motherhood programmes and development of national plans for reducing maternal and neonatal mortality and morbidity. In collaboration with United Nations sister organizations and other international development agencies, support was provided to Afghanistan and Yemen in formulating national commitment to the United Nations Secretary-General's Joint Plan of Action on Women's and Children's Health, towards the achievement of the Millennium Development Goals.

Skilled attendance during pregnancy and childbirth is critically important for reducing maternal and newborn mortality. The Regional Office supported Afghanistan, Sudan and Yemen in developing training curricula for community midwives and community health workers. Emergency support was provided to Pakistan during the flood crisis, including revision of national tools for rapid assessment of reproductive, maternal and neonatal health in emergency situations.

A health worker in Somalia provides health information to mothers waiting at a clinic

Effectively functioning family planning programmes could contribute to the reduction of maternal mortality by up to 31%. The Regional Office supported capacity-building of national programme officers in methods for fostering change to scale up effective service practices. As a result, 11 countries developed national plans for scaling up best family planning policy and programme practices.

The vast majority of maternal and newborn deaths occur around the time of delivery or shortly thereafter. Most of these deaths could be avoided by simple preventive measures and referral to emergency services. Effective surveillance, analysis and reporting of maternal and newborn morbidity and mortality is key in guiding efforts to improving quality of services. The Regional Office held a consultative meeting which resulted in national plans of action for strengthening maternal and neonatal health surveillance systems in the participating countries and technical recommendations supporting the implementation of these plans.

In the area of protection and promotion of *child and adolescent health* 34 088 targeted

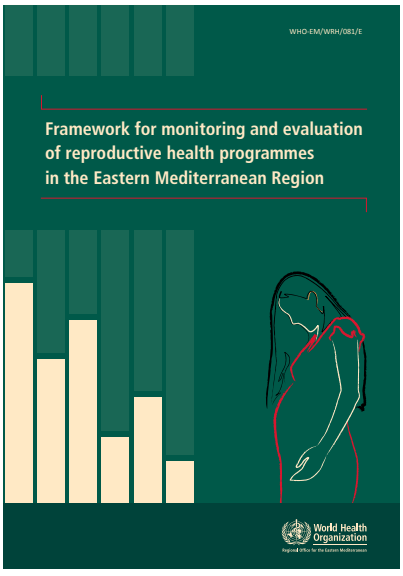
primary health care facilities (67%) are now implementing the IMCI strategy in 13 countries in the Region. Regional initiatives have been adopted to accelerate the pace of scaling up, such as the IMCI pre-service education initiative. Evidence is accumulating in the Region of the positive impact of IMCI on child mortality; a study conducted in Egypt has shown an association between the increased reduction in under-five mortality and IMCI implementation. Over 50 faculties of medicine have introduced IMCI into the paediatric teaching curriculum. In order to strengthen this initiative, the regional IMCI pre-service education package, consisting of 6 modules, has been developed. In order to increase access to quality of child health care services and to ensure equity, the regional initiative of community-based child care was launched with a regional framework and training package for community health workers. This was field tested in Egypt and implemented in Yemen, with a version adapted to the context of each country. A web-based IMCI information system was developed and shared with countries during the regional IMCI coordinators' meeting and capacity-building on utilization of this tool was planned.

An Iraqi child receives a health check – Iraq is one of 13 countries in the Region implementing the IMCI strategy

Adolescent health core indicators were developed. Technical support was provided to countries to conduct national orientation workshops to advocate for the establishment of adolescent health management units and to conduct situation analysis. Currently, seven countries have included adolescent health within the structure of the Ministry of Health.

The Regional Office continued to provide technical support to school health programmes. A review of school health screening was conducted in Oman and future steps were identified and provided to the concerned national authorities. In order to widen the scope of implementation of health-promoting school components, a questionnaire was designed to survey the status of school health services. The information received was analysed and presented at a regional consultation on organization of school health services. In response, the Muscat Declaration on strengthening school services through addressing the current and future challenges was adopted. Draft regional guidelines on school health services are being prepared.

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 and Sudan received support to complete development of their national reproductive health strategies and plans of action for 2011–2015. Sudan finalized and published its



national policy on reproductive health. In-depth review of the national reproductive health programme and its implementation was conducted in Afghanistan, Jordan, Palestine, Sudan and Yemen.

Reproductive health surveillance, data collection, analysis and reporting are still inadequate and ineffective in many countries. In response, the Regional Office published a regional framework for monitoring and evaluation of reproductive health programmes. This guiding document, with 34 region-specific monitoring indicators, aims at strengthening national technical capacity in obtaining relevant and reliable data and information to monitor, evaluate and inform national reproductive health programmes. Technical support was provided to 18 countries in developing national workplans for strengthening capacity in monitoring and evaluation. Afghanistan, Islamic Republic of Iran, Jordan, Palestine, Sudan and Syrian Arab Republic formulated national lists of reproductive health monitoring indicators based on the Regional Office's guidance and support.

Adolescents represent around a quarter of the total population in the Region. This implies a significant challenge in meeting sexual and reproductive health needs of this special population. Quality research is critical in identifying needs and acceptable and effective ways of service delivery to youth. To address this issue, capacity-building was supported on adolescent sexual and reproductive health research. As a result Afghanistan, Bahrain, Palestine and Yemen developed national proposals for implementing relevant research activities and 14 countries formulated workplans for prioritizing adolescent reproductive health research in the country.

Active and healthy ageing programmes and initiatives have gained increasing support and attention in the Region. A follow-up survey on the implementation of the regional strategy for active and healthy ageing was conducted. Active support was provided for capacity-building on active ageing, through the fifth annual conference of the Faculty of Medicine, Damascus University in the Syrian Arab Republic, as well as to the national efforts to strengthen the age-friendly city programmes in Hama and Deir Atiyeh.

Future directions

Extensive efforts will be made to further support maternal, neonatal and child health programmes. The Regional Office will continue to strengthen the technical capacities of WHO country offices to maintain WHO technical support and push forward maternal, neonatal and child health programmes in the Region. Advocacy and resource mobilization will be a priority issue for maternal and child health to support universal coverage with cost-effective interventions. Five more countries will achieve at least 50% of primary health care facilities implementing IMCI. The community health workers training package

will be implemented in two more countries and expanded in the pioneering two countries in the Region. IMCI pre-service education will be implemented in three more faculties of medicine and will be evaluated in one more faculty of medicine. IMCI will be evaluated in two countries through IMCI review and health facility survey. Adolescent health programmes will be established in two more countries and an adolescent health situation analysis report will be finalized in three countries. The attainment of women's and reproductive health-related national and international development goals still faces major challenges in the Region. Special attention will be focused on: the knowledge, attitudes and practices of individuals, families and communities; bridging the gaps in the skilled health workforce to ensure workers are available where and when they are mostly needed, and in ensuring functioning quality reproductive health care delivery systems; and improving information on the major determinants of reproductive morbidity and mortality to enable programme development and implementation based on evidence.

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

Issues and challenges

Efforts under this strategic objective continued to support emergency preparedness and disaster risk reduction capacities, strengthen response readiness, mount timely and effective emergency response, and guide health sector recovery. The Region suffered again an increase in frequency and scale of natural disasters. The floods in Pakistan affected at least 20 million people, while eight other countries were also affected by natural disasters. In addition, the Region hosts some of the most challenging complex humanitarian emergencies globally, in Afghanistan, Iraq, Palestine, Pakistan, Somalia, Sudan and Yemen, most of which also have the poorest economies. The 60-year old conflict in Palestine has ensured that over 80% of the population of the Gaza Strip are in need of humanitarian assistance. Afghanistan and Somalia continue to report the highest infant and maternal mortality indicators in the world. As Somalia nears completion of a second decade of civil war, over 2.5 million people are displaced. Internal conflict continues in Yemen. Collectively, these countries account for 46% of the global population of internally displaced persons. The high prevalence of emergencies in the Region underscores the importance of increased investment and political commitment by governments and other stakeholders in emergency preparedness and disaster risk reduction.

Achievements towards performance indicator targets in each expected result

The most important achievement of the year was the mounting of a coordinated and effective humanitarian response to the Pakistan floods, together with the Ministry of Health and other United Nations health cluster partners. This response addressed life-threatening conditions and provided humanitarian health relief to over 20 million people throughout Pakistan. In order to

WHO worked closely with the Government of Pakistan to support relief efforts for flood-affected areas

mount and sustain the response to this disaster, the largest ever responded to by WHO (and the United Nations) in the past 50 years, the efforts and support of all layers of the Organization, as well as collaboration with partners at a global level, were required. Senior experts in various areas of health, logistics, operations, communications and information technology were immediately mobilized. Over 4.5 million people were provided with medical consultations and life-saving medicines from more than 1200 health delivery points, and over 15 000 children received treatment and management for diarrhoea and malnutrition. The timely and targeted health relief, coupled with effective coordination with the nutrition and water and sanitation clusters, helped avert a potential second wave of mortality from communicable disease outbreaks.

The priority for WHO emergency operations in the Region was the implementation of the cluster approach across all crises. Accordingly, capacity-building in health cluster coordination was supported for senior health staff from international and national nongovernmental organizations, government agencies and other United Nations agencies. The health cluster was the second best funded humanitarian cluster in the Region, enabling it to prevent avoidable death and disease among the 35.4 million targeted beneficiaries in the seven countries of the Region listed under the Consolidated Appeal Process (CAP). Capacity-building was also supported in management of public health risks in emergencies, benefiting senior health managers from 18 countries.

The ongoing advocacy and awareness-raising efforts of WHO with Member States and other stakeholders, highlighting the importance of and need for developing a culture of risk reduction and risk management in the Region, are gaining ground. Several countries (Afghanistan, Pakistan, Libyan Arab Jamahiriya, Oman, Jordan and Sudan) launched national emergency preparedness and disaster risk reduction programmes based on an all-hazards approach. Two regional strategies for disaster risk reduction, targeting African countries and Arab countries respectively, were also developed. A hospital safety index, to gauge pre-existing vulnerability of health facilities in crises, to guide remedial measures, and to safeguard continued functioning of health facilities in crises, was also finalized. Use of the index is currently being piloted in countries of the Region.

In the area of response readiness and recovery, support was provided to the governments of Lebanon, Palestine, Syrian Arab Republic, Sudan and Yemen, to update their contingency plans in order to ensure timely and effective response to health emergencies and reduce any unnecessary impact on health recovery strategies. Support was also provided to these countries to plan and conduct simulation exercises on foreseeable scenarios that may have a severe impact on health.

WHO continued to support the health assistance programme for displaced Iraqis

in Egypt, Jordan, Lebanon and Syrian Arab Republic by supporting the host governments and service agencies in improving health provider assets and capacities, and access, coverage, quality and utilization of health care services for displaced Iraqis. WHO contracted specialized hospitals to provide emergency and secondary/tertiary medical care for displaced Iraqis, including mental health. Efforts to integrate the provision of mental health and of psycho-social first aid in primary health care services continued in these countries.

Expressing concern over the increasing health impact of disasters, the Regional Committee adopted a resolution (EM/RC57/R.2) underscoring the need to focus on strengthening regional capacity-building for emergency preparedness and response within the health sector. The Regional Committee also acknowledged the need for a solidarity fund to fund initial surge and life-saving interventions in crises while the funds raised through the usual appeals are awaited.

Future directions

To fully realize the intended results of the Regional Committee resolution, advocacy and efforts will be scaled up to: harness synergies across all levels and programmes of WHO and achieve maximum results; institutionalize emergency preparedness and disaster risk reduction in national disaster management programmes; enhance predictability and effectiveness of emergency response through regional capacity-building, developing response readiness assets including trainings, rosters of regional expertise, contingency planning and strategic stockpiling; and link recovery with disaster risk reduction and developmental priorities and programmes.

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

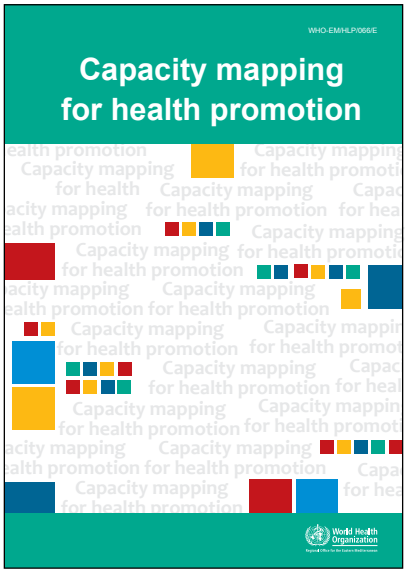
Issues and challenges

There has been increasing political attention and commitment to combating the risk factors associated with tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex. This was was clear in the 2008 Qatar declaration on primary health care and the 2010 United Nations General Assembly resolution on the prevention and control of noncommunicable diseases. However, these risk factors continue to present a great challenge to the Region. This applies not only to the overall health status of the population but also in terms of lack of resources, both human and financial, to achieve planned targets. High-level political commitment, legislative interventions and public policies are needed, including for setting up of evidence-based treatment and rehabilitative services for substance abuse. Networks and partnerships for health promotion and health education need to be expanded and strengthened. Better implementation of existing legislation is also required, especially in areas such as banning of tobacco use in

public places. Additional human and financial resources and intersectoral collaboration are vital to bridge existing gaps. Unhealthy lifestyles associated with diet, lack of physical activity, substance abuse and tobacco use are interrelated and require a coordinated approach at national level, which is still lacking. Competing or contradictory agendas that involve other social and health issues are having a negative impact on the status of these health risk factors.

Achievements towards performance indicator targets in each expected result

A huge improvement can occur in *health promotion* if the gap between promotive and preventive approaches is bridged. The regional framework for the implementation of the global strategy on diet, physical activity and health was launched with a view to addressing this gap and relevant country workplans were developed. Having also in mind the need for more focused activities that lead to better planning, the results of the first exercise in mapping of existing capacities for health promotion were published. To enhance such capacities, the health promotion short course, developed in collaboration with the Department of Health Services Australia, was conducted for a second time. As part of the implementation of the Nairobi Call for Action, in collaboration with the International Union of Health Promotion and Education (IUHPE), the Regional Office produced a tool kit for documenting health promotion practices.



Recognizing *health education* and health promotion as the two key vehicles for controlling risk factors associated with unhealthy lifestyle, the Regional Office reviewed and reaffirmed the role of health education as a tool for health promotion in an intercountry meeting. Subsequently, 19 countries developed action plans to strengthen capacity for health education at national level and in the field. At the same time, a web-based platform was developed to share health education materials between the different countries and is expected to be

piloted in 2011. The Regional Office continued to build national and regional capacity on emerging health education issues, such as community mobilization during influenza outbreaks. Health education materials were developed for schoolchildren in the areas of food and chemical safety, influenza and risk reduction in drought, flood and earthquake situations. The Global School Health Survey (GSHS) was further expanded to include Kuwait, Palestine and Syrian Arab Republic as well as five UNRWA field sites. A second round is being implemented in Morocco, Oman and United Arab Emirates. The total number of countries covered by the survey in the Region is now 15.

In the area of alcohol and *substance abuse*, the Regional Office completed the Global Survey on Alcohol and Health and the profiles of individual Member States have been developed based on the survey. The Regional Office developed individual country profiles on resources available for treatment and prevention of substance use disorders as part of the WHO ATLAS on substance use. A training package for implementation by health personnel of the alcohol, smoking and substance involvement screening test (ASSIST) and the linked brief intervention, and the opioid substitution treatment guidelines developed by WHO in 2009, is being developed. Technical support was provided to Morocco in drafting a national alcohol strategy in line with the global strategy to reduce the harmful use of alcohol. A joint project on substance use treatment and care was developed in collaboration with UNODC and will be implemented in selected countries in 2011.

In *tobacco control*, the Regional Office continued to support implementation of the WHO Framework Convention on Tobacco Control. Technical support was provided to all Member States through an intercountry

meeting to assure better implementation of the Convention and to participate in the Fourth Conference of the Parties. Support was provided to Egypt, Jordan, Lebanon, Pakistan, Syrian Arab Republic and United Arab Emirates in development, review and implementation of legislation based on the obligations of the Convention, with special focus on demand reduction. The Regional Office supported the development of new taxation schemes to better control tobacco use in three countries and training was provided to another seven countries on tobacco taxes as a tool for tobacco control in light of WHO recommendations. Eight countries are involved in a regional project to monitor second-hand smoke levels and accordingly strengthen compliance with existing legislation and bans on use of tobacco in public places. The sustainability of the Global Tobacco Surveillance System (GTSS), which has generated good data providing evidence for countries to act accordingly, is a priority for the Region. Accordingly, regional capacity-building for better usage of the data was conducted. As a result, eight national projects were developed and conducted to support tobacco control. The first adult tobacco survey was concluded in Egypt and the results released. A number of factsheets were produced as well as publications: *Progress in tobacco control in Egypt and Pakistan* (English), *Tobacco industry activities in Pakistan 1992–2002* (English) and *Building blocks for tobacco control* (Arabic).

The Global Adult Tobacco Survey (GATS) team in Egypt celebrate the launch of the Egypt country report 2009

Future directions

Mainstreaming of the different components of health promotion through multisectoral and multi-stakeholder engagement is a key aim for the Regional Office. Support will continue to be provided to strengthen national capacity in addressing the areas under this strategic objective. Research and surveillance activities will also be sustained in order to build a solid surveillance system for relevant risk factors. This includes the GTSS, the Global Adult Tobacco Survey (GATS), Global School Health Survey (GSHS) and the WHO ATLAS on substance use (ATLAS-SU). Support for developing legislative action and public policy in support of needed health

actions, such as regulating the marketing of foods and beverages to children, will remain a priority. Expanding partnerships at international, regional and national levels to maximize capacity, strengthen knowledge and capitalize on health promotion successes to date is also a priority.

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

The Region continues to struggle with traditional problems, such as solid waste, indoor and outdoor air pollution and liquid waste management, with inadequate policies and with a lack of public awareness for influencing such policies. According to WHO estimates (2009) for the Eastern Mediterranean Region, more than 1 million deaths could be prevented each year if appropriate environmental health interventions were available. Health systems are not yet identifying the environmental determinants of health as a key priority for improving public health. 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 change are expected to aggravate most of these problems and to exacerbate their public health impact. WHO has identified six major health consequences of climate change: malnutrition resulting from food insecurity; deaths and injuries caused by frequent extreme weather events; increase in diarrhoeal diseases due to water scarcity and pollution; increased morbidity and mortality due to heat-waves; increased incidence of respiratory diseases due to worsening air quality; and change in the geographical distribution of disease vectors. Actions to promote healthier environments 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 or controlled in the settings in which 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

The Regional Office continued to support dissemination and adaptation of WHO guidelines, such as the guidelines on drinking-water quality, health care waste management and healthy and safe workplaces, in order to reduce environmental public health risks in countries. Environmental health was adopted as a permanent agenda item on the ministerial programme of the Council of Arab Ministers Responsible for the Environment (CAMRE) in 2010. Countries were supported in updating their environmental health norms and standards, and in adopting WHO norms

on drinking-water quality, wastewater reuse, and health care waste management. The Islamic Republic of Iran, Jordan and Oman commenced updating of national drinking-water standards in line with the 3rd edition of the WHO guidelines, adopting the water safety plans approach. Morocco, Oman and Tunisia completed reporting requirements for the UN-Water Global Annual Assessment of the Water Supply and Sanitation Sector (GLAAS).

With regard to health care waste management, technical support was provided to Jordan, Lebanon, Pakistan, Syrian Arab Republic, Sudan and Yemen to develop national guidelines. Autoclaves were provided in order to demonstrate appropriate hospital waste systems management in Pakistan and Yemen. A situation analysis desk study on hazardous waste management was conducted. A model plan for the safe management of wastes generated from health care facilities was drafted. A study to determine the regional situation with regard to indoor and outdoor air pollution was launched.

The Regional Office was involved at global and country levels in strengthening occupational health programmes and plans. This included support for the preparation of a model for action on healthy workplaces for employers, workers, policy-makers and practitioners in Egypt. Egypt was one of the first countries in the Region to launch a national campaign on healthy and safe workplaces and also launched the Egyptian decade of occupational safety and health (2011-2020) through the active involvement of the Ministry of Manpower. Regional capacity-building was supported on protecting health care workers against needlestick injuries and bloodborne pathogens.

Water shortage in Somalia – declining water availability and quality is a major public health concern in the Region

CEHA, in cooperation with UNEP, completed a joint capacity-building project in which more than 135 environmental health experts were trained as trainers on the use of the Online Access to Research in the Environment (OARE) and Health InterNetwork Access to Research Initiative (HINARI), which provide access for health and environment-related institutions to more than 8000 online refereed journals and several online databases. The Regional Office supported Iraq, Somalia and Syrian Arab Republic in conducting their environmental health situation and needs analysis. Iraq and Syrian Arab Republic are each in the process of completing a national environmental health strategy.

Several Member States took concrete steps towards 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 preparation of the health chapters of the National Communications to the United Nations Framework Convention on Climate Change. Morocco developed a national health and climate change strategy. Tunisia undertook health vulnerability assessment and screening of adaptation options to protect health and is currently

developing project interventions in climate change. Jordan began implementation of the health component of the United Nations joint programme on Adaptation to Climate Change to Sustain Jordan's Millennium Development Goals achievements. Jordan also started implementation of the regional component of the WHO/UNDP global project on piloting adaptations to protect health from climate change.

Future directions

Technical advice and expert support will continue to be provided to countries with regard to environmental health capacity-building, research and technology transfer programmes, environmental health vulnerability assessment and situation analysis, 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; strengthen capacity for monitoring trends and assessing the risks and health impact of environmental and socioeconomic development; and improve access to reliable information to support national environmental health strategies and actions. Technical guidance and consultative 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.

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 in most countries of the Region with critical consequences. Millions of children are adversely affected by poor quality diets, characterized by insufficient or imbalance of nutrients, especially vitamins and minerals, and poor infant and young child feeding practices. At the same time, nutrient-poor diets place many women at risk of death during childbirth and prevent them from delivering full-term healthy babies. UNICEF, in *The state of the world's children* 2009, estimates that 32% of infants and children under 5 years of age in the Region are stunted or short for their age. The burden of obesity and diet-related chronic diseases is increasing. This nutrition transition has already started to have a negative impact on health systems.

Today's food safety systems recognize that food safety is a multisectoral responsibility, that food safety should be addressed throughout the continui, "from farm to fork", and that any decision or approach should be science-based. In 2010, several global food contaminations were reported, the most notable being contamination of egg with salmonella in the United States of America and dioxin contamination in eggs and milk in several European countries. Food safety is a major public health issue in the Region,

both for consumers and for manufacturers. Almost all countries lack consumer protection legislation and technical support is required in this area. 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 Fifty-seventh session of the Regional Committee approved the regional strategy on *nutrition* 2010–2019 (EM/RC57/R.4). The strategy, the first for the Region, identifies key health and nutrition challenges and sets out objectives and targets and strategic approaches for countries. A regional action plan was also developed for implementation of the strategy. Development of national nutrition strategies and action plans was supported in Morocco, Sudan and Syrian Arab Republic bringing the number of countries with such strategies and plans to eight. The Regional Office continued to support preparation for a national nutrition survey in Iraq, in coordination with CDC, UNICEF, FAO, World Food Programme. Technical guidance and training materials on nutrition surveillance were developed by the Regional Office with the participation of countries and key partners – CDC, UNRWA, UNICEF, FAO, World Food Programme and Johns Hopkins University. Software is also being developed for direct implementation by Member States. Guidance for practising clinical dietitians was also developed, the first of this kind in WHO.

The new WHO child growth standards were introduced at national level in three more countries (Egypt, Lebanon and Syrian Arab Republic) bringing the number of countries using the standards to 16. These standards have re-emphasized the importance of growth monitoring as an effective intervention to ensure proper infant and young child nutrition.

Capacity-building in planning for effective communication strategies to improve nutrition programmes was supported, with focus on communications skills, dealing with the media and social marketing to address malnutrition, in particular. Technical support was provided for development of national action plans on obesity prevention and control within the framework of the global strategy on diet, physical activity and health through an intercountry meeting.

In collaboration with the Jordan Arab University for Higher Education, the First Regional Scientific Conference on Nutrition, Disabilities and Mental Health was held in Amman, Jordan, with more than 150 participants from the research field and academia. The aim of the conference was to promote programmes linking of nutrition with mental health and disability. More than 70 international experts participated in the Second WHO Global Nutrition Guidance Expert Advisory Group (NUGAG) meeting in Amman, Jordan, coordinated by WHO headquarters and the Regional Office. The meeting set guidelines on micronutrient supplementation and fortification as well as ideal feeding practice for people living with HIV.

Technical support was provided to several countries to study micronutrient deficiencies and recommend proper interventions, including anaemia in the Gaza Strip and iodine deficiency disorders in Jordan, Sudan, Syrian Arab Republic and United Arab Emirates. Technical support was also provided for the national micronutrients survey planned for Iraq in 2011, in coordination with UNICEF, FAO, World Food Programme and CDC.

The guidelines for managing moderate and severe malnutrition were further tested in Pakistan and Yemen and are now being revised for adoption by other countries. WHO supported Pakistan in establishing a memorandum of understanding with UNICEF to support severely malnourished children.

International and national multisectoral *food safety* collaboration was sustained among Member States of the Gulf Cooperation Council. The United Arab Emirates, championing the cause of the International Food Safety Authorities Network (INFOSAN) hosted the first INFOSAN meeting. All countries are member of INFOSAN and the INFOSAN Emergency network for rapid food alert systems. Regional capacity-building on food safety and consumer health protection was supported. Most countries have now participated in the global capacity-building training course for salmonella sereotyping to detect, prevent and manage foodborne diseases and monitor food safety and quality. Zoonotic and nonzoonotic foodborne disease surveillance and hazard monitoring programmes have not been adequately improved as planned. Only Tunisia has conducted total diet studies for monitoring food hazards.

Apart from countries in complex emergencies, most countries have laboratory ability to detect chemical hazards in food such as melamine, dioxins and furans. Countries continued to participate in Codex Alimentarius commissions and other international standard setting bodies. The Near East Codex Committee assesses risks in food and prepares standards on traditional foods of the Region. Hazard analysis and critical control point generic models exist for 13 traditional foods so far. Only one country, Islamic Republic of Iran, has prepared generic models for some traditional foods in the past year. 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, only 13 countries are contributing to the surveillance. The first

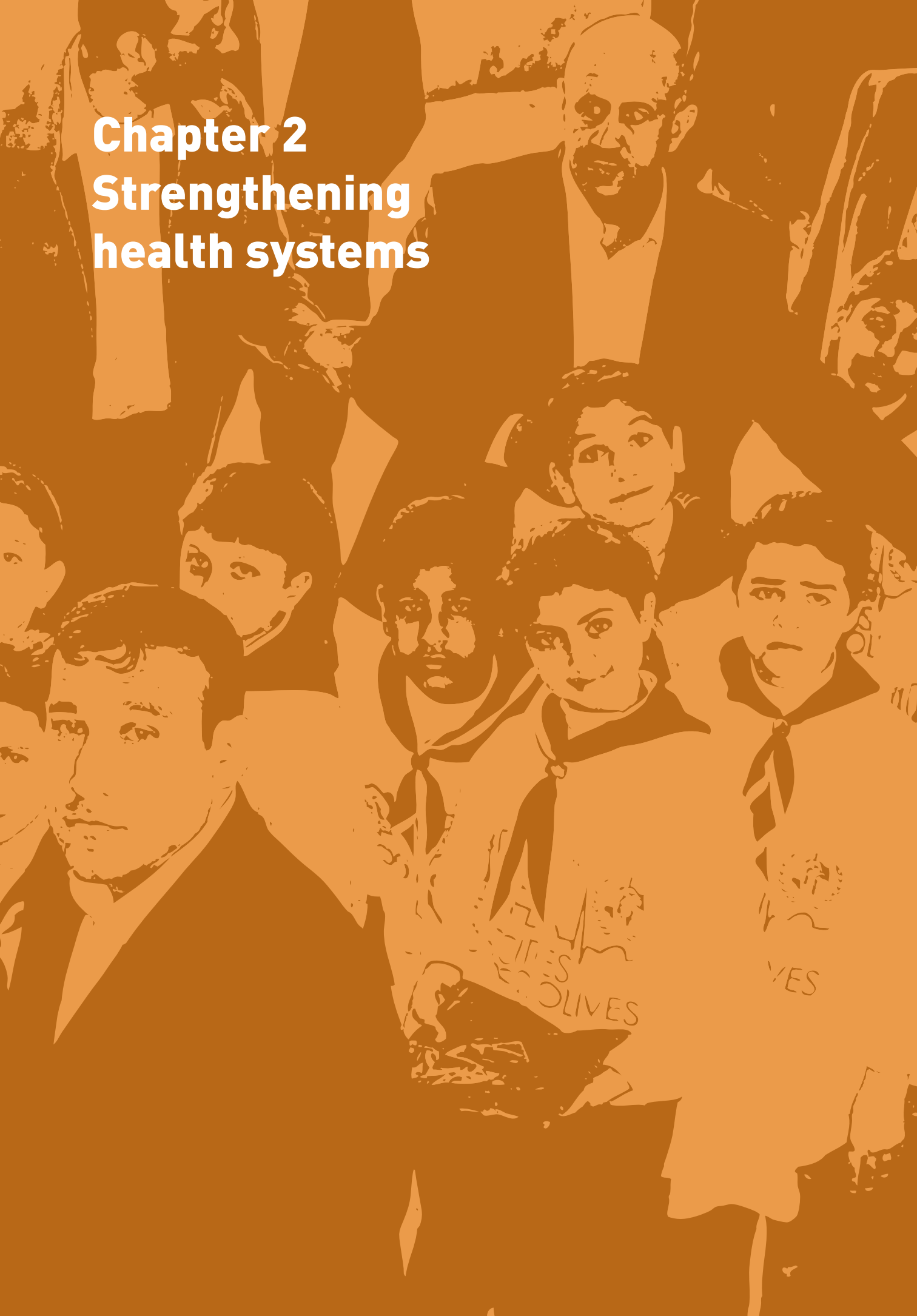
cycle of the global foodborne infections training course was conducted in Tunis. The five cycles of the course will strengthen food surveillance systems in the Region. Countries continued to strengthen their laboratory capacity to identify and serotype salmonella and other related bacteria. Pulsenet 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. Distribution and field application of the "five keys to safer food" poster, available in several languages, continue to be carried out in various countries, including Kuwait and Syrian Arab Republic.

Future directions

In line with the regional nutrition strategy 2010–2019, technical support will continue to to address both under-nutrition and over-nutrition. The nutritional packages, including nutrition-based programmes, in many countries in the Region are not always in line with optimal practices and recommendations, and efforts are required to ensure that they are appropriate and of good quality. Technical support will focus more on two important areas, stunting and obesity.

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

Disparity in access to and utilization of health and social services, uneven distribution of resources, rapid urbanization, increase in the number of vulnerable groups, financial crisis, insufficient social security for the poor, gender inequity, insufficient intersectoral collaboration and partnership among stakeholders, high unemployment rates and inadequate funding are the driving issues of this strategic objective. High-level political commitment, community participation and leadership, and intersectoral collaboration are needed to address the social determinants of health, and to reach the goals of gender and health equity and full realization of the right to health. A particular challenge in meeting these goals lies in the need to generate the evidence within the national context of the positive health impacts of community participation and leadership, as well as of empowerment of women and vulnerable groups. The need to identify and establish sustainable mechanisms for intersectoral collaboration presents another challenge. Competing priorities and lack of ownership in regard to social determinants of health are impediments to achieving the high-level political commitments needed. Support is targeted at achieving effective intersectoral collaboration on the social and economic determinants of health and at development of national health and development policies that take into account social determinants of health, equity, gender and human rights.

Achievements towards performance indicator targets in each expected result

"Urbanization and health" was selected by WHO as the theme of World Health Day 2010 in recognition of the effect that urbanization has on our collective health, globally and individually, with the slogan "Urban health matters". According to a study conducted by the Regional Office, there is a great difference in access to health services between the people living in slum areas and those living in other parts of cities. The World Health Day campaign was launched by the Regional Office and Ministry of Health in collaboration with municipalities and local stakeholders, and 209 cities from the Region registered in the global movement "1000 cities, 1000 lives". The Regional Office published a number of evidence-based studies and advocacy and training materials to be used for expansion of the healthy city programme. Support was provided for exchange of experiences between Egypt, Islamic Republic of Iran, Morocco, Pakistan, Tunisia

and Sudan on introducing the urban health equity assessment and response tool (Urban HEART) and the Regional Office will follow up on its implementation during 2011 in Khartoum (Sudan), Sale (Morocco), Ariana (Tunisia), Rawalpindi (Pakistan) and Giza (Egypt). Participants from 13 countries of the Region participated in the Global Forum on Urbanization and Health held in Kobe, Japan. Capacity-building was supported, in coordination with the Iraq country office,

for trainers in community-based initiatives in Arabic for Egypt, Jordan, Iraq, Lebanon, Tunisia, Sudan and Yemen. An assessment tool and a comprehensive proposal on integrated district health systems based on the family practice approach were developed for implementation in eight countries.

The Regional Office provided technical support to countries to improve intersectoral collaboration among government agencies and enhance cooperation with civil society organizations in order to tackle social and economic determinants of health, through actions at the policy and country level. At the regional level, focal points from 10 countries participated in a meeting aimed at advocating for health in all policies (HiAP)

to address health equity. Strategic directions were agreed and a roadmap proposed for future action to tackle social determinants of health. The Regional Office also supported analysis of relevant national surveys to provide evidence on the impact of social determinants on health, and the best practices to address these issues. Collaboration with civil society and academic partners on social determinants of health continued.

Capacity-building and technical support were the focus for facilitating the integration of gender into health programmes and policies, both at regional level and in countries. Technical support was provided to Afghanistan for development of a national health sector strategy on gender and to Pakistan for development of a national health sector protocol on gender-based violence. Capacity-building which resulted in a multisectoral action plan on gender-based violence was also supported in Pakistan. Technical support was provided to WHO country offices in Afghanistan, Iraq, Pakistan and Yemen, working with ministries of health on the health sector response to gender-based violence. Capacity-building on gender was conducted in collaboration with the emergency and humanitarian action and AIDS and sexually transmitted diseases programmes, for country office gender focal points. Guidance on generation and use of sex-disaggregated data was enhanced with the participation of Afghanistan and Oman in a global policy dialogue on the issue. Follow-up activities and support were planned on generating and analysing sex-disaggregated data for selected indicators relating to the Millennium Development Goals in those countries, in coordination with three other WHO programme areas. Technical support was provided to gender and health proposals to mobilize resources for country-level activities. Expanded and

Participants in training on mainstreaming gender into health programmes and policies, Afghanistan

enhanced evidence is a requirement for identifying gender issues relevant to specific programme areas and for increasing the participation of countries in mainstreaming gender into health programmes and policies. Operational research on gender and HIV was supported technically and financially in Egypt, Jordan and Yemen, and on gender-based violence in Pakistan. Tailoring gender issues to specific programme areas proved successful while competing priorities proved an impediment to both ministries of health and WHO country offices in taking ownership of gender and health initiatives. Partnerships facilitated the carrying out of successful operational research but challenges were faced in monitoring how the research findings were translated into health policy and programme actions. Stepping-up of capacity-building and identification of practical and direct links between gender issues and programme areas are expected to increase the number of sustainable gender and health programmes in countries.

To support the right to health, capacity-building was supported to promote implementation of the Convention on the Rights of Persons with Disabilities at regional

and national levels with multisectoral representation from countries to ensure the maximum benefit. As a result, activities were planned which will strengthen the principle of the right to health in the Region. The Regional Office continued to support knowledge sharing related to the right to health, making available relevant international literature in Arabic. The Arabic version of *Human rights, health and poverty reduction strategies* was published on the website and distributed to all countries.

Future directions

Capacity-building, generation of evidence on social determinants of health and gender and health equity, and strengthened reporting on the health components of human rights treaties will be a focus. Technical support will be provided to introduce the urban health equity tool in four countries, and to promote urbanization and health and reduction of health inequity through introduction of the healthy cities programme in 209 cities that registered in the global movement "1000 cities, 1000 lives". Two countries are expected to enhance their generation, analysis and use of sex-disaggregated data in national health information systems. The Regional Office will support a number of countries to incorporate health in all policies and collaboration with United Nations agencies will be fostered to address health inequity. The Regional Office will focus on the health rights of migrant workers and support the integration of gender and the right to health in national health plans and policies.

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

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. The major challenges include inadequate leadership and capacity in policy analysis and strategic planningwithin ministries of health; limited involvement of health authorities at sub-national level in developing national health plans; inadequate monitoring and evaluation of plans; and need for greater involvement of stakeholders and better donor coordination and aid effectiveness. There is a need to strengthen ministries of health in developing dynamic health sector policies that protect the poor and ensure equity in health outcomes (Table 2.1).

The major challenge to the delivery of health care in the Region is the attainment of universal coverage by an essential package of health services based on primary health care. Other related issues include the lack of access to health services in low-income and middle income countries; a rapidly expanding and largely unregulated private health sector; inadequate quality and patient safety at all levels of health care; inequities in the provision and financing of health care; the need for primary health care-based health care delivery models; and lack of health-promoting hospitals. There is a need to revisit primary health care governance at the district level in view of the existing challenges.

The economic recession continued to affect most countries in 2010. The

Table 2.1 Status of health policy and planning cycle in countries of the Eastern Mediterranen Region

Country	Health sector strategic plan		Countries with new planning cycle
	Planning cycle	National health policy	
Afghanistan	2005–2009	✓	
Bahrain	2002–2010	✓	✓
Djibouti	2008–2012		
Egypt	2007–2012		
Iran, Islamic Republic of	2011–2015	✓	
Iraq	2010–2014		
Jordan	2006–2010	✓	✓
Kuwait	2010–2015		
Lebanon	2007–2009		
Libyan Arab Jamahiriya	2009–2013		✓
Morocco	2008–2012	✓	
Oman	2006–2010	✓	✓
Pakistan	2005–2010	✓	✓
Palestine	2011–2013		
Qatar	2005–2009		
Somalia	2010–2014		
Sudan	2007–2011	✓	
Saudi Arabia	2010–2015		
Tunisia	2006–2011		
Syrian Arab Republic	2006–2010		✓
United Arab Emirates	2010–2014		
Yemen	2006–2010		✓

impact, however, was not the same in all countries. The public health sector of most countries was largely protected. The share of government budget allocated to health in some countries is critically low. The share of out-of-pocket expenditure showed no sign of decline and may have actually increased in 2010. Evidence suggests that out-of-pocket payment for health care, which is the main culprit in households suffering financial catastrophe, is high in many countries of the Region, as shown in Figure 2.1. Introduction and/or expansion of social health protection schemes have been delayed by the ongoing crises in the Region. Available resources are inefficiently allocated in most countries, while the resources available in low-income countries are not sufficient to enable them to provide the basic public health services for their population. National capacity to support development of health care financing has been improving but remains inadequate to provide effective support to ministries of health.

A key challenge to the adequate delivery of health care services in terms of effectiveness, efficiency and quality is the lack of management capacity and the organization of health care services. There is a need to build capacity of health managers and hospital managers and to develop support systems to ensure effective programme implementation at primary, secondary and tertiary care levels. In addition, external assistance through global health initiatives needs to be utilized more effectively in countries eligible for strengthening health systems.

Health information systems remain weak and fragmented in many countries of the Region. The limited information that is generated through routine systems and supplemented by population-based surveys and research activities is not properly used in health management, planning or policy development. The use of ICD-10 and other international classifications, and of information and communications technology in health information systems, is limited. In most countries, registration of births, deaths and causes of death is incomplete and coordination between ministries of health and other stakeholders, such as statistical

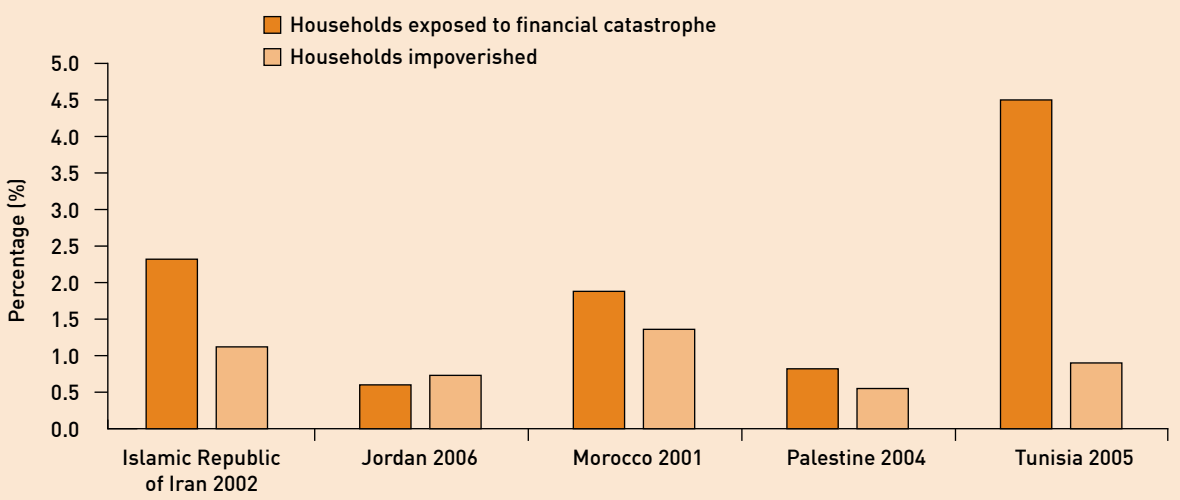


Figure 2.1 Percentage of households facing financial catastrophe following ill health in selected middle-income countries

bureaus, ministries of interior and the private sector is weak. Professionals qualified in health statistics and epidemiology are in short supply in most countries. There is a need to expand the capacity of health information systems at national and sub-national levels to monitor resources, coverage and new areas, such as social determinants of health, health systems performance and burden of disease, as well as the health-related Millennium Development Goals.

The disparity between supply and demand of health workers poses a major challenge to policy-makers. The health workforce in is characterized by shortage in the majority of countries, and by surplus in others. Such discrepancy is attributed to lack of strategic national planning and of evidence-based policy development for human resources for health in most of the countries. Countries with a crisis in human resources for health and experiencing conflict suffer additional burden, 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 mechanisms among the stakeholders responsible for human resources development policies and plans, including production and effective regulation of health professionals. Reliable information systems and generation of evidence for informed decision-making and policy formulation in this area are also lacking.

There is shortage of qualified nurses and midwives. High work load, poor working environment, low job satisfaction, inadequate remuneration and lack of nursing workforce plans seriously affect the quality of nursing and midwifery services. The demand for reform of nursing and allied health education and for increased production of nurses and midwives continues. Institutional capacity-building of nursing educational programmes in post-conflict countries still poses a major challenge. Nursing directors and their staff need continuing support to become active participants in health and nursing policy-making and planning, including proper level of authority and sufficient resources, both financial and human, to implement action to strengthen the roles of nurses and midwives and improve the nursing and midwifery services.

The lack of quality education and training in the institutions responsible for health professions education a major shortcoming. 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. The importance of high quality medical journals for transfer of knowledge is increasingly recognized. However, greater recognition is needed of the potential role of editors in creating links between researchers and policy-makers.

Achievement of the aims of development, health, equity and the Millennium Development Goals in the Region is dependent on sustainable national health research systems. The main challenge hindering the impact of health research in the Region is the lack of a sustainable basis for needs-driven, essential research. Further challenges include: low recognition of research as a priority at the country level; inadequacy of resources allocated to research in general, and especially health research; shortage of national capacity; inadequate utilization of research results; and lack of collaboration and partnerships among the various stakeholders within and between countries.

Improving access to and better utilization of health information resources which are available in Research4Life programmes (HINARI, OARE and AGORA) for eligible countries remains a key challenge to bridging the know-do gap. Capacity-building is needed for health professionals and medical librarians as well as development of e-libraries and the medical libraries network to improve the accessibility and increase availability of health information among the health institutions in the Region.

Achievements towards performance indicator targets in each expected result

In the area of *health policy and planning,* over one third of the Region is affected by protracted crisis where external resources have a profound influence in shaping health policies and programmes. To assess aid-effectiveness and donor coordination, an assessment was undertaken in eight countries. The study found that ownership is often weak, with local capacity crippled by protracted crisis and; lack of mutual accountability remains the main reason for weak ownership. The study also found that external support has not been delivered in a harmonized manner and is barely aligned with national strategies. The outcomes of these assessment studies will be used to develop a regional strategy to help map the donors, their mode of engagement with the countries, existing coordination structures and the role of existing high-level joint monitoring boards. An assessment of the role of the private sector conducted in 13 countries showed a rapidly growing private health sector and a need for the ministries of health to move towards engaging with the private sector and creating public–private partnerships.

Updating of public health laws and legislation consistent with human rights norms, and the exercise of greater efforts in tackling health equity through action on social determinants of health, have remained a challenge in all countries. Steps were taken to strengthen intersectoral collaboration among government agencies and civil society to tackle social and economic determinants of health, with action at policy and country level.

In the area of *health care delivery*, in line with the Regional Office's support for the promotion of primary health care, a six-year strategic plan (2010–2015) was developed, providing countries with a roadmap for implementing service delivery based on primary health care. In an effort to improve health service delivery based on primary health care an initiative to establish a model integrated district health system based on the family practice approach in eight low-income and middle-income countries was launched. To address the quality and safety of health services, a patient safety assessment manual and a patient safety improvement toolkit was developed. Support was provided to eight countries in formulating, reviewing and updating their national strategic health plans and health policies.

Health care financing received particular attention at the global and regional levels, with the publication of *The World Health Report 2010. Health systems financing: the path to universal coverage* and discussion by the Regional Committee of strategic directions to improve health care financing 2011–2015, with a view to universal coverage. Technical support in the area of social health protection and development of analytical tools, including national health accounts, continued to many countries, in addition to capacity-building of nationals in the area of health economics and health care financing.

Furthermore, efforts are continuing to develop formal health economics and health policy graduate programmes, training and research programmes in universities in the Region.

In 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 eligible countries, and for the development and simulated technical review of round 10 proposals to the Global Fund in the same area. Capacity-building activities at national and regional level in the areas of health system strengthening, national health planning and policy development, decentralization, hospital management and autonomy were implemented. Technical support was provided to countries, with special focus on national health planning and on priority setting and performance monitoring to accelerate achievement of the Millennium Development Goals.

In the area of *evidence-based health situation and trends assessment* capacity-building was carried out on health information system strategic planning in collaboration with the Health Metrics Network and with participation from stakeholders, such as ministries of health and with national bureaus of statistics, donors, WHO country offices and academia. As a result, countries are in a position to develop a budgeted strategy and a monitoring system for a health information system. Comprehensive assessment of the health information systems was conducted in several countries. Technical support was provided in the use of the International Classification of Diseases (ICD-10), statistical analysis and the use of geographical information systems. As a clearinghouse of health statistical information for the Region, the Regional Office continued to invest in updating and maintaining its health situation and trends assessment database.

Human resources development units are now functioning in eight targeted countries with six of these units being reorganized in structure and functions. The database on health professions education institutions was updated and now contains data on more than 600 institutes. In addition to the regional human resources for health observatory, national observatories exist in seven countries (Afghanistan, Bahrain, Jordan, Lebanon, Oman, Syrian Arab Republic and Yemen) bringing the total to 12, exceeding the target of 10. In response to proposals submitted to the Global Health Workforce Alliance, additional funding has been granted to support four countries with human resources for health crisis (Afghanistan, Pakistan, Sudan and Yemen) in order to strengthen governance and scale up production of health workers.

To promote primary health care, the Eastern Mediterranean Region Academic Institutions Network (EMRAIN) was established to enhance the role and contribution of academics in the development of primary health care-based health systems. A conference on accreditation of health professions education was held in Yemen with international and regional participation. The outcomes of the conference were the Sana'a Declaration, with a specific call and recommendations to improve health professions education and to institute accreditation systems at the national level.

As in previous years, collaboration with countries continued in investing in nursing and midwifery development and in improving the quality of nursing and midwifery services. Support continued to southern Sudan and Somalia to scale up production of nurses, midwives and allied health professionals. Technical support was provided to Djibouti,

Iraq, Libyan Arab Jamahiriya, Sudan, Syrian Arab Republic and Yemen to improve pre-service Nursing, Midwifery and allied health education. The United Arab Emirates Nursing and Midwifery Council was launched with technical support from WHO. Technical support was provided to UNRWA based on the strategic plan previously developed for improving the nursing and midwifery services.

During 2010, a total of 123 fellowship requests were received from the countries of the Region and processed, of which 98 were finalized and awarded in the same year (Table 2.2). The highest number of requests was from Iraq (31, compared with, 18 in 2009), followed by Sudan (29 compared with 74 in 2009) and Yemen (15). Two countries in crisis, Palestine and Somalia, benefited from a higher number of fellowships as compared to previous years with 19 and 16 fellowships, respectively. Figure 2.2 shows distribution of fellowships by field of study. As in recent years, the majority of fellows (67) were placed within the Region. The European Region was the second most frequently chosen region for placement (13 fellows). Figure 2.3 shows the distribution for those whose placement was finalized during 2009.

Table 2.2 Number of fellowships awarded by country of origin, Eastern Mediterranean Region, 2010

Country	Number	Percentage (%)
Iraq	30	30.6
Sudan	29	29.7
Yemen	15	15.3
Egypt	8	8.2
Tunisia	5	5.1
Morocco	3	3.1
Oman	2	2.0
Palestine	2	2.0
Syrian Arab Republic	2	2.0
Lebanon	1	1.0
Somalia	1	1.0
Total	98	100.00

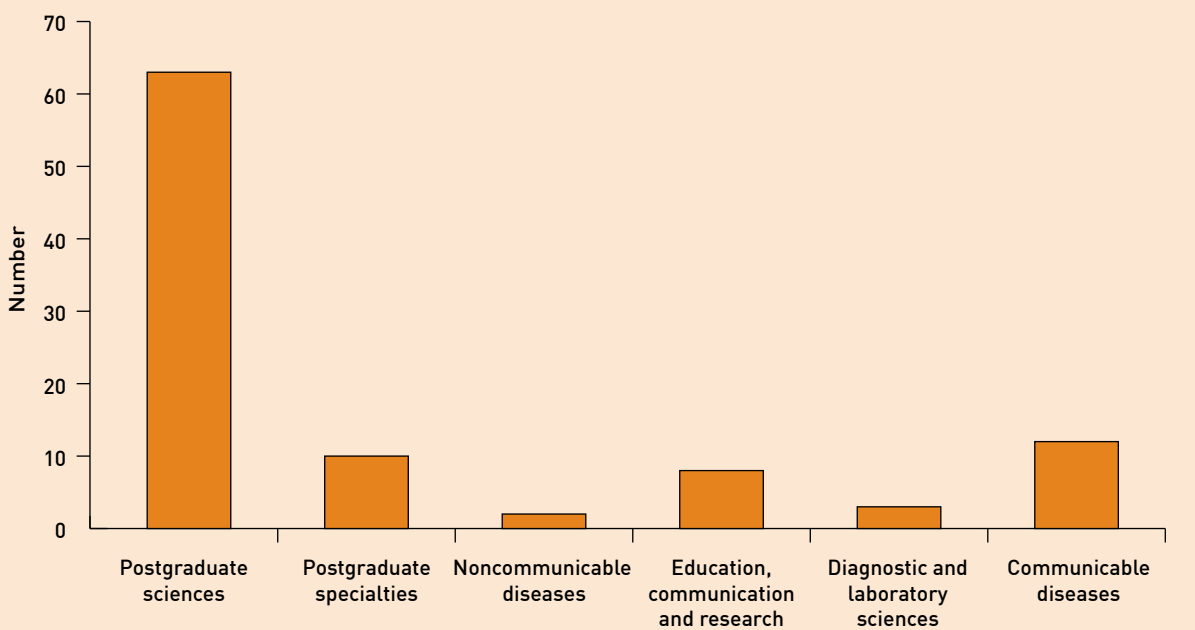


Figure 2.2 Distribution of fellowships by field of study, 2010

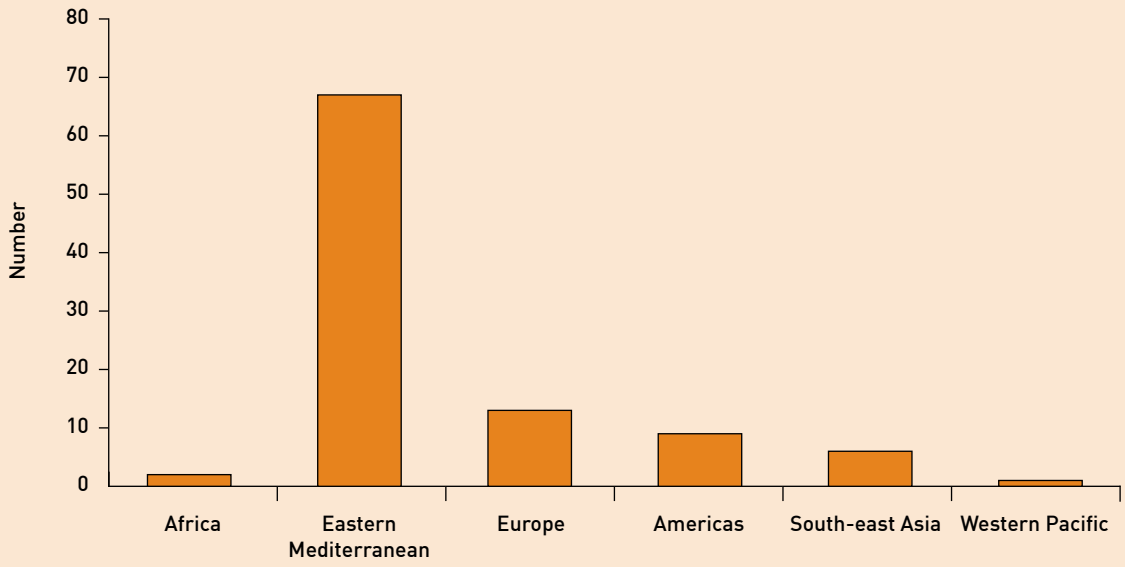


Figure 2.3 Distribution of fellowships by region of placement, 2010

In the area of *research policy and cooperation,* a review of currently active WHO collaborating centres in the Region was conducted to identify centres that have the capacities to assist in enhancing and promoting research for health at the national level (Figure 2.4). A framework was established for developing the regional strategic directions for research for health, building on previous work of the Regional Office and aligned with the global strategy on research for health. The Eastern

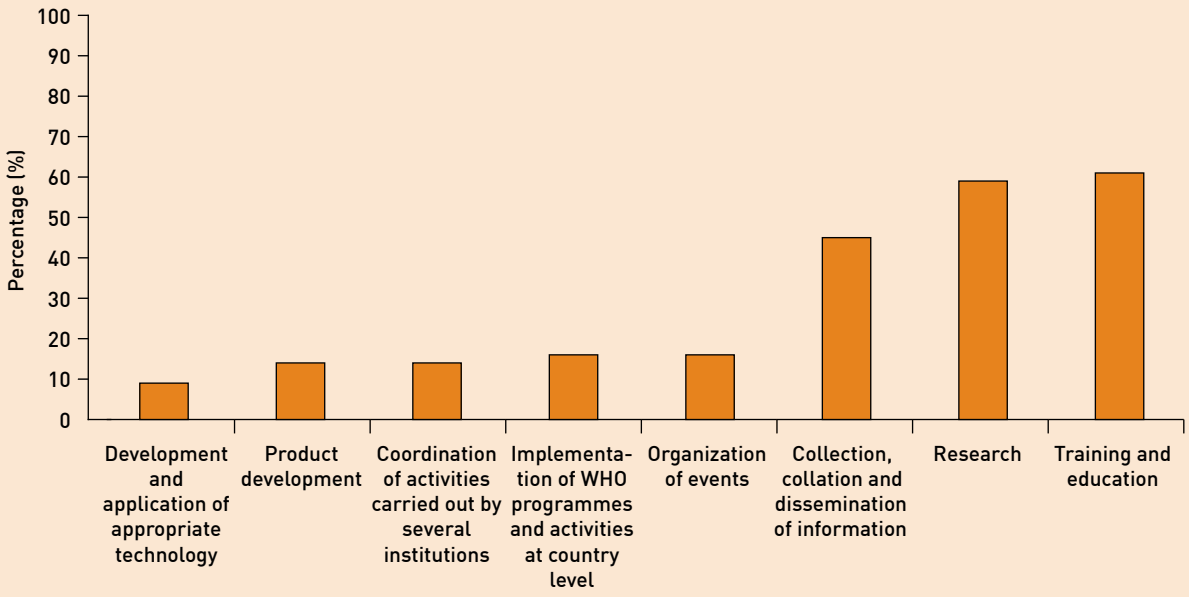


Figure 2.4 Functions of the collaborating centres in the Region, 2010

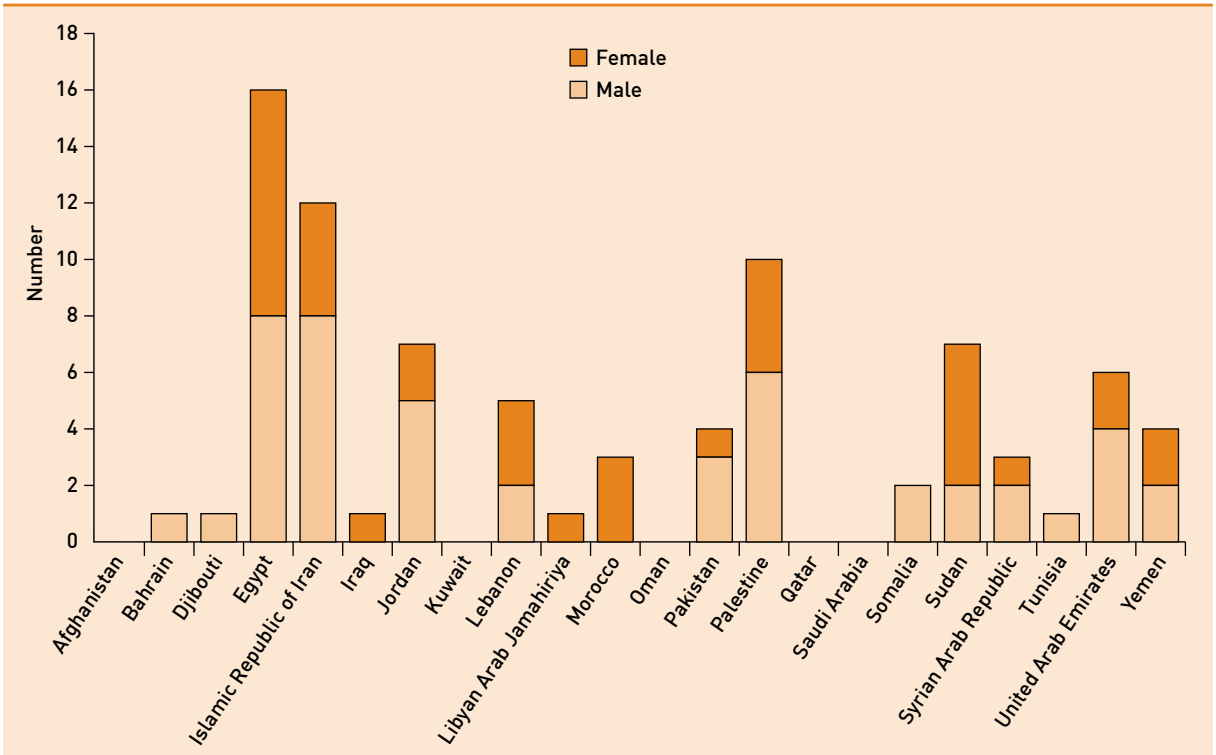


Figure 2.5 Proposals submitted for the special grant for research in priority areas of public health (2010–2011) by country and sex of principal investigator

Mediterranean Advisory Committee for Health Research, contributed to this process in its 25th session. Analysis was conducted of the engagement of the regional technical programmes in research and research-related activities in the previous biennium (2008–2009).

The 7th call for proposals for research in priority areas of public health resulted in 84 proposals, 15 of which were selected for funding. The 4th call for proposals for research in applied biotechnology and genomics in health resulted in 30 proposals, 9 of which were selected for funding by the external selection committee. An additional 20 were sent for in-depth external review. Figures 2.5 and 2.6 show the distribution of proposals by country and sex of principal investigator.

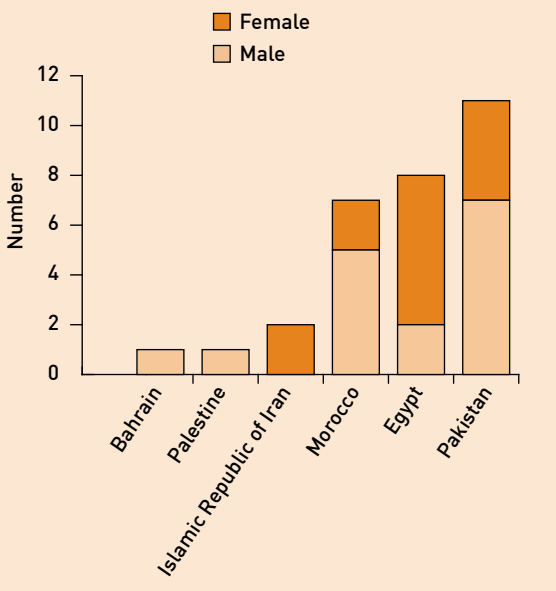


Figure 2.6 Proposals submitted for the grant for research in applied biotechnology and genomics in health (2010-2011) by country and sex of principal investigator

The regional Evidence-Informed Policy Network (EM-EVIPNet) was activated to develop capacity for healthy policy-making. A review of national strategic documents was conducted to compile information related to health status of different countries, priorities, needs and identified strategic directions in relation to research for health and evidence generation.

National capacity-building was supported in Egypt in a meeting to discuss the status of ethics and research in Egypt, the standards and guidelines followed, ethical issues related to clinical trials at the national level and the presence and role of a national ethics review committee to oversee these issues.

The fifth regional conference on medical journal publishing was held in Karachi, Pakistan, in collaboration with the Pakistan Association of Medical Editors and the Eastern Mediterranean Association of Medical Editors and resulted in clear and feasible recommendations for enhancing quality of medical journals in the Region. The *Manual for editors of health science journals* was published in Arabic and French.

The Regional Office continued to implement the regional strategy for knowledge management strategy to support public health by improving access to health information and building capacity at national level. National capacity-building was supported in use of HINARI and OARE in the Syrian Arab Republic in collaboration with UNEP. Fourteen health institutions joined the regional e-journals consortium which allows access to the full text of more than 850 journals. Collaboration continued at global level for development of the Global Health Library which will improve access to health information for all.

Future directions

The primary health care approach will remain central to the development of health systems and provision of health care in the Region. Particular efforts will be made to mobilize regional resources to promote primary health care and implement the family practice model. The Patient Safety Friendly Hospital Initiative will be expanded to more countries and national capacity will be built to promote implementation of safe health care practices. In the area of health policy and planning, a regional strategy for aid-effectiveness and donor coordination will be developed. Continued efforts will be made to enhance capacities for policy dialogue and health planning. Particular attention will be given to review and update of public health laws and legislation. More effort will be made to engage the private health sector in health system development.

Efforts will continue to be made to promote social health protection in line with resolution EM/RC57/R.7, The World Health Report 2010 on health financing and the move towards universal coverage. Regional networks will be supported and new capacities developed in health economics and health care financing at national and regional levels. Promotion, development, use and institutionalization of analytical tools such as the national health accounts and generation of evidence to support health financing policies and strategies will be expanded. Countries will be encouraged to strengthen management systems for effective delivery of health services and supported to ensure effective decentralization, hospital autonomy and continuation of efforts at developing community health management programmes and other support systems, such as the referral system. Continued and intensified efforts will be made to support

countries to successfully mobilize resources from the global health initiatives and ensure their effective utilization through close monitoring and evaluation.

Countries will be supported to assess their health information systems, with increased emphasis on the vital registration systems. Efforts will continue to be made to promote the use of essential health indicators and ICD-10. The health situation and trends database will be further improved through better coordination with technical programmes and regular updating and establishment of national health observatories. The use of information technology and the internet will be promoted in data collection, compilation and dissemination. More support will be provided to conduct population-based health surveys to complement the routine data systems. National capacity-building in statistical analysis to conduct burden of disease studies and health system research are also a priority.

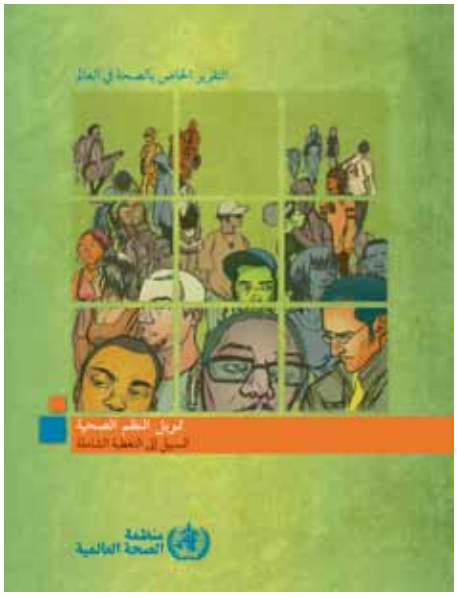
National capacities for evidence-based decision-making and policy formulation for human resources development through a coherent national coordination platform will be strengthened. More efforts will be directed towards accreditation of health professions education institutions and programmes in line with global standards. Effective utilization of established human resources for health national observatories will be enhanced to produce evidence for collective decision-making by stakeholders, working via a national human resources for health policy coordination forum.

With the establishment of the regional network of academic institution a more coherent approach to promoting human resources for health and health systems based on primary health care is expected. A regional framework for human resources for health strategic planning is being developed to guide countries in developing strategic plans. Technical support will focus on countries with pressing needs and that face difficulties in improving production, distribution, skills mix and retention of human resources in order to meet the need for well-functioning primary health care-driven national health systems. Regional Committee resolution EM/RC55/R.6 on promoting nursing and midwifery development will be implemented. A key element is update of the current strategy, which would support nursing and midwifery workforce planning, education, maximum utilization of roles, positive practice environments with specific strategies for rapid scaling-up of the nursing and midwifery workforce in countries in conflict and complex emergencies, and strategies to retain nurses and midwives and manage migration. Countries will be supported in establishing and upgrading educational development centres in their educational institutions. Innovative approaches in education of health professionals and ways to close the gap between education of health professionals and health services and practice will be encouraged. Continuing health professions development will be introduced. The priority areas in fellowships need to be determined in a more systematic way by the countries. Fellowships evaluation reports will be shared with the countries to provide them with a clear picture about the fellowships situation in the Region.

Steps will be identified for the establishment of a regional platform for clinical trials, aligned with the international clinical trials registry platform (ICTRP). Capacities at the national level will be strengthened to conduct research for health that is needs-driven and addresses the priorities of the countries. In addition, WHO collaborating centres in the Region will be utilized in promoting the research for health agenda at the national

level. The strategic directions for research for health will be developed to guide how WHO manages, supports, funds and guides research, both within the Organization and in countries. Capacity-building of editors will continue to be supported to promote quality and standards in medical journal publishing in the Region.

The Regional Office will continue to support the medical and health libraries network and to strengthen and support the electronic resources consortium for medical libraries in the Region. Capacity-building for medical librarians, health workers and professionals at national level will continue in order to assure maximum benefit from the electronic information resources available.



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

Issues and challenges

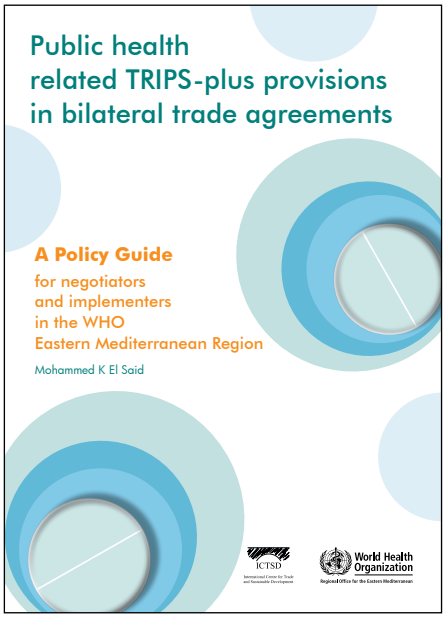
The delivery of equitable, quality and efficient health services requires an array of properly balanced and managed resource inputs. Health technologies, in the form of medicines, vaccines, devices and clinical procedures, are principal resource inputs that require countries to establish systems for 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 technologies programme is reasonable, a major challenge will be to mobilize the financial resources needed to maintain it.

Achievements towards performance indicator targets in each expected result

In the area of *essential medicines and pharmaceutical policies*, technical support was provided in developing policies and strategies for Libyan Arab Jamahiriya and Sudan, and drafting pharmaceutical laws in Djibouti. Studies on transparency assessment and good governance were conducted in five countries, Egypt, Iraq, Kuwait, Oman and Sudan. Evidence-based information for Jordanian policy-makers was provided using WHO level-II and household surveys. Complete pharmaceutical profiles for Jordan, Pakistan and Sudan were finalized. Capacity-building in regulation was enhanced as regulators from Islamic Republic of Iran and Morocco were trained on the use of WHO tools to enhance the national supply system and ensure better access to controlled medicines. Capacity was also build in 11 countries among regulators, manufacturers, national regulatory authorities staff and medicines quality control personnel regarding principles of prequalification and pharmacovigilance.

In the area of *essential vaccines and biological policies*, WHO policies for strengthening vaccine regulations and prequalification in vaccine-producing countries were shared with countries through the sixth meeting on self-reliance



programmes in vaccine production and health system strengthening workshops. Continuous support to build the capacities of national regulatory authorities and EPI staff on clinical evaluation of rotavirus and pneumococcal vaccines was provided. Consultations were held on establishing a regional committee for evaluating vaccines and a regional network for vaccine lot release. Country-specific activities included functional assessment of national regulatory authorities in Egypt and Islamic Republic of Iran, capacity-building on adverse events following immunization in Tunisia and Yemen, technical support to improve Good Manufacturing Practice in Islamic Republic of Iran and Tunisia, and assessment of the ability of Syrian Arab Republic to produce vaccines and other biologicals.

In the area of *blood safety, laboratory and imaging*, the regional external quality assurance scheme (EQAS) continued. Technical support was provided to support biosafety and biosecurity activities in the Region through meetings of national

regulatory authority focal points, directors of central public health laboratories, quality assurance officers and directors of central veterinary laboratories. The theme of these gatherings was focused on emerging infections, such as H1N1, and the safe transportation of biological samples.

In the area of *health technology and medical devices* and in collaboration with WHO headquarters, a global survey was launched to obtain basic information on the presence of relevant management components. Results showed that, globally, only 5% of countries have national medical devices policies, lists and coordination units; 29% have regulation and nomenclature systems; and 16% have procurement, management and maintenance strategies or guidelines.

Three manuals on preventive, corrective and computerized maintenance systems were developed and funds were allocated to train national staff in Sudan on the usage of these manuals. In collaboration with the Government of Netherlands, a report on the current mismatches or gaps in the availability of medical devices on the global market was finalized. This report will help in generating a research agenda and action plan for manufacturers especially in low-resource settings. Assessments of national medical devices programmes in Sudan, Syrian Arab Republic and Tunisia revealed the need for ministries of health to integrate medical devices programmes, if any, into their existing national health systems.

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 for strengthening national regulatory authorities for technology-producing and procuring countries by: widening the scope of services to include many health products; establishing a regional vaccine evaluation committee and network for vaccine lot release; setting-up well-resourced health technology assessment systems as part of national regulatory authorities; developing/reviewing laws and policies, organization, quality management systems, and relevant capacity-building techniques; and strengthening post-marketing and adverse events following immunization surveillance systems. 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 and 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

The current financial crisis has had critical implications for gains achieved in public health and has reshaped how programmes are implemented in the Region. WHO, as a key player in shaping and responding to public health demands in a rapidly evolving environment at country level, is engaging with United Nations agencies and partners to foster harmonization and avoid duplication. The use of country cooperation strategies as a key tool in alignment with national priorities has become essential in all collaborations, to improve priority-setting, planning and consensus-building among partners.

Demand for accurate and timely information on health in different languages of the Region continues to be high. The Global Arabic Programme continues to address the challenges in: producing high quality tools to unify and control terminology, styles and standards in publishing in Arabic; collaboration and building solid partnership with regional and national players and stakeholders involved in information and knowledge sharing; identifying and responding to countries' needs and priorities for information; presenting a clear image of WHO in Arabic-speaking countries, and improving communication; and supporting national languages. Improving access to and availability of the most up-to-date and valid health knowledge are key challenges. This includes making better use of information resources, building capacity, and promoting electronic publishing, marketing and dissemination of the information products at the national, regional and global levels. The Regional Office continues to improve the quality of its printed publications and to improve the timeliness of its dissemination of products, to meet the increasing demand for WHO information products.

Greater support for and increase in resource mobilization efforts are needed urgently in view of the financial situation, both at regional and country level. Progress was made in expanding and strengthening partnerships, especially with respect to the United Nations Development Group (UNDG) at regional level and roll-out of the United Nations Development Assistance Framework (UNDAF). However, enhancing WHO internal capacity at regional and country level to ensure a more effective contribution and positioning of health is still needed. Advocacy is also needed with other stakeholders, demonstrating the importance of health within the UNDAF and across sectors and the role that WHO could play.

Partnerships are crucial to WHO's work in the Region – The Regional Director thanks Dr Adel Al Tawheed, Vice President, Kuwait Patient Helping Fund for its support

Achievements towards performance indicator targets in each expected result

In the area of *governance* the Regional Office is committed to ensuring efficient responsive and transparent implementation of its programmes and of the decisions taken by Member States. The thirty-fourth meeting of the Regional Consultative Committee was held in the Regional Office in April 2010. Technical papers were discussed in preparation for the fifty-seventh session of the Regional Committee. The Fifty-seventh Session of the Regional Committee for the Eastern Mediterranean was held in Cairo, Egypt from 3 to 6 October 2010. The Committee discussed maternal, child and adolescent mental health, nutrition, health sector response to HIV, infection prevention and control in health care, improvement of health care financing, emergency preparedness and response and the need for a regional emergency solidarity fund. The committee adopted six resolutions pertaining to policy and strategy in these technical areas.

The annual joint coordination meeting of the Regional Directors of the WHO Regional Office for the Eastern Mediterranean and UNICEF Middle East and North Africa Regional Office in partnership with OCHA, UNAIDS, UNDP, UNESCO and UNFPA was held in Cairo, in February 2010. The meeting was co-chaired by the Regional Directors of WHO and UNICEF. Discussion and agreement focused on emerging issues in immunization, road traffic injuries, governance, noncommunicable diseases and HIV/AIDS. Emergency preparedness and response and key issues related to nutrition and maternal health in the Region were also topics of discussion.

The country cooperation strategy process, an essential component in the planning process for *WHO presence at country level*, was used in all countries of the Region, including those countries in crisis, as a key instrument to align WHO technical collaboration with national priorities and to harmonize the programmes within an agreed upon strategic framework. The country cooperation strategy is the main tool used to implement the country focus policy of the Organization and to increase focus and efficiency in utilization of resources. Technical and managerial support for implementation of country focus policy and renewal and utilization of country cooperation strategies in strategic and operational planning as well as programme management continued. Eight second-generation strategy documents were published to date.

The Regional Office is contributing to the new UNDAF roll-outs in the Region through

active participation in the Peer Support Group as part of the regional UNDG and Regional Directors' Team, providing technical back-up in several areas such as monitoring and evaluation, results-based management, gender and disaster risk reduction. The Regional Office supported capacity-building for preparation of UNDAF for Egypt and co-facilitated the process in Yemen.

In the area of *knowledge management and sharing*, in order to enhance the dissemination of quality and timely information, a process of redevelopment of the Regional Office web site was initiated. This included extensive consultation on needs and use, with involvement of all stakeholders. Redesign will take into account the need for a one-WHO identity to be preserved across the Region and with the rest of WHO, and for different language versions. A plan was implemented for launch of the new website by end 2011. Following implementation of the revised WHO publishing policy, a more streamlined approach to planning of information products was implemented, with all publication proposals logged into the global electronic 'epub' system. The Regional Office issued 74 English, 27 French and 28 Arabic publications in different formats and 21 periodicals (see Annex 4) reflecting the increasing demand for information (Figure 3.1). Also issued were 39 meeting reports, 5 country cooperation strategy documents, 19 Regional Committee documents in the three official languages, 26 executive action documents arising from

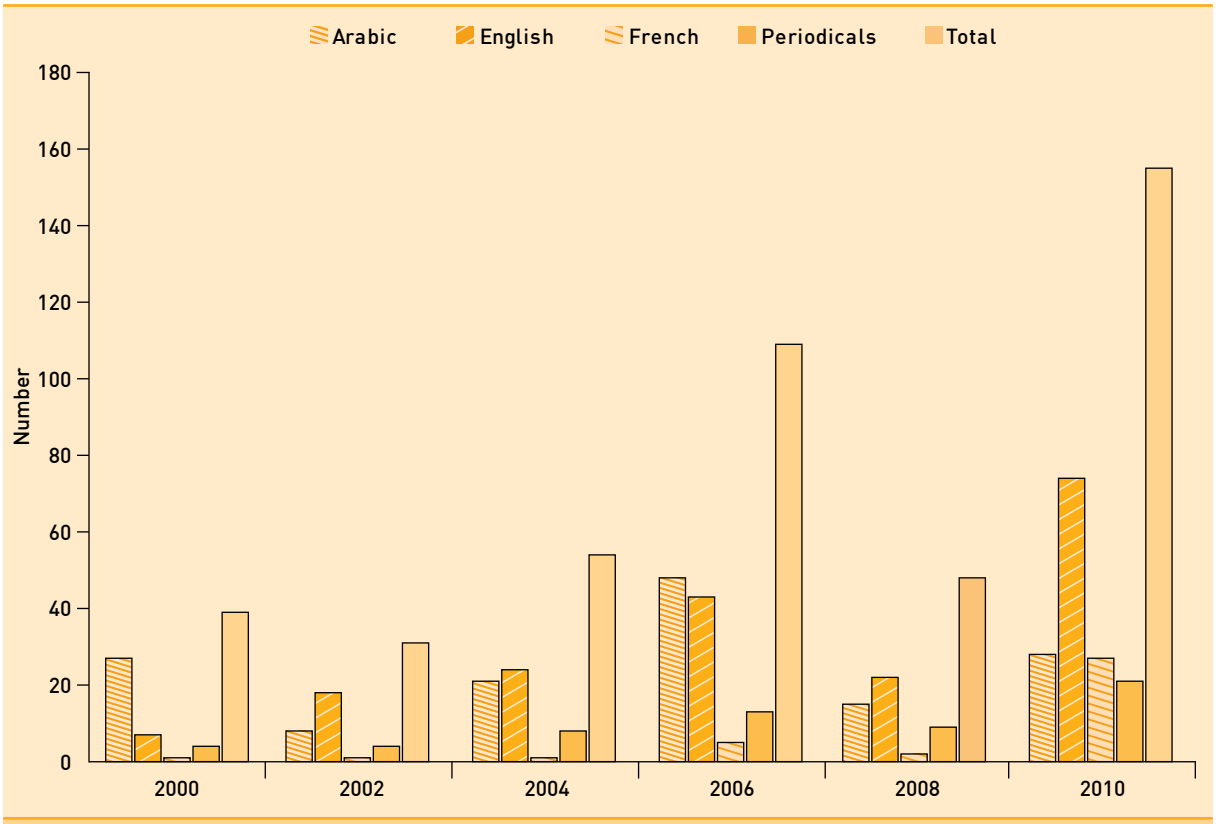
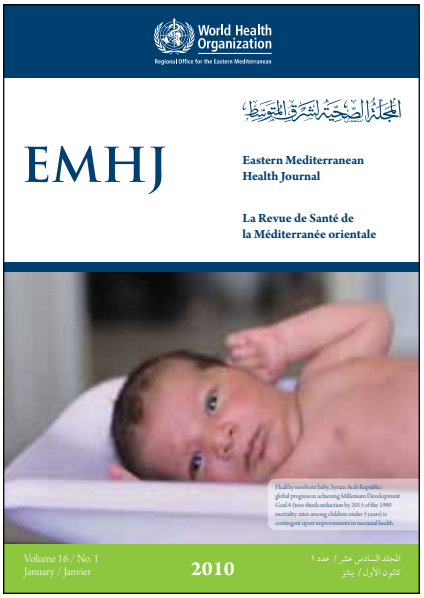


Figure 3.1 Multilingualism: trend in production of regional publications in all formats, 2000–2010

Source: The work of WHO in the Eastern Mediterranean Region. Reports of the Regional Director, 2000–2010



consultant assignments and 108 speeches of the Regional Director. With Volume 16, the *Eastern Mediterranean Health Journal* successfully moved to monthly publication with a new design and format, while at the same time maintaining its high quality and timeliness. In addition to the 12 regular issues of Volume 16, a supplement on Pakistan was published.

The Global Arabic Programme continued to build capacity in countries by providing health workers, professionals and the public with health and biomedical information in Arabic. Partnerships with regional stakeholders continued, including the Arabic Centre for Medical Literature (Kuwait), Arab Centre for Arabization, Translation, Authorship and Publishing (Syrian Arab Republic), Higher Council of Arabization (Sudan), Pan-Arab League of Medical Associations (Jordan), Supreme Council of Arabic Language (Algeria), Association for Arabic Translators (Lebanon), King Abdulla Initiative to Enrich the Arabic Health Content of Websites (Saudi Arabia), Arab Educational, Cultural and Scientific Organization (Morocco), and the Arabic academies and health-related universities in Amman, Cairo, Khartoum and Damascus. The Arabic version of the *Bulletin of the WHO* continued to be posted on time on the headquarters and Regional Office web sites.

The Regional Office hosted the fifth WHO annual meeting of heads of translation services and the eighth annual meeting of the Arabization of Health Sciences Network (AHSN). Quality control of translation was enhanced and computer-assisted translation was supported. More titles in the Arabic university book series were developed and 32 publications were translated into Arabic. Dissemination of medical and health literature in national languages was supported resulting in translation of five publications into Farsi and two publications into Urdu.

The Regional Office and country offices were provided with up-to-date and valid health information related to the work of WHO, such as official documents, publications, inter-country meeting reports, assignment reports. The total number of scanned publications in the institutional digital repository reached 13 700. The Regional Office continued to support the development of the WHO Global Institutional Repository project, in-collaboration with headquarters and other regional offices, and the abstracting and indexing services for the health and biomedical sciences journals published in the Region. By improving the updating and quality control of the Index Medicus for the Eastern Mediterranean (IMEMR) website, the total number of articles published in 19 countries and indexed in IMEMR reached 111 203. The first issue in the Eastern Mediterranean Region e-Publications Series was produced on CD-ROM covering the 15 volumes of the *Eastern Mediterranean Health Journal* with offline access to the full-text of 1080 articles. The second issue in the series comprises 26 years of

Regional Office publications from 1985. In terms of distribution and dissemination of WHO information products, 160 788 copies of Regional Office and headquarters publications covering 1208 titles in Arabic, English and French were distributed free of charge to health and medical institutions.

In order to effectively provide reliable and timely information covering different health issues and to respond to the health priorities and needs, communications-related activities were planned in line with the regional strategic objectives and emerging issues, such as the severe floods which devastated large areas of Pakistan. Advocacy and communication activities and production continued to support the raising of public awareness regarding health issues of great concern, such as vaccination. The first Vaccination Week in the Eastern Mediterranean Region was celebrated with the participation of all countries, and the regional launching was held in Beirut, Lebanon. Simultaneously, country-level activities were carried out in different cities of the Region.

The year also witnessed closer collaboration with the country offices and headquarters to enhance communication performance. Capacity-building was supported in advanced communication, facilitation and presentation and a capacity-building programme was started with headquarters to develop a communications survival kit. H1N1 provided a case study for capacity-building in effective communications during emergencies. Celebration of World Health Day 2010 under the theme "Urbanization and health" was exemplary in involving all concerned parties, including media, academia, nongovernmental organizations and governmental bodies. The Fifty-sixth session of the Regional Committee was made use of to highlight the fifth anniversary of the Framework Convention for Tobacco Control, and the

World AIDS Day 2010

Gaza Strip

Iraq

Lebanon

Oman

Saudi Arabia

Sudan

Syrian Arab Republic

Regional Office

The Region celebrates World Health Day under the theme “Urbanization and health”

legislation and laws established regionally and worldwide as a result of implementing the Convention. Audio-visual campaigns, press releases and fact sheets were produced to support specific communications campaigns including nutrition, blood donation, noncommunicable diseases, World Sight Day and World No Tobacco Day. The "Light for rights" campaign of World AIDS Day was coordinated with UNAIDS and other concerned partners.

Future directions

Successful engagement of Member States in the work of the governing bodies through more effective secretariat support, better communication of the work of WHO, ensuring effective country presence and promoting functional partnerships are imperative in minimizing the negative impact of the global financial crisis. In countries that rely heavily on external assistance, it is important to support, in collaboration with United Nations partners, assessment of the potential impact of reduction of external support on the health sector. At the same time, support for stronger engagement of countries in the UNDAF process, with clear linkages to their country cooperation strategies, will continue. Continued efforts will be made to utilize the outcome of the country cooperation strategy process to guide planning, budgeting and resource allocation.

The Regional Office will continue to improve the accessibility and availability of health information with increased focus on electronic publishing to improve equitability of access to health information and the Virtual Health Sciences Library portal to include different types of health information resources. The regional medical libraries network and consortia will be strengthened. Collaboration with headquarters, United Nations agencies, international, regional and local organizations will continue in order to improve access to the health and biomedical sciences information in the Region.

Content management processes and systems will be reviewed in order to continue to improve efficiency and quality in information production. Work on the Unified Medical Dictionary will continue, with focus on increasing the number of terms, improving the platform and adding new national languages, along with annotations and definitions. The Regional Office will continue to focus on the application of standards and quality control in all languages.

The regional resource mobilization strategy and operational framework will be finalized, including standard operating procedures and guidelines for regional and country-based staff on relevant themes and issues. The donor and partners databases will be upgraded and updated and a regional health agenda, involving major regional health institutions and stakeholders, will be developed. The harmonization and aid alignment principles will be disseminated and capacity-building on resource mobilization and donor relations will be supported.

Greater efforts will be invested in use of the Regional Office website and electronic communication in general for communicating with the media and other audiences. More systematic collection of feedback and enhanced media monitoring approaches will be employed. Capacity-building in media and communication, will be supported at regional and country level, with a view to enhancing WHO's image and disseminating the working of WHO in the Region more effectively. Studies will be conducted to assess impact and evaluate effectiveness of media and communication campaigns.

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. To illustrate the disparity of funding, three areas account for almost 80% of extrabudgetary funding: malaria, tuberculosis and HIV (12%), emergency preparedness and response (30%) and immunization and vaccine development (38%). The Region continues to be affected by crises and mitigation of the associated risks has become more challenging. During the reporting period, six countries of the Region continued to be non-family duty stations due to the security situation, resulting in high risk to staff and high cost to programme delivery. One of the largest countries of the Region suffered a declared emergency due to floods necessitating immediate response with human resources and other services. Efforts in the area of outreach to attract qualified female candidates and candidates from unrepresented and underrepresented countries are ongoing.

Maintaining secure and reliable connectivity with some country offices through the global private network remains a challenge. In addition, due to the financial crisis and associated resource constraints, the ability to speedily update the aging infrastructure in country offices has led to frequent system failures. Data conversion, remediation of legacy systems, capacity-building activities and backstopping were challenges faced with the roll-out of the Global Management System in the regional and country offices. Change in organizational culture needs to continue in support of better programme delivery and managerial performance. Sustainable financing of location-specific security costs continues to be a challenge despite advancement in securing funding for overall security needs.

Achievements towards performance indicator targets in each expected result

Following the successful roll-out of the Global Management System (GSM), implementation of operational workplans significantly strengthened the technical and managerial capabilities and enhanced the relevance and effectiveness of operations. Intensive capacity-building on results-based management, including extensive role-based training sessions, was provided. In the area of planning and resource mobilization, countries' priorities were systematically integrated into overall planning and budget processes and engagement with donors is being strengthened in order to ensure predictable and flexible funding and the closer alignment of resource management with programme implementation.

Construction of the new building in Tunis, which will house both the WHO Representative's office and the WHO Mediterranean Centre for Health Risk Reduction was completed and the premises formally handed over. The second phase of the construction of the new building in

The Regional Director opens new premises for the country offices in Oman and Tunisia, with the Minister of Health of Oman, and the Director-General, Dr Margaret Chan, respectively

Jordan commenced and the Government of Oman provided the WHO country office with office space. Following resolution WHA63.6 on safety and security of staff and premises, appropriation of funding for high security risk areas was approved and implementation is under way. Refurbishment of the Regional Office cafeteria, including a change of caterer, was undertaken. As a result, the cost of meetings conducted in the Regional Office was reduced, with participants now using the office cafeteria.

Internal office restructuring took place to rationalize office operations and the associated workforce, resulting in merging of key units and realizing some reduction in overall associated human resources costs. This is an ongoing project and further savings are expected in the coming year. Measures were carried out to reduce the cost of recurring utilities by 40%.

Requests for the procurement and delivery of supplies and equipment worth US$ 33 million were processed, including US$ 2.7 million in reimbursable procurement and US$ 8.9 million for emergency procurement. The processing time for requests for supplies and equipment continued to be within the desirable range but not without some challenges.

To support regional and country office staff during the GSM transition period, a regional service desk and walk-in clinic were established. Mail security devices were installed and configured to secure mail services in country offices and to improve messaging communication. The installation of the first Voice over IP (VoIP) communication system was performed with one country office. In addition, several components of the Regional Office infrastructure, including video conferencing and telephony systems, were updated. In order to support and manage the information and communications technology environment a region-wide operational monitoring and alert capability was established.

A marked advance in workplace diversity as set by World Health Assembly goals was achieved, with women comprising approximately 56% of fixed-term professionals selected in 2010, compared with the target of 50%. A global approach to the selection, appointment and reassignment of internationally recruited administrative officers was developed with input from all WHO regional offices, chaired by the Director,

General Management. An organigram of the Regional Office is given in Annex 1. Annex 2(a) shows professional staff and higher categories in Member States by number and nationality and Annex 2(b) shows the distribution of professional staff and higher categories, in the region and globally, from the Member States of the Region by number and nationality. An active participatory approach to selected learning programmes was taken to meet staff needs along with the establishment of new learning mechanisms and tools to ensure the effectiveness of the impact of learning on staff.

Future directions

Further capacity-development for results-based management in the GSM environment will be crucial in order to ensure more active utilization of the tools and applications available for efficient and effective delivery of expected technical and managerial backstopping for regional country-specific operations. Flow and flexibility of voluntary contributions should be increased at a considerably faster rate if greater alignment and synergy between funding and programme delivery and higher implementation capacity are to be achieved of these funds.

The Regional Office information technology infrastructure will be upgraded and new technologies will be introduced to increase productivity and efficiency and reduce costs. Human resources planning and rigorous recruitment activities, staff development and learning, performance management and contribution to future reforms will be aimed at establishing a balance between the financial limitations and the need for increased human resources. A more sustainable mechanism for financing security costs in high-risk locations will be finalized, in consultation with headquarters and other regions. In addition, different contracting modalities need to be introduced to cope with the changing environment.

Country statistical profiles

Demographic indicators

Country	Area	Population 2010		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				
	km²	000	%	‰	‰	Y	%	Y	%	%	%	Y	*R*	Y
Afghanistan	652 225	26 000	23	45.8	29.6	2009	2.0	2009	46.0	4.0	100.0	2008	6.3	2008
Bahrain	760	1 235	100	14.4	2.0	2010	7.4	2010	20.1	2.1	28.5	2010	2.0	2009
Djibouti	23 000	818[a]	84[a]	42.0	15.0	2006	3.0	2006	35.2	4.1	64.7	2009	...	...
Egypt	1 009 500	78 728	43	30.3	6.2	2010	2.4	2010	31.7	3.7	54.8	2010	3.0	2008
Iran, Islamic Republic of	1 648 195	74 733	72	18.3	6.0	2006	1.5	2010	22.5	5.0	37.9	2010	2.0	2006
Iraq	435 052	32 326	66	40.0	4.2	2010	3.4	2010	42.9	2.8	84.2	2009	4.3	2006
Jordan	88 778	6 113	83	30.6[a]	7.0	2010	2.2	2010	37.3	3.2	68.1	2010	3.8	2009
Kuwait	17 818	3 566[a]	100[a]	14.4	1.8	2009	1.5	2009	21.2	1.7	29.7	2009	2.0	2009
Lebanon	10 452	4 189	85[a]	23.0	5.4	2010	1.8	2010	24.6	9.7	52.2	2010	1.9	2009
Libyan Arab Jamahiriya	1 665 000	5 603	86[c]	24.9	4.0	2008	2.8	2008	31.1	5.0	56.5	2007	2.7	2007
Morocco	710 850	31 851	58	18.9	5.7	2010	1.1	2010	27.5	5.8	50.1	2010	2.2	2010
Oman	309 500	3 174[a]	72[a]	29.5	3.0	2009	2.7	2009	34.5	2.3	58.0	2009	3.3	2009
Pakistan	796 096	173 510	37	28.0	7.4	2010	2.1	2010	33.4	4.1	60.0	2010	3.6	2010
Palestine	6 020	4 048	74	31.0	2.7	2010	2.9	2010	41.1	2.9	78.7	2010	4.2	2010
Qatar	11 607	1 714	100	11.4	1.1	2010	5.2	2005	13.7	1.0	17.0	2010	2.3	2008
Saudi Arabia	2 000 000	27 137	85[a]	23.7	3.9	2009	2.2	2009	32.0	2.8	53.3	2009	3.0	2009
Somalia	637 700	8 698	37[a]	44.0	16.0	2009	2.6	2009	44.4	2.6	88.7	2007	6.4	2009
Sudan	2 506 000	41 476	38[b]	43.5	15.9	2008	2.9	2008	42.6	3.4	85.2	2008	5.8	2008
Syrian Arab Republic	185 180	20 619	54	33.3	3.8	2009	2.5	2010	37.2	4.1	70.3	2010	3.5	2009
Tunisia	154 630	10 549	66[a]	17.7	5.7	2009	1.2	2009	24.2	7.0	45.3	2008	2.1	2009
United Arab Emirates	83 600	4 765[b]	81[b]	40.4	1.6	2008	1.6	2008	19.1	0.9	25.0	2008	1.9	2008
Yemen	555 000	22 879	30	39.7	9.0	2006	9.0	2010	45.0	3.5	94.3	2008	...	...

Y Reference year for the data provided
... Not available for 2005–2010 or not reported
[a] 2009
[b] 2008
[c] 2007
[d] 2006
[e] 2005
[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	39	13	2008	65	75	66	34	44	22	2008
Bahrain	...	...	...	...	125	124	126	102	100	104	2006
Djibouti	63[d]	63[d]	48	2007	73	54[d]	50[d]	42	37[d]	26[d]	2010
Egypt	71	78	63	2006	94	95	93	92	93	91	2006
Iran, Islamic Republic of	83	88	78	2009	...	...	...	...	...	...	...
Iraq	65	65	65	2006	104	113	96	49	56	41	2009
Jordan	93	96	89	2010	100	99	101	81	77	84	2009
Kuwait	95	96	94	2008	100	100	100	100	100	100	2008
Lebanon	90	93	...	2007	108	110	105	79	74	84	2007
Libyan Arab Jamahiriya	89	94	83	2006	97	97	97	...	...	...	2008
Morocco	56	69	44	2009	112	116	107	77	89	70	2010
Oman	86	89	79	2008	99	99	99	91	93	89	2009
Pakistan	57	69	45	2009	91	99	83	53	61	44	2009
Palestine	94	97	90	2007	90	88	90	75	70	80	2007
Qatar	93	94	90	2007	108	105	111	93	88	99	2008
Saudi Arabia	88	91	85	2009	99	100	97	97	100	93	2009
Somalia	25	...	...	2006	...	42	23	...	...	...	2009
Sudan	52	58	42	2008	71	77	65	30	31	29	2008
Syrian Arab Republic	86	91	80	2009	96	96	96	67	66	68	2009
Tunisia	78	86	69	2008	98	97	97	75	72	79	2009
United Arab Emirates	92	92	93	2008	86	84	88	63	61	65	2008
Yemen	...	...	...	...	75	85	66	37	47	27	2009

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+)			
						T	M	F	
			Y	(%)	Y	(%)	(%)	(%)	Y
Afghanistan	27	5	2008	38	2008	...	...	...	...
Bahrain	100	100	2010	6	2007	21	34	8	2007
Djibouti	94	67	2007	...	...	25	41	9	2007
Egypt	94	94	2006	9	2008	20	40	0	2009
Iran, Islamic Republic of	98	93	2010	12	2009	12	26[a]	2[a]	2010
Iraq	81	84	2007	25	2008	18	31	4	2007
Jordan	98	60	2010	13	2010	26	47	6	2007
Kuwait	100	100	2009	1	2007	19	35	4	2006
Lebanon	100	100	2007	9	2007	39	46	31	2009
Libyan Arab Jamahiriya	98	99	2006	...	...	24	47	1	2009
Morocco	85	81	2007	9	2009	6	11	1	2007
Oman	96	99	2008	...	...	7[g]	15	1	2008
Pakistan	54	78	2009	6	2009	23	36	9	2007
Palestine	87	98	2007	23	2010	23	42	2	2010
Qatar	100	100	2010	...	...	11	20	2	2006
Saudi Arabia	100	99	2008	5	2009	22	37	6	2008
Somalia	29[d]	30	2008	47	2007	...	...	...	...
Sudan	56	31	2006	16	2008	14	29	4	2010
Syrian Arab Republic	90	99	2009	8	2010	27	44	8	2009
Tunisia	98	84	2009	13	2010	30	53	7	2005
United Arab Emirates	100	100	2008	4	2008	...	...	...	...
Yemen	...	23	2008	16	2008	18	27	10	2006

[g] Aged 18+

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	692	51	11	7.4	21.5	77.7	3.7	2009	3.5	2009
Bahrain	24 409	1 108	761	4.5	68.7	18.1	10.9	2009	10.4	2009
Djibouti	1 214	84	65	7.0	76.9	22.8	13.9	2009	12.2	2009
Egypt	2 257	113	47	5.0	41.7	57.0	5.9	2009	4.0	2009
Iran, Islamic Republic of	4 869	269	105	5.5	39.0	58.9	8.7	2009	...	...
Iraq	2 499	98	71	3.9	72.2	27.8	3.1	2009	6.0	2009
Jordan	3 627	336	217	9.3	64.6	29.5	16.1	2009	7.9	2010
Kuwait	42 805	1 416	1 189	3.3	83.9	14.7	5.6	2009	5.1	2008
Lebanon	8 157	663	326	8.1	49.2	40.5	12.1	2009	2.5	2010
Libyan Arab Jamahiriya	10 722	417	276	3.9	66.1	33.9	5.5	2009	5.7	2009
Morocco	2 830	156	54	5.5	34.4	56.6	7.0	2009	5.0	2006
Oman	16 470	497	391	3.0	78.8	13.5	5.8	2009	4.6	2008
Pakistan	862	23	7	2.6	32.8	56.8	3.6	2009	...	...
Palestine	1 697	248	91	15.6	36.8	36.7	9.5[c]	2008	11.0	2010
Qatar	69 754	1 715	1 361	2.5	79.3	16.2	6.8	2009	5.1	2007
Saudi Arabia	14 550	714	478	4.9	67.0	17.1	8.4	2009	5.6	2008
Somalia	...	...	...	...	...	...	...	...	...	...
Sudan	1 293	95	26	7.3	27.4	69.8	9.8	2009	3.0	2006
Syrian Arab Republic	2 462	88	43	3.6	48.5	52.0	6.4	2009	5.0	2010
Tunisia	3 852	240	130	6.2	54.0	40.0	10.4	2009	6.8	2009
United Arab Emirates	54 138	1 520	1 053	2.8	69.3	20.3	8.9	2009	7.3	2008
Yemen	1 137	64	18	5.6	28.0	71.0	4.3	2009	3.6	2010

Source: *World health statistics 2010* (Geneva, World Health Organization, 2010) and NHA website (www.who.int/nha)

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	2.4	5.0	0.2	0.3[a]	2010	4.3	0.7	2010
Bahrain	21.1	42.0	3.2	6.0	2008	17.7	0.2	2009
Djibouti	2.1	5.1	0.2	2.2	2010	14.2	0.5	2010
Egypt	28.3	34.9	4.8	16.2	2010	17.3	0.6	2010
Iran, Islamic Republic of	3.1	14.8	1.9[b]	2.1[b]	2010	17.4[a]	3.2	2010
Iraq	7.5	14.0	1.7	1.9	2010	13.0	0.7	2010
Jordan	26.5	41.9	9.3	15.0	2010	18.0	2.4	2010
Kuwait	21.0	46.0	4.0	2.0[b]	2009	20.0	0.4	2009
Lebanon	30.7	23.3	14.3	14.6	2010	34.5	2.3[h]	2009
Libyan Arab Jamahiriya	19.0	68.0	6.0	3.6	2009	37.0	2.6	2009
Morocco	6.2	9.7	0.8	2.7	2009	11.3	2.9	2009
Oman	17.5	38.1	2.0	3.4	2009	17.7	0.7	2009
Pakistan	8.0	5.5	1.0	0.9[a]	2010	6.0	8.0	2010
Palestine	19.9	18.7	6.1	10.1	2010	13.0	1.7	2010
Qatar	26.9	50.6	5.0	8.6	2009	12.3	1.4	2009
Saudi Arabia	21.8	43.7	2.9	5.9	2009	22.0	0.8	2009
Somalia	0.3	0.8	...	...	2009	...	...	...
Sudan	3.5	4.5	0.2	0.2	2009	7.2	1.6[b]	2009
Syrian Arab Republic	15.1	19.6	7.8	8.4	2010	15.4	1.0	2010
Tunisia	12.3	32.5	2.4[a]	3.1	2010	20.9	2.0	2010
United Arab Emirates	27.9	6.2	6.1	50.6	2008	19.3	0.5	2008
Yemen	3.0	0.3	1.0	7.1	2010	7.2	2.0	2010

[h] 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	2008	36	24	2008
Bahrain	100	100	na	2010	...	...	100	98	2009
Djibouti	95	100	85	2010	36	2009	79	56	2009
Egypt	100	100	100	2010	58	2008	74	92	2010
Iran, Islamic Republic of	98	100	95	2010	60	2005	98	97	2005
Iraq	88	90	82	2009	33	2006	51	86[i]	2010
Jordan	99	...	...	2010	42	2009	99	99	2007
Kuwait	100	100	na	2009	...	...	100	100	2008
Lebanon	...	...	...	...	59	2009	...	...	...
Libyan Arab Jamahiriya	100	100	100	2007	46	2007	93	100	2008
Morocco	...	...	...	...	...	...	80	74	2010
Oman	98	100	95	2009	24	2008	99	99	2009
Pakistan	97	100	94	2010	38	2010	61[c]	87	2009
Palestine	100	100	100	2010	53	2010	100	100	2010
Qatar	100	100	na	2010	36	2008	100	100	2010
Saudi Arabia	99	100	95	2009	...	...	97	97	2009
Somalia	...	...	...	...	15	2009	26[d]	33	2009
Sudan	71	...	...	2008	8	2008	70	49	2008
Syrian Arab Republic	95	100	90	2010	38	2009	88	96	2009
Tunisia	95	...	...	2006	60	2006	96	95	2006
United Arab Emirates	100	100	100	2008	37	2007	100	100	2008
Yemen	...	...	...	...	28	2006	45	36	2006

[i] Without Kurdistan
na not applicable

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

Country	One year-olds immunized in 2010 with					Pregnant women immunized with two or more doses of tetanus toxoid
	BCG	DPT3	OPV3	Measles vaccine	HBV3	
	(%)	(%)	(%)	(%)	(%)	(%)
Afghanistan	87	87	87	79	87	75
Bahrain	81[j]	100	100	100	100	59
Djibouti	90	88	88	85	88	69
Egypt	98	97	97	96	97	....
Iran, Islamic Republic of	99	99	99	99	99	22
Iraq	86	84	83	89	84	69
Jordan	95	98	98	98	98	85
Kuwait	98	98	98	98	99	...
Lebanon	...	94	94	95	94	...
Libyan Arab Jamahiriya	100[a]	98[a]	98[a]	98[a]	98[a]	...
Morocco	100	100	100	98	98	...
Oman	99	99	99	100	99	70
Pakistan	95	88	88	86	88	74
Palestine	100	100	100	98	100	32
Qatar	99	97	98	99	97	...
Saudi Arabia	98	98	98	98	98	...
Somalia	46	66	36	71	...	25
Sudan[k]	91	95	95	86	95	45
Syrian Arab Republic	100	99	99	99	99	38
Tunisia	98	98	98	97	98	98[a]
United Arab Emirates	98[a]	92[a]	94[a]	92[a]	92[a]	...
Yemen	65	87	88	73	87	17

[j] Given only to non-nationals
[k] North only

Health status indicators

Country	Life expectancy at birth (years)				Newborns with low birth weight		Children underweight		Perinatal mortality rate		Neonatal mortality rate	Infant mortality rate	Under-5 mortality rate	Maternal mortality ratio	
									Per 1000 total births		Per 1000 live births			Per 100 000 live births	
	T	M	F	Y	(%)	Y	(%)	Y	*R*	Y	*R*	*R*	*R*	*R*	Y
Afghanistan	...	...	...	...	...	...	...	...	...	...	60.0	111.0	161.0	...	2006
Bahrain	74.8	73.1	77.3	2009	9.7	2009	...	...	7.3	2009	3.2	7.2	8.6	16.9	2009
Djibouti	53.9	...	...	2005	20.0	2007	28.9	2007	...	...	45.0	67.0	94.0	...	2007
Egypt	73.2	75.5	70.9	2010	6.0	2009	6.0	2008	3.2	2010	6.8	16.5	21.3	54.0[a]	2010
Iran Islamic Republic of	72.1	71.1	73.1	2006	10.0	2005	5.3	2005	30.0	2008	12.5[b]	18.0	20.0	30.0	2009
Iraq	71.0	69.0	73.0	2009	10.2	2010	9.7	2007	16.6	2009	23.0[c]	24.0	28.7	84.0	2007
Jordan	73.0	71.6	74.4	2010	7.1	2010	3.6	2009	15.0	2009	8.0	23.0	28.0	19.1[b]	2009
Kuwait	77.7	77.5	78.6	2009	8.4	2007	...	...	9.8	2009	6.4	10.7	12.6	12.4	2009
Lebanon	81.5	79.6	83.2	2009	...	...	...	...	...	...	10.8[b]	16.1	18.3	23.0[b]	2010
Libyan Arab Jamahiriya	72.3	70.2	74.9	2009	4.0	2008	4.8	2007	...	...	11.0[b]	14.0	20.1	23.0[b]	2009
Morocco	74.8	73.9	75.6	2010	...	...	...	...	...	...	...	30.2	36.3	112.0	2010
Oman	72.7	70.0	75.7	2009	11.5	2010	8.6	2008	14.2	2009	7.6	9.6	12.0	13.4	2009
Pakistan	64.5	63.6	65.4	2010	26.0	2007	37.0	2007	...	...	54.0[c]	65.1	95.2	276.0[c]	2010
Palestine	72.2	70.8	73.6	2010	6.4	2010	3.1	2010	5.5	2010	8.9	14.0	17.0	32.0	2010
Qatar	78.2	78.0	78.7	2010	7.6	2010	...	...	9.5	2010	4.6	6.8	8.5	10.3	2010
Saudi Arabia	73.5	72.5	74.7	2009	7.5	2009	...	...	...	...	10.7[b]	17.3	20.0	14.0[b]	2009
Somalia	50.0	...	...	2010	5.0	2006	36.0	2009	...	...	52.0	109.0	180.0	1 044.0[d]	2009
Sudan	57.1	52.5[c]	55.5[c]	2008	...	...	31.0	2006	...	...	41.0	81.0	112.0	1 107.0	2006
Syrian Arab Republic	73.1	71.6	74.7	2009	9.2	2009	10.3	2009	6.0	2009	12.9	17.9	21.4	58.0	2009
Tunisia	74.5	72.5	76.5	2009	3.8	2006	3.0	2006	24.0	2008	12.2[b]	17.8	22[d]	35.7	2009
United Arab Emirates	77.4	63.5	80.2[c]	2008	8.8	2010	...	...	9.0	2009	4.9	7.6	9.8	1.5	2008
Yemen	...	...	...	...	...	...	...	...	...	...	37.3	68.5	78.2	...	2006

Selected morbidity indicators 2010

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	392 463	14.23	1 991	76.90	25	28 238	90	6 661	636	46	2 369
Bahrain	90[m]	na	0	0.00	0	246	19	1	183[bn]	...	...
Djibouti	3 962	9.20	7	0.84	0	4 191	472	...	14 000	1 008	2 047
Egypt	85[m]	na	14	0.20	0	9 588	12	84	11 000	525	0
Iran Islamic Republic of	3 016[p]	0.58[q]	534	7.14	0	10 802	15	13	92 000	1 800	...
Iraq	7[m]	na	492	15.00	0	10 097	32	46	12	5	2
Jordan	61[m]	na	0	0.00	0	354	6	16	119	83	...
Kuwait	343[m]	na	13	3.60	0	957	35	...	...	131	...
Lebanon	...	na	20	4.90	0	515	12	2	3 600	415	...
Libyan Arab Jamahiriya	...	na	54	9.60	0	...	na	...	...	...	...
Morocco	218[m]	na	589	18.50	0	28 788	90	712	26 000	3 500	...
Oman	1193[p]	na	3	0.90	0	313	11	1	1 100	469	...
Pakistan	4 281 356	23.92	4 321	26.10	144	269 290	155	...	98 000	1 892	164[r]
Palestine	...	na	1	0.50	0	31	1	118	...	11	...
Qatar	445[m]	na	98	59.80	0	580	33	13	<200	70	...
Saudi Arabia	1 941[p]	na	336	13.00	0	4 549	17	8	...	1 524	...
Somalia	24 553[r]	2.69	562	66.60	0	10 469	112	...	34 000	878	3 510
Sudan	2 365 779	54.77	680[k]	19.20	0	27 241[k]	63	2 011[k]	26 000	4 302	...
Syrian Arab Republic	23[m]	na	7	0.30	0	3 827	19	473	...	113	...
Tunisia	71[m]	na	0	0.00	0	2 368	23	215	2 400	412	...
United Arab Emirates	3 264[m]	na	77	16.20	0	132	2	...	...	121	...
Yemen	198 963	10.36	510	21.47	0	9 050	38	356	23 000	531	300
Total cases	7 277 833		10 309		169	423 736		10 730	<332 250	17 836	8 392

[m] Imported cases; rate not calculated
[n] Cumulative since 1996 (nationals only)
[p] Of which locally transmitted cases were 1510 (Islamic Republic of Iran), 24 (Oman) and 29 (Saudi Arabia)
[q] Calculated for local cases only
[r] Confirmed cases only

Annexes


Eastern Mediterranean
report on road
Call for action
دليل موجز لتنفيذ برنامج المدينة الصحية
A Policy Guide
for negotiators
and implementers
in the WHO
Eastern Mediterran
Mohammed K El Said
A practical guide to developing and implementing
school policy on diet
and physical activity
1000 CITIES 1000 LIVES
Injury surveillance:
a tool for decision-making
World Health Organization
EMHJ
Capacity mapping
for health promotio
Annual Injury
Surveillance Report
Je fais mes droits
Je respecte les droits de
L'accès pour tous à la préve
traitement et aux soins du VIH est u
essentiel des droits de l'homme
دليل عمل لإعداد وتنفيذ
سياسة مدرسية حول النظا
والنشاط البدني
مثلما أتمتع بحقوقي،
فأنا أحترم حقوق الآخرين
Regional strategy for health
response to HIV
2011–2015
Stratégie régionale pour u
riposte du secteur
de la santé au VIH 2011–201
e-Publications,
Eastern Mediterranean Region Series
Publications of the Regional Office for the
Eastern Mediterranean: 26 years of health knowledge
منشورات المكتب الإقليمي لمنظمة الصحة العالمية لشرق المتوسط:
26 عاماً في نشر المعارف الصحية
Plan of action
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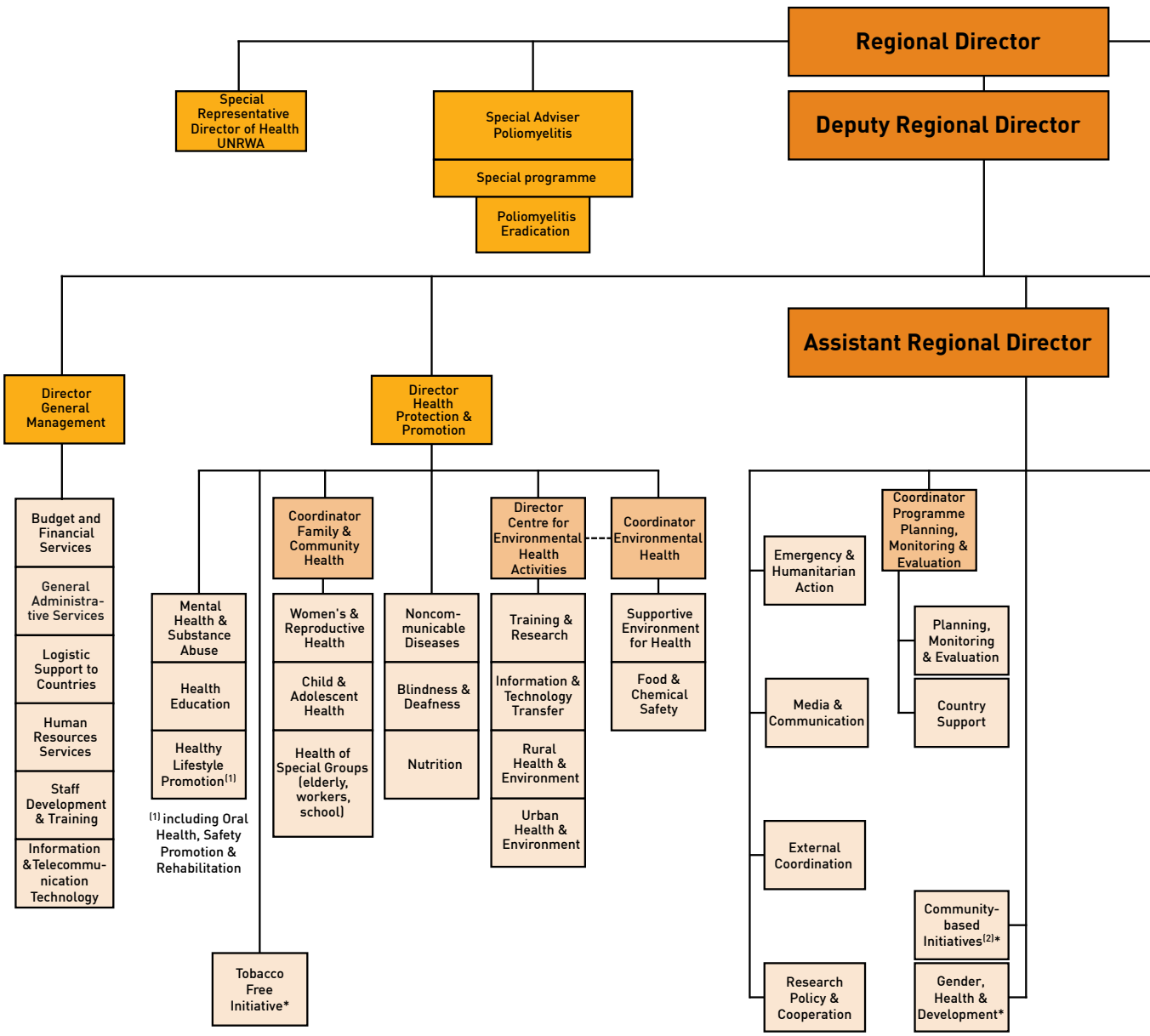
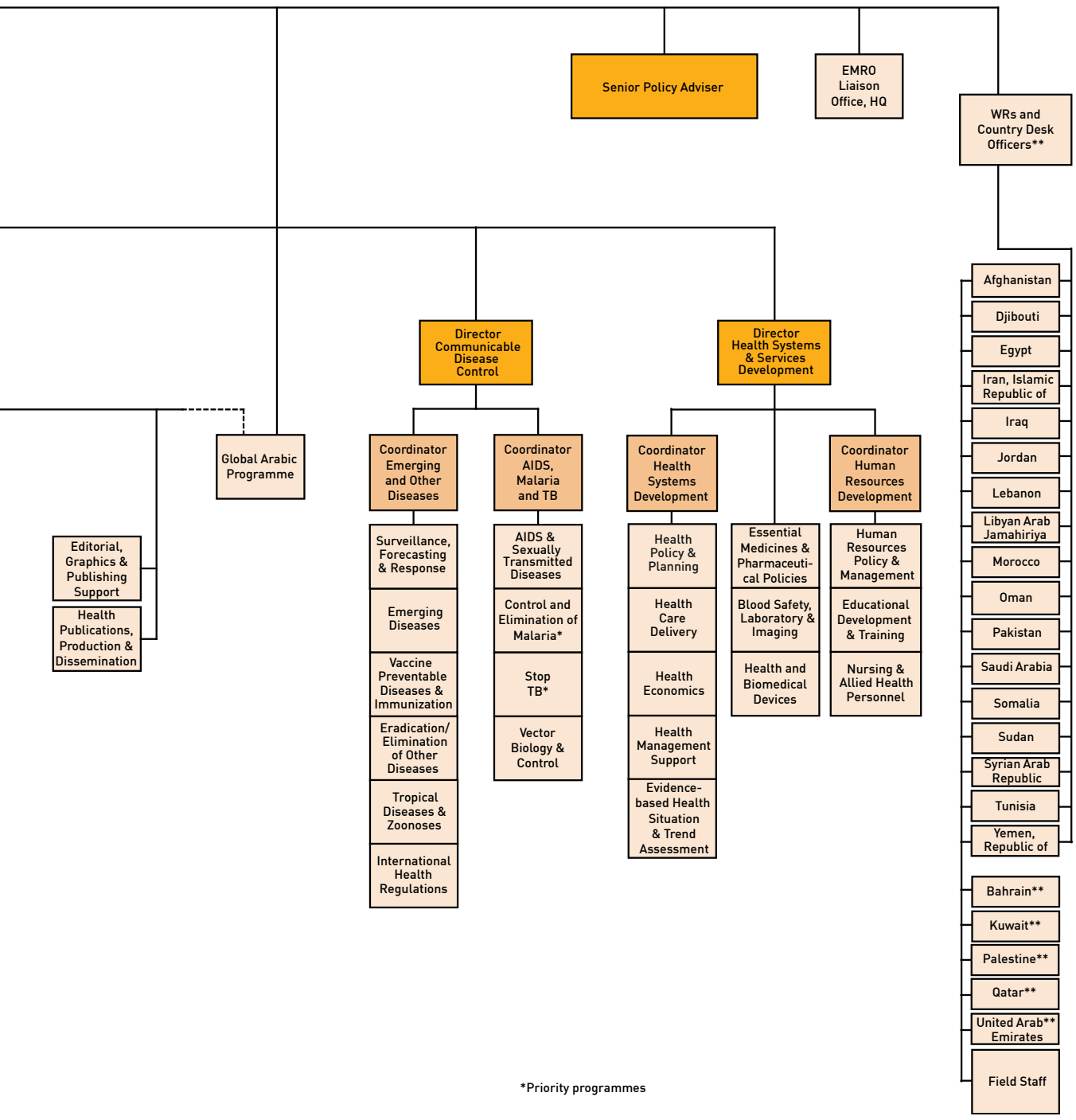
Annex 1. Organizational structure of the WHO Regional Office for the Eastern Mediterranean, July 2011



[2] BDN, Healthy Cities/Villages



*Priority programmes

Annex 2. Professional staff in the Region

a) By number and nationality as at 31 December 2010

Nationality	Regional/Intercountry	Country	Total
Egypt	18	4	22
Pakistan	6	9	15
United States of America	11	3	14
Sudan	4	8	12
United Kingdom	8	1	9
Tunisia	4	4	8
Lebanon	4	2	6
Jordan	3	2	5
Syrian Arab Republic	4	1	5
Canada	3	1	4
Islamic Republic of Iran	4	–	4
Italy	1	3	4
Netherlands	1	3	4
Yemen	2	2	4
Afghanistan	–	3	3
Bangladesh	2	1	3
Germany	2	1	3
France	3	–	3
Morocco	2	1	3
Saudi Arabia	2	1	3
Somalia	3	–	3
Trinidad and Tobago	1	2	3
Bahrain	2	–	2
Djibouti	1	1	2
Ethiopia	–	2	2
Iraq	–	2	2
Uganda	–	2	2
Algeria	–	1	1
Azerbaijan	–	1	1
Belgium	–	1	1
Denmark	1	–	1
Eritrea	–	1	1
Georgia	1	–	1
Japan	–	1	1
Libyan Arab Jamahiriya	–	1	1
New Zealand	1	–	1
Philippines	–	1	1
South Africa	1	–	1
Spain	1	–	1
Sweden	1	–	1

Nationality	Regional/Intercountry	Country	Total
Switzerland	1	–	1
Uzbekistan	–	1	1
Total	97	68	165

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 2010

Country	Global recruitment priority list[1]	Global range[2]	Total in WHO	Of which in EMR
Egypt	C	3–12	28	22
Pakistan	C	5–14	26	15
Sudan	C	1–10	18	12
Tunisia	C	1–8	13	8
Lebanon	C	1–8	13	6
Syrian Arab Republic	C	1–8	5	5
Jordan	C	1–8	13	5
Islamic Republic of Iran	C	4–12	13	4
Yemen	B1	1–8	4	4
Afghanistan	B1	1–8	4	3
Saudi Arabia	A	5–11	4	3
Somalia	B2	1–8	5	3
Morocco	B1	1–10	6	3
Bahrain	B1	1–7	2	2
Djibouti	B1	1–7	3	2
Iraq	B1	2–9	4	2
Libyan Arab Jamahiriya	B1	1–8	1	1
Kuwait	A[1]	1–8	–	–
Oman	A[1]	1–8	–	–
Qatar	A[1]	1–7	–	–
United Arab Emirates	A[1]	2–8	–	–
Total of EMR nationalities			165	100
Total of other nationalities			2237	65
Grand total			2402	165

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 2010

Meeting title, location and date
Intercountry meeting to launch the regional strategy on Diet, Physical Activity and Health (DPAS), Amman, Jordan, 8–11 March 2010
Nineteenth intercountry meeting of national AIDS programme managers, Beirut, Lebanon, 13–15 March 2010
Meeting on dissemination of new WHO guidelines on antiretroviral therapy in adults and adolescents and on use of antiretroviral drugs in pregnant women, Beirut, Lebanon, 16–18 March 2010
Ninth meeting of the Regional Programme Review Group (RPRG) on lymphatic filariasis elimination, Cairo, Egypt, 17–18 March 2010
Regional workshop on monitoring implementation of IHR core capacities in the Eastern Mediterranean Region, Cairo, Egypt, 29 March–1 April 2010
First stakeholders meeting, Cairo, Egypt, 29 March 2010 and second meeting of the disease reference group ZoomIn, Cairo, Egypt, 30–31 March 2010
Consultative meeting on developing the regional noncommunicable disease action plan, Cairo, Egypt, 11–13 April 2010
Intercountry meeting for developing strategic planning in tuberculosis care, Cairo, Egypt, 19–21 April 2010
Intercountry laboratory training workshop on measles and rubella virus detection, sequence and sequence analysis, Tunis, Tunisia, 19–23 April 2010
Thirty–fourth meeting of the Regional Consultative Committee (RCC), Cairo, Egypt, 21–22 April 2010
First regional conference on dental considerations in special needs patients, emerging and re-emerging diseases, Kish Island, Islamic Republic of Iran, 27–29 April 2010
Technical consultation for setting up guidelines for practising clinical dieticians, Sharjah, United Arab Emirates, 24–25 April 2010
Global tobacco surveillance system programme policy workshop, Cairo, Egypt, 27–29 April, 2010
Intercountry meeting on human pandemic influenza: establishment/strengthening and alternative strategies for surveillance and response in the Eastern Mediterranean Region, Cairo, Egypt, 27–29 April 2010
Regional programme policy workshop, Cairo, Egypt, 27–29 April 2010
Intercountry meeting for the chairpersons of the national certification committees for polio eradication, Cairo, Egypt, 3 May 2010
Consultative meeting of countries eligible for support from the GAVI Alliance, Cairo, Egypt, 2–3 May 2010
Intercountry meeting on health education for the Eastern Mediterranean Region, Cairo, Egypt, 3–4 May 2010
Seventh primary health care Gulf conference, Bahrain, 3–5 May 2010
Regional training on Infectious substances shipping, Muscat, Oman, 3–6 May, 2010
Twenty–second meeting of the Regional Commission for Certification of Poliomyelitis Eradication, Cairo, Egypt, 4–6 May 2010
Meeting of the technical advisory group on poliomyelitis eradication in Afghanistan and Pakistan, Islamabad, Pakistan, 11–12 May 2010
Intercountry workshop on malaria surveillance, monitoring and evaluation, Sharm El Sheikh, Egypt, 11–13 May 2010
Fourth WHO meeting on emergency preparedness, response and recovery in the Eastern Mediterranean Region, Cairo, Egypt, 11–13 May 2010
Workshop on management of effective programmes addressing HIV prevention, treatment, care and support for men at increased risk of HIV, Cairo, Egypt, 16–20 May 2010
Eighteenth selection committee meeting of the EMRO/TDR Small Grants Scheme, Cairo, Egypt, 17–20 May 2010
Intercountry workshop on strategic health information system planning for the countries of the Eastern Mediterranean Region, Alexandria, Egypt, 25–28 May 2010
Regional consultation on organization of school health services and emerging challenges, Muscat, Oman, 29–31 May 2010
Workshop on developing joint proposals for the Green Light Committee for countries of the Gulf Cooperation Council, Muscat, Oman, 30 May–2 June 2010
Workshop on fostering change to scale up best policy and programme practices in family planning, Rabat, Morocco, 31 May–3 June 2010

Annex 3. Meetings held in 2010 *(continued)*

Meeting title, location and date
Regional capacity-building workshop on the Framework Convention on Tobacco Control, Amman, Jordan, 7–8 June 2010
Information communication technology global leadership team meeting, Cairo, Egypt, 7–10 June 2010
Eighth meeting of the regional technical advisory group on polio eradication, Cairo, Egypt, 8–9 June 2010
WHO forum on regulatory pathways for the clinical evaluation of rotavirus vaccine and pneumococcal vaccine, Cairo, Egypt, 9 June 2010
Informal WHO consultation on regional vaccine registration, Cairo, Egypt, 10–11 June 2010
Regional workshop on adolescent sexual and reproductive health research: translating research findings, Tunis, Tunisia, 14–17 June 2010
Nongovernmental organizations and cancer: challenges and opportunities, Marrakech, Morocco, 18–19 June 2010
Third meeting of the technical advisory group on health technologies, Cairo, Egypt, 20–22 June, 2010
Situation of and response to HIV in the Region "Towards universal access: achievement and challenges and required action", Dubai, United Arab Emirates, 28–29 June 2010
Health care accreditation council quality health care conference good, better, best: moving toward quality in health care in the Middle East, Amman, Jordan, 28–30 June 2010
Twenty-sixth intercountry meeting of national managers of the Expanded Programme on Immunization and second meeting of chairpersons of national immunization technical advisory groups, Cairo, Egypt, 4–7 July 2010
The Global Fund round 10 peer review workshop, Cairo, Egypt, 5–8 July 2010
Third meeting of the regional scientific and technical advisory committee of the WHO/EMRO/UNEP/GEF-supported project, Damascus, Syrian Arab Republic, 12–13 July 2010
Country coordination and facilitation for human resources for health: institutional capacity building meeting, Cairo, Egypt, 12–15 July 2010
Technical consultation for developing the nutrition surveillance training modules, Cairo, Egypt, 12–15 July 2010
Workshop on cost effectiveness analysis of DDT alternatives, Damascus, Syrian Arab Republic, 14–16 July 2010
Intercountry meeting for finalization of strategic directions and actions for maternal, child and adolescent mental health care, Cairo, Egypt, 26–28 July 2010
Technical consultation on the development of the improvement toolkit for the patient safety friendly hospital initiative, Alexandria, Egypt, 3–4 August 2010
Intercountry meeting on developing a mechanism of action for preventing road traffic injuries, Cairo, Egypt, 14–16 September 2010
Programme managers review meeting on cutaneous leishmaniasis control, Marrakech, Morocco, 18–21 September 2010
Intercountry meeting of national influenza laboratory focal points in the Eastern Mediterranean Region, Muscat, Oman, 19–21 September 2010
Regional workshop on health and human rights, Cairo, Egypt, 21–23 September 2010
Regional consultation on development of a regional strategy on human resources for health 2011–2020, Tunis, Tunisia, 21–24 September 2010
Ninth intercountry meeting of national malaria programme managers, Marrakech, Morocco, 22–24 September 2010
Meeting for the networks on monitoring efficacy of antimalarials (HANMAT and PIAMNET), Marrakech, Morocco, 25–26 September 2010
Intercountry meeting on health and development in slum areas using CBI approach and urban health equity assessment and response tool, Cairo , Egypt, 27–29 September 2010
Regional workshop on the implementation of the Framework Convention on Tobacco Control, Cairo, Egypt, 29–30 September 2010
Fifty-seventh session of the Regional Committee for the Eastern Mediterranean, Cairo, Egypt, 3–5 October 2010
WHO workshop on prequalification of priority essential medicines, Abu Dhabi, United Arab Emirates, 11–13 October 2010
First regional meeting on nutrition, disability and mental health, Amman, Jordan, 12–13 October 2010

Annex 3. Meetings held in 2010 *(continued)*

Meeting title, location and date
Seventeenth meeting of the Regional Working Group on the GAVI Alliance, Cairo, Egypt, 15–16 October 2010
Regional workshop on palliative care services, Cairo, Egypt, 17–20 October 2010
Multicountry workshop on planning and budgeting for scaling-up MDR-TB diagnosis and treatment in high MDR-TB burden countries, Cairo, Egypt, 17–18 October 2010
Regional workshop on field investigation and response to outbreaks from influenza and other epidemic prone respiratory infections, Beirut, Lebanon, 18–22 October 2010
Twenty-fifth session of the Eastern Mediterranean Advisory Committee on Health Research, Cairo, Egypt, 18–19 October 2010
Twenty-third meeting of the Regional Commission for Certification of Poliomyelitis Eradication, Cairo, Egypt, 19–20 October 2010
Regional consultation on the role of nurses and midwives in the prevention and control of infection in the Eastern Mediterranean Region, Damascus, Syrian Arab Republic, 18–21 October 2010
Eighth meeting of the regional technical advisory group on poliomyelitis eradication, Cairo, Egypt, 21–23 October 2010
Fourteenth intercountry meeting of directors of poliovirus laboratories, Damascus, Syrian Arab Republic, 25–27 October 2010
Consultative meeting for strengthening maternal, perinatal and neonatal health surveillance systems in the Eastern Mediterranean Region, Beirut, Lebanon, 28–30 October 2010
First regional training workshop on the new effective vaccine management assessment tool, Cairo, Egypt, 30 October to 4 November 2010
Intercountry workshop on strengthening tuberculosis drug resistance surveillance, Alexandria, Egypt, 1–4 November 2010
Global foodborne infections international training course level 1, Tunis, Tunisia, 1–5 November 2010
WHO workshop on implementation of vaccine lot release and informal consultation for the establishment of regional vaccine lot release network, Amman, Jordan, 2–5 November 2010
Regional workshop on framework for decentralization of health services: experiences from the Eastern Mediterranean Region, Amman, Jordan, 8–11 November 2010
Global forum on urbanization and health, Kobe, Japan, 15–17 November 2010
Second meeting of the WHO nutrition guidance expert advisory group, Amman, Jordan, 15–18 November 2010
Intercountry meeting of oral health focal points in the Eastern Mediterranean Region, Teheran, Islamic Republic of Iran, 22–24 November 2010
Regional meeting for tackling social determinants of health and health inequities through intersectoral action and health in all policies, Cairo, Egypt, 22–24 November 2010
First international conference on health information management, Riyadh, Saudi Arabia, 27–28 November 2010
International conference on health professions education and accreditation, Sana'a, Yemen, 27–29 November 2010
Intercountry meeting on measles control and elimination, Cairo, Egypt, 28 November–1 December 2010
Fourteenth meeting of the national tuberculosis programme managers in the Eastern Mediterranean Region, Cairo, Egypt, 30 November– 2 December 2010
Intercountry meeting on measles control/elimination, Sharm El-Sheikh, Egypt, 28 November–1 December 2010
Meeting on preparation for Vaccination Week in the Eastern Mediterranean 2011, Sharm El-Sheikh, Egypt, 3 December 2010
Fifth regional conference on medical journals in the Eastern Mediterranean, Karachi, Pakistan, 3–5 December 2010
Intercountry workshop on surveillance of vaccine preventable diseases and monitoring and evaluation of national immunization programmes, Sharm El–Sheikh, Egypt, 4–6 December 2010
Meeting on assuring availability and accessibility of opioid medicines in the Eastern Mediterranean Region, Marrakesh, Morocco, 6–8 December 2010
Intercountry training on infection control for tuberculosis, Cairo, Egypt, 12–16 December 2010
Workshop on malaria programme performance review and malaria strategic planning process and tools, Cairo, Egypt, 13–15 December 2010
Good governance of medicines programme training on assessment instruments, Cairo, Egypt, 13–15 December 2010
The first global meeting of the international food safety authorities network (INFOSAN), Abu Dhabi, 14–16 December 2010

Annex 3. Meetings held in 2010 *(continued)*

Meeting title, location and date
Orientation meeting on the national health policies, strategies, and plans global learning programme (GLP–NHPSP), Cairo, Egypt, 14–16 December 2010
Programme managers meeting on leprosy elimination, Beirut, Lebanon, 15–16 December 2010
Working group meeting of regional HIV care and treatment experts, Cairo, Egypt, 15–16 December 2010
Eighth meeting of the Arabization of Health Sciences Network (AHSN–8), Cairo, Egypt, 15–16 December 2010
First regional training workshop on planning for effective communication strategies to improve nutrition programmes, Beirut, Lebanon, 19–23 December 2010
Third capacity building workshop on health system strengthening for GAVI/HSS eligible countries, Sharm El-Sheikh, Egypt, 20–23 December 2010

Annex 4. New publications issued in 2010

Title	Originator
Publications	
A practical guide to developing and implementing school policy on diet and physical activity Languages: Arabic/English/French	Regional Office
A short guide to implementing the healthy city programme Languages: English	Regional Office
Control of communicable diseases manual (19th edition) Language: Arabic	American Public Health Association
Cross-cutting gender issues in health in the Eastern Mediterranean Language: Arabic	Regional Office
Demographic, social and health indicators in the Eastern Mediterranean Region 2010 Language: English	Regional Office
Eastern Mediterranean status report on road safety: call for action Languages: English	Regional Office
Epilepsy in the WHO Eastern Mediterranean Region: bridging the gap Languages: English	Regional Office
Forensic medicine and toxicology for students of medicine and health sciences Language: Arabic	Regional Office
Framework for monitoring and evaluation of reproductive health programmes in the Eastern Mediterranean Region Language: English	Regional Office
Gender and health in the Eastern Mediterranean Region. Conceptual and operational advocacy Language: Arabic	Regional Office
Global Adult Tobacco Survey (GATS): Egypt country report 2009 Language: English	Regional Office
Global Adult Tobacco Survey: Egypt country report 2009. Executive summary Language: English	Regional Office
Global status report on road safety: time for action Language: Arabic	Headquarters
HIV surveillance in the Middle East and North Africa: A handbook for surveillance planners and implementers Language: English	Regional Office
I live my rights. I respect other people's rights. World AIDS Day Language: Arabic/English/French	Regional Office
IMCI pre-service education: teaching sessions Language: English	Regional Office
IMCI pre-service education: orientation and planning workshop. Facilitator guide Language: English	Regional Office
IMCI pre-service education: question bank Language: English	Regional Office
IMCI pre-service education: a guide to evaluation Language: English	Regional Office
Injury surveillance: a tool for decision making. Annual injury surveillance report, Egypt, 2009 Language: English	Regional Office
International Association for the Study of Lung Cancer. Text book of prevention and detection of early lung cancer Language: Arabic	Taylor and Francis
Introduction to HIV/AIDS and sexually transmitted infection surveillance. Module 1. Overview of the HIV/AIDS epidemic with an introduction to public health surveillance Language: English	Regional Office

Annex 4. New publications issued in 2010 *(continued)*

Title	Originator
Publications	
Manual for editors of health science journals Language: Arabic/English	Regional Office
Medicine prices, availability, affordability and price components. Islamic Republic of Iran Language: English	Regional Office
Medicine prices, availability, affordability and price components. Oman Language: English	Regional Office
Medicine prices, availability, affordability and price components. Tunisia Language: English/French	Regional Office
Medicine prices, availability, affordability and price components. United Arab Emirates Language: English	Regional Office
Mental health systems in the Eastern Mediterranean. Report based on the WHO assessment for mental health systems Language: English	Regional Office
Monitoring, supervisory and evaluation tools for community-based initiatives Language: English/Arabic	Regional Office
Operational research in tropical and other communicable diseases. Final report summaries 2007–2008 Language: English	Regional Office
Capacity mapping for health promotion Languages: English	Regional Office
Pathologic basis of disease Language: Arabic	Elsevier Saunders
Poliomyelitis eradication in the Eastern Mediterranean Region: progress report 2009 Languages: Arabic/English	Regional Office
Progress in tobacco control in Egypt and Pakistan: activities implemented by WHO under the Bloomberg Initiative to Reduce Tobacco Use Languages: English	Regional Office
Public health related TRIPS-plus provisions in bilateral trade agreements. A policy guide for negotiators and implementers in the WHO Eastern Mediterranean Region Languages: English	Regional Office
Strategic plan for the prevention and control of multidrug-resistant and extensively drug-resistant tuberculosis in the Eastern Mediterranean Region (2010–2015) Language: English	Regional Office
Strategy for cancer prevention and control in the Eastern Mediterranean Region 2009–2013 Languages: Arabic/English/French	Regional Office
The human face of tuberculosis in Sudan Language: English	Regional Office
The Johns Hopkins atlas of human functional anatomy Language: Arabic	Johns Hopkins University Press
The work of WHO in the Eastern Mediterranean Region. Annual report of the Regional Director 2009 Languages: Arabic/English/French	Regional Office
Tobacco industry activities in Pakistan, 1992–2002 Languages: English	Regional Office
Tuberculosis control in the Eastern Mediterranean Region. Progress report 2009 Language: English	Regional Office
Urbanization and health: health equity in the Eastern Mediterranean Region Language: English	Regional Office
Vaccination week 2010 in the Eastern Mediterranean Region: guide to planning, implementation and evaluation Language: Arabic/English/French	Regional Office

Annex 4. New publications issued in 2010 *(continued)*

Title	Originator
Publications	
Vaccination week 2010 in the Eastern Mediterranean Region: strategic framework Language: Arabic/English	Regional Office
Fact sheets	
Reproductive health profiles 2008 Afghanistan Djibouti Egypt Iraq Islamic Republic of Iran Jordan Lebanon Morocco Oman Pakistan Palestine Saudi Arabia Sudan Syrian Arab Republic Language: English	Regional Office
At a glance Djibouti Egypt Libyan Arab Jamahiriya Morocco Tunisia Somalia Sudan Languages: Arabic/English/French Afghanistan Iraq Jordan Palestine Oman Pakistan Syrian Arab Republic Yemen Languages: Arabic/English	Regional Office
Help Somalia Language: English	Regional Office
Tobacco = Cancer. Why take the risk? Languages: Arabic/English	
Women and tobacco use Languages: Arabic/English	
Urban health matters. World Health Day 2010 Language: Arabic/English	
Periodicals	
CBI Newsletter Vol. 6 Issue 1 CBI Newsletter Vol. 6 Issue 2 Languages: Arabic/English/French	Regional Office
DCD bulletin Vol 2 Issue 1 DCD bulletin Vol 2 Issue 2 DCD bulletin Vol 2 Issue 3 Language: English	Regional Office

Annex 4. New publications issued in 2010 *(concluded)*

Title	Originator
Publications	
Eastern Mediterranean Health Journal, Vol. 16 No. 1 Eastern Mediterranean Health Journal, Vol. 16 No. 2 Eastern Mediterranean Health Journal, Vol. 16 No. 3 Eastern Mediterranean Health Journal, Vol. 16 No. 4 Eastern Mediterranean Health Journal, Vol. 16 No. 5 Eastern Mediterranean Health Journal, Vol. 16 No. 6 Eastern Mediterranean Health Journal, Vol. 16 No. 7 Eastern Mediterranean Health Journal, Vol. 16 No. 8 Eastern Mediterranean Health Journal, Vol. 16 No. 9 Eastern Mediterranean Health Journal, Vol. 16 No. 10 Eastern Mediterranean Health Journal, Vol. 16 No. 11 Eastern Mediterranean Health Journal, Vol. 16 No. 12 Languages: Arabic/English/French	Regional Office
IMEMR current contents Vol. 9 No. 1 Vol. 9 No. 2 Vol. 9 No. 3 Vol. 9 No. 4 Language: English	Regional Office
Publications on CD/DVD	
Building blocks for tobacco control Language: Arabic	Headquarters
Bulletin of the World Health Organization 2009 Language: Arabic	Regional Office
EMHJ cumulative issues, 1995–2009 (e-Publications, Eastern Mediterranean Region Series 1) Language: English/Arabic/French	Regional Office
Chemical safety: a poster pack for children Languages: Arabic/English/French	Regional Office
Health and human rights and strategies for poverty reduction Language: Arabic	Headquarters
Protect yourself from influenza Languages: Arabic/English/French	Regional Office
Protect yourself from influenza (H1N1) (DVD/CD package) Languages: Arabic/English/French	Regional Office
Publications of the Regional Office for the Eastern Mediterranean: 26 years of health knowledge (e-Publications, Eastern Mediterranean Region Series 2) Language: Arabic/English	Regional Office

Annex 5. WHO collaborating centres in the Eastern Mediterranean Region

as at March 2011

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 Collaborationg Centre for Biomedical Equipment Services, Maintenance, Training and Research	Jordan	Ministry of Health
Blindness	WHO Collaborating Centre for Prevention of Blindness	Pakistan	Al-Shifa Trust Eye Hospital
Blindness	WHO Collaborationg 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 Cancers	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 (SCU)

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	Shaheed 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 reemerging 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
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
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
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

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

Field	Title	Country	Institution name
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	Shaheed 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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