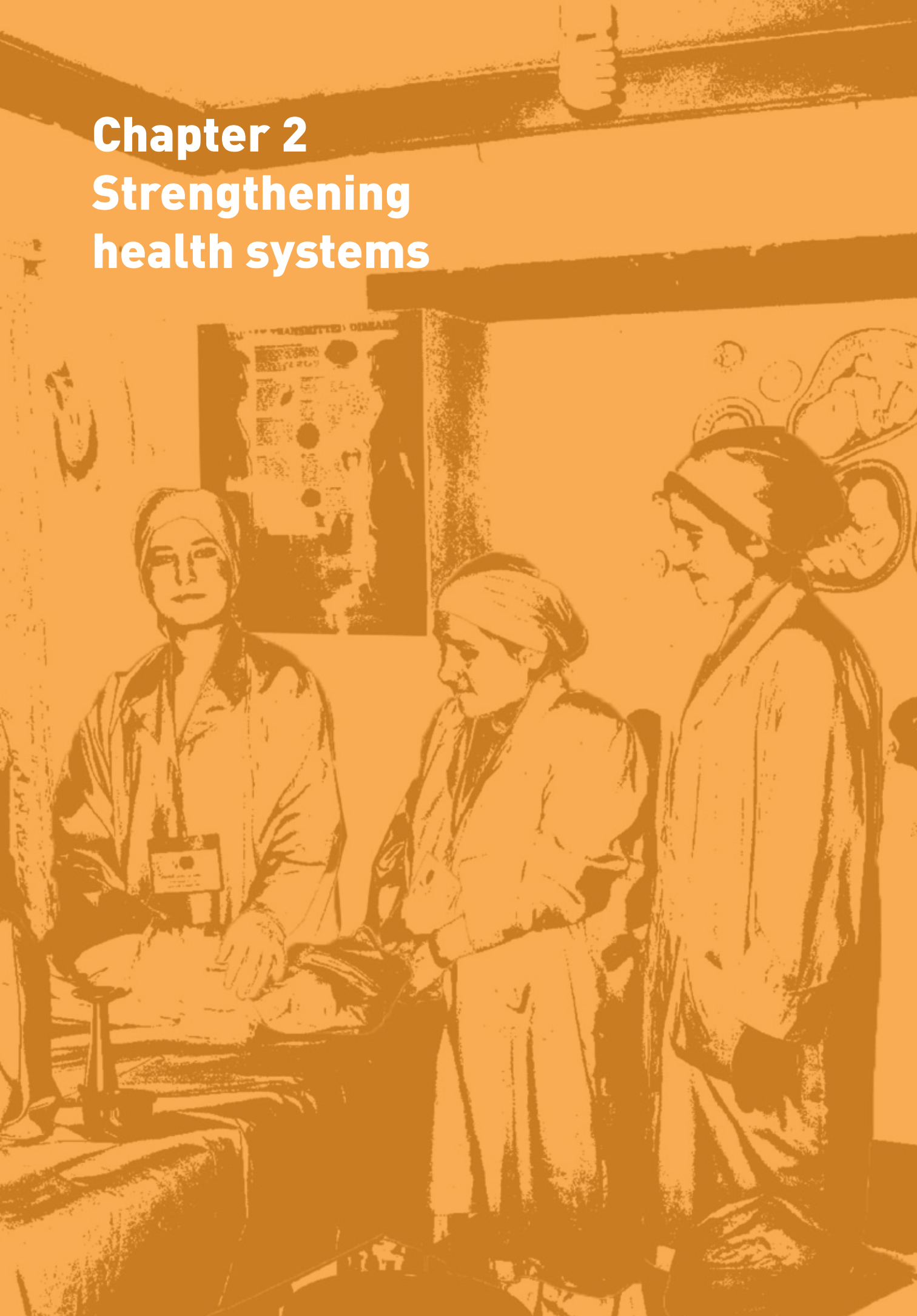
Chapter 2
Strengthening health systems



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

This strategic objective reflects the cross-cutting areas of social determinants of health and health equity; intersectoral action; ethics and human rights-based approaches to health; and gender-responsive policies and programmes, all of which cover the six core functions of WHO. The regional expected results address the uneven distribution of resources and unequal power relations which result in different and inequitable exposure to health risks, and in differential access to, and utilization of health care services for vulnerable populations. Health inequities are disproportionately distributed in displaced populations, the poor, some ethnic groups and between men and women. High level political commitment and intersectoral action is needed to address the underlying causes of ill health. Limited funding and a purely biomedical approach to public health present a challenge in procuring the necessary high level political commitment. Achievement of intersectoral action is hampered by a lack of systematic mechanisms for collaboration among and within sectors. Insufficient involvement of the community in needs assessment and local planning also prevents intersectoral actions. There are capacity gaps in instituting health system management and response that is oriented towards the social determinants of health, as well as a lack of regional capacity to support development in this area in low-income countries. The integration of human rights and gender equality into health systems is not viewed as a priority in ministries of health. Limited funding for all aspects of this strategic objective restricts significant progress and technical support to Member States, especially those with multiple complex emergencies, and more institutional and financial support is needed from WHO and Member States.

Achievements towards performance indicator targets in each expected result

Expansion of the community-based initiatives programme across the Region, capacity-building and advocacy were used to promote health equity and integrate pro-poor, gender-responsive and human rights-based approaches. The community-based initiatives programme continued to be promoted as a sustainable mechanism to promote intersectoral action, including partnerships with civil society. Partnership was increased with the establishment of a community-based initiatives unit in UNWRA headquarters and subsequent addition of two refugee camps, Jerash in Jordan and Suf in Syrian Arab Republic. Health assessments and

interventions were undertaken in Hujana, a disadvantaged district of Cairo, Hajja and Hodaida, governorates of Yemen, as well as the refugee camps in Jerash and Suf.

Advocacy and capacity-building materials on addressing poverty-related health inequities were developed, including a community-based initiatives advocacy brochure. Regular newsletters, a self-monitoring tool for the community-based initiatives programme and community-focused health information training modules for health volunteers and cluster representatives were published. Involvement of the community in malaria control was strengthened in basic development needs sites in Somalia and Yemen, with financial support from Kuwait. In line with the Qatar declaration on primary health care, a regional strategic plan for revitalizing primary health care addressing health equity, quality primary health care services and integration of social determinants of health and community-oriented approaches in health care delivery was developed. Intersectoral action was identified as a major strategic approach for addressing social determinants and health inequities. Stakeholder consultations were held in three countries to prioritize social determinants and inequities and establish an intersectoral framework to address issues relating to social determinants of health.

Despite increasing acceptance of the concept of human rights in health, limited resources and national capacities impeded progress towards adopting human rights-based approaches in national health systems. Positive outcomes include the piloting of a human rights evaluation tool in Egypt, in collaboration with the European Union, as well as provision of technical support to Iraq and Yemen in addressing human rights and gender equality in health strategies, using a WHO/SIDA joint tool. Publication of human rights documents in Arabic also facilitated progress towards achievement of this expected result.

Community-based initiatives programmes support community schooling in rural areas

Support for formulation of gender-responsive policies and programmes was provided through regional capacity-building in gender mainstreaming in health, as well as national capacity-building on gender and health in four countries (Yemen, Pakistan, Oman and Afghanistan). Technical support was also provided to countries on developing gender-responsive proposals to the GFATM in round 9. Towards evidence building, an assessment of gender-related influences on health-seeking behaviour was conducted in Afghanistan. Countries were also supported in resource mobilization for gender and health activities. In addition, an institutional assessment of gender mainstreaming in regional programmes was conducted as a baseline measure against future progress.

Future directions

The Regional Office will continue advocacy among high-level policy-makers to establish sustained mechanisms for intersectoral collaboration, including community involvement to achieve Millennium Development Goals and implement poverty reduction strategies. Promotion of institutionalization of social determinants of health and health equity as part of national and local health and development plans, evidence building and exchange of experience on intersectoral action within and outside the Region will be continued and enhanced. Support will continue for using a human rights-based approach in national health policy and plans. Advocacy for gender-responsive health policies will continue through capacity-building in gender mainstreaming and evidence-building in gender issues in health. Support will also continue for integrating community-based initiatives and gender components into proposals to the GFATM and GAVI Alliance.

Dr Margaret Chan, WHO Director-General, visiting El Sahl village to see how the healthy village programme is implemented in the Syrian Arab Republic

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. Many challenges nevertheless exist to the improved performance of health systems and its various building blocks in many countries. Major challenges include inadequate leadership and capacity in policy analysis and strategic planning within the ministries of health; limited involvement of health authorities at sub-national level in developing the national health plans; inadequate monitoring and evaluation of plans; and the need for greater involvement of stakeholders and better donor coordination and aid effectiveness.

The global financial crisis and subsequent economic recession affected all countries. The impact, however, was not the same in all countries. The public health sector of most countries was, to a large extent, protected. The share of government budget allocated to the Ministry of Health in some countries is critically low (Table 2.1). The share of out-of-pocket expenditure showed no sign of decline and may have actually increased in 2009. Introduction and/or expansion of social health protection schemes have been delayed by the economic situation. The resources available in low-income countries are not sufficient to enable them to provide the basic public health services necessary for their populations. Available resources are allocated inefficiently in many countries of the Region and not necessarily to support primary health care programmes. There is increased awareness of issues related to health care financing but commitment to adequately fund health care delivery systems remains insufficient.

Table 2.1 Percentage of government budget allocated to the Ministry of Health

Country	Year	Ministry of health budget as (%) of government budget
Afghanistan	2007	5.3
Bahrain	2007	7.8
Djibouti	2003	7.2
Egypt	2007	2.3
Iran, Islamic Republic of	2004	4.7
Iraq	2007	4.4
Jordan	2008	7.0
Kuwait	2008	5.1
Lebanon	2008	3.3
Libyan Arab Jamihiriya	2007	7.5
Morocco	2006	5.0
Oman	2007	4.6
Pakistan	–	–
Palestine	2008	11.0
Qatar	2007	5.1
Saudi Arabia	2008	5.6
Somalia	–	–
Sudan	2006	3.0
Syrian Arab Republic	2008	4.1
Tunisia	2006	7.1
United Arab Emirates	2007	7.0
Yemen	2006	4.0

Source: *Demographic, social and health indicators for countries of the Eastern Mediterranean, 2009*. Cairo, WHO Regional Office for the Eastern Mediterranean, 2009.
– Data not available

A 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 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 a shortage of health-promoting hospitals. A key challenge to the inadequate delivery of health care services is the lack of management capacity. There is a need to build capacity of health and hospital managers and develop support systems for effective programme implementation at primary, secondary and tertiary care levels. In addition, external support made available 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 the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) and other members of the family of international classifications, and of information and communication technology in health information systems is limited. In most countries, registration of births and deaths and cause of death is incomplete and coordination between ministries of health and other stakeholders, such as statistical bureaus, ministries of interior and the private sector, is weak. Qualified professionals in health statistics and epidemiology are in short supply in most countries. There has been limited development in relation to burden of disease analysis and the health system performances initiative.

The health workforce is characterized by shortage in the majority of countries, and surplus in others. Such discrepancy is attributed to lack of national strategic planning and evidence-based policy development in most of the countries. Countries in conflict experience an additional burden primarily due to massive migration. Challenges facing ministries of health include insufficient capacity at the national level for policy-making and planning in regard to human resources development and imbalances in skills and distribution of health workforce within the health system.

Moreover, countries still lack coherent coordination for human resources development among partners, effective regulations, availability and reliability of information systems and generation of evidence for informed decision-making and policy formulation. There is increasing demand for reform of existing pre-service nursing, midwifery and allied health education, and for the development of new educational programmes and educational capacity-building in post-conflict countries.

There is a need to generate new knowledge, synthesize available information and strengthen the capacities of researchers to provide evidence to inform policy and management decisions. There are few institutions in the Region with the potential to train researchers in health policy and systems research or to enable policy-makers in the use of research evidence. The importance of high quality health science journals for transfer of knowledge is increasingly recognized. However, greater recognition is needed of the potential role of editors of these journals in creating links between

researchers and policy-makers. There is still a tremendous gap between existing health knowledge worldwide, and the application and delivery of this knowledge to those who need it. Therefore, improving access to and availability of up-to-date and valid health information and knowledge continue to be key challenges. Capacity-building for better utilization of health information resources and development of e-libraries in countries and of the medical libraries network will improve the accessibility and sharing of health information and knowledge.

Achievements towards performance indicator targets in each expected result

In the area of *health policy and planning*, all Member States reiterated their commitment to the Qatar declaration on primary health care. The signed declaration was presented to all ministers of health during the 55th Session of the Regional Committee for the Eastern Mediterranean. The proceedings of the international conference on primary health care, of which the declaration was the outcome, were published and widely disseminated.

The national strategic health plans of 10 countries were reviewed to compare the planning tools countries are using; study the planning cycle and the process, including the stakeholders involved in formulating long-term sector plans; examine the extent to which global initiatives, such as the Millennium Development Goals and others, are objectively incorporated into strategic plans; and analyse the key components of the strategic plan, existing gaps and deficiencies. Seventy per cent (70%) of countries develop a 5-year strategic plan but, in general, the planning process and resources used for the planning vary from one country to another.

An exploratory study to assess aid effectiveness and donor coordination in selected countries was undertaken. This is important since external assistance plays a major role in health in the Region. It represents more than half of the total health expenditure in some countries, especially those in conflict. The study focused on alignment, use of country procurement systems, predictability of external assistance, harmonization, result-orientation and a common approach to monitoring health sector performance. The study also helped map the donors, their mode of engagement with the countries, existing coordination structures and the role of existing high-level joint monitoring boards.

The updating of public health laws and legislation to be consistent with human rights norms, and the promotion of greater efforts to tackle health equity through action on the social determinants of health remained a challenge in all countries. Steps were taken to sensitize governments and stakeholders in Egypt, Jordan, Morocco, Sudan and Yemen in addressing the social determinants of health through intersectoral action for health and through launching the Health in All policies (HiAP) initiative. These strategies will contribute to the overall efforts of pursuing health equity and integrated pro-poor, gender-responsive and human rights-based approaches, which are clearly articulated under strategic objective 7 .

Promotion and development of *health financing* options to achieve universal health coverage have been the cornerstone of technical support to countries in the area of health care financing. Technical support was provided to the member countries of the Gulf Cooperation Council and to Syrian Arab Republic, Sudan and Yemen for development of social health insurance schemes.

Efforts were made to complete household expenditure analysis in all countries of the Region that carried out such surveys in recent years, in order to monitor and measure equity in financing and analyse the impact of out-of-pocket expenditure on households. A course in social health insurance in French was developed and offered to francophone countries with the support of the Ministry of Health of Tunisia and the Maghrebian Network for Health Economics and Health Systems (RESSMA).

Collaboration to promote health financing, achievement of universal coverage, and development of analytical tools with other WHO regions and headquarters was expanded. Three seminar courses on health financing, contracting and provider payment were offered to countries in collaboration with the regional offices for the Western Pacific and South-East Asia. In addition, the second expert consultation meeting was organized in collaboration with the Regional Office for Europe and headquarters to review the proposed revised system of health accounts (SHAII).

The impact of the ongoing financial and economic situation on funding for the health sector was monitored and the results were communicated to the WHO working group on the financial and economic crisis and global health. In order to build health care financing and health economics capacity in the Region, a new health economics network was developed in Pakistan and support for RESSMA continued. Furthermore, efforts are continuing in order to develop formal graduate programmes, as well as training and research programmes in health policy and economics in universities in the Region.

In regard to *health care delivery*, a six year strategic plan (2010–2015) was prepared that outlines the Regional Office's technical support to promotion of primary health care in the Region. It provides a roadmap to assist countries in implementing the commitments made in the Qatar declaration on primary health care. The priorities identified in the plan are aligned with the four reform areas identified in the World Health Report 2008 on primary health care. The plan was developed with the full engagement of all technical programmes and submitted for approval to the regional task force on primary health care. It is intended to be the principal strategy document for mobilizing resources and implementing primary health care in the Region. The expected results of the plan are shown in Box 1.

In addition, and to promote primary health care in the Region, a consultative meeting of representatives of academic institutions, high-level policy-makers, and WHO staff was held to establish a network of academia. The purpose of the network is to enhance the role and contribution of academia in the development of primary health care-based health systems. The terms of reference and roles and responsibilities of the network are currently being developed.

Box 1. Expected results of the strategic plan to promote primary health care in the Region, 2010–2015

1. Member States have mainstreamed the four areas of primary health care reform in developing policies and programmes for strengthening of national health systems.
2. Internal coherence has been institutionalized within the Regional Office and country offices for provision of technical support to revival of primary health care.
3. The Regional Office has a visible leadership role vis-à-vis other development partners for revival of primary health care.

The flagship of the patient safety programme in the Region is the Patient Safety Friendly Hospital Initiative. It has now been implemented in seven countries and is being expanded to others. A patient safety assessment manual was developed and piloted in seven countries to identify the strengths and areas for improvement in patient safety. Based on the assessment, all institutions have developed an action plan and a reassessment is planned in late 2010. In addition, research on patient safety, the clean care is safer care initiative, the safe surgery checklist, and the involvement of civil society in promoting patient rights were further promoted.

Countries showed interest in using accreditation as a tool to promote health care quality and safety. A study to map the current status of health care accreditation in the Region was initiated. This will be used for developing a regional strategy for promoting quality and safety of health care. Member countries of the Gulf Cooperation Council were supported in developing a set of indicators for monitoring quality at the primary health care level.

In *health management*, countries were supported to undertake an in-depth system analysis in order to assess gaps and needs for building their managerial capabilities. In the area of hospital autonomy, technical support was provided to Jordan and Oman. The Regional Office collaborated with the Arab Administrative Development Organization (ARADO) in organizing the 8th International Conference on New Trends in Hospital Administration, the theme of which was mitigating the impact of global economic crisis on health care systems. The Regional Committee endorsed a resolution on improving hospital performance in the Eastern Mediterranean Region (EM/RC56/R6).

In the areas of management and leadership capacity for health service delivery, an assessment was conducted in Sudan jointly with headquarters. Capacity-building was supported in the use of tools and methods for assessment of decentralization in seven countries (Egypt, Islamic Republic of Iran, Jordan, Oman, Morocco, Syrian Arab Republic and Yemen).

In the area of global health initiatives, technical support was provided to Somalia

and southern Sudan for the development of successful proposals to the GAVI Alliance for health system strengthening. Technical support to implementation was continued in order to follow up, monitor and overcome obstacles in four countries: Afghanistan, Pakistan, (northern) Sudan and Yemen. Technical support was also provided for development of the successful application by southern Sudan to the GFATM, for health systems strengthening. Capacity-building in health systems strengthening and national health planning was organized for WHO country office and Ministry of Health staff to support national health plans for renewal of primary health care.

In the area of *health information* and routine health statistics, with the help of the Health Metrics Network, a comprehensive assessment of the health information systems in 10 countries was conducted or is under way to identify the gaps and weakness in the system, and to assist countries to develop strategic plans to strengthen the system. So far, two countries have developed strategic plans. In addition, a regional consultative meeting was organized focusing on ways to improve the civil registration and vital statistics systems.

As a clearing house of health statistical information for the Region, the Regional Office invested in updating and in maintaining its health situation and trends assessment database. In order to harmonize definitions of health, demographic and social indicators, the Regional Office organized a consultative meeting for country focal points to discuss the definitions, data sources and analysis of the core set of indicators and to promote web-based data capturing tools to enhance data quality, transmission, analysis and dissemination.

In the area of non-routine data collection, the Regional Office supported the design and implementation of the Afghanistan mortality survey, supported Lebanon in conduct of a facility-based maternal mortality study, and coordinated the design, implementation and data analysis of the GCC health examination surveys. Comparative analysis of the publicly available survey datasets in the area of effective coverage and mortality is being conducted, in collaboration with the Institute for Health Metrics and Evaluation, and in the area of fertility trends in collaboration with the London School of Hygiene and Tropical Medicine.

Human resources development units are now functioning in the Ministry of Health of eight countries, of which five were reorganized in structure and functions. The database on health professions education institutions was updated and now contains data on more than 579 institutes, exceeding the target of 500. In addition to the regional human resources for health observatory, a national observatory was set up in Yemen, bringing the total to 11 and exceeding the target of 10. Three countries received technical support in establishing a national system for health professions education accreditation, bring the total to 19 countries that have received support in this area. In response to proposals submitted to the Global Health Workforce Alliance, funding was granted to support eight countries with crisis in human resources for health (Afghanistan, Djibouti, Iraq, Morocco, Pakistan, Somalia, Sudan and Yemen).

Efforts continued to focus on investment in the development of nursing and midwifery services as a vital component of the health system and health services development, and on strengthening allied health personnel education. Measures were instituted to improve basic nursing and midwifery education and reorient curricula towards primary health care.

Trained midwives are crucial to reducing infant and maternal mortality in the least developed countries

Technical support continued to be provided to strengthen the capacities of the existing nursing, midwifery and allied health teachers (Somalia and southern Sudan); and to further improve the pre-service nursing, midwifery and allied health education (Djibouti, Iraq, Libyan Arab Jamahiriya, Syrian Arab Republic, Sudan and Yemen). Five countries (Bahrain, Jordan, Saudi Arabia, United Arab Emirates and Yemen) continued to implement the leadership and management training programme developed by the International Council of Nurses.

Technical support was provided to the Syrian Arab Republic, through collaboration with partners, for the recently established post-basic specialty programmes in community and primary health care nursing and paediatric nursing; to Jordan and Oman to develop a national plan for nursing human resources; and to Pakistan for mapping of all the institutes preparing nurses, midwives and lady health visitors. Technical support was also provided to the GCC Technical Nursing Committee and to the GCC Council of Nursing and Nursing Specialization. Technical support was provided to Sudan, Syrian Arab Republic, United Arab Emirates and Yemen in establishing a national nursing and midwifery council to regulate nursing and midwifery practice and education. Technical support was provided to UNRWA for implementation of the nursing and midwifery strategic plan. In order to build the capacity of front-line workers, especially nurses and midwives, capacity-building was supported in infection control of acute respiratory diseases as well as injection safety, in collaboration with WHO headquarters.

Redesignation of the WHO collaborating centre in health professions education in Egypt (Suez Canal University) was completed. The website of the educational development centres in the Region was further developed and the centres were encouraged to update their information in the website. Capacity-building was supported in the Islamic Republic of Iran to facilitate the networking of the centres at national level and to encourage linking to the regional and global networks.

A total of 360 fellowship requests was received from the countries of the Region and processed, out of which 303 fellowships were awarded (Table 2.2). The highest number of awards was for Iraq (83) followed by Sudan (71) and Egypt and Yemen (21). More than two thirds of fellows (210) were placed within the Region. The Regional Office for Europe was the second most frequently chosen host for placement (45 fellows). Figure 2.1 shows the distribution of those whose placement was finalized during 2009. The frequency distribution of areas of study shows that training in communicable diseases was the most frequent area of study, followed by training in public health fields (Figure 2.2), with more than 30 courses utilized. Distance learning was supported for 34 fellows, most of them studying in health professions education, mental health and epidemiology.

A total of eight francophone fellows from the African Region were placed in countries of the Eastern Mediterranean Region, mainly Tunisia and Morocco.

Scaling up of the production of human resources in countries with human resources for health crisis continued through the financial support of the Global Health Workforce Alliance.

In the area of *research policy and cooperation*, the Regional Office continued its support for strengthening of leadership and capacity in health systems research. In particular, capacity was built among science journalists and health information specialists in Pakistan to create demand for user-driven health policy in health systems research. Experts from two countries and staff from the Regional Office participated in the 2009 Global Forum on Research for Health in Havana, Cuba, which emphasized the need to drive health systems research and research on the social determinants of health. Work on the development of a Regional Office strategy to support research for health in the Region was initiated.

Table 2.2 Number of fellowships awarded by country of origin, Eastern Mediterranean Region, 2009

Country	Number	Percentage (%)
Afghanistan	8	2.6
Bahrain	4	1.3
Djibouti	2	0.7
Egypt	21	6.9
Iran, Islamic Republic of	11	3.6
Iraq	83	27.4
Jordan	6	2.0
Kuwait	1	0.3
Lebanon	1	0.3
Libyan Arab Jamihiriya	4	1.3
Morocco	8	2.6
Oman	5	1.7
Pakistan	9	3.0
Palestine	18	5.9
Saudi Arabia	3	1.0
Somalia	12	4.0
Sudan	71	23.4
Syrian Arab Republic	8	2.6
Tunisia	7	2.3
Yemen	21	6.9
Total	303	100.0

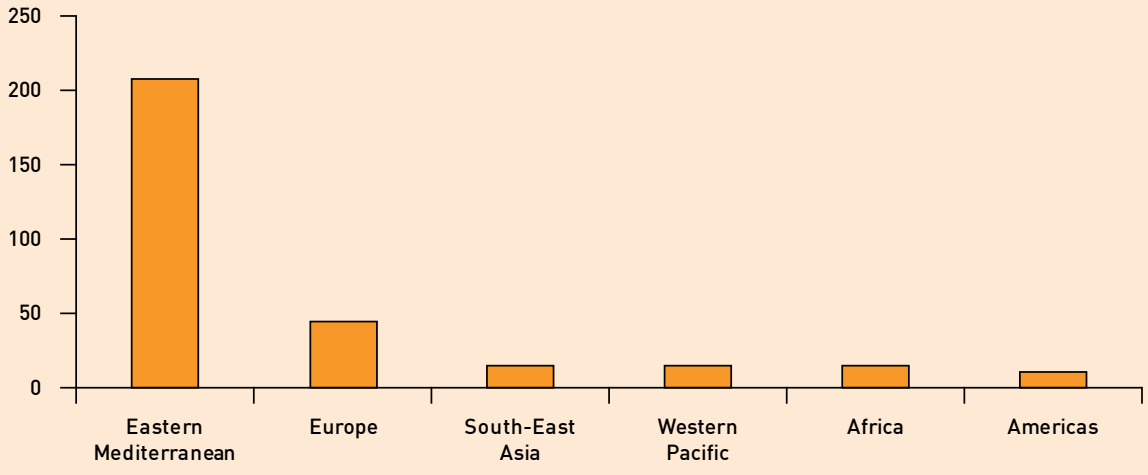


Figure 2.1 Distribution of fellowships by Region of placement, 2009

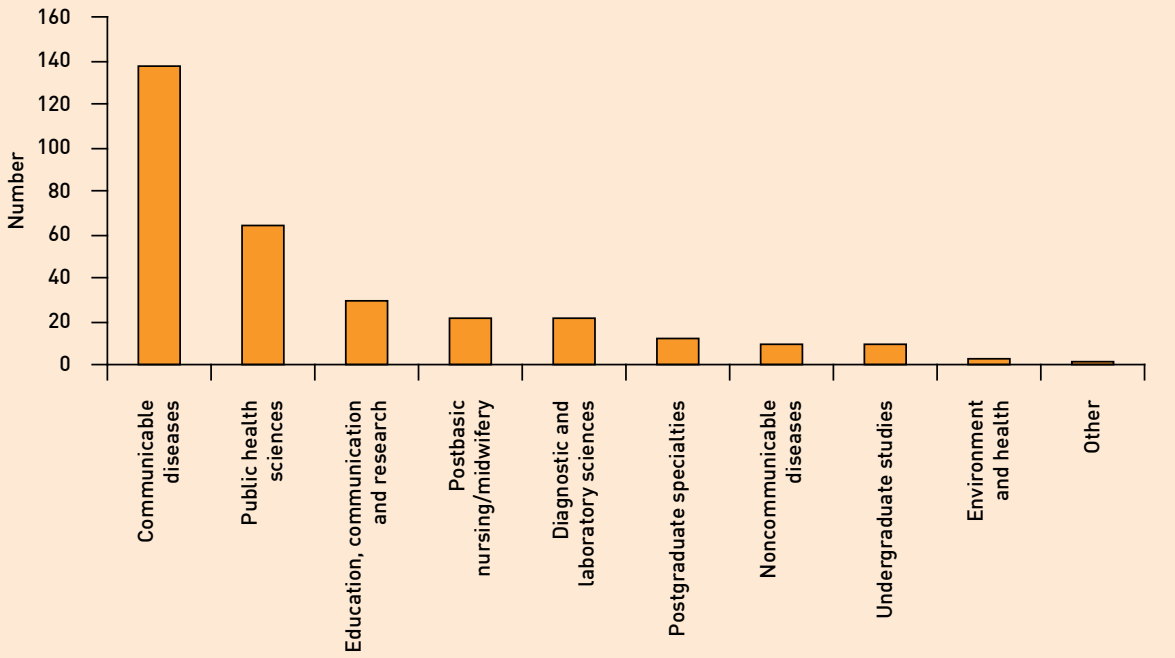


Figure 2.2 Distribution of fellowships by area of study, Eastern Mediterranean Region, 2009

The sixth call for submission of research applications on priority areas of public health 2008–2009 was completed in 2008. Since 2002, 140 research proposals have been funded in 15 countries by this grant (Figure 2.3). The third round of the EMRO-COMSTECH grant for research in applied biotechnology and genomics in health 2008–2009 was completed in 2008. Since 2004, 49 research proposals have been funded in 9 countries by this grant (Figure 2.4).

The Eastern Mediterranean Region Evidence-Informed Policy Network (EM EVIPNet) was launched in Lebanon and capacity-building conducted for policy-makers and researchers from 16 countries. Regional capacity-building on use of knowledge and research evidence for improved health policy was supported for researchers and policy-makers, and national capacity-building in health systems research was supported in Jordan, Pakistan and Sudan. Regional capacity-building was also supported to establish an electronic repository for grey literature in the Region in collaboration with the Saab Medical Library (American University of Beirut), in line with resolution EM/RC55/R.4. A medical librarian and a public health professional from each of six countries were trained in methods of identifying and collecting grey literature and submission to a central system.

Strengthening of national capacity in the ethics review process continued. The second regional meeting of national bioethics committees, organized in collaboration with ISESCO, addressed ways to improve the role and activities of national bioethics committees and shared experiences in managing these committees. National capacity-building was supported in Qatar on the concept of institutional review

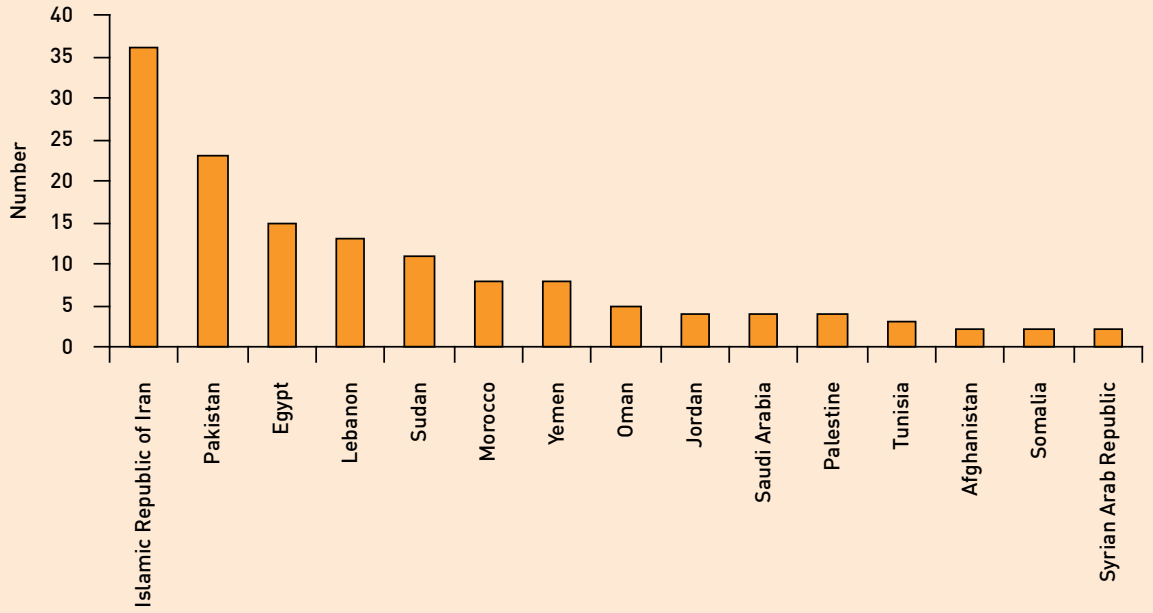


Figure 2.3 Proposals funded by country in rounds 1–6 (2002–2009) of the special grant for research in priority areas of public health

boards and the current situation and future challenges to research ethics.

Regional capacity-building in publishing quality health science journals continued to be promoted, with editors from seven countries as well as from the Eastern Mediterranean Health Journal (EMHJ) trained as trainers in health science journal

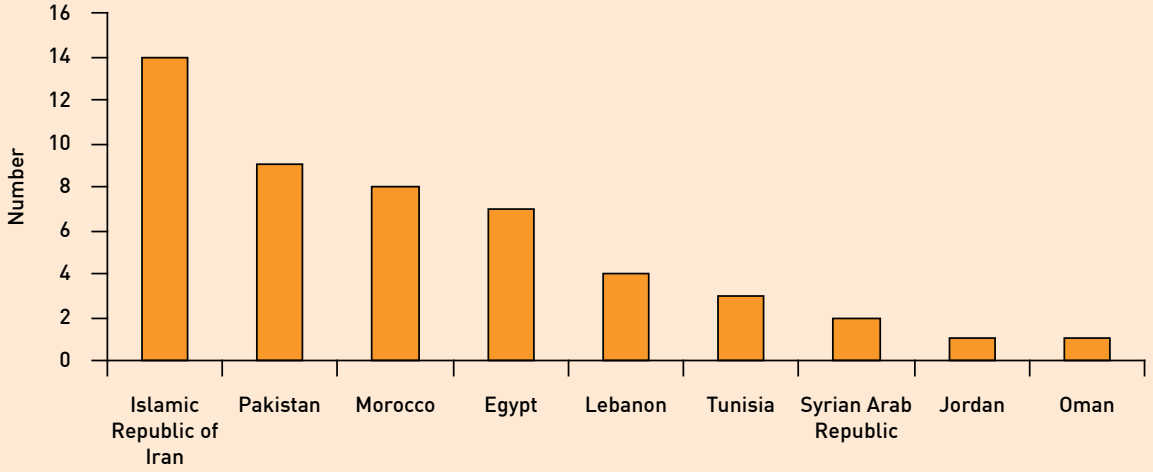


Figure 2.4 Proposals funded by country in rounds 1–3 (2004–2009) of the grant for research in applied biotechnology and genomics in health

publishing. The Regional Office published a *Manual for editors of health science journals* in English, developed in collaboration with the Eastern Mediterranean Association of Medical Editors, and initiated translation into Arabic and French. National capacity-building in writing a research paper and peer review was supported in collaboration with the Egyptian Association of Surgeons, the Libyan Medical Specializations Board, the Oman Medical Speciality Board and the EMHJ.

The Regional Office continued to implement the regional strategy for knowledge management to support public health, to improve access to health information. National capacity-building was supported in use of OARE in Sudan and Yemen, in collaboration with UNEP, and HINARI in Jordan, Morocco, Sudan, Tunisia and Yemen. At regional level, capacity-building in use of the Global Health Library was supported, in collaboration with ISESCO.

Future directions

The primary health care approach will remain central to the development of health systems and provision of health care and efforts will be made to mobilize regional resources to promote it. In the area of health policy and planning, continued efforts will be made to enhance capacities for policy analysis and strategic planning, in particular with regard to public health laws and legislation, aid-effectiveness and donor coordination, and engagement of the private health sector in health system development. Assessment of health care delivery systems, including health care in the private sector, will be promoted. Patient safety and quality of care will remain priorities and the Patient Safety Friendly Hospital Initiative will be expanded to all countries. Promotion and development of equitable, efficient and sustainable health care financing and achievement of universal coverage remain key objectives. A health financing strategy for achievement of universal coverage will be developed. Capacity development in health economics and health care financing will continue. Strengthening of management systems for effective delivery of health services will be encouraged and efforts to support countries to successfully mobilize resources from the global health initiatives and ensure their effective utilization will continue.

Support for assessment of health information systems will emphasize vital registration systems. Efforts will continue to be made to promote the use of essential health indicators and ICD-10, and the use of information technology and the internet will be promoted in data collection, compilation and dissemination and to improve the health situation and trends database. 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 is also a priority.

National capacities for evidence-based decision-making and policy formulation for human resources development will be strengthened. Technical support will focus on countries with pressing needs in the production, distribution, skills mix and retention of human resources for health. The Regional Committee resolution on promoting nursing and midwifery development and its various components will be implemented, including update of the present strategy. Support for establishing and upgrading educational development centres in educational institutions and promotion of innovative approaches in education of health professions will continue. Priority areas in fellowships need to be determined in a more systematic way by the countries. The reports of the fellowships plans and implementation will be shared with the countries.

The Regional Office will finalize its strategy to support research for health in the Region, and establish an advisory group and regional plan in response to the Global Strategy and Plan of Action for Public Health, Innovation and Intellectual Property. EM EVIPNet will continue to support networking, sharing and dissemination of knowledge and evidence for improved policy-making, and capacity-building for health systems research will also continue. Support will continue to be provided for research in priority public health areas, with direct benefit and relevance for improved policy and planning, to promote quality and standards in medical journal publishing and for the medical libraries network. Collaboration with partners will continue in order to improve access to health and biomedical sciences information in the Region, including development and implementation of the Global Health Library.

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

Issues and challenges

Medicines, vaccines, blood and blood products, laboratory technology, and medical devices and equipment (health products) are essential components of health services. They must be of assured quality, safe, effective, available, affordable and wisely used. Many countries have made progress in these areas but many challenges still exist, in terms of both policies and operations. Around 50% of recurrent health budget is spent on essential health technology by ministries of health and yet this is too low in real terms in low-income countries, many of which also suffer from complex emergencies. Sustainable access to essential health products remains a huge challenge. Lack of social protection and high out-of-pocket expenditure on health continue, a large proportion of which is spent on medicines and other health products. Voluntary blood donation is limited and the need for safe blood transfusion is growing. Despite the existence of four vaccine producers in the Region, there are no WHO prequalified vaccines produced in the Region, which is indicative

of the weaknesses in the regulatory systems. There is a lack of coordination between national regulatory authorities and national immunization programmes. Lack of appropriate selection of biomedical technology, and of maintenance budget, are serious issues. National regulatory institutions, with a few notable exceptions, remain fragmented and inadequate and the private sector is ineffectively regulated. Substandard and counterfeit essential health technology has become a problem in a few countries. Post-marketing surveillance is negligible and pharmacovigilance, vaccine quality and safety and radioprotection continue to be major safety issues. Development in transplantation technology is slow. Traditional medicine is generally insufficiently regulated and insufficiently integrated in health systems. Irrational use of health products is high.

Achievements towards performance indicator targets in each expected result

In the area of *essential medicines and pharmaceuticals*, the Regional Office continued to provide technical support for national medicine policies, whether for formulation or review and implementation, or specific aspects of medicine policy. Bahrain finalized its first national medicine policy and Morocco and Pakistan developed and reviewed their policies, respectively. National assessment reports on transparency and vulnerability to corruption in the pharmaceutical sector were published for three countries (Jordan, Lebanon and Syrian Arab Republic). Two countries (Jordan and Lebanon) established national frameworks on good governance for medicines and took regulatory and procedural action to improve transparency. A comprehensive study of the pharmaceutical situation in Jordan was launched making national and household level information available. Also, the Syrian Arab Republic has endorsed a national plan of action to improve transparency of the pharmaceutical system in the country.

The regional target for supporting Member States in development of traditional medicine policies and their mainstreaming could not be achieved because of lack of human resources in the programme although there is growing interest and demand from Member States.

With regard to support for reliable access to and supply of medicines and the various determinants of access, a new medicine prices survey was conducted in Morocco to compare prices with other countries and to provide evidence for review of price determination policies. A policy guide for health-related TRIPs-plus provisions in bilateral free trade agreements in the Region was finalized with focus on access to new patent protected essential medicines. Seven country case studies on assessment of national intellectual property protection regimes and infrastructure with reference to access to medicines are being finalized.

With regard to establishment and strengthening of comprehensive national regulatory authorities, assessment of the medicines regulatory authority was completed in Lebanon. The Syrian Arab Republic is also now embarking upon a project to create a national regulatory authority.

The WHO prequalification programme on priority essential medicines has now been effectively introduced in the countries which have a sizeable pharmaceutical industry (Egypt, Islamic Republic of Iran, Jordan, Pakistan and Syrian Arab Republic). As a result, more than 25 dossiers are being developed in these countries for submission to WHO and four have already been

submitted, from Islamic Republic of Iran and Pakistan. A national programme officer was appointed in Pakistan to provide support to pharmaceutical sector development, and focal points on medicines from five countries participated in a global strategy meeting at WHO headquarters.

In the area of *essential vaccine and biological policies*, several awareness-raising activities were conducted to promote the establishment, strengthening and implementation of vaccine regulation strategies, including capacity-building in the Syrian Arab Republic on the WHO approach to strengthening vaccine regulation. Efforts to establish a regional pooled vaccine procurement programme continued, with the performance of the vaccine procurement system being assessed in Kuwait and Syrian Arab Republic. Technical support was provided to build human resources capacity on clinical evaluation of human papillomavirus (HPV) vaccines, implementation of WHO procedures for registration of WHO prequalified vaccines and vaccine quality.

With regard to the strengthening of vaccine regulation in vaccine-producing countries, the Regional Office continued its support to Egypt, Islamic Republic of Iran and Tunisia and the progress of the regulatory systems was reviewed. Support was also provided to the vaccine producers to improve their production status. In order to address the fact that a vaccine safety system is not effectively implemented in most countries, capacity-building was initiated in the field of adverse events following immunization (AEFI) in Pakistan and Yemen. Technical support to respond to the vaccine safety crisis was provided in Morocco and Pakistan. In the context of the global post-marketing surveillance network of newly WHO prequalified vaccines, a country assessment of the vaccine safety of Islamic Republic of Iran and Tunisia was reviewed and capacity built in reporting of AEFI cases. Although the Islamic Republic of Iran still does not have a WHO prequalified vaccine, it is making a good progress towards achieving such status in future. In relation to pandemic (H1N1) 2009, the Regional Office provided technical support to countries that were interested in producing influenza vaccines. The vaccine production capacity in Morocco, Syrian Arab Republic and Tunisia was assessed.

In the area of *blood safety, laboratory and imaging*, capacity-building in laboratory aspects of influenza strains H5N1 and H1N1 was supported in collaboration with collaborating centres such as NAMRU-3. Plans for higher levels of biosafety and biosecurity in the laboratories are being developed.

Significant attention needs to be paid to the availability, safety, efficacy and quality of blood and blood products. Effective policies, strategies, quality systems and legislative and regulatory frameworks for the collection, testing, processing and supply of blood components are of crucial importance. These safeguards are also crucial in the preparation of plasma for fractionation, as a raw material for the manufacturing of plasma-derived medicinal products, such as blood coagulation factor concentrates and immunoglobulins, which are on the WHO Model List of Essential Medicines. Capacity-building was supported in Good Manufacturing Practice (GMP) for blood and plasma establishments in which national medicines regulatory authorities, directors of blood transfusion services and quality assurance officers participated.

In the area of *health technology and biomedical devices*, a new technical programme dealing with health technology assessment and management, in particular medical devices, was established. The programme aims at supporting countries in all phases of the health technology life cycle, including assessment and prioritization of needs, management of procurement and donation, installation and training, maintenance and disposal. The programme is leading the WHO initiative to develop a manual on equipment maintenance which is expected to be published in 2010. In collaboration with all stakeholders, steps necessary for establishing health technology programmes within existing national systems were developed. The steps are currently being applied in Sudan.

Future directions

Improved access, quality and use of medical products and technologies is an important component of health system strengthening. Support to countries will continue in the development, review and implementation of national medicine policies; national strategy development for vaccine quality and regulation; rational selection and maintenance of health technology; and improved access to safe blood and blood products and better blood transfusion services. Low-income countries and countries in situations of complex emergency will continue to be a priority. In order to achieve regional vaccine self-sufficiency, support will continue for strengthening of national regulatory systems in the vaccine-producing countries and procuring countries, and a regional vaccine registration committee will be established. Capacity-building on AEFI surveillance will continue in order to improve vaccine safety systems. Development of legislation related to ethical, safe and suitable access to transplantations will be promoted. Promotion of good governance in pharmaceutical policies and practices, affordable prices of essential medicines and efficient and reliable supply systems for health products will remain important areas of work. Operational research and assessment at policy level as well as the various levels in the supply chain will continue in order to determine the gaps and organize appropriate technical support and capacity-building. Development of a national comprehensive approach for rational use of essential health technology will be supported.