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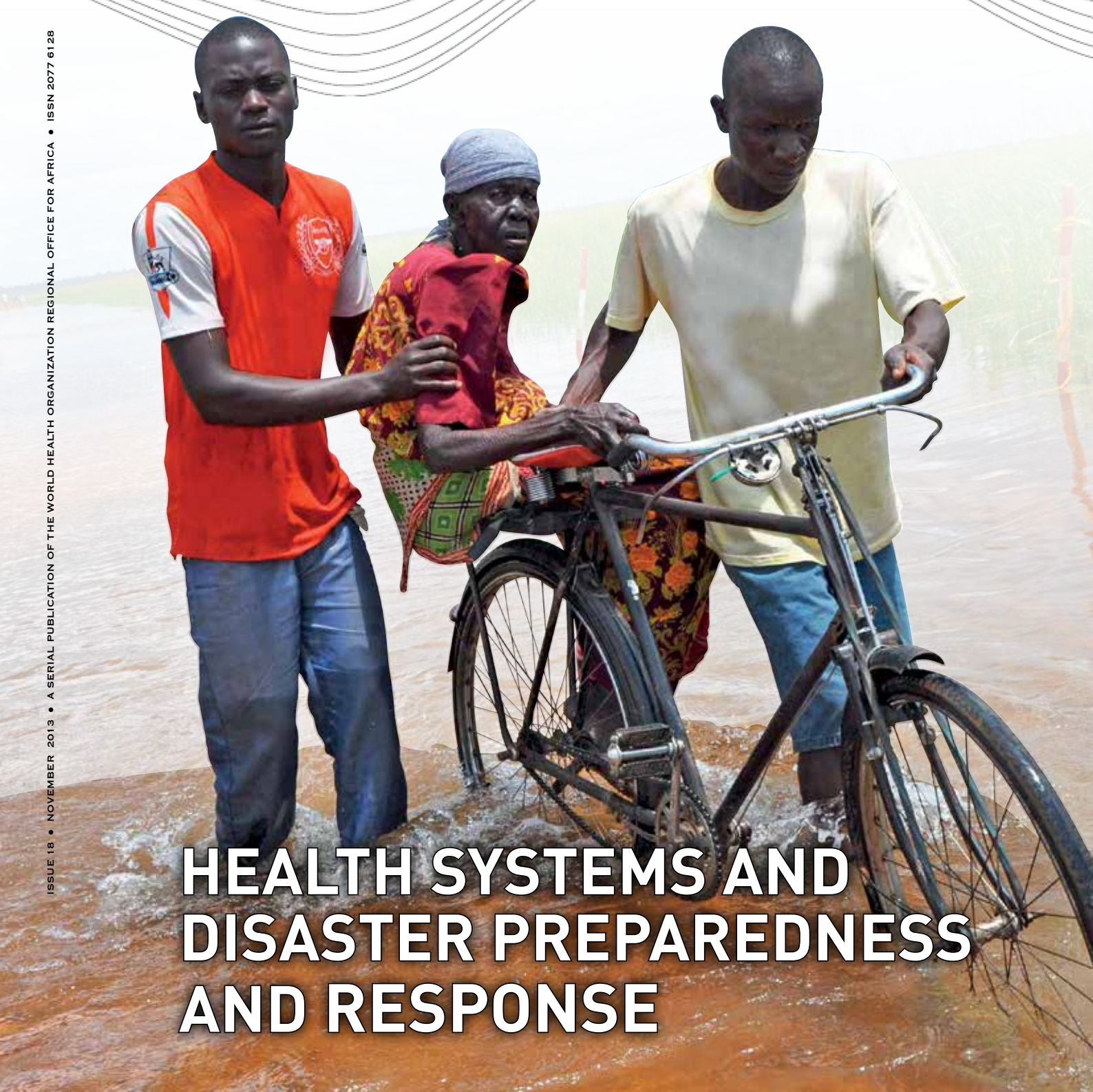

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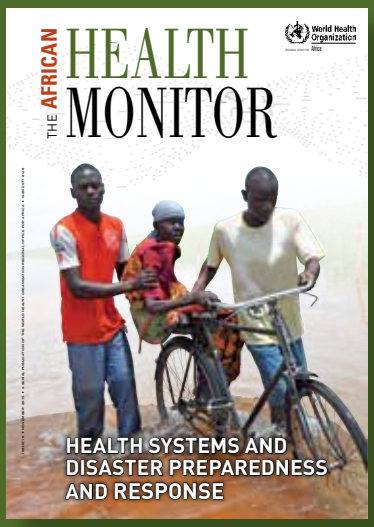
HEALTH SYSTEMS AND DISASTER PREPAREDNESS AND RESPONSE

World Health Organization
REGIONAL OFFICE FOR Africa

The African Health Monitor
Issue 18 • November 2013



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The *African Health Monitor* is a quarterly magazine of the World Health Organization Regional Office for Africa (WHOAFRO). It is a multilingual publication with peer reviewed articles in English, French and Portuguese.

The aim of the *African Health Monitor* is to promote and facilitate evidence-based policy and decisions to strengthen programmes for health promotion, protection and restoration in the African Region. In order to achieve its aim, the *Monitor* publishes articles that monitor health situations across the region, discuss trends and track progress toward the health-related Millennium Development Goals and other internationally agreed-upon goals. It disseminates relevant and scientifically rigorous public health information and interventions carried out in the Member States with the cooperation of AFRO technical programmes.

Comments on published articles and suggestions for new papers are welcome. Prospective authors should follow the *Monitor* style guidelines, which can be obtained by contacting the Editorial Office at AHM@afro.who.int or by using this intranet link http://intranet.afro.who.int/ guidelines/ahm.pdf

Editorial

Health systems and disaster preparedness and response

From the public health point of view, the objective of disaster preparedness and response, the major theme of this issue of the *Monitor*, is to reduce the health consequences of public health emergencies, natural disasters and conflict and minimize their social and economic impact. WHO's core commitments in emergency response are those actions which it will always deliver and be accountable for during emergencies with public health consequences. This will ensure a more effective and predictable response to and recovery from natural disasters, conflict, food insecurity, epidemics, environmental, chemical, and food incidents, political or economic crises and all other types of emergencies with public health consequences. In all countries experiencing emergencies WHO supports Member States and local health authorities to lead a coordinated and effective health sector response together with the national and international community, in order to save lives, minimize adverse health effects and preserve dignity, with specific attention to vulnerable and marginalized populations. More specifically, WHO supports countries to: develop an evidence-based health sector response strategy, plan and appeal; ensure that adapted disease surveillance, early warning and response systems are in place; provide up-to-date information on the health situation and health sector performance; promote and monitor the application of standards and best practices; and, provide relevant technical expertise to affected Member States and all relevant stakeholders.

Availability of qualified health workers in the right place is essential for delivering quality health services in normal times, as well as during emergencies.

In this respect, the Fifty-ninth session of the WHO Regional Committee for Africa adopted resolution AFR/RC59/R5 entitled *Strengthening outbreak preparedness and response in the African Region in the context of the current influenza pandemic*. The resolution requests the Regional Director "to facilitate the creation of an African Public Health Emergency Fund" (APHEF) that will support the investigation of, and response to, epidemics and other public health emergencies. The setting up of the Fund was approved at the Sixtieth session of the WHO Regional Committee for Africa through resolution AFR/RC60/R5 in line with the principles set out in the framework document that was presented to the meeting. The APHEF is currently in formation, with a number of countries contributing to the Fund.

The International Health Regulations (2005) are a legally binding international instrument for preventing and controlling international spread of disease while avoiding unnecessary interference with international travel and trade. Since the coming into effect of IHR in June 2007, Member States have been supported to assess the IHR minimum capacities as set forth in Annex 1 of the Regulations and to develop plans of action to meet the Regulations' implementation deadline of 15 June 2012. Issues and challenges and proposed actions that should be taken take to acquire the required IHR core capacities in the Region are discussed.

More than 30 years into the pandemic, HIV/AIDS remains a long-term challenge. A Global Health Sector Strategy (GHSS) on HIV/AIDS was adopted by the World Health Assembly in May 2011 and the regional HIV/AIDS strategy provides directions for implementing the GHSS in the WHO African Region, taking into account the key regional specificities.

Availability of qualified health workers in the right place is essential for delivering quality health services in normal times, as well as during emergencies. A shortage of skilled human resources is a major impediment in most African countries and, while uneven, poses a strategic threat to national and regional health systems development. The road map for scaling up the health workforce for improved health service delivery in the Region 2012–2025 builds upon a number of national, subregional, regional and global efforts to identify interventions in six strategic areas to achieve its objectives.

This issue of the *Monitor* also looks at tuberculosis – still a major public health problem in the African Region – with more than 26% of registered cases globally in 2011 which resulted in more than half a million deaths. The situation is made worse by the co-infection HIV/tuberculosis, which affects 46% of those infected by TB, and the spread of drug resistance. The review of TB medical training offered in French-speaking countries in the Region leads to a number of recommendations to improve the quality of TB training, including the introduction of ICT, innovation in teaching methods and a strengthening of the partnership between WHO, medical schools and national TB programmes.

Other articles discuss or review progress on a number of Regional issues, such as accelerated malaria control, attainment of the Millennium Development Goals related to maternal and newborn health in Africa, the role of traditional medicine in health systems as well as a new approach for capacity building in malaria vector control. This issue of the *Monitor* concludes with an assessment of laboratory capacity for diagnosis of Integrated Disease Surveillance and Response epidemic prone diseases in the countries of the African Region.

The articles in this issue of the *African Health Monitor* deal with issues that are of vital importance to the Region. I hope that health workers, policy-makers and readers involved in disaster preparedness and response will find its contents useful.

Luis Gomes Sambo, Regional Director

Disaster risk management: A strategy for the health sector in the African Region

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SUMMARY—The WHO African Region continues to be challenged by frequent natural and man-made emergencies causing injury, death, population displacement, destruction of health facilities and disruption of services, often leading to disasters.

The frequency and magnitude of emergencies and disasters have increased since the adoption, in 1997, of the Regional Strategy on Emergency Preparedness and Response. In addition several global initiatives developed since 2005, including the World Health Assembly resolution WHA64.10 (Strengthening national health emergency and disaster management capacities and resilience of health systems) adopted in 2011, have focused on disaster risk management (DRM) as the approach to containing and minimizing the impact of emergencies.

WHO has recognized the need for Member States to formulate policies and legislation, and develop capacities in order to institutionalize DRM in the health sector. An assessment conducted in 2011 revealed that most countries in the Region lack these policies, capacities and legislation.

This regional strategy proposes that Member States strengthen DRM by developing appropriate laws and policies; building adequate capacities in ministries of health; assessing and mapping the risks from a health sector perspective; assessing the level of safety of, and applying standards to, hospitals and other health facilities; building community resilience; strengthening preparedness; developing national standards for response; and strengthening evidence and knowledge management. This will ensure that the health system has been prepared and will be able to provide adequate health sector response to emergencies and reduce their likelihood of becoming disasters.

Voir page 57 pour le résumé en version française.
Ver a página 57 para o sumário em versão portuguese.

In 2011 35 countries[1] in the African Region reported emergencies, defined as "threatening conditions that require urgent action".[2] An emergency often escalates into a disaster, which is "serious disruption of the functioning of a community or a society, causing widespread human, material, economic or environmental losses exceeding the ability of the affected community or society to cope using its own resources".[3] Recent disasters in the Region include the 2007/2008 post-election violence in Kenya which displaced over 300 000 people; the large cholera outbreak in Zimbabwe in 2008 with more than 11 000 cases and high mortality; the 2009 Horn of Africa drought that affected about 13 million people; the November 2010 post-election violence in Côte d'Ivoire that displaced over 900 000 persons; the 2010/2011 floods in nine countries of southern Africa that affected around 150 000 people and destroyed farmlands, housing and social infrastructure including health facilities; the recent crisis in the Sahel subregion affecting over 15 million persons in nine countries; and recently in 2012 and early 2013 a total of 17 significant events were reported from 33 countries including drought, floods, disease outbreaks, armed conflicts and an armoury blast that affected over 60 million people. Some of the most significant events included the Sahel food crisis (involving nine countries in West Africa), floods in Nigeria, Cameroon, Comoros, Mozambique and Congo, cholera outbreaks in Uganda, Congo, Sierra Leone and the Democratic Republic of Congo (totalling 95 000 cases), Ebola haemorrhagic fever in the Democratic Republic of Congo and Uganda, the Marburg haemorrhagic fever in Uganda and dengue fever (Seychelles). Armed conflicts affected Mali and the Central African Republic and have remained protracted in the Democratic Republic of Congo. These events can be classified as mainly related to climate change (60%), disease outbreaks (30%), armed conflicts (9%) and accidents (1%) and have a huge potential in disrupting the socioeconomic development in the region beside the losses in human lives.

Recognizing the importance of emergencies, the Forty-seventh session of the WHO Regional Committee for Africa, in 1997, adopted resolution AFR/RC47/R1, on the Regional Strategy for Emergency and Humanitarian Action. The five-year strategy focused mainly on emergency preparedness and response. However, recent major disasters, including the tsunami in the Indian Ocean in 2004 and the Pakistan and Haiti earthquakes have increasingly emphasized the importance of addressing disaster risk, as defined in the Hyogo Framework for Action 2005–2015.[4] Lessons learnt from the 2011 Horn of Africa crisis show that the scale of deaths and suffering, and the financial costs, could have been reduced had a risk management approach been applied. It was recommended, therefore, that all actors "manage the risks, not the crises".[5] This approach was reinforced in 2011 by the Sixty-fourth World Health Assembly in its resolution WHA64.10 urging Member States to strengthen health emergency and disaster risk management programmes.

Disaster risk management encompasses prevention, "the outright avoidance of

i WHO Regional Office for Africa, Brazzaville, Congo
ii WHO Regional Office for Africa, Intercountry Support Team for Eastern and Southern Africa
iii WHO Regional Office for Africa, Intercountry Support Team for West Africa

adverse impacts of hazards and related disasters"; mitigation, "the lessening or limitation of the adverse impacts of hazards and related disasters"; preparedness, "the knowledge and capacities developed by health system and communities to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard event or conditions"; and response, "the provision of emergency services and public health assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected". Preparedness and response are covered by the 1997 strategy. In addition to these however, DRM encompasses an element of prevention by enhancing the ability of the health system, community or society exposed to hazard to resist or absorb the effects of a hazard through interventions based on risk analysis.

Disaster risk management is defined as the systematic process of using administrative and organizational directives, operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impact of hazards (phenomena or substances that have the potential to cause disruption or damage to humans and their environment) and the possibility of disaster.[6] In order to implement DRM, countries will require an enabling environment (policy and legislation; information and communication; training; research and funding). Certain capacities also need to be built, namely capacities for: coordination in the health and other sectors; risk assessment; making health facilities safer; minimizing the event impact (preparedness and response); post-disaster rebuilding of the health system (recovery); and strengthening local resilience (community support). This underscores the need to develop a regional strategy that comprehensively addresses DRM.

Situation analysis and justification

The African Region is struck, year after year, by natural and man-made disasters, with direct and indirect impact on mortality, the disease burden and health care delivery, needless to mention the adverse implications for economic growth and attainment of most national development goals. In 2010 the African continent experienced 69 disasters affecting 9.9 million people.[7] In 2011, the Horn of Africa experienced a disaster that affected more than 13 million people and claimed an estimated 50 000–100 000 lives.[8] In 2012 and early 2013 a total of 17 significant events were reported including drought, floods, disease outbreaks, armed conflicts in 33 countries in Africa that affected over 60 million people.

Between 2007 and 2011, the African Region required an average of over US$ 3.2 billion annually to respond to disasters and, of that amount, an average of US$ 288 million was for health sector response.[9]

Emergencies and disasters exert negative economic impact on countries. According to the World Bank, natural disasters resulted in damages constituting between 2–15% of an exposed country's annual GDP; and that the cost of natural disasters could have been reduced by US$ 280 billion if US$ 40 billion had been invested in preventive measures.[10] The discounted total economic loss resulting from disaster-related deaths in the region in 2007 was US$ 117.2 million.[11]

Despite the prevalence of emergencies and disasters, and their negative health and economic impact, baseline assessment of an enabling environment and the capacity for DRM, conducted in 32 countries in the Region in 2011 showed that the health sector in the assessed countries lacks relevant policies and capacities for DRM. The health sector roles outlined in multisectoral national disaster acts and policies have not been adequately translated into health-specific policies and practice. National health acts and policies cover DRM issues in only seven[12] and ten[13] of the assessed countries respectively. Clear gaps in the health sector's capacity to perform intrasectoral and intersectoral coordination have also been identified. Only 14 of the 32 surveyed countries have a unit in the ministry of health (MoH) with responsibilities for DRM. There is a national multisectoral disaster management committee in 25 countries, but the health sector subcommittee exists in only 13 of them.[14]

All countries have yet to establish health facility resilience building programmes based on assessment results, using the hospital safety index.[15] Community-based activities related to DRM, often implemented through NGOs, are not coordinated and structured according to community-specific risk assessment.

Health sector disaster response plans do not consider all potential hazards in the countries, and are based on risk assessments in only four countries.[16] In only six countries do these response plans undergo the recommended processes of table-top exercises, simulations and periodic review based on lessons learnt.[17] None of the surveyed countries has established all the four key elements of optimal emergency and disaster response and operations readiness (business continuity plan, standard operating procedures, triage system and evacuation procedures).[18]

The capacity to enforce national standards during response to an emergency or disaster remains inadequate. There are several humanitarian actors operating in the field, each employing different strategies and technical guidelines that, in many cases, are not in line with national standards.[19] Member States' allocation of resources for emergencies remains inadequate, and most countries rely mainly on donor funding which is largely focused on acute response. Disaster prevention and preparedness, and post-disaster health system recovery remain under funded.

The previous regional strategy, adopted in 1997, focused mainly on emergency preparedness and response. However, recent developments within and outside WHO at the global level following recurrent major disasters have created a paradigm shift towards disaster risk management. This is articulated in World Health Assembly resolution WHA64.10 urging Member States to strengthen health emergency and disaster risk management programmes. In recognition of this commitment and in line with the Hyogo Framework of Action (HFA) and the Africa Union's Regional Strategy for Disaster Risk Reduction (DRR) 2005–2015, the Sixty-second session of the WHO Regional Committee for Africa adopted, through resolution AFR/RC62/R1, a ten-year regional strategy on DRM for the health sector (currently being implemented). This new regional strategy therefore has to focus not only on response to emergencies and disasters, and mitigation of their consequences, but also on preventing them through strengthening risk management in accordance with the above resolution.

The interventions of DRM for the health sector are targeted at the components of the health system including leadership and governance, building resilience of health facilities as well as preparedness in line with the six components. A strengthened health system will not only be able to provide an adequate health sector response during emergencies, but will also have beneficial effects outside emergency periods.

The regional strategy

Aim, objectives and targets

The aim of the current ten-year DRM strategy is to contribute to human security and development through improving the health sector's management of disaster risks, including providing a comprehensive health response to emergencies and disasters.

The specific objectives are to:

- Ensure the availability of relevant policies, strategies and capacities to guide health sector interventions in DRM;
- Reduce the number of emergencies turning into disasters by managing risks and improving preparedness and response; and
- Strengthen the use of evidence for emergency and disaster early warning, preparedness and response.

Targets

By the end of 2014 all Member States in the African Region would have:

a) Identified, assigned responsibility to and equipped a unit in the MoH to coordinate the implementation of DRM interventions for the health sector;
b) Established functional health sector subcommittees in national multisectoral coordination committees on DRM; and
c) Incorporated DRM into their national health legislation, national health policies and health sector strategic plans.

By the end of 2017, at least 90% of Member States in the African Region would have:

a) Conducted health disaster risk analysis and mapping in a multisectoral approach;
b) Instituted a preparedness planning and management process that includes plan development, pre-positioning of essential supplies, resource allocation, simulations, evaluations and annual updating based on all risks prevalent in the country;
c) Incorporated emergency and disaster early warning, preparedness, response and recovery indicators into the national surveillance and health information systems;
d) Instituted health facility and community resilience building, and preventive interventions based on disaster risk analysis and mapping; and
e) Established emergency and disaster response and recovery operations, based on national standard operating procedures.

By the end of 2022 all Member States in the African Region will be fully implementing all the interventions of the regional strategy.

Guiding principles

The guiding principles of this strategy are:

Gender and human rights principles that ensure incorporation of gender equity and human rights perspectives into policies and programmes as well as neutrality and impartiality in humanitarian response.

Equity in access to services, with special focus on highly vulnerable population groups including migrant populations[20] and people living in Small Islands and Developing States.[21]

Country ownership, with governments coordinating and ensuring that all interventions by partners are in line with relevant national guidelines.

Participation, with the involvement of communities and civil society.

Strengthening partnerships within the health sector, using the humanitarian reform principles.

Fostering sustainable **intersectoral collaboration** at local and regional levels.

Priority interventions

The interventions proposed below are the minimum required by each country

in order to establish the necessary enabling environment and capacities to manage disaster risks. The strategic approach is to consider all potential hazards and all potential contributing factors that may affect health including: health determinants, climate change adaptation interventions, and action involving all MoH departments. The strategy may not require the development of new documents and structures, but an updating and strengthening of what exists. The following are the proposed interventions, the prioritization of which would depend on country context and specificities.

Develop appropriate policies, strategies and regulations to facilitate risk management. This would involve updating the existing health legislation, national health policies and health sector strategic plans to incorporate provisions on prevention, preparedness and readiness, as well as response to the health impact of all potential hazards in the country. The revisions should be congruent with national multisectoral legislation, policies and plans on DRM.

Provide adequate capacity for risk management in the health sector. The MoH should be given responsibility and adequate authority, capacity and resources to coordinate all health actions before, during and after emergencies and disasters. The health sector should participate in all decisions and actions of the national multisectoral committee on DRM, through a functional health sector subcommittee. Resources should be allocated "from the national budget to fund DRM activities in the health sector". Education and training programmes at undergraduate and graduate levels as well as continuing professional education and research on DRM should be developed and funded. The training should be aligned with the regional standard package on emergency training. Development of networks and communities of practice on DRM should be encouraged.

Conduct assessments and map risks. Vulnerabilities and capacities of the health sector should be assessed in conjunction with other sectors in order to measure and map the risks to health and health care delivery. The structural and functional capacity of existing health facilities to withstand and respond to the impact of hazards should be assessed, using the health facility safety index.[22] Risk assessment and mapping should be updated regularly, based on changes in hazard and vulnerability profiles.

Figure 1. Disaster risk management cycle, as adopted by WHO/AFRO

Implement resilience-building interventions in health facilities and at community level. This will imply designing the structural, non-structural and functional requirements of new health facilities to enable them to with stand the impact of hazards, and be functional in emergencies. Existing health facilities should be retro-fitted to increase their resilience, based on the results of risk assessments. Health facility disaster plans should be developed and tested. Community leaders and health workers at the community level should be engaged in risk assessment, planning and preparedness to build on local knowledge, experience and capacity. Community members should also play decisive roles in the execution, monitoring and evaluation of DRM intervention at community level.

Prepare and provide timely and adequate response to emergencies. Preparedness should be strengthened by developing, evaluating and revising response plans based on comprehensive risk analysis taking into account all prevalent hazards. The plans should involve identifying rapid response teams at local and national levels including sources of surge support; pre-positioning medical supplies and other logistics; designating isolation units and safe areas; and organizing mass casualty management services. Procedures should be regularly tested through desktop exercises and simulations. Standard operating procedures (SOPs) for health response and recovery operations should be developed to determine what needs to be done, by whom and how, before, during and after emergencies and disasters, in order to minimize related casualties.

Post-disaster needs assessment should be conducted to foster continuity of service, and rebuild public health services, as part of updated national health strategic plans.

Generate and disseminate evidence. Information on the projected and actual health consequences of natural and man-made disasters including event-based surveillance should be generated and monitored, using appropriate indicators, through the national surveillance system. This will provide early warning and guide preparedness and health response. Information management including use of feedback should be strengthened. Operational research should be conducted on changing risk patterns for various communities, including highly vulnerable groups such as migrant populations and persons living in Small Island Developing States. Operational aspects of response and recovery, e.g. the quality and impact of response, should be assessed through regular monitoring and research to inform adaptation of strategies and actions.

Initial steps in implementing the strategy

A number of interventions have already been initiated to implement the strategy. As highlighted in the strategy document the major shift involves addressing the root causes of a disaster. It is therefore imperative to look into the whole disaster management cycle and develop appropriate tools to facilitate and inform countries in their efforts to design or develop policies, strategies and standards for effective disaster management. The following diagram depicts the whole cycle and the various components of disaster management.

Disaster management is a continuous process with different but complementary interventions in the different phases of the cycle. The magnitude of a given intervention may vary from one phase to the other. However, all interventions contribute to managing the effects of a disaster. The continuous monitoring and evaluation of the DRM interventions should be mandatory to improve or strengthen disaster management skills using lessons and best practices from the previous disaster.

The Regional Office for Africa of WHO has developed a set of tools and guidelines that focus on interventions at all levels of DRM in order to guide countries in tailoring strategies and plans to their individual needs. The tools developed will address different phases of the disaster management cycle.

These tools include:

1. Country capacity assessment (CCA)
2. Vulnerability risk assessment and mapping (VRAM)
3. Safe health facility index (HSI)
4. Guideline for developing standard operating procedures (SOPs)
5. Recovery framework
6. Core competencies for DRM

Figure 2. Disaster risk management tools

Country capacity assessment (CCA)

- The CCA user guide is the master document used to develop road maps for strengthening DRM capacity at the country level.
- The purpose of the user guide is to describe the steps involved in conducting DRM capacity assessments and developing capacity strengthening road maps. The document is divided into two main parts: Part 1 describes the methodology for conducting the capacity assessments including the key activities which need to be implemented during the preparatory, data collection, analysis, reporting and road map development phases. Part 2 of the document (the annexes) contains definitions of key disaster terminologies and the important tools such as indicators, benchmarks and reporting formats which are needed to analyse and document the findings of the assessments.

Vulnerability risk assessment and mapping (VRAM)

- The guideline provides practical guidance on how to conduct VRAM within the health sector of African countries. It summarizes the key steps involved in planning, implementing, coordinating, supervising, monitoring and using the outcomes of health sector VRAM to build health system and community resilience to the public health impact of disasters.
- It may be used as training material for staff of MoH who want to undertake VRAM, as a step-by-step guide for conducting VRAM within the health sector and also as an advocacy tool to sensitize policy-makers on health sector disaster risk reduction (DRR).
- The document begins by defining the key disaster and VRAM terminologies and describing the key challenges, objectives and guiding principles for health sector VRAM. It outlines the conceptual framework for VRAM in the health sector and goes on to give broad orientations on how to

conduct hazard analysis and mapping, health vulnerability and capacity assessments and health risk analysis. The guidelines conclude by describing how the outcomes of VRAM can be used to strengthen health sector and community resilience and how to manage the VRAM process.

Safe health facility index (HSI)

- This is a guide for countries to develop national health facility index assessment tools to identify aspects of the health facilities that impact on the safety of and through the application of standards to hospitals and other health facilities: strengthening preparedness; developing national standards for response; and strengthening evidence and knowledge management.

Emergency standard operating procedures (SOPs)

- Standard operating procedures are practical field-oriented procedures based on minimal essential standards and best practices to manage response to emergencies and disasters.
- This document provides guidance for the preparation of national SOPs for health response to emergencies and disasters, and not the SOPs themselves. The document is designed for use by staff at all levels of the MoH and partners in the health sector. It is divided into eight chapters. Chapters one to four give a brief introduction to the document and key considerations in developing SOPs; sections five to seven provide useful guidance on how to develop SOPs for health coordination, response and recovery before, during and after emergencies; and section eight addresses monitoring and evaluation of SOPs and emergency response.

Recovery framework

- The framework provides practical guidance on post-disaster/conflict health system recovery to health care managers, decision-makers, health systems specialists and emergency public health practitioners in MoH and health partners who are involved in health services planning and delivery during transition periods. It summarizes the key principles and processes involved in planning, implementing, coordinating, supervising, monitoring and evaluating transition and recovery activities within the health sector.
- It may be used for capacity building purposes (training of health workers on health system recovery), as a reference material during the post-disaster phase, as background information for DRM planning and implementation, and as an advocacy tool to sensitize policy-makers. Most of the activities and challenges described in this document are based on lessons learned from practical field experience in African countries in transition from emergency to development.

Core competencies for public health DRM HR staff

- Core competencies guide is a multidisciplinary tool that can be used by the national health authorities to develop in-service, pre-service and specialized training courses in in public health DRM. Further, the core competencies can be used to develop interview guides and job descriptions for professionals enrolling in DRM careers.

Roles and responsibilities

Member States

Member States should:

a) Provide leadership and mobilize partners for the development of national road maps for implementation of the key interventions outlined in this regional strategy;
b) Mobilize and allocate the necessary human, material and financial resources for the implementation of interventions, including contributing to the African Public Health Emergency Fund which caters for response, prevention and preparedness to save lives;
c) Identify the responsibilities of the various agencies and levels of government, and set the criteria for decision-making;
d) Establish mechanisms for networking and cross-border collaboration under the aegis of regional and subregional bodies; and
e) Adapt or develop guidelines and norms for the implementation of interventions, including monitoring and evaluation.

WHO and partners

Based on the proposed priority interventions, WHO and partners should:

a) Develop and make available updated tools, standards and guidelines for implementation of interventions, including updating national health policies and plans;
b) Provide the necessary technical guidance and support on DRM to Member States at national, subnational and local levels;
c) Strengthen collaboration with, and ensure coherence and complementarity of actions among, the relevant entities including those in the public, private, nongovernmental and academic sectors as part of support to countries;
d) Strengthen the evidence base for disaster risk management, through operational research and impact assessments;
e) Support capacity building at national and subnational levels;
f) Establish a functional emergency database and build a roster of experts in the Region;
g) Advocate for resource allocation to DRM in the African Region;
h) Support the creation of regional networks on DRM; and
i) Develop tools for estimating the cost of the interventions.

Resource implications

Literature and experience regarding the cost of establishing DRM are scarce, considering that the approach is relatively new. The resources required for the implementation of the new strategy will depend on the context and specificities of individual countries, in terms of size, prevalence of hazards and existing capacities to manage disaster risks.

Some of the proposed interventions in this strategy, including updating the legal, policy and strategic documents, could be covered by routine administrative costs, and may not require large capital investments. According to the Financial Tracking Service of the Office for the Coordination of Humanitarian Assistance (OCHA), the countries in the Region required an average of over US$ 3.2 billion annually from 2007 to 2011 to respond to emergencies and disasters, about 9% (US$ 288 million) of which

was for the health sector response. At least 10% of this should be used for risk management, preparedness and recovery, in line with the African position and high-level commitment to the global platform for disaster risk reduction. Introducing hazard-resistant design measures in constructing new health facilities, and retro-fitting old facilities, are some of the main resource-intensive components and should be incorporated into the health sector capital development budget. This would increase construction costs by 5–24% which, compared with the cost of reconstruction or damage repair after a disaster, is significantly lower.

Monitoring and evaluation

Progress towards the attainment of the targets set in this strategy will be evaluated in the medium term in 2017, and after ten years, in 2022. Data will be collected through surveys to monitor progress and identify constraints that hamper achievement of set targets.

Countries will be monitoring key indicators for DRM interventions at national and district levels, by using data from health information and surveillance systems, satellite forecasts, rapid health assessments and surveys. Disaggregation of data to capture age, sex, social status and geographical differences will be emphasized. Pre-disaster monitoring will include general risk trends, health risks trends and event early warning. The monitoring before disaster will capture details on the accessibility, quality, readiness and safety of health services. During response and recovery there is a need to monitor health outcomes focusing on the coverage of essential health services and interventions to mitigate diseases and behaviours that lead to poor health, such as antenatal care coverage. Other indicators to be monitored are severity of disaster, epidemic onset and evolution, and nutrition indicators.

Conclusion

Countries in the African Region continue to be affected by emergencies, resulting in disasters with avoidable loss of life and significant socioeconomic costs. The African Strategy on Emergency Preparedness and Response, adopted in 1997, focused on emergency preparedness and response. However, the World Health Assembly resolution WHA64.10, adopted in 2011, re-affirmed the current global focus on strengthening disaster risk management.

This regional strategy therefore proposes that Member States strengthen disaster risk management by developing appropriate laws and policies; building adequate capacities in the MoH; assessing and mapping risks from a health sector perspective; assessing safety and applying standards to building of hospitals and other health facilities; building community resilience; strengthening preparedness; developing national standards for response; and strengthening evidence and knowledge management. This would ensure a prepared health system capable of providing adequate health sector response, and decrease the likelihood of emergencies turning into disasters.

The strategy was reviewed and adopted at the Sixty-second session of the WHO Regional Committee for Africa. The Regional Committee recommended that the Regional Director:

a) Provide the necessary technical guidance and support, including tools, to Member States and partners for the implementation of the DRM strategy;
b) Support national capacity building on DRM including strengthening the evidence base for disaster risk management;
c) Lead the creation of regional networks on DRM;
d) Communicate to Member States on best practices on DRM implementation in the Region;
e) Advocate for resource allocation to DRM in the African Region; and
f) Report on progress to the Regional Committee in 2014, 2017 and 2022.

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Establishment of the African Public Health Emergency Fund

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SUMMARY—The Regional Committee, by resolution AFR/RC61/R3 requested the Regional Director to set up the African Public Health Emergency Fund (APHEF) including taking appropriate actions to ensure that the fund is fully operational. The resolution also requested the Regional Director to report regularly to the Regional Committee on the operations of the APHEF. The first progress report was submitted to, and discussed by, the Sixty-second session of the Regional Committee in Luanda, Angola, in 2012.

The members of the Monitoring Committee of the Fund (MCF): the Ministers of Health of Gabon, Namibia and Nigeria; the Ministers of Finance of Algeria, Cameroon and South Africa; and the Chairman of the Programme Subcommittee, were appointed at the Sixty-second session of the Regional Committee. In the actions proposed in the first progress report submitted to the Regional Committee, the Regional Director was requested to convene the first meeting of the MCF to deliberate on the modalities for the commencement of operations of the APHEF.

Furthermore, the Sixty-second session of the Regional Committee reiterated the mandate to the Regional Director to continue negotiations with the African Development Bank to take up the proposed role of Trustee of the APHEF. In the interim, WHO was designated to mobilize, manage and disburse contributions to the APHEF using its financial management and accounting systems.

This document summarizes the progress in implementing the decisions taken at the Sixty-second session of the Regional Committee and proposes next steps for action.

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Progress to date

The first meeting of the MCF was convened at the Regional Office in Brazzaville, Republic of Congo, 7–8 May 2013. The meeting was attended by the Minister of Health of Gabon, Dr Leon N'Zouba, representatives of the Minister of Health of Nigeria, the WHO Regional Director for Africa, members of the APHEF Technical Review Group (TRG), and the Secretariat. The main outcome of the meeting was a review and endorsement of the APHEF Operations Manual. The report of that meeting and the APHEF Operations Manual were shared with other members of the MCF who were unable to attend the meeting, for their comments and endorsement.

The Regional Director has continued to engage the African Development Bank on its expected role as Trustee of the APHEF. In line with the decision at the Sixty-second session of the Regional Committee, WHO has continued to use its financial management and accounting systems to receive and manage contributions received, so far, from Member States. Table 1 shows the status of contributions to date.

Actions proposed

The following actions are proposed to ensure full operation of the APHEF:

1. The Ministers of Health of Gabon, Namibia and Nigeria; the Ministers of Finance of Algeria, Cameroon and South Africa; and the current Chairperson of the Programme Subcommittee (as ex-officio member) should proceed with their mandate as members of the MCF for the remaining duration of one year (in accordance with Decision 7 of the Sixty-second Regional Committee).
2. The Regional Committee should take note of the Operations Manual of the APHEF and recommend its immediate implementation.
3. The Regional Committee should urge all Member States to include a budget line in their national budgets for subsequent annual contributions to the APHEF and settle their outstanding 2012 and 2013 contributions to the APHEF.
4. The Regional Committee should request the Regional Director to continue advocacy with heads of state and government, the African Union and regional economic communities to ensure sustained contributions to the APHEF and accelerate negotiations with the AfDB regarding involvement in the management of APHEF.

Table 1. Status of annual contribution of Member States to the APHEF

	Member State	Contribution (%)	2012			2013		
			Expected (US$)	Received (US$)	Outstanding (US$)	Expected (US$)	Received (US$)	Outstanding (US$)
1	Algeria	19.74	9 868 183	—	9 868 183	9 868 183	—	9 868 183
2	Angola	3.50	1 750 590	1 750 590	—	1 750 590	—	1 750 590
3	Benin	0.81	406 098	—	406 098	406 098	—	406 098
4	Botswana	1.80	900 155	—	900 155	900 155	—	900 155
5	Burkina Faso	0.77	384 845	—	384 845	384 845	—	384 845
6	Burundi	0.01	5000	—	5000	5000	—	5000
7	Cameroon	3.23	1 616 162	—	1 616 162	1 616 162	—	1 616 162
8	Cape Verde	0.20	101 055	—	101 055	101 055	—	101 055
9	Central African Republic	0.16	82 482	—	82 482	82 482	—	82 482
10	Chad	0.37	183 555	—	183 555	183 555	—	183 555
11	Comoros	0.07	34 491	—	34 491	34 491	—	34 491
12	Congo	0.81	403 568	—	403 568	403 568	—	403 568
13	Côte d'Ivoire	3.09	1 542 897	—	1 542 897	1 542 897	—	1 542 897
14	Democratic Republic of Congo	0.01	5000	5000	—	5000	—	5000
15	Equatorial Guinea	0.77	386 822	—	386 822	386 822	—	386 822
16	Eritrea	0.01	5000	5000	—	5000	—	5000
17	Ethiopia	0.01	5000	4975	—	5000	—	5000
18	Gabon	1.45	725 638	—	725 638	725 638	—	725 638
19	Gambia	0.07	35 172	—	35 172	35 172	—	35 172
20	Ghana	1.78	890 116	—	890 116	890 116	—	890 116
21	Guinea	0.42	211 330	—	211 330	211 330	—	211 330
22	Guinea-Bissau	0.01	5000	—	5000	5000	—	5000
23	Kenya	3.69	1 846 717	—	1 846 717	1 846 717	—	1 846 717
24	Lesotho	0.34	167 625	—	167 625	167 625	—	167 625
25	Liberia	0.01	5000	—	5000	5000	—	5000
26	Madagascar	0.63	317 316	—	317 316	317 316	—	317 316
27	Malawi	0.01	5000	—	5000	5000	—	5000
28	Mali	0.80	397 845	—	397 845	397 845	—	397 845
29	Mauritania	0.39	193 476	—	193 476	193 476	—	193 476
30	Mauritius	1.27	634 709	—	634 709	634 709	—	634 709
31	Mozambique	0.64	319 466	—	319 466	319 466	—	319 466
32	Namibia	1.44	721 230	—	721 230	721 230	—	721 230
33	Niger	0.01	5000	—	5000	5000	—	5000
34	Nigeria	22.00	11 000 000	—	11 000 000	11 000 000	—	11 000 000
35	Rwanda	0.01	5000	4975	—	5000	4961	39
36	Sao Tome and Principe	0.01	7010	—	7010	7010	—	7010
37	Senegal	1.72	860 613	—	860 613	860 613	—	860 613
38	Seychelles	0.17	83 000	—	83 000	83 000	—	83 000
39	Sierra Leone	0.01	5000	—	5000	5000	—	5000
40	South Africa	22.00	11 000 000	—	11 000 000	11 000 000	—	11 000 000
41	Swaziland	0.52	260 855	—	260 855	260 855	—	260 855
42	Togo	0.24	121 544	—	121 544	121 544	—	121 544
43	Uganda	1.30	648 075	—	648 075	648 075	—	648 075
44	United Republic of Tanzania	1.88	938 339	—	938 339	938 339	—	938 339
45	Zambia	1.26	630 517	—	630 517	630 517	—	630 517
46	Zimbabwe	0.56	278 504	—	278 504	278 504	—	278 504
	Grand total	100.00	50 000 000	1 770 540	48 229 460	50 000 000	4961	49 995 039

Implementation of the International Health Regulations (2005) in the African Region

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SUMMARY—The International Health Regulations (IRH, 2005) are a legally binding international instrument for preventing and controlling the spread of diseases internationally while avoiding unnecessary interference with international travel and trade. Under the IHRs that were adopted on 23 May 2005 and entered into force on 15 June 2007, Member States have agreed to comply with the rules therein in order to contribute to regional and international public health security.

Obligations also include the establishment of IHR National Focal Points (NFP) defined as a national centre designated by each Member State, and accessible at all times for communication with WHO IHR Contact Points. Furthermore, Member States were requested to designate experts for the IHR roster, enact appropriate legal and administrative instruments and mobilize resources through collaboration and partnership building.

The Fifty-sixth session of the WHO Regional Committee for Africa called for the implementation of the IHR in the context of the regional Integrated Disease Surveillance and Response (IDSR) strategy considering the commonalities and synergies between IHR (2005) and the IDSR. They both aim at preventing and responding to public health threats and/or events of national and international concern.

This document discusses the issues and challenges and proposes actions that Member States should take to ensure the required IHR core capacities are acquired in the WHO African Region.

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The International Health Regulations (2005), hereafter referred to as "the IHR" or " the Regulations", are a legally binding international instrument for preventing and controlling the international spread of diseases while avoiding unnecessary interference with international travel and trade. Under the IHR that came into force on 15 June 2007, Member States have agreed to comply with the rules to contribute to regional and international public health security.

Resolutions WHA58.3[1] and WHA61.2[2] on IHR called upon Member States to develop, strengthen and maintain minimum national public health core capacities to detect, assess, notify and report events,[3] and respond promptly and effectively to public health risks and emergencies of international concern[4] and collaborate[5] in carrying out all activities concerning designated airports, ports and ground crossings.

Since the IHR came into effect in June 2007, Member States have been supported to assess the IHR minimum capacities as set forth in Annex 1 of the Regulations. In addition, support was provided for the development and implementation of plans of action to meet the deadline of 15 June 2012.

The African Region faces a number of public health threats from epidemic- and pandemic-prone diseases, natural and man-made disasters, and chemical and poisoning events. For example, between 2010 and 2011 a total of 201 public health events were reported to WHO by 38 Member States. In response to these events, WHO provided support to Member States to implement a series of preventive and control measures including support for establishing a network of centres of excellence for disease surveillance and response, laboratories, and for food and drug regulation. In addition, cross-border collaboration between Member States and partners in line with IHR Article 44 on collaboration and assistance was strengthened.

By the full implementation deadline of 15 June 2012, 43 out of the 46 Member States of the WHO African Region had conducted core capacity assessment in line with IHR requirements. None of the countries had fully implemented their national IHR plans. Compared with other WHO regions, the African Region's performance was below average for most of the IHR core capacities.[6]

Issues and challenges

All Member States in the WHO African Region missed the set deadline of 15 June 2012 for the attainment of the minimum IHR core capacities required under International Health Regulations (2005). The main reasons for this include inadequate allocation of human and financial resources, unpredictability of funding for IHR national plans, loss of highly trained and skilled health personnel including members of the national IHR Focal Points.

Coordination and collaboration between the health sector and other related government departments responsible for the points of entry, zoonotic events, food safety and chemical and radiation events remain weak. This has resulted in

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a fragmented approach in implementing the IHR and the failure to implement the concept of "One Health" in a number of Member States.

The National IHR Focal Points who are expected to play a critical role in coordination of the relevant national sectors and act as link to the WHO IHR Contact Point have insufficient capacities to support IHR implementation. Most of these national IHR Focal Points do not have the means to communicate regularly with the relevant sectors including providing notification to WHO of potential public health emergencies.

In the African Region, IHR implementation is supposed to occur in the context of the Integrated Disease Surveillance and Response strategy (IDSR). Despite the revision of the IDSR strategy to incorporate IHR provisions, most countries have not fully implemented this strategy, resulting in weakness in systematic collection, analysis, interpretation and notification of public health events of international concern as required under IHR (2005).

Member States in the WHO African Region continue to have weak laboratory capacities for the diagnosis of chemical, biological and radiation events. Laboratory capacity is particularly poor at subnational and district levels, resulting in delays in the confirmation and monitoring of public health events that have the potential for international spread.

The majority of Member States in the WHO African Region have neither designated points of entry nor implemented the ship sanitation inspection procedures and the new ship sanitation control certificate. The personnel at points of entry are not always trained and often lack the necessary equipment and infrastructure for detecting, reporting and responding to public health events.

Most of the Member States have not updated their legal framework to incorporate IHR (2005) provisions. Furthermore, when implementing additional measures related to a public health event of national or international concern, most Member States do not systematically seek WHO advice and guidance as required under Article 43 on additional health measures. This has led to inadequate compliance and varying interpretation of IHR requirements regarding diseases such as yellow fever and cholera. In the case of yellow fever, differences in interpretation of vaccination requirements have resulted in unjustified denial of entry for certain travellers arriving at points of entry.

With regard to cholera, the majority of Member States affected by cholera outbreaks have been subjected to embargoes by neighbouring countries on items such as food products, and needless restrictions on the movements of their people. Actions set forth in World Health Assembly resolution WHA64.15 (2011) on cholera have not been fully implemented and in some cases countries

are not referring to the WHO statement related to international travel and trade as it relates to cholera.

Member States often do not notify or report outbreaks of public health events within 24 hours as required by IHR for fear of the economic consequences. This has led to delays in the implementation of appropriate interventions to control the possible national and international spread of these events.

Actions proposed

Member States should request a two-year extension to enable full implementation of IHR core capacities by 2014 in line with Article 5 of the Regulations on strengthening surveillance and resolution WHA65.23[7] on IHR implementation.

Member States should conduct a needs assessment, map unmet needs and use the identified gaps to mobilize resources in line with Article 44 on collaboration and assistance. Furthermore, Member States should take the lead and ownership of the implementation process and allocate adequate human and financial resources to support IHR implementation.

Member States should clearly define the roles and responsibilities of each sector and partners, promote the concept of "One Health" and set up coordination and multisectoral collaboration mechanisms within the country such as information sharing and joint planning, implementation, monitoring and evaluation of activities.

Member States should provide the IHR Focal Points with adequate means of communication and establish mechanisms of retaining members of the IHR National Focal Points in order to ensure timely verification and notification of public health events to the WHO IHR Contact Point.

Member States should assess and revise, where necessary, national legislation to comply with IHR requirements. Furthermore, Member States should build capacity for correct interpretation and appropriate application of legal provisions in IHR in close collaboration with WHO.

Member States should provide to WHO any new evidence regarding areas where the risk of yellow fever transmission is present so that WHO can update its determination of areas where disinfection and other vector control measures are needed for conveyances arriving from such areas, in compliance with the IHR provisions regarding yellow fever vaccination requirements and recommendations as stipulated in Annex 6 on vaccination, prophylaxis and related certificates, Annex 7 on requirements concerning vaccination or prophylaxis for specific diseases as well as the provisions of Article 23 on health measures on arrival and departure and Article 31 on health measures related to entry of travellers.

Member States should facilitate access to essential supplies, specifically to yellow fever vaccine and other vaccines to be developed, and also facilitate the availability of financial resources for emergencies. Special attention should be paid to Small Island States.

Countries should implement Article 2 on the purpose and scope of IHR as well as actions related to trade embargoes as contained in resolution WHA 64.15 on cholera and the WHO statement related to international travel and trade to and from countries experiencing cholera. In addition, Member States should not impose embargoes on food or food products nor restrict movements of people from countries affected by cholera. Member States should enhance their surveillance systems and notify WHO, within 24 hours, of any public health event of national and international concern in line with the roles and obligations of Member States in relation to surveillance and reporting of events/conditions as contained in Article 64 of the WHO Constitution and IHR Articles 5–11 on surveillance, notification, information sharing, verification and reporting of public health events to WHO.

Member States should continue strengthening their public health laboratory capacities at all levels and sectors by fully implementing actions set forth in resolution AFR/RC58/R2 entitled *Strengthening public health laboratories in the WHO African Region: a critical need for disease control.* Subregional networks and reference laboratories should be established. Likewise, capacity to detect and respond to chemical and radiation emergencies should be strengthened.

Member States should equip designated points of entry and recruit personnel to develop, strengthen and maintain core capacities on a routine and emergency basis including contingency plans to respond adequately to public health emergencies. In addition, Member States should share with WHO the lists of ports designated and authorized to undertake ship sanitation inspection and issue ship sanitation control certificates.

Regional and subregional social, economic and political organizations such as the African Union, Economic Community of Central African States, East African Communities, Economic Community of West African States, Southern African Development Community, Indian Ocean Community and others should play a critical role in awareness building and advocacy among countries and include IHR in the agenda of the various forums. In addition, they should support and encourage collaboration among Member States in order to facilitate resource mobilization and sharing of experiences in line with Article 44 of the Regulations on Collaboration and Assistance.

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HIV/AIDS: Strategy for the African Region

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SUMMARY—More than 30 years into the pandemic, HIV/AIDS remains a long-term development challenge in the WHO African Region which bears 69% of the global burden and has accounted for more than 70% of the world's AIDS-related deaths. While there has been a decline in the number of new HIV infections, prevalence in the Region remains unacceptably high, estimated at 4.8% in 2011 but much higher in southern Africa.

There has been unprecedented political and financial commitment globally and in the Region towards the HIV response. This has led to scaling up of HIV/AIDS prevention, treatment and care interventions in all countries. The results are encouraging as the number of new infections is decreasing in some countries and there is a reduction in HIV-related mortality as reported in 2010. To consolidate these gains, the Region will need to intensify efforts in HIV response by mobilizing domestic resources, optimizing the synergies between HIV and other health programmes and contributing to health system strengthening.

A new WHO Global Health Sector Strategy (GHSS) on HIV/AIDS was adopted by the World Health Assembly in May 2011. The regional HIV/AIDS strategy provides directions for implementing the GHSS in the WHO African Region, taking into account the key regional specificities.

The interventions proposed include scaling up prevention; eliminating new HIV infections in children; and expanding access to HIV testing and treatment. It is expected that this strategy will contribute to eliminating new infections among children, reducing new infections among young people and reducing HIV-related deaths. Strengthening health systems and reducing co-morbidities such as TB/HIV will be crucial to achieving the targets set in the regional strategy.

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It has been more than 30 years since the first reported HIV/AIDS cases, 15 years since highly active antiretroviral treatment (HAART) became a reality, and six years since the United Nations political commitment to achieve universal access to HIV prevention, treatment, care and support.[1] While there has been a decline in the number of new HIV infections, the regional prevalence remains high and countries in southern Africa continue to be the epicentre of the epidemic.[2] The high burden of HIV is a factor contributing to the high maternal mortality and under-five mortality in the Region.

Political commitment to halt and reverse the spread of the HIV epidemic remains high and continues to grow. This is exemplified at the global level by the adoption of the Millennium Development Goals (MDG). There has also been rapid expansion in AIDS financing from the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and other bilateral and multilateral sources. Investments in the HIV response in low- and middle-income countries rose nearly ten-fold from US$ 1.6 billion to US$ 15.9 billion between 2001 and 2009.[3]

At the regional level, the engagement of African heads of state and government through the 2006 Abuja Call for Accelerated Action Towards Universal Access (UA) to HIV/AIDS, Tuberculosis and Malaria Services[4] and the decision of the 2010 Kampala African Union Assembly to extend the target year for UA to 2015,[5] the adoption of a resolution at the Fifty-fifth Regional Committee,[6] and the increasing allocation of domestic resources have provided further impetus to efforts aimed at scaling up intervention against HIV/AIDS. The adoption of the 2008 Ouagadougou Declaration on Primary Health Care and Health Systems,[7] affirming the principles of the Declaration of Alma-Ata, has built a regional consensus on the need to further integrate HIV service delivery within the context of health systems strengthening.

The WHO Regional Committee for Africa adopted the HIV/AIDS/STD strategy in the African Region[8] during its Forty-sixth session in 1996 and its framework for implementation[9] during its Fiftieth session in 2000. Subsequently, a strategy for renewal and acceleration of HIV prevention was adopted by the Regional Committee in 2006.[10] The goal of the strategy was to accelerate HIV prevention and reduce the impact of HIV/AIDS by creating an enabling policy environment, increasing access to HIV treatment and prevention, strengthening health systems and increasing financial resources for the HIV response.

A new WHO Global Health Sector Strategy (GHSS)[11] on HIV/AIDS was adopted by the World Health Assembly in May 2011. This article, which is an update of the regional HIV/AIDS strategy, provides directions for implementing the GHSS in the WHO African Region, taking into account the key regional specificities. It defines the health sector's contribution to the broader, multisectoral response to HIV/AIDS in the Region for the period 2012–2015.

Situation analysis and justification

Situation analysis

By the end of 2011, there was an estimated 34.2 million people living with HIV/AIDS (PLWHA) globally. In sub-Saharan Africa there were 23.5 million PLWHA, 3.1 million of whom were children aged below 15 years, representing almost 80% of the global burden of HIV/

AIDS in children. Of the 2.5 million new infections worldwide, 1.7 million (68%) occurred in sub-Saharan Africa in 2011, with an overall prevalence of 4.8% but with a wide intercountry variation ranging from <0.1% in Algeria to 35% in Swaziland. During the same year, an estimated 1.7 million adults and children died, worldwide, with 1.2 million (71%) of the deaths occurring in sub-Saharan Africa.[12] Eighty per cent of the global TB/HIV co-infections are in the Region.[13] Women continue to be disproportionately affected by the HIV/AIDS epidemic in the Region. Data from population-based surveys show that more females were infected than males although the differences vary from country to country.[14] In Zambia, for example, HIV prevalence among women aged 15–24 years was found to be nearly four times that of men in the same age group.[15]

The HIV/AIDS epidemic continues to have profound socio-demographic and economic impacts in the African Region. It is projected that average life expectancy in the Region will be 12–17 years less compared with other Regions by 2050.[16] HIV/AIDS affects the economy by reducing the labour supply through increased mortality and illness. It is estimated that the impact of HIV/AIDS on the gross domestic product of the worst affected countries is a loss of around 1.5% per year.[17] There is a direct effect of HIV/AIDS on the health workforce in the African Region. Botswana lost about 17% of its health workforce due to AIDS between 1999 and 2005 while a study in one region in Zambia found that 40% of midwives were HIV-positive and staff loss rates by cadre were 30% for doctors, 36% for midwives and 33% for nurses.[18] A study in South Africa found that 21% of teachers aged 25–34 years were living with HIV.[19] All infected and affected workers are likely to take time off work and further absenteeism may result from psychological impacts.

Considerable progress has been made in the fight against HIV/AIDS in the WHO African Region. On the whole, new HIV infections are decreasing in 22 countries[20] and stabilizing in 11 countries.[21] This is in line with the MDG 6 target to "Have halted by 2015 and begun to reverse the spread of HIV/AIDS". AIDS-related deaths are also decreasing in the Region with 16 countries reporting declines in AIDS-related mortality between 2001 and 2009, ranging from 11% in the Republic of Congo to 72% in Rwanda.[22]

By the end of 2011, access to antiretroviral therapy in the Region had increased 50-fold from 100 000 in 2003 to 6.2 million, i.e. 56% of the total of 10.4 million people estimated to be in need.[23] Botswana, Comoros, Namibia and Rwanda have achieved universal access to antiretroviral therapy and 12 countries have coverage rates exceeding 50%,[24] showing that rapid scale up using a public health approach is feasible. The percentage of pregnant women living with HIV who received medicines for preventing mother-to-child transmission (PMTCT) increased from 15% in 2005 to 60% in 2010. Seven countries[25] exceeded the 80% coverage in achieving the universal access target of coverage with effective regimens of antiretroviral medicines.

Despite these gains, the impact of the HIV/AIDS epidemic continues to be severe. HIV prevention interventions are still fragmented and inadequate, especially for key populations. There continues to be a multiplicity of partner-led vertical projects and there is inadequate balance and linkages between health sector actions and the wider multisectoral response. Access to HIV treatment is less than 50% and most people are unaware of their HIV status. There is also the interaction of HIV/AIDS with other communicable diseases such as tuberculosis, malaria, hepatitis B and noncommunicable diseases such as cancers and others that need to be managed.

The human resource crisis facing several countries in the Region has impacted negatively on the delivery of services. Thirty-six out of the 46 countries in the African Region are among the 57 countries in the world considered as facing a human resource for health

crisis.[26] Laboratory capacity for and access to HIV diagnosis and follow up, including for early infant diagnosis and CD4 cell count monitoring, remain inadequate and procurement and supply management systems for HIV medicines, including those for opportunistic infections, and commodities remain weak, quite often leading to stock-outs. Weak health information systems hamper effective monitoring of progress.

Over-dependence on donors and international funding jeopardizes the sustainability of HIV interventions, particularly in the context of the cancellation of the Global Fund Round 11 application. For example, it is estimated that in low-income countries, 88% of spending on HIV/AIDS came from international funding in 2010.[27] Domestic funding to fill the resource gap and sustain the response is still low in the Region. In addition, high levels of gender inequity, stigma and discrimination persist and interventions for them remain inadequate.

Justification

The new WHO Global Health Sector Strategy on HIV/AIDS, adopted in May 2011, has the overarching goal of achieving universal access to HIV prevention, diagnosis, treatment and care by 2015. The global strategy seeks to guide the health sector's contribution to the vision of a world with zero new infections, zero AIDS-related deaths and zero discrimination as articulated in the UNAIDS Strategy for 2011–2015.[28]

In addition, new approaches have emerged and led to new global goals and commitments that necessitate updating the Regional Strategy. These include the elimination of mother-to-child transmission of HIV (eMTCT) and keeping HIV-infected mothers alive, providing services for medical male circumcision, adopting combination prevention (i.e. combining behavioural, biomedical and structural HIV prevention interventions), using antiretrovirals for prevention, starting treatment early to improve survival and the quality of life, and giving increasing attention to noncommunicable diseases in PLWHA.

There is a need to reshape the HIV/AIDS response by integrating services into health systems, decentralizing services, selecting and scaling up efficient approaches, and meeting the needs of all communities without discrimination. The above developments have necessitated the updating of the HIV/AIDS Regional Strategy in order to align it with the GHSS and broader strategic frameworks[29] and intensify efforts in the health sector response to HIV/AIDS, with a stronger focus on the needs of women, girls and other key populations.

Regional strategy

Vision, aims and targets

The Regional Strategy shares the vision of the GHSS, 2011–2015, which is "Zero new HIV infections; zero AIDS-related deaths and zero discrimination in a world where people living with HIV are able to live long, healthy lives".

The aims are to:

- Accelerate national HIV responses and advance progress in achieving country targets for universal access to HIV prevention, treatment, care and support; and
- Contribute to achieving MDG 6 and other health-related goals, associated targets and in addressing the broader determinants of health.

The targets set for 2015 for the Region, which are based on the 2009 baseline data and are in line with the global targets, are to reduce:

a) The percentage of infected young people aged 15–24 years by 50%;
b) New HIV infections in children by 90% with special emphasis on those aged below two years;
c) HIV-related deaths by 25%; and
d HIV-related tuberculosis deaths by 50%, compared with the 2004 baseline.

Guiding principles

The guiding principles of this strategy are:
A human-rights approach towards universal access: Promoting a human rights approach, including equitable access to quality services of the highest standards possible to all populations.

Integrated service delivery: Delivering HIV services by integration into health

systems, establishing strong linkages with other priority programmes, and strengthening the interface between the health sector and other sectors.

Efficiency in resource use: Maximizing results and achieving the greatest health impact with optimal use of the available human, financial and technological resources.

Decentralization: Strengthening local capacity and delegation of responsibility to operational levels to improve the delivery of quality health interventions and services.

Community participation: Empowering communities and civil society, including PLWHA, to play their roles in scaling up interventions at all levels.

Country ownership and effective partnerships: Ensuring that partners align their interventions to national strategic frameworks for the response, coordination mechanisms, and monitoring and evaluation systems as set out by government.

Interventions

There is need to expand the coverage and improve the quality of HIV services in order to achieve the regional aims and targets. In order to do this, two main approaches need to be adopted: a) implementing priority interventions related to service delivery; and b) taking actions to strengthen the capacity of health systems in order to deliver related services.

a) Priority HIV/AIDS-related interventions

Scale up HIV prevention: Combining behavioural, biomedical and structural HIV prevention interventions tailored to national epidemics is the most effective approach to reducing new infections. Interventions should be broadened to include health promotion, behaviour change counselling, quality-assured HIV testing and counselling, male and female condom programming, safe voluntary medical male circumcision (in high HIV-prevalence settings with low male circumcision rates) and early initiation of antiretroviral therapy. In addition, health services should implement infection control and related procedures including standard precautions, injection and surgical safety, blood safety, safe waste disposal and post-exposure prophylaxis for occupational exposure to HIV.

Eliminate mother-to-child-transmission and improve maternal and child survival: Countries should scale up approaches to PMTCT, including setting national targets to eliminate HIV in children and enable HIV-infected mothers to live longer. Key components should include preventing HIV infection in women of child-bearing age and providing them with HIV testing and counselling services, preventing unintended pregnancies, reducing HIV transmission from women with HIV to their infants, adopting safe infant feeding policies, and providing appropriate early treatment and care for women living with HIV, their children and families. It is vital to integrate these interventions into maternal, newborn and child health, sexual and reproductive health, and other health services. These will have a positive impact on MDGs 4 and 5.

Expand access to diversified HIV testing and counselling services: HIV testing must be voluntary, confidential and accompanied by appropriate counselling, whether initiated by the client or the provider. Accelerated testing and counselling services with short intervals between testing and provision of test results for adults and children is required for prevention, early diagnosis and referral to care and treatment programmes. Tailoring counselling and testing services to specific populations at high risk of HIV infection including discordant couples, sex workers, intravenous drug users, men who have sex with men, and men and women in uniform will be needed in order to improve uptake and ensure retention in care.

Expand and optimize HIV treatment and care for children, adolescents and adults: Countries should update their national HIV treatment protocols on the basis of up-to-date WHO guidelines and prepare implementation plans and mobilize resources for scale up. Antiretroviral therapy should be started early so as to reduce HIV-related morbidity and mortality and maximize the preventive impact on HIV and tuberculosis epidemics. Treatment should include the simplest, most tolerable and robust drug regimens recommended by WHO and simplified point-of-care and laboratory-based diagnostics and monitoring tools. Nutritional care and support should be provided to enhance treatment effectiveness, adherence, retention in care and quality of life.

Reduce co-infections and co-morbidities among people living with HIV: Countries should invest in inputs, processes and capacities to manage co-morbidities. Treatment and care programmes should include prophylaxis (including immunization, vector control and co-trimoxazole and isoniazid prophylaxis), diagnosis and treatment of common opportunistic infections and co-morbidities. Of particular importance is the diagnosis and treatment of tuberculosis, pneumonia, diarrhoea, malaria, viral hepatitis, malnutrition and other clinical conditions that have a more serious impact in people living with HIV. HIV services should also screen for common malignancies and assess, prevent and manage mental disorders.

Strengthen TB and HIV collaborative activities: Joint policies, training programmes and procedures for TB and HIV collaborative activities should be strengthened to prevent and manage HIV/tuberculosis co-infection. Surveillance of HIV infection among tuberculosis patients and tuberculosis prevalence among people living with HIV should be conducted, and monitoring and evaluation systems should be harmonized.

Provide comprehensive care and support for people living with HIV with community participation: HIV-related palliative, community-based and home-based care should include a multidisciplinary approach to meet all the needs of people living with HIV. Strengthening community care systems, including the capacity of community-based and home-based carers, is essential to the delivery of integrated, decentralized services, reduction of numbers of patients lost to follow up, expanding national HIV responses and improving health outcomes. Associations of PLWHA must be supported to play a leading role

in facilitating community participation in prevention, treatment adherence and reduction of HIV-related stigma.

Provide comprehensive HIV/AIDS package of interventions to meet the needs of key populations: Countries should continue to identify key populations underserved by current HIV programmes in both generalized and concentrated epidemics. The needs of young people including orphans and women should explicitly be addressed in national HIV responses. Countries should also consider the needs of migrant workers, refugees or populations displaced during humanitarian crises, street children, sex workers, men who have sex with men, injecting drug users, disabled people, prisoners and people above 50 years of age.

b) Actions to strengthen the capacity of health systems to deliver HIV/AIDS interventions and services

Integrate HIV/AIDS services into health systems components: These include health service delivery, health workforce, health information systems, access to essential medicines, health systems financing, and leadership and governance. HIA/AIDS services should also be decentralized to lower-level facilities and communities with referral services should be strengthened. First-line and district health workers will have to be trained to use integrated approaches. In addition, health service delivery has to be adapted to the delivery of chronic care. The capacity of countries to better articulate their resource needs for health systems strengthening will have to be improved to boost resource mobilization. The following actions should be taken:

Strengthen the stewardship and leadership role of government: The leadership role of ministries of health should be strengthened to include defining priorities, formulating appropriate policies and developing plans using a consultative and participatory process, ensuring alignment of the actions of the various partners and stakeholders to these priorities and plans, allocating resources and ensuring their appropriate use, monitoring and ensuring progress and accountability for results.

Strengthen human resources for health: Particular attention should be paid to ensuring the availability of human resources in the right numbers and mix and competent to work with people living with HIV and affected populations by integrating HIV content into pre- and in-service training. Appropriate policies, including recruitment and task shifting/sharing, that address the human resource crisis should be adopted. HIV/AIDS programmes should be an entry point for scaling up the availability, performance and retention of the health workforce in the context of health systems strengthening. District health management teams need to be strengthened in terms of staffing and skills to effectively plan, implement and monitor interventions. Linkages with community-based organizations and civil society groups should be established at district level.

Reinforce the procurement and supply management systems and strengthen laboratory capacity: There is need to strengthen the capacity for estimation and projection of requirements, the use of information on best prices and suppliers in order to ensure availability of quality diagnostics, medicines and commodities. Quality control systems for diagnostics and medicines should be strengthened. Countries should ensure that the needs for strengthening and decentralizing laboratory services are adequately addressed in a comprehensive implementation plan.

Strengthen strategic information systems: Track the progress of the epidemic, the implementation and outcomes of interventions, HIV drug resistance and adverse outcomes of medicines. Countries should undertake regular programme reviews and generate evidence through research to enhance knowledge of the epidemic as the basis for developing and reviewing appropriate policies and plans towards the HIV/AIDS response.

Include gender and human rights issues in the design, delivery and monitoring of health services: HIV programmes should promote equity in sexual decision-making, including negotiation of safer sex and use of male and female condoms, and establish effective linkages with programmes addressing gender inequity. There will be a need to introduce services relating to gender-based violence, including comprehensive services for survivors of rape and other sexual violence, including in conflict and other emergency situations. National HIV response should include implementing and monitoring policies and practices aimed at eliminating stigmatization, discrimination and other human rights abuses in health service delivery. Policies aimed at addressing other underlying social determinants, including poverty and gender inequality, need to be integrated into HIV/AIDS programmes.

Roles and responsibilities

Member States

Member States have the responsibility of ensuring that health systems have the capacity to deliver services. Governments should ensure stewardship and leadership, and forge partnerships with civil society and PLWHA for developing plans. They also have to mobilize and allocate the necessary human, material and financial resources for implementation, including both internal and external resources for accelerating HIV/AIDS interventions. Governments should ensure effective coordination of interventions. The health sector should provide technical guidance for the implementation of this updated HIV strategy, within the framework of intersectoral collaboration in the multisectoral response. Countries should be responsible for developing appropriate policies and tools, updating strategic plans for universal access, implementing planned activities, monitoring programmes, and coordinating all partners.

The World Health Organization and other partners

WHO should continue to provide technical leadership and normative guidance for developing plans of action, implementing programmes, monitoring and evaluation. WHO and other partners, including UNAIDS and other UN agencies, PEPFAR, the Global Fund, Bill and Melinda Gates Foundation, and bilateral and multilateral donors should provide harmonized support to countries in resource mobilization, planning, and

strengthen national government capacity to implement and coordinate the proposed priority interventions.

Resource implications

Based on UNAIDS estimates on the costs of implementation of a package of essential HIV/AIDS interventions in low- and middle-income countries and the contribution of the Region to the global burden, it is estimated that implementing this updated strategy in the Region in order to reach universal access by 2015 will cost about US$ 10–12 billion per year.[30,31] Countries should continue to strive to achieve the Abuja Declaration target of allocating 15% of their national budgets to the health sector. Additional resources need to be mobilized from development partners for overall health system strengthening, including human resources for health and improvement of infrastructure. Efforts should be made to meet the costs of providing key health services including those needed to fight the AIDS pandemic, estimated at US$ 44 per person per year in 2009 and projected to rise to US$ 60 per person per year by 2015.[32] Innovative methods of mobilizing funds from the private, corporate sector and communities should be pursued. Countries should put emphasis on efficient resource utilization and equitable reallocation of existing resources while strengthening the country's capacity to absorb additional resources.

Following the adoption of the GHSS, WHO has developed an Operational Plan[33] that outlines WHO's priority work areas and provides details regarding the normative guidance, policy advice, technical assistance and other products and services that will be implemented across WHO's HIV Programme and the three levels of the organization. The overall costs of WHO support to Member States in implementing the GHSS since its approval in May 2011 to the end of 2015 have been estimated to be US$ 515 million. The costing for the 2012–2013 biennium is estimated at US$ 175 million. It is expected that 28% of this amount will be required for WHO's work in the African Region.

Monitoring and evaluation

Progress in moving towards the targets set out in this strategy will be assessed through periodic reviews and annual reporting. The indicators on availability, coverage, outcome and impact of the interventions, including those for equity, have been defined and agreed on globally. These will guide the monitoring of the strategy using the existing systems in place.

Conclusion

The burden of HIV/AIDS and its impact continues to pose a major challenge to the African Region. The epidemic has seriously undermined the progress made in human development in the past decades. It has contributed to high morbidity and mortality, resulting in reduction of life expectancy, with grave social and economic consequences.

The Region has witnessed unprecedented political and financial commitment towards the HIV/AIDS response with remarkable results leading to the reduction of new infections, declining AIDS-related deaths and improved quality of life for those living with HIV. However, intensified efforts are still needed in HIV prevention, treatment, care and support in order to reduce new infections, eliminate new infections in children and reduce HIV-related mortality using the interventions outlined above. The continued strengthening of health systems is fundamental to efficient delivery of the proposed interventions.

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SUMMARY—Ensuring the availability of sufficient numbers of qualified health workers in the right place is essential for delivering quality health services to the population. Existing weaknesses in health systems including shortage of skilled human resources for health (HRH)[1] in most African countries is recognized as a major impediment to delivery of essential interventions and progress towards achieving health objectives. Of the 46 countries in the Region, 36 have critical shortage of HRH with only about 0.8 physicians, nurses and midwives per 1 000 of the population while the minimum acceptable density threshold is 2.3 per 1 000 population. The estimated shortage of doctors, nurses and midwives in the Region was 820 000 in 2006. When all categories of health workers are included, the shortfall is estimated at 1.4 million.

Migration of qualified health workers; inadequate remuneration and incentives; poor distribution of the available health workers; under investment in the production of sufficient health workers; inadequate capacity of HRH departments to carry out the main HRH functions and; low implementation of most of the existing plans are identified as the main causes of the present situation that constitutes a key impediment to meeting the needs for health care delivery for all. There are significant disparities between rural areas and urban areas, with shortages in the rural areas. Over 90% of pharmacists and dentists practise in urban areas. The situation is the same for other cadres, as medical specialists (86%), general physicians (63%) and nurses and midwives (51%) serve mainly urban areas.

The challenges facing the countries are uneven and pose a strategic threat to national and regional health systems development and the overall well-being of populations in the Region. A number of major and pressing HRH challenges are identified The road map recognizes that sustained political, institutional and financial commitment with the involvement of different critical stakeholders and partners that influence HRH production, availability and performance is critical to improving HRH development at country level.

The road map builds on a number of national, subregional, regional and global efforts and has six strategic areas for achieving the objectives: strengthening health workforce leadership and governance capacity; strengthening HRH regulatory capacity; scaling up education and training of health workers; optimizing the utilization, retention and performance of the active health workforce; improving health workforce information and generation of evidence for decision-making; and strengthening health workforce dialogue and partnership. Each of these strategic areas has a set of identified priority interventions for achieving the objectives. It is recognized that implementation of the road map will require the commitment and collaboration of all stakeholders and partners under the leadership of national governments.

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Road map for scaling up human resources for health for improved health service delivery in the African Region 2012–2025

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Human Resources for Health are a priority on the regional and global health development agenda, as a critical component of functional health systems that can ensure universal access to quality health care.[2] Successively, in 1998, 2002 and 2009, the WHO Regional Committee for Africa adopted resolutions calling for the expansion of the health workforce through their optimal production and utilization.[3] Furthermore, three resolutions of the World Health Assembly recognized the importance of HRH in ensuring the delivery of quality health services and the achievement of better health outcomes.[4] Two global HRH forums, held in 2008 and 2011, created and sustained the momentum in regard to the importance of HRH in the global health agenda. The WHO Regional Office for Africa convened a regional consultation in Pretoria, South Africa, in October 2011, on scaling up the health workforce for improved access to services. The consultation came up with a regional road map.

The road map for scaling up the health workforce for improved health service delivery in the Region 2012–2025, which addresses all categories of health workers, is the product of a thorough analysis of the health workforce challenges in the African Region and is articulated around the following six strategic areas:

- Strengthening leadership and governance capacity of the health workforce;
- Strengthening HRH regulatory capacity in the Region;
- Scaling up education and training of health workers;
- Optimizing the utilization, retention and performance of the available health workforce;
- Improving health workforce information and generation of evidence for decision-making; and
- Strengthening health workforce partnership and dialogue.

Ensuring the availability of sufficient numbers of qualified health workers in the right place is essential for the delivery of quality health services to populations. The *World Health Report 2006* finds that an increase in the density of qualified health workers has a positive impact on health outcomes. However, most African countries that have a high disease burden continue to face severe shortages of health workers. WHO has identified a minimum threshold of health workforce density (2.3 physicians, nurses and midwives per 1 000 population) below which coverage of essential interventions is highly unlikely. Based on this minimum requirement, 36 countries in the African Region have shortages estimated at 820 000 doctors, nurses and midwives. In addition, internal and external migration of qualified health workers; inadequate remuneration and incentive mechanisms; poor distribution of the available health workers; under investment in the production of sufficient health workers, inadequate capacity of HRH departments to carry out the main HRH functions and; low implementation of most of the existing

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Figure 1. The six strategic objectives of the road map for scaling up HRH

strategies and plans are identified as the main causes of the present situation which poses major impediments to meeting the needs for delivering health care for all.

The road map focuses on all types of health workers. It recognizes the fact that sustained political, institutional and financial commitments are required as is the involvement of different critical stakeholders and partners that influence HRH production, availability and performance. As such, this road map is aimed at government leaders and national policy-makers across several sectors (including health, finance, education, labour and public service) as well as various stakeholders (such as regulatory and professional bodies), private actors and partners. The road map will be implemented between 2012 and 2025 and will be considered as a consolidated and collective engagement to move forward the HRH agenda in the African Region.

Current situation

Countries in the African Region need to accelerate the attainment of the health-related MDGs and ensure equity in access, quality and efficiency of health services. However, weak health systems in most countries constitute a major bottleneck to delivery of essential interventions. These weaknesses include shortage of skilled human resources. Although 20 out of the 36 countries with a HRH crisis made some progress between 2005 and 2010, ten countries still face critical shortage with density varying from 0.16 to 0.47 of doctors, nurses and midwives per 1 000 population, which is far below the recommended minimum density of 2.3 per 1 000 population, not to mention shortages of other categories of health workers.

Over and above the shortage of health workers, there is also weak HRH governance capacity in many countries of the Region. Consequently, most of the countries are unable to make available appropriately skilled health workers in the right quantity where they are needed. For example, only 12 out of 46 countries are known to have an HRH policy document while 22 have a national HRH strategic plan. However, the implementation of these strategic plans faces considerable constraints including lack of financial support.

Education and training capacity in many countries is still very limited due to insufficient qualified teaching staff, lack of learning materials and inadequate infrastructure. The weak capacity negatively affects the learning and living environments of both students and teachers. The Region currently has 134 medical schools[5] and 51 public health school and trains 6 000 medical doctors annually.[6] Meanwhile, nursing and midwifery schools produce 26 000 nurses and midwives annually which are too few to respond to existing needs. In order to reach the target of 2.3 health workers per 1 000 population, it is estimated that an additional 600 medical and nursing

schools are required, at an estimated training cost of US$ 26–33 billion.[7]

HRH data and information for decision-making remain fragmented and patchy in most cases e.g. the exact numbers of health workers in countries is unclear. The existing systems for collection, collation and analysis of data are weak as are research and documentation of best practices. Only 11 out of the 46 countries have established national HRH observatories.

In many countries there is limited involvement of all stakeholders and partners in policy dialogue to address the HRH issues which are complex in nature. Solutions do exist both within and outside the health sector.

Issues and challenges

Countries face key challenges, the most significant of which are the following:

Weak leadership and governance of HRH: There are imbalances between the supply and demand of health workers, efforts are largely uncoordinated, and competition within and across sectors is counter-productive. The lack of a holistic and comprehensive approach to various aspects of HRH such as policy, planning, financing, education, recruitment, HRH management systems and partnerships among private and public entities is a direct consequence of weak HRH governance capacity. Furthermore, there is a high turnover of policy-makers and high-level professionals in countries, which undermines continuity of policy direction and implementation oversight. Strengthening the overall governance capacity of HRH is essential to improving the availability and performance of health workers including their recruitment, deployment, monitoring and evaluation.

Inadequate HRH regulatory capacity: The ineffectiveness or absence of HRH regulation in some countries is evidenced by the fragmentation of HRH regulation and practice; the inadequate involvement of professional bodies in HRH development; the limited alignment between HRH policy reforms and regulatory framework for professionals which negatively affects the quality of service delivery; and lack of harmonization of professional regulation and practice at subregional and regional levels. There is need to reinforce the regulation and practice of health care workers to ensure health care delivery in the context of health reforms.

Weak education and training capacity: This results in low investment and resources to build the necessary human and institutional capacity to produce additional health workers; lack of adequate health workforce policy to ensure relevance and appropriateness in terms of quality and quantity and; absence of HRH training plans. Competing interests in the relationships within and between the ministry of health, ministry of education and training institutions inevitably leads to fragmentation of effort and limited impact in addressing the weak production capacity. Ability to increase the health workforce training capacity in order to fill the gaps in quality and quantity is therefore critical.

Inadequate utilization, retention and performance of the available health workforce: The utilization, retention and performance of the available health workforce is not adequate to improve coverage, equity in access, quality and efficiency of health services. Moreover, there is uneven geographical distribution of the available health workers, resulting in inequity between rural areas and urban areas and lack of relevant competences where they are needed. In the public sector, salaries are low and incentives are lacking leading to unattractive remuneration, non-conducive working conditions and living environment, and hence high attrition rates among the skilled HRH. Retaining skilled health workers especially in remote areas with the appropriate skill mix for health care remains a major challenge.

Insufficient information and evidence base: This is characterized by weak capacity to collect, generate, analyse, disseminate and use available HRH information. Furthermore, limited use of different data sources adversely affects evidence-based decision-making and policy development. Lack of research capacity including documentation of best practices to inform and support policy direction is yet another challenge. There is need to improve the overall capacity of the HRH information systems including research capacity and documentation of best practices to support decision-making.

Insufficient financial resources: There is inadequate fiscal space for full funding of the national HRH plans where they exist. This contributes to insufficient financing for production and employment to fill the gap in health workers' availability in national health services. The fragmentation, inconsistency and unpredictability of resources hamper forward planning and implementation of HRH development. Finding how best to increase and sustain HRH financing is absolutely necessary to improve health service delivery.

Uncoordinated partnerships and weak dialogue: In HRH policy dialogue, the limited involvement of all partners and stakeholders including the private sector reduces ownership of policy development and implementation. Competing interests within and between the stakeholders and partners coupled with insufficient harmonization and alignment of efforts increases the fragmentation and duplication of effort. The lack of recognition of the multisectoral nature of HRH tends to limit not only the ability to have a full picture of this problem but also the range of solutions available for the different aspects of HRH such as production, management, utilization and retention. The main challenge is how to build synergy at country and regional levels by sustaining and formalizing mechanisms for intersectoral partnerships that include all stakeholders and partners.

Opportunities

The issue of HRH is recognized as a priority in the health system and a number of opportunities to address the crisis of HRH in the African Region exist including the global health initiatives; the 2001 Abuja Declaration for increasing financial resources for health including HRH; the 2008 Ouagadougou Declaration on Primary Health Care and Health Systems which identifies HRH as a health priority; the 2008 Algiers Declaration on investing in and promoting research for health including building HRH evidence. The global code of practice on international

recruitment of health personnel adopted at the Sixty-third World Health Assembly in 2010 encourages Member States to implement effective policy measures to educate, retain and sustain the health workforce.

In addition, the high-level interministerial (health, education, public service, finance) consultation in March 2007 hosted by the African Union (AU) made recommendations for health workforce development in Africa using multisectoral response and identified priority areas that were later endorsed by the Conference of African Ministers of Health of the AU in April 2007. The first HRH global forum in 2008 adopted the Kampala Declaration[8] which provides strategic directions. The second forum held in Bangkok in January 2011 reviewed progress and reinforced the initiatives to sustain the momentum in the global health workforce agenda.

Goal, objectives, guiding principles and strategic areas

The regional HRH road map, as shown in Figure 1, has a goal, objectives, guiding principles and strategic areas each with priority interventions for the period 2012–2025. It is based on the regional commitment of stakeholders and partners to scale up HRH capacity in the Region for improved service delivery.

Goal

The goal of the road map is to ensure that skilled and motivated health workers are available to provide universal access to health care in the African Region.

Objectives

General objective:

To scale up the availability and strengthen the performance of the health workforce for improved health service delivery in the African Region.

Specific objectives:

a) To develop health workforce policies and strategies in all African countries by 2014;
b) To ensure that, by the end of 2025, all countries in the African Region would have increased their health workforce to the minimum density threshold of 2.3 per 1 000 population;
c) To maintain an appropriate skill mix of health workers with competences relevant to the needs of the population by 2025;
d) Ensure equitable redeployment and distribution of the health workforce; and
e) Attract and retain health professionals including measures for improving their remuneration and their working and living conditions.

Guiding principles

Several interconnected guiding principles underpin all efforts to improve the production and utilization of HRH. The guiding principles include:

a) **Countries' commitment** to support actions that contribute to a sustainable health workforce;
b) **System linkage –** national HRH strategies should be harmonized with the relevant components of the health system and primary health care principles;
c) **Donor alignment –** donor support should be coordinated and aligned with country HRH plans;
d) **Equity, accessibility and accountability** to ensure that all people, in all places, have access to skilled health workers who are equipped, motivated and supported;
e) **Results-oriented –** HRH strategies and actions aimed at achieving measurable outcomes; and
f) **Multisectoral engagement** of all sectors and stakeholders including the communities to build the health workforce.

Strategic areas

The following six strategic areas have been identified to achieve the objectives:

1. **Strengthening leadership and governance capacity of the health workforce.** Governance capacity in African countries aims to harness all that is required to make available appropriately skilled and high-performing health workers in the right quantity where they are needed. It is required to increase the domestic investment for sustainable financing of national health workforce plans including recruitment and to strengthen HRH management and leadership capacities.
2. **Strengthening HRH regulatory capacity in the Region.** By establishing HRH regulatory and professional bodies where they do not exist or by increasing their capacity where they exist the HRH regulatory capacity will be improved. This capacity should also be available at subregional and regional levels to improve harmonization of professional regulation and practice including alignment between HRH policy reforms and regulatory framework for professionals and services.
3. **Scaling up education and training of health workers.** This involves strengthening education and training capacity especially in countries facing shortages by increasing the numbers of qualified teaching staff, teaching and learning materials and improving infrastructure. The capacity building includes adherence to socially accountable standards of quality and quantity including mandatory accreditation.
4. **Optimizing the utilization, retention and performance of the available health workforce.** This involves the development and implementation of mechanisms for equitable and rational distribution; the design and implementation of retention strategies that will attract and retain skilled workers in service areas and teaching institutions and; the provision of specific incentives to qualified health personnel serving in rural areas and hardship areas.
5. **Improving health workforce information and generation of evidence for decision-making.** This includes strengthening HRH information systems, establishing national HRH observatories and compiling and disseminating evidence at national, subregional and regional levels as well as building capacity in HRH research and in the use of the evidence generated.
6. **Strengthening health workforce partnership and dialogue.** By fostering partnership, improving dialogue among stakeholders such as education, finance and public service, regulatory bodies, professional associations, as well as the private sector and development partners for their involvement in HRH development at all levels partnerships will be strengthened. Advocacy at national, regional and global levels should continue in order to secure

substantial financial investment in HRH development.

Priority interventions, monitoring and evaluation

For each strategic area a number of priority interventions are outlined in the road map. Monitoring and evaluation (indicators have been refined by WHO) of the road map will use existing mechanisms such as the African Health Workforce Observatory (AHWO) and its national Health Workforce Observatories network. Baseline indicators for 2011 will be produced by the AHWO for each strategic area by 2014. An evaluation report in 2015 within the context of MDGs will be shared with all stakeholders. Measurement of the progress of the road map will be done at annual intervals during the first three years (2012, 2013 and 2014); then every two years thereafter; and finally every five years during the last ten years.

Roles and responsibilities

Member States

a) Endorse and commit to the road map.
b) Develop/update their own HRH strategic plans reflecting the road map with timelines, indicators and benchmarks.
c) Mobilize resources for implementing the HRH strategic plans.
d) Hold regular planning, monitoring and progress reviews.

WHO and development partners

a) Submit the road map for approval by ministers of health at the Regional Committee meeting in 2012.
b) Develop a communication strategy for sensitization, advocacy and resource mobilization for the implementation of the road map.
c) Provide technical support to subregions and countries for the implementation and monitoring of the road map and build capacity for country roll out of the road map.
d) Convene regular intercountry stakeholder consultations and progress reviews and evaluation.

Table 1. Strategic areas, priority interventions, monitoring and evaluation

	Monitoring an evaluation	
Priority interventions	Country level indicators	Regional level indicators
Strategic Area 1 Strengthening leadership and governance capacity of the health workforce		
a) Develop or update and implement comprehensive and costed national HRH strategic plans reflecting the road map in the context of broader health plans and the macroeconomic situation. b) Increase domestic (public and private) investment and improve the effectiveness and efficient use of health-related resources to progress towards sufficient and sustainable financing of national health workforce plans, in keeping with the Abuja Declaration. c) Work towards attainment of financial sustainability for HRH by ministries of health in collaboration with other line ministries, partners and stakeholders including the community. d) Strengthen institutional leadership and governance capacities at all levels including the HRH units of the ministries of health, district health management teams, and health facilities management teams at country including other agencies or sectors responsible for employment, regulation and transfer of health workers. e) Carry out advocacy with and engage top political leaders and relevant stakeholders in HRH. f) Policy processes at country, subregional and regional levels including reviewing HRH policy. g) Develop and submit an investment case for HRH development in Africa to the heads of state via the African Union.	a) Existence of national HRH strategic plan that reflects the content of the road map. b) Existence of budget line dedicated to HRH plan and implementation. c) Implementation rate of the national HRH strategic plan.	a) Proportion of countries in the Region with national HRH plans reflecting the road map.
Strategic Area 2 Strengthening HRH regulatory capacity in the Region		
a) Strengthen the capacities of regulatory bodies to perform their roles of HRH accreditation and regulation at national, subregional and regional levels. b) Promote the establishment of professional and regulatory bodies to support enforcement of laws and regulations where they do not exist. c) Strengthen the capacities of national and regional professional associations such as public health, medical, dental, pharmaceutical, nursing and midwifery associations. d) Establish and/or strengthen the capacity of national, subregional and regional regulatory bodies to harmonize practices and regulations between professions and across countries. e) Enforce further the regulation that seeks to minimize the adverse impact of uncontrolled commercialization of health services delivery.	a) Number/percentage of functional regulatory bodies that play their roles of HRH accreditation and regulation. b) Number/percentage of functional health professional associations.	a) Proportion of countries in the Region with regulatory bodies established and functional.

Priority interventions	Monitoring an evaluation	
	Country level indicators	Regional level indicators
Strategic Area ❸ Scaling up education and training of health workers		
a) Increase educational capacity to scale up the production of health workers to match demand (infrastructure, laboratory work environment, teaching staff, teaching equipment and materials). b) Increase the production of health workers taking into account skill mix requirements to improve the quality of service delivery. c) Strengthen and/or introduce innovative approaches such as the use of ICT, e-learning and interprofessional education in pre-service education and continuing professional development. d) Develop national accreditation systems with subregional, regional and global facilitation for all health professional institutions. e) Increase access to training resources and materials for education and development through establishing and promoting sustainable mechanisms such as the programme for textbooks, instructional materials and diagnostic equipment for health sciences education in the African Region (AFRITEX). f) Expand and strengthen service platforms for professional education, training and research. g) Promote and facilitate the sharing of education and training capacity across the Region. h) Promote and facilitate the harmonization of curricula, education standards, accreditation and professional regulation. i) Strengthen and accelerate the training and career progression of teaching staff and introduce measures to ensure their retention.	a) Annual rate of increase in the numbers of graduates in medicine, nursing and midwifery. b) Percentage of staff positions filled by qualified teachers in health science training institutions.	a) Annual growth rate of graduates in medicine, nursing and midwifery. b) Proportion of countries that have at least 50% of qualified teachers in their health science training institutions.
Strategic Area ❹ Optimizing the utilization, retention and performance of the available health workforce		
a) Introduce effective recruitment and deployment policies and practices to promote rational utilization of health workers through updating of norms for better management in order to minimize ad hoc and haphazard solutions. b) Introduce measures to improve the working conditions, remuneration and living environment of health workers in collaboration with ministries that manage public sector employment across sectors; and implement HRH performance management systems. c) Promote and implement sustainable and effective retention mechanisms including attraction of workers to rural areas or from the diaspora; health workers who exited the system but are in the country; assure the safety of workers; increase salaries and introduce special allowances for staff working in difficult circumstances. d) Strengthen and/or introduce innovative approaches for professional practice such as the use of telemedicine, task-shifting, e-learning, microsurgery techniques and outsourcing of services.	a) Ratio of doctors, nurses and midwives per 1 000 population. b) Proportion of physicians, nurses and midwives working in rural areas. c) Vacancy rate of health professionals.	a) Ratio of physicians, nurses and midwives per 1 000 population in the Region. b) Proportion of countries in the Region that have implemented retention strategies.
Strategic Area ❺ Improving health workforce information and generation of evidence for decision-making		
a) Strengthen health information systems (HIS) and human resources information systems (HRIS) for improved collection, storage, analysis and use of health workers data. b) Establish and/or strengthen national, subregional and regional health workforce observatories. c) Increase investment in HRH research capacity and disseminate results to all stakeholders to identify health workforce requirements, trends and the effectiveness of interventions. d) Produce policy briefs on success stories in HRH problem solving. e) Develop regional indicators for measuring progress via the AHWO mechanism. f) Develop indicators for monitoring and evaluation of the health workforce within national health services.	a) Functional national HRH observatory in place.	a) Proportion of countries in the Region with functional national HRH observatories.
Strategic Area ❻ Strengthening health workforce partnership and dialogue		
a) Develop the capacity of ministries of health to track, negotiate, align, harmonize and coordinate stakeholder/partner activities. b) Expand and strengthen HRH coordination mechanisms for all relevant stakeholders and partners in order to facilitate policy dialogue on the HRH agenda at national, subregional and regional levels. c) Develop and/or strengthen appropriate public/private partnerships to ensure coherence of and support for HRH plans. d) Facilitate South-South and North-South technical cooperation in HRH. e) Commit to predictable long-term aid flow to HRH in keeping with the Paris Declaration and the principles of the Accra Agenda for Action, and invest in priority areas such as the production and employment of health workers to ensure sustainable impact.	a) Existence of functional HRH coordination mechanisms to facilitate policy dialogue on the HRH agenda. b) Proportion of donor funding dedicated for HRH in the country.	a) Proportion of countries in the Region with functional mechanisms for coordination of stakeholders in order to facilitate policy dialogue. b) Number of HRH regional consultations held.

Table 2. Follow-up steps that are required for the implementation of the road map at both regional and country levels

Activities	Timeline	Responsibility
1. Introduce the road map to the Sixty-second Regional Committee in 2012 and propose a draft resolution.	2012	WHO
2. Develop and implement a communication strategy (an implementation framework) for the road map that includes all key partnerships.	2013	WHO and partners
3. Regional consultation of key stakeholders and partners to assess national and regional progress in the implementation of the road map.	Every two years	WHO and partners
4. Agree upon regional HRH indicators including 2011 baseline data and information from the AHWO.	2014	WHO (AHWO)
5. All countries will have developed comprehensive national human resources strategic plans with realistic cost estimates in the context of the road map.	By end of 2014	Countries
6. All countries would have a national HRH observatory.	By end of 2015	Countries
7. Increase in HRH stock by at least 15% by 2015.	By end of 2015	Countries
8. Increase the rate of admission to health training institutions by at least 50% by 2015.	By end of 2015	Countries
9. WHO and partners to produce an African Regional Report on HRH including an assessment of contribution of the health workforce to the attainment of health-related MDGs.	2015	WHO
10. All countries in the African Region will have attained at least 2.3 health workers (medical doctors, nurses and midwives) per 1 000 population.	By end of 2025	Countries

Milestones

Table 2 shows the follow-up steps that are required for the implementation of the road map at both regional and country levels.

Each country will use the road map to develop or review its strategic plan choosing the relevant interventions that are likely to make the greatest impact, with clear timelines and indicators.

In addition, a mid-term review in 2018 and an end-of-implementation evaluation in 2025 will be conducted by countries with the support of partners.

Conclusion

This road map is expected to alleviate the HRH crisis in countries, contribute to improving health service delivery in the African Region and accelerate progress towards the attainment of the health MDGs and other national and regional health goals and targets.

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Progress report on implementation of Regional Committee resolution AFR/RC59/R3 on accelerated malaria control

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SUMMARY—Several resolutions have been adopted and commitments made to scale up malaria control towards elimination in the African Region. These include United Nations, African Union, regional economic communities, World Health Assembly and Regional Committee resolutions.

WHO AFRO provides support to countries, regional economic communities and the African Union in planning, implementing monitoring and evaluating their malaria control and elimination strategies. WHO also provides guidance and support for capacity building and resource mobilization towards reduction of the burden of malaria.

As a result of scaling up evidence-based and high-impact malaria interventions, the overall estimated incidence of malaria in the African Region fell by 33% from 2000 to 2010 and the upward trend of the disease was reversed. Furthermore, 12 countries in the African Region are on track to reduce malaria incidence by at least 50–75% by 2015.

The action points of Resolution RC 59/R3 on *Accelerated Malaria Control: Towards Elimination in the African Region* remain relevant and should continue to guide countries in the context of their broader health, development and poverty reduction agenda.

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At the global and regional levels, several resolutions have been adopted and commitments made to scale up malaria control towards elimination in the Region.[1,2,3,4,5,6,7] These resolutions were reinforced by commitments by African Union heads of state and the UN Secretary-General's call for universal access to life-saving interventions.

Malaria control is defined as a reduction of the disease burden to a level where it is no longer a public health problem as a result of deliberate efforts. Malaria elimination is an interruption of local mosquito-borne malaria transmission in a defined geographic area.[8] Pre-elimination is attained when there is less than one malaria case per 1 000 population.

The burden of malaria has decreased significantly in several countries in the Region. However, the devastating health and socioeconomic consequences of this scourge remain a matter of great concern. In order to respond to the disease burden and to accelerate progress in meeting malaria- related MDG targets, in 2009 the Regional Committee at its Fifty-ninth session adopted Resolution AFR/RC59/R3 on *Accelerated Malaria Control: Towards Elimination in the African Region*.[9]

The resolution urged Member States to scale up malaria control towards elimination through strategic planning, and strengthening the capacity of malaria programmes and procurement, supply and rational use of affordable quality-assured essential medicines and commodities.

This article summarises the progress made in implementing Resolution AFR/RC59/R3 since the first progress report in 2011and proposes next steps for action.

Progress made

Guidelines for malaria programme review and strategic planning have been released and experts in all the malaria-endemic countries trained in their use. WHO AFRO has supported 24 countries[10] to conduct malaria programme reviews and provide information for the development of strategic plans, and monitoring and evaluation plans. Conducting the malaria programme reviews and developing plans has led to enhanced dialogue with key partners and increased domestic and external funding commitments.

Guidance on integrated vector management has been provided to countries including larviciding as a complementary intervention to long-lasting insecticide treated nets and indoor residual spraying. Policy orientation on intermittent preventive treatment of malaria in pregnancy (IPTp) has been updated and disseminated. WHO AFRO also provided support for the monitoring of insecticide resistance and efficacy of antimalarial medicines through training of national staff and technical assistance for implementation research.

Technical assistance was provided to 11 countries[11] for the implementation of integrated community case management

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(iCCM) including capacity building for traditional health practitioners.

The seasonal malaria chemoprevention (SMC) guidelines were launched in 2012 and used to support the development of country implementation plans.[12] The "T3: Test. Treat. Track." initiative and the two malaria control and elimination surveillance manuals were launched by the WHO Director-General in 2012 on the occasion of World Malaria Day.[13,14]

The percentage of households owning at least one insecticide treated net (ITN) increased to 53%. Forty-seven per cent of suspected malaria cases underwent a diagnostic test in the public sector. Rapid diagnostic tests accounted for 40% of all cases tested in the Region in 2011. An average of 44% of pregnant women in 25 countries received two doses of IPTp.[15] In 2009, 73 million people, about 10% of the population at risk of malaria in the Region, were protected by indoor residual spraying (IRS).

WHO/AFRO supported the collection and validation of data for the African Leaders Malaria Alliance (ALMA) Scorecard and provided support for data collection for the World Malaria Reports 2012 and 2013 and for malaria indicator surveys in Botswana, Burundi, Chad, Comoros, Côte d'Ivoire, Eritrea and Zimbabwe. As a result of scaling up proven malaria control interventions the overall estimated incidence of malaria fell by 33% between 2000 and 2010 and the upward trend of the disease was reversed. Furthermore, 12 countries in the African Region are on track to reduce malaria incidence by at least 50–75% by 2015. Seven countries are implementing measures for pre-elimination of malaria (Botswana, Cape Verde, Namibia, South Africa, Swaziland, the United Republic of Tanzania (Zanzibar) and Zimbabwe).

In addition to the above a number of subregional initiatives are being intensified. These include the Sahel Countries Malaria Initiative, the Rwanda Malaria Elimination Forum, the SADC Malaria Elimination Initiative, the East African Community Malaria Initiative, the Small Island Developing States (SIDS) Malaria Commitment, and similar initiatives in Comoros, Equatorial Guinea (Bioko Island) and Madagascar.

Despite the progress made, important challenges remain. In 2012, 80% of the 219 million malaria cases and 90% of the 660 000 malaria deaths worldwide were in Africa. An estimated 86% of deaths involved children below five years of age. Several countries lack capacity and strong district and community-based structures for scaling up key interventions especially in conflict, post-conflict and complex humanitarian crises. Furthermore, weak health information systems hamper consistent tracking of progress. Emerging resistance to artemisinin and insecticides may erode the gains already made.

Next steps

Intensification of the following actions is proposed in the implementation of Regional Committee Resolution AFR/RC59/R3 on accelerated malaria control towards elimination in the African Region:

a) Member States should continue to conduct regular malaria programme performance reviews to inform strategic direction and planning.
b) Member States and their health and development partners should continue to mobilize adequate public and private resources to sustain acceleration of malaria control and prepare evidence-based and sustainable programme transitions.
c) Member States should rigorously enforce policies and regulations to remove taxes and tariffs on essential medicines and commodities, ban oral artemisinin monotherapies and ensure free or highly subsidized access to essential services by the poor and the most vulnerable groups in the context of universal health coverage.
d) Furthermore, the capacity of the malaria programmes should be continuously expanded including decentralization of key functions to district level and development of community-based health promotion and malaria prevention, diagnosis and treatment services in order to achieve and sustain control.
e) Where appropriate, programmes should be reoriented from control to pre-elimination and eventual elimination of the disease.
f) Countries should strengthen surveillance, monitoring and evaluation systems including drug and insecticides efficacy testing and operational research to enhance reporting on disease trends, and sustain coverage and impact of interventions.

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Progress report on the road map for accelerating the attainment of the Millennium Development Goals relating to maternal and newborn health in Africa

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SUMMARY—For many years, maternal and newborn mortality in Africa has been among the highest worldwide, representing about 50% of all maternal deaths. In order to achieve the target of Millennium Development Goal 5 to reduce maternal mortality by three quarters of the 1990 levels by 2015, concerted effort is needed in maternal and newborn health (MNH) interventions.

In response to this challenge the Fifty-fourth session of the WHO Regional Committee in 2004 adopted Resolution AFR/RC54/R9 on the road map for accelerating the attainment of the Millennium Development Goals related to maternal and newborn health in Africa.

The priority interventions of the road map aim to improve access to and availability of quality maternal and newborn health services, including family planning; prevent mother-to-child transmission of HIV; strengthen the referral system; empower individuals, families and communities; foster partnerships for MNH; and strengthen district planning, management, monitoring and evaluation of MNH services.

This report succinctly presents the progress made in implementing the road map and proposes next steps for further action.

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For many years, maternal and newborn mortality in Africa has been among the highest worldwide, representing about 50% of all maternal deaths.[1] In order to achieve the target of Millennium Development Goal (MDG) 5, i.e. to reduce maternal mortality by three-quarters of the 1990 levels by 2015, concerted effort is needed in maternal and newborn health (MNH) interventions.

In response to this challenge the Fifty-fourth session of the WHO Regional Committee in 2004 adopted Resolution AFR/RC54/R9 on the road map for accelerating the attainment of the Millennium Development Goals related to maternal and newborn health in Africa. The objectives of the road map are to provide skilled attendance during pregnancy, childbirth, and the postpartum period and to strengthen the capacity of individuals, families and communities to improve maternal and newborn health.

The priority interventions of the road map aim to improve access to and availability of quality maternal and newborn health services including family planning (FP); prevent mother-to-child transmission (PMTCT) of HIV; strengthen the referral system; empower individuals, families and communities; foster partnerships for MNH; and strengthen district planning, management, monitoring and evaluation of MNH services.

Progress made

As of December 2012, 43 out of the 46 countries in the African Region had developed their national MNH road map and included maternal, newborn and child health issues in their poverty reduction strategies and health plans. Thirty-five countries[2] had developed district MNH operational plans, these same 35 countries[3] had developed plans for scaling up PMTCT and 29[4] had developed a strategy on repositioning family planning.

To improve the quality of MNH services, 28 countries[5] introduced maternal death reviews (MDR) and made maternal death a notifiable occurrence within 48 hours. Countries have been applying WHO revised planning and monitoring tools to strengthen MNH interventions. In addition, the guidelines on essential newborn care and home-based newborn care have been used to strengthen the capacity of health care providers in 32 countries.[6] The number of countries with more than 50% skilled birth attendance coverage increased from 24 in 2005 to 28 countries[7] in 2008. Eleven[8] of these countries reached the coverage of over 80%.

A strategic framework to eliminate new HIV infections among children by 2015 and to keep their mothers

alive was developed to help countries reach 90% reduction in new infections. Twenty of the 21 priority countries[9] developed elimination of mother-to-child transmission plans with WHO support. By the end of 2011, the percentage of pregnant women living with HIV who received antiretroviral therapy (ART) to prevent MTCT had reached 59% as compared with 49% in 2009 and was estimated to be between 75% and 100% in six countries.[10] This has significantly contributed to the fall by 24% of new paediatric HIV infections in the Region from 2009 to 2011.

Through advocacy for MNH, 25 countries[11] removed financial barriers to emergency obstetric and newborn care services (EmONC). Furthermore, a Safe Motherhood Day or week has been institutionalized in 22 countries.[12] All Member States have endorsed the African Union Campaign for Accelerated Reduction of Maternal Mortality in Africa (CARMMA). So far, 41 countries[13] have launched their national campaigns.

Furthermore at their 15th ordinary session held in Kampala in July 2010, heads of state and government of the African Union committed themselves to accelerating efforts to improve the state of Africa's women and children in order to attain MDGs 4, 5 and 6 including building partnerships for elimination of mother-to-child transmission of HIV by 2015.

Following the launch of the Global Strategy for Women's and Children's Health by the United Nations Secretary-General, 34 countries[14] in the Region renewed their commitment to accelerating the attainment of MDGs 4 and 5 such as increasing the health budget, providing free maternity care, increasing the number of nursing and midwifery schools along with enrolment, increasing family planning uptake and strengthening community involvement in MNCH services. Despite the efforts and commitments to implement the road map, only two countries, namely Equatorial Guinea and Eritrea, are on track to achieve the MDG 5 target. However, 17 countries[15] have reduced their maternal mortality ratio by more than 50%. Some countries from the southern African Region, which recorded an increased maternal mortality ratio between year 1990 and 2000 due to HIV epidemic, are now recording a decline due to the increased availability of HIV drugs.

Currently 23 countries[16] have conducted a medium-term review of their national road map to identify gaps and bottlenecks and developed MDG acceleration plans.

The challenges faced by maternal and newborn health in the Region are well known and include inadequate access to quality MNH health care; inequitable distribution of quality MNH services; inadequate financial and human resources; huge burden of HIV/AIDS, malaria and other infections; and weak community involvement and participation. Furthermore, weak health systems and especially health information systems hamper consistent tracking of the progress made. The prevalence in the Region of other health determinants such as poverty, gender inequity and poor communication systems contribute to delays in timely accessing MNH services.

Next steps

To accelerate progress towards the achievement of MDG 5, countries, with the support of partners, should:

a) Accelerate the implementation of the road map to contribute towards the attainment of the MDGs related to maternal and newborn health at all levels;

b) Increase access to quality services through capacity building in MNH and PMTCT;

c) Mobilize and allocate financial and human resources to accelerate the implementation of the MNH essential interventions. This also includes removing financial barriers at the point of service delivery;

d) Effectively integrate HIV /AIDS and malaria services into MNH interventions;

e) Scale up PMTCT interventions towards the attainment of the goal of eliminating mother-to-child transmission of HIV by 2015;

f) Strengthen skills to engage individuals, women, communities and other sectors in order to address maternal and newborn health needs as well as the key determinants of health especially among vulnerable population groups;

g) Institute strong and functional monitoring and evaluation system in order to monitor progress against agreed indicators and targets. Strengthen the system of tracking resources allocated to women's and children's health in order to ensure that more funds are used for the intended purposes of reaching those who need them most; and

h) Strengthen documentation and operational research activities to generate evidence on interventions, strategies and tools that are feasible and effective in reducing maternal and newborn mortality.

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3. Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
4. Angola, Benin, Burkina Faso, Burundi, Congo, Cameroon, Comoros, Côte d'Ivoire, Chad, Central African Republic, Democratic Republic of the Congo, Ethiopia, Eritrea, Equatorial Guinea, Kenya, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Mauritania, Niger, Nigeria, Togo, Sao Tome and Principe, Sierra Leone and Senegal.
5. Benin, Burkina Faso, Burundi, Cameroon, Congo, Côte d'Ivoire, Equatorial Guinea, Ghana, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, Swaziland, Togo, Uganda, Zambia and Zimbabwe.
6. Angola, Botswana, Burkina Faso, Burundi, Cape Verde, Central Africa Republic, Chad, Congo, Democratic Republic of the Congo, Eritrea, Ethiopia, Gabon, Ghana, Guinea-Bissau, Lesotho, Liberia, Kenya, Malawi, Mauritania, Mozambique, Namibia, Nigeria, Niger, Sao Tome and Principe, Rwanda, Sierra Leone, South Africa, Swaziland, Tanzania including Zanzibar, Uganda, Zambia, and Zimbabwe.
7. Algeria, Benin, Botswana, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Gabon, Gambia, Ghana, Equatorial Guinea, Lesotho, Madagascar, Malawi, Mauritania, Mauritius, Namibia, Rwanda, Sao Tome and Principe, Senegal, South Africa, Swaziland, Togo and Zimbabwe.
8. Algeria, Benin, Botswana, Cape Verde, Congo, Democratic Republic of the Congo, Mauritius, Namibia, Sao Tome and Principe, Seychelles and Swaziland.
9. Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
10. Botswana, Ghana, Namibia, South Africa, Swaziland and Zambia.
11. Angola, Benin, Burkina Faso, Burundi, Chad, Côte d'Ivoire, Congo, Ethiopia, Gabon, Ghana, Kenya, Lesotho, Liberia, Guinea-Bissau, Malawi, Mali, Niger, Rwanda, Senegal, Sierra Leone, South Africa, Swaziland, United Republic of Tanzania, Zambia and Zimbabwe.
12. Angola, Benin, Burkina Faso, Cameroon, Chad, Comoros, Eritrea, Ethiopia, Gabon, Ghana, Kenya, Liberia, Malawi, Mali, Mauritania, Mozambique, Madagascar, Niger, Nigeria, Rwanda, Uganda and Zambia.
13. Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central Africa Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Swaziland, Uganda, South Africa, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
14. Benin, Burkina Faso, Burundi, Cameroon, Chad, Central African Republic, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Lesotho, Madagascar, Malawi, Mali, Mozambique, Mauritania, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.
15. Gambia (50%), Guinea (50%), Togo (51%), Mali (51%), Niger (52%), Sao Tome and Principe (54%), Benin (55%), Algeria (56%), Burkina Faso (57%), Malawi (59%), Cape Verde (61%), Madagascar (62%), Angola (62%), Rwanda (63%), Ethiopia (64%), Eritrea (73%) and Equatorial Guinea (81%).
16. Benin, Burkina Faso, Burundi, Congo, Democratic Republic of the Congo, Chad, Eritrea, Ethiopia, Gabon, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Malawi, Mali, Mozambique, Namibia, Niger, Senegal, United Republic of Tanzania (including Zanzibar) Zambia and Zimbabwe.

Introduction de l'enseignement de la tuberculose et de la lutte contre la tuberculose dans les écoles de médecine des pays francophones de la région africaine : Leçons apprises et perspectives

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Résumé—La formation médicale sur la tuberculose (TB) et la lutte antituberculeuse (LAT) est l'un des éléments essentiels de succès dans l'application d'un programme national de lutte contre la tuberculose (PNLT). En 2006, une enquête coopérative a permis d'évaluer l'impact des ateliers pédagogiques organisés par l'Organisation Mondiale de la Santé (OMS) depuis 1998 jusqu'à 2003 dans 11 pays de la région africaine. Le but de ces ateliers était de contribuer à l'amélioration de l'enseignement de la TB et de la LAT dans les écoles de médecine des pays francophones de la région. L'objectif de cette étude est d'analyser les progrès réalisés et les difficultés rencontrées depuis 2006 et de proposer des solutions pour renforcer le partenariat entre les écoles de médecine et les PNLT.

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La tuberculose (TB) demeure un problème majeur de santé publique dans la région africaine, qui, à elle seule, a enregistré plus de 26 % des cas notifiés dans le monde en 2011. Au cours de cette même année, la TB a été à l'origine de plus d'un demi-million de décès dans la région, et seulement 62 % des cas de TB existants ont été dépistés.[1] L'augmentation du nombre de cas de TB reflète certes une tendance générale, mais elle s'observe surtout dans les pays à forte prévalence du VIH, en particulier dans les pays d'Afrique situés au sud du Sahara. En moyenne, 46 % des personnes souffrant de TB dans la région africaine sont co-infectées par le VIH et la TB est la cause de décès d'environ 40 % des personnes vivant avec le VIH. L'émergence des cas de TB à bacilles multirésistants et ultrarésistants représente également un défi majeur à relever dans la région africaine.[1,2]

Cette situation est aggravée par le fait que la majorité des pays de la région confrontés à la double épidémie TB/VIH et à l'émergence des cas de TB à bacilles multirésistants et ultrarésistants font face à un déficit quantitatif et qualitatif de personnels de santé formés à la gestion de la TB, de la co-infection TB/VIH et de la tuberculose pharmacorésistante. Pour améliorer la situation, l'OMS recommande aux pays de renforcer le développement des ressources humaines à travers la formation médicale (initiale et continue) sur la lutte antituberculeuse (LAT), ceci étant l'un des éléments essentiels de succès dans l'application de la stratégie Halte à la tuberculose.[2,3]

En application de ces considérations, le Bureau régional de l'OMS pour l'Afrique a organisé une série de formations, sous la forme d'ateliers pédagogiques régionaux respectivement à Dakar (Sénégal, 1998), à Lusaka (Zambie, 1999) et à Bamako (Mali, 2003).[4,5,6] Ces ateliers ont regroupé les enseignants des écoles de médecine en charge de l'enseignement de la TB et les responsables des PNLT. Deux constatations majeures ont été faites à l'issue de ces ateliers pédagogiques : a) l'enseignement de la TB dans les écoles de médecine en tant que maladie, et non comme un problème de santé publique prioritaire ; b) la faible utilisation du manuel technique des PNLT comme support pédagogique pour l'enseignement de la TB et de la LAT. Parmi les recommandations faites à l'issue de ces trois ateliers pédagogiques figure l'invitation faite aux pays de la région

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africaine de créer dans chaque école de médecine un groupe spécial pour la lutte contre la TB, chargé d'introduire et de soutenir les changements pédagogiques nécessaires dans l'enseignement de la TB et de la LAT.

En 2006, une enquête coopérative a montré que sur les 11 pays ayant participé aux ateliers pédagogiques régionaux de Dakar et de Bamako, huit ont accordé une place prioritaire à l'enseignement de la TB et de la LAT dans le cursus de formation des étudiants en medicine.[7] Depuis 2006, aucune évaluation exhaustive n'a encore été réalisée pour mesurer le degré de réalisation et les impacts attendus de l'application des recommandations faites à Bamako. La présente étude a pour but d'évaluer la mise en œuvre des décisions adoptées lors de l'atelier de Bamako en 2003 et de proposer des solutions visant à améliorer l'enseignement de la TB et de la LAT dans les écoles de médecine des pays francophones de la région africaine de l'OMS.

Méthode de travail

Cette étude rétrospective a été réalisée au cours des mois d'avril à juin 2012, sur la base d'un questionnaire (identique à celui élaboré en 2006) envoyés à 11 pays francophones de la région africaine (Algérie, Bénin, Burundi, Burkina Faso, Cameroun, Côte d'Ivoire, Guinée-Conakry, Mali, République Démocratique du Congo, Sénégal et Togo), et aux mêmes participants qui ont pris part aux travaux de l'atelier pédagogique de Bamako (2003). Le questionnaire comprenait 22 questions fermées et 2 questions ouvertes à choix multiples visant à évaluer :

- l'impact des ateliers pédagogiques organisés au niveau régional/national sur le curriculum des études et sur la coordination des activités entre les PNLT et les écoles de médecine ;
- l'impact des réformes pédagogiques engagées pour améliorer la formation des étudiants en médecine ;
- l'impact des ateliers pédagogiques sur le renforcement du partenariat entre les PNLT, les écoles de médecine et l'OMS ;
- les difficultés rencontrées pour introduire le changement pédagogique au sein des écoles de médecine ; et
- les mesures prises pour surmonter les difficultés.

Le questionnaire a été envoyé aux participants par courrier électronique, accompagné d'une note explicative afin de remplir les espaces réservés aux réponses.

Les données recueillies ont été vérifiées par le superviseur lors de la saisie des données avant leur saisie électronique pour analyse.

Résultats

Il est à noter que 10 des 11 pays sélectionnés et cités auparavant (à l'exception du Sénégal) ont répondu au questionnaire.

Impact des ateliers pédagogiques organisés au niveau régional et/ou national sur le curriculum des études et sur la coordination des activités entre les PNLT et les écoles de médecine

En 2012, tous les enseignants des écoles de médecine ayant participé à notre enquête ont utilisé les directives techniques du PNLT comme support pédagogique pour l'enseignement de la TB et de la LAT. Le stage pratique est devenu obligatoire dans huit pays (Algérie, Bénin, Burundi, Burkina Faso, Côte d'Ivoire, Guinée-Conakry, République Démocratique du Congo et Togo) contre trois en 2006, mais le contrôle des compétences pratiques acquises par les étudiants n'a guère progressé, sous prétexte du nombre élevé des étudiants ; sauf exception, le stage pratique n'est ni organisé selon les objectifs, ni évalué (Figure 1). La coordination entre le PNLT et l'école de médecine, à travers les missions de

Figure 1. Impact des ateliers pédagogiques sur le curriculum des études médicales

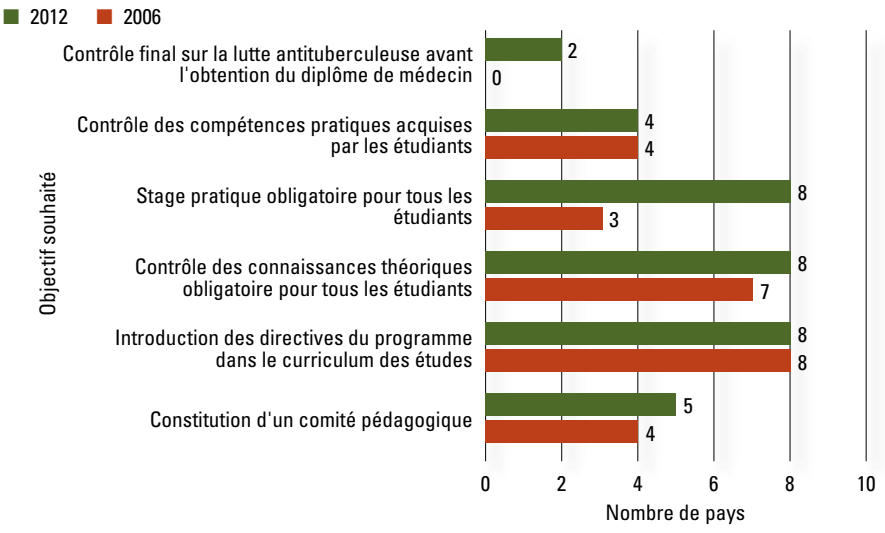
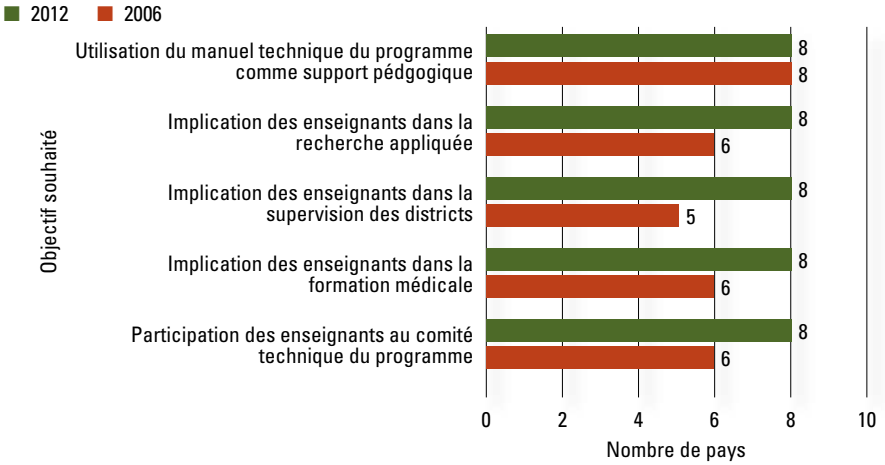


Figure 2. Impact des ateliers pédagogiques sur la coordination des activités entre le PNLT et les écoles de médecine

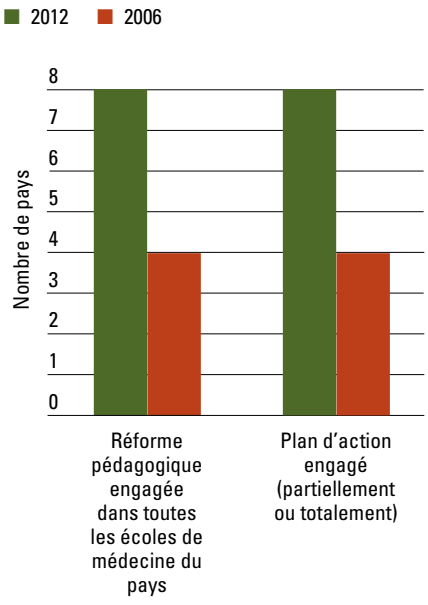


supervision des districts sanitaires et le renforcement des capacités en ressources humaines, est établie dans les 10 pays concernés par l'enquête en 2012 contre six en 2006. Les autres aspects de cette collaboration intersectorielle, notamment la participation des enseignants au comité technique et scientifique du PNLT, et leur implication dans la formation médicale continue des personnels de santé au niveau des districts sanitaires, ont enregistré des progrès (Figure 2).

Impact des réformes pédagogiques engagées pour améliorer la formation des étudiants en médecine

Bien que les réformes pédagogiques aient été engagées dans huit des 10 écoles de médecine concernées par notre enquête (Algérie, Bénin, Burkina Faso, Côte d'Ivoire, Guinée-Conakry, Mali, République Démocratique du Congo et Togo), les constats suivants ont été faits : a) le nombre de pays ayant élaboré un plan d'action pour la mise en œuvre de l'innovation pédagogique à travers, entre autres, la mise en place de comités pédagogiques sur la TB, l'uniformisation des méthodes d'enseignement et l'adaptation du manuel du PNLT en objectifs d'apprentissage, est resté le même qu'en 2006, en grande partie du fait de la réticence des autorités académiques; b) l'utilisation des nouvelles technologies de l'information et de la communication qui peut faciliter l'enseignement à distance et l'auto-apprentissage est limitée dans les différentes écoles de médecine (Figure 3).

Figure 3. Impact des ateliers pédagogiques sur l'introduction des nouvelles méthodes pédagogiques



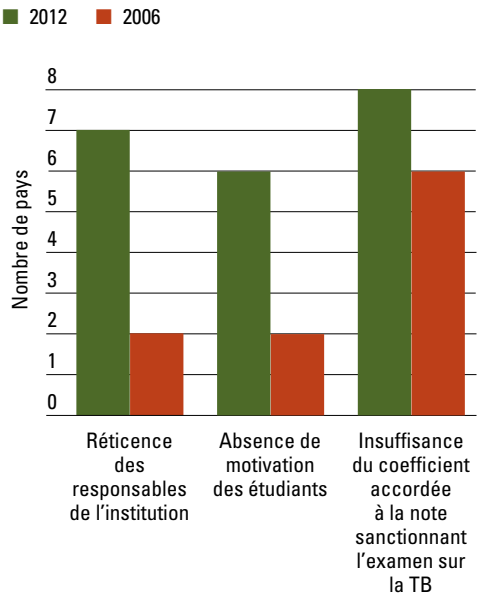
Impact des ateliers pédagogiques sur le renforcement du partenariat entre les PNLT, les écoles de médecine et l'OMS

Le partenariat entre les PNLT, les écoles de médecine et l'OMS s'est renforcé au fil du temps. L'OMS a contribué, d'une part, à la diffusion d'ouvrages de référence sur la TB et la LAT et, d'autre part, à l'édition et à la diffusion des manuels techniques sur la TB dans les 10 pays concernés par notre enquête. L'utilisation des compétences nationales dans les missions d'enseignement et de consultations dans d'autres pays de la région est effective dans sept pays (Algérie, Bénin, Burkina Faso, Côte d'Ivoire, Guinée-Conakry, Mali et République Démocratique du Congo) contre trois en 2006. L'OMS a également contribué à l'organisation d'ateliers pédagogiques nationaux dans sept des 10 pays de notre étude (Algérie, Burkina Faso, Côte d'Ivoire, Guinée-Conakry, Mali, République Démocratique du Congo et Togo). L'organisation du Cours International de formation à la gestion de la co-infection TB/VIH et de la TB pharmacorésistante par l'OMS, à l'Institut Régional de Santé Publique de Ouidah (Bénin) depuis 2011, en faveur des responsables des PNLT et des programmes nationaux de lutte contre le SIDA, ainsi que des enseignants des écoles de médecine, est également une illustration dynamique de ce partenariat.

Principales difficultés rencontrées par les écoles de médecine pour introduire l'innovation pédagogique

Les principales difficultés rencontrées sont : a) l'insuffisance de l'évaluation des compétences acquises, qui est théorique dans huit des 10 écoles de médecine concernées par notre étude (Burundi, Burkina Faso, Cameroun, Côte d'Ivoire, Guinée-Conakry, Mali, République Démocratique du Congo et Togo) ; b) l'insuffisance du coefficient accordé à la note sanctionnant l'examen sur la TB est mentionnée dans six pays (Burundi, Burkina Faso, Côte d'Ivoire, Mali, République Démocratique du Congo et Togo) contre huit en 2006 ; c) la réticence des autorités académiques dans la mise en place de comités pédagogiques sur la TB au sein des écoles de médecine

Figure 4. Principales difficultés rencontrées dans les écoles de médecine pour introduire l'innovation pédagogique



et l'uniformisation des méthodes d'enseignement est signalée dans deux pays (Burundi et Mali) contre sept en 2006 ; d) l'absence de motivation des étudiants pour acquérir des connaissances et des compétences pratiques nouvelles. (Fig. 4)

Discussion

Cette étude est limitée aux pays francophones de la région, et mérite d'être étendue aux pays anglophones et lusophones de la région.

Bien que notre enquête porte sur un nombre restreint d'écoles de médecine de pays francophones, les informations recueillies et analysées sont d'une grande importance. Par ailleurs, les aspects organisationnels relatifs aux visites sur le terrain ainsi que les entretiens avec les différents intervenants (enseignants, autorités académiques et étudiants) pour mesurer l'impact réel de certaines données recueillies n'ont pas été pris en compte dans la présente enquête.

Parmi les mesures recommandées pour améliorer la qualité de l'enseignement de la TB dans les écoles de médecine, il convient de mentionner entre autres : a) le renforcement du plaidoyer auprès des autorités académiques (nationales et régionales) ; b) l'extension de l'expérience des ateliers pédagogiques nationaux ; c) la redynamisation des comités pédagogiques sur l'enseignement de la TB ; d) la création d'un comité de suivi (représentants des écoles de médecine, des PNLT et de l'OMS) de la mise en œuvre des recommandations de l'atelier pédagogique de Bamako ; e) le renforcement du partenariat entre les écoles de médecine, les PNLT et l'OMS à travers notamment l'organisation de formations diplômantes sur l'enseignement de la TB.

Conclusion

Les efforts consentis pour améliorer la qualité de la formation médicale théorique et pratique des futurs médecins généralistes ont été notables dans l'ensemble des pays concernés par notre étude. Cette dynamique devra être maintenue et renforcée, à travers le développement de l'innovation pédagogique qui peut être facilitée par son extension à l'ensemble des disciplines, et l'orientation du curriculum des études vers la résolution des problèmes de santé prioritaires. L'application des nouvelles technologies de l'information et de la communication dans l'enseignement de la TB et de la LAT, la sensibilisation des autorités académiques à la problématique de la lutte contre la TB, ainsi que l'organisation de formations diplômantes sur la TB, devraient contribuer, d'une part, à améliorer la qualité de la formation médicale et, d'autre part, à renforcer la coordination entre les écoles de médecine et les PNLT.

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Piloting a new approach for capacity building in entomology and vector control at the level of national malaria control programmes

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More than ten years ago, there was a popular quote saying "the malaria eradication campaign succeeded in eradicating entomologists." More than a quote, it gave a basis at that time to policy-makers and managers of national malaria control programmes to justify the limited vector control activities in their action plans, countries in southern Africa being the exception.

In 1999, the Vector Biology and Control Unit of the WHO Regional Office for Africa undertook a region-wide survey to identify existing medical entomologists in order to assess gaps in human resources within this particular area of expertise. This was undertaken with the anticipated needs of increased entomologists to support the then newly established Roll Back Malaria Initiative.

The resumes of 114 medical entomologists were collected from 35 countries throughout the region. Of this number, 37% were working for ministries of health, 52% were in research institutes or universities, 6% were working for the

SUMMARY—Following a survey of entomology capacity in the African Region in 1999, a commitment to strengthen capacity was made and the African Network on Vector Resistance to Insecticides (ANVR) was launched in 2000. Its aim was to facilitate Member States to build capacity in vector control and to collaborate with institutions to standardize methods and approaches. In 2006 ANVR assessed capacity with regard to national malaria control programmes. This assessment provided data on the capacity of countries across the Region to undertake vector surveillance. Recommendations to improve the situation followed and in 2007, through the Bill and Melinda Gates Foundation, a project to strengthen infrastructure and capacity was begun. This article outlines the impressive results of the project and its wider implications for adopting similar approaches across the Region.

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private sector and 5% were employed by international organization.[1] WHO subsequently undertook to strengthen regional capacities in entomology and malaria vector control. This was to be achieved through three main strategies:

- Creating a professional network of experts;
- Facilitating communication between entomologists; and,
- Providing entomologists with opportunities to contribute to the development of national vector control activities.

As a result in December 2000, the African Network on Vector Resistance to Insecticides (ANVR) was founded by the WHO Regional Office for Africa. It had the following terms of reference:

- To assist WHO/AFRO Member States in the testing, monitoring and management of vector resistance to insecticides;
- To provide opportunities for medical entomologists in research institutions and universities and public health workers in vector control programmes to collaborate with a view to strengthening operational research and vector control;
- To assist Member States in capacity building for vector control and particularly in the training and supervision of nationals in the monitoring and management of insecticide resistance;
- To collaborate with all relevant institutions in order to standardize and harmonize methodologies, protocols and guidelines for analysis of data and interpretation of results;
- To build consensus on approaches to the management of insecticide resistant vector populations and to prepare practical guidelines for the management of vector resistance for use at national level; and
- To coordinate network activities and facilitate and promote the dissemination and exchange of information on vector resistance to insecticides.

After 13 years of existence, the ANVR has become one of the best organized and respected public health professional network of experts in the WHO African Region, with an established track record on mapping insecticide resistance, building capacity in vector control and undertaking research. Its work led to the publication by WHO in 2004 of the first atlas of insecticide resistance in malaria vectors in Africa.[2] The atlas was updated in 2011,[3] thanks to financial support from the Bill and Melinda Gates Foundation.

Despite important achievements at the international level, the ANVR and its national member institutions continued to have limited routine involvement with national malaria control programmes. A new approach in capacity strengthening for entomology and vector control was thus required.

A novel approach in capacity strengthening

In 2006 the ANVR conducted a rapid assessment of capacities in entomology and vector control at the level of ministries of health[4] in African countries. In order to systematize the assessment, it was felt fundamental to clarify the minimum operating standards for effective vector surveillance by national malaria control programmes. A classification of capacities by levels and according to the technical requirements was agreed upon (see Table 1).

Based on this classification a rapid assessment was undertaken. The results are indicated in Table 2. This survey demonstrated that there was an important number of countries in Africa that did not meet the minimum required standards, i.e. lacked basic capacity for

Table 1. The three levels of vector surveillance activities and the required technical resources

Level	Corresponding activities	Required human resources	Required facilities and equipment
Basic	• Mosquito collection and preservation • Morphological identification • Vector incrimination (sporozoite identification by microscopy and determination of infection rates • Vector susceptibility testing • Mapping and characterization of breeding sites	Technologist: Diploma/BSc Entomological assistants	• Aspirators, torches, light traps, rechargeable batteries, battery chargers, dippers, hand lenses, dissecting microscopes, silica gel, tubes, assorted entomology equipment • Identification keys, pinning kit, preservatives, storage boxes, desiccators • Dissection kits, dissecting and compound microscopes • Susceptibility kits, treated papers • GPS unit, dippers, collection trays, bottles, strainers, tape measures
Advanced	• Identification of operational research needs • Selection of sentinel sites • Analysis of data • Detection of sporozoites and source of blood meals by enzyme-linked immunosorbent assay (ELISA) • Insecticide bioassays • Assessment of vector behaviour (biting, resting and host preferences)	Entomologists: MSc/PhDs Technologists: Diploma/BSc/MSc Field assistants: Knowledge of statistics	• Knowledge of vectors • Entomological and transmission data, maps • ELISA equipment • WHO cones, treated papers • Insectary • Mosquito sampling equipment
High	• Molecular identification of vector species • Biochemical and molecular assays for detection and determination of insecticide resistance mechanisms • Operational research, e.g. vector behaviour (oviposition, swarming, dispersal)	Entomologist/molecular biologist: MSc/PhDs Technologists: Diploma/BSc	• Polymerase chain reaction (PCR)/ELISA equipment, imaging facility • Insectary

Table 2. Classification of 38 African countries based on the availability of capacities to undertake vector surveillance

Categories	Frequency	Percentage	Countries
1. Country with no capacity at all	10	26.3	Burundi, Cape Verde, Central African Republic, Congo, Equatorial Guinea, Gambia, Guinea, Mauritania, Uganda
2. Country with basic capacity in NMCP only	8	21.1	Botswana, Chad, Ethiopia, Guinea-Bissau, Malawi, Namibia, Rwanda, Togo
3. Country with advanced capacity in research institution only	3	7.8	Democratic Republic of the Congo, Mozambique, Swaziland, United Republic of Tanzania,
4. Country with high capacity in research institution only	5	13.2	Bénin, Burkina Faso, Côte d'Ivoire, Mali, Senegal
5. Country with basic capacity in NMCP and advanced capacity in research institution	5	13.2	Angola, Gabon, Sao Tome and Principe, Zambia, Zimbabwe
6. Country with basic capacity in NMCP and high capacity in research institution	4	10.5	Ghana, Kenya, Niger, Nigeria
7. Country with advanced capacity in NMCP and high in capacity in research institution	3	7.9	Algeria, Cameroon, South Africa
Total	**38**	**100.0**	

vector surveillance. However, in these same countries research institutes with advanced or high capacities in entomology existed. These institutes were not being used to help redress technical shortcomings of local vector control activities for the following reasons:

- Lack of established collaborating arrangements between research institutes and control programmes;
- Gaps in communication; and
- Ignorance by control programmes of existing technical resources, resulting in these programmes seeking support from outside the country when equivalent or even higher levels of scientific and technical capacities were available in the country.

In order to improve on this situation, the ANVR made the following recommendations:

a) Ministries of health should ensure that all national malaria control programmes have the basic capacity for malaria vector surveillance;
b) A formal process for collaboration between control programmes and research institutes within a specific country were to be established for the latter to provide advanced or high level services needed by the programmes; and
c) The ANVR was to continue to facilitate linkages between control programmes and research institutes across the region for continued harmonization, standardization and information sharing.

On the basis of these recommendations, WHO developed a project proposal for the Bill and Melinda Gates Foundation. The project was awarded in 2007. The project was entitled "Malaria Vector Control: Filling the Gap Between Product Development and Effective Delivery" and was constructed around five key elements:

- Ensuring basic vector surveillance capacities at the level of the national malaria control programmes;
- Identifying existing local research institute or laboratory with at least advanced capacity in vector surveillance;
- Establishing collaboration between the above two entities;
- Developing a decision support mechanism to help in the choice and combination of tools and interventions; and
- Sustaining a regional network for harmonization and coordination.

The key project objective was to strengthen infrastructure, technical and institutional capacities for effective vector control in malaria endemic countries, with a particular emphasis on resistance management. A total of seven countries benefited from the project.

Results

The project implementation was initiated in February 2008, with a needs assessment of national malaria control programmes and identified research institutes, in terms of funding, laboratory equipment and staff. All identified needs were catered for. Ministers of health decided to officially recognize the respective research institutes as national reference units (NRU) for entomology and vector control:

- Biotechnology Center of the University of Yaoundé I (Cameroon);
- Kenya Medical Research Institute;
- Institut Pasteur de Madagascar;
- Malaria Research and Training Center (Mali);
- National Institute of Health (Mozambique);
- Laboratoire d'Ecologie Vectorielle, Université Cheikh Anta Diop (Senegal); and
- National Institute of Medical Research (United Republic of Tanzania).

A collaborative agreement was established between the ministry of health and the respective institution to provide technical and scientific backup to national malaria control programmes in capacity building and laboratory support.

After four years, i.e. at the end of the project, and with effective support of NRUs, all national malaria control programmes of project countries were able to set up or strengthen their basic capacities in malaria entomology and vector control. These programmes are now able to carry out routine vector surveillance activities, using standard operating procedures developed by WHO.

The project enabled the training of 300 national entomologists at basic and advanced level in the seven project countries. The training focused on basic entomology and insecticide resistance monitoring. Among the trainees were 20 BSc, MSc and PhD students. In terms of capacity human resources at the level of national malaria control programmes,

the number of field entomology staff has increased. Cameroon trained a total of 60 field technicians from five provinces. Kenya trained 73 technicians and established teams consisting of two technicians, two mosquito collectors and one entomologist to conduct vector surveillance on the field. Madagascar has trained 13 technicians to carry out vector surveillance activities in six sentinel sites. In Mali a total of 18 technicians were trained in basic entomology at district level. In Mozambique six individuals underwent training in malaria entomology, sampling of malaria vectors, identification of malaria vectors, susceptibility testing and bioassay testing. In Senegal 91 technicians of hygiene and sanitation were trained in basic entomology and vector control techniques at district level. In the United Republic of Tanzania 39 field workers were also trained in basic entomology and insecticide resistance surveillance to implement surveillance activities in the 13 selected sentinel districts.

It has been observed that the demand for external technical support from the project countries has declined. In 2006 external technical support was sought by the seven project countries. In 2009 only two of them requested WHO support for vector control activities. And by the end of the project, in 2011, no requests for technical support for basic or routine vector control functions in malaria vector control were received by the WHO Regional Office from the project countries. However, the challenge remains to maintain the capacities developed to continue to ensure adequate support for the national malaria control programmes and the further strengthening of capacities.

Conclusion and lessons learnt

Ministries of health and particularly national malaria control programmes suffer from chronic shortage of human capacities. Malaria entomology is one of the most affected areas. The capacity strengthening approach piloted indicates that it is possible to harness existing local resources and expand the expertise base of control programmes, if an effort is made to provide an opportunity to research institutions to contribute to programme implementation, through nationally appropriate mechanisms. Other specialized technical areas in public health may use a similar approach to strengthen implementation and delivery capacities in public health.

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Enhancing the role of traditional medicine in health systems: A strategy for the African Region

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SUMMARY—In line with Resolution AFR/RC50/R3 (Promoting the role of traditional medicine in health systems: A strategy for the African Region, 2000), Member States took steps between 2001 and 2012 to promote traditional medicine by developing national policies and regulatory frameworks and by implementing some priority interventions. By 2012, a total of 40 countries had national policies, 19 had strategic plans and there were 28 national research institutes that conducted research on traditional medicine products used for malaria, HIV/AIDS, sickle-cell disease, diabetes and hypertension. In addition, seven countries included traditional medicine products into their national essential medicines lists (NEML) and nine adopted national frameworks for the protection of intellectual property rights and traditional medicine knowledge related to practices and products.

Despite the progress made, countries continue to face challenges in implementing Resolution AFR/RC50/R3. This article introduces an updated strategy (*Regional Strategy on Promoting the Role of Traditional Medicine in Health Systems* reproduced at the end of this article) that proposes key interventions to address these challenges and builds on the successful promotion of the positive aspects of traditional medicine in national health systems. The focus is on strengthening of stewardship and governance, the development and use of tools, the cultivation of medicinal plants and conservation of biological diversity, research and development, local production, the protection of intellectual property rights and traditional medicine knowledge, intersectoral coordination and capacity building.

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Traditional medicine (TM) is the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.[1] Traditional medicine is commonly used by various populations in the world. In Europe, its use ranges from 42% of the population in Belgium to 90% in the United Kingdom. In Africa, the range extends from 70% in Benin to 90% in Burundi and Ethiopia.[2]

Situation analysis

In 2000, participants at the Fiftieth session of the WHO Regional Committee for Africa adopted the Regional Strategy on Promoting the Role of Traditional Medicine in Health Systems.[3] Implementation of that first regional TM strategy resulted in progress in the different priority interventions, as compared with the baseline survey made in 2000 (see Table 1). For instance, by 2012, 40 countries[4] had developed national TM policies, as compared with eight in 2000. Strategic plans and codes of ethics had been developed by 19 countries, and 13 countries had national policies on the conservation of medicinal plants. In addition, 29 countries developed regulations and nine countries adopted national legislation for the protection of intellectual property rights and traditional medicine knowledge. Six countries had established national traditional health practitioners' councils, and about 25% of Member States adopted the full range of national policy components.

Although TM facilities for the provision of health services are required to enhance collaboration and complementarity between practitioners of the two systems of medicine, only Ghana has succeeded in establishing traditional medicine clinics in as many as nine regional hospital settings. In some countries, the traditional medicine policies and implementation plans were not in line with national health policies and strategic plans and were not implemented, due to inability to formalize implementation and coordination mechanisms and the inadequacy of resources allocated to TM. This situation has been aggravated by weak stewardship and law enforcement as well as inadequate human and financial resources.

In the African Region, the number of national traditional medicine research institutes increased from 18 in 2000 to 28 in 2012. These institutes researched the use of traditional medicine products for priority diseases such as HIV/AIDS, sickle-cell disease, diabetes and hypertension using WHO guidelines.[5] A total of 13 countries used research results to authorize the marketing of certain traditional medicine products[6] and eight countries included traditional medicine products in their national essential medicines lists.[7] Research partnerships were established or strengthened among various institutions and networks. However, some countries did not conduct Phase III randomized clinical trials due to the prohibitive costs involved. There is a limited number of operational

research studies that analyse factors related to the role of traditional medicine practices in different health systems. Limited information about ongoing research and inadequate dissemination of research results reduce awareness of the development and use of traditional medicine products.

By 2012, a total of 17 countries[8] had reported having small-scale manufacturing facilities for the production of traditional medicine products. However, the Member States in the African Region are still unable to fully translate traditional medicinal knowledge (TMK) into viable medicines due to barriers such as limited knowledge-sharing between scientists and traditional health practitioners (THPs); insufficient manufacturing capacity; limited investment by the pharmaceutical industry; weak private-public partnerships; regulatory hurdles; lack of national standards regarding quality specification, quality assurance and control of TM products; limited national capacity and financial resources required for regulation, quality assurance and control of TM products.

Also by 2012, a total of 17 countries[9] had small-scale cultivation of medicinal plants as raw materials used for preparing and researching traditional medicine products; 21 countries[10] had documented TM in the form of experiences to preserve TMK; 17 countries had carried out inventories of medicinal plants; and eight countries had established databases on medicinal plants, THPs and TMK. Cultivation and conservation of medicinal plants are inadequate and the application of good agricultural and collection practices and good manufacturing practices (GMPs) for TM products are still limited. Most of the raw materials are collected from forests, while large-scale and mechanized cultivation and conservation of medicinal plants is still a challenge for countries.

A number of international organizations and regional economic entities such as the African Development Bank (AfDB), the African Regional Intellectual Property Organization, the African Union,[11] CIDA, FAO,[12] IDRC, OAPI (African Organization for Intellectual Property/Organisation africaine pour la propriete intellectuelle) and the Regional Economic Communities (RECs), IUCN (International Union for the Conservation of Nature), UNCTAD,[13] UNDP, UNEP, UNIDO,[14] WIPO[15] and the World Bank have stressed the need and importance of TM in African development. In 2007, the Economic Community of West African States (ECOWAS) established a TM programme at the West African Health Organization (WAHO) which contributed to enhancing the implementation of the TM strategy in the subregion.[16] In collaboration with WHO, WAHO developed the ECOWAS Herbal Pharmacopoeia in 2012. The CAMES[17] has established Pharmacopoeia and African traditional medicine programme.

In 2011, participants at the Sixty-first session of the WHO Regional Committee for Africa discussed a progress report[18] on the implementation of the regional strategy and the plan of action of the first decade of African traditional medicine (2001–2010) and recommended an update of the regional strategy. The updated strategy builds on the achievements of the first strategy and expands its scope to ensure that TM effectively becomes a safe and valuable option in the provision of health care. It also explores how new opportunities, such as the development and implementation of TM plans by regional economic communities and increasing South-South collaboration for technology transfer, could be harnessed to enhance the role of traditional medicine in the African Region.

Table 1. Progress made by countries in the implementation of the regional strategy on traditional medicine and the plans of action in the first decade (2001–2010) and the second decade (2011–2020) of African traditional medicine in the WHO African Region during 2001–2012

Indicators	1999/2000 (baseline	2002	2005	2010	2012
Total number of participating countries	30	35	37	39	42
National policies on traditional medicine	8	12	22	39	40
Legal framework for the practice of traditional medicine	1	5	16	28	29
National strategic plans/national health strategic plans that include traditional medicine	0	2	10	18	19
Code of ethics for traditional health practitioners	0	0	1	18	19
National office of traditional medicine in ministry of health	22	25	31	39	39
National expert committee for traditional medicine	10	16	18	25	25
National traditional medicine programme in ministry of health	10	12	15	24	24
Law or regulation on traditional medicine practice	8	10	15	21	21
Registration system for traditional medicines	4	8	10	15	15
Issuance of marketing authorizations for traditional medicines	1	1	4	12	13
National research institute on traditional medicine	18	21	28	28	28
Law or regulations on herbal medicines	10	12	16	20	20
Inclusion of traditional medicines in national essential medicines lists	1	1	2	5	7
New research institutes	0	2	3	4	4
Local production of traditional medicines	15	17	15	17	17

In September 2013, the updated strategy was discussed by the ministers of health of the African Region during the Sixty-third session of the WHO Regional Committee for Africa. In their deliberations, the ministers outlined the challenges related to traditional medicine in their countries, including quality control and quality assurance, research and development, intellectual property and regulation of practitioners, practices and products.

Members of the Regional Committee unanimously adopted the updated regional strategy and its resolution on enhancing the role of traditional medicine in health systems in the African Region. For its part, WHO agreed to support countries to implement the updated strategy as well as advocate with national authorities and development partners, provide technical support to strengthen national medicine regulatory authorities, enhance cooperation and harmonization of traditional medicine practices, practitioners and products, and foster subregional collaboration in the exchange of best practice.

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REGIONAL STRATEGY ON PROMOTING THE ROLE OF TRADITIONAL MEDICINE IN HEALTH SYSTEMS[1]

AIM, OBJECTIVES AND TARGETS

The aim of this regional strategy is to contribute to better health outcomes by optimizing and consolidating the role of traditional medicine in national health systems.
The objectives are:

a) to accelerate the implementation of national traditional medicine policies, strategies and plans;
b) to promote biomedical and operational research towards generating evidence on the quality, safety and efficacy of traditional medicine practice and products;
c) to improve the availability, affordability, accessibility and safety in the use of traditional medicine practices and products;
d) to protect intellectual property rights and preserve traditional medicine knowledge and resources.

TARGETS

The strategy has targets to be reached in the African Region by 2015 and 2018, based on the 2012 baseline data. Specifically, in the African Region:

a) investment in traditional medicine research and the generation of scientific evidence of the quality, safety and efficacy of traditional medicine products and practices would have been increased by at least 4% of countries by 2015 and at least 10% of countries by 2018;
b) traditional medicine products included in the national essential medicines lists would have been increased by at least 15% of countries by 2015 and at least 20% of countries by 2018;
c) large-scale cultivation of medicinal plants and local production targeting priority communicable and noncommunicable diseases would have been increased by at least 15% of countries by 2015 and at least 25% of countries by 2018;
d) investment in traditional medicine activities would have been increased by at least 25% of countries by 2015 and at least 45% of countries by 2018.

By the end of 2023 the total number of countries implementing the Regional Strategy on traditional medicine would have increased from 19 to 40.

GUIDING PRINCIPLES

The guiding principles of this strategy are:

a) **Stewardship** to steer and create an enabling environment for improving and sustaining TM regulation, investments, partnership, coordination and activities in an integrated manner.
b) **Partnerships** among relevant stakeholders at all levels to share responsibilities and resources for maximum impact.
c) **Intrasectoral and intersectoral** collaboration for ensuring that stakeholders and partners align their interventions to national strategic frameworks.
d) **Ethics** in promoting TM use, research, practices and trade.
e) **Equitable** access to quality and effective TM services and products.

PRIORITY INTERVENTIONS

Accelerate the implementation of national TM policies, strategies and plans within national health systems. This will be necessary to promote better coordination and alignment of stakeholders including THPs, professional associations, consumers, public, private-for-profit and informal sectors to government policies.

1 Document AFR/RC63/6 Enhancing the role of traditional medicine in health systems: A strategy for the African Region, adopted at the Sixty-third session of the WHO Regional Committee for Africa, http://www.afro.who.int/en/sixty-third-session/documents.html.

Develop frameworks for integrating TM in health systems. This will involve adaptation of WHO tools to country-specific situations for the development of national regulations for TM practitioners, practices and products (including advertisements). It is also necessary to draw up legislation for the protection of IPRs and TMK; increase access to biological resources; and enhance collaboration between practitioners of TM and conventional medicine. Strengthening of the capacity of THP councils, national medicines regulatory authorities and intergovernmental organizations will enhance implementation and harmonization of traditional medicine regulation.

Promote research and development and protection of IPR and TMK. This will involve training to build capacity in research for traditional medicine including research ethics,[2] collaboration between research institutions and manufacturers for the production of new medicines; and providing incentives to researchers who have patents. In addition, it will be necessary to promote better coordination between research and training institutions including WHO collaborating centres engaged in TM development; cooperation and partnership among countries in South-South or triangular approaches; and funding of research. TM research and innovation should be developed as part of the implementation of resolution WHA61.21 on the global strategy and plan of action on public health, innovation and intellectual property.[3] Collaboration and trust between research scientists and THPs should be strengthened through enhanced understanding of their individual and complementary roles. It will also be necessary to empower THPs, communities and researchers about their rights; and to promote the use of biological resources and documentation of TMK in various forms such as country profiles, databases, ethnobotanical surveys, inventories of TM products and practices, monographs of medicinal plants, herbal pharmacopoeias and formularies.

Strengthen human resources capacity of countries for development of traditional medicine. Adequate financial resources should be mobilized and allocated in order to build the human resources to produce novel and affordable medicines for priority communicable and noncommunicable diseases. Educational systems should consider the exposure of health science students and health professionals to the role of TM in health systems. Furthermore, countries should establish or strengthen systems for the qualification, accreditation, or licensing of THPs. Priority should be given to funding TM research and developing innovative financing mechanisms.

Promote and organize large-scale cultivation and conservation of well-researched medicinal plants, used for production of traditional medicine products, based on the principles of good agricultural and collection practices.[4] While promoting large-scale cultivation, countries should also support the establishment of home gardens, botanical areas and conservation reserves. They should ensure adequate consideration of TM in national development plans for the preservation of biological diversity.

Encourage local production of TM products by creating an enabling political, economic and regulatory environment including tax-breaks for local manufacturers; establishing national regulatory frameworks and national standards applicable to TM products. Make investment to scale up current manufacturing facilities and improve local production based on scientific methods of research and development.

Enhance collaboration among multisectoral stakeholders. It will be necessary to establish an appropriate structure in the ministry of health to coordinate interventions related to TM as well as facilitate coordination of relevant stakeholders[5] and partners.[6] This structure will monitor the implementation of policies and strategies; coordinate intersectoral collaboration and the interface with regional economic communities, various ministries (e.g. health, education, agriculture, trade and industry, and research), development partners (e.g. AfDB, World Bank, UNCTAD, UNIDO) and nongovernmental organizations.

ROLES AND RESPONSIBILITIES

Member States should:

a) Take concrete steps to assess the funding needs for traditional medicine research and allocate financial resources from national budgets while considering changes in financing options and innovative funding mechanisms.
b) Document and preserve TMK in various forms and develop national legislation for the protection of IPRs and access to biological resources.
c) Adapt WHO tools and guidelines on traditional medicine to their specific situations and implement the priority interventions as well as policies, strategies and plans.
d) Issue marketing authorization for medicines that meet national criteria and WHO norms and standards of quality, safety and efficacy and include them in National Essential Medicines Lists where appropriate; Member States should also strengthen pharmacovigilance systems for monitoring adverse effects of traditional medicine products.
e) Establish an entity in the ministry of health to promote, coordinate and monitor the implementation of multisectoral traditional medicine strategic plans.
f) Strengthen the capacity of training institutions to develop training programmes and revise curricula to include traditional medicine modules for exposure of health sciences students and health professionals to the role of traditional medicine in health systems.
g) Promote public-private partnerships to raise interest in investment in traditional medicine.
h) Develop national databases for recording TMK and use of traditional medicine products.
i) Invest in traditional medicine operational and biomedical research to improve traditional medicine practices and products.

WHO and partners should:

a) Advocate for commitment of national authorities to give priority to traditional medicine and reinforce the stewardship role of governments to create and/or strengthen an enabling environment.
b) Encourage and work with regional economic communities to promote actions that contribute to increasing funding for traditional medicine; enhance cooperation and harmonization of regulation of traditional medicine facilitate joint review of registration of files of TM products; and advocate for production of traditional medicine products.
c) Provide technical advice and guidance for countries to adapt tools and guidelines to their specific situations and support the implementation of priority interventions.
d) Promote coordination and cooperation among various international organizations and partners as well as alignment with countries' traditional medicine policies and legislation.

RESOURCE IMPLICATIONS

National traditional medicine plans with multi-year financial plans need to be costed. Based on current experiences in the countries that have advanced the development of the traditional medicine agenda (Benin, Burkina Faso, Cameroon, Democratic Republic of Congo, Ghana, Mali, Rwanda, South Africa and Tanzania) it is suggested that countries consider allocating at least 2% of their annual national health budget to the implementation of this strategy. This budget does not include new drug development. The cost of WHO support to Member States in implementing this new Regional traditional medicine Strategy for the next decade is estimated at US$ 20 million.

MONITORING AND EVALUATION

To monitor the implementation of each proposed intervention, the Regional Office will develop a set of indicators for regional and country levels based on current indicators. With WHO support, countries will conduct mid-term and final reviews of the implementation of the updated strategy. A progress report on implementation of the Regional Strategy will be presented to the WHO Regional Committee every three years starting in 2016.

The African Region will have conducted a mid-term assessment of the implementation of the Regional Strategy by the end of 2018 and a final assessment by the end of 2023.

2 Jon C Tilburt and Ted J Kaptchuk (2008). Herbal medicine research and global health: an ethical analysis. *Bulletin of the World Health Organization*, Geneva, Volume 86, Number 8, August 2008, 594–599.
3 Resolution WHA61.21 on the global strategy and plan of action on public health, innovation and intellectual property. World Health Organization, Geneva, 2008.
4 WHO. *Guidelines on good agricultural and collection practices (GACP) for medicinal plants*. World Health Organization, Geneva, 2003.
5 Stakeholders include practitioners of traditional medicine and conventional medicine, the communities, national expert committee on TM; regional economic communities, ministries of health, higher education, research and finance; members of parliament; networks of traditional health practitioners and professional associations
6 Partners include various ministries, professional associations and federations, consumer groups, nongovernmental organizations, regional and interregional working groups and training institutions in both the public and private sectors.

Laboratory capacity in 2012 for diagnosis of epidemic prone diseases in the context of Integrated Disease Surveillance and Response in the WHO African Region

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SUMMARY—This paper provides the status of laboratory capacity for diagnosis of epidemic prone diseases in the context of Integrated Disease Surveillance and Response (IDSR) in 46 countries in the WHO African Region as of end of 2012 through self-assessment questionnaires. The findings from this assessment revealed that 98% (45/46) of the countries have the capacity for isolation, identification and antimicrobial susceptibility testing of common bacterial causes of enteric diseases and meningitis in the Region. Forty three countries performed standard enzyme-linked immunosorbent assay (ELISA) for confirming suspected cases of pathogens such as *Morbillivirus* responsible of measles through the detection of specific immunoglobulin M (IgM) and 30 countries had at least polymerase chain reaction (PCR) capacity for detection of influenza viruses. However, the number of countries with an appropriate department of virology providing comprehensive diagnostic services is still limited especially for dangerous viral pathogens requiring high-level containment facilities. The collection and analysis of critical information on the existing diagnostic capacity were used to propose key recommendations for strengthening the laboratory confirmation of outbreaks in line with the IDSR Strategy and the International Health Regulations (IHR, 2005). The proposed key actions were focused in the following areas: high-level advocacy for country ownership, human resource development, laboratory space and equipment, quality assurance and laboratory networking.

Voir page 60 pour le résumé en version française.
Ver a página 60 para o sumário em versão portuguese.

Countries in the WHO African Region continue to experience recurring epidemics of bacterial and viral diseases mainly cholera, meningitis, plague, measles, Chikungunya, dengue, yellow fever, and viral haemorrhagic fevers including Ebola and Marburg. Based on data received from the early warning system through the event management system (EMS), 67 public health events were reported to the Regional Office covering the period January to December 2012 of which 88% were due to infectious diseases.[1] The reporting of these epidemics to the World Health Organization Regional Office for Africa (AFRO) has been made possible through the results obtained from regional public health laboratory networks established by WHO and partners.

AFRO and its Member States, along with their technical partners, adopted the IDSR strategy for developing and implementing comprehensive public health surveillance and response systems in the AFRO countries[2] in 1998. Member States in the African Region then recommended that the International Health Regulations (IHR) be implemented in the context of IDSR.[3]

Because of the above stated facts, AFRO promotes early detection and response to epidemics and subsequently proposes generic list of epidemic-prone diseases and public health events of international concern to be reported to stakeholders.[4] The successful detection, characterization, tracing of transmission and subsequent management and control strategies of these diseases require accurate laboratory confirmation.[5] This calls for a mapping of the current diagnostic capacity of national reference laboratories for all the 46 Member States in AFRO. The collection and analysis of this critical information of the existing diagnostic capacity aims at identifying key actions for strengthening laboratory capacity for confirmation of outbreaks, including ensuring the adequacy of the human resource capacity necessary to optimize these key actions.

Methods

The status of the laboratory capacities for diagnosis of the epidemic prone pathogens was collected using a self-assessment questionnaire. The questionnaire focused on the national laboratory capacity which includes trained human resources and appropriate equipment, reagents and

supplies to confirm the following 21 diseases: anthrax, chikungunya, cholera, Crimean-Congo viral haemorrhagic fever, dengue fever, Ebola viral haemorrhagic fever, influenza, Lassa fever, Marburg viral haemorrhagic fever, tuberculosis (both multidrug-resistant and extremely drug-resistant tuberculosis), measles, meningococcal meningitis, plague, rabies, Rift Valley fever, SARS, shigellosis, typhoid fever, West Nile fever, poliomyelitis and yellow fever.

The data collected from the 46 Member States for the year 2012 were complemented by consulting the literature database from the AFRO laboratory networks namely bacteriology, influenza, measles and yellow fever, polio, emerging and dangerous pathogens as well as WHO assessment reports for implementing IDSR and IHR and strengthening laboratory health systems.

Results

All the 46 Member States responded to the questionnaires administered by AFRO through their WHO country offices. The compilation and analysis of the data showed that few countries have the appropriate capacity to confirm all the outbreak prone priority diseases; for instance only 24% of them were able to confirm at least 75% of epidemic prone diseases in the context of IDSR.

The main findings from the assessment were reviewed to establish laboratory capacity under the following topics:

- Laboratory categories based on capacity for confirmation of selected pathogens;
- Laboratory diagnostic capacity by pathogens; and
- Existing laboratory techniques.

Laboratory categories based on capacity for confirmation of epidemic prone diseases in the context of IDSR

Based on a classification by category, the distribution of the 46 countries' capacity to confirm epidemic prone diseases are as follows:

- **Category 1:** Countries with laboratory capacity to confirm more than 75% of IDSR epidemic prone diseases – **11 countries** (24%);
- **Category 2:** Countries with laboratory capacity to confirm between 74–50% of IDSR epidemic prone diseases – **8 countries** (17%);
- **Category 3:** Countries with laboratory capacity to confirm between 49–25% of IDSR epidemic prone diseases – **24 countries** (52%); and
- **Category 4:** Countries with laboratory capacity to confirm less than 25% of IDSR epidemic prone diseases – **3 countries** (7%).

Laboratory diagnostic capacity by diseases

The number of countries with laboratory capacity for confirmation of each disease is presented as follows (ordered by country capacity):

- **Salmonella enterica serovar Typhi:** 45 countries (98%) performed isolation and identification of *S. enterica* serovar Typhi from blood, bone marrow or stool. These countries also have the capacity for antimicrobial susceptibility testing but some of them do not have the necessary reagents to perform the serological typing of *S. enterica* serovar Typhi.
- **Cholera:** 44 countries (96%) were able to perform isolation, identification and antimicrobial susceptibility testing of *Vibrio cholerae* in stool. These countries used antisera for serological determination of serotypes Ogawa and Inaba.
- **Shigellosis:** 44 countries (96%) performed isolation, identification and antimicrobial susceptibility testing of *Shigella dysenteriae* in stool. However, some of the countries lacked of antisera for determination of *S. dysenteriae* type 1 which is the most common cause of enteric infection outbreaks.
- **Meningococcal meningitis:** 44 countries (96%) were able to perform culture and isolation of *Nesseria meningitidis* from cerebral spinal fluid. The Kovac's oxidase test for the identification of *N. meningitidis* is very common in national reference laboratories and some laboratories in addition performed serogroup identification by slide agglutination. A limited number of laboratories continue to use biochemical or enzymatic substrates for identification of *Neisseria* species and very few laboratories have appropriate capacity for performing antimicrobial susceptibility testing by determination of the minimal inhibitory concentration (MIC). Recently, some countries have embarked on characterization of *N. meningitidis* by molecular typing.

- **Measles:** 43 countries (93%) performed at least ELISA to determine the presence of IgM antibodies in serum to *Morbillivirus* responsible for measles. As part of the quality assurance programme within the regional measles laboratory network, national laboratories are required to send a proportion of their positive and negative IgM samples to their designated reference laboratory – mainly the Uganda Virus Research Institute (UVRI) and the South African National Institute for Communicable Diseases (NICD) for confirmatory testing. These reference laboratories support molecular characterization of circulating wild-type viruses to help in monitoring of viral transmission pathways and progress toward measles elimination. In addition the World Health Organization has established genotype databases for measles in order to monitor and track transmission patterns of different genotypes globally. In addition, these laboratories used the enzyme-linked immunosorbent assay to detect rubella antibodies in the blood.[6]
- **Multi-drug resistant/extensively drug resistant (MDR/XDR) tuberculosis:** 40 countries (87%) indicated that they have the capacity for TB bacterial culture, antigenic or molecular analysis and anti-TB drug susceptibility testing for confirmation of MDR/XDR-TB. Some laboratories are able to perform new rapid diagnostic technologies for pan susceptibility and drug-resistant TB by use of the line probe assay and GeneXpert technology platform.[7]
- **Human influenza:** 30 countries (65%) used at least real-time reverse-transcription polymerase chain reaction (RT-PCR) for typing and subtyping of influenza viruses. At least 13 of the 30 countries have the capacity for virus isolation for influenza. Moreover, some of these 13 countries are performing haemagglutination inhibition testing and/or immunofluorescence antibody staining. The laboratories with capacity for detection of influenza play a critical role in monitoring and responding to the threat of a human influenza pandemic. The infrastructure in place in some of these laboratories has been used to confirm outbreaks of dengue fever and other viral pathogens.
- **Yellow fever:** 27 countries (59%), members of the regional yellow fever network, are using ELISA technique for the detection of presence of yellow fever specific IgM and IgG antibodies. The confirmation of this pathogen is conducted in the Pasteur Institute of Dakar as the regional reference laboratory through serological and molecular diagnosis techniques as well as virus isolation.
- **Plague:** potentially 20 countries (43%) have the capacity for isolation of *Yersinia pestis* from bubo aspirate, culture of blood, cerebral spinal fluid (CSF) and/or sputum. In addition, some of these countries conducted the detection of antibodies to the *Y. pestis* F1 antigen from serum. Actually, capacity is available in all endemic countries for plague in the region.
- **Dengue fever:** 19 countries (41%) used at least serological tests and RT-PCR for detection and typing of the dengue virus.
- **Chikungunya:** 17 countries (37%) also used at least serological tests and RT-PCR for laboratory confirmation of chikungunya virus.
- **Poliomyelitis:** 16 countries (35%) performed culture of polioviruses from clinical samples for virological surveillance in the worldwide initiative to eradicate wild-type polioviruses. An intratypic differentiation (ITD) using real-time PCR technique is also performed to allow the distinction between wild poliovirus (WPV), Sabin-like (SL) poliovirus (vaccine) and suspected vaccine-derived poliovirus (VDPV). Genome sequencing of the VP1 capsid is conducted to confirm the WPV or VDPV origin of poliovirus at the National Institute for Communicable Diseases in South Africa and the Uganda Virus Research Institute. The sequence information can be used for monitoring the eradication progress and tracking chains of virus transmission.
- **Rabies:** 16 countries (35%) detected at least rabies viral antigens by direct fluorescent antibody (FA) in clinical specimens. Collaboration between veterinary and public health laboratories is being improved in some countries for the diagnosis of this pathogen and other zoonoses in line with the One Health approach.
- **Viral haemorrhagic fever:** may be caused by a number of viruses and includes to disease caused by Arenaviridae (Lassa fever), Bunyaviridae (Crimean-Congo haemorrhagic fever, Rift Valley fever), Filoviridae (Ebola and Marburg). Countries in AFRO employed at least serological tests and RT-PCR for laboratory confirmation. A summary of country-specific capacities is shown in Figure 1 and Table 1.

Figure 1. Number of countries with laboratory diagnostic capacity by pathogen/disease, December 2012

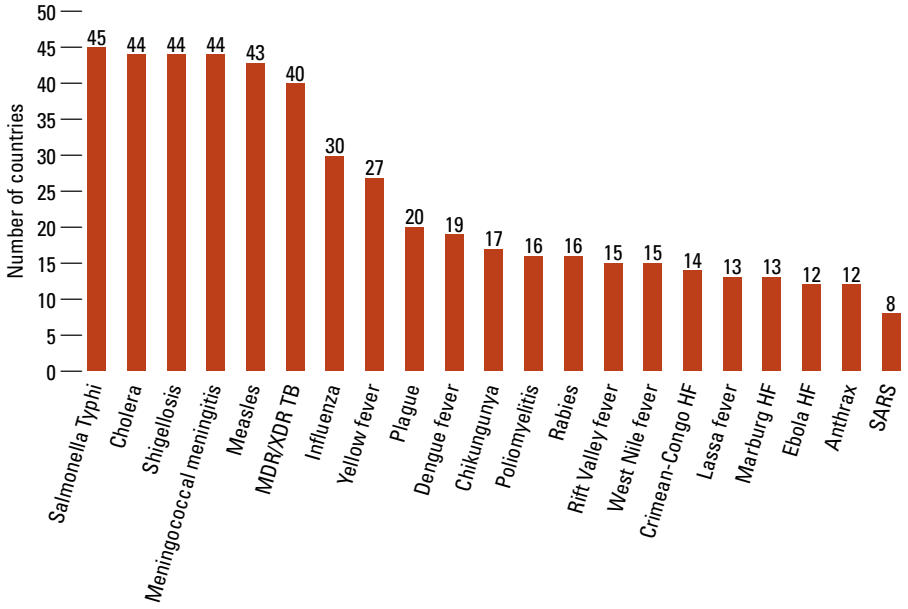

Table 1. Number of countries using at least serological tests and reverse transcription polymerase chain reaction (RT-PCR) for laboratory confirmation of VHF

Virus	Number of countries	Percentage
Rift Valley	15	33
West Nile	15	33
Crimean-Congo	14	30
Lassa	13	28
Marburg	13	28
Ebola	12	26

- **Anthrax:** 12 countries (26%) have laboratory capacity to confirm cases of *Bacillus anthracis* in humans at least by conventional microbiological methods such as culture and directly staining smears of clinical specimens.
- **SARS:** 8 countries (17%) potentially have the capacity to perform at least RT-PCR assay for the detection of human coronavirus causing severe acute respiratory syndrome (SARS-CoV). However, the laboratories may not maintain over the years primers and probes for this pathogen after the global threat in 2003.

Laboratory techniques used for identification of priority pathogens in the context of Integrated Disease Surveillance and Response

- From the analysis only one country does not have the capacity for isolation and identification of priority bacterial outbreak prone diseases as its national bacteriology reference laboratory in charge of confirmation of bacterial meningitis and bacterial enteric diseases was not operational.
- 43 countries have set up capacity for detection of specific IgM and IgG in sera through ELISA to detect measles. Technology can be expanded for screening other viruses once kits are made available.
- 40 countries have capacity for detection of drug-resistant tuberculosis through new rapid molecular detection assays (Xpert and MTBDRplus) and/or conventional approaches involving liquid mycobacterial culture and phenotypic drug sensitivity testing.
- At least 30 countries have PCR capacity to enable them to detect influenza viruses and other viral pathogens.

In general the number of countries with the minimum requirements for establishing a functioning national virology laboratory such as virus isolation and electron microscopy is limited mainly for highly dangerous viral pathogens requiring high-level containment. At least ten countries have high-level containment (BSL-3) laboratory facility and only South Africa has in addition an operational BSL-4 laboratory. Despite progress being made on diagnostic capacity of Member States to cope with IDSR and IHR (2005), issues and challenges remain on the overall components of laboratory services for providing timely and reliable results of epidemic prone diseases.

Key issues and challenges

Based on the existing WHO assessment and meeting reports, the following remain as the main issues and challenges for most of the WHO African countries for appropriate capacity for confirmatory testing for all priority outbreak prone diseases:[8]

Less than adequate ownership and integration of key laboratory activities and budgets into national health plans: Excessive dependence on donor and partner funding for human resources for laboratory services and also for equipment maintenance and reagent supplies; inadequate country-level ownership will eventually lead to a lack of sustainable laboratory services for both routine and epidemic response. Lack of ownership in some countries limits opportunities for resource mobilization and financing which affects all the factors indicated above.

Inadequate number of suitably trained laboratory staff: Most of the key departments in public health laboratories such as bacteriology or virology laboratories have very limited senior and specialized staff with appropriate levels of education to coordinate the validation of the tests. Moreover, there is an inadequate number of trained technicians to run the tests mainly during recurrence of epidemics.

Inadequate laboratory infrastructure: In most cases the design of laboratory facilities do not fully meet the requirements of biosafety and biosecurity. Based on the pathogens manipulated in the units, the Biorisk assessment may reveal weaknesses related to the infrastructure.

Old or inadequately serviced equipment: Often, national reference laboratories do not have sophisticated equipment for accurate confirmation of pathogen identity. Very few reference laboratories have the capacity for performing further characterization of pathogens in order to provide necessary key information for policy-makers.

Lack of essential reagents and consumables: The procurement system is not well established at the national level to improve availability of required reagents and supplies which results in stock-outs for reagents during critical periods such as outbreak investigations.

Limited quality assurance and quality control protocols: Despite the participation of the national reference laboratories in various external quality assessment schemes including the regional EQA programmes established by WHO and partners, the results of panels are not always optimal outside some vertical programmes and mechanisms are not in place for appropriate corrective action.

Inadequate functional national laboratory network: For outbreaks that occur in remote areas, there is no appropriate and regular coordination and communication between central and district levels. There is no framework in most of countries to guide the operationalization of networking of public health laboratories at all levels of health care service delivery.

Actions proposed

In the light of the findings described and discussed above on low diagnostic capacity as well as issues and challenges of Member States for confirmation of all common epidemic prone diseases, there is a need for a combination of actions to strengthen public health laboratory services. The following specific actions may be proposed to countries in order

to improve laboratory-based surveillance of outbreaks.

High-level advocacy for country ownership

National ownership is crucial for national public health laboratories to provide timely and reliable results for the purpose of disease control and prevention and sustainable laboratory services at all level of health care delivery. Strong laboratory leadership ensures that the laboratory agenda is a central component of national health systems.

Human resource development

Diagnostic microbiology laboratories should be adequately staffed. If possible, key staff involved in investigating outbreaks need to access pre- and in-service training opportunities such as the Field Epidemiology and Laboratory Training Programme (FELTP) to acquire skills required for enhanced outbreak investigation processes. The staff requirement for each subunit in a reference laboratory should take into account the work specificities and work load. However, it is crucial that the management is led by a senior well-trained and experienced scientist. The minimum qualification requirements of laboratory personnel working in bacteriology, tuberculosis and virology/immune-serology departments should be elaborated by the ministry of health in close collaboration with partners. This exercise should cover the range of qualifications – laboratory technicians/technologist diploma, bachelor/master's degree in laboratory-based sciences and doctors or pharmacists with a degree in laboratory-based sciences or a PhD in a relevant laboratory field.

Required laboratory space and equipment

Appropriate building space and equipment are also essential to deliver safe and effective services. The infrastructure of a national public health reference laboratory should ideally be designed in order to maintain biosafety standards. In addition, there is also need to establish well-equipped subunits for accurate detection of targeted diseases. The minimum numbers and types of rooms and equipment by department can be defined in the national policy document using WHO resources and guidelines including laboratory assessment tools.

National authorities should establish innovative approaches for procurement of essential equipment, reagents and supplies and promote the establishment of systems for appropriate maintenance of laboratory equipment. This should be integrated into the regular national health budget earmarked for laboratory support as distinct from donor and partner resources.

Quality assurance

A quality assurance programme is the backbone of quality laboratory performance. Establishing or strengthening the laboratory quality assurance programmes will allow countries to improve the reliability and reproducibility of laboratory results. Standard operating procedures (SOP) are among the most important documents in a diagnostic laboratory. Each unit should have up-to-date written SOPs for all techniques performed in the laboratory. These SOPs should incorporate the internal quality control. In addition, the reference laboratory should participate in internationally recognized external quality assessment programmes and corrective actions should be implemented based on the results of each panel in order to enhance and maintain performance of the laboratory. Laboratories should be encouraged to engage in the WHO stepwise laboratory improvement process towards accreditation (SLIPTA) if not yet accredited.[9]

Networking

National reference laboratories should coordinate national laboratory networks in order to link all laboratories at all levels of the health system for timely detection of disease outbreaks, and have operational links to subregional or/and regional reference laboratories. In addition, three quarters of all new emerging or re-emerging diseases have been caused by pathogens emerging from animals or animal products.[10] In view of this, it is crucial to improve collaboration between human and veterinary laboratories in line with the One Health approach.

Conclusion

This review has provided the status of the capacity of the national reference laboratories from all the Member States in the African region using a self-assessment questionnaire. The findings clearly show that the laboratory capacity for the diagnosis of the 23 outbreak prone diseases stated above is quite varied among Member States. Member States need to extend their laboratory capacity for priority pathogens based on the epidemiological context. The collection and analysis of this critical information on existing laboratory diagnostic capacities will contribute to generating regional and national plans of action for strengthening laboratory capacity for disease outbreak detection and surveillance.

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Letter to the Editor

Dear Editor,

Explore further the role of indigenous African counselling techniques in post-traumatic stress contexts

It is nearly two years since the horrific bombing of the UN House in Abuja, Nigeria on 26 August 2011. The bomb killed at least 23 people, and around 116 UN personnel sustained various forms of physical injuries. The Government of Nigeria and the UN agencies responded swiftly in taking care of the casualties and funeral arrangements for those killed. WHO was assigned the responsibility of coordinating the health response. Indeed, a critical aspect of the response was in handling the emotional and psychological impacts of the crisis.

Most of the 15 UN agencies housed in the UN building in Abuja promptly flew in professional counsellors from abroad to help staff, dependants and members of the deceased families cope with post-traumatic stress and other related emotional disorders. To add, one psychiatrist was locally recruited to beef up the efforts of the international counsellors. These professional counsellors, mostly of psychiatric or psychology background, undertook group counselling sessions as well as targeted individual counselling in designated places provided by the UN, or in family settings. The counselling services were available in the immediate period following the bomb incident, and on and off for several months as need arose. Even the local religious groups held several prayer sessions and carried out group and individual counselling sessions.

In addition, however, there was another type of counselling approach especially among the local communities using more traditional African methods. In this approach, close community members and community leaders took time to visit the affected individuals in their homes. They lived with them and provided help with domestic work, harvesting crops, or attending to children. They settled in for periods of between two to three months, during which experiences with grief were shared. And besides providing a holistic family support environment – considered key in revitalising the social well-being of individuals – community members also encouraged and helped affected families to recount the incident, search leverage and confront their fears. Affected family members were given the opportunity to express their anger, anxiety and remorse. This usually took several sessions, as new community members joined and had to be told the same stories by the affected families, giving an opportunity for affected individuals and families to feel part of a loving and caring community.

Recently we made contact with some of the affected individuals who have started sharing their experiences. Although there has been no structured and systematic assessment of these experiences, some staff members counselled reported that they benefited a lot from the traditional African approach. Many who were emotionally and severely affected said they could not abruptly open up their personal emotions to complete strangers flown into the country to offer professional counselling services. They suggested that counselling after a crisis like this should be done in a culturally accepted manner. But others did indicate that they benefited from all forms of counselling services provided.

Undoubtedly, some lessons are starting to emerge from the health response that was coordinated by WHO. While it was clearly necessary and straightforward to plan and deal with physical injuries, the magnitude and range of mental and social well-being aspects of the crisis was variable. Because of cultural and other social norms sensitivities, there may be need to explore options for dealing with these diverse issues in this kind of crisis. Furthermore, the role of the indigenous African counselling approach in post-traumatic stress contexts, and the exact techniques involved, remain unclear and have not been given much attention and therefore deserve further exploration.

We submit this brief experience, mainly to raise awareness of the need to accommodate traditional methods/ways of counselling. This article aims to appeal for more research to formalize indigenous African counselling techniques. A review of available literature points to the uniqueness of the African context, and the need for more investigations on counselling methods using clearly defined and structured approaches that have evolved over the years.[1,2,3] The technique if properly validated could be adapted for training and use in the field, instead of reliance on current and mostly unstructured community driven efforts.

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News and events

Sixty-third session of Regional Committee agrees to intensify efforts to address women's health and HIV among other areas

Ministers of Health from the 47 Member States of WHO in the African Region ended their 63rd session on 6 September 2013 in Brazzaville, Congo, with the adoption of resolutions endorsing four reports – on women's health, the health of elderly people, traditional medicine, HIV, eHealth, Rules of Procedure of the Regional Committee – and a regional strategy on neglected tropical diseases (NTDs).

The ministers observed that 44% of deaths among women worldwide occur in the African Region mainly due to communicable diseases, pregnancy- or childbirth-related complications and nutritional deficiencies. To address this, they adopted a resolution calling on countries to give priority to women in their development agendas, remove barriers to women's access to financial resources, property and health care and empower women through promoting girls' education.

The resolution stems from a report of the Commission on Women's Health in the African Region entitled *Addressing the Challenge of Women's Health in Africa* that highlights the need for a life-course approach to achieve rapid and sustainable improvements in women's physical, mental and social well-being.

Regarding the health of elderly people, ministers noted with deep concern that health systems in the Region had not been prepared to respond to the needs of the rapidly ageing population. They adopted a resolution urging countries to prioritize and put measures in place that: promote healthy ageing at every stage of a person's life course; address the specific health problems related to the ageing of women and men; protect the elderly in emergency situations; and address their nutritional needs in order to ensure their food security.

Noting that, a significant proportion of the population in the African Region, use traditional medicine for their health care needs, ministers endorsed a report and a resolution to enhance its role in health systems. Among the actions expected from countries are: ensuring that traditional medicine products are safe, affordable and accessible and protecting intellectual property rights with a view to preserving traditional medicine knowledge and resources. Other actions include strengthening human resources capacity for development of traditional medicine; promoting and organizing large-scale cultivation and conservation of well-researched medicinal plants; and enhancing collaboration among stakeholders in various sectors.

Efforts to rid the African Region of NTDs received a significant boost with the adoption of a resolution and a regional NTD strategy. The resolution called on countries to include NTDs in the post-2015 national development agendas, ensure adequate resources and intensify actions against NTDs at all levels. The need for countries to provide leadership in establishing and strengthening integrated national NTD programmes along with coordinating mechanisms was emphasized.

A resolution on HIV calling on countries to adapt their national antiretroviral therapy (ART) guidelines to WHO's new guidelines on the use of antiretroviral drugs for HIV prevention and control was also adopted. The new WHO guidelines, published in June this year, recommend early treatment for people living with HIV and the promotion of treatment for HIV-infected children under five years of age as well as pregnant and breastfeeding women. In adopting the resolution, ministers urged countries to invest more in HIV response by mobilizing adequate domestic and international resources and improve procurement and supply of drugs and other commodities. They also called on countries to decentralize HIV services and integrate and link HIV services with sexual and reproductive health, child health, tuberculosis and other related services.

Other issues discussed included: progress made by countries in protecting people from the effects of tobacco use; networking of public health research institutions, the management of cancers, the implementation of the region's 2009–2013 immunization strategic plan, the Global Vaccine Action Plan and the Polio Endgame and ongoing reforms at WHO.

During the weeklong meeting many countries reported on actions taken or under way at national level to implement WHO recommendations, including the implementation of activities to strengthen health systems towards universal health care. Ministers of health also reviewed the Organization's activities during the past biennium and adopted its proposed Programme of Work and Budget for 2014–15. South Sudan was admitted to the WHO African Region during the Conference, bringing the Regional Organization's membership to 47 countries.

The five-day meeting was attended by health ministers (or their representatives), senior WHO officials including WHO Director-General, Dr Margaret Chan; WHO Regional Director for Africa, Dr Luis Sambo; representatives of bilateral and multilateral organizations including IGOs, NGOs and funds and programmes of the United Nations as well as other institutions and organizations working to improve the health situation Africa.

The Sixty-fourth session of the Regional Committee is expected to be held in Cotonou, Benin in 2014. ■

African Public Health Emergency Fund ready to take off

The African Public Health Emergency Fund (APHEF) proposed by the WHO Regional Director for Africa, Dr Luis Sambo, and endorsed by African health ministers and heads of state, is now ready to go operational.

This indication was given by Dr Sambo in a report to the Sixty-third session of the WHO Regional Committee for Africa which took place in Brazzaville, Congo in September.

World Health Organization (WHO)

Operations Manual – African Public Health Emergency Fund (APHEF)

The Regional Director reported that the APHEF's operations manual had been reviewed and endorsed at a meeting of the Fund's Monitoring Committee held earlier, in May 2013, also in Brazzaville.

He stated that five countries had paid US$1.7 million as their contributions to APHEF for 2012 and 2013.

Dr Sambo called on the meeting to urge all Member States to include a budget line in their national budgets for their subsequent yearly contributions to APHEF, and to settle their 2012 and 2013 contributions to the Fund.

The annual contribution of Member States to APHEF is set at a total of US$50 million. The purpose of APHEF is to mobilize, manage and disburse additional resources from Member States for responding rapidly and effectively to public health emergencies of national and international concern. ■

Africa making huge strides in fighting tobacco use

Countries in the WHO African Region have made good progress in protecting people from the devastating effects of tobacco and tobacco use on health but more still needs to be done, according to WHO Regional Director for Africa, Dr Luis Sambo.

In a report presented to the 63rd session of the WHO Regional Committee for Africa in September Dr Sambo indicated that as at July 2013, 41 of the 47 Member States in the Region had ratified or acceded to the WHO Framework Convention on Tobacco Control (WHO FCTC) compared with just nine in 2005 and have designated staff for national tobacco control.

> The WHO FCTC is the first global public health treaty and seeks "to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke".

The treaty's provisions include obligations on the production, sale, distribution, advertising and taxation of tobacco.

Most countries are also carrying out education and awareness activities to sensitize the public on the health risks of tobacco and the benefits of a tobacco-free lifestyle. Twenty-seven countries are implementing tobacco cessation through education and health promotion programmes set up in health care facilities.

According to the report, 29 countries have measures in place to protect members of the public from exposure to tobacco smoke. In five countries, there are laws that make it an offence to smoke in all indoor areas including workplaces, restaurants and bars. Health warnings are required on packages of tobacco products in 20 countries. In Madagascar and Mauritius tobacco packages carry picture-based warnings associated with greater recall, increased motivation to quit smoking and greater attempts to quit.

Tobacco advertising, promotion and sponsorship are restricted in 29 countries and some have imposed a comprehensive advertising ban.

In November 2012 three countries committed themselves to be even more stringent in regulating tobacco by agreeing to the establishment of a global tracking and tracing system to reduce and eventually eradicate illicit trade in tobacco products.

However, the Regional Director added that despite significant progress made in implementing the provisions of the international treaty for tobacco control, some challenges still remain.

These include the tobacco industry's aggressive marketing techniques and interference with tobacco control programmes, as well as inadequate allocation of resources by countries for tobacco control. ■

Ensuring access to good quality, safe and effective medical products in the African Region

Every day some patients receive treatments and use poor quality medical products which are unsafe and ineffective.

> The World Health Organization describes such medical products as "substandard, spurious, falsely labelled, falsified or counterfeit" (SSFFC).

In many countries SSFFC medical products are sold on the streets, on street corners, in open-air markets, and often alongside fruit and vegetables. People seeking medication who are unable to afford medicines from licensed outlets look for cheaper alternatives elsewhere. In some rural areas access to medication is limited, and often supply does not meet demand, resulting in a market for unlicensed medicines.

According to WHO experts, the use of substandard and inactive ingredients, poor manufacturing practices, improper packaging, transport and storage put people's health at risk. One of the root causes of these breakdowns in medicines quality is inadequate capacity of national medicines regulatory authorities.

HOW CAN COUNTRIES IN THE AFRICAN REGION ADDRESS THESE ISSUES?

WHO Regional Director for Africa, Dr Luis Sambo, proposed solutions to address the issue of SSFFC medical products in a report today to health ministers who attended the Sixty-third session of the WHO Regional Committee for Africa in September.

One of the solutions proposed by Dr Sambo is the establishment of an appropriate body such as a National Medicines Regulatory Authority (NMRA) to ensure that only safe, good quality and effective medical products are available in countries. This authority should be an autonomous and fully fledged organization in order to ensure independence, transparency and accountability in decision-making.

He also proposed that countries adapt and use WHO-recommended guidelines that include the use of mechanisms such as the WHO "Prequalification Programme". This mechanism ensures that diagnostics, medicines, vaccines and immunization-related equipment and devices for high burden diseases meet global standards of quality, safety and efficacy.

Referring to the challenge of outdated and inconsistent laws in some countries, Dr Sambo said: "Governments have primary responsibility for establishing a comprehensive and functional regulatory system in countries. Systematic approaches to regular assessment of the regulatory systems should be adopted to achieve the goals of the pharmaceutical sector. The legal and regulatory framework should allow effective implementation of regulatory activities".

The shortage of qualified staff should be addressed by ensuring pre-service and in-service training. In addition, countries should collaborate with academic institutions in establishing regional centres of excellence to serve as training hubs.

On inadequate and unsustainable funding – a constant challenge facing Africa's health sector, the Regional Director proposes that countries establish budget lines and adequate funding mechanisms for medical products regulation to cover recurrent and operational costs.

Recalling the decision of African heads of state and government to create the single African Medicines Agency (AMA), Dr Sambo emphasized the need to accelerate its full operation to improve collaboration and strengthen the regulatory capacity of countries. He urged regional economic communities to work towards harmonization of medical products regulation.

It is hoped that if the measures proposed by the Regional Director are fully implemented the region will be on the path to building strong and fully functional systems that will ensure that people can have access to good quality, safe and effective medical products to reduce cases of treatment failure, drug resistance and, ultimately, death. ■

Greater role for traditional medicine in the African Region

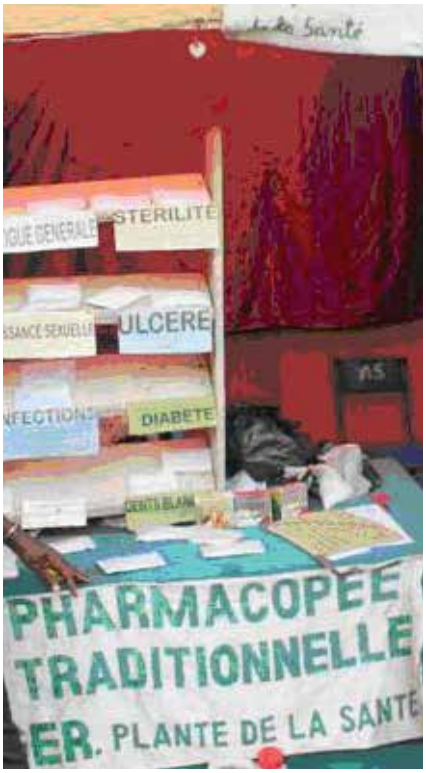
The role of traditional medicine in health care in the African Region has been given a significant boost following the release of an updated traditional medicine strategy entitled *Enhancing the role of traditional medicine in health systems: A strategy for the African Region*. The strategy aims at ensuring that countries in the Region use traditional medicine as a viable option to improve people's health.

The document was endorsed by the ministers of health from the WHO African Region at their annual meeting – the WHO Regional Committee for Africa – in September 2013 in Brazzaville, Congo. The strategy focuses on some critical actions to be undertaken by countries. These include: accelerating the implementation of national traditional medicine policies; ensuring that traditional medicine products are safe, affordable and accessible; and protecting intellectual property rights with a view to preserving traditional medicine knowledge and resources.

Other actions proposed include strengthening human resources capacity for development of traditional medicine, promoting and organizing large-scale cultivation and conservation of well-researched medicinal plants used for

production of traditional medicine products and enhancing collaboration among stakeholders in various sectors.

Among the targets set out for countries are: investment in traditional medicine research; inclusion of traditional medicine products in national essential medicines lists; and large-scale cultivation of medicinal plants and local production targeting priority communicable and noncommunicable diseases.



The first regional traditional medicine strategy was adopted by countries in 2000 and implemented between 2001 and 2012. Its implementation helped to raise awareness and the profile of traditional medicine. Statistics available at the WHO Regional Office for Africa show that by 2012 a total of 40 countries had developed national traditional medicine policies as compared with eight countries in 2000; and 24 countries had established national traditional medicine programmes as compared with 10 countries in 2000. The implementation of the initial strategy during the past decade also led to 39 countries establishing national traditional medicine offices as compared with 15 in 2000. Similarly, 25 countries established national expert committees for the development of traditional medicine and many took steps to establish and strengthen their institutional capacities. ■

Towards an African Region free from neglected tropical diseases

On the list of disease prevention and control plans developed by the World Organization Regional Office for Africa, the one with a vision for "an African Region free of neglected tropical diseases" (NTDs)" must rank among the most ambitious and comprehensive.

Known as *The Regional Strategic Plan for Neglected Tropical Diseases in the African Region 2014–2020* the plan and its related regional strategy aim to pursue the goal of accelerating the reduction of the disease burden by controlling, eliminating and eradicating targeted NTDs in the African Region. Both these documents were discussed and endorsed at the recent Regional Committee meeting.

Details of the targets are provided by Dr Francis Kasolo, the Director of the Disease Prevention and Control Cluster at the WHO Regional Office for Africa. He says, "The targets of the Plan by 2020 include the eradication of guinea-worm disease and yaws; sustained elimination of leprosy; the regional elimination of elephantiasis (lymphatic filariasis) and blinding trachoma; elimination of river blindness (onchocerciasis) and bilharzia (schistosomiasis) in majority of countries; and the control of Buruli ulcer, intestinal worms, sleeping sickness, rabies and leishmaniasis (a disease transmitted to humans through the bite of a female sand fly)".

The regional strategic plan is anchored on four objectives that together can strengthen programme capacity to achieve NTD goals and targets, in line with the global NTD road map and the recent World Health Assembly resolution on NTDs.

The four objectives outlined in the plan are:

- Scaling up access to interventions and building the capacity of health systems;
- Enhancing planning for results, resource mobilization and financial sustainability of national NTD programmes;
- Strengthening advocacy, coordination and national ownership; and
- Enhancing monitoring, evaluation, surveillance and research.

The plan also sets out in detail the actions that should be taken by Member States, partners and WHO in order to achieve the objectives.

Dr Kasolo says that the regional strategic plan is a potent tool to address NTDs and their adverse effects on child development, pregnancy outcomes and agricultural worker productivity in the Region.

It is estimated that half of the NTD burden is in Africa, and all 47 countries in the WHO African Region are endemic for at least one of the 17 diseases on WHO's NTD list. Indeed, 37 Member States (79%) have a combination of at least five of these diseases, some of which affect only or mainly the African continent.

NTDs thrive in places with unsafe water, poor sanitation and limited access to basic health care. These diseases of poverty permanently curtail human potential and cause an enormous economic burden for endemic countries.

Children are the most vulnerable. For example, hookworm infection in school-age children contributes to drops in school attendance, poor performance and reduction in future earnings – by as much as 40 per cent, according to some estimates.

Adults are not spared. Pregnant women with hookworm are at risk for anaemia, giving birth to low-weight babies, and even dying during childbirth. The incapacitation of NTD patients reduces their productivity and contributes greatly to poverty over generations. In addition, the stigma associated with some NTDs results in individuals being shunned by their families and communities; sometimes, the afflicted are reluctant to seek care.

Controlling or eliminating NTDs will contribute significantly to lifting millions of persons out of poverty by increasing access to education because NTDs are believed to infect more than 400 million school-age children throughout the developing world. Therefore, treating their infections is the single most cost-effective way to boost school attendance, opening the door to growth and learning for the next generation of workers.

Additionally, controlling and eliminating NTDs strengthens worker productivity thereby contributing significantly to economies of countries through increased worker productivity.

Is the end in sight for NTDs in the African Region?

The answer may well lie with how the regional strategy and plan are implemented to realize the vision of "an African Region free of Neglected Tropical Diseases".

Promoting healthy ageing in the African Region

The number of older people in Africa is increasing. Are governments equipped to handle the situation?

What are the challenges of ageing in Africa and what actions can countries take to promote healthy ageing?

These and other questions were raised and addressed in a report presented by the WHO Regional Director for Africa, Dr Luis Sambo, to the Sixty-third session of the WHO Regional Committee for Africa.

Healthy ageing is the development and maintenance of optimal mental, social and physical well-being and function in older adults, and elderly people are defined as those aged 60 years and above.

Although life expectancy in sub-Saharan Africa is still lower than in developed countries, the reality is that, today, many Africans are living longer. Indeed, according to WHO, the elderly population in sub-Saharan Africa which was 43 million in 2010, is projected to reach 67 million by 2025 and 163 million by 2050.

Dr Sambo explains in the report: "Due to significant gain in life expectancy in the African Region, a growing number of people are now elderly and face increased risk of chronic diseases, disabilities and premature death. By 2020, noncommunicable diseases will be among the main causes of morbidity in the African Region, affecting mostly the elderly. This situation is putting an additional strain on the already overstretched health systems of countries".

Yet, countries have not made the issue of healthy ageing a priority in their national health and development agenda. The health systems in most countries do not make adequate provision for the elderly, and have still not been prepared to respond to the needs of the rapidly ageing population. Only ten countries in the Region have adopted national policies on ageing, established specialized bodies or included ageing-related issues in government policies.

As in other regions of the world, elderly people in the African Region encounter problems related to chronic health conditions such as cardiovascular diseases, cancers, HIV, chronic respiratory diseases and diabetes, visual and hearing impairment, decline of mental capacities. As a result, they require long-term health care services, which are often inadequate or inaccessible.

Poverty and malnutrition contribute significantly to disease and disability in majority of the Region's elderly people. This is due partly to the low priority given to the elderly in the nutritional policies of countries in sub-Saharan Africa.

The erosion of the extended family system coupled with rapid urbanization and international migration are disrupting the traditional patterns of family support for the elderly in Africa. Furthermore the lack of amenities enabling the elderly to meet and enjoy recreational activities leaves the majority of them to live sedentary lives. They are therefore deprived of the benefits of regular moderate physical activity which has benefits in delaying functional decline and reducing the onset of chronic diseases in both the healthy and the chronically ill.

During epidemics or emergency situations such as natural disasters and armed conflicts, specific attention is not given to the special needs of elderly refugees or internally displaced persons who are particularly vulnerable. In Africa, women aged 60 years and above account for an estimated 54% of the elderly population. Many not only lack economic power but face age and gender discrimination which result in poor health and further disempowerment.

Furthermore, most research activities on ageing and health are conducted outside the Region. The result is that data, for example on the nutritional status of the elderly in Africa, are scarce; and other specific socioeconomic and political issues including social protection and family relations and the effects of urbanization are not well documented.

In proposing solutions to these challenges, Dr Sambo said: "Elderly people should not be seen as a burden on society. In most parts of the Region, they continue to play a pivotal role as a source of wisdom and custodians of traditional knowledge and identity, including family unity. Acknowledging this role of the elderly in society will increase their contribution to the development of countries".

Among the remedial actions proposed by the Regional Director are: implementing programmes that promote healthy ageing at every stage of a person's life course; appropriate social, health and economic support and care for elderly; making laws that protect the elderly; implementation of strategies for age-friendly primary health care; provision of appropriate services and specialized care, including long-term care; ensuring that health services for the elderly are affordable, accessible, user-friendly; promotion of physical and recreational activities for the elderly.

He called on countries to develop programmes that address the nutritional needs of the elderly; and protect and assist them in emergency situations such as natural disasters and armed conflicts.

The importance of promoting research tailored to improve the welfare of the elderly, and the need to increase public awareness on family and community support for the elderly as well as promoting partnerships for a holistic and multisectoral approach were highlighted.

Ageing is becoming a major challenge for countries in the 21st century as it increases the demand for a variety of health services for the elderly. The implementation of the actions proposed by Dr Sambo has the potential to make people in the African Region age gracefully. ■

The promise of eHealth in the African Region

Most African patients making repeat visits to a hospital or to their doctor are likely to have had at least one shared experience: they routinely see their doctor or other hospital staff digging through stacks of ancient manila files in search of handwritten notes of their medical records. The patients will even be lucky if their files are found with complete information.

Must this decades-old practice continue in this information age?

"No," says Dr Derege Kebede, head of the African Health Observatory (AHO) and Knowledge Management Unit at the WHO Regional Office for Africa Office (WHO/AFRO) in Brazzaville, Congo. "A solution already exists: electronic health or eHealth – countries and people in our Region should embrace, promote and intensify the use of eHealth".

WHAT IS eHEALTH?

WHO defines eHealth as "the cost-effective and secure use of information and communication technologies (ICTs) for health and health-related purposes." Improvements in the information and telecommunications infrastructure and the growing realization of the usefulness of fast means of communication are slowly turning Africa into part of the global village.

In recent years, the field of eHealth emerged in the region, stemming from the rapid rise in mobile phone use in Africa. In fact, Africa is now projected to have more mobile phones in the next few years than its current population of about one billion.

Other tools such as computers and patient monitors, among several others, are joining the mobile phone to make the field of eHealth even more exciting for prospects for health care delivery in the region.

USE OF MOBILE PHONES – IMPRESSIVE RESULTS

The new wave of mobile technology is dramatically changing the way health care is delivered in both urban and rural communities. From Algeria in the north to Cape Town in the south, simple but effective mobile phones are available and are being used to improve health outcomes.

Governments across the region, with the support of WHO and other partners, are integrating mobile phones in a range of promising applications: promotion of TB treatment adherence; communicating test results and monitoring patients' conditions; tracking malaria prevention and control efforts, including the movement of malaria commodities; delivering behaviour change messages to improve awareness and reinforce healthy behaviours. Increasingly, mobile phone-based pregnancy support is used to educate women on pregnancy, monitor pregnancies and provide critical information and updates.

But eHealth goes beyond the use of mobile devices such as mobile phones to share information.

> "Countries in the Region are initiating, adapting and making commendable progress in more advanced applications of eHealth solutions," says Dr Kebede.

Examples from a few countries will serve to illustrate progress generally in the field of eHealth (including mobile health or mHealth) and point to prospects for the future. In Rwanda, a trail-blazing country, *TRACnet*, a web-based application accessible both on mobile phones and computers, shows data and government HIV indicators from the field. It thus gives the viewer a comprehensive view of the status, patient load and drug supply levels of all HIV/AIDS programmes in Rwanda.

Kenya, known for its leadership in mobile phone money transfer, now has a system which enables residents with a mobile phone to upload a locally developed application that allows them to determine if a doctor or clinic is genuine. By simply sending an SMS the user is shown up-to-date lists of licensed medical professionals and approved hospitals, starting with those nearest to the them. In Uganda an eHealth solution, *mTrack*, allows for the tracking of medical supplies to clinics in the country where 131 hospitals serve nearly 36 million people. Information gathered through *mTrack* is amassed and coded and shows health officials what is going on in real time. Previously, this information was available only on paper.

Zambia recently deployed *SmartCare*, an electronic health record system that stores a person's data on a pocket-sized plastic card. In South Africa, *HealthID*, an electronic health record application enables the storage, in one location, of valuable clinical information including patients' data; details of their previous doctor and hospital visits; previously prescribed medicines and blood test results and patients' health measures such as blood pressure. Mali's eHealth *IKON project* enables rural clinics in the country to forward scans and x-rays to specialists for review through ICT connections. These specialists are then able to advise doctors in remote clinics on what treatments should be dispensed. In Mozambique, SMS reminders and educational messages sent to HIV positive persons, including HIV positive pregnant women, help to improve HIV treatment adherence and prevention of mother to child transmission of HIV.

At the regional level, the African Health Observatory at WHO/AFRO supports regional and country efforts at strengthening health systems through its operations and a network of national health observatories. AHO is an open, collaborative platform that supports and facilitates the acquisition, generation, diffusion, translation and use of information, evidence and knowledge by countries to improve national health systems and outcomes.

Other regional eHealth initiatives include the Telemedicine Network for Francophone African Countries (which will facilitate exchanges, learning and executive education of health professionals in remote regions) and the ePORTUGUÊSe network, a platform to support the development of human resources for health in Portuguese-speaking countries.

The banking and finance sectors have exploited ICTs extensively to improve service delivery. This is a clear example that health care would immensely improve through the use of ICTs. There is a consensus in the modest but growing literature in the emerging field of eHealth about the benefits of its applications – for patients, health care workers, governments and health systems.

These range from improved access to health advice to enhanced quality of care through remote consultation and telemedicine and improved disease surveillance. It also makes it possible for policy- and decision-makers to collate and analyse data retrospectively and in real time to allow for efficient allocation of scarce resources.

Whatever its challenges, eHealth is proving to be a life saver in the African Region. And, as Dr Kebede says, "countries and people in our Region should embrace, promote and intensify" its use. ■

Forthcoming event – eHealth standardization forum

WHO's Knowledge Management and Sharing Department will be hosting the Joint Inter-Ministerial Policy Dialogue on eHealth Standardization and Second WHO Forum on eHealth Standardization and Interoperability, 10–11 February 2014 at WHO Headquarters in Geneva.

The primary objective of the forum is to facilitate a dialogue among ministers of health and ICT on the need for policy and governance mechanisms for health data standards adoption in countries and to draft a policy and governance framework for full adoption of standards at national and subnational levels.

The forum is envisioned to have six panels:

- **Key policy issues in eHealth standardization and interoperability;**
- **Overcoming regulatory and administrative barriers in standards adoption;**
- **Essentials of a good policy framework for adoption of standards for interoperability;**
- **Evidence-informed policy components;**
- **Statutory components; and**
- **Governance and stewardship.**

To make the forum proceedings accessible to colleagues worldwide the event will be made available via audio conference, video-conferencing and webcasting.

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African Regional technical consultations on eHealth standardization and interoperability concludes

Meaningful adoption of health data standards and related information technology standards are essential for interoperability between systems. Interoperability can assist effective, consistent and accurate collection, exchange and processing of data between and within health information systems and related eHealth services.

Earlier this year, the Sixty-sixth World Health Assembly adopted a resolution on eHealth standardization and interoperability. The resolution recognizes the importance of implementation of eHealth and health data standards at national and subnational levels. It also calls for the WHO Secretariat to provide support to Member States, as appropriate, in their promotion of the full implementation of eHealth and health data standards in all eHealth initiatives.

In order to help assist the Member States, the Department of Knowledge Management and Sharing at WHO headquarters has embarked on producing a *WHO Handbook on eHealth Standardization and Interoperability*. As part of this important normative work, regional technical consultations on eHealth standardization and interoperability were held in all of the six WHO regions, including one in Africa. The African Regional Technical Consultation was held in Harare, Zimbabwe (24–26 September 2013) to examine and discuss the adoption of standards for health data exchange and interoperability for countries in the Region. The event was supported by WHO headquarters in collaboration with WHO AFRO and the East and Southern African Intercountry Support Team.

The handbook intends to include an analysis of existing health data standards and recommendations regarding their applicability to specific domains; a framework for mapping standards to eHealth systems and services, enabling the identification of gaps; a rationale and approach to health data standards adoption and implementation at country level; and an implementation guide for eHealth data standards to support country adoption and capacity development.

Representatives from eight countries in the Region, along with observers from United States Centers for Disease Control and Prevention, attended the event. Participants reviewed use cases related to HIV/AIDS, malaria, TB, reproductive, maternal, newborn and child health, diabetes and public health emergencies. In addition, country-specific use of health informatics standards currently being used by countries were discussed along with the use of ICT infrastructure required to support the adoption of standards.

Collectively, the participants deliberated various technical areas of standardization with a close examination of the national considerations and current challenges related to standards' adoption in their countries. Comprehensive presentations on the status of eHealth and issues surrounding standardization and interoperability were presented by all of the Member States present at the event. This consultation has identified and prioritized health data and health IT standardization relevant to the countries in the regional context. The delegates prioritized several areas of standardization for inclusion in the handbook: standardized representation of national-level unique identifiers for persons, facilities, service, providers and devices; and establishing registries for facilities, human resources, as well as patients. In addition, the delegates recommended including standards for representing classification of interventions, classification of diseases, classification of clinical procedures, classification of drugs and classification of diagnostics. The delegates also identified the need for including a policy template for implementation of standards as well as relevant mention of privacy, security and confidentiality standards to protect health data.

The outcome of the consultation is expected to contribute directly to the finalization of a handbook on standards for data exchange and interoperability to be published by WHO. ■

Abstracts contd.

Disaster risk management: A strategy for the health sector in the African Region 2

RÉSUMÉ—Les pays de la Région africaine de l'OMS restent confrontés à de fréquentes urgences d'origine naturelle ou humaine qui provoquent dommages, décès, déplacements de populations, destruction et désorganisation des infrastructures et services sanitaires culminant souvent en catastrophes.

La fréquence et l'ampleur des urgences et des catastrophes se sont accrues depuis 1997, date de l'adoption de la Stratégie régionale sur la préparation et la riposte aux urgences. Et depuis 2005, plusieurs initiatives de portée mondiale, notamment la Résolution WHA 64.10 de l'Assemblée de l'OMS (Renforcement des capacités et de la résilience des systèmes de santé nationaux en matière d'urgences et de catastrophes) adoptée en 2005, ont été élaborées sur la base de l'approche DRM (Gestion du risque de catastrophes) comme méthodologie permettant de contenir et minimiser les effets des situations d'urgence.

L'OMS a reconnu la nécessité pour ses Etats membres de formuler les politiques d'orientation et les outils législatifs d'application destinés à institutionnaliser la Gestion du risque de catastrophes dans leur secteur de la santé. L'évaluation menée en 2011 a révélé que les politiques, les capacités et les outils législatifs manquent dans la plupart des pays de la Région africaine.

Il est proposé, par cette Stratégie régionale, que les Etats membres améliorent la Gestion du risque de catastrophes (DRM) en élaborant une législation et des politiques appropriées, en développant les capacités requises au sein des ministères de la Santé, en évaluant et en cartographiant les risques sous l'angle du secteur de la santé, en évaluant le niveau de sécurité des hôpitaux et autres centres de santé qui doivent se conformer à des standards, en renforçant la résilience des communautés concernées ainsi que le niveau de préparation générale, en développant des normes nationales pour les réponses à apporter aux urgences et catastrophes, et en consolidant la gestion de la collecte des données et des connaissances. L'ensemble de ces démarches fera des systèmes de santé des organisations préparées capables de réagir convenablement aux urgences et crises et de réduire la probabilité qu'elles se transforment en catastrophes.

SUMÁRIO—A Região Africana da OMS continua a ter de enfrentar frequentes emergências naturais e causadas pelo homem, tais como traumatismos, morte, deslocação de populações, destruição de instalações de saúde e perturbação dos serviços, que muitas vezes estão na base das catástrofes que ocorrem.

A frequência e dimensão das emergências e catástrofes tem aumentado desde a adopção, em 1997, da Estratégia Regional de Preparação e Resposta às Emergências. Por outro lado, várias iniciativas mundiais desenvolvidas desde 2005, incluindo a resolução WHA64.10 da Assembleia Mundial da Saúde (Reforço das capacidades nacionais da saúde para a gestão das emergências e catástrofes e da resiliência dos sistemas de saúde) adoptada em 2011, têm-se centrado na gestão dos riscos de catástrofes (DRM) como a abordagem mais indicada para conter e minimizar o impacto das emergências.

A OMS reconheceu a necessidade de os Estados-Membros formularem políticas e legislação e desenvolverem capacidades, com vista a institucionalizarem a DRM no sector da saúde. Uma avaliação realizada em 2011 revelaram que a maioria dos países da Região não possui essas políticas, capacidades e legislação.

Esta estratégia regional propõe que os Estados-Membros reforcem a DRM da seguinte forma: elaborando leis e políticas apropriadas; formando capacidades adequadas nos ministérios da saúde; avaliando e mapeando os riscos numa perspectiva do sector da saúde; avaliando o nível de segurança e aplicando normas aos hospitais e outras unidades de saúde; intensificando a resiliência das comunidades; reforçando a preparação; elaborando normas nacionais para a resposta; e reforçando a gestão das evidências e dos conhecimentos. Isso significará que o sistema de saúde está preparado e será capaz de fornecer uma resposta adequada às emergências e reduzir a possibilidade de estas se transformarem em catástrofes.

Establishment of the African Public Health Emergency Fund 9

RÉSUMÉ—Le Comité régional, par sa résolution AFR/RC61/R3, a donné instruction au Directeur régional d'établir un Fonds africain pour les urgences de Santé publique (APHEF) en prenant les mesures appropriées pour qu'il soit pleinement opérationnel. La résolution a également demandé au Directeur régional de présenter périodiquement au Comité régional un rapport sur les opérations de l'AFPHEF. Le premier rapport d'étape, soumis à la 62e session du Comité régional à Luanda, Angola, en 2012, a été examiné et discuté par le Comité.

La 62e session du Comité régional a nommé les membres du Comité de suivi du Fonds (MCF) : les ministres de la Santé du Gabon, de la Namibie et du Nigeria, les ministres des Finances de l'Algérie, du Cameroun et de l'Afrique du Sud, ainsi que le président de la sous-commission Programmes. Parmi les actions proposées dans le premier rapport d'étape présenté au Comité régional, figure la convocation par le Directeur régional de la première réunion du Comité de suivi du Fonds à l'effet de délibérer sur les modalités de démarrage des opérations du Fonds africain pour les urgences de Santé publique (APHEF).

En outre, la 62e session du Comité régional a renouvelé au Directeur régional son mandat de poursuivre les négociations avec la Banque africaine de développement en vue que la Banque se charge du rôle d'Administrateur de ce Fonds. Dans l'intervalle, ce sera à l'OMS de mobiliser, gérer et décaisser les contributions à l'APHEF par ses propres systèmes comptables et de gestion financière.

Ce document résume l'état d'avancement de la mise en œuvre des décisions prises à la 62e session du Comité régional et propose les prochaines actions à entreprendre.

SUMÁRIO—O Comité Regional, através da resolução AFR/RC61/R3, solicitou ao Director Regional que criasse o Fundo Africano para as Emergências de Saúde Pública (FAESP) e tomasse as acções apropriadas para garantir a operacionalidade total do Fundo. A resolução também solicitava ao Director Regional que apresentasse regularmente ao Comité Regional um relatório sobre as operações do FAESP. O primeiro relatório de progressos foi apresentado e discutido na sexagésima segunda sessão do Comité Regional em Luanda, Angola, em 2012.

Os membros da Comissão de Monitorização do Fundo (MCF), os Ministros da Saúde do Gabão, Namíbia e Nigéria, os Ministros das Finanças da Argélia, Camarões e África do Sul e o Presidente do Subcomité do Programa, foram nomeados na sexagésima segunda sessão do Comité Regional. Nas acções propostas no primeiro relatório de progressos apresentado ao Comité Regional, foi solicitado ao Director Regional que convocasse a primeira reunião da MCF, para deliberar sobre as modalidades a adoptar para o início das operações do FAESP.

Para além disso, a sexagésima segunda sessão do Comité Regional reiterou o mandato do Director Regional para prosseguir as negociações com o Banco Africano de Desenvolvimento, para que este assumisse as funções de Administrador do FAESP. A título provisório, a OMS foi designada para mobilizar, gerir e desembolsar contribuições para o FAESP, usando os seus sistemas funcionais de contabilidade e gestão financeira.

O presente documento resume os progressos realizados na implementação das decisões tomadas na sexagésima segunda sessão do Comité Regional e propõe os próximos passos a dar.

Implementation of the International Health Regulations (2005) in the African Region 11

RÉSUMÉ—Le Règlement sanitaire international (IHR, 2005) est un instrument contraignant de droit international qui s'impose aux Etats parties en matière de prévention et contrôle de la propagation internationale des maladies en évitant d'interférer sans nécessité avec les voyages et le commerce international. Au titre du RSI adopté le 23 mai 2005 et entré en vigueur le 15 juin 2007, les Etats parties sont convenus de mettre en application ses règles afin de contribuer chacun à assurer la sécurité en matière de la santé publique aux niveaux régional et international.

Les obligations convenues comprennent également la création de Points focaux nationaux (NFP), à savoir, pour chaque Etat partie, le centre sanitaire national qu'il désignera et qui sera accessible à tout moment pour entrer en communication avec les Points de Contact OMS RSI. Il est également demandé aux Etats parties de désigner des experts à inscrire sur la liste du Règlement sanitaire international, de prendre les actes législatifs et administratifs pour l'application du Règlement et de mobiliser des ressources par le biais de la coopération et du partenariat.

La 56e session du Comité régional africain de l'OMS a appelé à la mise en œuvre du RSI dans le cadre de la stratégie régionale de Surveillance intégrée des maladies et riposte (SIMR), compte tenu des points communs et des synergies entre le RSI 2005 et la SIMR. La Stratégie et le RSI visent tous deux à établir la prévention et la réaction adéquates aux menaces sanitaires et aux événements sanitaires préoccupants aux plans national et international.

Ce document présente les problèmes et défis posés et recommande des actions à prendre par les Etats parties pour que la Région africaine de l'OMS soit pourvue des capacités essentielles nécessaires.

SUMÁRIO—O Regulamento Sanitário Internacional (IRH, 2005) é um instrumento internacional, legalmente

vinculativo, para a prevenção e controlo da propagação as doenças a nível internacional, evitando interferências desnecessárias com as viagens e o comércio internacional. Nos termos do RSI, que foi aprovado em 23 de Maio de 2005 e entrou em vigor em 15 de Junho de 2007, os Estados-Membros concordaram em cumprir as respectivas normas, a fim de contribuírem para a segurança regional e internacional da saúde pública.

As suas obrigações incluem também a criação de Pontos Focais Nacionais para o RSI (PFN) definidos como um centro nacional, designado por cada Estado-Membro e acessível em qualquer momento, para comunicação com os Pontos de Contacto da OMS para o RSI. Por outro lado, pediu-se aos Estados-Membros que designassem peritos para a lista do RSI, formulassem instrumentos legais e administrativos apropriados e mobilizassem recursos através da colaboração e constituição de parcerias.

A quinquagésima sexta sessão do Comité Regional Africano da OMS apelou à implementação do RSI, no contexto da estratégia regional da Vigilância e Resposta Integrada às Doenças (IDSR), considerando os pontos comuns e as sinergias entre o RSI (2005) e a IDSR. Ambos têm o objectivo de prevenir e dar resposta às ameaças de saúde pública e/ou a eventos de preocupação nacional e internacional.

O presente documento discute os problemas e desafios, propondo as medidas que os Estados-Membros deverão tomar, para assegurar que as capacidades essenciais exigidas pelo RSI estarão presentes na Região Africana da OMS.

HIV/AIDS: Strategy for the African Region 14

RÉSUMÉ—La pandémie existe depuis plus de 30 ans, et le VIH/Sida demeure une question majeure de développement à long terme dans la Région africaine, qui porte 69 % de la charge mondiale de la pandémie et enregistre plus de 70 % des décès liés au VIH dans le monde. Malgré la baisse du nombre de nouvelles infections au VIH, la prévalence dans la Région, estimée à 4,8 % en 2011, atteint toujours un niveau inacceptable, avec un taux bien plus élevé en Afrique australe.

Les engagements politiques et financiers pris globalement et dans la Région pour lutter contre le VIH, ont été sans précédent. Ils ont conduit à une augmentation d'ampleur similaire des actions de prévention, de traitement et de soins du VIH/Sida dans tous les pays. Les résultats sont encourageants, car le nombre de nouvelles infections est en baisse dans un certain nombre de pays et les rapports en 2010 confirment une réduction de la mortalité liée au VIH/Sida. Pour consolider ces gains, la Région devra intensifier ses actions en mobilisant ses ressources intérieures, en optimisant la synergie entre la lutte contre le VIH et les autres programmes de santé, et en aidant à renforcer les systèmes de santé.

L'OMS a lancé une Stratégie mondiale du secteur de la santé contre le VIH/Sida (GHSS), adoptée par son Assemblée en mai 2011. La stratégie régionale pour le VIH Sida, qui prend en compte les principales spécificités régionales, propose des directives pour la mise en application de cette Stratégie mondiale dans la Région africaine de l'OMS. Les interventions proposées prévoient l'augmentation des actions de prévention, l'élimination de nouvelles infections au VIH chez les enfants, et l'extension de l'accès au dépistage et au traitement. Les résultats attendus de cette Stratégie comprennent sa contribution à l'élimination de nouvelles infections chez les enfants, la réduction du nombre de nouvelles infections parmi les jeunes, et la baisse des décès liés au VIH/Sida. Le renforcement des systèmes de santé et la réduction des comorbidités telles que la tuberculose /VIH joueront un rôle crucial pour l'atteinte des objectifs fixés par la Stratégie globale.

SUMÁRIO—Após mais de 30 anos da pandemia, o VIH/SIDA continua a ser um desafio de longo prazo ao desenvolvimento na Região Africana da OMS, que é responsável por 69% do fardo mundial e por mais de 70% dos óbitos relacionados com a SIDA, a nível mundial. Embora tenha havido um decréscimo do número de novas infecções pelo VIH, a prevalência na Região permanece inaceitavelmente elevada, tendo sido estimada em 4,8%, em 2011, mas sendo muito mais elevada na África Austral.

Tanto a nível mundial como regional, tem-se observado um empenhamento político e financeiro sem precedentes na resposta ao VIH, o que tem conduzido à intensificação das intervenções de prevenção, tratamento e cuidados do VIH/SIDA, em todos os países. Os resultados são encorajadores, visto que o número de infecções está a diminuir, em alguns países, e se verifica uma redução da mortalidade relacionada com o VIH, conforme foi relatado em 2010. Para consolidar essas conquistas, a Região terá de intensificar os seus esforços de resposta ao VIH, mobilizando recursos domésticos, optimizando as sinergias entre os programas de VIH e outros programas de saúde e contribuindo para o reforço dos sistemas de saúde.

Na Assembleia Mundial da Saúde, em Maio de 2011, foi adoptada uma nova Estratégia Mundial da OMS para o Sector da Saúde (GHSS) sobre o VIH/SIDA. A estratégia regional de VIH/SIDA fornece orientações para a implementação da GHSS na Região Africana da OMS, tendo em consideração as principais especificidades regionais. As intervenções propostas incluem: a intensificação da prevenção; a eliminação de novas infecções pelo VIH em crianças; e a expansão do acesso aos testes e tratamento do VIH. Prevê-se que esta estratégia contribua para eliminar novas infecções entre as crianças, reduzir novas infecções entre os jovens e diminuir o número de mortes relacionadas com o VIH. Será fundamental reforçar os sistemas de saúde e reduzir co-morbilidades como a TB/VIH, para se atingirem as metas estabelecidas na estratégia regional.

Road map for scaling up human resources for health for improved health service delivery in the African Region 2012–2025 20

RÉSUMÉ—Pour pouvoir assurer à la population des prestations de santé de qualité, il est essentiel de mettre à sa disposition des personnels de santé qualifiés en nombre suffisant et aux bons endroits. Parmi les faiblesses existantes des systèmes de santé dans la plupart des pays africains, il y a la pénurie de ressources humaines correctement formées. Il s'agit là d'une entrave majeure à la bonne réalisation d'actes de santé essentiels ainsi qu'à la réalisation des objectifs sanitaires affichés. Sur les 46 pays de la Région, 36 souffrent d'une pénurie critique en ressources humaines pour la santé, car ils n'ont que 0,8 médecin, infirmiers/infirmières et sages-femmes pour 1000 habitants, alors que le seuil minimum acceptable est de 2,3 pour mille. Selon les estimations, il manquait 820 000 médecins, personnels infirmiers et sages-femmes dans la Région en 2006. En incluant toutes les catégories de travailleurs du secteur de la santé, le manque est estimé à 1,4 millions de personnes.

Les principales causes de la situation présente ont été identifiées : l'émigration de travailleurs qualifiés de la santé, les rémunérations et mesures incitatives insatisfaisantes, la capacité insuffisante des services chargés des ressources humaines sanitaires à remplir leurs principales fonctions, ainsi que le faible niveau de mise en application de la plupart des plans d'action existants. Cette situation constitue un obstacle considérable pour l'objectif d'assurer des prestations de santé à tous. Dans le secteur, il existe aussi des disparités significatives entre les zones rurales et urbaines, notamment du fait des pénuries constatées dans les zones rurales. En effet, 90 % des pharmaciens et dentistes pratiquent en zone urbaine. Le même constat est fait pour les autres cadres de la santé, puisque 86 % des spécialistes en médecine, 63 % des médecins généralistes et 51 % du corps infirmier et des sages-femmes servent surtout dans les zones urbaines.

D'ampleur variée, les défis qui se posent aux pays de la Région constituent une menace stratégique pour le développement de ses systèmes de santé aux niveaux national et régional comme pour le bien-être général de ses populations. Un certain nombre de problèmes pressants en matière de ressources humaines pour la santé sont aujourd'hui identifiés. La feuille de route admet que le progrès en nombre et en qualité des ressources humaines sanitaires au niveau des pays exige un engagement politique, institutionnel et financier soutenu et l'implication de parties prenantes et de partenaires divers qui jouent un rôle critique en influant sur la production, la disponibilité et la performance de ces ressources au niveau de ces pays.
La feuille de route a été construite à partir des efforts déjà accomplis au niveau national, sous-régional régional et mondial, en distinguant six domaines stratégiques pour la réalisation des objectifs : renforcer la capacité de leadership et de gouvernance des travailleurs de la santé ; renforcer la capacité d'encadrement et de réglementation des ressources humaines sanitaires ; élever le niveau d'éducation et la formation professionnelle des travailleurs de la santé ; optimiser l'utilisation, le maintien et la performance des travailleurs en activité de la santé ; améliorer l'information des travailleurs de la santé et la collecte de données probantes pour servir aux prises de décision ; et consolider le dialogue et le partenariat avec les travailleurs de la santé. Chacun de ces domaines stratégiques comporte un ensemble d'interventions prioritaires précises en vue de la réalisation des objectifs. Nous reconnaissons que la mise en œuvre de la feuille de route exigera l'engagement et la coopération de toutes les parties prenantes et des partenaires sous la direction des gouvernements nationaux.

SUMÁRIO—Para se prestarem serviços de saúde de qualidade às populações, é essencial garantir a disponibilidade de um número suficiente de profissionais qualificados no local certo. As actuais fraquezas dos sistemas de saúde, incluindo a falta de recursos humanos competentes na área da saúde (RHS), na maioria dos países africanos, são reconhecidas como um grande impedimento à prestação de intervenções essenciais e aos progressos no sentido de se atingirem os objectivos da saúde. Dos 46 países da Região, 36 têm uma carência crítica de RHS, com apenas cerca de 0,8 médicos, enfermeiros e parteiras por 1 000 habitantes, enquanto o limiar mínimo aceitável de densidade é de 2,3 por 1 000 habitantes. A carência estimada de médicos, enfermeiros e parteiras na Região era de 820 000, em 2006. Se forem consideradas todas as categorias de profissionais de saúde, essa insuficiência é estimada em 1,4 milhões.

A migração de profissionais de saúde qualificados, a inadequada remuneração e incentivos, a má distribuição dos profissionais disponíveis, a falta de investimento

na produção de profissionais de saúde em número suficiente, a inadequada capacidade dos departamentos de RHS para levarem a cabo as principais funções dos RHS e a baixa taxa de implementação da maioria dos planos existentes são identificadas como as principais causas da presente situação, que constitui o maior obstáculo à satisfação das necessidades da prestação de cuidados de saúde para todos. Existem disparidades consideráveis entre as zonas rurais e urbanas, com maiores insuficiências nas zonas rurais. Mais de 90% dos farmacêuticos e dentistas exercem a sua profissão nas zonas urbanas. A situação repete-se em relação a outros quadros, como médicos especialistas (86%), médicos de clínica geral (63%) e enfermeiros e parteiras (51%), que trabalham essencialmente em zonas urbanas.

Os desafios que os países enfrentam são desiguais e representam uma ameaça estratégica ao desenvolvimento dos sistemas de saúde nacionais e regionais e ao bem-estar geral das populações da Região. Alguns dos principais e mais prementes desafios em matéria de RHS estão identificados. O roteiro reconhece que o empenhamento político, institucional e financeiro sustentado, com o envolvimento das diferentes partes interessadas e dos principais parceiros que influenciam a produção, disponibilidade e desempenho dos RHS, é fundamental para melhorar o desenvolvimento dos RHS a nível de país.

O roteiro baseia-se em vários esforços nacionais, subregionais, regionais e mundiais e tem seis áreas estratégicas para se atingirem os objectivos: reforço da capacidade de governação e liderança da força de trabalho na saúde; reforço da capacidade reguladora dos RHS; intensificação da educação e formação dos profissionais de saúde; optimização da utilização, retenção e desempenho dos profissionais de saúde no activo; melhoria da informação e geração de evidências para a tomada de decisões entre os profissionais de saúde; e intensificação do diálogo e das parcerias entra a força de trabalho na saúde. Cada uma destas áreas estratégicas tem um conjunto de intervenções prioritárias identificadas para se atingirem os objectivos. Reconhece-se que a implementação do roteiro requer o empenho e a colaboração de todas as partes interessadas e dos parceiros, sob a liderança dos governos nacionais.

Progress report on implementation of Regional Committee resolution AFR/RC59/R3 on accelerated malaria control 27

RÉSUMÉ—En matière d'intensification de la lutte contre le paludisme pour son élimination dans la Région africaine, plusieurs résolutions ont été adoptées et des engagements ont été pris. Les Nations unies, l'Union africaine, les communautés économiques régionales, l'Assemblée de l'OMS et les Comités régionaux se sont tous prononcés.

La Région africaine de l'OMS assure un appui aux pays, aux communautés économiques régionales et à l'Union africaine pour ce qui concerne la planification, la mise en application, le suivi et l'évaluation de leurs stratégies de lutte et d'élimination du paludisme. L'OMS assure aussi des services de conseil et d'appui pour renforcer les capacités et mobiliser des ressources avec pour but de réduire le poids sanitaire et social du paludisme.

À la suite d'actions à fort impact fondées sur la collecte de données probantes, l'incidence globale du paludisme dans la Région africaine a chuté de 33 % entre 2000 et 2010 et la tendance ascendante de la maladie s'est inversée. En outre, 12 pays de la Région africaine sont sur la bonne voie pour parvenir à réduire l'incidence du paludisme d'au moins 50 à 75 % d'ici 2015.

Les actions recommandées par la Résolution 59/R3 portant sur « Accélérer la lutte antipaludique : Vers l'élimination du paludisme dans la Région africaine » restent pertinentes et les pays doivent continuer à s'inspirer de ces orientations dans le cadre de leurs programmes d'ensemble de santé, de développement et de réduction de la pauvreté.

SUMÁRIO—Para intensificar a luta contra o paludismo, com vista à sua eliminação na Região Africana, adoptaram-se várias resoluções e assumiram-se vários compromissos. Entre estes contam-se resoluções das Nações Unidas, União Africana, Comunidades Económicas Regionais, Assembleia Mundial da Saúde e Comité Regional.

A OMS/AFRO presta apoio aos países, comunidades económicas regionais e União Africana no planeamento, implementação da monitorização e avaliação das suas estratégias de controlo e eliminação do paludismo. A OMS fornece igualmente orientações e apoio para a formação de capacidades e mobilização de recursos destinados à redução da incidência da doença.

Como consequência da intensificação das intervenções baseadas em evidências e de elevado impacto, a incidência global estimada do paludismo na Região Africana decresceu 33%, de 2000 para 2010, e a tendência crescente da doença regrediu. Por outro lado, 12 países da Região Africana estão no bom caminho para reduzir a incidência do paludismo em, pelo menos, 50–75%, até 2015.

Os pontos de acção da Resolução RC 59/R3, sobre Aceleração do Controlo do Paludismo: para a eliminação na Região Africana, continuam válidos e deverão continuar a orientar os países no contexto da sua agenda mais vasta da saúde, desenvolvimento e redução da pobreza.

Progress report on the road map for accelerating the attainment of the Millennium Development Goals relating to maternal and newborn health in Africa 29

RÉSUMÉ—Pendant de nombreuses années, la mortalité maternelle et néonatale en Afrique a figuré parmi les plus élevées du monde, avec une proportion de près de 50 % de tous les décès relevant de la mortalité maternelle. Pour atteindre le cinquième Objectif de développement du millénaire, qui est de réduire, d'ici 2015, la mortalité maternelle des trois-quarts par rapport à son niveau de 1990, il faudra un effort concerté au plan des interventions en santé maternelle et néonatale.

Réagissant à ce problème, la 54e session du Comité régional de l'OMS a adopté, en 2004, la Résolution AFR/RC54/R9 relative à la feuille de route pour accélérer l'atteinte des Objectifs de développement pour le millénaire en matière de santé maternelle et néonatale en Afrique.

Les interventions prioritaires visées par la feuille de route portent sur la disponibilité et l'accès à des prestations de santé de qualité pour les mères et les nouveau-nés, dont notamment la planification familiale, la prévention de la transmission mère-enfant du VIH, le renforcement du système d'aiguillage des femmes vers des services plus appropriés, l'autonomisation des individus, des familles et des communautés, la promotion de partenariats pour la santé maternelle et néonatale, et le renforcement de la planification, de la gestion, du suivi et de l'évaluation des services et prestations de santé maternelle et néonatale au niveau des circonscriptions.

Le présent rapport présente succinctement les progrès réalisés dans la mise en œuvre de la feuille de route, et il propose d'autres actions aux étapes suivantes.

SUMÁRIO—Há muitos anos que a mortalidade materna e neonatal em África se encontra entre as mais elevadas no mundo, representando cerca de 50% de todas as mortes maternas. Para se atingir a meta 5 dos Objectivos de Desenvolvimento do Milénio, que diz respeito à redução da mortalidade materna, até 2015, em três quartos relativamente aos níveis de 1990, é necessário um esforço concertado das intervenções de saúde materna e neonatal (SMN).

Em resposta a este desafio, a quinquagésima quarta sessão do Comité Regional da OMS de 2004, adoptou a Resolução AFR/RC54/R9 sobre o roteiro para acelerar a consecução dos Objectivos de Desenvolvimento do Milénio relacionados com a saúde materna e neonatal em África.

As intervenções prioritárias do roteiro destinam-se a melhorar o acesso e a disponibilidade de serviços de saúde materna e neonatal de qualidade, incluindo: planeamento familiar; prevenção da transmissão vertical do VIH; reforço do sistema de referência; capacitação dos indivíduos, famílias e comunidades; promoção de parcerias para a SMN; e reforço do planeamento, gestão, monitorização e avaliação dos serviços de SMN, a nível de distrito.

Este relatório apresenta, sucintamente, os progressos realizados na implementação do roteiro e propõe os próximos passos para a continuação das actividades.

Introduction de l'enseignement de la tuberculose et de la lutte contre la tuberculose dans les écoles de médecine des pays francophones de la région africaine : Leçons apprises et perspectives 32

SUMMARY—Providing medical training on tuberculosis (TB) and tuberculosis control (TBC) is crucial to the successful implementation of a National TB Control Programme (NTCP). In 2006, a cooperative survey helped to assess the impact of pedagogical workshops organized by the World Health Organization in 11 countries of the African Region between 1998 and 2003. The purpose of the workshops was to help improve tuition in TB and TBC in medical schools in French-speaking countries in the African Region. The objective of this study is to assess the progress made and the difficulties encountered since 2006 and to propose measures to strengthen partnership between medical schools and NTCPs.

SUMÁRIO—A formação médica em tuberculose (TB) e a luta contra a tuberculose são elementos essenciais de êxito na aplicação de um programa nacional de luta contra a tuberculose (PNLT). Em 2006, um inquérito de cooperação permitiu avaliar o impacto das acções de formação organizadas pela Organização Mundial da Saúde (OMS), desde 1998 até 2003, nos 11 países da Região Africana. A finalidade dessas acções de formação era contribuir para melhorar o ensino sobre a TB e a luta contra a tuberculose nas escolas de medicina dos países francófonos da Região. O objectivo deste estudo é analisar os progressos realizados e as dificuldades encontradas desde 2006 e propor soluções para reforçar a parceria entre as escolas de medicina e os PNLT.

Piloting a new approach for capacity building in entomology and vector control at the level of national malaria control programmes . . 36

RÉSUMÉ—Suivant une étude en 1999 des capacités entomologiques dans la Région africaine, l'engagement de renforcer ces capacités fut pris, et le Réseau africain sur la résistance des vecteurs aux insecticides (ANVR) lancé. Il avait pour but d'aider les Etats parties à renforcer leurs moyens de lutte anti-vectorielle et à collaborer avec les institutions compétentes pour normaliser les méthodes et les approches. En 2006, l'ANVR évalua les capacités disponibles dans le cadre des programmes nationaux de lutte contre le paludisme. L'évaluation livra des données sur les capacités des pays dans la Région à mettre en place la surveillance des vecteurs. Elle fut suivie de recommandations pour améliorer la situation et en 2007, grâce à la Fondation Bill and Melinda Gates, un projet de développement des infrastructures et des capacités démarra. Le présent article décrit les résultats impressionnants de ce projet et ce qu'il implique plus largement concernant l'adoption d'approches similaires à travers toute la Région.

SUMÁRIO—Na sequência de um inquérito sobre as capacidades de entomologia na Região Africana, realizado em 1999, foi assumido o compromisso de reforçar as referidas capacidades e, em 2000, foi lançada a Rede Africana de Resistência dos Vectores aos Insecticidas (RARVI). A finalidade desta Rede era ajudar os Estados-Membros a formarem capacidades em controlo dos vectores e colaborar com instituições na normalização de métodos e abordagens. Em 2006, a RARVI procedeu a uma avaliação das capacidades dos programas nacionais de luta contra o paludismo. Essa avaliação forneceu dados sobre a capacidade dos países da Região para levarem a cabo a vigilância dos vectores. Seguiram-se recomendações para melhorar a situação e, em 2007, através da Fundação Bill e Melinda Gates, foi iniciado um projecto de reforço das infra-estruturas e das capacidades. O presente artigo salienta os impressionantes resultados obtidos pelo projecto e as implicações mais vastas da adopção de abordagens semelhantes em toda a Região.

Enhancing the role of traditional medicine in health systems: A strategy for the African Region 40

RÉSUMÉ—Conformément à la Résolution AFR/RC50/R3 (Promouvoir le rôle de la médecine traditionnelle dans les systèmes de santé : une stratégie pour la Région africaine, 2000), les Etats parties ont pris des mesures de 2001 à 2012 pour promouvoir cette médecine, en élaborant des politiques nationales et des cadre règlementaires et en réalisant en pratique quelques interventions prioritaires. En 2012, 40 pays au total disposaient d'une politique nationale, 19 avaient élaboré des plans stratégiques, et il existait 28 instituts nationaux de recherche qui travaillaient sur les produits du cru utilisés pour traiter le paludisme, le VIH/Sida, la drépanocytose, le diabète et l'hypertension. Sept pays avaient en outre inscrit des produits de la médecine traditionnelle dans leur Liste nationale de médicaments essentiels, et neuf avaient défini un cadre régulateur destiné à protéger les droits de propriété intellectuelle et les connaissances médicinales traditionnelles liées aux pratiques et produits.

En dépit des progrès accomplis, l'application de la Résolution AFR/RC50/R3 se heurte à des difficultés. Le présent article introduit une mise à jour de la stratégie (*Stratégie régionale pour la promotion de la médecine traditionnelle dans les systèmes de santé*, présentée à la fin de cet article), qui propose un certain nombre d'interventions clés répondant à cette problématique et s'appuie sur la promotion réussie des aspects positifs de la médecine traditionnelle dans les systèmes de santé. L'accent est mis sur le renforcement, en termes d'éthique et de pratiques, d'une gestion responsable et durable d'un patrimoine de valeur, l'élaboration et l'emploi d'outils, la culture des plantes médicinales et la préservation de la biodiversité, la recherche et développement, la production locale, la protection des droits de propriété intellectuelle et des connaissances médicinales, la coordination intersectorielle et l'amélioration des capacités.

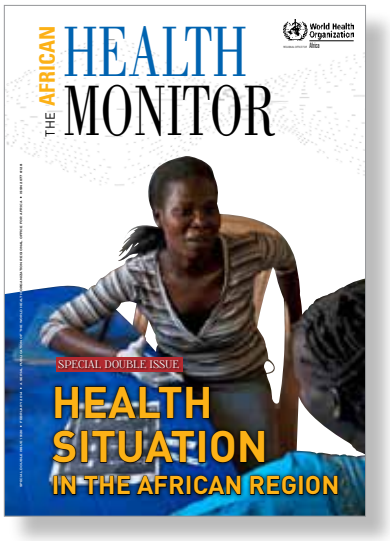
SUMÁRIO—Em conformidade com a Resolução AFR/RC50/R3 (Promover o papel da medicina tradicional nos sistemas de saúde: uma estratégia para a Região Africana, 2000), os Estados-Membros tomaram, em 2001 e 2012, medidas para promover a medicina tradicional, formulando políticas nacionais e quadros reguladores, assim como implementando algumas intervenções prioritárias. Em 2012, um total de 40 países já tinha políticas nacionais, 19 tinham planos estratégicos e havia 28 institutos nacionais de investigação que faziam pesquisa sobre produtos da medicina usados no tratamento do paludismo, VIH/SIDA, anemia falciforme, diabetes e hipertensão. Para além disso, sete países incluíam produtos da medicina tradicional nos seus formulários nacionais de medicamentos essenciais (FNME) e nove adoptaram quadros nacionais de protecção dos direitos da propriedade intelectual e dos conhecimentos da medicina tradicional relacionados com as práticas e os produtos.

Apesar dos progressos feitos, os países continuam a enfrentar problemas na implementação da Resolução AFR/RC50/R3. Este artigo introduz uma estratégia actualizada (*Estratégia Regional para a Promoção do Papel da Medicina Tradicional nos Sistemas de Saúde*, reproduzida no final do presente artigo) que propõe as intervenções essenciais para fazer face a esses problemas e se inspira no êxito da promoção dos aspectos positivos da medicina tradicional nos sistemas nacionais de saúde. A ênfase é dada ao reforço da liderança e governação, à elaboração e utilização de instrumentos, ao cultivo de plantas medicinais e à conservação da diversidade biológica, investigação e desenvolvimento, produção local, protecção dos direitos da propriedade intelectual e dos conhecimentos da medicina tradicional, coordenação intersectorial e formação de capacidades.

Laboratory capacity in 2012 for diagnosis of epidemic prone diseases in the context of Integrated Disease Surveillance and Response in the WHO African Region . . . 44

RÉSUMÉ—Ce document présente la situation des capacités des laboratoires en matière de diagnostic des maladies à potentiel épidémique qu'encadre le système de Surveillance intégrée et de riposte (IDSR) dans 46 pays de la Région africaine de l'OMS. Il résulte de questionnaires auto-évaluateurs et couvre une période à fin 2012. Les données de cette évaluation ont montré que 98 % (45/46) des pays concernés ont les capacités requises pour l'isolement, l'identification et les tests de susceptibilité antimicrobienne des agents bactériens courants des maladies entériques et de la méningite dans la Région. 43 pays pratiquaient l'épreuve standard immunoenzymatique par compétition (ELISA) pour confirmer les cas d'infection suspectée par les germes pathogènes tels que *morbillivirus*, responsable de la rougeole, par voie de détection des antigènes spécifiques (IgM), et 30 pays avaient au moins la capacité d'opérer une réaction en chaîne par polymérase pour détecter les virus de la grippe. Il n'empêche que seuls quelques pays disposent aujourd'hui d'un centre de virologie doté de services diagnostiques complets, en particulier pour les virus pathogènes dangereux, dont la manipulation exige des infrastructures et équipements de biosécurité de haut niveau. Ces données fondamentales sur les capacités de diagnostic existantes dans la Région, collectées et analysées, ont servi à faire des recommandations importantes relatives aux moyens de confirmation par les laboratoires de l'apparition d'un foyer de maladie, conformément à la stratégie IDSR et au Règlement sanitaire international 2005. Les principales actions proposées se concentrent sur les domaines suivants : plaidoyer de haut niveau pour l'appropriation par le pays, développement des ressources humaines, espaces et équipements adéquats pour les laboratoires, assurance qualité et réseautage des laboratoires.

SUMÁRIO—O presente documento informa sobre a situação da capacidade laboratorial para o diagnóstico de doenças de potencial epidémico, no contexto da Vigilância e Resposta Integrada às Doenças (IDSR), nos 46 países da Região Africana da OMS, no final de 2012, através de questionários de auto-avaliação. Os resultados dessa avaliação revelaram que 98% (45/46) dos países têm capacidades para o isolamento, identificação e testagem da sensibilidade antimicrobiana das causas bacterianas mais comuns das doenças entéricas e meningite na Região. Quarenta e três países realizaram o ensaio padrão de imunoabsorpção enzimática (ELISA) para confirmar casos suspeitos de agentes patogénicos, tais como o *Morbillivirus* responsável pelo sarampo, através da detecção de imunogobina específica M (IgM) e 30 países tinham, pelo menos, capacidade para executar a reacção em cadeia da polimerase (PCR), para a detecção dos vírus da gripe. Contudo, o número de países com um departamento próprio de virologia, fornecendo serviços completos de diagnóstico, ainda é limitado, especialmente no que diz respeito a agentes patogénicos virais perigosos, que exigem instalações de contenção de elevado nível. A recolha e análise de informação essencial sobre as capacidades de diagnóstico existentes foram usadas para propor recomendações-chave para o reforço da confirmação laboratorial dos surtos, em sintonia com a estratégia IDSR e o Regulamento Sanitário Internacional (RSI, 2005). As principais acções propostas incidiam sobre as seguintes áreas: advocacia de alto nível para a apropriação pelos países, desenvolvimento de recursos humanos, espaço e equipamento para os laboratórios, garantia de qualidade e trabalho laboratorial em rede.



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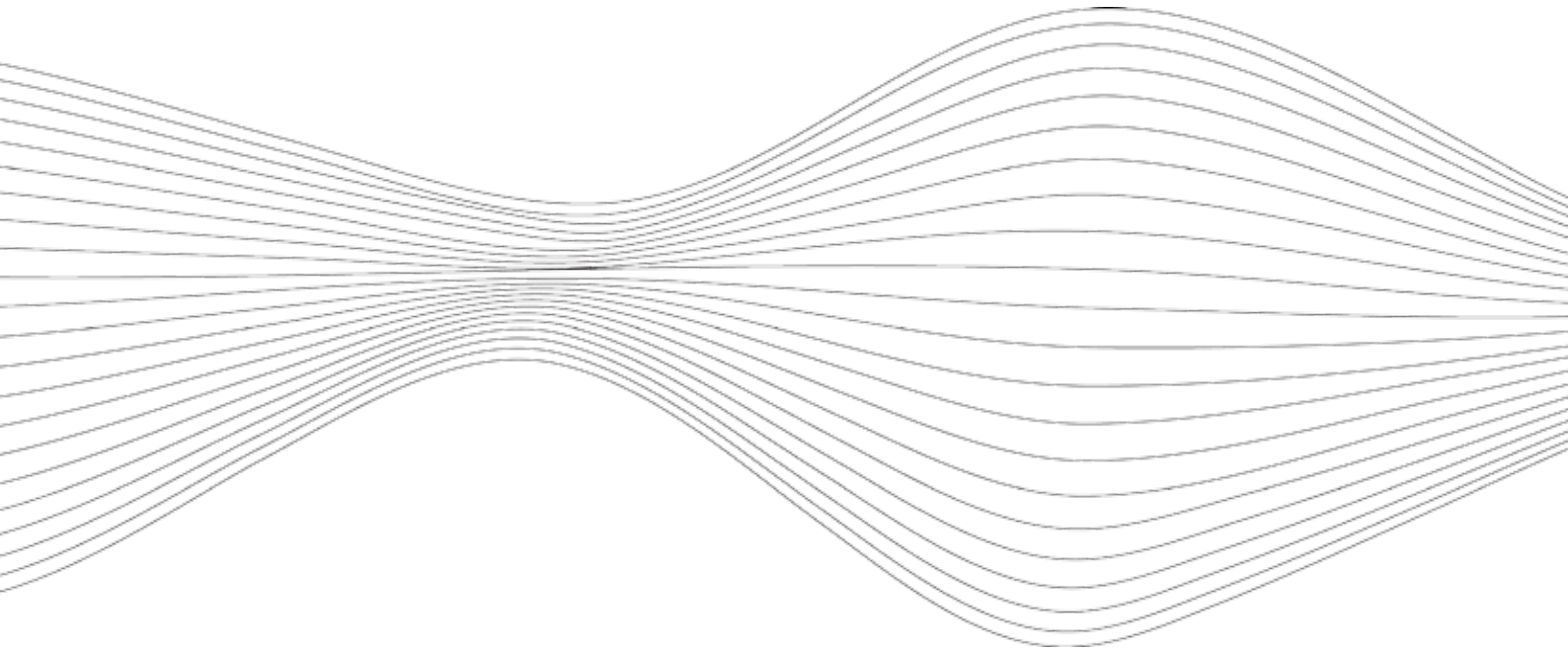

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