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2016

WHO Health Emergencies Programme in the African Region

World Health Organization
REGIONAL OFFICE FOR Africa

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WHO Health Emergencies Programme in the African Region: Annual Report 2016

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Foreword

The importance of achieving public health security cannot be overemphasised. The year 2016 was characterized by major disease outbreaks and other health emergencies – notably, yellow fever in Angola and the Democratic Republic of the Congo, widespread cholera in several African countries, and ongoing humanitarian crises in South Sudan and north-east Nigeria. By addressing these emergencies, we afford communities in the African Region the opportunity to thrive in a safe environment, free of unnecessary restrictions on travel and trade. Since I took office in 2015, I have made improving health security a core priority of the Transformation Agenda of the WHO Secretariat in the African Region.

The creation of the WHO Health Emergencies Programme was indeed a moment of transformative change for WHO. Building on lessons learned from the 2014–2015 Ebola virus disease outbreaks in West Africa and recommendations for improving the Organization's work on emergencies, we established and started implementing the WHO Health Emergencies Programme in the African Region in 2016, following the decision of the World Health Assembly. The sheer scope and magnitude of outbreaks and humanitarian crises that we experience in the Region each year requires our Programme to be robust, fit-for-purpose and able to deliver tangible results. The new organizational structure brings together the expertise and resources of the previously separate programmes on outbreaks and humanitarian crises. In this context, working with restructured and more efficient human and financial resources, the new Programme ensures more predictable, transparent and timely support to Member States. The new Programme affords us the opportunity to detect events early, better tailor the public health response amidst competing emergencies through timely and evidence-based risk assessments, and anticipate emergencies through risk mapping. By strengthening capacity at the regional level, the WHO Regional Office for Africa has begun to better position itself as an important link between country offices and the international public health community.

I am happy to report that as part of their continued commitments to the International Health Regulations (IHR, 2005), our 47 Member States have adopted a regional strategy for public health security. Improvements have already been observed in the reporting by Member States of the diverse, complex and challenging outbreaks and humanitarian crises that occurred in 2016. The WHO Director-General and I witnessed this first hand on a visit to Angola during the yellow fever outbreak, where we reaffirmed the Organization's support to the country,

Dr Matshidiso Moeti
WHO Regional Director For Africa

and our commitment to the health of the Angolan people. Within two weeks of notifying the outbreak, we, together with our partners, had shipped 1.8 million vaccines to the country, and subsequently reached over 17 million people within six months and over 30 million people in the two affected countries.

During the year in review, the Ebola virus disease outbreak was controlled in West Africa, as were the urban cholera and yellow fever outbreaks in the Democratic Republic of the Congo and the Rift Valley fever outbreak in Niger. These events highlighted the adoption of new and innovative approaches in outbreak settings in our Region, such as the application of the Incident Management System, point-of-care testing, oral cholera vaccines and fractional yellow fever immunization doses, respectively.

The demonstrated achievements in 2016 would not have been possible without close collaboration with Member States and our partners. I would like to express my sincere thanks and deep appreciation to our partners and donors for contributing to making the Region safer. Our common goal of reducing the impact of disease outbreaks was evidenced by; the signing of the framework for collaboration on the Africa Centres for Disease Control and Prevention between WHO and the African Union Commission; joint missions with various partners on better assessing the level of preparedness of countries; inclusion of partners in the WHO incident management system during emergencies; and the strengthening of the One Health Approach in Member States.

As we look to 2017 and beyond, it is my expectation that we will reaffirm and expand these partnerships as a matter of priority. Moreover, we will continue to strengthen the capacity of WHO (at all levels) to provide timely technical guidance and support to Member States, while securing adequate resources to respond to outbreaks and humanitarian crises as they occur. With the realization of these priorities, the new WHO Health Emergencies Programme will contribute to the African Region's capacity to respond to all public health emergencies, thereby protecting people's health and saving lives.

Dr Matshidiso Moeti

WHO Regional Director for Africa

Abbreviations

AMR	Antimicrobial Resistance
AWD	Acute Watery Diarrhoea
APHEF	African Public Health Emergency Fund
BMGF	Bill and Melinda Gates Foundation
CAR	Central African Republic
CCA	Country Capacity Assessment
CEBS	Community Event-Based Surveillance
CDC	Centers for Disease Control and Prevention
CFE	Contingency Fund for Emergencies
CFR	Case Fatality Rate
DFID	Department For International Development
DON	Disease Outbreak News
DRC	Democratic Republic of the Congo
EDPLN	Emerging and Dangerous Pathogens Laboratory Network
EIS	Event Information Site
EOC	Emergency Operations Centres
ERF	Emergency Response Framework
EVD	Ebola virus disease
EWARN	Early Warning Alert and Response Network
FAO	Food and Agriculture Organization
FETP	Field Epidemiology Training Programme
GHSA	Global Health Security Agenda
GIS	Geographic Information Systems
GOARN	Global Outbreak Alert Response Network
GPEI	Global Polio Eradication Initiative
HIM	Health Emergency Information and Risk Assessment programme
IDPs	Internally Displaced Persons
IDSR	Integrated Disease Surveillance and Response
IHR	International Health Regulations
IMS	Incident Management System
IOM	International Organization for Migration
JEE	Joint External Evaluation
OIE	World Organization for Animal Health
OCHA	Office for the Coordination of Humanitarian Affairs
OCV	Oral Cholera Vaccine
REDISSE	Regional Disease Surveillance Systems Enhancement project

PHEOCS	Public Health Emergency Operations Centres
RC	Regional Committee
RRT	Rapid Response Team
RVF	Rift Valley fever
SHOC	Strategic Health Operations Centre
UNICEF	United Nations Children's Fund
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
VRAM	Vulnerability and Risk Assessment Mapping
WHE	WHO Health Emergencies Programme
WHO	World Health Organization

Kaya, Burkina Faso start of campaign

Credit: Barry Rodrigue, WHO

Executive summary

Key 2016 Achievements

27 countries trained on EOCs

9 countries conducted IHR Joint External Evaluations

1 WHO Health Emergencies Programme

10 million dollars mobilized for responses activities

>5 million IDPs and refugees supported

47 countries adopted the Regional Strategy for Health Security and Emergencies 2016-2020

100 public health emergencies notified and responded to

17 emergencies risk assessed and graded

>2500 experts deployed

>30 million people vaccinated against yellow fever

Executive summary

The WHO Health Emergencies Programme (WHE) was established in 2016, aiming "to build the capacity of Member States to manage health emergency risks and, when national capacities are overwhelmed, to lead and coordinate the international health response to contain outbreaks and to provide effective relief and recovery to affected populations". It is built on the "one" concept – one emergencies programme, one workforce, one budget, one line of accountability, one process and set of benchmarks, to streamline its work from headquarters to country level, and thereby, make public health responses more predictable.

The achievements of the WHO African Region Health Emergencies Programme in 2016 were in three key areas:

Response to public health events improved

Better coordination in health emergencies and faster deployment of WHO experts were achieved by the implementation of the Incident Management System (IMS), which was activated in Angola (yellow fever), the Democratic Republic of the Congo (yellow fever and cholera), Cabo Verde (Zika fever), Ethiopia (El Niño), Nigeria (humanitarian crisis), Niger (Rift Valley fever), South Sudan (humanitarian crisis) and the United Republic of Tanzania (cholera). Over 300 rumours were detected through surveillance and media monitoring. Of these, at least 100 were public health events, of which 91 were outbreaks of infectious diseases. WHO supported the laboratory confirmation of these 91 infectious disease outbreaks through regional and national laboratory networks. The notifications were made through event-based and indicator-based surveillance systems, both of which have improved post-Ebola.

- In protracted emergencies, WHO supported the public health response, reaching 1.6 million internally displaced persons and 1.1 million refugees from South Sudan; 1.8 million IDPs in Nigeria; over 300 000 refugees from Burundi; over 475 000 refugees from the Democratic Republic of the Congo; and over 450 000 refugees and 380 000 IDPs from the Central African Republic. In response to the yellow fever outbreaks, 25 million people in Angola and 14 million people in the Democratic Republic of the Congo were vaccinated.
- The WHO Regional Office for Africa coordinated the deployment of more than 2500 experts in 2016 to respond to major public health events including Ebola and yellow fever outbreaks and was able to deliver emergency supplies to 30 countries in need.
- Almost US$ 10 million was mobilized to address critical gaps in the response to these emergencies; WHO coordinated responses through the Strategic Health Operations Centre; and also prepositioned and dispatched emergency health kits to the various emergencies.

Capacity and preparedness built

- Regional outbreak risk mapping was undertaken for the epidemic prone diseases in the Region in order to strengthen preparedness. This has increased the understanding of disease-specific epidemiological risks and subnational distribution of outbreaks. In addition, an in-depth analysis was undertaken on the potential for Zika virus disease outbreaks, with countries classified as being at high, medium or low risk with associated recommended preparedness activities.
- Using the newly developed Joint External Evaluation (JEE) tool, WHO and partners engaged with nine countries (Côte d'Ivoire, Eritrea, Ethiopia, Liberia, Mozambique, Namibia, Senegal, Sierra Leone, and the United Republic of Tanzania) to assess their capacities to prevent, detect, and rapidly respond to public health threats. The JEE identified gaps in the International Health Regulations (2005) core capacities and informed the development of comprehensive country plans to address these gaps.
- WHO also conducted Vulnerability and Risk Assessment Mapping (VRAM) in Ethiopia, Nigeria, and South Sudan. This ensured that preparedness efforts were targeted and that the best use was made of available resources to reach communities most in need, while also enhancing the health systems' capacity to cope with emergencies.
- In order to better coordinate national preparedness for, and response to public health events and emergencies, the WHO Regional Office for Africa trained 27 countries on the Public Health Emergency Operations Centre (PHEOC) framework, supported 13 countries to develop plans to implement the PHEOCs and trained 12 countries on the new incident management system and operations for management of public health emergencies.

Health emergency information and risk assessment strengthened

- A new programme area was created under WHE to scale up the work on health information and risk assessment. The Health Information and Risk Assessment programme will: establish a data science team; develop information management policies and guidelines; build capacity in health information management in emergencies; and develop mechanisms to improve quality, access and sharing of data.
- Over 100 major public health events were documented. The following information products on emergencies were developed and disseminated: Situation reports, Disease Outbreak News, and Event Information Site reports.
- Risk assessments were conducted for major events and graded as necessary. To this end, 17 countries conducted outbreak and emergency risk profiling, and regional risk assessments and mapping reports were published for major public health events. These assessments were used to plan various response activities.

Challenges

- The new WHE Programme faces the challenge of insufficient funding and limited staff strength to provide adequate support to all countries facing emergencies. Documenting progress and sharing information will be critical for resource mobilization for the WHE Programme.
- Regional office capacity to adequately support Member States to develop all-hazards preparedness plans that are tested and resourced is not yet optimal.

Priorities

- Continue to build a robust risk assessment and response capacity using the all-hazards approach.
- Intensify resource mobilization efforts at all levels – country, regional and global levels while concluding negotiations on ongoing ones – the UK Government, the African Development Bank, the World Bank, the United States Agency for International Development, and the US Centers for Disease Control.
- Support countries for better preparedness in the context of health systems strengthening. This includes conducting Joint External Evaluations of the International Health Regulations, assisting with national action plans and financing, and capacity building including through the use of simulation exercises.
- Fast-track recruitment for core positions in the Health Emergencies Programme of the WHO Regional Office for Africa to increase its capacity to support Member States in the area of emergency health management.
- Implement the hub-based approach in Nairobi and Dakar and strengthen regional partnerships. This includes setting up the Regional Emergency Workforce and expanding partnerships at regional and subregional levels.

WHO experts assess urgent needs for refugees in Inke Camp, North Ubangi, Central African Republic

Credit: Eugene Kabambi, WHO

Section 1

Background

Background

Over 100 major public health events were notified to the WHO Regional Office for Africa in 2016. The events included: disease outbreaks including cholera, flare-ups of Ebola virus disease, Lassa fever, measles, typhoid fever, yellow fever and Zika virus; acute malnutrition; climate sensitive diseases such as Chikungunya, Dengue fever and Rift Valley fever; floods, which were effects of the 2015-2016 El Niño; humanitarian crises, with associated displacement, injury, disease and death; and accidents.

Some of these events occurred within the context of other emergencies – for example cholera and measles outbreaks during the protracted humanitarian crisis in South Sudan, and chikungunya and dengue fever in Ethiopia, during the 2015-2016 El Niño climate event. El Niño-related drought also induced new displacements of over 280 000 people in Ethiopia.[1]

Other emergencies recurred within the same year; for example Lassa fever in Nigeria and cholera in Kenya. During 2016, approximately 11.3 million people were internally displaced in sub-Saharan Africa, most of them chronically displaced due to conflict. These emergencies now present challenges not just for countries, but also for regional and global health security.

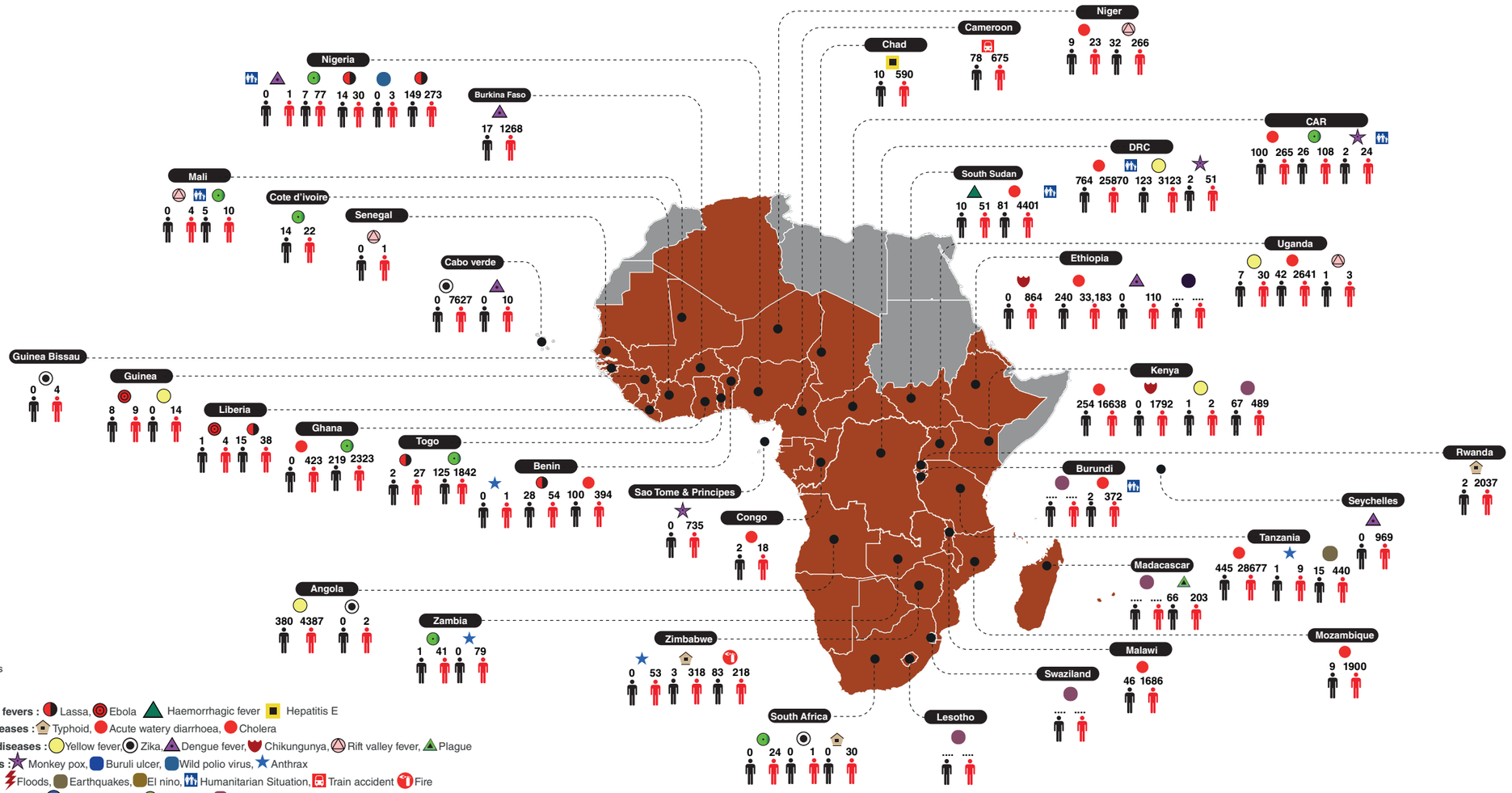
Learning from the Ebola outbreak of 2014-2015 and other public health emergencies, and in recognition of the growing number of public health events, the associated economic cost to governments and the continued loss they cause to communities, as well as the growing concern that public health emergencies transcend borders now more than ever before, the WHO Regional Office for Africa has developed a regional strategy for health security and emergencies covering the period 2016 to 2020. Adopted by Member States at the Sixty-sixth session of the Regional Committee (RC66) in Addis Ababa in August 2016, implementation of the strategy will be supported by the following mechanisms:

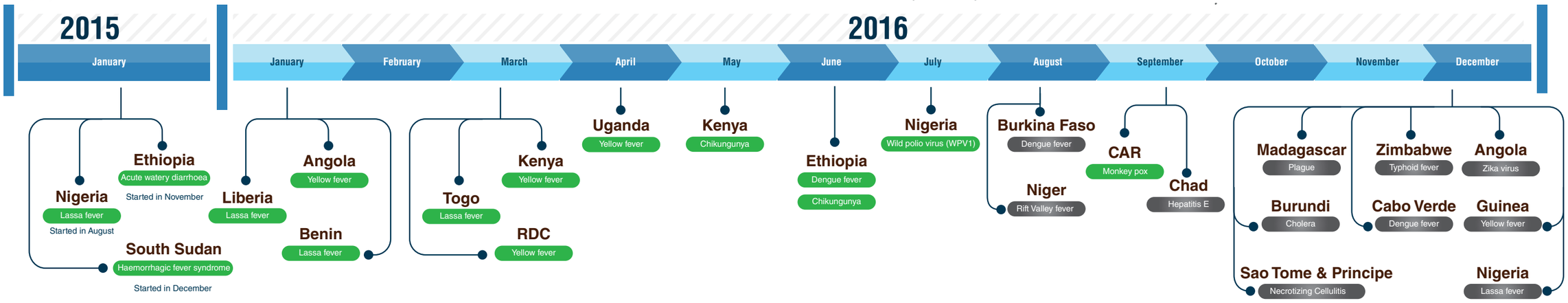
- The African Public Health Emergency Fund (APHEF), whose aim is to rapidly provide funds to initiate emergency public health responses in countries. In 2016, it supported the emergency response in Ethiopia (El Niño) and Angola (yellow fever). Following the realization that it was a worthy initiative and that with better investment it could provide critical support for emergency responses, the APHEF framework was revised in 2016 to encourage Member States to make regular contributions.
- The Contingency Fund for Emergencies (CFE), established as part of WHO's global reform in 2016, provides funding for rapid deployment and response to acute public health emergencies. It supported the emergency response in Angola, the Democratic Republic of the Congo, and Ethiopia.
- The Disaster Risk Management Strategy for the African Region, which was adopted in 2012 with the aim of supporting countries to build their capacity to reduce health risks.
- The International Health Regulations (2005) form the basis for implementation of many of the activities in the strategy. In line with the IHR, the agenda on global health security has been adopted by many African countries, which are now taking steps to implement it.
- The Africa Centres for Disease Control and Prevention, based in Addis Ababa and Lagos, will be an important partner in the management of public health emergencies at the regional level.

The African Region, as widely acknowledged, is a locus for global knowledge and best practices for the global health security agenda, given its experience in responding to public health emergencies, particularly in resource-limited settings. The following sections describe the work of WHO AFRO in emergencies, including priorities, achievements, gaps and plans for 2017.

[1] Internal Displacement Monitoring Centre and Norwegian Refugee Council, 2016

Figure 1: Public health events that occured in the WHO African Region, 2016





Oral vaccination campaign against cholera in Kinshasa

Credit: Eugene Kabambi, WHO

Section 2

What we are doing

What we are doing

2.1 Improving preparedness for public health emergencies

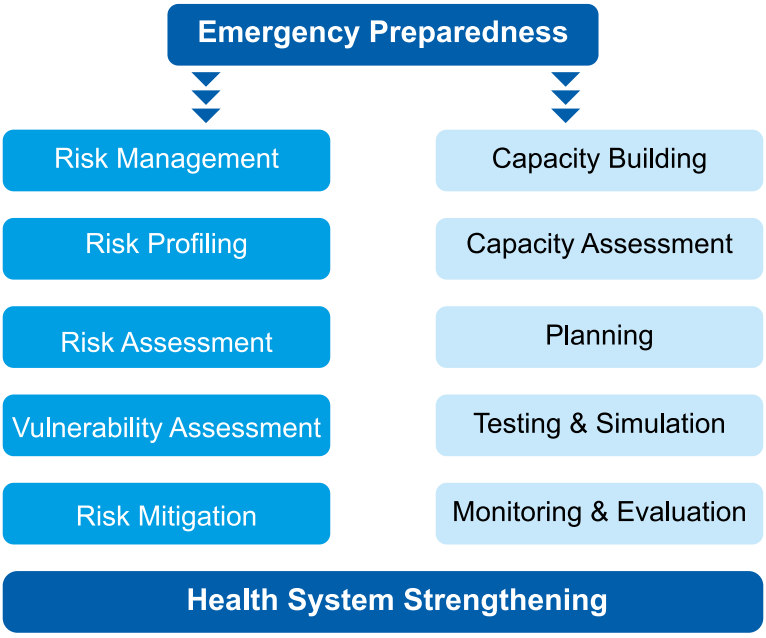
Overview

Public health preparedness relies on the establishment of IHR core capacities to prevent, detect and respond to health emergencies within the broader realm of resilient health systems that are built to address existing or emerging risks to population health. Under the new WHO Health Emergencies Programme (WHE), the objective of the Country Health Emergency Preparedness and IHR Department (CPI) is to ensure that vulnerable countries are prepared to face all-hazard emergencies and are engaged in fulfilling their obligations to develop core capacities under the International Health Regulations (IHR, 2005).

While responding to emergencies and disasters is critical to saving lives, preventing emergencies whenever possible or managing risk through mitigation or prevention are equally crucial. Prevention of emergencies minimizes the impact on human health and livelihood as well as on the health system and delivery of health care services. The disaster risk management cycle (Fig. 2) informs preparedness for public health emergencies.

Figure 2: Disaster risk management cycle

Figure 3: Two approaches to emergency preparedness - risk management and capacity building



Emergency preparedness is an integral part of the disaster risk management cycle that also includes response to, as well as recovery from, emergencies and disasters. Emergency preparedness encompasses two main components: risk management and capacity building. The graph above shows these two approaches to public health emergencies (Fig. 3).

Key achievements

1. Risk and distribution of epidemics in the WHO African Region mapped

Strengthening preparedness in the African region requires mapping risk profiles for epidemic-prone diseases. In 2016 an inventory of all epidemics reported in Africa from 1970 to 2016 was compiled in order to develop a comprehensive, spatially defined database of outbreaks and epidemics to delineate the ecological zones of diseases that are classified as 'Public Health Emergencies of International Concern' (PHEIC) according to the Inter- national Health Regulations (2005). In May 2016
a technical report was released as a result of this work entitled 'Mapping the risk and distribution of epidemics in the WHO African Region'. This has enabled a greater understanding of the disease-specific epidemiological risks and the subnational distribution of outbreaks. This in turn, supports the epidemic risk vulnerability analysis necessary for prioritizing country support. The databases and maps produced in the report are considered as the foundation for tracking epidemics subnationally within the WHO African region.

2. Zika risk assessed and preparedness activities conducted

In early 2016 a risk assessment and mapping exercise for Zika virus disease in the African Region was undertaken and a technical report produced. This included an assessment of the risk of a Zika virus outbreak by country in the WHO African Region as well as an assessment of countries' capacity to contain and prevent it from becoming an epidemic. To assess the risk of a Zika outbreak in the countries of the WHO African Region, consideration was given to a number of ecological, epidemiological, structural and systemic factors that contribute to the likelihood and magnitude of an outbreak. Considering the wide distribution of the vector and its efficiency in transmitting several arboviruses on the continent, all the countries in the African Region are at risk of Zika virus transmission. Countries were classified as being at high, medium or low risk with recommended preparedness activities aligned with the classification.

This information, together with specific guidance on surveillance and laboratory testing, was disseminated to all ministries of health in the Region via the WHO country offices to assist in the development of preparedness plans.

3. Country risk profiles for public health threats developed

The development of country risk profiles for public health threats using the new Strategic Tool for Prioritizing Risks (STAR) was undertaken in 20 priority countries in the African Region in 2016. The aim of the process was to provide a systematic, transparent and evidence-based approach to identifying and classifying priority risks using an all-hazards approach, defining the level of national preparedness and readiness to mitigate them and guiding the implementation of a comprehensive and strategic risk assessment to inform preparedness and response plans. The outcome of the assessments were country risk profiles for public health threats in order to inform preparedness actions as the basis of a comprehensive risk management programme.

In late 2016, WHO convened an internal meeting with participation from departments in headquarters, AFRO and WPRO to review the performance of the tool, increase its inter-operability with other risk assessment activities and revise its content. The new version of the guide and excel tool have been developed based on the recommendations provided at the meeting.

4. Disaster risk management tools developed and deployed

The WHO Regional Office for Africa has developed various tools for disaster risk management for health, including the Country Capacity Assessment (CCA) guide and questionnaire, the curriculum for core competencies in disaster risk management, the guidelines for developing the Standard Operating Procedures (SOPs), the guidelines for recovery planning and the guidelines for conducting Vulnerability and Risk Assessment and Mapping. Furthermore, an assessment tool for water, sanitation and hygiene (WASH) in emergencies was developed and used during cholera outbreaks in the United Republic of Tanzania, Angola, the Democratic Republic of the Congo, and Ethiopia.

5. Vulnerability and risk assessment mapping conducted

The aim of Vulnerability and Risk Assessment Mapping (VRAM) is to enhance risk assessment and tailor preparedness efforts. Additionally, it targets response in the context of limited resources to ensure that the most vulnerable populations are reached and the capacities of health systems are strengthened to cope with emergencies. In South Sudan, VRAM showed that the country is highly burdened with multiple hazards, natural and man-made including cholera, malaria, measles and haemorrhagic fevers, conflicts, floods, and food insecurity. The analysis found that most of the determinants of vulnerability are outside the health sector and that effective preparedness would require multisectoral planning and focusing on the most vulnerable and high-risk populations. In another VRAM exercise conducted in the Karamoja region of Uganda, VRAM revealed that epidemics, floods, drought, and clan conflict characterize the hazard profile of the region.

Social determinants of health were the highest factors of vulnerability, followed by the functional capacity of health facilities, weak coordination mechanisms and weak community engagement.

6. Emergency preparedness officers deployed to 15 countries

With support from the United Kingdom Department for International Development (DFID), WHO deployed emergency preparedness officers to 15 countries in Africa to support emergency preparedness and response, notably to assist with disease surveillance, logistics, risk communication, and coordination.

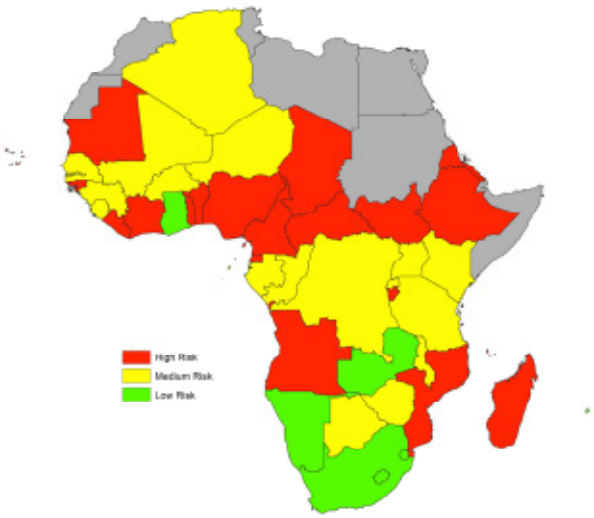
7. One hundred and eighty technical experts from 29 countries trained

Training of 180 experts from 29 countries was conducted in different fields of emergency preparedness, including: the use of an Incident Management System, simulation exercises, the establishment of Public Health Emergency Operations Centres (PHEOCs), the management of Rapid Response Teams (RRTs), and the conduct of Vulnerability and Risk Analysis and Mapping (VRAM) exercises.

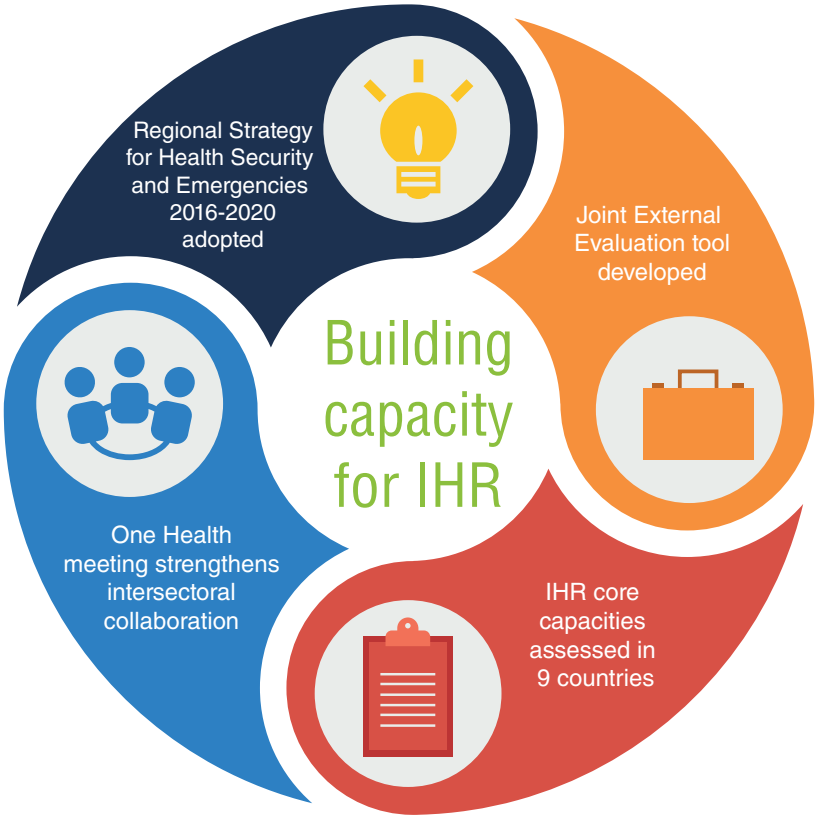
8. Public Health Emergency Operation Centres (PHEOCs) framework developed

A framework for Public Health Emergency Operations Centres (PHEOCs) was developed and a regional Public Health EOC Network established. Nine countries were supported to develop their PHEOC implementation plans.

Figure 4: Countries ranked in order of increasing risk of Zika virus epidemic based on a composite index of risk derived from the hazards, vulnerabilities and lack of coping capacities, February 2016



2. 2 Building capacity for the implementation of the International Health Regulations



Overview

The International Health Regulations (2005) entered into force on 15 June 2007. The Regulations require countries to establish national core capacities to ensure public health surveillance and response, including at designated points of entry. In 2016, WHO continued to support Member States in the Region to strengthen national core capacities towards meeting the International Health Regulations. Within the African Region, IHR is implemented in the context of Integrated Disease Surveillance and Response (IDSR) as well as in tandem with disaster risk management strategies.

Key achievements

1. Regional Strategy for Health Security and Emergencies 2016-2020 adopted

The strategy was approved by the Sixty-sixth Regional Committee in Addis Ababa, Ethiopia, in August 2016. The strategy reiterates the commitment of State Parties in the African Region to accelerate the implementation of the IHR. It identifies several priority interventions which are aligned on the WHE Programme, including sustaining the capacity of all Member States to prepare for and prevent outbreaks and other health emergencies; strengthening and sustaining the capacity of all Member States to promptly detect, speedily report and confirm outbreaks; strengthening and sustaining the capacity of all Member States to promptly respond to and recover from the negative effects of outbreaks and health emergencies.

2. Joint External Evaluation (JEE) tool developed and IHR core capacities assessed

The JEE was developed by WHO and partners following a high level stakeholders' meeting titled 'Building Health Security Beyond Ebola' in Cape Town, South Africa. It uses a voluntary, collaborative process to assess country capacity under the IHR to prevent, detect, and rapidly respond to public health threats. Nine countries[2] conducted a JEE in 2016. In addition, in November 2016, a planning and costing guide for national plans of action was developed during consultations held in the United Republic of Tanzania. The guide will support countries that have completed JEE missions to develop IHR action plans based on recommendations from the missions. A regional training workshop of team leads for JEE was conducted in Brazzaville in November 2016 in order to build capacity for the simultaneous conduct of multiple JEE missions.

[2] The United Republic of Tanzania, Ethiopia, Mozambique, Liberia, Sierra Leone, Namibia, Eritrea, Senegal and Cote D'Ivoire

3. 'One Health': Intersectoral collaboration promoted

To foster intersectoral collaboration, a 'One Health' meeting was organized by WHO, the United Nations Food and Agriculture Organization and the United States Agency for International Development in November 2016 in Dakar, Senegal. It was attended by Ministers in charge of Health, Agriculture, and Wildlife representing 18 countries.

At the end of the technical and ministerial meeting, a communique was adopted by the national authorities from the different sectors. The major meeting outcomes were as follows:

- Renewed commitment by national authorities to implement existing frameworks including the International Health Regulations (2005), the Integrated Disease Surveillance and Response (IDSR) strategy and the Performance of Veterinary Services (PVS) process, in line with the One Health approach.
- Agreement on a framework for implementation of the One Health approach at all levels, with emphasis on strengthening the technical and community capacities of staff.
- Enhanced collaboration and corporation among OIE, FAO, WAHO, ECOWAS, USAID, CDC and WHO to support implementation of the One Health framework.
- Agreement to advocate for governments to mobilize domestic resources for health security based on their commitment to sustain the One Health approach.

Moving forward

1. Recent developments that offer opportunities for further scaling up IHR implementation include the Global Health Security Agenda; the establishment of the Africa Centres for Disease Control and Prevention; stronger partnerships with the African Union Commission, the Regional Economic Communities, and other stakeholders; and the commitment made by the G7.

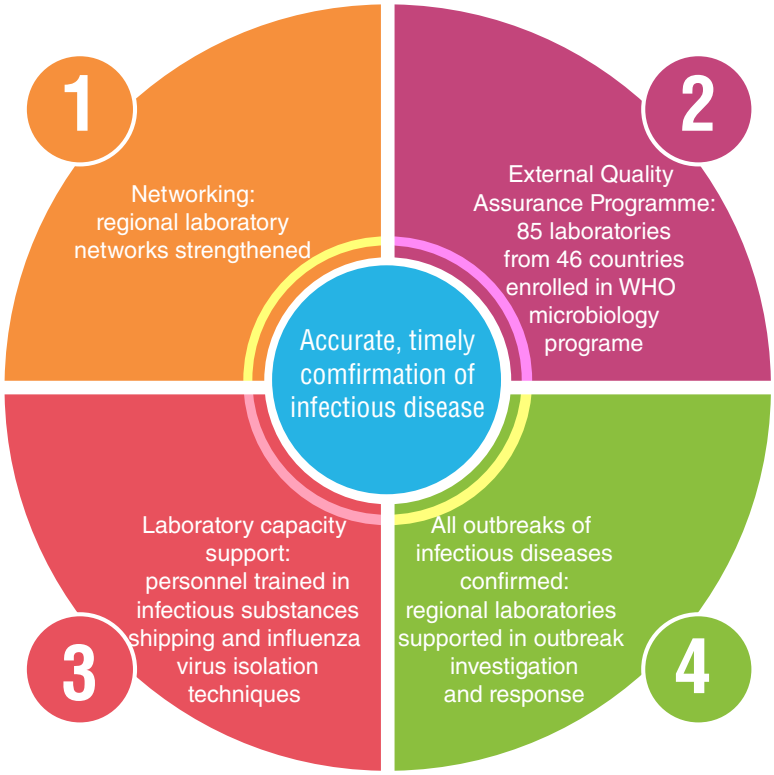
2. The implementation of JEE missions should be fast-tracked in the remaining countries, building on experience and lessons learned from those countries that have already undertaken the JEE process.

3. Strengthening the functionality of National Focal Points so they can continue to play and reinforce their key roles under the IHR for prevention, detection and response to global public health threats.

4. The WHO Secretariat will take into consideration all existing and new frameworks/initiatives and the Regional strategy for health security and emergencies 2016-2020 to support Member States to develop and implement national action plans for health security. These are embedded within broader efforts toward universal health coverage and the Sustainable Development Goals.

5. With the full support and endorsement of partners, the WHO African Region is committed to intensifying efforts required to meet the demands and challenges of an increasingly globalized world in order to tackle current and future health security threats.

2.3 Strengthening laboratory diagnostic capacity



Overview

Over 80% of the 100 or more major public health emergencies notified annually by countries to the WHO Regional Office for Africa require laboratory confirmation for identification, appropriate case management and control. Public health laboratories provide essential services including environmental monitoring, disease surveillance, disease outbreak detection, and emergency response.

The WHO Regional Office for Africa oversees a number of networks of national reference laboratories which include: the Polio Laboratory Network, the Measles and Rubella Laboratory Network, and the Paediatric Bacterial Meningitis Laboratory Network. The WHE Programme oversees the Influenza Laboratory Network, the Emerging and Dangerous Pathogens Laboratory Network, and the Reference Bacteriology Laboratory Network.

Key achievements

1. Outbreak investigation and response supported by regional laboratories

WHO has engaged with regional reference laboratories[3] in investigation, confirmation and field responses to outbreaks. Support, at the request of Member States,[4] has been provided for Dengue fever, Zika virus, Lassa fever and Hepatitis E outbreaks and for the diagnosis of other unknown pathogens. Of the 100 or more public health events registered in 2016, all epidemic- and pandemic-prone infectious disease outbreaks were laboratory confirmed through regional and national laboratory networks.

2. Laboratory capacity and technology transfer enhanced

Training of laboratory staff included on-site training for five laboratories[5] on viral isolation of influenza. Two subregional training workshops for infectious substance shipment were conducted for 12 countries[6].

[3] PI Dakar, National Institute for Communicable Diseases, South Africa, NMIM Ghana, Lagos University Teaching Hospital, Nigeria, and Centre Pasteur du Cameroun, Cameroon

[4] Angola, Benin, Burkina Faso, Cabo Verde, Chad, Congo, Democratic Republic of the Congo, Guinea Bissau, Niger, South Sudan, and Togo

[5] Togo, Mali, Mozambique, Rwanda, and Nigeria

[6] Burundi, Cameroon, Chad, Congo, Ghana, Madagascar, Malawi, Mozambique, Niger, Sierra Leone, the United Republic of Tanzania and Zambia

3. Essential reagents and supplies provided to countries

WHO procured supplies and reagents for the diagnosis of viral haemorrhagic fever and arboviruses for 10 countries and of influenza for 15 countries in the Region.

4. Regional laboratory networks maintained

A road map for strengthening surveillance and response to seasonal and pandemic influenza in the Region was developed at the fourth National Influenza Centres meeting, attended by 34 countries. Separately, a document entitled *'The Status of Laboratory Capacity, specifically BSL-3 Laboratories, for Detecting Emerging and Dangerous Pathogens in the WHO African Region'* was developed following the Emerging and Dangerous Pathogens Laboratory Network (EDPLN) meeting. Eleven countries participated in the development of the document.

5. Eighty-five laboratories from 46 countries enrolled in WHO external quality assurance programme

In order to support quality assurance in laboratories within the Region, 85 laboratories from 46 countries were enrolled in WHO's external quality assurance programme on microbiology. Furthermore, training was provided to laboratory personnel from Cameroon, Côte d'Ivoire and Niger on laboratory quality management.

6. Publications released

The following documents were published: Polio Eradication Initiative (PEI) contribution in strengthening public health laboratory systems in the African Region; the WHO AFRO External Quality Assessment Programme (EQAP): Linking laboratory networks through EQA programmes; and the Implementation of the World Health Organization Regional Office for Africa Stepwise Laboratory Quality Improvement Process Towards Accreditation. With regard to norms and standards, WHO released a guide on the assessment of Bio-Safety Level-3 facilities in the WHO African Region, and an interim guidance document on yellow fever laboratory diagnostic testing in Africa.

Moving forward

1.Laboratory strengthening activities will continue to be provided with regard to national capacity of laboratory systems, biosecurity/biosafety and antimicrobial resistance surveillance.

2.Continued support will be provided for building subregional mobile laboratory capacities for investigation and confirmation of viral haemorrhagic fevers (VHFs), arboviruses, and other pathogens.

2.4 Investing in robust public health surveillance

Overview

Strengthening of public health surveillance underpinned the successful early detection and containment of public health threats throughout 2016. This includes the experience of responding to the yellow fever epidemic in Angola and the Democratic Republic of the Congo, cholera outbreaks, and other recurrent epidemics in the WHO African Region. Among the lessons learned from these experiences is the importance of continued investment in, and strengthening of public health surveillance and capacities for preparedness and response in all 47 countries of the Region to limit the economic and social burden of threats arising from epidemic- and pandemic-prone diseases.

The table below underlines the considerable financial costs of not investing in public health surveillance, presenting the costs incurred each year in Africa for just three diseases: cholera, meningitis, and viral haemorrhagic fever.

Figure 5: Financial case for improved surveillance

Disease	Cost per outbreak	Number of countries affected (average per annum)	Total Cost (per annum)
Cholera	US$ 2.5 million	30	US$ 75 million
Meningitis	US$ 5 million	24	US$ 120 million
viral haemorrhagic fever	US$ 15 million	5	US$ 75 million

In recognition of the need to invest in public health surveillance, Member States of the WHO African Region adopted and have been implementing the Integrated Disease Surveillance and Response (IDSR) strategy since its inception in 1998. To support Member States in the implementation of the strategy, the IDSR technical guidelines and tools were developed in 2001 and revised in 2010. The strategy encompasses the traditional indicator-based (health facility-based) and event-based surveillance systems, including the evolving field of monitoring events that may threaten public health security. The strategy also promotes an all-hazards approach to preparedness and response to public health emergencies. The IDSR strategy forms the basis for implementation of the International Health Regulations (2005).

Key achievements

WHO continues to support IDSR implementation in countries in order to strengthen public health surveillance and response capacity. The following key achievements were recorded in 2016 with the assistance of the WHO Regional Office:

1. Surveillance reporting on notifiable diseases improved

Out of a total of over 5579 districts, 3720 (67 % of districts) in 47 countries reported weekly IDSR data on notifiable diseases to WHO at some point in 2016, although only a third of countries reported on a regular basis. Thirty-seven countries produced regular epidemiological information products. Twenty-three laboratories which are part of the Influenza Laboratory Network in 23 countries conducted weekly virological surveillance of influenza.

2. Five countries have started e-Surveillance

The rollout of electronic surveillance (e-Surveillance) initiatives was carried out in five countries: Burkina Faso, Cameroon, Kenya, Nigeria and Uganda. An e-Surveillance assessment tool, which aims at aiding future planning of interoperable systems within the various structures in-country, was developed, field-tested and validated.

3. Over 23,000 public health officers have been trained since IDSR inception

Over 23 567 public health officers have been trained in various aspects of surveillance, response and epidemic preparedness since IDSR inception. E-learning IDSR modules were also developed to accelerate the dissemination of IDSR technical skills and knowledge in the Region. These were field-tested in Malawi and are available in English, French and Portuguese. The IDSR e-learning modules target health workers and managers who, at all levels of the health system, are involved in detection, investigation, confirmation, and response to priority diseases, conditions and events.

4. Enhanced surveillance in Côte d'Ivoire and Ghana led to rapid outbreak detection

Through the application of IDSR recommendations, enhanced surveillance for meningococcal meningitis enabled timely detection of outbreaks in Côte d'Ivoire and Ghana. The rapid response to these outbreaks led to limited meningitis transmission and effective containment of this disease.

5. Early Warning Alert and Response Network integrated into existing IDSR framework

An Early Warning Alert and Response Network (EWARN) was integrated into an existing IDSR structure to detect disease outbreaks in South Sudan and Nigeria. The system demonstrated its effectiveness in crisis-affected areas of South Sudan with rapid cholera outbreak detection.

6. Surveillance strengthening as part of the Regional Diseases Surveillance Systems Enhancement project in West Africa initiated

The West Africa Regional Disease Surveillance Systems Enhancement project (REDISSE), launched in June 2016 by the World Bank with WHO technical support, aims at strengthening multisectoral, national and regional capacities for disease surveillance and response in West Africa. It is meant to address weaknesses within the human and animal health sectors that hinder effective disease surveillance and response. All 15 ECOWAS member countries will be part of the process, the first countries targeted being Guinea, Sierra Leone and Senegal, followed by Liberia, Guinea-Bissau and Togo, and then Benin, Côte d'Ivoire, Ghana and Nigeria.

7. Regional One Health Strategic Roadmap agreed by Member States

The One Health initiative in West Africa aims to strengthen prevention, detection and response to emerging infectious disease threats, including zoonoses and antimicrobial resistance (AMR). There is strong political commitment for One Health in West Africa as demonstrated at the regional conference in November 2016 in Dakar where a Regional One Health Strategic Roadmap was agreed to by Member States.

8. Field Epidemiology Training Programmes scaled up

Field Epidemiology Training Programmes (FETP), which are being scaled up across Africa with support from a number of partners including the African Union, CDC and WHO, are an excellent opportunity to improve capacity for

frontline health workers in surveillance and response. In August 2016, the 6th African Field Epidemiology Network conference was held in Abuja. The WHO Regional Office for Africa and CDC organized a pre-conference workshop on Integrated Disease Surveillance and Response, presenting some of the practical tools to support training. WHO country offices and ministries of health will explore opportunities for strengthening surveillance and response at the district level using FETP teams.

Moving forward

Key priority actions for strengthening public health surveillance in the Region include:

1. Using Joint External Evaluation capacity assessments as part of plans to improve real-time surveillance and reporting as part of the scaling up of IDSR implementation.

2. Revitalizing the regional surveillance platform and developing regional guidance materials for the management of data at country level.

3. Updating the IDSR guidelines and developing regional guidance documents for the implementation of e-Surveillance, event-based surveillance and early warning and response systems and emphasizing the role of community event-based surveillance in IDSR.

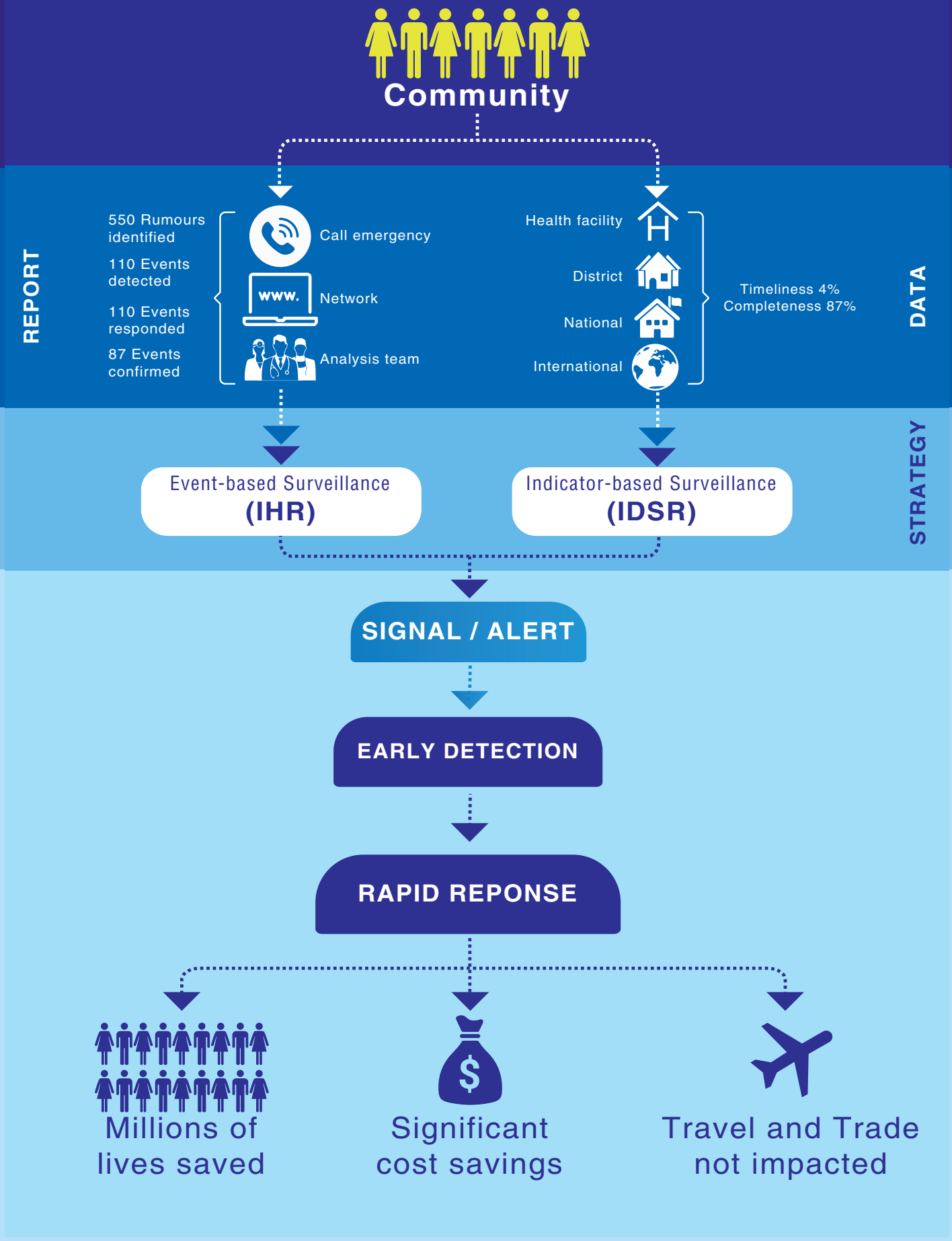
4. Introducing IDSR curriculum into training institutions and launching the regional IDSR eLearning course in order to reach a wider audience.

5. Enhancing the platform for networking of national public health laboratories including the safe and timely shipment of infectious substances.

6. Engaging with governments and partners to emphasize the importance of the IDSR coordination mechanism at all levels of the health system.

7. Documenting IDSR best practices to improve partner knowledge and advocate for donor funding.

Figure 6: Importance of surveillance



Success story: Engaging the community in surveillance in Liberia

The community plays a vital role in surveillance (see Fig. 5). Events can be detected either through public health officials (known as indicator-based surveillance) or through reports, rumours and stories (known as event-based surveillance). Both provide information that can lead to investigation, verification and notification of a public health emergency. This should then lead to a rapid response to contain the outbreak or reduce the scope of a humanitarian emergency thereby reducing the morbidity and mortality burden. Furthermore, with an efficient and timely surveillance system, followed up by a rapid response, there can be significant cost savings in terms of reduced treatment costs and reduced disruption of travel, tourism, trade, and business.

In Liberia there is strong commitment to community engagement in IDSR through the establishment of community event-based surveillance (CEBS) led by the Ministry of Health together with WHO and partners. CEBS is the organized and rapid capture of information from the community about events that constitute a potential risk to public health.

Building on structures developed during EVD outbreak

CEBS was used as a surveillance tool during the EVD outbreak in Liberia to rapidly identify suspected EVD cases in the community. As the outbreak waned, the focus shifted to the development and implementation of an integrated disease surveillance and response (IDSR) system. Community surveillance was therefore expanded to include all the priority diseases under surveillance in the country. There are many advantages to involving communities in IDSR: it enables the early detection of diseases in both humans and animals leading to a more timely response; it encourages community engagement and ownership in the process and assists health promotion and risk communication, while it additionally improves linkages to care.

Partnership: key in successful implementation of community engagement in IDSR

At the national level, the Ministry of Health, WHO and partners developed guidelines and tools for the implementation of IDSR at the community level. At the county level, implementation is monitored and partners developed guidelines and tools for the implementation of IDSR at the community level. At the county level, implementation is monitored and supervised by County Health Teams and WHO Field Teams. Implementation at the community level is undertaken by many partners, including the International Organization for Migration (IOM), the International Red Cross, the Liberian Red Cross, Last Mile Health, Partners in Health, Global Communities and International Rescue Committee.

One partner in Liberia, IOM, currently operates in the eight border counties of Liberia. They use 12 local implementing partners to cover 2972 communities in 43 districts. Between February and October 2016, 3746 community triggers were identified in these areas, 95% of which met the community case definition, while 885 met the clinical case definition, 24% of those originally reported. The most commonly reported trigger was for acute watery diarrhoea, an early warning of suspected cholera.

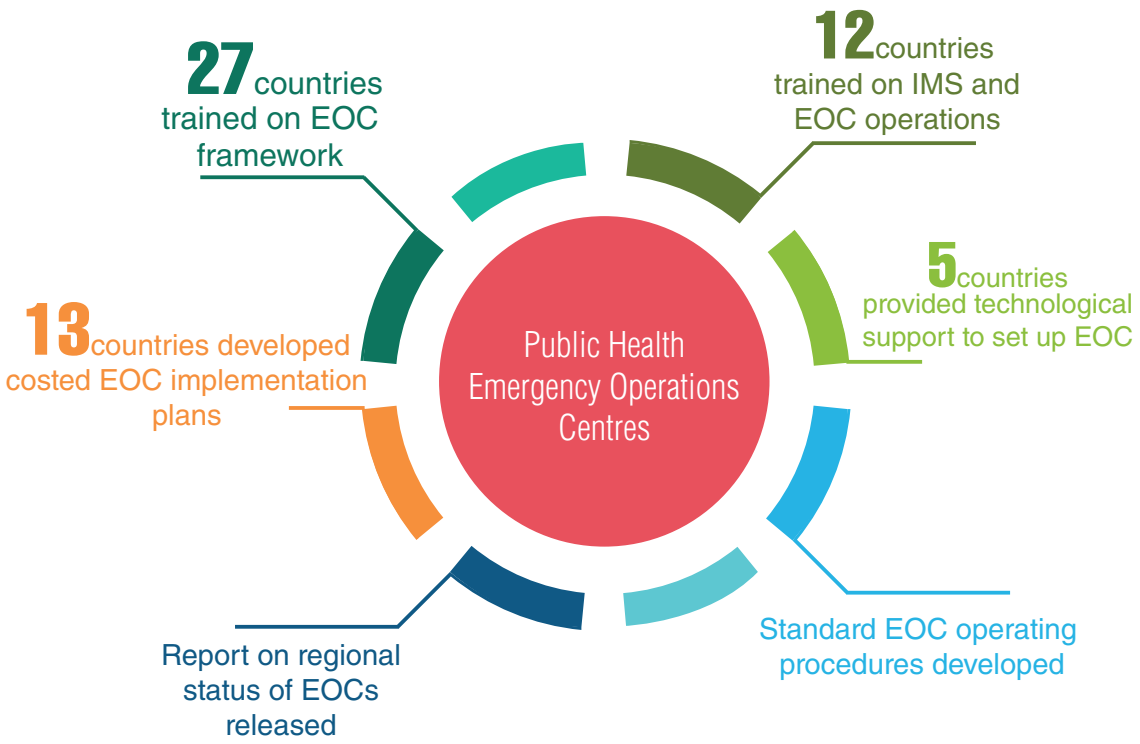
Evaluation: CEBS a worthwhile investment to prevent deaths through epidemic prevention and disease surveillance.

An evaluation was undertaken in 2016 by independent experts from Johns Hopkins University. They identified that the implementation of IDSR at the community level in Liberia has been largely beneficial due to the successful reporting and verification of triggers leading to detection of suspected cases as well as the high level of recognition of the importance of community surveillance by community members. The sustainability of CEBS however, faces significant challenges including limited evidence of the data being fed into IDSR, the high burden on officers in charge at health facilities and the separation of community IDSR from other community programmes. However, with the advocacy of MoH, supported by WHO, to address issues of coordination and strategic planning, together with the will of partners and sustained financial support, these challenges can be mitigated. CEBS is a worthwhile investment to prevent deaths through epidemic prevention and disease surveillance.

WHO/IOM during an evaluation in Lofa, Liberia, conducting interviews with General Community Health Volunteers

Credit: WHO Liberia

2.5 Establishing Public Health Emergency Operation Centres



Overview

Public Health Emergency Operations Centres (PHEOCs) serve as hubs for coordinating preparedness and response to public health events and emergencies. A PHEOC brings together multidisciplinary and multisectorial experts to coordinate activities using an Incident Management System (IMS).

In November 2015, the WHO Regional Office for Africa established a regional PHEOC network, namely AFR-PHEOCNET, with the vision of ensuring that all Member States in the WHO African Region have PHEOCs with full capacity to coordinate preparedness for and response to any public health emergency. Currently, 15 countries in the WHO African Region have established PHEOCs, although most require strengthening[7]. The Regional strategy for public health security target is for 80% of Member States to have operational PHEOCs.

Key achievements

1. Thirteen countries developed costed PHEOC implementation plans

WHO provided technical assistance to 13 Member States to develop costed Emergency Operations Centre (EOC) implementation plans with a clear mission, objectives and response structure.[8] This project was supported from the DFID preparedness project and the plans are being used for resource mobilization at national and regional level.

2. Twenty-seven countries trained on the EOC framework and 12 countries trained on Incident Management System and EOC operations

Staff from 27 countries were trained on the EOC framework. The framework is a standard global tool for implementing PHEOCs, developed by WHO. Twelve countries received training on the Incident Management System and EOC operations.

3. Terms of reference developed for national PHEOC

The WHO Regional Office for Africa developed and shared with Member States generic terms of reference for national Public Health Emergency Operations Centres (PHEOCs) for adaptation by Member States.

[7] Côte d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Liberia, Mali, Mozambique, Nigeria, Senegal, Sierra Leone, South Africa, the United Republic of Tanzania, Uganda, Zimbabwe

[8] Cameroon, Chad, the Democratic Republic of the Congo, Ethiopia, Gambia, Guinea Bissau, Mauritania, Niger, Kenya, the United Republic of Tanzania, South Sudan the United Republic of Tanzania and Togo

4. Standard Operating Procedures (SOPs) developed

Technical support was provided to Côte d'Ivoire, the Gambia, the United Republic of Tanzania, Kenya and Zambia to develop an EOC operational manual together with associated SOPs.

5. Five countries supported to set up EOC technology

The United Republic of Tanzania, Kenya, South Sudan, Zambia, and the Democratic Republic of the Congo were supported in setting up PHEOC physical infrastructure and technology and operationalizing the EOC.

6. Experiences and best practices shared through PHEOC network

Through the PHEOC regional network, countries with well-developed EOC capacity such as Kenya, Mali, Mozambique, Nigeria, Senegal and Sierra Leone shared their experience and supported other countries to develop plans and procedures.

7. Regional report on status of EOC prepared

Through self-assessment data collected from 40 Member States, a regional report on the status of public health EOCs in the African Region and country profiles for the 40 countries were developed. These reports serve as a basis for prioritizing support to Member States.

8. Advocacy and partnership activities to implement EOC conducted

These activities were carried out in collaboration with a number of partners including DFID, CDC and the Bill and Melinda Gates Foundation.

Moving forward

1.Continue to provide technical support to Member States in the establishment and/or functioning of Emergency Operations Centres.

2.Ensure that the regional PHEOC network, AFR-PHEOCNET, is functional and becomes a reference point for all guidance and related materials on Public Health Emergency Operations Centres

3.Build the capacity of Member States in effective management of EOCs.

2.6 Health Emergency Information and Risk Assessment Programme

Overview

In line with the transformation process of the WHO Regional Office for Africa and the new WHO Health Emergencies Programme, a Health Emergency Information and Risk Assessment programme area (HIM) has also been established. It is envisioned that HIM will make the WHE Programme more data-centric, increasing its ability for evidence-based decision-making.

Currently, three data systems are being used: the virtual strategic health emergencies operations centre (VSHOC), which is a database for managing deployments of field workers in health emergencies and tracking response activities; the Event Management System (EMS); and the Global Service Management (GSM) system, used for financial management, budgeting, HR, and travel. However, there is a lack of standard tools for the collection of health emergency data from countries; the data is submitted in several formats, with different variables, which increases the processing time for data, impacting on response times and planning.

The new HIM programme area is evolving to a stage where there will be standard tools and guidelines for health workers, and response efforts on the ground will be equipped with simple, easy-to-use tools that can help gather information which can be reviewed and compared across the Region, and which will form the basis for resource allocation.

Figure 7: Proposed health emergency data lifecycle

In order to achieve this vision, the programme carried out the following activities in 2016 and will continue to do so in 2017:

1. Establishment of a data science team

Data currently collected through the Integrated Disease Surveillance and Response system are underutilized. With more in-depth analysis and modelling, greater detail can be drawn from these data for decision-making. The establishment of a multidisciplinary team of data experts in areas such as epidemiology, statistics, software development, database management, communication, information, graphics design, geographic information systems (GIS) and other specializations will increase capacity to achieve this objective.

This will assist field workers and other stakeholders in utilizing the right data collection tools to collect relevant data, and produce outputs that can be disseminated through various channels using modern technology.

2. Development of information management policies and guidelines

HIM will define information management standards and tools which countries will use to develop or adapt pro-posed systems and tools, thereby encouraging interoperability of systems, simplifying information exchange, and enabling data collected from these systems to feed into the WHO information management systems.

3. Building the capacity of countries and partners in health information management in emergencies

In addition to providing guidelines and defining standards, it is necessary for WHO to provide more hands-on support to assist countries and partners engaged in public health response. HIM intends to create and roll out information management toolkits for different diseases to countries within the Region. For example, a cholera toolkit would define standards for the data to be collected (variables, line listing formats) and provide templates for data collection and automated tools for the aggregation of the data and production of various statistical analyses and outputs. These tools will enable the collection of standardized data, and support easier reporting, thereby facilitating decision-making and rapid responses during health emergencies.

4. Increasing access to data and improving data sharing mechanisms

Analysed epidemiological data are used to assess vulnerability, mobilize funds from partners, and target interventions. However, countries are often reluctant to share raw data. This has been attributed to concerns around data ownership, privacy and security. HIM will ensure that its system takes these concerns into consideration while improving data availability.

5. Collaboration, stakeholder involvement and capacity building

The transformation process towards a more data-centric approach should be inclusive, with strong communication and buy-in from all stakeholders including Member States and other partners involved in information management during emergency response. These stakeholders include management, field teams, consultants, partners, and WHO country offices and MoH; among others.

6. Production of new and improved information products

The new HIM programme will create new information products that make use of these improved tools for data collection, improved data, and improved access to data. Products will be created to aid a more timely response. WHO will be seen as taking the initiative and leading the health community in emergency prevention, detection, and response. For example, the weekly bulletin will provide an update on all humanitarian and disease outbreaks that occurred in the Region over a given week. This will provide new scope for rapid response for WHO, partners, and other health-care stakeholders.

2.7 Early detection and effective response to outbreaks and emergencies

Overview

The major emergencies that required a coordinated effort by Member States and partners in 2016 were: humanitarian crises in South Sudan and Nigeria; the post El Niño disaster in Eastern and Southern Africa and the Horn of Africa; the yellow fever outbreak in Angola and the Democratic Republic of the Congo; and cholera outbreaks that persisted for months in many countries in the Region.

Other emergencies that required WHO support included the Rift Valley fever outbreak in Niger; dengue fever in Burkina Faso, Madagascar and Cabo Verde; Hepatitis E in Chad; Lassa fever in Nigeria; and typhoid fever in Zimbabwe and Uganda.

The long held concern of a widespread urban outbreak of yellow fever occurred in 2016, affecting more than 7000 people with a case fatality rate of 13.7% in Luanda, Angola and Kinshasa in the Democratic Republic of the Congo.

Key achievements

In 2016, WHO scaled up the transformation of its Health Emergencies Programme while maintaining its support to countries experiencing emergencies. The critical areas for which WHO provided support to Member States included: leadership and coordination through the establishment of an incident management system; technical support through the deployment of technical expertise, and the provision of guidelines and manuals; strengthening surveillance and outbreak response; information management; and administrative and logistical support.

Timely risk assessment and grading of emergencies

Grading enabled WHO and Member States to institute timely and targeted responses to public health emergencies. During the reporting period, three grade 1, six grade 2, two grade 3, and six ungraded emergencies were registered (see map below). In Nigeria the timely activation of an information management system following the grading enabled WHO to provide technical support for the development of a comprehensive response strategy for the health sector.

1. Over 5 million internally displaced persons and refugees supported and 10 million dollars mobilized

In 2016, US$ 10 million was mobilized to address critical gaps in response to humanitarian emergencies in South Sudan, Nigeria, Burundi, the Democratic Republic of the Congo (DRC), and the Central African Republic (CAR). The graph below shows the number of refugees (defined as those leaving their country of origin) and Internally Displaced Persons (IDPs) who were supported by WHO.

2. Multi-disciplinary team of experts deployed

More than 2500 technical experts were deployed to respond to acute emergencies and disasters with public health consequences in the Region. In South Sudan the WHO Country Office was supported by a team from Nairobi during the acute phase of the escalation of the emergency. A response strategy and operational plans were developed to guide the emergency response.

Figure 8: Risk assessed public health emergencies, 2016

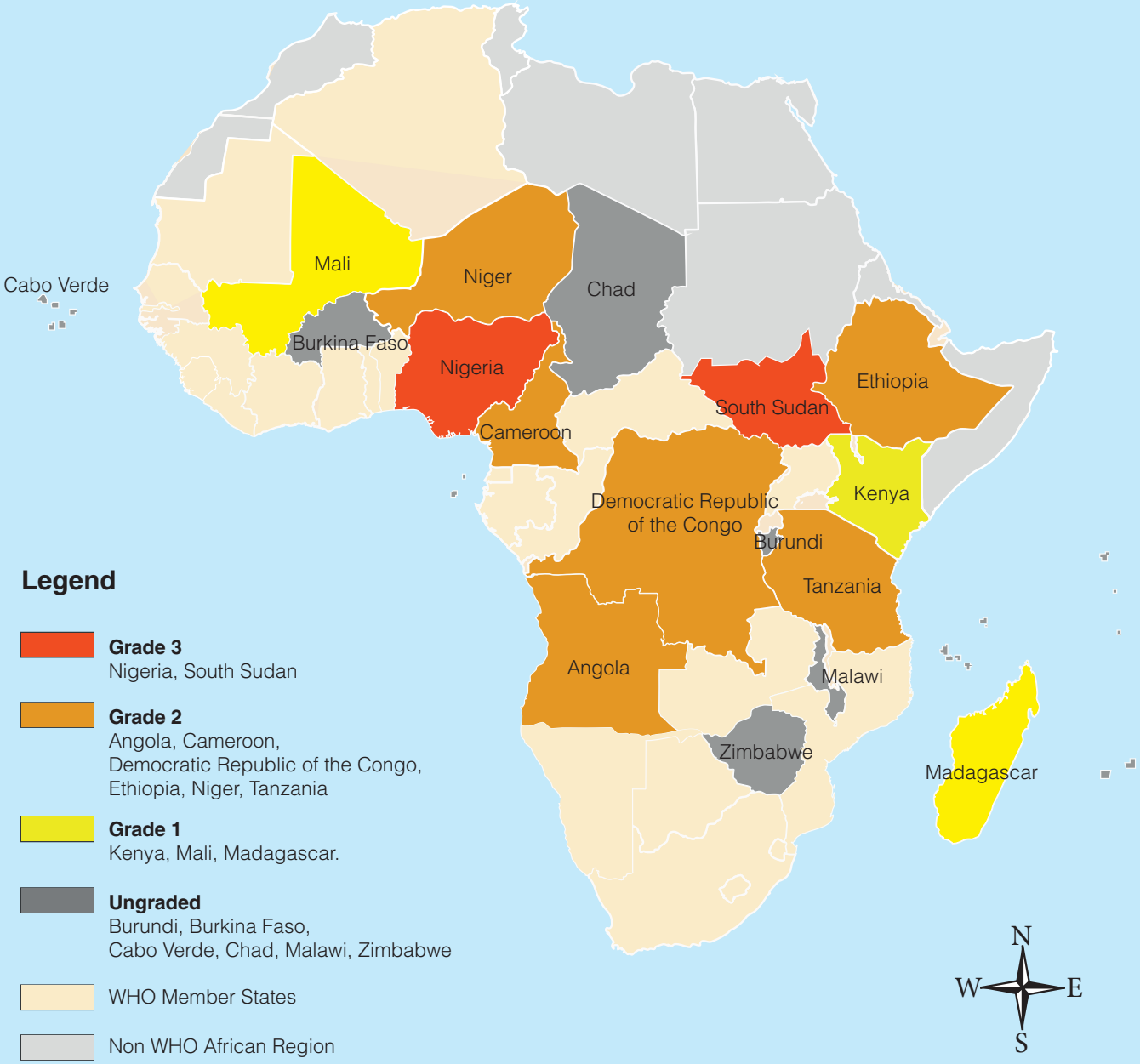
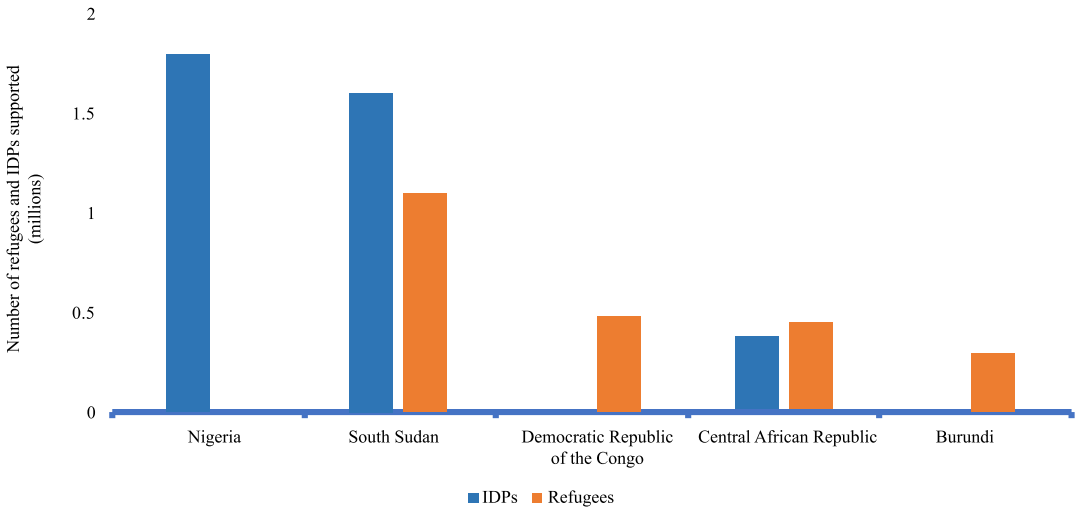


Figure 9: Number of refugees and IDPs supported through WHO assistance, 2016



3. Fourteen Strategic Health Operations Centres set up

The establishment of 14 Strategic Health Operations Centres (SHOCs) in the Region has been beneficial in mounting, coordinating and monitoring emergency responses.

4. One million dollars of logistics support provided and essential medical kits prepositioned and deployed

WHO has provided US$ 1 million worth of logistics for emergency health response to 30 countries in acute emergencies. In order to address critical gaps during emergencies, WHO employs a strategy of prepositioning essential medicines and supplies at its strategic stores in Accra, Ghana and Harare, Zimbabwe. This strategy enables countries to address critical needs during the initial period of the emergency as more resources are mobilized to meet the demand created.

5. Partnerships expanded

Learning from the West Africa Ebola virus outbreak, WHO has started to enhance its existing regional emergency workforce in collaboration with partners such as: the Africa Centres for Disease Control and Prevention; the Global Outbreak Alert and Response Network; the Global Health Cluster team, the Emergency Medical Team (EMT), the Regional Economic Communities; the African Union; and standby partners. This approach is expected to enhance capacity in Member States as well as create a pool of trained experts at regional and subregional levels for immediate deployment during an emergency.

6. Evidence for informed decision-making during emergencies enhanced

An electronic-based early warning system in South Sudan and Nigeria enabled Member States and humanitarian partners to monitor and identify disease outbreaks and respond in a timely manner.

Generation of evidence for decision-making was achieved through the Health Resources Availability Monitoring System (HeRAMS). In Nigeria, assessments were conducted in 749 health facilities across Borno State, which brought the critical information required for both the emergency response and planning for early recovery. The assessment revealed that 35% (262) of health facilities were destroyed, 29% (215) partially damaged and only 30% (227) left intact. Partners were able to use these results to plan and refine their response actions.

Similarly, an in-depth risk assessment was conducted in South Sudan with the objective of identifying common hazards, estimating the probability of occurrence and recommending risk management measures to reduce the potential impact of emergencies.

Sending emergency medical supplies by helicopter

Credit: B.Sensasi, WHO Uganda

7. Communities in inaccessible areas reached through innovative means

The conflict in Nigeria and South Sudan resulted in disruption of health services. A significant proportion of the community was left without any access to health services due to insecurity and destruction of health facilities. To overcome these challenges, WHO organized hard-to-reach mobile health teams in Nigeria to reach communities in IDP camps with inadequate health services. Health camps were also organized to deliver critical health services including immunization and treatment of major ailments to communities away from health facilities.

In addition, training of Community Owned Resource Persons (CORPS) has been instrumental in strengthening community health services. Similarly, in South Sudan, mobile clinics and community health workers have been used to reach communities in inaccessible areas.

8. Ebola affected countries supported in their recovery programmes

To mitigate the risk of a re-emergence of the Ebola virus disease outbreak, national prevention activities were carried out in communities. Data from virus persistence studies in Guinea, Liberia and Sierra Leone have been compiled and disseminated to serve towards evidence-based planning and the development of emergency health strategies.

2.8 Mounting an effective response to outbreaks: Cholera, Yellow fever, and Rift Valley fever

In this section we look at three diseases that have imposed a considerable burden on the continent — cholera, yellow fever, and Rift Valley fever — and WHO's efforts and successes at controlling these outbreaks. Through three case studies of outbreaks in 2016 we look at the cholera outbreak in the United Republic of Tanzania, the yellow fever outbreaks in Angola and the Democratic Republic of the Congo, and the outbreak of Rift Valley fever in Niger.

Regional Emergency Director Dr Socé-Fall- vaccinating children against Yellow fever in Kinshasa Credit: Eugene Kabambi, WHO

2.8.1 Cholera: Recapturing the 'genie that escaped the bottle'

Overview

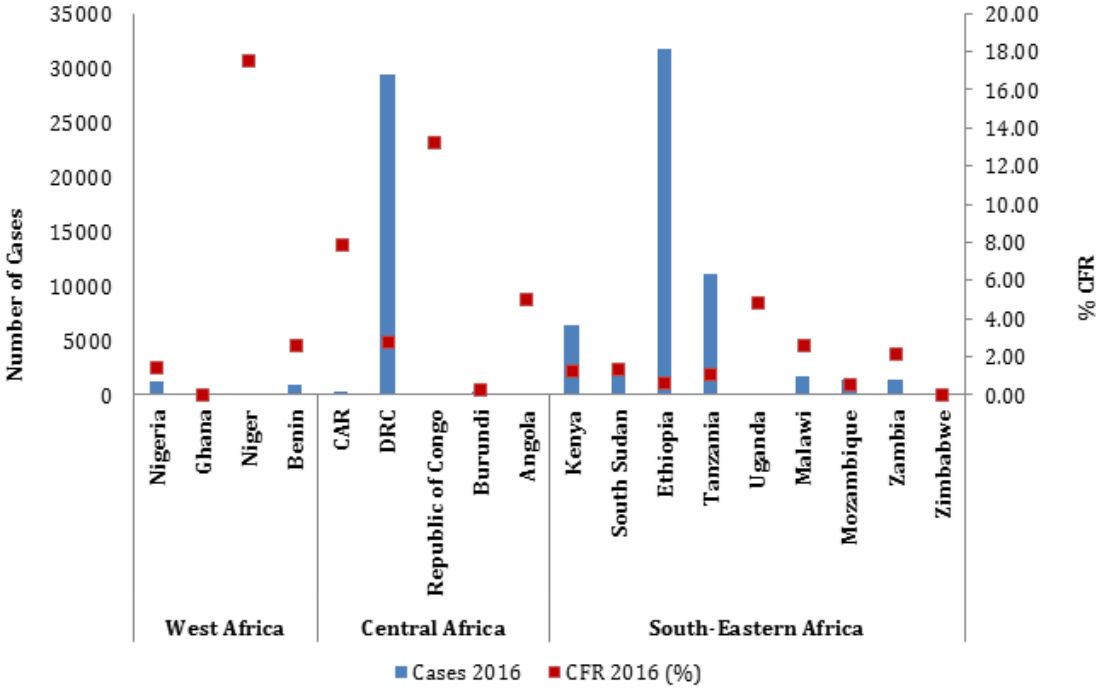
The Global Health Observatory estimates that there are between 1.3 million to 4 million cholera cases and 21 000 to 143 000 cholera deaths annually. Despite hosting only 13%[9] of the world's population, the African Region accounts for 41%[10] of annual reported cholera cases. Although there was a gradual decline of 9%[11] in global cholera cases between 2014 and 2015, the disease remains a significant public health problem, particularly in the African Region, where 16 countries accounted for the majority of the 172 454 cases and 1304 deaths reported globally in 2015.[12] The Democratic Republic of the Congo, Kenya and the United Republic of Tanzania in particular represented approximately 62% of these cases.[13] There remains serious underreporting, induced by the fear of trade and travel restrictions. This has serious implications on control as well as cross-border spread.

Emergency response

A regional meeting on cholera control was convened by the WHO Regional Office for Africa, the WHO Regional Office for the Eastern Mediterranean, and the Eastern and Southern Africa Regional Office of the United Nations Children's Fund (UNICEF) on 27 and 28 October 2016. Participating countries in Eastern Africa and the Horn of Africa (Djibouti, Ethiopia, Eritrea, Somalia, South Sudan and Sudan) reported significant cross-border transmission of cholera in the subregion, linked to flooding and drought induced by the El Niño climate pattern. Discussions during the meeting also associated transmission with displacement, migrant labourers and to a lesser extent, traders. Poor information sharing, and a lack of joint planning and implementation of cross-border response activities were noted as major challenges in controlling cholera outbreaks occurring around border areas.

The graph below gives an overview of the main cholera outbreaks reported in Africa in 2016.

Figure 10: Cholera cases and case fatality rate (CFR) in countries in the WHO African Region, 2016



[9] African Health Observatory, Atlas 2016

[10] Global Health Obvervatory

[11] Global Health Obvervatory

[12] WHO (2016) Weekly Epidemiological Record Cholera No 38, 2016, 91, 433–440 (cited 16 Jan 2017)

[13] Gafga et al., (2007) Cholera: A new homeland in Africa Am. J. Trop. Med. Hyg., 77(4), 2007, pp. 705–713

In response to cholera outbreaks, WHO and partners continue to provide support to the respective ministries of health in the areas of coordination, surveillance, laboratory, case management, WASH, social mobilization, logistics and supplies, development of response plans, and risk assessment. Reactive oral cholera vaccination campaigns have been conducted in South Sudan, Cameroon, Malawi and the United Republic of Tanzania. WHO supplies the oral cholera vaccine (OCV) through: the International Coordinating Group (ICG) which maintains an emergency stock of 2.2 million doses of Shanchol for outbreaks and humanitarian crises, and makes decisions on applications within two days; and the Global Taskforce on Cholera Control (GTFCC), which maintains a non-emergency reserve of 3.3 million vaccines (1 million Shanchol, 2.3 million Euvichol), with a decision-making time frame of two weeks. From 12 January to 10 October 2016, through ICG, a total of 2 715 745 OCV doses were sent to six countries (Democratic Republic of the Congo, Malawi, Mozambique, Niger, Zambia and South Sudan). In five of these countries, vaccines were used in outbreak response in affected and high-risk communities. In Niger and South Sudan, preventive vaccination was conducted during humanitarian crisis situations.

Administering the Oral Cholera Vaccine in Juba

Credit: WHO South Sudan

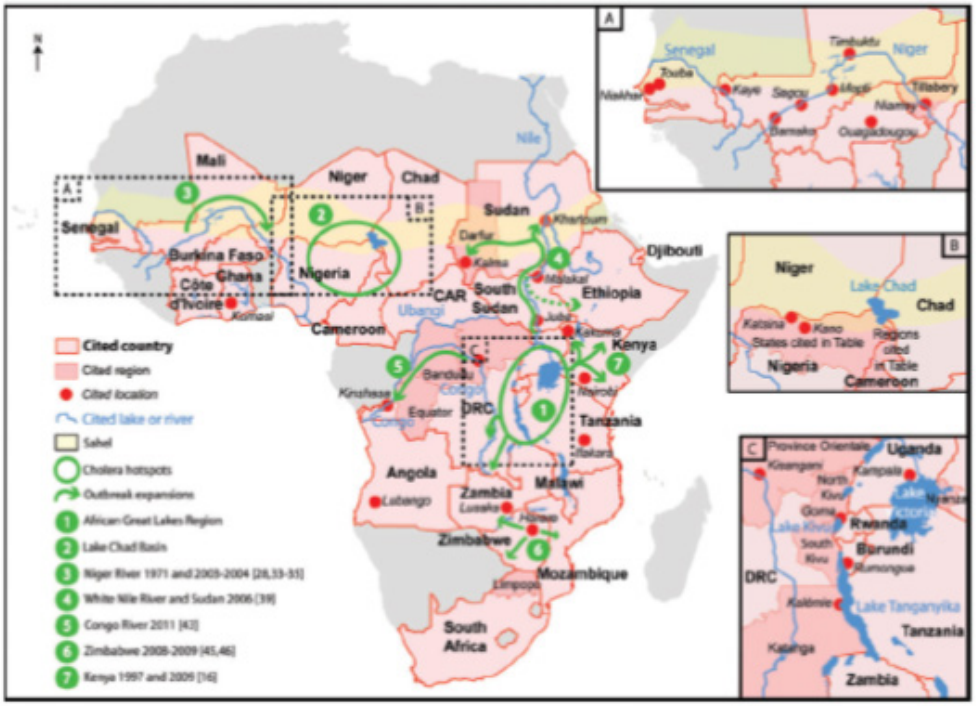
Overall, following implementation of a number of interventions, there has been a decline in case trends observed in a number of countries including Malawi, Mozambique, the United Republic of Tanzania, and Zambia. As one of the strategies to sustain gains made, WHO is supporting countries to develop multisectoral, multidisciplinary, multiyear plans for cholera preparedness and response.

Moving forward

Cholera remains a major public health issue in the African Region. Its persistence reflects the weaknesses of water and sanitation infrastructures, inadequate hygiene and social practices, shortcomings of health systems, particularly in the area of preparedness and response – across all the cholera-endemic areas including the limited use of effective interventions including Oral Cholera Vaccines (OCV). Cholera is an indicator of inequality since the socially and economically most vulnerable are affected the most. Considering the pattern and distribution of outbreaks, implementation of the standard interventions have failed to control cholera outbreaks including prevention of outbreaks. Longer term investments in surveillance and response, water and sanitation programmes, development initiatives such as improved infrastructure, should be considered for sustainable cholera control especially in countries that are most prone to outbreaks.

The data indicates that year after year, more or less the same areas within countries and the same countries are affected by cholera outbreaks in an almost predictable manner. These areas where cholera recurs — termed "hotspots" — are prone to outbreaks that often coincide with the rainy season, associated with high case fatality rates and limited access to health care; they are often the source of spread of cholera epidemics to other countries and regions. These hotspots have been identified and it is estimated that about 40 million people living in these areas or adjacent to them are at high risk of cholera.

Figure 11: Cholera hotspots and associated outbreaks



Source: Rebaudet et al, 2013

In order to cut cholera transmission in these areas, there-by preventing its spread to other areas, a sustained, targeted multisectorial response should be implemented in these areas. The following includes elements of the response, which WHO continues to support:

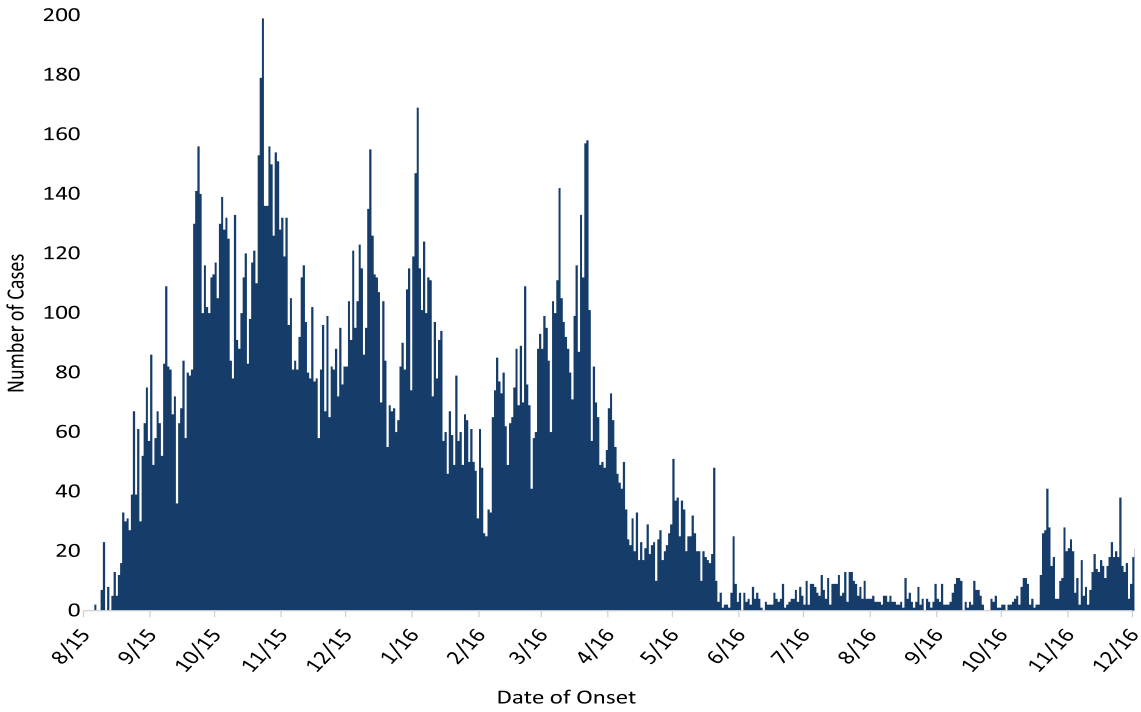
- Periodic vulnerability and risk assessments including measures for control
- National epidemic preparedness and response plans to include cross-border collaboration and a subregional response strategy.
- Strengthening capacity of countries for readiness through training of staff involved in cholera preparedness and response, strengthening surveillance including laboratory diagnostic capacity, stockpiling of medicines and supplies for case management at health facility and community levels.
- Mobilization of WASH and development partners for the implementation of adapted long-term solutions for cholera control (with benefits for all diseases spread by the faecal-oral route).
- Scaling up the use of OCV, in addition to standard measures for management of cholera patients.
- The need to strengthen capacity for monitoring and evaluation as well as documentation.

2.8.2 Response to Health Emergencies – United Republic of Tanzania cholera outbreak

Overview

Cholera is a reoccurring disease in the United Republic of Tanzania, with many regions reporting cases throughout the year and peaks usually occurring during the rainy season from October to March. The last major outbreak occurred in 2010 when more than 4000 cases were reported with 59 deaths. Since then, cholera cases have been declining, and less than 1000 cases have been reported each year since 2011. No cases were reported to WHO in 2014. On 15 August 2015, a cholera outbreak was declared in Dar es Salaam, spreading to three neighbouring regions (Morogoro, Pwani and Iringa) along the coast that same month. Within five months, the outbreak had spread to most of the country (20 regions). The graph below shows the outbreak unfolding.

Figure 12: Number of cholera cases reported in Tanzania, August 2015 to December 2016



Over the following four months of 2015 and all of 2016, a cumulative incidence rate of 54 per 100 000 population was registered at national level, with varying incidence rates in the regions. As of 31 December 2016, 23 979 cumulative cases with 371 deaths (CFR 1.5%) had been reported. The majority of cases were ≥15 years of age (70.5 %) with no significant difference in terms of sex. A total of 111 districts (60%) in 23 of the 25 regions on the mainland, and all five districts in the 2 regions of Zanzibar were affected.

Emergency response

Given the high incidence rate and the high risk of cross-border spread at national and regional levels, and against the backdrop of a weak health system, the event was graded a level 2 emergency in November 2015.

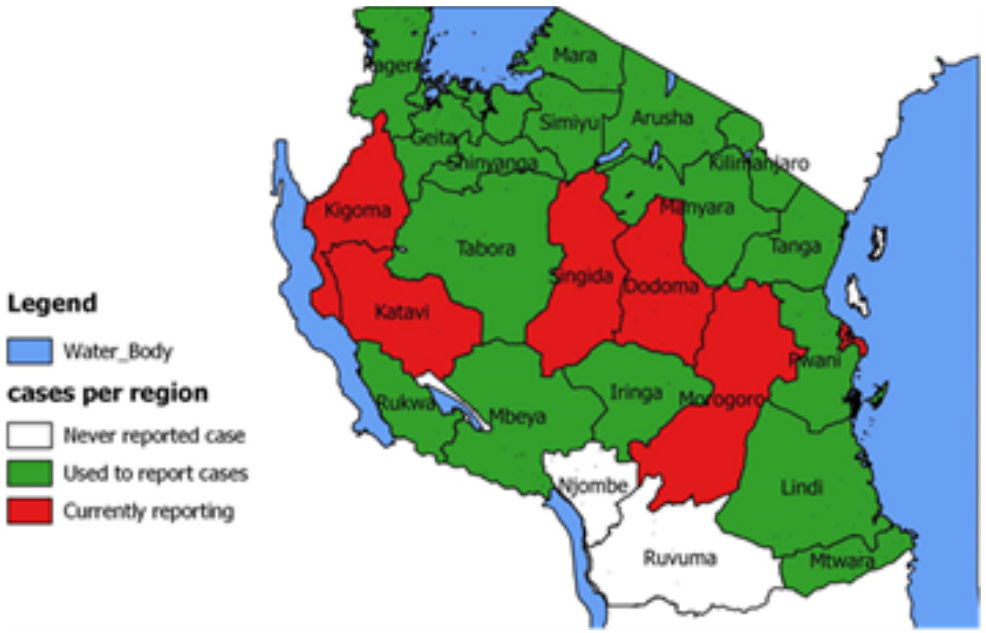
An incident management system was established to coordinate the response. The team included repurposed staff from the WHO Country Office as well as experts deployed from the WHO Regional Office for Africa and WHO Headquarters. Thirty-four staff were mobilized including: epidemiologists, and experts in water, sanitation and hygiene (WASH), social mobilization, public health emergencies, logistics and coordination; 26 were international staff and eight were national staff.

The National Cholera Task Force (NTF), co-chaired by the Ministry of Health and WHO was established to coordinate the response. It operated through seven technical committees: coordination, surveillance, case management, social mobilization, WASH, laboratory, and logistics. The committees were guided by terms of reference and established multidisciplinary rapid response teams (RRTs) to support the regions.

The response was boosted by high-level political commitment through involvement of the President and the declaration of a sanitation campaign on Independence Day, and Government allocation of initial funding to support the response.

Overall, the combined efforts resulted in significant reduction in the number of reported cholera cases in some areas; for example Zanzibar reported zero cases for 21 consecutive weeks, but a gradual increase in others. The map below shows the containment of the outbreak as of end-December 2016.

Figure 13: Currently and formerly affected cholera regions in Tanzania, December 2016



Source: WHO Country Office Tanzania Situation Report

Moving forward

Considering that the cholera outbreak has been ongoing for over 16 months, a review of the response process to objectively identify areas in need of intensified interventions was scheduled for early 2017. With support from the WHO Country Office, the country recently conducted reviews of the lessons learned, and social mobilization and cholera risk assessments will be taken into consideration. A vulnerability and risk assessment and mapping exercise (VRAM) is expected to contribute critical information for planning and high-level advocacy for multisectoral involvement.

2.8.3 Response to Health Emergencies – Democratic Republic of the Congo cholera outbreak

Launching the Cholera oral vaccination campaign in Kinshasa

Credit: Eugene Kabambi, WHO

Overview

south-eastern parts of the Democratic Republic of the Congo. Since 2014, cholera outbreaks have also been reported along the Congo River. The current outbreak started in Maniema in August 2015 and spread to other provinces including Maï Ndombe, Tshopo, Equateur, Kinshasa, Tshuapa and Mongala. Eight weeks later, the outbreak had spread to Ubangi.

By the end of 2016, a total of 28 334 cases including 771 deaths (CFR 2.7%) had been reported in the country. Seventeen out of a total of 26 provinces reported cholera cases. A total of 195 out of 517 health zones had been affected, and 49 were still reporting cases.

Emergency response

Based on a risk analysis which indicated: (i) the possibility of further spread both in-country and across the border, (ii) a response to multiple outbreaks including yellow fever, measles and malaria in various parts of the country (iii) in an already constrained health system, the outbreak was categorized as grade 2 on 23 June 2016, following a WHO 3-level teleconference. This enabled WHO to scale up its response operations through:

- Recruitment of 20 national experts including five epidemiologists, five social mobilization experts and 10 WASH/ICT experts and international experts to support the cholera outbreak response in Kinshasa as well as in hotspot areas;
- Coordinating the response through the incident management structure;
- An OCV campaign and deployment of a logistics expert to support a vaccination campaign in selected parts of Kinshasa. GAVI funds covered vaccines and some operational costs for the OCV campaign;
- Supporting the country in resource mobilization for operational funds.

As of December 2016 the epidemic continues, partly due to geographical access difficulties. WHO continues to strengthen its efforts and will continue to advocate for high level attention to contain the outbreak.

2.8.4 Angola and the Democratic Republic of the Congo Yellow fever outbreak

Credit: EPA

Overview

In 2016, WHO, Ministries of Health and partners responded to the largest outbreak to date of yellow fever in an urban setting by conducting one of the biggest ever emergency vaccination campaigns.

Over 7000 suspected cases were notified to WHO from countries in the African Region, with Angola and the Democratic Republic of the Congo bearing the highest burden. The long held concern of a widespread urban outbreak was realized in 2016 when a laboratory-confirmed outbreak was reported through the International Health Regulations from Luanda, the capital of Angola on 21 January.

By 23 June, 3137 suspected cases, including 345 deaths had been reported from all 18 provinces of Angola. A total of 847 cases were laboratory-confirmed. The majority of cases were aged 15-24 years. In the Democratic Republic of the Congo, 1106 suspected cases of yellow fever including 75 deaths (CFR 6.8 percent) had been reported by the end of the outbreak.

Emergency response

From the beginning of the outbreak, WHO and partners supported the Governments of Angola and the Democratic Republic of the Congo in their efforts to rapidly interrupt yellow fever transmission and strengthen measures to prevent spread across borders. Within two weeks of Angola notifying WHO of the outbreak, 1.8 million vaccines were shipped to the country by WHO and partners from the emergency stockpiles managed by the International Coordination Group (ICG) for Vaccine Provision. Due to the densely populated urban area from where the outbreak had originated, the at-risk population was large, coupled with frequent population movements both within the country and to neighbouring countries. This resulted in high potential risks of transmission, particularly in the unvaccinated populations.

WHO facilitated the procurement and delivery of 30 million doses to Angola and the Democratic Republic of the Congo (more than four times the annual volume normally planned for outbreak use) for mass vaccination campaigns.

These vaccines came from the global stockpile co-managed by Médecins Sans Frontières (MSF), International Federation of the Red Cross and Red Crescent Societies (IFRC), UNICEF and WHO with Gavi, the Vaccine Alliance financing a significant proportion thereof.

As of 10 June 2016, almost half the population of Angola had been vaccinated (10 641 209 people) using the 11 635 800 vaccines received by the country. There were plans to vaccinate in areas with low vaccination coverage (so- called 'mop up' campaigns) as well as to complete vaccination in areas which were not included in the first round.

In the Democratic Republic of the Congo, vaccination was conducted in May, June, July and August 2016, and in accordance with the WHO guidelines, a post-campaign evaluation was conducted with the support of its partners. Cases did not vary by sex, age group, or place of residence. The proportion of the unvaccinated population was 98.3 % before the campaign and 2.2% after the campaign. More than 41 000 volunteers and 8 000 vaccination teams were involved in the mass immunization campaign.

Due to the unprecedented nature of the outbreak and the limited availability of global vaccine stocks, an innovative approach was adopted after consultation with global experts, to stop the spread of the disease - emergency fractional dosing. This was approved in June 2016. In Kinshasa, the Democratic Republic of the Congo where 10 million people were at risk ahead of the rainy season, the exceptional use of emergency fractional dosing was implemented. This achieved high population coverage and the duration of immunity is now being assessed by WHO and partners.

In addition to the vaccine deployment, WHO together with 54 partner and donor organizations implemented the yellow fever strategic response plan to support Member States. As part of the plan, 250 experts were deployed to affected areas.

Moving forward

The transmission cycle was broken in late June/early July and there is no doubt that the early vaccination campaigns that started in February 2016 had an impact and contributed to decreasing the number of cases. On 23 December Angola declared an end to the outbreak and the Democratic Republic of the Congo is expected to declare an end to its outbreak early in 2017.

To ensure that an outbreak of this scale does not happen again, WHO and partners are supporting Member States to achieve the following priority activities:

- Strengthening surveillance activities through IDSR to assist early detection;
- Developing in-country laboratory testing to enable early confirmation;
- Increasing coverage of routine childhood immunization programmes across the Region and;
- Reinforcing the need for yellow fever vaccination for all travellers to prevent the spread of disease.

2.8.5 - Niger Rift Valley fever outbreak

WHO experts interview communities as part of RVF case detection

Credit: WHO Niger

Overview

Rift Valley fever (RVF) is a viral zoonotic disease that mainly affects animals and can also infect humans. Infection can cause severe disease in both animals and humans[14]. The disease also results in considerable economic losses for rural inhabitants due to the death and abortion of animals in infected herds. In the majority of cases, human infection occurs through direct or indirect contact with contaminated blood or animal organs. Some occupational groups such as breeders, farmers, abattoir workers and veterinarians are therefore at higher risk of infection.

Sporadic cases of RVF are reported annually in sub-Saharan Africa. Since 1975 epidemic outbreaks, characterized by high mortality among detected cases, occur regularly after heavy rains and/or are associated with floods.

In 2016, four outbreaks were notified to WHO in four countries: Mali, Niger, Senegal, and Uganda. A total of 407 suspected cases were reported, with the majority from Niger (n=399). Thirty-three deaths from RVF were reported in 2016, all in Niger.

The Rift Valley fever outbreak in Niger

In the Tahoua region of Niger, the 2016 rainy season was uncharacteristically early and was marked by torrential rains and floods exceeding the usual volume by 50%. In early August, information on increased mortality and abortions in cattle, small ruminants and camels in Tchintabaraden and Tassara districts were reported. An investigation was conducted, which indicated that the first cases of abortions and early postnatal deaths in animals

[14] http://www.who.int/mediacentre/factsheets/fs207/fr/

occurred in May 2016. Human disease and deaths with clinical signs such as fever, jaundice, and haemorrhage began to be recorded by health facilities in early August (epidemiological week 32/2016). To further investigate the situation, a joint investigation mission of the Ministries of Health and Veterinary Services and partners was undertaken and on 14 September, the Pasteur Institute of Dakar (IPD) confirmed the presence of RVF in collected specimens. On 21 September an outbreak of RVF was declared by the Niger MoH, and was then categorized as a WHO Grade 2 emergency.

Between 2 August and 22 December 2016, three hundred and ninety-nine suspected Rift Valley fever cases were identified in the Tahoua region of Niger. Cases ranged in age from 1 to 70 years with a median age of 20 years. Families of pastoralists were predominantly affected. Of the 399 suspected cases identified, 49 were probable cases (no blood sample taken to confirm presence of RVF virus) and there were 22 deaths (CFR=44.9 %). Seventeen cases were confirmed, five of whom died (CFR=29.4%). The last confirmed case, a 70 year old male farmer, came from the district of Keita with the date of onset of the disease being 25 October.

Emergency response

The Ministry of Health, with technical support from WHO and other partners, activated the National Emergency Committee and established the Rift Valley Fever Epidemic Management Committee and, by directive of the Prime Minister, developed a national response plan and mobilized partners and communities.

The main strategies implemented through the national response plan included: the establishment of a treatment unit for RVF case management, strengthening of disease surveillance in all health facilities and communities, distribution of risk communication material, strengthening of collaboration between the Ministries of Health, Livestock and Environment in the context of "One Health" and community engagement and coordination.

Prior to the declaration of the outbreak, WHO supported an in-depth investigation of the outbreak through a team of deployed experts in early September. This enabled laboratory confirmation of the disease etiology, entomological investigation and risk assessment.

Soon after the outbreak was declared, WHO classified the outbreak as Grade 2, established an Incident Management System and mobilized US$ 500 000 to support the response in Niger. WHO deployed experts in: leadership and coordination (n=2), surveillance and epidemiology (n=10), entomology and laboratory (n=3), communication and social mobilization (n=2), infection prevention and control (n=2) and logistics (1).

The response involved the participation of multiple partners including the Alliance for International Medical Action (Alima — case management), (FAO)/OIE (animal surveillance and response), UNICEF (communication activities), IPD (laboratory and entomological investigations), GOARN (mobilization of experts) and the Red Cross for community sensitization and volunteer training.

Figure 14: Chronology of Niger Rift Valley fever outbreak, 2016

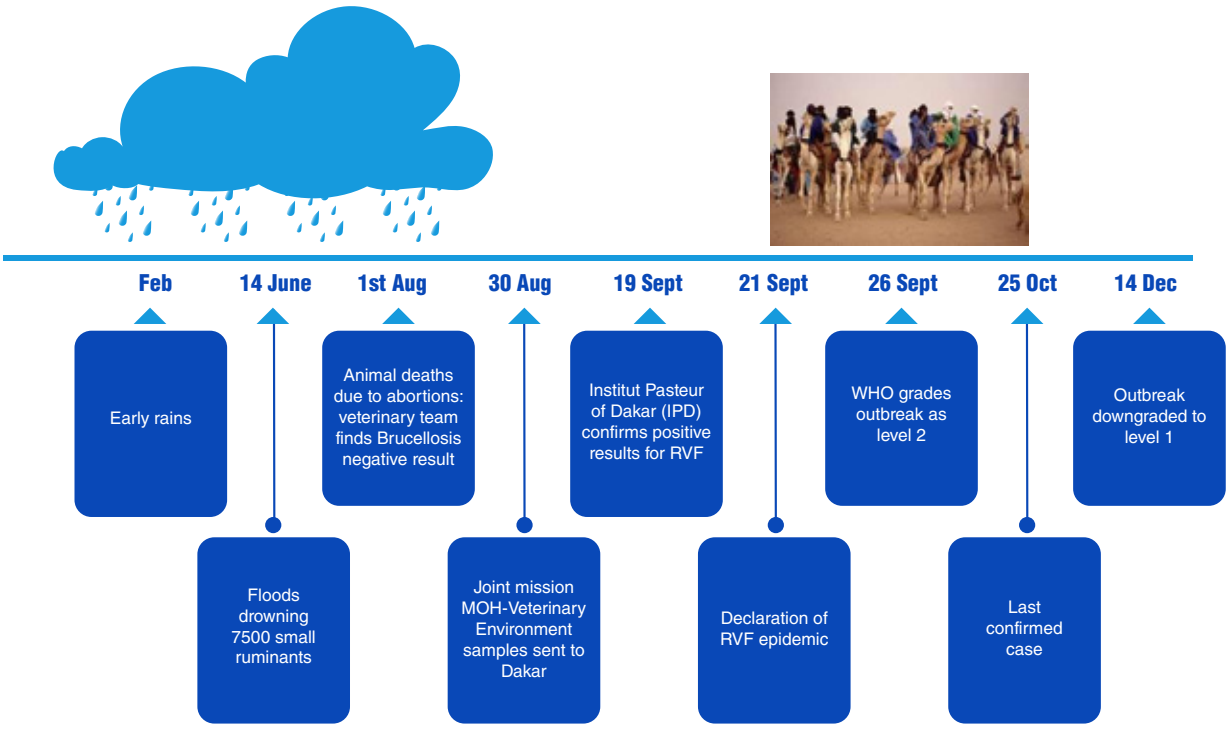
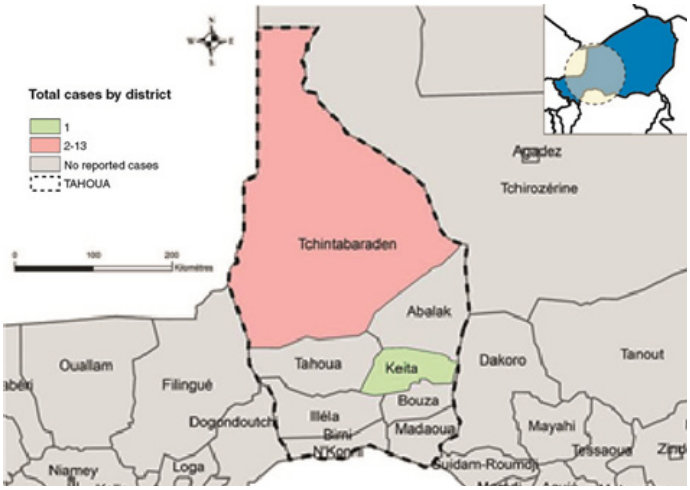


Figure 15: Distribution of RVF confirmed cases in Tahoua region, 2 August to 22 December 2016



Source: EPA

WHO supported the development of a surveillance guide and community outreach tools in collaboration with UNICEF, and trained health workers on epidemiological surveillance for the disease. WHO also provided community health workers with cell phones for data transmission as part of active case detection and undertook supervision of affected health centres and villages; strengthened providers' capacities on standard hygiene measures and provided protective equipment for health-care facilities; procured laboratory reagents and together with IPD experts undertook capacity building activities to enhance the national technical team's expertise in PCR and immunological techniques.

WHO supported the organization of coordination meetings, the development of a partner matrix, undertook data analysis, coordinated packaging and transport of clinical samples and quality control of laboratory results by sending samples to South Africa and Senegal. The WHO Regional Office for Africa developed and shared technical orientation documents to countries that border Niger, including Burkina Faso, Benin, Nigeria, Mali, Cameroon, and Togo.

Following the intensive and successful response activities, a second risk assessment was undertaken which indicated that the impact of the epidemic had decreased and further transmission and expansion to neighbouring districts and countries was very low. In response to this. WHO downgraded the epidemic from Grade 2 to Grade 1 on 14 December 2016.

Moving forward

Implementation of integrated disease surveillance and response at all levels of the health system pyramid facilitated the rapid detection of cases and the implementation of response strategies. However, non-rigorous application of the case definition in health facilities led to the identification of a high number of non-cases during the epidemic. Health-care providers need further training on case definitions for epidemic-prone diseases.

2.9 Enhanced partnerships, preparedness coordination, and response to public health emergencies

Overview

Strengthening strategic partnerships is one of the focus areas of the Transformation Agenda of the WHO African Region. WHO needs strategic partners and partnerships to support its leadership in health emergencies and to better position itself in providing support to countries. Currently, its wide range of partners include governments, UN agencies, international organizations, donors, civil society organizations, religious leaders, the private sector, academia, media organizations, global health initiatives, and regional economic blocs.

Key achievements

- A Framework for collaboration between WHO and the African Union Commission (AUC) on the establishment and operationalization of the Africa Centres for Disease Control and Prevention was signed in August 2016.

- WHO supported the development of key AUC health policy instruments including the Africa Health Strategy 2016-2030, which was endorsed at an African Union health ministers meeting hosted by WHO on the sidelines of the World Health Assembly.

- WHO and the AUC also organized the first ever Ministerial Conference on Immunization in Africa in February 2016 which resulted in a Declaration signed by Ministers of Health, Finance, Education and Social Affairs.

- A revised memorandum of understanding was signed in March 2016 with the UN Economic Commission for Africa (ECA). Areas of collaboration include: high-level advocacy for health financing to achieve universal health coverage, health-related research, health information and data generation, processing and use for policy- and decision-making, and addressing key determinants of health.

- Collaboration was also enhanced with Regional Economic Communities such as the Economic Community of Central African States (ECCAS), and the Regional Director attended the seventh Ordinary

Session of its Council of Ministers of Health was attended by the Regional Director in February 2016. The Intercountry Support Team for Central Africa is providing ongoing technical support to ECCAS in the establishment of the Organization of Health for Central Africa and the Community Health Fund for Central Africa.

- To foster intersectoral collaboration a 'One Health' meeting was organized by WHO, FAO and USAID in November 2016 in Dakar, Senegal. It was attended by Ministers in charge of Health, Agriculture, and Wildlife representing 18 countries. A communique was adopted by national authorities from different sectors agreeing to: renewed commitment by national authorities to the International Health Regulations (2005), the Integrated Disease Surveillance and Response (IDSR) strategy and the Performance of Veterinary Services (PVS) process; a One Health approach at all levels, placing emphasis on strengthening the technical and community capacities of staff; enhanced collaboration and corporation among OIE, FAO, WAHO, ECOWAS, USAID, CDC and WHO to support implementation of the One Health framework; and conduct advocacy with governments to mobilize domestic resources for health security based on their commitment to sustain the One Health approach.

- The year 2016 marked the 10th anniversary of the Harmonization for Health in Africa mechanism (HHA), which is an instrument for regional health sector coordination and leadership, and is hosted by the WHO Regional Office for Africa. HHA membership has been growing steadily and collaboration between partners has helped build capacity in countries for developing and budgeting national strategic plans and improving collaboration between ministries of health and finance. The second review of the HHA mechanism is currently being undertaken to look at the progress achieved so far in harmonizing partners' interventions and setting the course for the future of the HHA mechanism. The importance of resource mobilization has been emphasized and resource mobilization strategies and plans will be developed for the Region in the first quarter of 2017. A mapping exercise of stakeholders will also be undertaken during the course of 2017.

- The Framework of Engagement with Non-State Actors (FENSA) was adopted in May 2016 by the World Health Assembly (WHA). It will guide WHO's engagement with non-State actors. Non-State actors are defined as NGOs, private sector entities, philanthropic foundations and academic institutions. WHO was requested to commence its implementation and to report annually to the Executive Board. One key milestone going forward is the establishment of a register of non-State actors.

- A DFID-funded regional preparedness programme was established in 2016, and included many key activities to ensure that countries were committed to fulfilling their obligations to develop core capacities under the International Health Regulations. This included the four interlinked areas of planning and resources for health emergencies, coordination before, during and after health emergencies, accelerated health system strengthening and monitoring, evaluation and testing. These are all essential areas to address in order to strengthen the IHR core capacities to prevent, detect and respond to health emergencies.

- To address funding needs (both in countries and at the regional level) new and innovative ways of securing resources need to be pursued while ensuring that traditional methods are not neglected. There have been a number of bilateral discussions and visits to and from partners including the Bill and Melinda Gates Foundation, the United Kingdom Department for International Development, the United States Agency for International Development (USAID), and the US Department of Health and Human Security, as well as a visit to China. The aims of these visits were to further strengthen collaboration and understanding of priorities between the WHO Regional Office for Africa and its development partners.

- The growing demand by citizens to know how and where their public funds are spent is driving the need for more transparent reporting. A WHO report-monitoring system was launched in March 2016 to improve the provision of timely technical and financial reports to development partners. Since its operationalization, the number of overdue reports has decreased and efforts are underway to put in place mechanisms to improve the quality of reports.

- Funding, amounting to a contribution of around US$ 113 million for the biennium, by donors from the African Region for emergency health activities was provided by the following: the African Development Bank (US$ 17 million), the Nigerian National Primary Health Care Development Agency (US$ 63 million), the Nigerian National Malaria Elimination Programme (US$ 2.2 million), the African Field Epidemiological Network (US$ 0.79 million), the West African Health Organisation (US$ 0.125 million) and a number of Member States – including Angola, Botswana, Cameroon, Gabon, the Gambia, Lesotho, Namibia, and Zambia.

Destruction of Yellow fever immunization waste at the Lukala cement plant, Democratic Republic of the Congo

Credit: Eugene Kabambi, WHO

Section 3

Cross cutting challenges

Cross cutting challenges

Despite the great strides made over the past year in ensuring public health security in the African Region, a number of challenges remain, which must be addressed by the Regional Office in order to improve the response to public health emergencies. These include external and internal challenges.

External challenges

1.Systemic challenges. Weak health systems and an insufficient public health infrastructure and health emergency management system make many countries particularly vulnerable to public health emergencies. This creates a vicious cycle of suboptimal preparedness, inadequate responses, and increased vulnerability to other emergencies. A system strengthening approach must be used in preparedness and response to public health emergencies in order to build capacity and provide sustainable solutions.

2.Preparedness for and response to public health emergencies remains weak. Key among the lessons learned by the international community and Member States in responding to the pandemic H1N1, Ebola virus disease outbreak in West Africa and other major public health emergencies was the fact that poor preparedness negatively impacts on the quality of response, causing unnecessary delays, disorganized interventions, and fear and panic. The poor preparedness has been attributed to:

- Limited capacity. Countries continue to use ad-hoc means because they have not yet built the appropriate capacity for preparedness (only a few have the capacity to use an all-hazards approach to preparedness and response).
- Limited preparedness investment. A lack of commitment and competing priorities cause limited investment in health emergency preparedness. Despite increasing awareness of its importance, there is still very limited funding for preparedness for emergencies. OCHA (2014) estimated that despite a 430% increase in funding between 2004 and 2013, only about 0.5% of the funds received from 1991 to 2010 were allocated for preparedness.

3.Political commitment to implementation of IHR and public health security. There continues to be significant delays in, and underreporting of outbreaks despite many countries being signatories to the IHR (2005). This results in underestimating risk and the cost of response, and cross-border spread. Despite the growing number of countries signing the IHR (2005), and the increasing evidence of the need for improved health security, more in order to improve the response to public health emergencies. These include external and internal challenges.

Advocacy will continue to be needed to increase commitment to the development of IHR (2005) core capacities and wider implementation of such global health security activities. High-level advocacy targeting members of parliament, heads of government and presidents on the importance of IHR will be critical to achieving core capacities.

4.Strategic alliances for public health security are still weak. Poor coordination and collaboration at the national level often contribute to the piecemeal implementation of health emergency response, which causes emergencies to become protracted. Since the eradication of smallpox, and more recent efforts towards polio eradication, there has been awareness of the role of global advocacy and strategic alliances in reaching ambitious public health targets. Various partnerships exist; there is a need to leverage them at regional and country level in order to achieve milestones for strengthening public health security.

5.Addressing public health emergencies needs to be part of the wider development agenda. The economic costs of responding to epidemics on an annual basis are immense, yet many diseases are completely avoidable. In order to appropriately respond to public health emergencies, such as cholera outbreaks, governments need to address the drivers of the outbreaks, such as lack of safe water and sanitation, and behavioural issues, while ensuring that the health response is both timely and comprehensive. In order to do this, outbreaks and emergencies should be dealt with from a cross-sectoral viewpoint.

6. Insecurity in countries affected by emergencies remains a major challenge in the delivery of health services, putting health partners and providers at risk, and cutting off populations that are often the most vulnerable and in need of life-saving health services.

The following are challenges specifically experienced in implementing Integrated Disease Surveillance and Response, which is the bedrock of emergency preparedness and response in the Region:

- Scale-up challenges: Out of over 5579 districts that should report data on notifiable diseases on a weekly basis, 3720 from 47 countries reported data at some point in 2016. Poor reporting affects the ability of countries to detect and respond to public health events, impacting on the health of communities and the health security of both the country and its neighbours. Additionally the importance of the role of communities in disease surveillance is recognized and some countries have begun to establish community event-based surveillance. This needs to be scaled up across the Region.

- Quality challenges: The quality of data provided by surveillance systems in countries is closely monitored through a set of criteria such as timeliness, completeness, acceptability, specificity and flexibility of the system. Of the 33 countries that are implementing the IDSR strategy, only two countries report data to the Regional Office in a timely manner and 16 report complete data. The overall timeliness of reporting and completeness rates are below the acceptable threshold of 80%, and are estimated at 6% and 48% respectively in the Region as of December 2016. These numbers have serious implications on the ability of countries to detect outbreaks rapidly, to report them and to prompt an effective response.

- Limited investment in public health surveillance: surveillance remains a neglected area in public health, yet the significant amounts spent on response to a health emergency detected late can be substantially reduced by investment in improving early detection. Partner support is an essential component in the development and success of IDSR and there are many examples of this. However without significant continuous support and investment to maintain the IDSR systems of Member States, they will face challenges in detecting outbreaks and emergencies in a timely manner.

Internal challenges

7. For the biennium 2016-2017 it is projected that over 80% of WHO's income will come from voluntary contributions, with assessed contributions from Member States accounting for less than 20% of the overall financing of the Organization. To address this gap, WHO's resource mobilization engagement with donors and partners should be underpinned by considerations of alignment, flexibility and predictability in funding.

8. The biennium 2014-2015 saw a significant increase in funding to the Region due largely to the Ebola virus outbreak. Contributions to the Global Polio Eradication Initiative (GPEI) are also included in these figures and account for over 40% of funds mobilized. As the GPEI Programme ramps down, this will have significant implications on funding to the Region. The key contributors to the Region over the last three biennia include: Bill and Melinda Gates Foundation, DFID, USAID, GAVI Alliance, CDC, Canadian International Development Agency, Rotary International, National Philanthropic Trust, Central Emergency Response Fund, Germany, Nigeria PHC agency, UNFPA, African Development Bank, Canada – Foreign Affairs, Trade and Development, UN Fund for International Partnerships, European Commission (AIDCO), Australian Agency for International Development, Norwegian Agency for Development Cooperation, UNAIDS and European Commission.

WHO educates communities in Ebola prevention

Credit: Aphaluck Bhatiasevi

Section 4

Moving forward

Moving forward

In 2017, the Regional Office for Africa will carry out the following activities to ensure that its Health Emergencies Programme is ready to support a timely and appropriate response to emergencies in the Region:

1. Intensify resource mobilization efforts at country, regional and global levels while concluding negotiations on those in the pipeline –African Development Bank, US Centers for Disease Control, UK Government, USAID, World Bank, among others.

2. Fast-track recruitment for core positions in the Health Emergencies Programme of the WHO Regional Office for Africa to increase its capacity to support Member States in the area of emergency health management.

3. Implement the hub-based approach in Nairobi and Dakar and strengthen regional partnerships. Set up the Regional Emergency Workforce and expand partnerships at regional and subregional levels.

4. Support countries for better preparedness in the context of health system strengthening. This includes JEEs, national action planning and financing, and capacity building including simulation exercises.

5. Continue to build a robust risk assessment and response capacity using the all-hazards approach.

6. Scale up public health surveillance through development of an investment case for IDSR, enhancement of partnerships and technical assistance to countries.

Yellow fever vaccination in Angola

Credit: Ebba Kalondo, WHO

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