WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES
Week 26: 24 – 30 June 2017
Data as reported by 17:00 30 June 2017

0
New event
41
Ongoing events
31
Outbreaks
10
Humanitarian crises

Legend
- Food insecurity
- Measles
- Eruptive fever
- Monkeypox
- Anthrax
- Cholera
- Dengue fever
- Ebola
- Hepatitis E
- Malaria
- Humanitarian crisis
- Necrotising fasciitis
- Typhoid fever
- Acute watery diarrhoea
- Lassa Fever
- CVDPV
- Visceral leishmaniasis / Kala-azar
- Dengue haemorrhagic fever
- Deaths

3
Grade 3 events
7
Grade 2 events
6
Grade 1 events
25
Ungraded events
This weekly bulletin focuses on selected acute public health emergencies occurring in the WHO African region. WHO AFRO is currently monitoring 41 events: three Grade 3, seven Grade 2, six Grade 1, and twenty five ungraded events.

This week’s edition covers key ongoing events in the region, including the declaration of the end of the Ebola virus disease outbreak in the Democratic Republic of Congo, the grade 3 humanitarian crisis in north-east Nigeria, the grade 2 humanitarian crisis in Cameroon and outbreaks of cholera in the Democratic Republic of Congo and Tanzania, and necrotizing cellulitis/fasciitis in Sao Tome and Principe, and grade 1 outbreaks of cholera in Kenya and Angola.

For each of these events, a brief description followed by public health measures implemented and an interpretation of the situation is provided.

A table is provided at the end of the report with information on all public health events currently being monitored in the region.

Major challenges to be addressed include:

- Enhancing the structures and systems for public health security in the Democratic Republic of Congo in the aftermath of the Ebola virus disease outbreak.

- The current trend of resurgence of cholera outbreaks and other waterborne diseases such as hepatitis E being observed in many African countries in the recent weeks remains a major concern. Access to safe water and sanitation should be prioritized by all countries as health and development issues.
On 2 July 2017, the World Health Organization (WHO) declared the end of the most recent outbreak of Ebola virus disease (EVD) in the Democratic Republic of Congo (DRC). The announcement comes 42 days (two 21-day incubation cycles of the virus) after the last confirmed Ebola patient in the affected Bas-Uélé province tested negative for the disease for the second time. Enhanced surveillance in the country will continue, as well as strengthening of preparedness and readiness for Ebola outbreaks.

"With the end of this epidemic, DRC has once again proved to the world that we can control the very deadly Ebola virus if we respond early in a coordinated and efficient way," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General.

Related to the outbreak, 4 people died, and 4 people survived the disease. Five of these cases were laboratory confirmed. A total of 583 contacts were registered and closely monitored, but no known contacts developed signs or symptoms of EVD.

On 11 May 2017, WHO was notified by the Ministry of Public Health of the virus among a cluster of undiagnosed illnesses and deaths with hemorrhagic signs in Likati Health Zone. Likati is a remote, hard to reach area, which shares borders with the Central African Republic and two other provinces of DRC. Cases of the disease were reported in four health districts. This is DRC’s eighth outbreak of EVD since the discovery of the virus in the country in 1976.

The effective response to this latest EVD outbreak in Africa was achieved through the timely alert by local authorities of suspect cases, immediate testing of blood samples due to strengthened national laboratory capacity, the early announcement of the outbreak by the government, rapid response activities by local and national health authorities with the robust support of international partners, and speedy access to flexible funding. Coordination support on the ground by the WHO Health Emergencies Programme was critical and an Incident Management System was set up within 24 hours of the outbreak being announced. WHO deployed more than 50 experts to work closely with government and partners.

Dr Matshidiso Moeti, the WHO Regional Director for Africa, who visited DRC in May to discuss steps to control the outbreak, said the country had shown exemplary commitment in leading the response and strengthening local capacities. "Together with partners, we are committed to continuing support to the Government of DRC to strengthen the health system and improve healthcare delivery and preparedness at all levels," she said.

Work with the government of DRC continues to ensure that survivors have access to medical care and screening for persistent virus, as well as psychosocial care, counselling and education to help them reintegrate into family and community life, reduce stigma and minimize the risk of EVD transmission.

Announcing that the outbreak of Ebola in DRC was over, Dr Oly Ilunga Kalenga, the country’s Minister of Health said, “I urge that we now focus all our efforts on strengthening the health system in Bas-Uélé province, which has been stressed by the outbreak. Without strengthening the health system, effective surveillance is not possible.”

WHO coordinated international technical support for the outbreak with Partners in the Global Outbreak Alert and Response Network (GOARN) and the Dangerous Pathogens Laboratory Network. Other key Partners supporting the DRC government in their response included Africa Centres for Disease Control and Prevention; Alliance for International Medical Action (ALIMA); European Union (EU); the government of the People’s Republic of China; the International Federation of Red Cross and Red Crescent Societies (IFRC); the International Organization for Migration (IOM); Japan International Cooperation Agency (JICA); Mèdecins sans Frontières (MSF); Red Cross of the DRC; UNICEF; United States Agency for International Development (USAID); United States Centers for Disease Control and Prevention (CDC); the United Kingdom Department for International Development (DFID); the University of Quebec, Canada; and the World Food Programme (WFP).

The WFP/Logistics Cluster and UNICEF supported warehousing capacity in Buta and Likati and the United Nations Humanitarian Air Service (UNHAS) set up a base for air operations from Buta, while the United Nations Organization Stabilization Mission in DR Congo (MONUSCO) helped transport response teams and urgently needed supplies to the affected zone.

Further information and audiovisual materials:

B-Roll: Ebola outbreak in Democratic Republic of Congo
Footage filmed in May 2017, various locations, various dates.
Duration: 4’24”
Filename: WHO-BROLL Ebola DR Congo SHORT 30JUN2017.mov
Download XDcam (1.03 Gb): https://we.tl/W0ZDtu9JGG
Download MP4 Full HD (Mb): https://we.tl/VXdGsFSSxP
Video of outbreak response: https://youtu.be/tNZi8MLsMWM

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The protracted cholera outbreak in the Democratic Republic of Congo (DRC) continues unabated. Since the onset of the outbreak in August 2015, seasonal peaks and troughs have been observed in the disease trend. There has, however, been an increase in the epidemic trend across the country in recent weeks. During week 24 (week ending 18 June 2017), 602 new cases including 15 deaths (case fatality rate 2.5%) have been reported in the country; compared to 455 cases and seven deaths (case fatality rate 1.54%) reported in week 23. These cases emerged from seven provinces in the country with active transmission activity, namely Haut-Lomami, Tanganyika, Kongo-Central, North Kivu and South Kivu, Ecuador and Kinshasa. Kinshasa (the capital city), reported a moderate increase in the incidence of cases since week 20 of 2017, following an extended period with no or sporadic cases since the urban outbreak was successfully controlled in the first half of 2016.

Since the beginning of 2017, 13,721 suspected/confirmed cholera cases including 403 deaths (case fatality rate 2.9%) have been reported, up to 24 June 2017. Six provinces have been the worst affected during 2017, including Tanganyika, Sud-Kivu, Kongo Central, Mongala, Maniema, and Equateur. Tanganyika alone accounted for 20% of the total caseload this year, where the disease mainly spread among displaced populations fleeing inter-tribal conflicts.

Since the beginning of the cholera outbreak in August 2015, a cumulative 43,073 cases including 1,220 deaths (case fatality rate 2.8%) have been registered from 20 out of the 26 provinces in the country. Analysis of the evolution of the outbreak shows that eight provinces had perennial transmission of cholera infection, while 12 provinces had an intermittent pattern of seasonal transmission. A total of 112 health zones out of 516 have been affected.

**Public health actions**
- WHO and partners continue to support the Ministry of Health to strengthen multisectoral coordination of the response interventions. Regular meetings of the cholera subcommittees are taking place at different levels.
- International non-governmental organizations including ALIMA, MSF and others continue to support provision of free treatment in affected provinces.
- Evaluation of the impact of recent oral cholera vaccination campaigns is underway, along with strengthening surveillance activities.
- The water, sanitation and hygiene (WASH) partners continue with chlorination at water points, installation of hand washing points, disinfection of water storage vessels, and activities to raise community awareness on safe water and hygiene practices. WHO dispatched additional materials to strengthen WASH activities.
- There is continuous dissemination of information, educational and communication materials, including regular articles in local newspapers and the WHO website, to maintain community awareness of the ongoing outbreak.
- Surveillance has been strengthened at Mbundaka and Kisangani Ports on the River Congo and boats are being disinfected to mitigate the spread of infection.
- WHO approved an additional US$ 262,000 from the Contingency Funds for Emergency to support response operations. In addition, one cholera focal point is being deployed to support coordination of response interventions.

**Situation interpretation**
Public health response efforts to the ongoing cholera epidemic in the Democratic Republic of Congo continue to be stretched by the protracted and geographically-dispersed nature of the outbreak. Moreover, the outbreak is being exacerbated by the insurgency, ethnic clashes and social unrest, resulting in mass population displacements, humanitarian crisis and multiple outbreaks of communicable diseases in the country. The vulnerable communities are in generally poor living conditions, with limited potable water supplies, inadequate sanitation and hygiene. Provision of and access to healthcare services are also being challenged by many factors, including insufficient funding, insecurity and limited capacity.

Recent surveillance data shows increasing trends in acute watery diarrhoea (AWD) in several areas, as well as recurrence of cholera in previously controlled areas such as Kinshasa. With such upsurge and recurrence, it is critical to scale up implementation of response efforts, especially WASH interventions to control the spread of infection within the communities. Concurrently, attention needs to be focused on improving case management to reduce the high fatality (2.9% in 2017) being observed in this outbreak to below 1% (with appropriate and timely treatment).

The protracted cholera outbreak in the Democratic Republic of Congo needs to be brought to an end. There is a need to mobilize more humanitarian partners to respond to this outbreak. In addition, there is an urgent need to mobilize the required resources (human capital, logistics and finances) to implement high impact interventions. The deployment of oral cholera vaccines in cholera-sanctuary health zones, especially in the country’s eastern provinces where the disease has been perennial, should be strongly considered. The partners on the ground also need to demonstrate their ability to tackle the cholera outbreak, in order to maintain the confidence of the donor and global communities. Stronger commitment across government sectors is also needed to tackle to root-cause of cholera, with access to safe water and sanitation being prioritized.
Health Emergency Information and Risk Assessment

Event description
Kenya has been experiencing recurrent cholera outbreaks since December 2014. In recent weeks, the country has observed an upsurge in the incidence of cholera cases where three main clusters of transmission have been documented. The first cluster, which started on 16 June 2017, was a point-source transmission among participants attending a conference in a Nairobi hotel. A total of 146 patients associated with this event were treated in different hospitals in Nairobi. Out of 25 samples collected, 18 (72%) isolated Vibrio cholerae Ogawa by culture at the National Public Health Laboratory Services. This event occurred against an ongoing insidious cholera outbreak in central Kenya. Between 16 April and 23 June 2017, 293 cases including 2 deaths (case fatality rate 0.7%) have been reported in Nairobi; 39 samples were culture-confirmed.

The second cluster is related to displaced persons fleeing conflict and food insecurity and seeking refuge in Dadaab and Kakuma refugee camps in Garissa and Turkana Counties respectively. Between 2 April and 23 June 2017, 330 cases including two deaths were reported from Dadaab Camp in Garissa County; including 44 culture-confirmed cases. In Kakuma Camp in Turkana County, the outbreak began on 20 May 2017 and by 21 June 2017, 125 cases have been reported, including two culture-confirmed cases.

The third cluster is reported in Kericho and Vihiga Counties in the west of Kenya, areas which experience frequent recurrence of cholera outbreaks. Between 14 May and 12 June 2017, 103 cases were reported, including three culture-confirmed cases.

A small cluster of two cases was also reported at the coastal Mombasa County, geographically distant from the other three locations.

From 1 January – 27 June 2017, 924 cases including nine deaths (case fatality rate 1.0%) have been reported in Kenya; 124 cases have been laboratory confirmed. Eleven out of the 47 counties in Kenya have been affected this year; however, the outbreak has been successfully controlled in five of these counties. Since December 2014, a cumulative 17,950 cases have been reported: 10,568 during 2015 and 6,448 in 2016.

Public health actions
WHO and partners have supported the Ministry of Health in response to the outbreak since January 2017. National and County Health Sector Stakeholder’s coordination platforms have been established and continue to meet in the affected counties. Alerts have been issued to all sub-counties.

WHO conducted re-assessment of the cholera outbreak in Kenya and assigned it Grade 1, based on its Emergency Response Framework. In light of this emergency grading, immediate actions are to:

- Repurpose the WHO Country Office (WCO) and establish an Incident Management Team to strengthen coordination mechanisms and control interventions in the affected areas.
- Review the level of support required for effective response.
- Develop an operational response plan.

There are already commitments from partners: WHO will support five most-at-risk counties in disease surveillance and coordination. UNICEF will support primary healthcare and social mobilization.

Situation interpretation
Kenya experiences recurrent cholera outbreaks every year; however, large cyclical epidemics occur approximately every 5–7 years and last for 2–3 years. A recent WHO rapid risk assessment highlighted the overall risk of the cholera outbreak to be high at national and regional levels, and moderate at global levels. These risk levels were assigned because the outbreak is occurring in the context of a sub-regional drought, conflicts and insecurity in the horn of Africa. Moreover, the outbreak is affecting the densely populated capital of Nairobi and two large refugee camps (Kakuma and Dadaab), with massive population movements in-country and with neighbouring countries. Previous large outbreaks in Kenya have originated from similar settings, and the risk of propagation within the affected areas, as well as to other parts of the country, is high.

The assessment concluded that although the outbreak has been controlled in several counties and the outbreak in Nairobi appears to be currently localized, the ongoing outbreaks in refugee populations remain of concern, with the potential for the situation to rapidly escalate. A degree of urgency and complexity has been added with the current water scarcity and healthcare workers’ strike, as well as by the coming elections, which may distract attention from the response. There is, however, an opportunity to implement early preparedness and response measures to contain the outbreak and prevent further spread. The Kenyan Government has requested the support of WHO and partners.
Angola has been experiencing a cholera outbreak in the north-eastern provinces of Cabinda and Zaire since early December 2016. While the trend of the cholera outbreak has been steadily declining since the beginning of 2017, an upsurge in the number of suspected cases has been observed in recent weeks. During week 25 (week ending 25 June 2017), 11 new cases were reported in Cabinda Province; and 15 cases in week 24 (week ending 18 June 2017). Meanwhile, after 5 weeks of zero reporting, Soyo district in Zaire Province reported four new cases of cholera in the past 2 weeks. Three of the four cases tested positive for cholera using rapid diagnostic test. No new cases have been reported in Luanda Province after a small cluster of imported cases from Soyo, Zaire province.

As of 28 June 2017, a total of 455 cases including 24 deaths (case fatality rate 5.3%) have been reported since onset of the outbreak in December 2016. This includes 225 cases in Cabinda, 225 cases in Soyo and five cases in Luanda. Adults aged 25-49 years have been disproportionately affected, accounting for 38% of cases where age is known. The affected population in Cabinda are predominantly migrants from the Democratic Republic of Congo, living in areas with poor access to cholera treatment facilities and limited social services.

Public health actions
- The Ministry of Health has strengthened surveillance in the districts bordering the Democratic Republic of Congo, especially localities reported to have an ongoing cholera outbreak. Rapid diagnostic tests have been redistributed from Soyo to Noqui (bordering Matadi in the Democratic Republic of Congo) and from Dundo (Lunda Norte) to Uige to increase the capacity for early detection of suspected cases and transport samples for confirmation in Luanda.
- WHO and partners continue to support the Angolan Ministry of Health with coordination, logistics and funding of the response to the outbreak in Soyo and Cabinda.
- UNICEF and the National Red Cross continue to support social mobilization activities in affected areas, including providing technical assistance in water quality control to public networks, distributing water containers to support adequate disinfection and safe storage, and continuing information, education and communication (IEC) activities to address prevention in the home. However, partner resources are now being stretched to support the humanitarian response to the refugee crises in Lunda Norte.
- Facility-based surveillance and active case search in communities continue, with an emphasis on Cabinda. Deployment of rapid diagnostic test kits has improved the early detection of cases arriving from the Democratic Republic of Congo. MSF is providing logistical support for cholera screening in Luanda Norte.
- Currently, treatment centres have adequate supplies available to diagnose and treat cases; however, with a potential increase in cases, stocks must be monitored closely.

Situation interpretation
Angola is currently experiencing a flare up of a cholera outbreak in Cabinda and Zaire Provinces, following an early indication that the situation was under control. This flare up comes against the backdrop of the protracted cholera outbreak in the Democratic Republic of Congo and the insecurity, which resulted in mass population displacements to neighbouring countries. The most affected populations are largely migrants from the Democratic Republic of Congo, living in conditions with limited safe drinking water supplies and poor sanitation and hygiene.

One major concern, though, is the continuous threat of transmission of cholera infections along the lower Congo River Basin that is shared by both Angola and the Democratic Republic of Congo. The persistent risk of infections in this area increases the potential risk of the disease expanding to other areas of the country.

A high level of collaboration and coordination by the governments, WHO and partners is necessary to control the outbreaks in both Angola and the Democratic Republic of Congo. The national authorities in both countries need to activate existing mechanisms for cross-border surveillance, information sharing and implementation of harmonized interventions.
A sudden increase in suspected cholera cases was observed on the Tanzanian mainland this past week. The increases were most notable in the Iringa and Rukwa regions, where the outbreak had been previously controlled. Of 160 cases reported during week 25 (week ending 24 June 2017) on the mainland, 126 were from Iringa, 22 from Rukwa (Kalambo District), and the remainder from four municipalities of the Dar es Salaam Region. Concurrently, the outbreak is continuing on Unguja Island in the Zanzibar archipelago, with 52 cases notified during week 25. Since the beginning of June 2017, *Vibrio cholerae* has been isolated from samples submitted to reference laboratories in Kalambo (5 of 5 samples positive), Iringa (3 of 4 samples positive), and Dar es Salaam (18 of 55 samples positive) municipalities, confirming that the outbreak is ongoing in these areas.

In total, 30,121 cases and 466 deaths (case fatality rate 1.5%) have been reported since the outbreak started in August 2015: 25,478 cases including 393 deaths on the Tanzania mainland, and 4,643 including 73 deaths from Zanzibar.

**Public health actions**

- The Ministry of Health and the National Cholera Taskforce continue to coordinate response interventions in all affected communities, with the support of WHO and partners. Most attention has been directed at the escalating cholera cases in Iringa and Rukwa, and the ongoing outbreaks in the Zanzibar and Dar es Salaam Regions.
- Continued support is being provided to the affected districts to strengthen surveillance, laboratory investigations and behaviour change communications, and to investigate sources of new infections.
- Advocacy to improve water, sanitation and hygiene (WASH) in the affected communities continues, including distribution of chlorine tablets (Aqua tabs), chlorination of bulk water supplies provided by water vendors, and follow-up and decontamination of affected households.
- Health promotion activities are being carried out through local radios, national television, social media, community gatherings and Madrassas.
- Treatment centres are being supported to ensure adequate stock of medicines. An emergency order of oral rehydration solution (ORS), chlorine tablets (Aqua tabs) and infusion fluids will be distributed to Iringa and Rukwa. Two diarrhoeal diseases kits, 2,500 sachets of ORS and more than 1 million chlorine tablets (Aqua tabs) have been dispatched to Zanzibar to support control and prevention initiatives.

**Situation interpretation**

While the cholera outbreak in the Tanzanian mainland appeared to have been under control, the sudden escalation of the disease in Iringa and Rukwa regions highlights the ferocity with which cholera can spread in vulnerable communities. Concurrently, the outbreak in Zanzibar is ongoing but appears to be under control, with far fewer cases observed each week, compared to early 2016. Health authorities and partners must now work to implement control and prevention activities in newly affected areas, while maintaining public health interventions in areas with ongoing outbreaks to prevent further flare-ups.
The Democratic Republic of Sao Tome and Principe has been experiencing an outbreak of necrotizing cellulitis/fasciitis since September 2016. There has been a steady decline in the disease trend since the beginning of 2017; however, this trend has stagnated in recent weeks, with an average of 20 cases being reported every week. During week 25 (week ending 25 June 2017), 21 new cases were reported in five districts. Since the onset of the outbreak in September 2016, a total of 1,763 cases have been reported. The overall attack rate of necrotizing cellulitis/fasciitis in Sao Tome and Principe is 9.1 cases per 1,000 populations. The most affected districts are Caue- South with an attack rate of 26.8 per 1,000 populations, Lembá (13.5 per 1,000) and Lobata-North (10.2 per 1,000). To date, no deaths have been directly attributed to the disease. All health districts in the country have been affected by the disease and have reported cases.

The overall distribution of cases by sex shows that men account for about 57% of the affected population. The disease seems to preferentially affect people aged 35 years and above as this group accounts for more than 50% of the cases.

The predisposing factors for the disease have not yet been identified. Research and investigations are still ongoing to this end.

**Public health actions**
- The country has developed and is implementing a national response plan.
- The Ministry of Health, WHO and partners continue to hold regular technical meetings.
- A protocol for case management was validated and the necessary logistics are being made available.
- Cases are being managed and 28 patients have so far received surgical interventions including skin grafting.
- An international laboratory network is providing technical and logistical support for case confirmation.
- Surveillance is being strengthened through capacity building of national staffs, improving of data management and field investigation.
- A case control study is completed and the main conclusions will be released in the coming days.
- Social mobilization is being strengthened through development and implementation of a communication plan and diffusion of messages on hygiene practices.
- WHO and partners have so far deployed 20 experts to provide technical support to the country.

**Situation interpretation**

The current outbreak of necrotizing cellulitis/ fasciitis in Sao Tome and Principe is still unexplained. There is no clear predisposing factor and cause so far identified. Different microbial pathogens have been isolated but none of them was confirmed as the definitive causative agent. The hypothesis of combination of Staphylococcus aureus and Streptococcus pyogenes with secondary infection by other bacteria needs to be validated scientifically. A case-control study identified that “having wounds in the 2 weeks before hospitalization” was a predisposing factor, while “seeking care during the 2 weeks before hospitalization” was a protective factor. An environmental investigation/study around the cases should be conducted to understand the risk factors for this condition.

Although the disease is yet to be fully explained, commendable efforts have been made and are ongoing to strengthen surveillance systems and improve case management. The government, with the support of WHO and partners, continues to strengthen interventions for early detection of cases, using a multidisciplinary investigation approach, which includes laboratory testing. WHO and partners will continue working closely with the national authorities to ensure that the causative agent, the transmission factors and predisposing conditions are ultimately determined. Meanwhile, weak laboratory capacity, inadequate social support to affected families and limited infection prevention and control interventions at health facility level need to be addressed.
Since 2013, the armed conflict in the north-east Nigeria has led to a massive influx of refugees and internal displacement of populations in Cameroon. The insecurity and the humanitarian crisis have largely affected six prefectures in the Far North Region of Cameroon, with three prefectures severely affected, namely Logone and Chari, Mayo Tsanaga, and Mayo Sava. To date, 57,977 refugees (mostly from Nigeria) are present in Minawao Camp in Mayo Tsanaga Prefecture, of which 54% are women, 28,932 children of school going age and 13,034 people with special needs, dispersed across 15,966 households. In addition, 223,642 internally displaced persons from 39,002 households live in the region. To date, the general security situation in the Far North Region remains volatile and unpredictable. Cross-border raids and suicide bombings are ongoing and causing continuous displacement.

These communities face chronic vulnerabilities and limited access to basic social services, resulting in high levels of food insecurity and malnutrition, and a high risk of epidemics. Since 2014, humanitarian needs have been increasing in the four priority regions and especially in the far north of the country. By 2017, it is estimated that nearly 1.5 million people are in need of healthcare assistance in the region, which has 30 health districts. The insecurity in the Far North has reduced access to basic health services for more than 350,000 Cameroonians. Meanwhile, about 20 health facilities in the region are no longer functional, either because they have been destroyed, staff have left, or the population is unable to access the facility. The continued influx of Nigerian refugees, internal displacement and health emergencies add additional pressure to already outdated health systems and services. Inadequate healthcare, including low immunization coverage, limited access to safe water, poor hygiene and sanitation have facilitated recurrence of epidemic diseases, particularly measles and cholera. At the end of 2016 there was a measles epidemic in Kolofata, and an outbreak of poliomyelitis in Gwoza, Nigeria (bordering Cameroon).

Public health actions
- The second round of a mass vaccination campaign against cholera was conducted in Mogodé, Health District, at the border with Nigeria. The campaign was implemented from 15–21 June 2017. The target population was people over the age of 1 year, excluding pregnant women and children under 1 year. Vaccination coverage was 89.2%, 81.3% and 86.9% for persons aged 1 year and older, 10–19 years, and 20 years and older, respectively.
- During week 25, 22 children aged 6 months to 15 years were vaccinated against measles and 38 people of all ages were vaccinated against poliomyelitis at the gateway to the Minawao Camp (transit camp).
- As part of the monitoring and supervision of the implementation of the Auto-Visual Acute Flaccid Paralysis Detection and Reporting (AVADAR) project, 25 alerts were received among them, with no true AFP cases.
- African Humanitarian Action (AHA), in collaboration with WHO, is supporting access to free healthcare for refugees, internally displaced persons (IDPs) and vulnerable host populations in Logone and Chari.
- Routine epidemiological surveillance and EPI activities are being strengthened in the Logone and Chari regions, with the deployment of two national consultants.
- Support supervisions have been conducted in four targeted health districts, reaching 73 health personnel and community volunteers.
- Rehabilitation of three damaged health facilities has started, with funding support from WHO.

Situation interpretation
The insecurity in the north-east Nigeria resulted in an influx of refugees and internal displacement of populations in the Far North Region of Cameroon, creating a serious humanitarian crisis. While most Nigerian refugees live in the Minawao Camp, which today houses more than 58,000 people, the IDPs are increasingly numerous and are living in informal camps or in host families, themselves already in a very precarious situation. The humanitarian crisis and its repercussions on the most vulnerable people require multisectoral support to cover the basic needs of protection, shelter, education, health, water, and sanitation. Several health facilities are in an advanced state of disrepair, including four that were destroyed by the armed conflict.

Provision of healthcare to the vulnerable IDPs, refugees and host populations remains a challenge to date. The restoration of healthcare service delivery will require provision of medicines and commodities, rehabilitation and equipping of destroyed/damaged health facilities, strengthening of cold chain systems in health facilities (solar refrigerators), and strengthening of human resources (quantitative and qualitative) including specialists (traumatology, mental health, burns, etc.).
Event description
The security situation in north-east Nigeria has become more volatile over the past weeks. Several security incidents in form of person-based improvised explosive devices (PBIED) reportedly took place in Maiduguri Local Government Area and other locations in Borno State during the last days of Ramadan. The increasingly volatile security situation obstructed provision of humanitarian assistance and distribution of relief activities.

The uncoordinated return of refugees and displaced persons from Cameroon has continued, with an additional 10,000 returnees expected to arrive mainly in Banki and Bama in the coming days. These areas have inadequate water supply and limited healthcare services. The living conditions in the returnees and displaced persons settlements could promote further spread of the outbreak of hepatitis E, already reported, and other communicable diseases.

The food insecurity outlook remains a major concern, with over 5.2 million people across Borno, Yobe and Adamawa States forecasted to be between Integrated Food Security Phase Classification (IPC) Phase 3 and 5 from June to August 2017. Preliminary rapid assessment carried out among the returnees shows high levels of severe and global acute malnutrition.

Public health actions
- WHO and partners conducted a mission to Banki to evaluate the health needs of the returnees. The health sector advised the regions to prepare for possible outbreaks. The priority intervention areas identified during the assessment include increased health service provision, a strengthened referral system, the rehabilitation of existing health facilities and inter-sectoral collaboration.
- A response plan to contain the outbreak of hepatitis E has been prepared and treatment guidelines have been distributed. The deployment of Rapid Response Teams has been only partial because of security constraints. Active case search has started in collaboration with the polio team operating on the ground.
- Training activities on the treatment of malnutrition continue, especially targeting populations reachable only by mobile teams. The distribution of kits for the treatment of severe acute malnutrition is ongoing. Following the request of the Nutrition Sector, WHO is increasing its support to the Stabilization Centres.
- Preparedness activities to respond promptly to cholera/acute watery diarrhoea outbreaks continue. Although there is currently no ongoing outbreak in north-eastern Nigeria, alert remains high.
- Preparation for the Health Resources Availability Mapping System (HeRAMS) survey scheduled for July has been almost completed.
- Implementation of the joint actions aimed to prevent morbidity and mortality due to malaria between June and November 2017 have eventually started, particularly targeting the malnourished population. The joint actions will be integrated into the upcoming polio vaccination campaign.

Situation interpretation
The volatile security situation, coupled with the heavy rainfall typical of the current rainy season, are restricting provision of humanitarian and health assistance in certain locations. The uncoordinated influx of returnees from Cameroon is overwhelming the current humanitarian capacity in Banki and Bama. There is a need to establish a referral system in Banki to assist the returnees. Greater coordination among health partners is needed to contain the ongoing outbreak of hepatitis E and to scale up actions to prevent and control malaria. Increased health sector presence in the areas of arrivals of the refugees from Cameroon and comprehensive collaboration with the other sectors is essential to meet the needs of the population adequately.
Summary of major challenges and proposed actions

Challenges

The Ministry of Health of the Democratic Republic of Congo and WHO declared the end of the EVD outbreak. This came after concerted efforts and deliberate commitments of all the stakeholders towards the containment of the outbreak. Nevertheless, the Democratic Republic of Congo remains vulnerable to the occurrence of public health emergencies, for many reasons. There is therefore a need to enhance the structures and systems for public health security in the country in the aftermath of the EVD outbreak. This calls for the same concerted efforts and deliberate commitments from the government, partners and the global community.

Many countries with ongoing cholera outbreaks in the African Region have observed resurgence in the disease trends in recent weeks. This phenomenon has been observed in Angola, Kenya, Tanzania, and the Democratic Republic of Congo. Some of these outbreaks have already been protracted. There is a need to comprehensively tackle the ongoing cholera outbreaks in the region, with a strong component of WASH interventions as well as large scale deployment of oral cholera vaccines in countries with protracted outbreaks.

Proposed actions

WHO and the other partners will continue to advocate and support the Government of the Democratic Republic of Congo to strengthen structures and systems for public health security, within the overall context of health system strengthening.

The multiple ongoing cholera outbreaks in the region need to be comprehensively tackled in a multi-sectoral approach. High level engagement with the WASH cluster at the global and regional levels is paramount. The deployment of oral cholera vaccines on a large scale, especially in countries where the disease has been perennial, should also be considered.
<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
<th>Date of last step</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Newly reported events</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow fever</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>23-Jun-17</td>
<td>2 (2)</td>
<td>0</td>
<td>0.0%</td>
<td>Two cases tested positive by PCR for yellow fever in Nigeria. Further detail on the laboratory-confirmation is awaited. A detailed update on this possible new event will be provided every second week.</td>
<td>29-Jun-17</td>
</tr>
<tr>
<td>Dengue</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>22-Jun-17</td>
<td>1 (1)</td>
<td>0</td>
<td>0.0%</td>
<td>Single confirmed case reported. WHO awaits further information on this possible new event.</td>
<td>22-Jun-17</td>
</tr>
<tr>
<td>Dengue</td>
<td>Togo</td>
<td>Ungraded</td>
<td>18-Jun-17</td>
<td>12 (12)</td>
<td>0</td>
<td>0.0%</td>
<td>12 confirmed cases reported. WHO awaits further information on this possible new event.</td>
<td>18-Jun-17</td>
</tr>
<tr>
<td><strong>Ongoing events</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Nigeria</td>
<td>Protracted 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A detailed update on this protracted event will be provided every second week. See also below an update on this ongoing event.</td>
<td>27-Jun-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>South Sudan</td>
<td>G3 extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27-Jun-17</td>
</tr>
<tr>
<td>Humanitarian crisis/AWD</td>
<td>Ethiopia</td>
<td>Upgraded to G3</td>
<td>15-Nov-15</td>
<td>37,989*</td>
<td>791*</td>
<td>2.1%</td>
<td>This complex emergency includes outbreaks of AWD and measles. *Counts reported are AWD cases and deaths for 2017 YTD only. A detailed update on the protracted event will be provided every second week.</td>
<td>25-Jun-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Cameroon</td>
<td>G2 extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29-Jun-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Central African</td>
<td>Downgraded to G2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30-Jun-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Niger</td>
<td>G2 extension</td>
<td>Beginning 2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholera</td>
<td>Democratic Republic</td>
<td>G2</td>
<td>02-Jan-15</td>
<td>43,073</td>
<td>1,220</td>
<td>2.8%</td>
<td>Detailed update given above.</td>
<td>24-Jun-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>Tanzania</td>
<td>G2</td>
<td>04-Apr-15</td>
<td>30,121</td>
<td>466</td>
<td>1.5%</td>
<td>Detailed update given above.</td>
<td>25-Jun-17</td>
</tr>
<tr>
<td>Necrotising cellulitis/ fasciis</td>
<td>San Tome &amp; Princi</td>
<td>G2</td>
<td>10-Jan-17</td>
<td>1,763</td>
<td>0</td>
<td>0.0%</td>
<td>Detailed update given above.</td>
<td>28-Jun-17</td>
</tr>
<tr>
<td>Ebola Virus Disease</td>
<td>Democratic Republic</td>
<td>G2</td>
<td>08-Mar-17</td>
<td>8 (5)</td>
<td>4</td>
<td>50.0%</td>
<td>Detailed update given above.</td>
<td>30-Jun-17</td>
</tr>
<tr>
<td>Drought/ food insecurity</td>
<td>Kenya</td>
<td>G1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drought/ food insecurity</td>
<td>Uganda</td>
<td>G1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Mali</td>
<td>G1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Chad</td>
<td>G1</td>
<td>01-Sep-16</td>
<td>1,608 (98)</td>
<td>18</td>
<td>1.1%</td>
<td>Outbreaks have been detected in the Salamat and Aboudia regions. During week 25, 19 new suspected cases were reported from the Salamat region - a decline from previous weeks. No new reports have been received from the Aboudia region since week 23.</td>
<td>25-Jun-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>Kenya</td>
<td>Newly grad. ed G1</td>
<td>10-Oct-16</td>
<td>924 (124)*</td>
<td>9*</td>
<td>1.0%</td>
<td>*Counts reported are A2017 YTD only. Detailed update given above.</td>
<td>27-Jun-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>Angola</td>
<td>G1</td>
<td>04-Jan-17</td>
<td>455</td>
<td>24</td>
<td>5.3%</td>
<td>Detailed update given above.</td>
<td>18-Jun-17</td>
</tr>
<tr>
<td>Malaria</td>
<td>Burundi</td>
<td>Ungraded</td>
<td>01-Jan-17</td>
<td>3,696,815</td>
<td>1,696</td>
<td>0.05%</td>
<td>An upward trend has been recorded during the last 5 weeks. The Ministry of Health has developed an accelerated response plan. UNICEF has donated 6,500,000 doses of antimalarial medication. The overall humanitarian situation remains of concern with close to 130,000 IDPs (37,000 returnees) and over 61,427 refugees.</td>
<td>14-Jun-17</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Nigeria</td>
<td>G1</td>
<td>01-Dec-16</td>
<td>501 (175)</td>
<td>73</td>
<td>14.4%</td>
<td>Case counts include 175 confirmed and 14 probable cases.</td>
<td>09-Jun-17</td>
</tr>
<tr>
<td>Measles</td>
<td>Ethiopia</td>
<td>G2</td>
<td>14-Jan-17</td>
<td>2,119 (976)</td>
<td>-</td>
<td>-</td>
<td>37 new cases suspected cases were reported in the past week.</td>
<td></td>
</tr>
<tr>
<td>Cholera</td>
<td>South Sudan</td>
<td>G2</td>
<td>20-Feb-17</td>
<td>11,213</td>
<td>189</td>
<td>1.6%</td>
<td>Counts reported in total suspected cholera cases reported on IDRS from weeks 1-24 (ending 18 June) of 2017 only. During the same period, 313,889 cases of acute watery diarrhoea have been notified.</td>
<td>27-Jun-17</td>
</tr>
<tr>
<td>Measles</td>
<td>Democratic Republic</td>
<td>G2</td>
<td>10-Jan-17</td>
<td>19,512 (305)</td>
<td>228</td>
<td>1.2%</td>
<td>The incidence of new cases has declined since the current outbreak peaked in early 2017.</td>
<td></td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Congo (Republic of)</td>
<td>G2</td>
<td>01-Feb-17</td>
<td>78 (7)</td>
<td>4</td>
<td>5.1%</td>
<td>Since 27 Jan 2017, suspected cases of monkeypox have been reported in the department of Likouala and the department of Cuvette (unconfirmed). Suspected cases have been reported from Bokita, Brianse, Dougo, Impollo and Owoando districts.</td>
<td>14-May-17</td>
</tr>
<tr>
<td>Ruptive fever</td>
<td>Cameroon</td>
<td>G2</td>
<td>16-Feb-17</td>
<td>52 (7)</td>
<td>20</td>
<td>38.5%</td>
<td>The event was reclassified as eruptive fever following negative results for leishmaniasis.</td>
<td>23-May-17</td>
</tr>
<tr>
<td>Food insecurity</td>
<td>Madagascar</td>
<td>G2</td>
<td>01-Feb-17</td>
<td>55,875</td>
<td>101</td>
<td>18.1%</td>
<td>*Counts reported are 2017 YTD only. Detailed update given above.</td>
<td>01-Mar-17</td>
</tr>
</tbody>
</table>

Health Emergency Information and Risk Assessment
<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>Date of last sitrep</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>Kenya</td>
<td>Ungraded</td>
<td>12-Mar-17</td>
<td>27-Jun-17</td>
<td>17 (9)</td>
<td>0</td>
<td>0.0%</td>
<td>The outbreak has been reported in Dagaahley, Dadaab and IFO refugee camps in Garissa County. Date of onset of index case was 21 March 2017. The last reported confirmed and probable cases experienced illness onset on 26 May and 4 June, respectively. No new cases were reported in the last week.</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Niger</td>
<td>Ungraded</td>
<td>06-Apr-17</td>
<td>24-Jun-17</td>
<td>977 (167)</td>
<td>34</td>
<td>3.5%</td>
<td>The outbreak has been trending downwards since peaking in week 19 of 2017. Of 307 samples tested to date, hepatitis E virus was detected in 167 (54%) by PCR.</td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Central African Republic</td>
<td>Ungraded</td>
<td>14-Apr-17</td>
<td>02-Jun-17</td>
<td>3 (1)</td>
<td>0</td>
<td>0.0%</td>
<td>During week 21, 1 new suspected case was reported from Mbadaka near the border of the Republic of Congo. A previously reported suspect case (onset during week 20) was PCR negative; 10 case contacts are currently under observation.</td>
</tr>
<tr>
<td>Anthrax</td>
<td>Zimbabwe</td>
<td>Ungraded</td>
<td>15-Apr-17</td>
<td>25-Apr-17</td>
<td>14</td>
<td>1</td>
<td>7.1%</td>
<td>Anthrax was isolated from hippo carcasses, which community members had consumed.</td>
</tr>
<tr>
<td>Typhoid fever</td>
<td>Zambia</td>
<td>Ungraded</td>
<td>22-Apr-17</td>
<td>04-Jun-17</td>
<td>160 (12)</td>
<td>1</td>
<td>0.6%</td>
<td>The outbreak is currently confirmed to Mupika District, Muchinga province.</td>
</tr>
<tr>
<td>Malaria</td>
<td>South Africa</td>
<td>Ungraded</td>
<td>03-Apr-17</td>
<td>06-Jun-17</td>
<td>9,478 (4,484)</td>
<td>76</td>
<td>0.8%</td>
<td>Figures shown are for 2016/17 season from September to May. There has been a high number of cases in Limpopo Province during the recent season compared to previous years.</td>
</tr>
<tr>
<td>Visceral leishmaniasis / Kala-azar</td>
<td>Kenya</td>
<td>Ungraded</td>
<td>05-May-17</td>
<td>27-Jun-17</td>
<td>253 (168)</td>
<td>7</td>
<td>2.8%</td>
<td>Two counties, Marsabit (n=141) and Wajir (n=112) have been affected by outbreaks since early 2017, and remain active with new cases detected each week.</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Cote d'Ivoire</td>
<td>Ungraded</td>
<td>06-May-17</td>
<td>06-Jun-17</td>
<td>177 (80)</td>
<td>1</td>
<td>0.6%</td>
<td>Of the confirmed cases with further typing completed, 34 cases were identified as dengue virus type 2 and 11 cases as dengue virus type 3. Two-thirds of suspected cases were reported from Cocody commune.</td>
</tr>
<tr>
<td>Dengue</td>
<td>Kenya</td>
<td>Ungraded</td>
<td>09-May-17</td>
<td>27-Jun-17</td>
<td>1,073 (619)</td>
<td>1</td>
<td>0.1%</td>
<td>Outbreak has been reported in Mambasa County (n=991, of which 568 are confirmed) and but currently remain active in Wajir County (n=82, of which 51 are confirmed).</td>
</tr>
<tr>
<td>Circulating vaccine-derived polio virus (cVDPV)</td>
<td>Democratic Republic of Congo</td>
<td>Ungraded</td>
<td>02-Jun-17</td>
<td>31-May-17</td>
<td>5(5)</td>
<td>0</td>
<td>0.0%</td>
<td>This includes 3 separate events: 2 unrelated clusters of cVDPV2 (2 cases each) and a single case of cVFPV1. No new cases have been reported since the original cluster.</td>
</tr>
<tr>
<td>Dengue haemorrhagic fever</td>
<td>Mauritania</td>
<td>Ungraded</td>
<td>07-Jun-17</td>
<td>07-Jun-17</td>
<td>1 (1)</td>
<td>0</td>
<td>0.0%</td>
<td>Single confirmed in a traveller from Angola presenting with symptoms of haemorrhaging to healthcare on 31 May 2017. The case later tested positive for dengue virus infection.</td>
</tr>
<tr>
<td>Cholera</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>07-Jun-17</td>
<td>24-Jun-17</td>
<td>1,495 (13)</td>
<td>11</td>
<td>0.7%</td>
<td>Suspected cases have been reported from 5 of 16 LGAs in the Kora State. Iliari West is the worst affected LGA, accounting for 52% of the reported cases while the most affected age group is 1-5 years.</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>18-Jun-17</td>
<td>23-Jun-17</td>
<td>74 (22)</td>
<td>0</td>
<td>0.0%</td>
<td>The outbreak is currently affected 3 LGAs in Borno State. Ngala (n=48 cases), Mobbar (n=19 cases) and Monguno (n=7 cases).</td>
</tr>
</tbody>
</table>

**Recently closed events**

<table>
<thead>
<tr>
<th>Event</th>
<th>Country</th>
<th>Grade</th>
<th>Date of notification to WHO</th>
<th>Date of last sitrep</th>
<th>No. of cases / suspected (confirmed)</th>
<th>No. of deaths</th>
<th>CFR (suspected) / %</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typhoid fever</td>
<td>Zimbabwe</td>
<td>Ungraded</td>
<td>21-Nov-16</td>
<td>08-Jun-17</td>
<td>1,847 (121)</td>
<td>11</td>
<td>0.6%</td>
<td>Cases were predominantly reported from the city of Harare. The outbreak peaked during the early months of 2017. The incidence of new cases has remained low throughout May and June 2017.</td>
</tr>
<tr>
<td>Crimean-Congo haemorrhagic fever (CCHF)</td>
<td>Senegal, ex-Mauritania</td>
<td>Ungraded</td>
<td>06-Jun-17</td>
<td>28-Jun-17</td>
<td>1 (1)</td>
<td>0</td>
<td>0.0%</td>
<td>Case is an adult from Nousadchart, Mauritania, transferred by the family to Senegal for treatment. This is the third confirmed case from Mauritania in a period of less than 2 months, with no apparent links between this case and the initial two. Monitoring has been completed for all contacts of the latest case.</td>
</tr>
</tbody>
</table>

Data is taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.
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Data sources
Data is provided by Member States through WHO Country Offices via regular situation reports, teleconferences and email exchanges. Situations are evolving and dynamic therefore numbers stated are subject to change.