

WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 44: 28 October - 03 November 2017
Data as reported by 17:00; 03 November 2017



1

New event

43

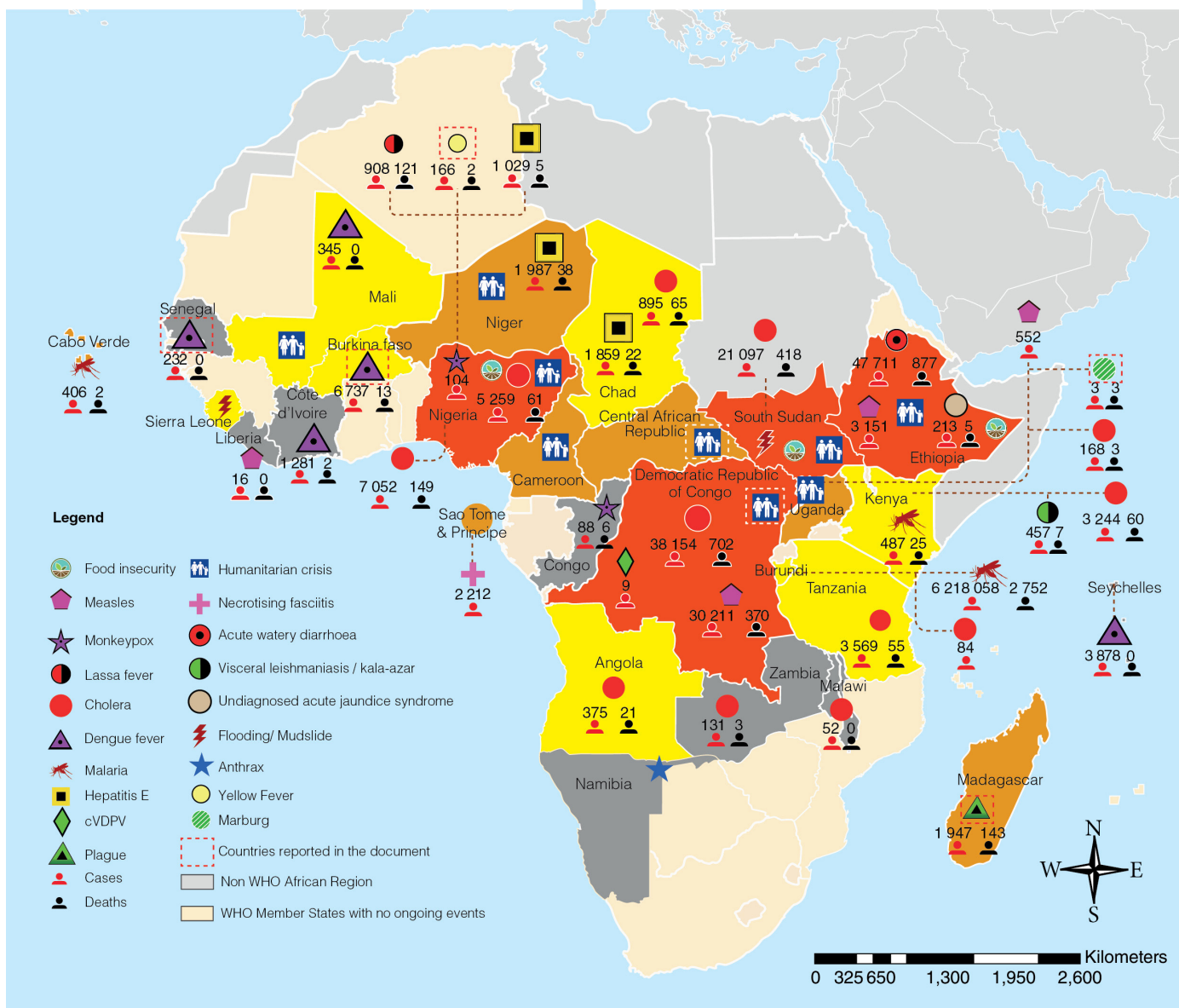
Ongoing events

34

Outbreaks

10

Humanitarian crises



2

Grade 3 events

7

Grade 2 events

8

Grade 1 events

24

Ungraded events

2

Protracted 3 events

0

Protracted 2 events

1

Protracted 1 event

Overview

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- This Weekly Bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 44 events in the region. This week's edition covers key new and ongoing events, including:
 - [Dengue fever in Senegal](#)
 - [Dengue fever in Burkina Faso](#)
 - [Plague in Madagascar](#)
 - [Marburg virus disease in Uganda](#)
 - [Yellow fever in Nigeria](#)
 - [Humanitarian Crisis in Central African Republic](#)
 - [Humanitarian Crisis in the Democratic Republic of the Congo](#).
- 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 bulletin with information on all new and ongoing public health events currently being monitored in the region, as well as events that have recently been closed.
- **Major challenges include:**
 - The outbreak of dengue fever in Burkina Faso is rapidly increasing. While the overall case fatality rate is low, the manifestation of haemorrhagic syndrome among the deaths is concerning.
 - The humanitarian situation in the Central African Republic is increasingly deteriorating, with shrinking humanitarian space.

New event

Dengue fever

Senegal

232
Cases

0
Death

0%
CFR

EVENT DESCRIPTION

On 24 October 2017, the Ministry of Health and Social Action of Senegal notified WHO of an outbreak of dengue fever in Louga Region in the north-west of the country. The outbreak was detected through arboviruses and haemorrhagic fever sentinel surveillance. Between 6 and 12 October 2017, the Institut Pasteur Dakar (IPD) received 24 specimens from Santhiaba Health Post sentinel surveillance site in Louga Region. Laboratory results released by IPD on 20 October 2017 indicated that nine of the 24 specimens tested positive for dengue virus serotype 1 (DENV-1) by polymerase chain reaction (PCR). Between 24 and 27 October 2017, a multidisciplinary national rapid response team deployed to Louga Region (to conduct further outbreak investigation) confirmed 21 additional cases of dengue fever among symptomatic cases.

Retrospective investigation established that the dengue fever outbreak started around 28 September 2017 when the initial suspected cases reported to the health facility. As of 30 October 2017, a total of 232 suspected cases have been reported, of which, 36 have been confirmed by PCR. All of the confirmed cases are DENV-1. To date, no deaths have been reported.

Suspected dengue fever cases have been reported from six out of eight health districts in Louga Region, namely Dahra, Darou Mousty, Kebemer, Linguere, Louga, and Sakal. However, the disease has been confirmed in Louga (34 cases) and Dahra (2 cases) Districts.

PUBLIC HEALTH ACTIONS

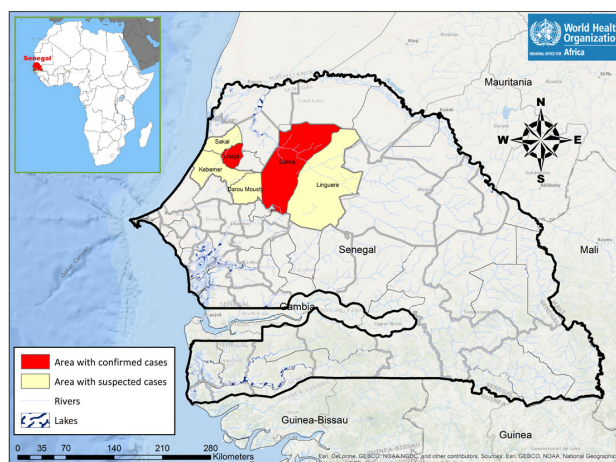
- ▶ The Emergency Operations Centre of the Ministry of Health has been activated to coordinate response to the outbreak.
- ▶ A comprehensive response plan is being developed to guide response operations and aid resource mobilization.
- ▶ On 27 and 30 October 2017, the Ministry of Health issued press releases regarding the outbreak of dengue fever in the country.
- ▶ A multidisciplinary national rapid response team from the Ministry of Health Emergency Operations Centre, IPD and WHO was deployed to Louga Region from 23 - 28 October 2017.
- ▶ A second response support team of two field epidemiologists, an infectious disease physician, a biologist, an entomologist, and a communication specialist, has been deployed in Louga Region on 30 October 2017.
- ▶ On 24 October 2017, a mobile laboratory from IPD was deployed in Louga to facilitate early diagnosis and clinical decision making.
- ▶ Interventions to reduce vector density have started in the affected communities: on 26 October 2017, the regional hygiene service sprayed Louga area with insecticide, while the national hygiene service carried out aerial insecticide spraying in Louga and Dahra districts (where cases have been confirmed).
- ▶ Active surveillance is being strengthened in the region, including a retrospective review of health records and active case search in the health facilities.
- ▶ Health facilities have been provided with the case management and surveillance guidelines.
- ▶ Mass communication through radio and television is ongoing, led by the Ministry of Health.

SITUATION INTERPRETATION

The current outbreak of dengue fever in Senegal is taking place against the backdrop of emergence of the disease in West Africa. Several countries in the region have recently experienced dengue fever outbreaks, including Burkina Faso, Cabo Verde, Côte d'Ivoire, and Mali. The detection of the outbreak through sentinel surveillance may be an indication that the disease has been spreading in the community for some time, without being noticed. It is, therefore, difficult to determine the true burden of the disease at this stage. Preliminary environmental investigation in the affected communities identified multiple sites suitable for mosquito breeding, including uncovered water drums, flowers pots, backyard orchards, and banana plantations.

Extensive epidemiological, entomological and environmental studies should be conducted to determine the disease burden and potential risk, including the *Aedes species* vector density, spatial distribution and infectivity. Meanwhile, appropriate measures must be taken to prevent new transmissions in the communities. Surveillance systems, including screening any febrile illness for dengue fever need to be strengthened. In particular, the capacities of health personnel to detect and manage cases of dengue fever need strengthening, as does implementation of integrated vector control interventions.

Geographical distribution of dengue fever cases in Senegal, 28 - 30 October 2017



[Go to overview](#)

[Go to map of the outbreaks](#)

02

Ongoing events

Dengue fever

Burkina Faso

8 904
Cases

18
Deaths

0.2%
CFR

EVENT DESCRIPTION

The incidence of dengue fever in Burkina Faso continues to increase exponentially, particularly in the Central Region of the country, around the capital city, Ouagadougou. During week 43 (week ending 29 October 2017), a total of 2 566 new suspected cases and two deaths (case fatality rate 0.1%) were reported in the country, compared with 2 232 cases with two deaths reported in week 42. Fifty-five percent (1 417) of the new suspected cases and the two deaths were from the Central Region, with an attack rate of 52 cases per 100 000 population.

Between 1 January and 29 October 2017, a cumulative total of 8 904 suspected cases, including 18 deaths (case fatality rate 0.2%), have been reported. Of these, 5 721 (64%) were classified as probable cases after testing positive on rapid diagnostic tests. Sixty percent (5 361) of the total suspected cases and 15 (83%) deaths have occurred in the Central Region, particularly in the city of Ouagadougou.

Men are slightly more affected than women, making up 52% of cases, and more than 75% of cases are aged 15 and over. About 4% of the suspected cases and 73% of the deaths manifested haemorrhagic syndrome. More deaths (55%) occurred in men and 55% of the deaths were in children aged less than 10 years.

A total of 241 out of 372 specimens referred to the viral haemorrhagic fever (VHF) reference laboratory at the Centre Muraz, Bobo-Dioulasso, were analysed. Of the specimens analysed, 141 (58.5%) confirmed dengue virus infections: 86 by polymerase chain reaction (PCR), 24 by ELISA and 32 on both tests. Further characterization of 72 samples identified three dengue virus serotypes: DENV-2 (58 positives, 81%), DENV-3 (12 positives, 17%) and DENV-1 (2 positives).

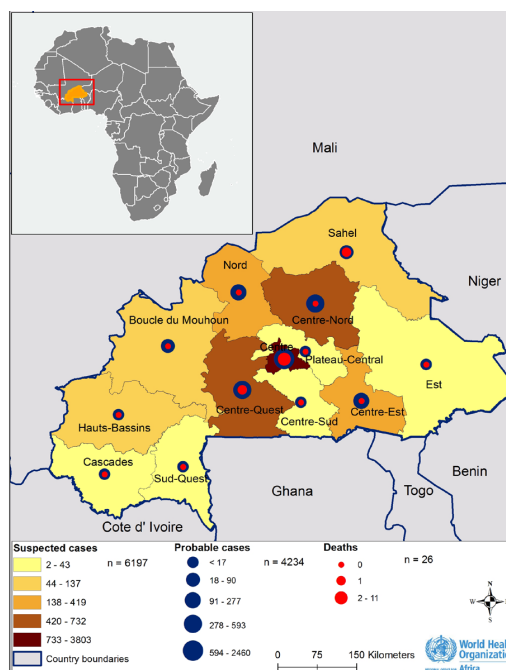
PUBLIC HEALTH ACTIONS

- The National Epidemic Management Committee continues to coordinate response to the outbreak through weekly technical sub-committees' meetings.
- The national preparedness and response plan has been revised and its implementation strengthened within the sub-committees.
- Active surveillance has been enhanced, including daily reporting in Ouagadougou and weekly reporting in the other regions.
- Free medical care and treatment are being provided in hospitals.
- A total of 1 500 long-acting insecticide-treated bed nets have been distributed.
- The larval breeding destruction campaign has been officially launched, with the participation of 5 500 volunteers from the Ouagadougou area, who will carry out outreach activities in households and contribute to the physical destruction of mosquito breeding sites.
- Outdoor insecticide spraying will continue in Ouagadougou.
- Journalists have been oriented to improve their participation and facilitate accurate dissemination of messages on dengue fever prevention and control.

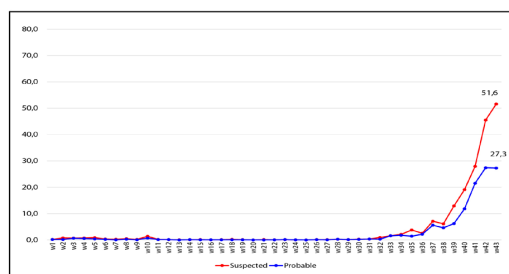
SITUATION INTERPRETATION

The rapid increase in the incidence of dengue fever in Burkina Faso remains a concern. In addition, the high proportion of haemorrhagic cases among the deaths, standing at 73%, could be suggestive of circulation of virulent strains/genetic variants of the virus. There is an urgent need to improve ongoing control interventions, especially in the areas of vector control, active surveillance, social mobilization, and case management, in order to control this event. The distribution of long-acting insecticide-treated bed nets and the launch of the larva destruction campaign are steps in the right direction, but require scaling up.

Geographical distribution of dengue fever cases in Burkina Faso, 1 January - 29 October 2017



Weekly attack rates of dengue fever cases in Ouagadougou, week 1- 43, 2017



EVENT DESCRIPTION

WHO continues to support the Ministry of Public Health and other national authorities in Madagascar to monitor and respond to the outbreak of plague. The number of new cases of pulmonary plague is declining across the country.

From 1 August to 3 November 2017, a total of 1 947 confirmed, probable and suspected cases of plague, including 143 deaths (case fatality rate 7%), were reported from 51 of 114 districts. Of these, 1 437 (74%) were clinically classified as pulmonary plague, 295 (15%) were bubonic plague, one was septicæmic, and 211 were not yet classified (further classification of cases is in process). Since the beginning of the outbreak, 71 healthcare workers (with no deaths) have been affected.

Of the 1 437 clinical cases of pneumonic plague, 364 (25%) have been confirmed, 555 (39%) are probable and 518 (36%) remain suspected (additional laboratory results are in process). Twenty-three strains of *Yersinia pestis* have been isolated and are sensitive to antibiotics recommended by the National Program for the Control of Plague.

About 88% (6 066) of 6 908 contacts identified thus far have completed their 7-day follow up and a course of prophylactic antibiotics. A total of nine contacts developed symptoms and became suspected cases. On 3 November 2017, 513 out of 550 (93%) contacts under follow-up were reached and provided with prophylactic antibiotics.

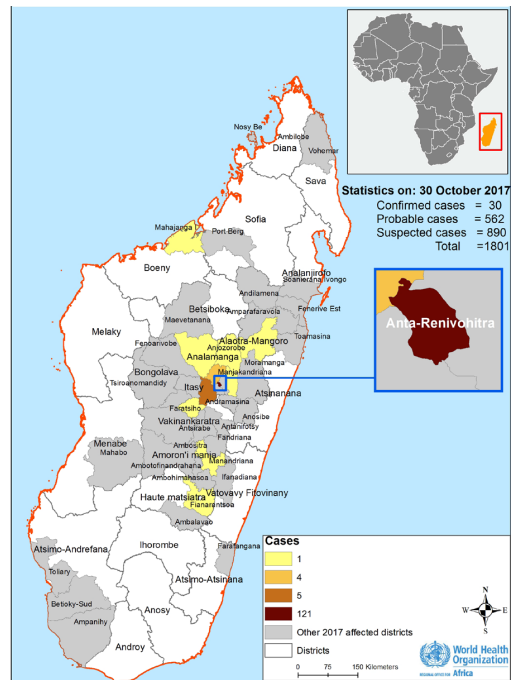
PUBLIC HEALTH ACTIONS

- On 31 October 2017, a delegation from China held discussions with the national authorities and WHO in Antananarivo with the main objective of defining the areas of collaboration and the support to the response.
- The International Federation of Red Cross (IFRC), in association with the Malagasy Red Cross, opened its plague treatment centre at Andohatapenake Hospital, with an initial capacity of 10 beds.
- Investigations of suspected cases and the follow-up of their contacts continue in all the affected regions.
- A total of 30 participants from Haute Matsitra Region have been trained on infection prevention and control measures.
- Training modules for field investigators, community agents and supervisors have been updated and distributed to all the regions. Training of investigators, community agents and their supervisors has been completed in Vakinankaratra and Atsinanana Regions.
- A total of 346 healthcare providers have been trained on infection prevention and control at various health facilities.

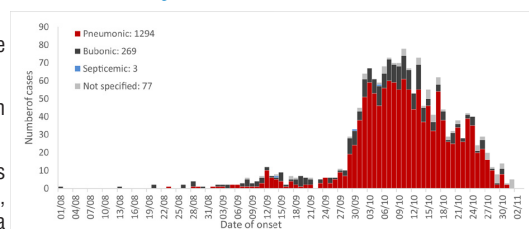
SITUATION INTERPRETATION

While the decline in the incidence is encouraging, more cases of plague are expected to be reported in Madagascar until the typical plague season ends in April 2018. To that effect, sustaining ongoing operations during the outbreak and through the plague season is crucial to minimize the current human-to-human transmission of pneumonic plague and the bubonic plague infections. The key control measures that need to continue to the end of April 2018 include active case finding and treatment, comprehensive contact identification, follow-up and antibiotic treatment, rodent and flea control, and safe and dignified burials.

Geographical distribution of plague cases in Madagascar, 1 August - 30 October 2017



Distribution of total number of plague cases reported in Madagascar, 01 - 03 November 2017.



EVENT DESCRIPTION

The outbreak of Marburg virus disease (MVD) in Uganda appears to be under control. As of 1 November 2017, the number of reported cases has remained three (two confirmed and one probable), all of whom have died, resulting in an overall case-fatality rate of 100%. All three cases were epidemiologically linked and come from one family. The three suspected cases reported in our last report (Weekly Bulletin 43) have been discarded as non-cases following investigation. By 1 November 2017, 135 contacts were under follow-up (115 in Kween and 22 in Kapchorwa). Seventy-nine contacts have completed the 21-days follow-up period.

In Kenya, three high-risk contacts are being monitored. These contacts were potentially exposed to the second confirmed case, who reportedly visited his family (wife and daughter) and a traditional healer in Kenya before being admitted to a treatment centre in Kween, Uganda, where he died on 25 October 2017. Blood specimens collected from the traditional healer, who was symptomatic, tested negative for both Ebola and Marburg viruses at the Kenya Medical Research Institute (KEMRI) viral haemorrhagic fever laboratory. A second sample has been collected and is being processed for additional verification at KEMRI. The other two contacts are reportedly asymptomatic and are being monitored.

PUBLIC HEALTH ACTIONS

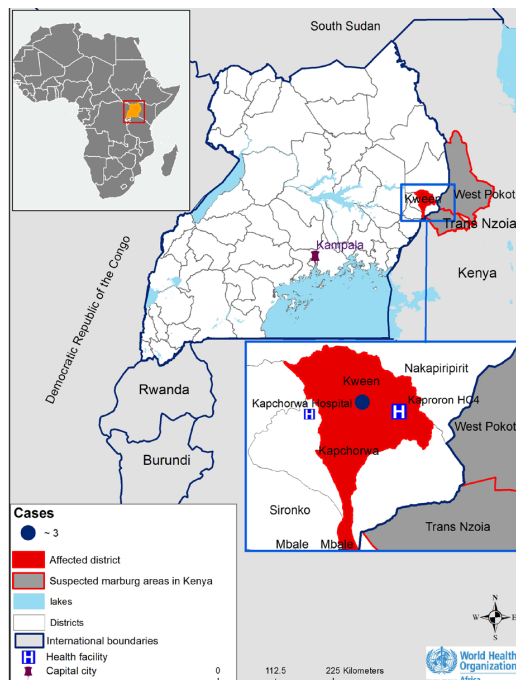
- ▶ The Ugandan Ministry of Health continues to respond to the outbreak, with support from WHO and partners.
- ▶ An isolation unit has been set-up in Kapchorwa, with logistical support from UNICEF. A triage system has been established and is now fully functional.
- ▶ Social mobilization and risk communication are ongoing. A team of volunteers from Uganda Red Cross Society reached 894 community members with information on MVD prevention and control.
- ▶ Psychosocial support specialists have been deployed to Kween and counselling sessions were conducted for the discharged suspected cases.
- ▶ Guided tours of the Marburg treatment units in Kapchorwa and Kween were organized in order to dispel fear and misinformation among the local population who are concerned about incorrect practice by healthcare workers.
- ▶ A joint meeting between Uganda and Kenya health authorities was held on 30 October 2017, and cross-border surveillance activities are ongoing.
- ▶ Kenya MVD outbreak contingency plan and the public health emergency operations centre have been activated and preparedness measures have started.
- ▶ A total of 2 000 sets of personal protective equipment have been dispatched by WHO and shipped to Trans Nzoia County, Kenya.
- ▶ A temporary treatment facility has been identified in Kaisangat Health Centre and the Kenya Red Cross Society is recruiting and re-orienting nurses to manage the MVD treatment centre.

SITUATION INTERPRETATION

The outbreak of Marburg in Uganda appears to be under control as no new cases have been reported. Outbreak control interventions are ongoing in both countries, including contact tracing activities. The hostility previously exhibited by some communities in Uganda has ceased, following engagement of and dialogue with the local community by the national authorities and political leaders.

While Uganda has extensive experience in dealing with recurring MVD outbreaks, Kenya has not experienced an outbreak since the 1980s. Assessments carried out at operational level identified some gaps that require urgent attention. The need to reorient healthcare workers on viral haemorrhagic fever (VHF) case management, infection prevention and control and surveillance was highlighted. The ongoing industrial action by nurses may also impact on the preparedness and response measures, as well as coordination of several departments and stakeholders locally.

Geographical distribution of Marburg virus disease cases in Uganda, 3 October - 1 November 2017



EVENT DESCRIPTION

The outbreak of yellow fever in Nigeria, initially notified to WHO on 15 September 2017 by the Nigeria Centre for Disease Control (NCDC), has evolved. The index case was a 7-year-old girl from Oro-Ago community in Ifelodun Local Government Area (LGA), Kwara State who developed acute jaundice syndrome on 16 August 2017. On 29 August 2017, specimens from the case-patient tested positive for yellow fever virus at the Lagos University Teaching Hospital (LUTH) laboratory by polymerase chain reaction. The specimens, subsequently referred to the Institut Pasteur Dakar (IPD), confirmed yellow fever virus infection using plaque reduction neutralization test (PRNT).

Following confirmation of yellow fever in the index case, the NCDC deployed a national rapid response team to conduct extensive outbreak investigation, and surveillance for acute jaundice syndrome was enhanced in the country. As of 26 October 2017, a total of 166 cases of acute jaundice syndrome and 10 deaths (case fatality rate 6%) have been reported from six states (namely Abia, Borno, Kwara, Kogi, Plateau, and Zamfara). Blood specimens were collected from 83 (50%) suspected cases and sent to three Nigerian national laboratories. Twenty-five of the 83 (30%) specimens tested positive for yellow fever by PCR at the Nigerian laboratories. Seventeen specimens were subsequently shipped to IPD for further analysis. By 27 October 2017, three specimens (two from Kogi and one from Kwara) have been confirmed by PRNT by IPD, five specimens tested negative and nine results are pending. Two of the three confirmed cases died, giving a case fatality rate of 66.7% in this group.

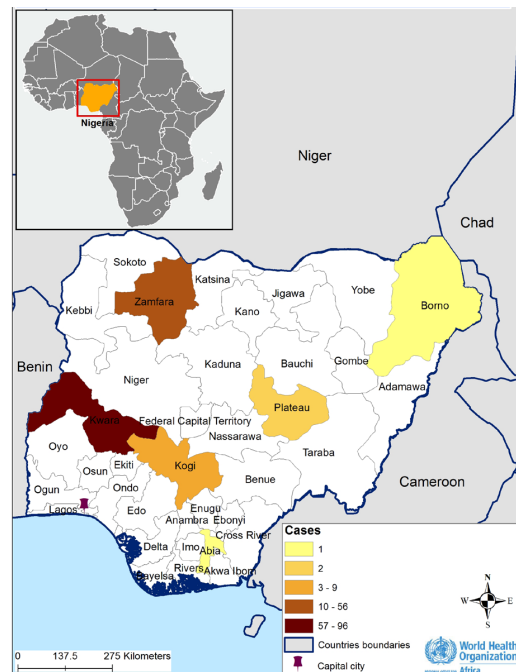
PUBLIC HEALTH ACTIONS

- The response to the yellow fever outbreak is being coordinated by a multi-agency, multi-partner Incident Command at the national level. An emergency operation centre has been established in Kwara State to strengthen coordination at operational level.
- Rapid response teams have been deployed to Kwara, Kogi and Plateau States to support local response capacity, conduct outbreak investigation and assess the risk of further amplification, among other activities.
- A reactive vaccination campaign was conducted in Kwara and Kogi States from 13 - 20 October 2017, targeting persons aged 12 months to 45 years. An administrative coverage of 98% was attained in both states. Additional vaccination campaigns in the affected areas are planned for December 2017.
- Active surveillance for acute jaundice syndrome has been intensified across the country and a national database was developed. Case investigation and contact tracing are ongoing.
- A case management centre has been designated in Kwara State, though it still requires infrastructural improvement.
- Three national laboratories with diagnostic capacity for yellow fever have been identified in-country, including the Central Public Health Laboratory in Lagos (ELISA capacity), the NCDC National Reference Laboratory in Abuja (PCR capacity) and the Lagos University Teaching Hospital (LUTH) Laboratory (PCR capacity).
- Risk communication and social mobilization activities are being implemented, including public information campaigns, radio messaging and community engagement through community leaders to dispel rumours and encourage people to be vaccinated.

SITUATION INTERPRETATION

Enhanced surveillance for acute jaundice syndrome following confirmation of yellow fever in Kwara State has resulted in detection and confirmation of more cases. Further assessment has also revealed suboptimal routine immunisation coverage for yellow fever antigen in a number of states. While response to this event has been rapid, a comprehensive risk assessment for yellow fever transmission needs to be conducted. In the meantime, active surveillance for acute jaundice syndrome should be strengthened across the country, as well as scaling up reactive and routine yellow fever immunization activities.

Geographical distribution of yellow fever cases in Nigeria, 15 September - 27 October 2017



EVENT DESCRIPTION

The security situation in the Central African Republic has deteriorated in recent weeks, marked by widespread armed clashes across the country. Over 10 communities have been attacked in the past weeks, reportedly resulting in over 100 deaths. A contingent of the United Nations Multidimensional Integrated Stabilization Mission in Central African Republic (MINUSCA) found 18 000 displaced persons besieged by armed groups in the Pombolo area in the Eastern Region. In addition, MINUSCA reported that 31 wounded people received treatment in Bangassou, with a further 47 wounded awaiting medical attention. The withdrawal of MINUSCA special mission from Bocaranga after driving out an armed group has resulted in about 1 000 people relocating for fear of reprisal attacks.

The absence of humanitarian actors in most parts of the country is becoming more pronounced, as access is near impossible. Occupation of Kaga Bandoro airstrip by 321 households of displaced persons has led to suspension of United Nations Humanitarian Air Service (UNHAS) flights since 18 September 2017. This has further impacted on response operations in the subregion.

Communicable diseases and malnutrition are prevalent as a consequence of the ongoing insecurity and displacement. In Bangassou internally displaced persons (IDP) camp, 71 cases of simple malaria and two cases of severe malaria were recorded among 152 children less than 5 years seen at a WHO mobile clinic and community health centre. The two severe cases were referred to Bangassou Hospital. There were 22 cases of acute respiratory infection, 20 cases of diarrhoeal disease and nine cases of injury. Nutritional screening of 102 children revealed nine cases of uncomplicated severe acute malnutrition (SAM), two cases of complicated SAM and 24 cases of children with moderate acute malnutrition (MAM).

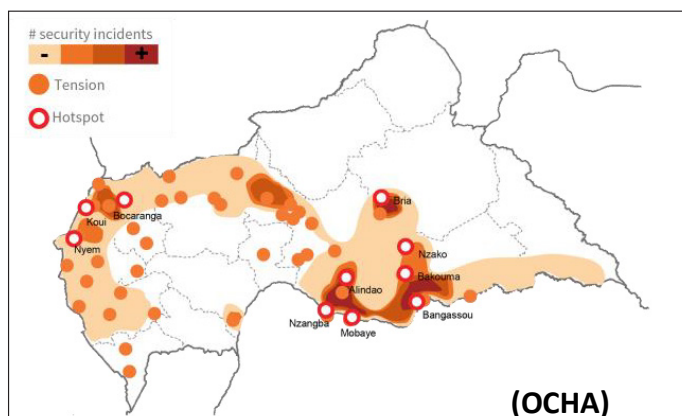
PUBLIC HEALTH ACTIONS

- WHO continues to support the Ministry of Health in addressing the health needs of the population during the crisis. WHO's 3-months financial support for free healthcare to hospitals in Bocaranga and Ngauundaye in the western part of the country is being continued by the International Rescue Committee, with USAID funding. The Central Emergency Response Fund (CERF) has provided US\$ 460 002 to support healthcare in Kongbo and Zemio Sub-prefectures in the east of the country.
- The WHO and the health cluster partners continue to work with UNHAS and MINUSCA to deploy healthcare staff to Semio, Obo and Pombolo. WHO has deployed two consultants to Bangassou and Bambari sub-offices.
- In Bambari, WHO provided training for 40 health workers in IDP sites and Sudan's Pladama refugee camp on the treatment of diarrhoeal diseases in children less than 5 years, including the use of oral rehydration solution and zinc supplementation. WHO continues to support mobile clinics and community health centres in Bangassou IDP camp and surrounding areas through Mutualité Des Volontaires Africains Pour Le Développement (MVAD).
- The United Nations Office for the Coordination of Humanitarian Affairs (OCHA), in collaboration with various clusters, prepared a rapid assessment mission during the last week of October 2017.
- In response to a lull in fighting in Zemio, the joint mission of MINUSCA and UNHCR, and Jeunesse Unie pour la Protection de l'Environnement et le Développement Communautaire (JUPEDEC), have asked for rapid deployment to provide healthcare and other humanitarian assistance to the affected population, although health assistance has not yet started due to logistical and security constraints.

SITUATION INTERPRETATION

The lack of improvement in the security situation and continuing attacks on civilian populations in Central African Republic remains a concern. There is no humanitarian assistance available in many regions, and out of 16 prefectures, only four are state-controlled, further reducing the humanitarian space. These populations lack access to basic healthcare, nutrition and other humanitarian assistance, including water and hygiene. The response to all these needs should be urgently scaled up.

Progression of hotspots in Central African Republic, October 2017



EVENT DESCRIPTION

The humanitarian crisis in the Democratic Republic of the Congo remains serious, with variable increases in internal displacement, while some people have started returning to their original localities. As of October 2017, nearly 4 million internally displaced persons (IDPs) were reported, which remains the highest number of displaced persons in Africa, and the third highest in the world. Over 400 000 people were displaced between July and September 2017. Around 87% of those displaced are living with host communities and over 60% are under 18 years old. At the same time, the Democratic Republic of the Congo is also hosting refugees from nine African countries, estimated at 500 000 by October 2017. There has been an increase in new arrivals refugees from South Sudan and Central African Republic (CAR), in particular.

Further, the situation is also characterized by forced recruitment of children, regular reports of cases of sexual and gender-based violence, as well as attacks on institutions such as schools and hospitals. This conflict has also increased the number of people who are in need of emergency psycho-social support, especially among the most affected and vulnerable, women and children under 18 years old. This is coupled with lack of reintegration programmes that restore social cohesion and address the social fragmentation.

Access to healthcare services remains one of the major challenges faced by the IDPs and refugees. Most of the health systems and infrastructure have been affected. In the Kasai region, for instance, more than 61% of the health zones have reported a disruption of health services due to destruction, looting of facilities, or because of accessibility constraints. This means, one in three health centres are no longer functional, increasing the risk of negative health outcomes in the affected population. In addition, in many areas in Kasai and Kasai-Central, vaccination programmes have been interrupted as health staff have fled the violence. Routine epidemiological surveillance is hindered by limited healthcare staff across the Kasai region, which also limits the ability to detect, report, and respond to infectious disease outbreaks. The ongoing cholera outbreak is an example.

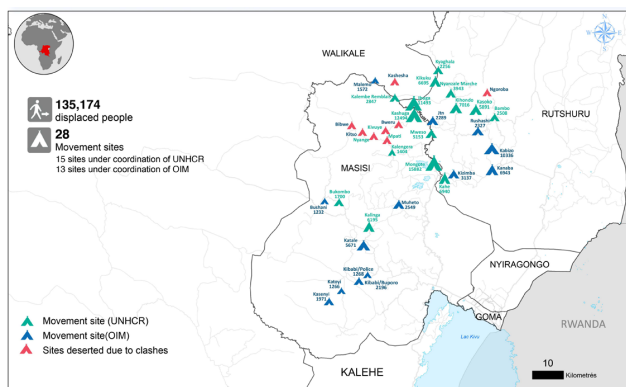
PUBLIC HEALTH ACTIONS

- The UN agency and the Inter-Agency Standing Committee (IASC) partners have declared the situation in the Democratic Republic of the Congo a level 3 emergency, the highest level of emergency. This will allow channelling of lifesaving resources to the under-funded crisis.
- On 19 and 20 October 2017, the Ministry of Health organized a national forum on emergency health response in the Kasai region, with the support of WHO, which resulted in the adoption of a roadmap for responding to the crisis and setting up a national coordination mechanism.
- WHO provided support to INGs and local NGOs to improve access to primary healthcare services targeting the affected population in eight Health Zones of Kasai, Kasai Central, and Eastern Kasai.

SITUATION INTERPRETATION

The need to scale up implementation of life-saving interventions in the Democratic Republic of the Congo remains a priority. The activation of level 3 emergency by the UN and IASC partners is expected to scale up humanitarian response, mobilize more resources and capacities, improve access to the most vulnerable communities, and ensure adequate coordination between all humanitarian actors. This is the one remaining chance to alleviate the suffering of the vulnerable people in the country. Speed in attaining these expectations is of essence.

Movement sites in province of North Kivu, Democratic Republic of the Congo, as of 25 September 2017



Summary of major challenges and proposed actions

Challenges

- The outbreak of dengue fever in Burkina Faso continues to increase exponentially, with very high attack rates in Ouagadougou, in particular. While the overall case fatality rate is low, the manifestation of haemorrhagic syndrome among the 18 reported deaths stands at 73%, which could be suggestive of circulation of more virulent strains/genetic variants of the virus. The ongoing interventions have not been able to reverse the current disease trend and slowly rising mortality.
- The humanitarian situation in the Central African Republic has continued to deteriorate, with intense attacks on the civil population. Provision of humanitarian aid has become a challenge in light of the deteriorating security situation and shrinking humanitarian space.

Proposed actions

- The government and partners are called upon to urgently scale up the response to the dengue fever outbreak. The comprehensive response plan needs to be funded adequately and other response logistics and resources provided to ensure effective outbreak control measures are implemented. Measures of particular importance are vector control, active surveillance, social mobilization, and case management.
- The humanitarian crisis in the Central African Republic calls for deliberate global actions including advocacy and multi-sector engagement.

All events currently being monitored by WHO AFRO

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Newly reported events										
Senegal	Dengue	Ungraded	30-10-2017	28-09-2017	30-10-2017	232	36	0	-	Detailed update given above.
Ongoing events										
Angola	Cholera	G1	15-Dec-16	1-Jan-17	22-Oct-17	375	-	21	5.6%	The outbreak began during December 2016. From week 1-42 of 2017, cases have been reported from Cabinda (219), Zaire (151), Luanda (3) and Maquela de Zombo (2). Only one new case (from Maquela de Zombo) was reported in week 42. No new cases have been reported in Luanda since week 4, in Soyo Zaire since week 26, and in Cabinda since week 28.
Burkina Faso	Dengue	G1	4-Oct-17	1-Jan-17	29-Oct-17	6 737	141	13	0.2%	Detailed update given above.
Burundi	Malaria	G1	22-Mar-17	1-Jan-17	8-Oct-17	6 218 058	-	2 752	0.0%	Weekly case counts are exceeding 2016 rates and continue to be on the rise. In week 40, 127 175 cases and 48 deaths were reported. The most affected health districts (DS) are: Kirundo (6 275) and Giteranyi (5 544).
Burundi	Cholera	Ungraded	20-Aug-17	20-Aug-17	15-Oct-17	84	4	0	0.0%	During week 41, 20 new cases were reported in the health zones of Isare (09), Cibitoke (08) and Bubanza (03). As of 15 October a cumulative total of 84 cases were reported. As of 16 October 2017 no new cases have been reported in Mabayi (for 48 days), Nyanza-Lac (for 35 days), Mpanda (for 12 days), Bubanza (for 72 days), Cibitoke (for 2 days) and Isare (for 2 days).
Cameroon	Humanitarian crisis	G2	31-Dec-13	27-Jun-17	23-Jul-17	-	-	-	-	Conflict in both north-east Nigeria and Central African Republic has led to mass population movement to Cameroon. Almost 10% of the population of Cameroon, particularly in the Far North, North, Adamaoua, and East Regions, is in need of humanitarian assistance as a result of the insecurity. A detailed update was provided in the week 31 bulletin.
Cape Verde	Malaria	G2	26-Jul-17	1-Jan-17	27-Oct-17	406	388	2	0.5%	The incidence of new cases declined since peaking in week 35 (early September), but increased again in weeks 42 (40 new cases reported) and 43 (47 new cases reported). The outbreak has been contained to the city of Praia. Cases reported from other areas/islands all likely all acquired the infection during travel to Praia or overseas, and there is currently no evidence of indigenous transmission outside of Praia. Two deaths have been reported (1 in an indigenous case and 1 in an imported case).
Central African Republic	Humanitarian crisis	G2	11-Dec-13	11-Dec-13	29-Sep-17	-	-	-	-	Detailed update given above.
Chad	Hepatitis E	G1	20-Dec-16	1-Aug-16	15-Oct-17	1 859	98	22	1.2%	Outbreaks are ongoing in the Salamat Region predominantly affecting North and South Am Timan, Amsinéné, South Am Timan, Mouraye, Foulonga and Aboudeia. Of the 64 cases occurring in pregnant women, five died (case fatality rate 7.8%) and 20 were hospitalized. Chlorination of water sources ended at the end of September 2017 because of a lack of partners and funding.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Chad	Cholera	G1	19-Aug-17	14-Aug-17	22-Oct-17	895	6	65	7.3%	Incidence is rapidly increasing in the Am-timam Health District, with 235 new cases reported during week 42. Overall, cases have been reported from Koukou (290) and Goz Beida (71) health districts in the Sila Region, as well as from Am Timan Health District (529) and Amdjoudoul (5) in the Salamat Region.
Congo (Republic of)	Monkeypox	Ungraded	1-Feb-17	18-Jan-17	30-Sep-17	88	8	6	6.8%	Since January 2017, the Republic of Congo has been going through an outbreak of monkeypox. 88 cases with 6 deaths have been reported since the beginning.
Cote d'Ivoire	Dengue fever	Ungraded	3-May-17	22-Apr-17	23-Oct-17	1 281	311	2	0.2%	Abidjan city remains the epicentre of this outbreak, accounting for 95% of the total reported cases. The main health districts affected include Cocody, Abobo, Bingerville and Yopougon. Of the 272 confirmed cases with available information on serotypes, 181 were dengue virus serotype 2 (DENV-2), 78 were DENV-3 and 13 were DENV-1. In addition, 39 samples were confirmed IgM positive by serology.
Democratic Republic of the Congo	Humanitarian crisis	G3	20-Dec-16	17-Apr-17	6-Oct-17	-	-	-	-	Detailed update given above.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-17	20-Oct-17	38 154	-	702	1.8%	During week 41, 1 854 new suspected cases and 26 deaths were reported; a moderate decline from the previous week. The majority of cases this week were reported from North Kivu, South Kivu, Tanganyika, Haut Lomami, Kongo Central and Maniema.
Democratic Republic of the Congo	Circulating vaccine-derived polio virus type 2 (cVDPV2)		17-May-17	20-Feb-17	4-Oct-17	9	9	0	0.0%	One new case of cVDPV2 reported in a 17-month-old child from Lwamba, Haut Lomami. Ongoing transmission is occurring in two separate outbreaks in Haut Lomami Province (7 cases, most recent case onset was 27 July 2017), and Maniema Province (2 cases with onset on 26 March and 18 April 2017, and an additional isolate detected in a sample collected 2 May 2017 from a healthy individual).
Democratic Republic of the Congo	Measles		10-Jan-17	2-Jan-17	22-Aug-17	30 211	449	370	1.2%	The incidence of new cases has declined since the current outbreak peaked in early 2017.
Ethiopia	Acute watery diarrhoea (AWD)	Protracted 3	15-Nov-15	1-Jan-17	24-Oct-17	47 711	-	877	1.8%	325 new cases reported in week 42. As of 24 October 2017, a cumulative total of 47 711 cases were reported. Seven regions had active transmission and one reported over 100 cases during the week under review.
Ethiopia	Humanitarian crisis		15-Nov-15	n/a	26-Sep-17	-	-	-	-	This complex emergency includes outbreaks of acute watery diarrhoea, measles and acute jaundice syndrome (reported separately below) and El Niño-related drought and food insecurity affecting the Horn of Africa. The estimated internally displaced population stands at 1 099 776 as of 26 September 2017. Heavy rainfall causing floods have affected over 18 600 households and displaced some 93 000 people. Addis Ababa, Jima, and south-east and south-west Shewa were worst affected.
Ethiopia	Measles		14-Jan-17	1-Jan-17	3-Oct-17	3 151	-	-	-	382 new cases were reported in week 39.
Ethiopia	Acute jaundice syndrome (AJS) - hepatitis A suspected		23-Aug-17	23-Aug-17	29-Sep-17	213	11	5	2.3%	Twenty-three blood samples were sent to IP Dakar. Laboratory results show that 11/23 samples were positive on hepatitis A RT-PCR, and one sample was IgM positive (PCR negative) for dengue virus. All other tests performed as part of the differential diagnosis were negative.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Kenya	Cholera	G1	6-Mar-17	1-Jan-17	19-Oct-17	3 244	584	60	1.8%	Nationally, case numbers continue to decrease. Three counties are currently reporting active outbreaks: Nairobi, Garissa, and Kajiado, with approximately 60% of the cases coming from Nairobi county.
Kenya	Leishmaniasis, visceral (kala-azar)	Ungraded	7-Jun-17	4-Jan-17	26-Aug-17	457	362	7	1.5%	Marsabit (338) and Wajir (119) counties have been affected by outbreaks since early 2017. The outbreak remains active in Marsabit, where the last reported case was reported on 26 August 2017. The outbreak has been controlled in Wajir, where the last reported case was reported on 17 June 2017. No new cases were reported in the past week.
Kenya	Malaria	Ungraded	-	25-Sep-17	10-Oct-17	487	334	25	5.1%	The suspected outbreak is affecting 3 wards in Marsabit which are Durkana, North Horr and Loiyangalani wards.
Kenya	Marburg	Ungraded	28-10-2017	28-10-2017	28-10-2017	3	-	-	-	Three suspected cases of Marburg have been reported in Kenya. The cases include the wife, son and traditional healer of a confirmed Marburg case from Uganda who had travelled to the Kitale district in Kenya to seek alternative treatment after falling ill, and died on 26 October. These three high-risk contacts are already exhibiting symptoms. Uganda is currently experiencing a Marburg outbreak that is occurring on the border with Kenya. Cross-border surveillance activities (including contact tracing) have been initiated between the two countries.
Liberia	Measles	Ungraded	24-Sep-17	6-Sep-17	1-Oct-17	16	4	0	0.0%	The situation remains unchanged in Bong County. In an unrelated event, Nimba County has reported an outbreak. During week 39, 17 new suspected cases were reported from Nimba; further details are pending.
Madagascar	Plague	G2	13-Sep-17	13-Sep-17	30-Oct-17	1 947	257	143	7%	Cases include pneumonic (1 111), bubonic (261), septicaemic (1) and unspecified (428) forms of disease.
Malawi	Cholera	Ungraded	n/a	23-Jul-17	22-Oct-17	52	3	0	0.0%	A relatively small outbreak of cholera was detected in week 30 in Chikwawa District, with low rates of illness maintained in subsequent weeks. Three new cases were reported during the past week.
Mali	Dengue fever	Ungraded	4-Sep-17	1-Aug-17	15-Oct-17	345	26	0	0.0%	Active case search activities completed following detection of a case during a study has identified a total of 26 confirmed cases from 345 suspected cases tested as of 15 October 2017.
Mali	Humanitarian crisis	Protracted 1	n/a	n/a	3-May-17	-	-	-	-	Limited information is available on this event. At the last update (3 May), the security situation remained unstable and incidents of violence and inter-ethnic conflicts were increasingly spreading.
Namibia/Botswana	Anthrax	Ungraded	10-Oct-17	10-Oct-17	12-Oct-17	0	0	0	-	Mass death of wildlife (hippos and buffalo) reported in Bwabwata National Park. Dead hippos were also detected downriver in Kavango River in Botswana. Public health authorities are responding. No known human infections to date.
Niger	Hepatitis E	Ungraded	2-Apr-17	2-Jan-17	12-Oct-17	1 987	441	38	1.9%	The majority of cases have been reported from the Diffa (1408), N'Guigmi (306) and Bosso (250) health districts. Case incidence continues to decline.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Niger	Humanitarian crisis	G2	1-Feb-15	1-Feb-15	11-Aug-17	-	-	-	-	The security situation remains precarious and unpredictable. On 28 June 2017, 16 000 people were displaced after a suicide attack on an internally displaced persons (IDP) camp in Kablewa. In another attack on 2 July 2017, 39 people from Ngalewa village, many of them children, were abducted. The onset of the rainy season is impeding the movements of armed forces around the region.
Nigeria	Lassa Fever	Ungraded	24-Mar-15	1-Dec-16	27-Oct-17	908	273	121	13.3%	The outbreak is currently active in five states: Ondo, Edo, Lagos, Plateau, and Bauchi. During week 39, 3 new confirmed cases were reported from Edo (1), Ondo (1), and Bauchi (1) states. Since the resurgence of the current wave of Lassa fever outbreak in December 2016 (week 49), a total of 908 suspected cases including 121 deaths (case fatality rate 13.3%) were reported, as of 27 October 2017. Of these, 287 cases have been classified: 273 cases were confirmed and 14 cases are considered probable. There were 89 deaths among the confirmed and probable case groups, collectively giving a case fatality rate of 31.0% in this group. During this outbreak, 19 out of 36 states have reported at least one confirmed Lassa fever case (Ogun, Bauchi, Plateau, Ebonyi, Ondo, Edo, Taraba, Nasarawa, Rivers, Kaduna, Gombe, Cross-River, Borno, Kano, Kogi, Enugu, Anambra, Lagos, and Kwara). Edo and Ondo States have accounted for over half of the confirmed and probable cases.
Nigeria	Humanitarian crisis	Protracted 3	10-Oct-16	n/a	1-Oct-17	-	-	-	-	An estimated 8.5 million people are in need in Borno State, including 1.8 million IDPs. Aside from the cholera outbreak (see below), malaria remains the leading cause of morbidity with over 6 800 suspected cases reported through IDSR in week 39.
Nigeria	Cholera (Borno State)		20-Aug-17	14-Aug-17	2-Nov-17	5 295	274	61	1.2%	On 02 November 2017, 5 cases have been reported compared to one case on 01 November. To date, 5 295 cases have been reported in 6 LGAs: Jere (2 655 cases), Monguno (1 755 cases), Dikwa (736 cases), MCC (58 cases), Mafa (20 cases) and Guzamala (71 cases). In Guzamala local government area (LGA) cases have been admitted and treated in Munguno CTC.
Nigeria	Cholera (nation wide)	Ungraded	7-Jun-17	1-Jan-17	18-Sep-17	7 052	145	149	2.1%	Confirmed outbreaks have been reported from 7 states: Borno, Kebbi, Zamfara, Kano, Lagos, Oyo, Kwara and Kaduna States. The outbreak was recently confirmed in Kaduna State (40 cases, 2 confirmed). Apart from Kwara where the outbreak has been controlled for an extended period, outbreaks are continuing on or being sustained at low levels in other states.
Nigeria	Hepatitis E	Ungraded	18-Jun-17	1-May-17	24-Sep-17	1 029	-	5	0.5%	The outbreak is concentrated in Borno State, with incidence steadily declining after peaking in week 26. The majority of cases have been reported in Ngala (810), Mobbar (99) and Monguno (66) LGAs.
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	26-Oct-17	166	3	2	1.2%	Detailed update given above..
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	27-Oct-17	104	9	0	0.0%	Suspected cases are geographically spread across 14 States and the Federal Capital Territory. 18 samples have been sent to IP Dakar (from Bayelsa and Lagos States); 3 were positive on RT-PCR for monkeypox; all from Yenagoa LGA, Bayelsa. All others were negative.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
São Tomé and Príncipe	Necrotising cellulitis/fasciitis	G2	10-Jan-17	25-Sep-16	29-Oct-17	2 212	0	0	0.0%	The incidence of new cases continue to fluctuate between 17 and 40 cases per week, with 36 cases reported during week 43 of 2017. In week 43 cases were reported from: Me-zochi (11), Agua Grande (11), Lobata (3), Cantagalo (8), Caue (1), Lembá (3), et Príncipe (0). The situation must be monitored closely as cases previously increased around this time last year, peaking at over 100 cases per week in epi week 50 of 2016; corresponding with the end of the rainy season. Currently, 26 cases are receiving care in hospital. From the start of the epidemic in week 38, 2016 to week 43, 2017 there have been 2 212 cases reported. No deaths have been directly attributed to the infection.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	10-Sep-17	3 878	1 295	-	-	Dengue virus serotype 2 (DEN-2) is predominating. Cases have been reported from all regions of the three main islands (Mahé, Praslin and La Digue). A detailed update was provided in the week 32 bulletin.
Seychelles, ex Madagascar	Plague	Ungraded	10-Oct-17	9-Oct-17	20-Oct-17	0	0	0	-	A public health response was mounted following detection of a single rapid diagnostic test (RDT)-positive traveller returning from Madagascar. Ten laboratory specimens collected from the case, his contacts and two suspected cases tested negative at IP Paris. Overall, 1 223 contacts were registered and followed-up, of which 833 were given prophylactic antibiotics.
Sierra Leone	Flooding/mudslide	G1	14-Aug-17	14-Aug-17	28-Sep-17	-	-	-	-	Recovery efforts continue a month since mudslides and flash floods devastated parts of Freetown, Sierra Leone. Burial of 502 corpses and 139 body parts was completed. Search for dead bodies has been stopped, and 500 individuals declared missing. 1 247 households were affected in 6 communities with 5 905 persons displaced.
South Sudan	Humanitarian crisis	G3	15-Aug-16	n/a	15-Oct-17	-	-	-	-	Situation remains volatile, fighting in multiple fronts and displacement continues. Humanitarian access to the most vulnerable population remains a major concern due to conflict and flooding in deep front areas. Severe acute malnutrition, malaria, measles, kala-azar, and cholera are the top ranking public health risks affecting the already distressed populations.
South Sudan	Cholera	Ungraded	25-Aug-16	18-Jun-17	15-Oct-17	21 097	1 585	418	2.0%	Cholera transmission has continued to decline nationally and continues in only three counties (Juba, Budi and Fangak). Thirty-seven new cases including one death (CFR 2.7%) were reported in week 40 as compared to over 1 700 cases per week at the height of the most recent wave of the epidemic in week 23. There have been a total of 21 097 and 418 deaths (CFR 2%) since the start of the outbreak on 23 June 2017.
Tanzania	Cholera	G1	20-Aug-15	1-Jan-17	22-Oct-17	3 569	-	55	1.5%	The trend of reported cholera cases is decreasing, with 102 new cases and 1 death in week 42, compared to 120 cases and 1 death in week 41. The three regions that reported cases this week are Songwe (75 cases and 1 death), Mbeya (23 cases) and Dodoma (4 cases). Zanzibar has reported zero cases since 11 July 2017. There is a high risk of an increase in cases because of the weak surveillance, an influx of refugees to the Kigoma region, and population movement.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Uganda	Humanitarian crisis - refugee	Ungraded	20-Jul-17	n/a	30-Aug-17	-	-	-	-	The influx of refugees to Uganda has continued as the security situation in the neighbouring countries remains fragile. According to UNHCR, the total number of registered refugee and asylum seekers in Uganda stands at 1 326 750, as of 1 August 2017. More than 75% of the refugees are from South Sudan. Detailed update given in the week 35 bulletin.
Uganda	Measles	Ungraded	8-Aug-17	24-Apr-17	18-Sep-17	552	-	-	-	The outbreak is in the two urban districts of Kamala (309 cases) and Wakiso (243 cases).
Uganda	Cholera	Ungraded	28-Sep-17	25-Sep-17	17-Oct-17	168	15	3	1.8%	The outbreak remains confined to Kasese District but has spread from 5 sub-counties (Nyakiyumbu, Munkunyu, Bwera, Isango, and MLTC) to include Ihandiro, Karambi, and Kyondo sub-counties; however, the daily incidence of new cases remains low.
Uganda	Marburg	G2	17-Oct-17	20-Sep-17	1-Nov-17	3	2	3	100%	Detailed update given above.
Zambia	Cholera	Ungraded	4-Oct-17	4-Oct-17	31-Oct-17	131	92	3	2.3%	The daily incidence of new cases has remained relatively low. Only one case has been confirmed culture positive. Cases have been reported from four sub-districts of Lusaka: Chipata (29), Kanyama (93), Chawama (3), Bauleni (1), and Matero (5). 50% of cases are aged <2 years.
Recently closed events										
Kenya	Drought/food insecurity	G1	10-Feb-17	n/a	24-Aug-17	-	-	-	-	As of 24 August, SMART surveys estimated the (low-medium-high) prevalence of global acute malnutrition (GAM) in Kenya at 2.6-22.9-32.8, and severe acute malnutrition (SAM) at 0.2-4.0-9.8%.
Madagascar	Food insecurity	Ungraded	23-Feb-17	n/a	15-Jul-17	-	-	-	-	Food insecurity continues in the south parts of the island. A recent food security assessment showed that from June to September 2017, an estimated 409 000 people (25% of the affected area population) will be in need of humanitarian assistance. A detailed update was provided in the week 30 bulletin.
Uganda	Drought/food insecurity	G1	1-Jul-17	n/a	24-Aug-17	-	-	-	-	This event forms part of a larger food insecurity crisis in the Horn of Africa. The northern and eastern regions are predominantly affected.

†Grading is an internal WHO process, based on the Emergency Response Framework. For further information, please see the Emergency Response Framework: <http://www.who.int/hac/about/erf/en/>.

Data are 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

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