

WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 3: 13 – 19 January 2018
Data as reported by 17:00; 19 January 2018



1

New event

55

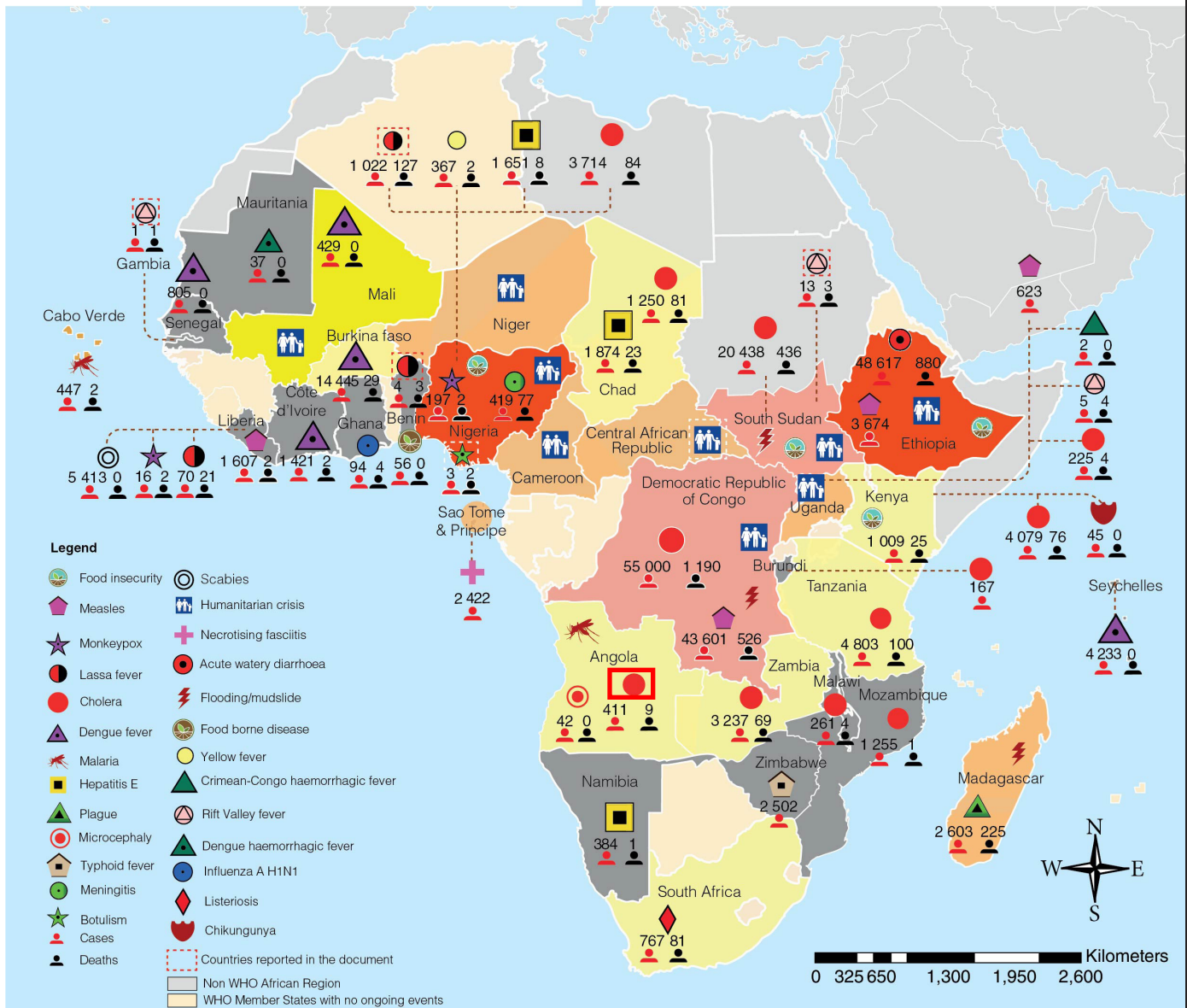
Ongoing events

45

Outbreaks

11

Humanitarian crises



2

Grade 3 events

6

Grade 2 events

8

Grade 1 events

37

Ungraded events

2

Protracted 3 events

0

Protracted 2 events

1

Protracted 1 event

Overview

Contents

- 1 Overview
- 2 - 8 Ongoing events
- 9 Summary of major challenges and proposed actions
- 10 All events currently being monitored

- This Weekly Bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 56 events in the region. This week's edition covers key new and ongoing events, including:
 - Botulism in Nigeria
 - Lassa fever in Benin
 - Lassa fever in Nigeria
 - Humanitarian crisis in Central African Republic
 - Suspected Rift Valley fever in South Sudan
 - Cholera in Angola
 - Suspected Rift Valley fever in The Gambia
- 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 botulism in Nigeria is of great concern because of the potential for a large increase in the number of cases associated with contamination of the food supply. The source of the toxin needs to be identified urgently and anti-toxin should be made available in country as soon as possible. Continuation of active surveillance is also needed to facilitate rapid detection and treatment of cases.
 - The humanitarian situation in Central African Republic has continued to deteriorate in 2018, with persistent internal displacement of the population and outbreaks of typhoid fever and acute watery diarrhoea particularly affecting the internally displaced population.

Ongoing events

Botulism

Nigeria

3
Cases

2
Deaths

66.6%
CFR

EVENT DESCRIPTION

On 9 January 2018, the Nigerian Centres for Disease Control (NCDC) was notified of two suspected cases of botulism from the Zenith Medical and Kidney Centre, involving a husband and wife. The woman, a 47 year-old, presented to King's Care Hospital, Abuja, on 7 January 2018, with vomiting, fever, sudden blurring of vision, generalized body weakness, dysphagia and odynophagia, and left ptosis. She was semi-conscious. She was initially diagnosed with ischaemic heart disease, with oesophageal stricture and central retinal vein thrombosis. However, her neurological symptoms worsened rapidly, progressing to complete bilateral ptosis, paralysis of her respiratory muscles, and respiratory failure. She was referred approximately 24 hours after admission and died in transit.

Her 49 year-old husband presented to the same hospital with nausea, dizziness, vomiting, progressive dysarthria, odynophagia and partial ptosis. He was transferred to Zenith Medical and Kidney Centre, where his symptoms worsened. He suffered progressive respiratory failure, which required a tracheostomy and ventilation, and died on 15 January 2018.

A third case, the 15-year-old daughter of the two initial cases, developed symptoms of heaviness of her eyelids and abdominal pain and nausea, and headache on 6 January 2018. By 8 January 2018 she had developed diplopia, which is now (16 January 2018) intermittent, with blurred vision. She was managed under close observation in the ward, with the Intensive Care Unit on standby. By 16 January 2018, her abdominal pain and headache had subsided, and she had no further nausea. As of 18 January 2018, she was still an inpatient at the Zenith Medical and Kidney Centre.

All three patients had normal results on analysis of full blood count, kidney and liver function tests, C reactive protein, erythrocyte sedimentation rate, and urine toxicology for a number of drugs. Botulinum toxin was suspected based on clinical signs. There are no facilities for testing for the toxin in Nigeria and botulinum anti-toxin is not available in the country, but WHO has taken steps to procure it. Treatment is supportive and laboratory confirmation of the toxin is awaited from samples sent to the Nigerian Viral Research Institute (NVRI), Jos, for bacterial culture and mouse neutralization assay.

All three cases had eaten fish at home in the previous 24 hours. Two further children, who stayed in the same house, are currently in Lagos and are being monitored remotely. A third child is in Karu, but monitoring has been hampered by uncooperative relatives.

PUBLIC HEALTH ACTIONS

- ▶ The NCDC is collaborating with WHO, the Centers for Disease Control, Atlanta, the African Field Epidemiology Network, and other partners for definitive laboratory diagnosis and to secure botulinum anti-toxin.
- ▶ WHO secured the anti-toxin, and as of 19 January 2018, it had arrived in Nigeria.
- ▶ A rapid response team (RRT) was mobilized as the cases were reported. The RRT monitored cases on admission and reviewed clinical case notes. The remaining three children from the household are being followed up daily to detect early symptoms if they arise.
- ▶ Food samples collected from the house of the case patients are being analyzed at the NVRI to determine the source of the toxin.
- ▶ The case patient admitted to the Zenith Medical and Kidney Centre is being closely followed daily.

SITUATION INTERPRETATION

Foodborne botulism is a life-threatening, rapidly progressing disease caused by *Clostridium botulinum*, a spore-forming, motile bacterium, which produces the neurotoxin botulinum (BoNT). A single case is regarded as a public health emergency as it may herald a larger outbreak. In this case, diagnosis was made on clinical suspicion while awaiting laboratory confirmation. Anti-toxin is the only definitive treatment and should be administered within 24 hours of ingestion of the toxin, although later administration leads to faster recovery. If this is not available, therapy is supportive, including long-term ventilation if necessary. Full recovery is possible, but the disease causes severe morbidity.

The Nigerian health authorities, with active help from partners, need to identify the source of the toxin urgently and continue active surveillance so any new cases can be identified and treated early in the course of the illness. It is important that anti-toxin be made available in country as soon as possible.

Geographical distribution of suspected botulism cases in Nigeria, 9 - 16 January 2018



EVENT DESCRIPTION

On 8 January 2018, a suspected case of viral haemorrhagic fever was reported from the Tanguiéta-Matéri-Cobly health zone of the Boukoubé commune in Benin. The index case was a 35 year-old male residing in Nigeria but originally from Nadoba village in Togo, which borders Boukoubé.

He became ill on 15 December 2017 while in Nigeria and travelled to Nadoba to stay with relatives. On 8 January 2018 he was admitted in the Saint Jean de Dieu hospital in Tanguiéta in Benin with symptoms including high grade fever, haematemesis, bleeding gums, conjunctivitis and abdominal pain. He died on 9 January 2018 and a safe and dignified burial was conducted on 10 January 2018 in Boukoubé. On 13 January 2018, blood samples sent to the national laboratory in Cotonou tested positive for Lassa fever by PCR.

As of 17 January 2018, a cumulative total of four cases including three deaths (case fatality rate 75.0%) had been reported from Boukoubé commune (one confirmed/index and one suspected) and Toucountouna commune (one probable and one suspected). All four cases initially developed symptoms while residing in Nigeria and subsequently travelled to Benin. To date, in Benin, 144 contacts have been identified, including 47 (32%) in health facilities and 97 in the community. There are also contacts that are being followed in Togo.

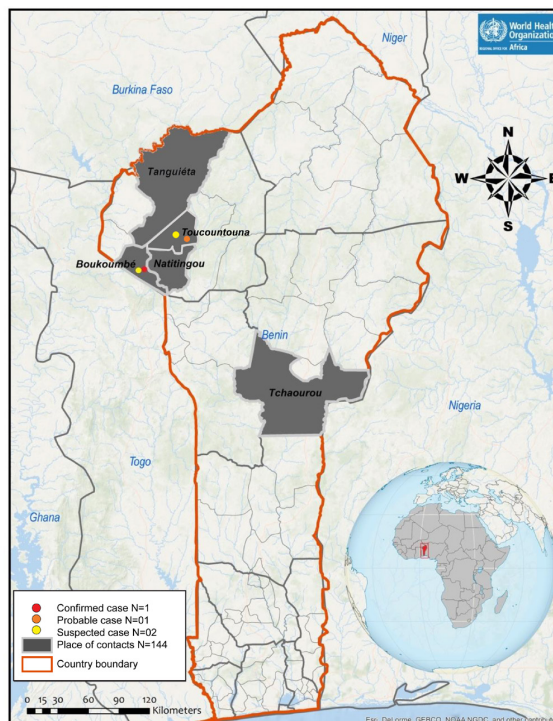
PUBLIC HEALTH ACTIONS

- WHO is supporting the Ministry of Health in the coordination of surveillance and response activities.
- A national rapid response team has been deployed to affected communes to support the local teams.
- The National Director of Public Health has briefed the media regarding Lassa fever.
- Contact tracing has been initiated in affected districts. Eighty contacts are currently under 21-day follow-up in five communes: Boukoubé (36), Natitingou (28), Tanguiéta (9), Toucountouna (5), and Tchaourou (2). Sixty-four additional contacts in Togo (Nadoba) are being followed up by Togolese authorities.
- All health workers have been orientated in the detection and management of suspected Lassa fever cases.
- Personal protective equipment has been supplied to health facilities involved in Lassa fever case management.
- Risk communication and social mobilization activities have been intensified in the affected communities.
- Traditional healers and community leaders have been sensitized on Lassa fever prevention and control measures.

SITUATION INTERPRETATION

The most recent Lassa fever outbreak in Benin occurred in February 2017 and also involved case importation from Nigeria. Lassa fever is endemic in bordering Nigeria and given the frequent population movements between Nigeria and Benin, the occurrence of additional cases is not unexpected. Strengthening of cross-border collaboration and information exchange between the two countries is therefore needed. Furthermore, infection prevention and control measures should be enhanced in health facilities to mitigate the risk of transmission to healthcare workers. Finally, concerted efforts should be made to strengthen active surveillance in order to improve early case detection and management and reduce case fatality.

Geographical distribution of Lassa fever cases in Benin,
8 – 17 January 2018



EVENT DESCRIPTION

On 15 January 2018, WHO was notified of a new cluster of five Lassa fever cases reported from Ebonyi State. The index case was a 15 year-old boy from Abakaliki local government area who was admitted to hospital on 28 December 2017 with fever, unconsciousness, and bleeding from the mouth and nose. He died a few days later. Four healthcare workers (HCWs) who treated the index case fell ill. Three of the infected HCWs died (on 14 January and 15 January 2018) and the fourth remains hospitalized. Samples taken from the HCWs tested positive for Lassa fever by PCR. A total of 139 contacts have been identified and are being monitored.

This Lassa fever cluster is part of an ongoing outbreak. Since the resurgence of the current wave in December 2016 (week 49), a total of 1 022 suspected cases including 127 deaths (case fatality rate 12%) were reported as of 24 December 2017. 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). In week 1 of 2018 (ending 7 January 2018), one confirmed case was reported from Bauchi State.

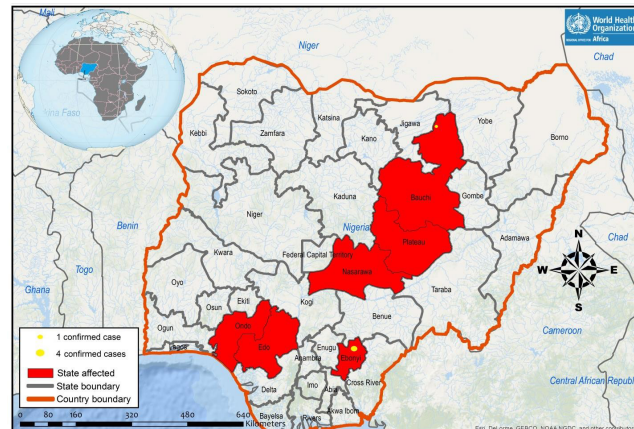
PUBLIC HEALTH ACTIONS

- ▶ The Nigeria Centre for Disease Control Lassa fever response working group is leading coordination of weekly Lassa fever review meetings with participation by WHO, MSF, US CDC, and other partners.
- ▶ The Ebonyi State Emergency Outbreak Committee has been activated by the state governor and meets daily to coordinate response activities.
- ▶ Funds have been released by the Ebonyi State government to initiate the response, with particular focus on ensuring case management.
- ▶ Active case finding and monitoring of contacts is ongoing in Ebonyi State.
- ▶ A standard Lassa fever case definition has been shared for posting in health facilities.
- ▶ Community sensitization activities are ongoing and radio jingles are planned.
- ▶ Clinician sensitization is planned for Ebonyi State.

SITUATION INTERPRETATION

Lassa fever is endemic in Nigeria. However, the recent cluster of cases in Ebonyi State suggests that current preparedness and response activities are insufficient to prevent significant morbidity and mortality. Implementation of measures to prevent infection among healthcare workers, including infection prevention and control and clinician sensitization to Lassa fever, are urgently needed to prevent future transmission of Lassa fever in healthcare facilities. Continuation of enhanced surveillance in Ebonyi State and other states affected by the outbreak is also advisable to facilitate early detection and treatment of new cases.

Nigerian States with active Lassa fever transmission,
1 – 16 January 2018*



*Please note that because national data were available through 7 January 2018 at the time of weekly bulletin publication, these data may not be complete for the 7 – 16 January reporting period.

EVENT DESCRIPTION

The humanitarian crisis in Central African Republic continues, mainly in the central area of the country. Over the course of 2017, the number of internally displaced people (IDPs) increased from 430 000 to 680 000. New IDPs have also arrived in the towns of Boguilia and Markoundia on the Chad border. The town of Paoua, in the northwest of the country, continues to receive newly displaced people. As of 12 January 2018, 12 506 households were registered in Paoua. Humanitarian actors in the region are mobilizing to assess the needs of these people. Healthcare is being provided by Médecins Sans Frontières (MSF) and the Mentor Initiative. The region is in the meningitis belt, and the influx of people increases the risk of this disease, as well as of measles. The sub-prefecture of Ngaoundaye, on the Cameroon border, received 725 IDPs fleeing violence in Kowane village, Ndim, who were registered with host families by Red Cross volunteers.

Cases of typhoid fever continue to be recorded in Bria. Between March 2017 and January 2018, a total of 25 cases, including two deaths (case fatality rate 8%), have been recorded, with the highest number of cases observed in November 2017. The largest proportion of cases (40%) come from the Pk3 IDP site in Bria. There were 273 cases of acute watery diarrhoea reported between weeks 48 and 52 of 2017 in the same site.

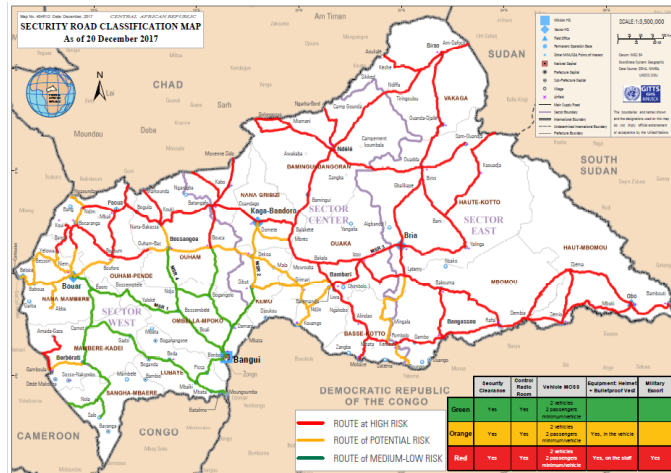
PUBLIC HEALTH ACTIONS

- A joint mission of WHO, Peace Mediation Platform, Institut Pasteur de Bangui and MSF is planned to investigate the sources of the typhoid and acute watery diarrhoea in the Pk3 site. Water, sanitation and hygiene (WASH) partners are committed to improving access to safe water, soap, latrines and the extension of the current Pk3 IDP site to decrease population density.
- A multi-agency vaccination plan, targeting 17 300 children aged 0 to 5 years is being developed in collaboration with the Expanded Programme on Immunization.
- The Health Cluster is leading an initiative to stock sufficient insecticide-treated mosquito nets to ensure mass distribution. The current need is estimated at 20 000 nets.
- WHO supported strengthening monitoring of meningitis cases by supplying MSF with transport medium for cerebrospinal fluid samples.
- MSF is providing support for rape survivors and provides medical management of rape cases, while the Danish Refugee Council provides psychosocial care.

SITUATION INTERPRETATION

The ongoing security situation in Central African Republic continues to severely limit provision of humanitarian assistance, particularly to the populations in the centre of the country, who are most affected by violence. In spite of this, WHO continues to lead health coordination and provide strategic guidance, as well as technical and logistical support to operational partners. However, as the dry season progresses, with the concomitant movement of people and livestock between grazing grounds, the ever-present risk of meningitis and other epidemic-prone diseases, and potential intensification of violence by armed groups in the centre and northeast of the country, an even greater need for humanitarian assistance could be anticipated and should be planned for. Insecurity in the region needs to be addressed urgently.

Security road classification map of Central African Republic, as of 20 December 2017

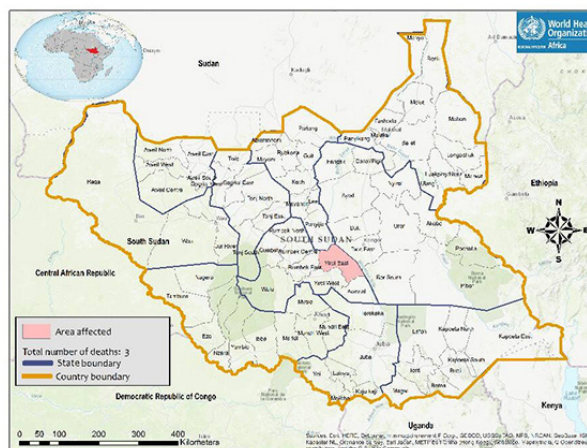


EVENT DESCRIPTION

WHO continues to closely monitor the outbreak of suspected Rift Valley fever (RVF) in Eastern Lakes State, South Sudan. Since our last report on 12 January 2018 (*Weekly Bulletin 2 of 2018*), six new suspected cases have been reported and are being investigated. One suspected case, a 14 year-old girl from Yirol West, has been excluded from national case counts based on negative PCR and serology results. This week, a blood sample was collected from an 18 year-old pregnant female who was a contact of one of the initial cases, and results are pending. Results from blood samples collected from six other suspected cases are also pending. Of seven samples collected from animals (two sheep, two goats, and three cows), one sample collected from a sick cow showed high RVF IgG titres indicative of previous RVF infection. The other samples were negative for RVF on serology.

On 28 December 2017, the Ministry of Health of South Sudan reported a cluster of three severe haemorrhagic cases, which were epidemiologically linked by place (all occurred in Thonabutkok village) and time (onset of illness during epidemiological weeks 49 and 51). There was no close physical contact between the cases and no history of travel. Sixty contacts have been identified and are being followed up. Goats, sheep, and cattle in the area also showed evidence of zoonotic haemorrhagic illness. One death was reported in a wild bird.

Geographical distribution of suspected Rift Valley fever cases in South Sudan, 7 December 2017 – 18 January 2018



PUBLIC HEALTH ACTIONS

- The national and state level multi-sectoral taskforces continue to coordinate investigations and response activities. The Ministry of Health continues to convene regular multi-sectoral and inter-agency coordination meetings, with participation by the Ministry of Animal Health Resources and Fisheries, WHO, FAO, Health Cluster and partners. The state level taskforce holds daily coordination meetings, with technical support from the national Ministry of Health, the Ministry of Livestock, WHO, and partners.
- A One Health multidisciplinary rapid response team led by the Ministry of Health and the Ministry of Livestock continue to support investigation and response activities in Yirol East.
- A multi-sectoral outbreak investigation and viral haemorrhagic fever response plan is to be finalized.
- Two laboratories, the Uganda Virus Research Institute (UVRI) and Institut Pasteur Dakar (IPD), have been identified to conduct any further laboratory testing required. US Centers for Disease Control and Prevention (CDC) are on standby to support sample collection and testing.
- US CDC shared generic RVF risk communication materials for adaptation to the South Sudan context, and UNICEF has drafted key risk communication messages for affected communities, which have begun to be disseminated to mobilize communities.
- There is no designated treatment centre for managing new suspected cases, but there are plans for one to be established. Adequate supplies of personal protective equipment and sample collection kits are available to support current outbreak response needs.
- Regular updates will be disseminated using situation reports and press releases as the situation evolves.

SITUATION INTERPRETATION

The suspected RVF outbreak in South Sudan should continue to be closely monitored. Despite insecurity in the area which impedes access, surveillance in human and animal populations needs to be scaled up rapidly to detect new human and animal cases in a timely fashion, and continued support from partners and international laboratories may be needed to support testing of animal and human cases. Clinical capacity to manage any new cases, with infection prevention and control, should also be enhanced in affected areas. Although investigational findings available to date indicate that Rift Valley fever is the etiological agent of this outbreak, more substantial confirmation is needed.

EVENT DESCRIPTION

An outbreak of cholera was detected on 21 December 2017, when two suspected cases with a history of travel to Kimpangu in the Democratic Republic of the Congo presented to a healthcare facility in Uíge District, Uíge Province. The number of cases increased rapidly at the start of the outbreak and as of 17 January 2018, 411 cases and nine deaths (case fatality rate 2.2%) have been reported. Since 6 January 2018, the daily number of suspected cases has slowed from approximately 30 to 15 reported cases. The majority of cases are from the suburban area around the centre of the city of Uíge, which has limited access to safe water and improved sanitation. Most (63%) cases were 15 years of age or older; 25% of cases were aged 5-14 years. The majority (57%) of the cases were female. Only 19% of the cases reported using a piped water supply as their main source of drinking water; 26% of cases reported using river water, and 54% reported using wells. Of the nine deaths, six occurred in the community and three in healthcare facilities. The National Public Health Laboratory confirmed the presence of *Vibrio cholerae* by culture in samples from a total of four cases, including the two initial cases.

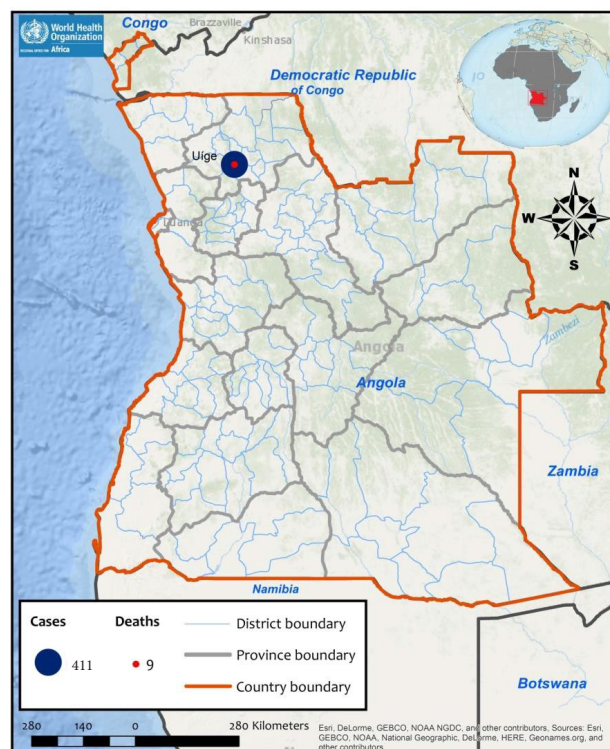
PUBLIC HEALTH ACTIONS

- ▶ The Ministry of Health convened a multisectoral national response committee, which has deployed a multidisciplinary rapid response team to Uíge and is coordinating the response with local authorities, WHO, UNICEF, Médecins Sans Frontières (MSF), and other partners.
- ▶ On 26 December 2017, a cholera treatment centre was established by the Ministry of Health and medicines and disinfection materials were deployed to the area from 29 December after local stocks were exhausted.
- ▶ Active surveillance was initiated on 29 December 2017 and case investigations are ongoing. Community surveillance staff have been trained and are assisting in scale up of surveillance in Uíge district and other at-risk areas.
- ▶ Collaboration between the Ministry of Health, UNICEF, MSF, and WHO is ongoing to support the provision of WASH interventions, cholera kits, and technical assistance to the area.
- ▶ The Ministry of Communications is leading the development and implementation of risk communication strategies and social mobilization activities, with participation by UNICEF and WHO.
- ▶ The National Public Health Laboratory has received guidelines for cholera testing, and upgrading of provincial and district level standard operating procedures for cholera testing is ongoing.
- ▶ The country is preparing a request for oral cholera vaccine (OCV) to be submitted to the International Coordinating Group on Vaccine Provision (ICG) in order to target cholera hotspots in Uíge province.

SITUATION INTERPRETATION

Cholera is endemic in Angola, with an increase in the number of cases observed during the rainy season from September to April. The high volume of transit from Uíge to Luanda and other parts of the country, poor sanitation in impoverished suburban areas, and limited access to treatment in affected communities, increase the risk of morbidity and mortality associated with this outbreak. Uíge province shares an international border with the Democratic Republic of the Congo, where a nationwide cholera outbreak is ongoing, but lower international traffic across this border suggests that spread of the disease in-country is more likely than spread to neighbouring countries. Improved access to safe water and sanitation and hygiene practices, reinforcement of surveillance, and increased access to appropriate case management should be implemented in the affected areas to limit the public health impact of the outbreak. National preparedness to rapidly detect and respond to the outbreak will be needed to decrease the risk of spread to new areas. The use of oral cholera vaccine to limit the spread should also be considered to prevent cholera transmission.

Geographical distribution of cholera cases in Angola,
21 December 2017 – 17 January 2018

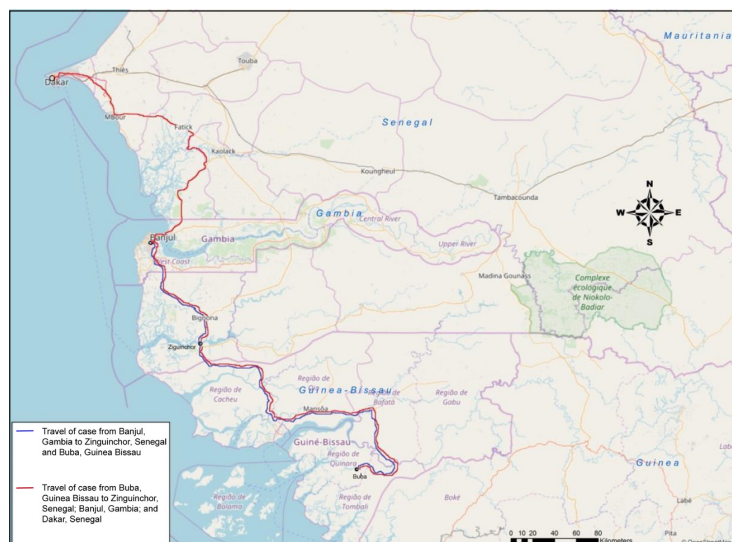


EVENT DESCRIPTION

On 3 January 2018, the Ministry of Health of Senegal notified WHO of a case of Rift Valley fever (RVF) reported from a hospital in Dakar. On 29 December 2017, a blood sample taken from a 52-year-old Korean man, resident in the Gambia, done at the Institute Pasteur Dakar, was positive for RVF on IgM testing. Previous PCR testing had been negative for RVF and other arboviruses. The case patient worked for a fishing company in the Gambia and had no known history of handling raw meat.

On 5 December 2017, the case patient travelled with his brother and two colleagues from Banjul, the Gambia, to Ziguinchor, Senegal. On 8 December 2017, the case patient continued travelling with his brother, a colleague, and a driver, from Ziguinchor to Bissau, Guinea-Bissau, and continued to Buba the following day. On 10 December 2017, the case patient returned from Buba to Bissau, and presented with a dry cough, fever, headache, and joint pain. His brother and the driver also developed a dry cough on 10 December 2017, which improved the following day. The group returned to the Gambia (via Ziguinchor) on 12 December 2017. The case patient, however, continued to suffer a persistent cough during this time. On his return to Banjul, he additionally developed fever, headache, and vertigo. He was hospitalized on 20 December 2017 and diagnosed with severe malaria. On 23 December 2017, he became delirious and developed psychomotor agitation, profuse mucousy diarrhoea, bile-stained vomiting, and haemorrhage. On 25 December 2017, he became comatose and was evacuated by ambulance to Dakar. His symptoms improved and blood samples were taken on 26, 28, and 30 December 2017. However, he experienced a recurrence of haemorrhagic symptoms on 31 December 2017 and died the same day.

Travel route of Rift Valley Fever case reported from The Gambia, 5 - 25 December 2017

**PUBLIC HEALTH ACTIONS**

- ▶ A case investigation was conducted by a multidisciplinary team from the Centre of Health Emergency Operations of the Ministry of Health of Senegal.
- ▶ As part of this investigation, blood samples were collected from the brother of the case and the colleague and driver who accompanied him to Guinea-Bissau. These samples were all negative for RVFV by PCR.
- ▶ The results of the investigation and recommendations for action from the Ministry of Health of Senegal are pending.
- ▶ A case investigation was conducted by a multidisciplinary team from the Epidemic and Disease Control Unit of the Ministry Health of the Gambia. Enhanced RVF surveillance in the animal population and community RVF sensitization have been implemented in the country.

SITUATION INTERPRETATION

Outbreaks of RVF are uncommon in The Gambia and its neighbouring countries. The last documented human case of RVF in the Gambia was reported in 2002. There is currently no indication of risk of a major RVF outbreak in the Gambia, Senegal, or Guinea-Bissau.

Heavy rainfall, causing flooding and mass emergence RVF vectors, *Aedes* and *Culex* spp. mosquitoes, is closely associated with RVF outbreaks. Uncontrolled movement of livestock can increase the risk of spread of the disease to new areas. RVF can cause trade reductions and important economic losses due to high mortality and abortion rates among infected livestock. Integrated control measures that address both human and animal health are therefore necessary (e.g. preventive animal vaccination, vector control, control of animal movements, educational campaigns for populations at risk).

Summary of major challenges and proposed actions

Challenges

- ✦ The lack of in-country availability of anti-toxin remains an important challenge to the response to the botulism outbreak in Nigeria. The source of exposure to the toxin also remains unidentified, and rapid epidemiological investigations are needed to inform public health actions.
- ✦ Increasing internal displacement of people in Central African Republic and the ongoing outbreaks of infectious disease, particularly affecting internally displaced people, remain challenging to address, particularly in light of the ongoing situation of insecurity in the country. Particular attention should be paid to implementing interventions in internally displaced populations at greatest risk for epidemics in order to minimize morbidity and mortality associated with the ongoing humanitarian crisis.

Proposed actions

- ✦ The national authorities in Nigeria and partners urgently need to make anti-toxin available in-country to treat current and future botulism cases. WHO and partners should continue to provide logistical and technical support for the current investigations by the rapid response team to facilitate urgent identification of the source of toxin exposure and remove it from the food supply.
- ✦ In light of current trends in internal displacement, there is a continuing need to scale up response activities in Central African Republic, particularly to address the needs of internally displaced populations. Additional attention and support from international humanitarian actors will be needed to adequately respond to the needs of the populations affected by this crisis.

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
New events										
Liberia	Scabies	Ungraded	11-Jan-18	11-Dec-17	10-Jan-18	5 413	17	0	0.0%	A total of 5 413 cases have been reported from five counties: Montserrado (4 210), Grand Bassa (687), Rivercess (315), Margibi (185), and Bong (16). All 17 confirmed cases have been reported from Montserrado county.
Ongoing events										
Angola	Cholera	G1	2-Jan-18	21-Dec-17	17-Jan-18	411	4	9	2.2%	Detailed update given above.
Angola	Malaria	Ungraded	20-Nov-17	n/a	30-Sep-17	-	-	-	-	The outbreak has been ongoing since the beginning of 2017. In the province of Benguela, a total of 311 661 malaria cases were reported from January to September 2017 as compared to 244 381 reported in all of 2016. In the province of Huambo, 155 311 malaria cases were reported from January to September 2017, as compared to 82 138 cases during the same period in 2016. Epidemiological investigations are ongoing in these two contiguous provinces.
Angola	Microcephaly - suspected Zika virus disease	Ungraded	10-Oct-17	End September	29-Nov-17	42	-	-	-	A cluster of microcephaly cases was detected in Luanda in late September 2017 and reported on 10 October 2017 by the provincial surveillance system. Of the 42 cases, three were stillbirths and 39 were live births. Suspected cases have been reported from Luanda province (39), Zaire province (1), Moxico province (1), and Benguela province (1).
Benin	Lassa fever	Ungraded	13-Jan-18	8-Jan-18	17-Jan-18	4	1	3	75.0%	Detailed update given above.
Benin	Foodborne disease	Ungraded	29-Nov-17	27-Nov-17	1-Dec-17	56	-	0	0.0%	56 individuals residing in Sissèkpa became immediately ill with symptoms of vomiting after consuming a root vegetable locally known as "Léfè". Animals that were exposed to the vomit have reportedly died. The root vegetable has been collected for further analysis. Cases are currently under follow-up.
Burkina Faso	Dengue fever	G1	4-Oct-17	1-Jan-17	10-Dec-17	14 445	-	29	0.2%	Weekly case counts have decreased since week 44. The majority (62%) of cases have been reported in the central region, notably in Ouagadougou (the capital). Dengue virus serotypes 1, 2, and 3 are circulating, with serotype 2 predominating (72%).
Burundi	Cholera	Ungraded	20-Aug-17	15-Aug-17	6-Dec-17	167	14	0	0.0%	As of 6 December 2017, a cumulative total of 167 cases and no deaths were reported from 6 districts: DS Nyanza lac 30 cases, DS Mpanda 31 cases, DS Cibitoke 35 cases, DS Isare 33 cases, DS Bubanza 31 cases, and DS B M Nord 6 cases.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Cameroon	Humanitarian crisis	G2	31-Dec-13	27-Jun-17	3-Nov-17	-	-	-	-	In the beginning of November, the general security situation in the Far North Region worsened. Terrorist attacks and suicide bombings are continuing and causing displacement. 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. To date, more than 58 838 refugees from Nigeria are present in Minawao Camp, and more than 21 000 other refugees have been identified out of the camp. In addition, approximately 238 000 internally displaced people have been registered.
Cape Verde	Malaria	G2	26-Jul-17	1-Jan-17	20-Dec-17	447	-	2	0.4%	As of 20 December, a total of 447 cases have been reported including 418 indigenous, 12 imported cases, and 17 reinfections/recurrences. Two deaths have been reported (1 in an indigenous case and 1 in an imported case). The outbreak has been contained to the city of Praia. Cases reported from other areas/islands likely acquired the infection during travel to Praia or overseas, and there is currently no evidence of indigenous transmission outside of Praia.
Central African Republic	Humanitarian crisis	G2	11-Dec-13	11-Dec-13	15-Jan-18	-	-	-	-	Detailed update given above.
Chad	Hepatitis E	G1	20-Dec-16	1-Aug-16	3-Dec-17	1 874	98	23	1.2%	Outbreaks are ongoing in the Salamat Region predominantly affecting North and South Am Timan, Amsinéné, Mouraye, Foulonga and Aboudeia. The number of cases has been decreasing since week 39. Of the 64 cases in pregnant women, five died (CFR: 7.8%) and 20 were hospitalized. Water chlorination activities were stopped at the end of September 2017 due to a lack of partners and financial means. Monitoring and case management are continuing.
Chad	Cholera	G1	19-Aug-17	14-Aug-17	10-Dec-17	1 250	9	81	6.5%	The case incidence has been decreasing since week 43. In week 49, no new cases were reported. A total of 817 cases and 29 deaths were reported in the Salamat region from 11 September 2017 to 10 December 2017. No new cases have been reported in the Sila Region since 22 October 2017.
Cote d'Ivoire	Dengue fever	Ungraded	3-May-17	22-Apr-17	16-Dec-17	1 421	322	2	0.1%	The outbreak has been on a downward trend since week 35, with no cases being reported in weeks 49 and 50. This is likely due to the decrease in rainfall. Abidjan remains the epicentre of this outbreak, accounting for 95% of the total reported cases. 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, 50 samples were confirmed IgM positive by serology.
Democratic Republic of the Congo	Flood	Ungraded	20-Nov-17	20-Nov-17	11-Jan-18	-	-	-	-	From 4-7 January 2018, a flooding event occurred in Kinshasa. The flood resulted in 45 deaths, 5 100 flooded homes, 192 collapsed houses and 2 damaged cholera treatment centres (CTCs). The flood affected areas of Kinshasa that are currently reporting cholera cases resulting in an upsurge in the incidence of cholera.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Democratic Republic of the Congo	Humanitarian crisis	G3	20-Dec-16	17-Apr-17	7-Jan-18	-	-	-	-	The humanitarian crisis remains serious. An estimate of 13.1 million is in need of emergency aid assistance, including around 4.3 million Internally Displaced Persons (IDPs), and 552 000 refugees. In addition, an estimated 7.7 million people are at risk of critical food insecurity. More than 74% of the country's total IDPs are from Kasai region, North and South Kivu. During week 1 of 2018, security incidents were reported in Central Kasai, including an attack on the Kananga airport and a fight between two villages.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-17	7-Jan-18	55 000	841	1 190	2.2%	The trend of the outbreak continues to improve nationwide. During week 52 a total of 888 suspected cases and 19 deaths (CFR: 2.1%) were reported, compared to 939 suspected cases and 16 deaths (CFR: 1.7%) during week 50. Despite this general downward trend, an upsurge of cases has been noted during week 52 in the provinces of South Kivu (23.8%), Tanganyika (26.0%) and especially Kinshasa (310%), compared to week 51. From 4-7 January 2018, a flooding event affected areas of Kinshasa that are currently reporting cholera cases. As of 11 January 2018, 697 cholera cases with 53 deaths (CFR: 7.6%) were reported across 21 health zones.
Democratic Republic of the Congo	Measles		10-Jan-17	2-Jan-17	23-Dec-17	43 601	624	526	1.2%	The trend of the outbreak has decreased this week. During week 50, a total of 396 cases and 2 deaths (CFR: 0.5%) were reported, compared to 692 cases and 4 deaths (CFR: 0.6%) in week 49. Most of the suspected cases this week were reported from South Kivu province.
Ethiopia	Humanitarian crisis	Protracted 3	15-Nov-15	n/a	3-Dec-17	-	-	-	-	This complex emergency includes outbreaks (acute watery diarrhoea, measles, and acute jaundice syndrome), the severe drought across northern, eastern, and central Ethiopia, and high levels of food insecurity and malnutrition. An estimate of 8.5 million people are food-insecure and in need of humanitarian assistance. 6.3 million people are in need of health assistance and 0.4 million children are severely malnourished. Estimates of the number of internally displaced people range from 660 000 to 900 000. Over 889 071 refugees have left Ethiopia as a result of this crisis.
Ethiopia	Acute watery diarrhoea (AWD)		15-Nov-15	1-Jan-17	3-Dec-17	48 617	-	880	1.8%	The outbreak is showing a downward trend. Only 11 new cases have been reported this week from 4 regions: Amhara, Somali, Dirir Dawa and B. Gumuz regions. Nine regions in Ethiopia have been affected, and 73.6% of the total cases are from Somali region.
Ethiopia	Measles		14-Jan-17	1-Jan-17	24-Nov-17	3 674	-	-	-	The outbreak of measles continues to improve. During week 47, 37 cases were reported from Dollo zone and Jijiga City. Oromia Region remains the most affected region with approximately 46% of the total reported cases, followed by Amhara (21%), Addis Ababa (16%) and Somali (20%).
Gambia	Rift Valley fever (RVF)	Ungraded	3-Jan-17	25-Dec-17	16-Jan-18	1	1	1	100.0%	Detailed update given above.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Ghana	Influenza A H1N1	Ungraded	6-Dec-17	30-Nov-17	14-Dec-17	94	0	4	4.2%	On 6 December 2017, the Ministry of Health notified WHO of a focal outbreak of influenza A H1N1 in a school in Kumasi City, Ashanti Region. As of 14 December 2017, 94 cases with four deaths (CFR: 4.2%) have been reported. Thus far, the disease is still localized in the school as no cases have been reported among community members.
Kenya	Chikungunya	Ungraded	mid-December 2017	mid-December 2017	8-Jan-18	45	27	-	-	In mid-December 2017, Mombasa County received reports of increased cases of unknown febrile illness that presented with very high fever, joint pains and general body weakness. 45 suspected cases were reported across 6 sub-counties: Mvita, Kisauni, Nyali, Changamwe, Jomvu and Likoni. On 4 January 2018, 32 samples were shipped to the KEMRI laboratory and 27 tested positive for chikungunya on PCR.
Kenya	Cholera	G1	6-Mar-17	1-Jan-17	7-Dec-17	4 079	724	76	1.9%	The outbreak is still ongoing and 7 counties are actively reporting cases: Nairobi, Garissa, Mombasa, Wajir, Kwale, Embu, and Kirinyaga counties. Approximately 60% of the cases are reported from Nairobi county.
Liberia	Suspected monkeypox	Ungraded	14-Dec-17	1-Nov-16	14-Dec-17	16	0	2	12.5%	During weeks 48 and 49 of 2017, three suspected cases of Monkeypox were reported from Maryland and Rivercess counties. Since November 2016, a cumulative of 16 suspected cases and two deaths have been reported in Grand Cape Mount(4), Rivercess(11) and Maryland(1). No cases have been confirmed to date and laboratory confirmation is ongoing.
Liberia	Measles	Ungraded	24-Sep-17	6-Sep-17	3-Dec-17	1 607	255	2	0.1%	From week 1 to week 48, 1 607 cases were reported from 15 counties, including 225 laboratory confirmed, 336 clinically compatible and 199 epi-linked. Nimba county has had the greatest cumulative number of cases to date (235). Children between 1-4 years accounted for 49% of the cases.
Liberia	Lassa fever	Ungraded	14-Nov-17	1-Jan-17	24-Nov-17	70	28	21	30.0%	On 10 November 2017, four suspected cases of Lassa fever were reported from Phebe Hospital in Suakoko district, Bong County. One of the cases tested positive by RT-PCR and the other three tested negative. Since the beginning of 2017, a total of 70 suspected Lassa fever cases including 21 deaths (CFR: 30%) have been reported from nine counties in Liberia.
Madagascar	Cyclone	Ungraded	5-Jan-18	5-Jan-18	6-Jan-18	-	-	-	-	On 5 January 2018, tropical Cyclone AVA reached the East coast of Madagascar. The most affected regions were Analanjirofo, Atsinanana and Vatovavy-Fitovinany. As of 6 January 2018, 1 009 people had been affected, including 695 displaced. Two dead and 21 injured were reported in the Atsinanana region.
Madagascar	Plague	G2	13-Sep-17	13-Sep-17	7-Jan-18	2 603	526	225	8.6%	Cases include pneumonic (2 005, 77%), bubonic (393, 15%), septicaemic (1) and unspecified (204, 8%) forms of disease. Of the 2 005 clinical cases of pneumonic plague, 397 (20%) have been confirmed, 632 (32%) are probable and 976 (49%) remain suspected. The trend in the number of cases has been decreasing since 10 October 2017.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Malawi	Cholera	Ungraded	28-Nov-17	20-Nov-17	14-Jan-18	261	5	4	1.5%	During week 2 of 2018, 68 new cases were reported. . As of 14th January 2018, a total of 261 cases including 4 deaths had been reported from 6 districts- Karonga, 194 cases (4 deaths); Nkhatabay, 18 cases (no death); Kasungu, 1 case (no death), Dowa, 4 cases (no death), Salima 9 cases (no death) and Lilongwe 35 cases (no death). No cases have been reported from the remaining districts in Malawi.
Mali	Dengue fever	Ungraded	4-Sep-17	1-Aug-17	10-Dec-17	429	33	0	0.0%	In week 49, no suspected cases were reported. No confirmed cases have been reported since week 41. All cases have been reported from Bamako and the Kati health district northwest of Bamako.
Mali	Humanitarian crisis	Protracted 1	n/a	n/a	19-Nov-17	-	-	-	-	The security situation remains volatile in the north and centre of the country. At the last update, incidents of violence had been perpetrated against civilians, humanitarian workers, and political-administrative authorities.
Mauritania	Dengue haemorrhagic fever	Ungraded	30-Nov-17	6-Dec-17	13-Dec-17	37	37	-	-	On 30 November 2017, the MoH notified 3 cases of dengue fever including one haemorrhagic case (Dengue virustype 2) with history of Dengue virus type 1 infection in 2016. Out of 100 samples collected at the Te-yarett health centre, 83 cases tested positive for dengue on RDT. On 12 December 2017, the national reference laboratory confirmed the diagnosis of 37 out of 49 RDT positive samples collected between 16 November and 11 December 2017.
Mozambique	Cholera	Ungraded	27-Oct-17	12-Aug-17	15-Dec-17	1 255	-	1	0.1%	The cholera outbreak is ongoing. Cases have been reported from three districts (Memba, Erati, and Nacaroa) in Namapula province. The outbreak started in mid-August 2017 from Memba district. Erati district started reporting cases from week 41 and Nacaroa started reporting cases from week 42.
Namibia	Hepatitis E	Ungraded	18-Dec-17	14-Dec-17	16-Jan-18	384	31	1	0.3%	A total of 384 cases have been seen at health facilities in Windhoek district. Thirty-nine percent of cases were reported from Havana informal settlement within the capital district. The trend in the number of cases is increasing.
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 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	Humanitarian crisis	Protracted 3	10-Oct-16	n/a	17-Dec-17	-	-	-	-	The protracted conflict has resulted in widespread population displacement, restricted access to basic social services, including healthcare and protection needs, and a deepening humanitarian crisis. An estimated 8.5 million people have been affected and are in need of life-saving assistance, including 1.7 million IDPs.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Cholera (nation wide)	Ungraded	7-Jun-17	1-Jan-17	10-Dec-17	3 714	43	84	2.3%	Between weeks 1 and 49, 3 714 cases were reported from 20 states compared to 727 suspected cases from 14 states during the same period in 2016. The cumulative total of cases and deaths in 2017 surpasses that observed during the same period in 2016 (727 suspected cases, 32 deaths).
Nigeria	Botulism	Ungraded	12-Jan-18	9-Jan-18	16-Jan-18	3	-	2	66.7%	Detailed update given above.
Nigeria	Lassa fever	Ungraded	24-Mar-15	1-Dec-16	24-Dec-17	1 022	308	127	12.4%	Detailed update given above.
Nigeria	Hepatitis E	Ungraded	18-Jun-17	1-May-17	31-Dec-17	1 651	182	8	0.6%	The number of cases has been decreasing since week 51. Forty-three new cases were reported in Kala/Balge LGA in week 52 (ending 31 December 2017).
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	10-Jan-18	367	33	45	12.3%	A total of 367 suspected cases have been reported from sixteen states: Abia, Anambra, Borno, Edo, Enugu, Kano, Katsina, Kebbi, Kogi, Kwara, Lagos, Nasarawa, Niger, Oyo, Plateau, and Zamfara. Thirty-three cases from seven states (Kano, Kebbi, Kogi, Kwara, Nasarawa, Niger, and Zamfara) have been laboratory-confirmed at IP Dakar.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	22-Dec-17	197	68	2	1.0%	Suspected cases are geographically spread across 22 states and the Federal Capital Territory (FCT). Sixty-eight laboratory-confirmed cases have been reported from 14 states/territories (Akwa Ibom, Abia, Bayelsa, Benue, Cross River, Delta, Edo, Ekiti, Enugu, Lagos, Imo, Nasarawa, Rivers and FCT).
Nigeria	Meningitis	Ungraded	26-Dec-17	1-Sep-18	18-Jan-18	419	74	77	18.4%	Cases have been reported from eight States; Zamfara (240), Katsina (72), Sokoto (22), Jigawa (24), Bauchi (17), Cross River (17), Kebbi (12), Yobe (9), Borno (3), Adamawa (2) and Kaduna (1). As of 18 January 2018, 74 of 155 (48%) samples tested were positive, including 46 (62%) positive for <i>Neisseria meningitidis</i> serogroup C (NmC).
São Tomé and Príncipe	Necrotising cellulitis/fasciitis	G2	10-Jan-17	25-Sep-16	17-Dec-17	2 422	0	0	0.0%	Over past 11 weeks the incidence of new cases remained stable with an average of 32 cases per week. In week 50, 37 cases reported across six of the seven districts: Me-zochi (12), Agua Grande (9), Lobata (2), Cantagalo (12), Lembá (1) and Príncipe (1). Currently, 22 cases are receiving care in hospital and no deaths have been directly attributed to the infection.
Senegal	Dengue fever	Ungraded	30-10-2017	28-Sep-17	7-Jan-18	805	138	0	-	Since 28 September, 138 cases have been confirmed from the Louga region (129), Fatick (2), Thies (2), and Dakar (5). Analyses by Institut Pasteur Dakar have shown that Dengue virus type 1 (DENV-1) is the only serotype circulating. No severe cases and no deaths have been reported.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	28-Nov-17	4 233	1 429	-	-	As of 28 November 2017, 4 233 cases have been reported from all regions of the three main islands (Mahé, Praslin and La Digue). The trend in the number of cases has been decreasing since week 23.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
South Africa	Listeriosis	G1	6-Dec-16	4-Dec-16	16-Jan-18	767	767	81	10.6%	Most cases have been reported from Gauteng Province (60%) followed by Western Cape (13%) and KwaZulu-Natal (7%) provinces. Cases have been diagnosed in both public (66%) and private (34%) healthcare sectors. Diagnosis was based most commonly on the isolation of <i>Listeria monocytogenes</i> in blood culture (71%), followed by CSF (24%). Ages range from birth to 93 years (median 26 years) and 41% are neonates aged ≤28 days. The source of the outbreak has not been identified and investigations are ongoing.
South Sudan	Humanitarian crisis	G3	15-Aug-16	n/a	15-Dec-17	-	-	-	-	The situation remains volatile, fighting is ongoing on multiple fronts and displacement continues. The start of the dry season is expected to improve humanitarian access to the most vulnerable population but at the same time communal conflicts are expected to be more frequent with subsequent injuries and deaths. 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-16	29-Dec-18	20 438	512	436	2.2%	Cholera transmission continues to decline nationally. Since week 47, the outbreak has been localized in two counties (Juba and Budi), and no new cholera cases reported during week 52, 2017. The last case in Budi was reported in week 47, 2017 and the last case reported from Juba was in week 50, 2017.
South Sudan	Suspected Rift Valley fever (RVF)	Ungraded	28-Dec-17	7-Dec-17	18-Jan-18	13	-	3	23.1%	Detailed update given above.
Tanzania	Cholera	G1	20-Aug-15	1-Jan-17	14-Jan-18	4 803	-	100	2.1%	In the first two weeks of 2018, a total of 176 cases with 5 deaths (CFR: 2.8%) were reported. In week 2, cases have been reported from three regions: Rukwa (35 cases), Songwe (3 cases), Ruvuma (11 cases). In 2015, 12 619 cases including 199 deaths (CFR 1.6%) were reported; in 2016, 11 360 cases including 172 deaths (CFR 1.5%) and in 2017, cumulative total of 4 627 cases including 95 (CFR: 2%) were reported in the United Republic of Tanzania.
Uganda	Humanitarian crisis - refugee	Ungraded	20-Jul-17	n/a	31-Dec-17	-	-	-	-	The influx of refugees to Uganda has continued as the security situation in the neighbouring countries remains fragile. According to UNHCR, between 1 - 4 January 2018, 207 refugees from South Sudan entered Uganda. The total number of registered refugees and asylum seekers in Uganda stands at 1 395 146, as of 31 December 2017. Approximately 75% of the refugees are from South Sudan and 61% are children under 18.
Uganda	Measles	Ungraded	8-Aug-17	24-Apr-17	3-Oct-17	623	34	-	-	The outbreak is occurring in two urban districts: Kampala (310 cases) and Wakiso (313 cases).
Uganda	Cholera	Ungraded	28-Sep-17	25-Sep-17	29-Nov-17	225	17	4	1.8%	The outbreak in Kasese District is still ongoing. The number of sub-counties affected by this outbreak has continued to rise and has now reached twelve sub-counties. Nyakiyumbu sub County remains the most affected in the district. Another outbreak was identified in Kisoro district. So far, three cases were admitted, including 1 confirmed.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Uganda	Rift Valley fever (RVF)	Ungraded	22-Nov-17	14-Nov-17	19-Jan-18	5	5	4	80.0%	As of 19 January 2018, three additional cases have been identified through enhanced surveillance. Five districts are affected: Kyankwanzi, Kiboga, Mityana, Kiruhura and Buikwe. They are all located within the cattle corridor.
Uganda	Crimean-Congo haemorrhagic Fever (CCHF)	Ungraded	27-Dec-17	23-Dec-17	18-Jan-18	2	2	-	-	As of 18 January 2018 one additional confirmed case was identified in Kikyusa village, Nakaseke district. The second case is 12-year-old male with symptoms onset on 16 January 2018. He reported and was identified in Kiwoko Hospital on 17 January 2018 and is currently in isolation. The index case was a 9-year-old male from Luweero district. He was discharged on 5 January 2018 after being isolated at Kiwoko Hospital, Naseke district.
Zambia	Cholera	G1	4-Oct-17	4-Oct-17	20-Jan-18	3 334	67	70	2.1%	On 20 January 2018, 43 new cases with no deaths were reported in Lusaka district. Since the beginning of the outbreak, Lusaka district reported a total of 3 334 cases with 70 deaths (CFR: 2.1%). The cumulative number of cases from other districts is 200 including 7 deaths.
Zimbabwe	Typhoid fever	Ungraded	-	1-Oct-17	10-Jan-18	2 502	149	-	-	On 17 October, a confirmed case of typhoid fever was reported from Matapi area of Mbare in Harare. As of 19 November, the outbreak has spread from its epicentre in Matapi to other suburbs in Harare and areas outside of Harare.

†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.

© WHO Regional Office for Africa

This is not an official publication of the World Health Organization.

Correspondence on this publication may be directed to:

Dr Benido Impouma
Programme Area Manager, Health Information & Risk Assessment
WHO Health Emergencies Programme
WHO Regional Office for Africa
P O Box. 06 Cité du Djoué, Brazzaville, Congo
Email: afrooutbreak@who.int

Requests for permission to reproduce or translate this publication – whether for sale or for non-commercial distribution – should be sent to the same address.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate borderlines for which there may not yet be full agreement.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or its Regional Office for Africa be liable for damages arising from its use.

Contributors

I. Okudo (Nigeria)
C. Itama (CAR)
A. Guracha (South Sudan)
J. Wamala (South Sudan)
J. Aramburu (Angola)
S. Lareef-Jah (The Gambia)

Graphic design

Mr. A. Moussongo

Editorial Team

Dr. B. Impouma
Dr. C. Okot
Dr. E. Hamblion
Dr. B. Farham
Dr. V. Sodjinou
Ms. C. Machingaidze
Mr. R. Ibrahim
Dr. P. Ndumbi
Dr. K. Heitzinger
Dr. S. Funke

Production Team

Mr. A. Bukhari
Mr. T. Mlanda
Mr. C. Massidi

Editorial Advisory Group

Dr. I. Soce-Fall, *Regional Emergency Director*
Dr. B. Impouma
Dr. Z. Yoti
Dr. Y. Ali Ahmed
Dr. M. Yao
Dr. M. Djingarey

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.