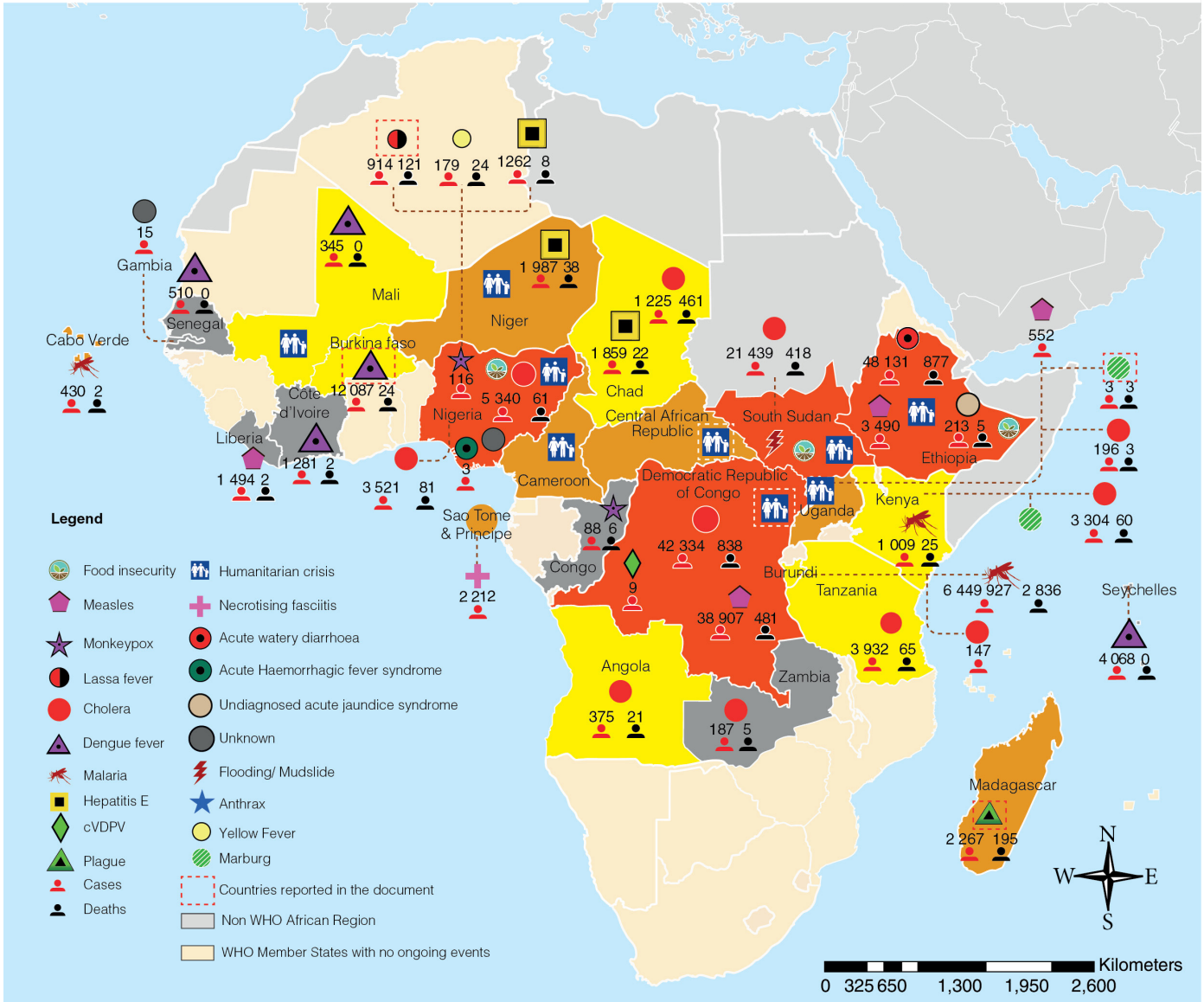
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 46: 11 - 17 November 2017
Data as reported by 17:00; 17 November 2017

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

2	44	35	11
New events	Ongoing events	Outbreaks	Humanitarian crises



2 Grade 3 events	7 Grade 2 events	9 Grade 1 events	25 Ungraded events
2 Protracted 3 events	0 Protracted 2 events	1 Protracted 1 event	

Health Emergency Information and Risk Assessment

Overview

Contents

- This Weekly Bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 46 events in the region. This week's edition covers key ongoing events, including:

  - Dengue fever in Burkina Faso
  - Plague in Madagascar
  - Lassa fever in Nigeria
  - Marburg virus disease in Uganda
  - 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 incidence of dengue fever in Burkina Faso has decreased in recent weeks, but the outbreak remains a concern. While the overall case fatality rate is low, incidence of cases is high and continued vector control interventions, particularly in affected areas outside of Ouagadougou will be important for controlling the outbreak.

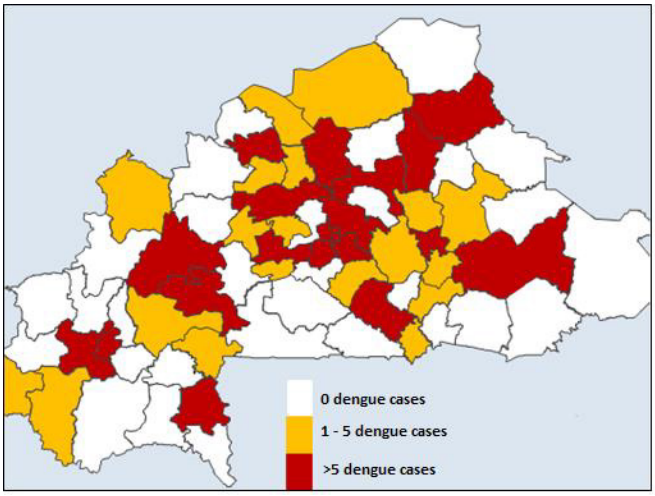
  - The humanitarian situation in Central African Republic continues to deteriorate, challenging the ability of humanitarian groups to respond to the needs of affected populations.

Ongoing events

Dengue fever | **Burkina Faso** | 12 087 **Cases** | 24 **Deaths** | 0.2% **CFR**

EVENT DESCRIPTION

Geographic distribution of dengue cases in Burkina Faso by district



The outbreak of dengue fever in Burkina Faso continues to spread, particularly in the central region of the country, which contains the capital city of Ouagadougou. In week 45 (week ending 11 November 2017), the incidence of dengue declined slightly in the central region of the country, with 35.2 cases per 100 000 people as compared to 43.2 cases per 100 000 people in week 44. For the 12 other regions of the country, the incidence also decreased from 3.8 cases per 100 000 in Week 44 to 3.2 cases per 100 000 in week 45. In week 45, 1 502 suspected cases, and 1 death, were reported. Cases are currently reported in all 13 health regions of the country. Most (61%) of the suspected cases reported since the beginning of the year have been from the central region of the country, and in week 45, 64% (967) of cases and 1 death were reported from this region.

From epidemiological week 1 through week 45 in 2017, 12 087 suspected cases including 7 418 probable cases (positive for dengue rapid diagnostic test) have been reported in the country. Twenty-four deaths have occurred (case fatality rate 0.2%). Samples collected from suspected cases have been referred for PCR testing at the viral haemorrhagic fever (VHF) reference laboratory of the Centre Muraz, Bobo-Dioulasso. Characterization of samples has identified three dengue virus serotypes: DENV-2, DENV-3, and DENV-1, with DEN-2 predominating (74%).

PUBLIC HEALTH ACTIONS

- The response to the outbreak continues to be coordinated by the National Epidemic Management Committee and a response plan has been developed and implemented since the beginning of the outbreak.
- WHO has facilitated a series of meetings (most recently 8 November 2017) to coordinate partners regarding the locations and financing of interventions.
- Regional health centres and hospitals have been provided with 1 500 rapid diagnostic tests with support from the government of Burkina Faso and the World Bank.
- Case investigation and supervision of surveillance and of case management has been initiated in five health regions (Hauts-Bassins, Centre-Ouest, Centre-Ouest, Centre-Nord, Nord, Sahel and Centre).
- Surveillance and case management has been strengthened by making treatment guides and posters with the dengue diagnosis algorithm available to healthcare providers.
- The capacity of the national reference hospital in Ouagadougou for case management of severe cases has been strengthened via the increase in staff capacity through the support of MSF and provision of medication as well as training of laboratory staff.
- A short radio and television programme about dengue was developed and information about dengue has been disseminated via social media.
- Spatial spraying of sites with high densities of Aedes aegypti in Ouagadougou has been ongoing since 21 October 2017 and is planned through 30 November 2017, with 122 sites targeted for spraying.
- 5 500 community volunteers have been trained and are currently implementing a campaign of community sensitization, identification, and destruction of mosquito breeding sites in households in Ouagadougou.
- Two rounds of entomological investigations began on 14 November 2017 to assess dengue vector surveillance indicators are planned for the four most affected regions, with technical and financial support from WHO. These will continue until 8 December 2017 in Ouagadougou and the Centre Ouest, Centre Est, and Centre Nord regions.
- Orientation has been provided to the press, and municipal and community leaders to increase their coverage of this event and the accuracy of messages disseminated regarding dengue fever prevention and control.

SITUATION INTERPRETATION

Although the dengue fever incidence in Burkina Faso has decreased in recent weeks, there is a need for continued surveillance and response. Specifically, there is a lack of financial resources to continue vector control activities, including the campaign currently ongoing in Ouagadougou, the area most affected by the outbreak. Active surveillance, effective vector control, case management, and social mobilization are particularly critical for the control of this outbreak. Coordination with WHO partners to mobilize resources to support the response is needed. Current vector control efforts need to be expanded to affected areas outside Ouagadougou in order to effectively address the outbreak on a national scale.

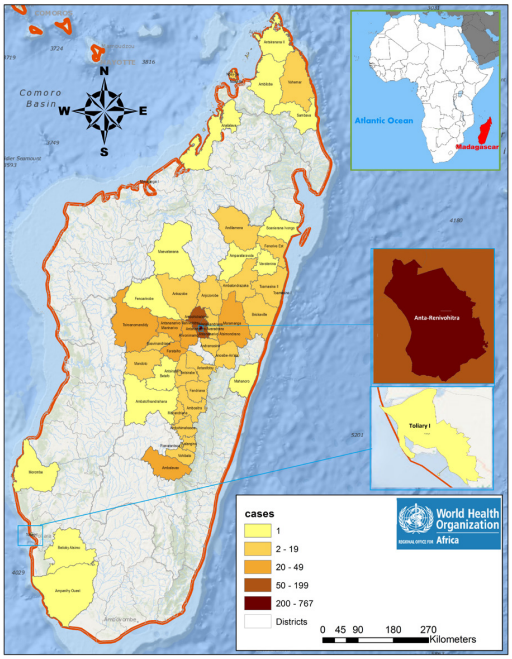
EVENT DESCRIPTION

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 and hospitalizations of patients due to plague is declining. In epidemiological week 45 (6 - 12 November 2017) the number of cases declined by 45% (81 suspected cases) and the number of deaths declined by 50% (four deaths) compared to epidemiological week 44 (146 cases, eight deaths). From 13 to 17 November, 135 cases and 6 deaths were reported. The date of onset of the last confirmed bubonic case was 7 November 2017; the last confirmed pneumonic case was reported on 14 November 2017.

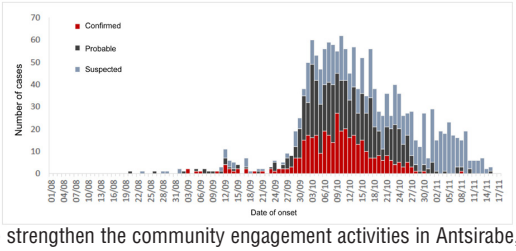
From 1 August to 17 November 2017, a total of 2 267 confirmed, probable and suspected cases of plague, including 195 deaths (case fatality rate 9%), have been reported from 55 of the 114 districts in the country. Of these, 1 732 (76%) were clinically classified as pneumonic plague, 327 (14%) were bubonic plague, one was septicaemic, and 207 were not yet classified (further classification of cases is in process). Since the beginning of the outbreak, 81 healthcare workers have had illness compatible with plague, none of whom have died. Of the 1 732 clinical cases of pneumonic plague, 389 (22%) have been confirmed, 612 (35%) are probable and 731 (42%) remain suspected (additional laboratory results are in process). Antimicrobial susceptibility testing has been performed for thirty isolates of *Yersinia pestis* and they are sensitive to antibiotics recommended by the National Plague Control Programme.

Overall, the Analamanga Region has been the most affected, with 68% of all recorded cases. About 99% (7 166) of 7 270 contacts identified since the beginning of the outbreak thus far have completed their 7-day follow up and a course of prophylactic antibiotics.

Geographical distribution of cases of plague in Madagascar, 1 August – 17 November 2017



Distribution of pneumonic plague cases reported in Madagascar, 1 August – 17 November 2017.



PUBLIC HEALTH ACTIONS

- A high level inter-Ministerial coordination forum, chaired by the Prime Minister, has been established in country to provide strategic and policy directions to the plague outbreak response.
- The case management committee validated a new patient screening guideline, which was disseminated to all triage and plague treatment centres.
- A total of 346 healthcare providers have been trained on infection prevention and control measures at various health facilities, including the three plague treatment centres in Ambalavao, Antsirabe and Fianarantsoa.
- The capabilities of potential multi-sectorial communication commissions have been strengthened. A total of 2 500 community mobilizers have been trained to strengthen the community engagement activities in Antsirabe, Fianarantsoa, Ambalavao, and Toamasina regions.
- There is an ongoing exercise to classify unspecified cases in the database, aimed to provide a clear epidemiological picture of the outbreak.
- A new sample transportation system has been established to facilitate timely delivery of samples to IPM and provide rapid feedback of laboratory results to the health facilities.
- Key public health messages are being developed for use at ports and airports and televisions are being installed at the international airport in Antananarivo and in Nosy Be to disseminate plague-related messages.
- Social mobilization and community engagement training modules have been developed. Training of trainers using the new modules started on 30 October 2017 in Tamatave and Antananarivo.

SITUATION INTERPRETATION

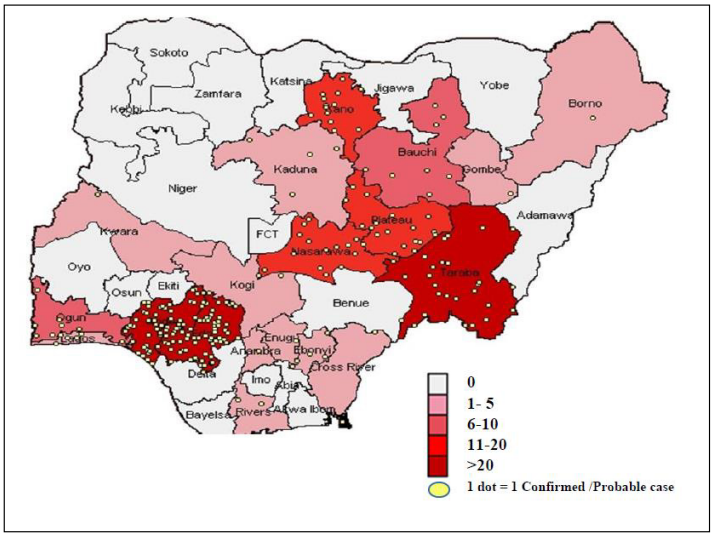
While progress has been made to control the outbreak of plague in Madagascar, the possibility of future flare-ups cannot be ruled out. All stakeholders are urged to sustain the ongoing response operations until the end of the usual plague season in April 2018. WHO is appreciative of all partners and donors for their vital support to the plague response in Madagascar and for the contributions to the Contingency Fund for Emergencies, which facilitated efficient and timely joint response to the outbreak.

EVENT DESCRIPTION

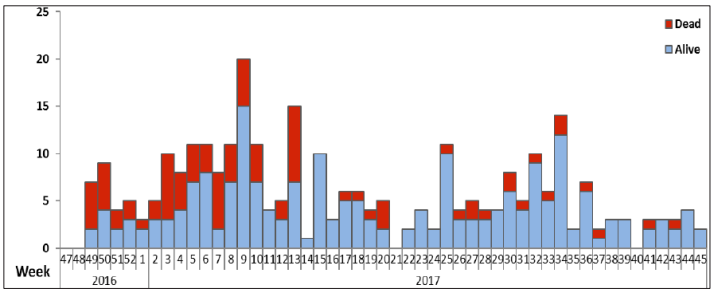
The Lassa fever outbreak in Nigeria continues, with a stable trend in the number of cases since week 37. In week 45 (week ending 10 November 2017), two new confirmed cases were reported from Edo and Ondo States. To date, the outbreak is still active in five states; Ondo, Edo, Lagos, Plateau and Bauchi.

The current outbreak began in December 2016 (Week 49), and a cumulative total of 914 suspected cases and 121 deaths (case fatality rate 13.2%) have been reported since that time. Of these, 279 have been classified as confirmed cases (by PCR, IgM, or virus isolation) and 14 as probable cases (any suspected case who died without collection of specimen for testing). A total of 19 states in Nigeria have reported at least one confirmed case: Ogun, Bauchi, Plateau, Ebonyi, Ondo, Edo, Taraba, Nasarawa, Rivers, Kaduna, Gombe, Cross-River, Borno, Kano, Kogi, Enugu, Anambra, Lagos and Kwara.

Geographic distribution of confirmed and probable Lassa fever cases in Nigeria, 4 December 2016 - 10 November 2017



Confirmed and probable cases of Lassa fever by epidemiological week in Nigeria, 4 December 2016 to 10 November 2017



PUBLIC HEALTH ACTIONS

- The Nigeria Centre for Disease Control (NCDC) Lassa fever response working group is coordinating the response to the outbreak, in collaboration with partners (WHO, CDC, UMB, AFENET).
- NCDC and partners are supporting the ongoing response activities in all states with active cases.
- Confirmed cases are being provided with ribavirin and other supportive care at identified treatment and isolation centers across the affected states.
- The state surveillance teams continue to conduct enhanced surveillance and contact tracing activities in states with active outbreaks. Surveillance data is being collated nationally via the VHF management system. Reported cases continue to be classified based on the case definitions.
- Promotion of infection prevention and control measures (IPC) in health facilities is ongoing.

SITUATION INTERPRETATION

The overall trend in Lassa fever cases in Nigeria is stable. Response activities need to be continued despite the decline in the number of cases since week 34 and should be focused on active case finding, contact tracing, laboratory support, and education on disease risk in the community and among healthcare workers. Nigeria has witnessed several Lassa fever outbreaks over the last few years, thus there is a need to continue implementing preparedness activities across the country to prevent the next outbreak. WHO and other partners need to support preparedness and response activities for Lassa fever in the country, particularly in light of the fact that the country is undergoing a humanitarian crisis and other outbreaks that may strain national resources.

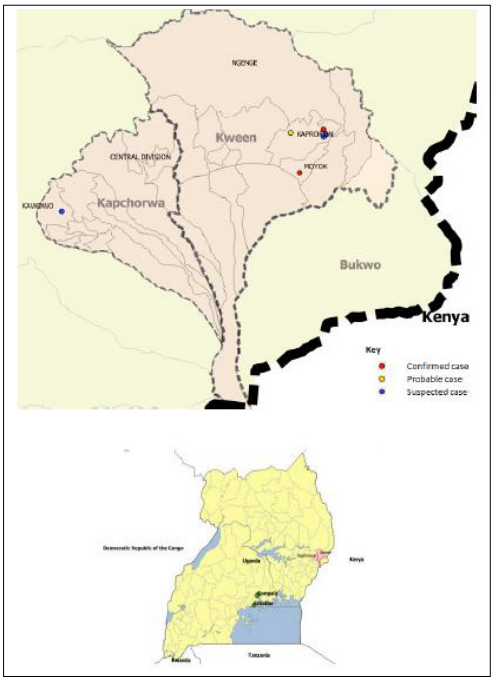
EVENT DESCRIPTION

The outbreak of Marburg virus disease (MVD) in Uganda appears to be under control. No new cases have been reported since our last update on 10 November 2017 (Weekly Bulletin 45). As of 15 November 2017, three cases (two confirmed and one probable) have been reported, all of whom have died (case fatality rate 100%). No new suspected cases have been identified in either Kween or Kapchorwa districts.

As of 16 November 2017, all the 339 contacts listed in the two districts have completed 21-day follow-up. Enhanced surveillance for the second 21-day cycle (twice the maximum incubation period of Marburg virus) commenced on 17 November 2017 and will continue until 7 December 2017, if no new case is confirmed.

In Kenya, all high-risk contacts of the second confirmed case from Uganda who had travelled to Trans Nzoia and West Pokot Counties prior to his death completed their 21-day follow-up on 13 November 2017.

Geographic distribution of confirmed, probable, and suspected cases of Marburg virus disease in Uganda, 16 September - 4 November 2017



PUBLIC HEALTH ACTIONS

- The Ugandan Ministry of Health continues to proactively respond to the outbreak with support from WHO and partners.
- Active case finding has been intensified in both public and private facilities in both districts.
- All health facilities, both public and private, have been visited and workers have been oriented about surveillance for Marburg virus disease, symptoms and case definition.
- Two Marburg treatment centres have been set up in Kapchorwa hospital and Kaproron with logistical support from Médecins Sans Frontières (MSF) France, UNICEF and WHO.
- Social mobilization and risk communication are ongoing. Over 12 000 community members have received information on Marburg virus disease with support from Red Cross volunteers, UNICEF and WHO communication experts.
- Psychosocial support specialists have been deployed to Kween and counselling sessions are being conducted in Kapchorwa for family members of the deceased Marburg cases, health workers, and other community members.
- On 7 November 2017, a cross-border meeting between Uganda and Kenya health authorities was organized to strengthen cross-border surveillance in Kapchorwa, and cross-border surveillance activities are ongoing.

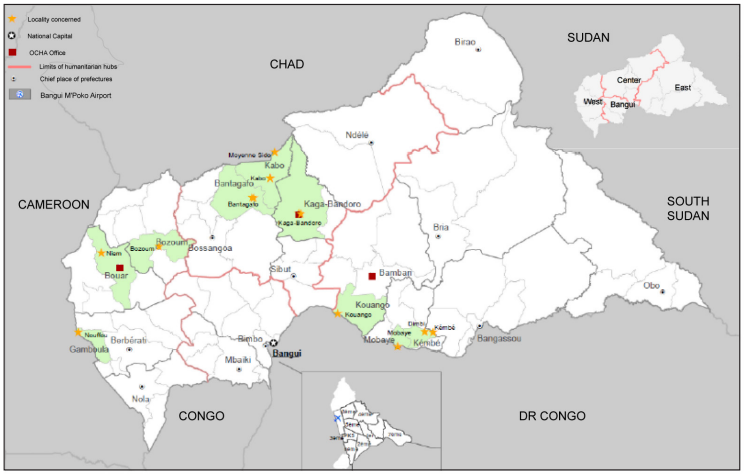
SITUATION INTERPRETATION

The outbreak of Marburg in Uganda appears to be under control as no new cases have been reported. All contacts listed in both Uganda and Kenya have completed the 21-day follow-up and no new suspected cases were detected. Enhanced surveillance activities will be conducted for another 21 days, in order to identify possible undetected chains of transmission or re-introduction of infection from bats. It is therefore critical that all key stakeholders, from the community to the response teams, maintain vigilance and sustain ongoing interventions.

EVENT DESCRIPTION

The security situation in Central African Republic continues to deteriorate. A grenade exploded in a bar in Bangui on 11 November 2017, reportedly killing eight and injuring 34, with many reported missing. The situation remains volatile and tense days later, with clashes between rival communities. In the interior, a humanitarian convoy was attacked on the Kaga Bandoro-Ndélé axis in the north-east. All cargo was looted and the driver killed. Armed elements have attacked in Batangafo internally displaced persons (IDP) site in the north of the country, continuing abuses against civilians. Kidnapping continues, with four children abducted and killed in Ouaka, and humanitarian workers abducted in Bria, Upper Kotto. In Kémbé, there are reports of 60 people missing, presumed kidnapped. Médecins Sans Frontières-Belgium (MSF-B) is caring for five people wounded during resumption of clashes between armed groups in Bangassou and it remains difficult to refer patients between areas because of control by rival armed groups.

Insecure zones in Central African Republic as of 31 October 2017



The continued insecurity has health implications for local populations. Twenty suspected cases of pertussis were notified in Bozoum and two deaths, clinically suspected to be from rabies, were reported in Mambéré, Lobaye. The dogs involved have been killed by the local population.

PUBLIC HEALTH ACTIONS

- Two crisis meetings were held in Bangui on 13 and 14 November 2017 led by the Public Health Emergency Operations Centre of the Ministry of Health (MOH). An emergency relief system was set up in Bangui under a crisis committee made up of the MOH, WHO and key partners (International Committee of the Red Cross (ICRC), Central African Red Cross (CRCA), MSF-B and Médecins du Monde).
- The Bangui emergency relief system included the establishment of two referral systems to facilitate the transfer of the injured to reference hospitals. The first is through CRCA, which covers health centres in Fatima, Guitangola, Katin, Kokoro Boeing and St Jacques through a toll-free number. The second referral system is through a second toll-free number and is provided by the community hospital. WHO has provided financial assistance for an ambulance for 2 weeks, covering health centres in Malimaka and Miskine.
- Supplies of stock medicines in the community hospital in Bangui have been reinforced by the provision of a trauma kit by WHO. The ICRC has strengthened its wounded influx management plan in the PK5 'hot spot' area of Bangui.
- Community sensitization in relation to the free movement of ambulances is underway, targeting key officials in the affected areas of Bangui.
- WHO is supporting preparation for anti-rabies vaccinations of people and dogs in Lobaye in collaboration with the MOH, the Veterinary Service and the Food and Agriculture Organization (FAO).
- The United Nations Multidimensional Integrated Stabilization Mission in Central African Republic (MINUSCA) has agreed to make escorted convoys available to WHO to transport stocks of drugs, fuel and various goods for Bangassou and Bria sub-offices; these convoys will leave Bangui on 15 November 2017.
- UNICEF has supported the re-establishment of five rehydration centres in Kouango sub-district and has donated eight kits for the management of acute watery diarrhoea.
- WHO plans to supply health facilities in areas affected by the crisis with oral antimalarial medication in the next weeks because of widespread shortages in the country

SITUATION INTERPRETATION

The ongoing security situation in Central African Republic means that humanitarian assistance is either unavailable or seriously limited for those populations in the east of the country where most of the violence occurs. Humanitarian actors are unable to provide a stable presence in many areas of concern, including those refugee populations along the Oubangui River. The capital city, Bangui, is far from stable, showing that the emergency systems put in place need to remain. Overall, MINUSCA and UNHAS need to urgently scale up provision of health personnel, drugs and non-health supplies to these regions. Better cross-border coordination of humanitarian actions is needed between Central African Republic and Democratic Republic of the Congo.

EVENT DESCRIPTION

The Democratic Republic of the Congo continues to experience a large and complex humanitarian crisis, as a consequence of several civil and political conflicts, particularly in South Kivu, the Greater Kasai region and Tanganyika. This lengthy humanitarian crisis resulted in the activation of Inter-Agency Standing Committee (IASC) System Wide Level 3 Emergency in October 2017.

There are 4.1 million internally displaced people (IDP) in the country, the largest number of internally displaced persons (IDPs) globally. However, there has been a decline in numbers of IDPs recently because of a lull in clashes. An additional 34 000 Congolese people from Kasai are currently refugees in Angola and 6 00 people fled to Zambia from Tanganyika. Intensification of conflict has increased the number of people in need of assistance in 2017 from 7.3 million to 8.5 million.

Conflict zones in the Democratic Republic of the Congo as of 3 November 2017

Outbreaks of communicable diseases are a direct result of this crisis, with more than nine major outbreaks recorded each year. Notably, a protracted cholera outbreak has been ongoing since 2015. During week 45 (week ending 12 November 2017) there were 1 841 suspected cases and 48 deaths (case fatality rate 2.6%), compared with 1 737 cases and 44 deaths (case fatality rate 2.5%) in week 44, a stable trend. However, there was an increased number of cases in week 45 in Kasai (107 cases against 98 in week 44), North Kivu (466 cases against 409 in week 44) and Lomami (347 cases against 271 in week 44). Most (93%; 1 640/1 841) of cases occurred in seven provinces (North Kivu, South Kivu, Tanganyika, Haut-Lomami, Kongo Central, Kasai and Lomami). The epidemic appears to be evolving along the lakes of Tanganyika and Kivu in the east, and along the inner lakes and Congo River up to Tshopo and Kasai rivers. The cumulative number of suspected cholera cases from week 1 to week 45 of 2017 is 45 912 including 930 deaths (case fatality rate 2.0%).

There is also a measles outbreak, with 667 suspected cases and 15 deaths (case fatality rate 2.2%) in week 45, compared with 500 suspected cases and twelve deaths (case fatality rate 2.4%) in week 44. From week 1 to week 45 there have been 39 574 reported measles cases with 496 deaths (case fatality rate 1.3%).

PUBLIC HEALTH ACTIONS

- WHO is adapting its operational structure following the activation of the Level 3 Emergency and has established a hub of its Health Emergency Programme in Kanaga for the greater Kasai region, adding national and international staff (Hub Coordinator, Health Operations Officer, NPO epidemiologist and water, sanitation and hygiene (WASH) expert). A Cluster Coordinator, a Health Information Officer and an Administrative and Finance expert will join the team in the coming weeks and two further hubs will be established to cover Level 3 hotspots in South Kivu and Tanganyika.
- A road map for health emergency assistance and restoration of the health system in the greater Kasai region was adopted in October 2017 by participants in a partnership forum.
- Through the Central Emergency Response Fund (CERF), implemented from April to September 2017, WHO is continuing to cover eight provinces in Kasai, Kasai Central and Kasai Oriental with direct support to 50 health facilities and 8 health zones, although limited resources have meant that WHO is now supporting only eight of a previous 17 health zones.
- WHO continues the cholera response with provision of drugs, medical devices, technical assistance in epidemiological surveillance and case management, and coordination of partners (MSF, UNICEF, ALIMA) and is focusing support for case management in the Kasai region, as well as preparedness measures for areas at risk (community-based surveillance and prepositioning of cholera kits).
- MSF and UNICEF are supporting the national Ministry of Health in its response to the measles outbreak, particularly with case management and reactive vaccination.

SITUATION INTERPRETATION

The continuing deterioration in the security situation along with the mass movement of people and disease outbreaks are challenging humanitarian actors' ability to respond to the increasing needs of the affected populations. Response activities still remain below current needs, in spite of scaled up operations by most UN agencies and partners. The cholera situation is of particular concern and the MOH requires support to prevent drug stockouts. Cholera preparedness measures require urgent strengthening in provinces at risk of the disease. Improvement in the effectiveness of the health cluster is critical for better coordination of partners' interventions in the crisis.

Summary of major challenges and proposed actions

Challenges

- Although the incidence of dengue fever in Burkina Faso has declined in recent weeks, it remains high, particularly in the capital city of Ouagadougou. To date, the case fatality rate has been low, but continued circulation of multiple viral serotypes could result in increased haemorrhagic manifestations and death.

- The continued deterioration of the security situation in Central African Republic is a major challenge to the provision of medical care and non-medical assistance to affected populations.

Proposed actions

- Continued vector control measures, active surveillance, social mobilization, and appropriate case management are needed to bring the outbreak in Burkina Faso under control. Adequate and sustained funding for the response plan is needed to support effective interventions implemented to address the outbreak.

- Significant global action is needed by multi-sectorial organizations to improve security, access to health services, and humanitarian assistance to populations in Central African Republic that have been affected by outbreaks and conflict in the country.

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										
Nigeria	Acute haemorrhagic fever syndrome	Ungraded	15-Nov-17	11-Nov-17	n/a	3	-	3	100.0%	Three people have died from an undiagnosed disease in Mabera area of Sokoto South LGA. Cases developed symptoms of bleeding from orifices, high fever and severe headache. The first case died on 11 November 2017. No samples were collected from the deceased. Retroactive case search and clinician sensitization are ongoing.
Nigeria	Event of unknown etiology	Ungraded	15-Nov-17	1-Jul-17	n/a	-	-	-	-	During week 44, the Nigerian CDC received reports of unknown disease and unexplained deaths in Gidan Dugus village of Wangara district. Cases were mostly children under 5 and onset dates of the first cases were in July 2017. Further investigation is ongoing.
Ongoing events										
Angola	Cholera	G1	15-Dec-16	1-Jan-17	22-Oct-17	375	-	21	5.6%	The outbreak began in 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	11-Nov-17	12 087	355	24	0.2%	Detailed update given above.
Burundi	Malaria	G1	22-Mar-17	1-Jan-17	30-Oct-17	6 449 927	-	2 836	0.0%	Weekly case counts are below the epidemiologic threshold but have increased since week 41. In week 42, 117 917 cases and 42 deaths were reported. The most affected health districts (DS) are: Kirundo (5094), Muyinga (5450) and Giteranyi (5295).
Burundi	Cholera	Ungraded	20-Aug-17	15-Aug-17	30-Oct-17	147	-	0	0.0%	During week 43, 9 suspected cases were reported in the health zones of Cibitoke (6) and Isare (3). As of 30 October a cumulative total of 147 cases and no deaths were reported. Seven districts have reported suspected cases to date.
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 became worse. Terrorist attacks and suicide bombings are continuing and causing continuous 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 camp. In addition around 238 000 internally displaced people have been registered.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Cape Verde	Malaria	G2	26-Jul-17	1-Jan-17	16-Nov-17	430	388	2	0.5%	By 16 November a total of 430 cases had been reported, including 412 indigenous and 18 imported cases. 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	14-Nov-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.
Chad	Cholera	G1	19-Aug-17	14-Aug-17	12-Nov-17	1 225	6	79	6.4%	The case incidence has been decreasing since week 42. In week 45, 9 new cases were reported in the Salamat region: Am-Timan (2), Mirer (5), Khachkhacha (1) and Mouraye (1). From week 37 to week 45, a total of 789 cases and 27 deaths occured in Salamat region. No additional cases have been reported in the Sila Region since week 42.
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.

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	18-Nov-17	-	-	-	-	Detailed update given above.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-17	3-Nov-17	42 334	-	838	2.0%	During week 43, 1 906 new suspected cases and 44 deaths were reported; these numbers have remained stable from week 42 (2 039 suspected cases, 67 deaths). The majority of cases this week were reported from North Kivu, South Kivu, Tanganyika, Haut Lomami, and Kongo Central.
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	3-Nov-17	38 907	449	481	1.2%	The outbreak still ongoing and has affected all 26 provinces. Although the current humanitarian situation disrupted the routine vaccination services, vaccination campaigns were implemented early in 2017.
Ethiopia	Humanitarian crisis	Protracted 3	15-Nov-15	n/a	12-Nov-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 M people are food insecure and in need of humanitarian assistance. Including 6.26 M in need of health assistance and 0.376 M children are severely malnourished. IDPs are estimated to be around 1 099 776 and refugees are estimated to number around 883 546.
Ethiopia	Acute watery diarrhoea (AWD)		15-Nov-15	1-Jan-17	3-Nov-17	48 131	-	877	1.8%	The outbreak is still ongoing in the country. During week 44, a total of 285 cases were reported from 6 regions, and the majority of cases are from Amhara and Somali regions. As of now, 8 regions in Ethiopia have been affected, and 74% of total cases are from Somali region. Oromia and Amhara regions account for 12.8% and 9% and of the total respectively. The rest of the cases are from Tigray, Afar, Beneshangul Gumuz, SNNP, Dire Dawa, and Addis Ababa.
Ethiopia	Measles		14-Jan-17	1-Jan-17	3-Nov-17	3 490	-	-	-	The outbreak of measles is still ongoing but continues to improve. During week 44, 35 cases were reported including 3 lab-confirmed cases. Oromia Region remains the most affected region with 46% of the total reported cases, followed by Amhara 21%, Addis Ababa 16%, and Somali 20%.
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
Gambia	Event of unknown etiology	Ungraded	11-Jul-17	n/a	n/a	15	-	-	-	An unknown public health event is being investigated in North Bank East Region after admission of a child with fever and severe arthralgia. The illness is said to be self-limiting and nearly all recoved within 7-10 days of onset with no mortality reported. Blood samples have been taken and are under investigation.
Kenya	Cholera	G1	6-Mar-17	1-Jan-17	26-Oct-17	3 304	596	60	1.8%	Nationally, case numbers continue to decrease. Three counties are currently reporting active outbreaks: Nairobi, Garissa, Kajiado, and a newly reported county, Embu county; with approximately 60% of the cases coming from Nairobi county.
Kenya		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 SAM at 0.2-4.0-9.8%.
Kenya	Malaria	Ungraded	-	25-Sep-17	26-Oct-17	1 009	604	25	2.5%	The suspected outbreak is affecting 3 wards in Marasbit - Durkana (598 cases), North Horr (236 cases) and Loiyangalani (175 cases) wards.
Kenya	Marburg	Ungraded	28-10-2017	28-10-2017	11-Nov-17	-	-	-	-	A confirmed Marburg case has travelled from Uganda to Kenya prior to his death. To date, no case has been confirmed in Kenya. Follow up of contacts to the Ugandan case is still ongoing. Cross-border surveillance activities (including contact tracing) have been initiated between Kenya and Uganda.
Liberia	Measles	Ungraded	24-Sep-17	6-Sep-17	12-Nov-17	1 494	207	2	0.1%	From week 1 to week 45, 1 494 suspected cases were reported from 15 counties, including 207 laboratory confirmed, 330 clinically compatible and 165 epi-linked. Nimba county displayed the highest cumulative incidence. Children between 1-4 years accounted for 39% of the cases. Of the 777 measles-IgM negative cases that were tested for rubella, 337 tested positive for rubella.
Madagascar	Plague	G2	13-Sep-17	13-Sep-17	17-Nov-17	2 267	462	195	9%	Detailed update given above.
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.
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.
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	10-Nov--17	914	279	121	13.3%	Detailed update given above.
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	17-Nov-17	5 340	354	61	1.1%	Between 14 and 18 November 4 cases were reported in Borno, that is 1 case per day. All the 4 cases reported were from Jere. No case reported from Monguno and Guzamala during this period. For the fourth week (two incubation periods), no cases have been reported from Dikwa, Mafa and MMC LGAs.
Nigeria	Cholera (nationwide)	Ungraded	7-Jun-17	1-Jan-17	21-Oct-17	3 521	41	81	2.3%	Between weeks 1 and 42, suspected cases hae been reported from 19 states. The number of suspected cases and deaths in 2017 surpasses that observed during the same period in 2016 (560 suspected cases, 25 deaths).
Nigeria	Hepatitis E	Ungraded	18-Jun-17	1-May-17	16-Nov-17	1 262	182	8	0.6%	Since the peak of the outbreak in Borno state in week 25. The number of cases has been re-increasing from week 42 to week 46, mainly due to the spread of the outbreak in Rann, Kala Balge. No case of acute jaundice was reported in Mobbar since week 35.
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	7-Nov-17	179	15	24	13.4%	179 suspected cases have been reported and 15 cases have been laboratory-confirmed at IP Dakar (in Kogi State, Kwara State and Zamfara State). Suspected cases have been reported from seven states: Kwara, Zamfara, Kogi, Kebbi, Plateau, Borno, and Abia. Two of the confirmed cases have died.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	2-Nov-17	116	36	0	0.0%	Suspected cases are geographically spread across 20 States and the Federal Capital Territory (FCT). 38 laboratory-confirmed cases have been reported from 8 states (Akwa Ibom, Bayelsa, Delta, Edo, Ekiti, Enugu, Lagos, and Rivers) and the FCT.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
São Tomé and Principé	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 Principe (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.
Senegal	Dengue fever	Ungraded	30-10-2017	28-09-2017	6-Nov-17	510	79	0	-	Since 28 September, the date of confirmation of the first cases of dengue fever in the Louga region, a total of 510 suspected cases have been reported and 79 cases confirmed. Analyses of by IPD have shown that DEN-1 is the only serotype circulating. 70 confirmed cases have been reported from Louga district, 6 from Dahra district (86km from Louga), 2 from Coki district (30km from Louga), and 1 from Keur Momar Sarr district. As of 6 November 2017, no severe cases and no deaths had been reported.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	23-Oct-17	4 068	1 413	-	-	As of 23 October, 4 068 cases have been reported from all regions of the three main islands (Mahé, Praslin and La Digue).
South Sudan	Humanitarian crisis	G3	15-Aug-16	n/a	31-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-Nov-17	21 439	1 585	461	2.2%	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	5-Nov-17	3 932	-	65	1.7%	The trend of reported cholera cases has increased, with 131 cases including one death in week 45 compared to 82 new cases and 2 deaths in week 44. The number of reporting regions increased to 6 in week 45 compared to 4 regions in week 44. The 6 regions reporting cases this week are Kigoma (95 cases, 1 death); Mbeya (11 cases); Songwe (10 cases); Manyara (5 cases); Dodoma (5 cases); Morogoro (5 cases). Zanzibar has reported zero cases since 11 July 2017.

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	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.
Uganda	Cholera	Ungraded	28-Sep-17	25-Sep-17	16-Nov-17	196	15	3	1.5%	The outbreak in Kasese District appeared to be controlled after no cases were reported during weeks 43 and 44. However, in week 45, 14 new cases were detected. Three new sub-counties have reported cases: Nyakatonzi, Kisanga, and Kithohuo. Other affected districts include Nyakiyumbu (45% of cases), Munkunyu, Bwera, Isango, MLTC, Karambi and Ihandiro.
Uganda	Marburg	G2	17-Oct-17	20-Sep-17	17-Nov-17	3	2	3	100.0%	Detailed update given above.
Zambia	Cholera	Ungraded	4-Oct-17	4-Oct-17	18-Nov-17	187	130	5	3.1%	'The outbreak is no longer localised in the peri urban townships on the Western side of Lusaka City, but has spread to the Eastern Side with a new case reported in Chelstone Sub Ditrict. Affected sub districts now include: Chipata, Kanyama, Chawama, Matero and Chilenje.
Recently closed events										
Kenya	Leishmaniasis, visceral (kala-azar)	Ungraded	7-Jun-17	4-Jan-17	26-Aug-17	457	362	7	1.5%	Two counties, Wajir and Marsabit, had reported cases since early 2017. The outbreak has been controlled in both counties. Since the beginning of the outbreak 338 cases were reported in Marsabit and 119 in Wajir.
Malawi	Cholera	Ungraded	n/a	23-Jul-17	29-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. Since week 40 (ending 8 October 2017) there has been no new cases detected in the area. The outbreak is considered over.

†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
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.

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