

WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 49: 1 - 7 December 2018

Data as reported by 17:00; 7 December 2018



World Health
Organization

REGIONAL OFFICE FOR

Africa

WHO Health Emergencies Programme

1

New event

56

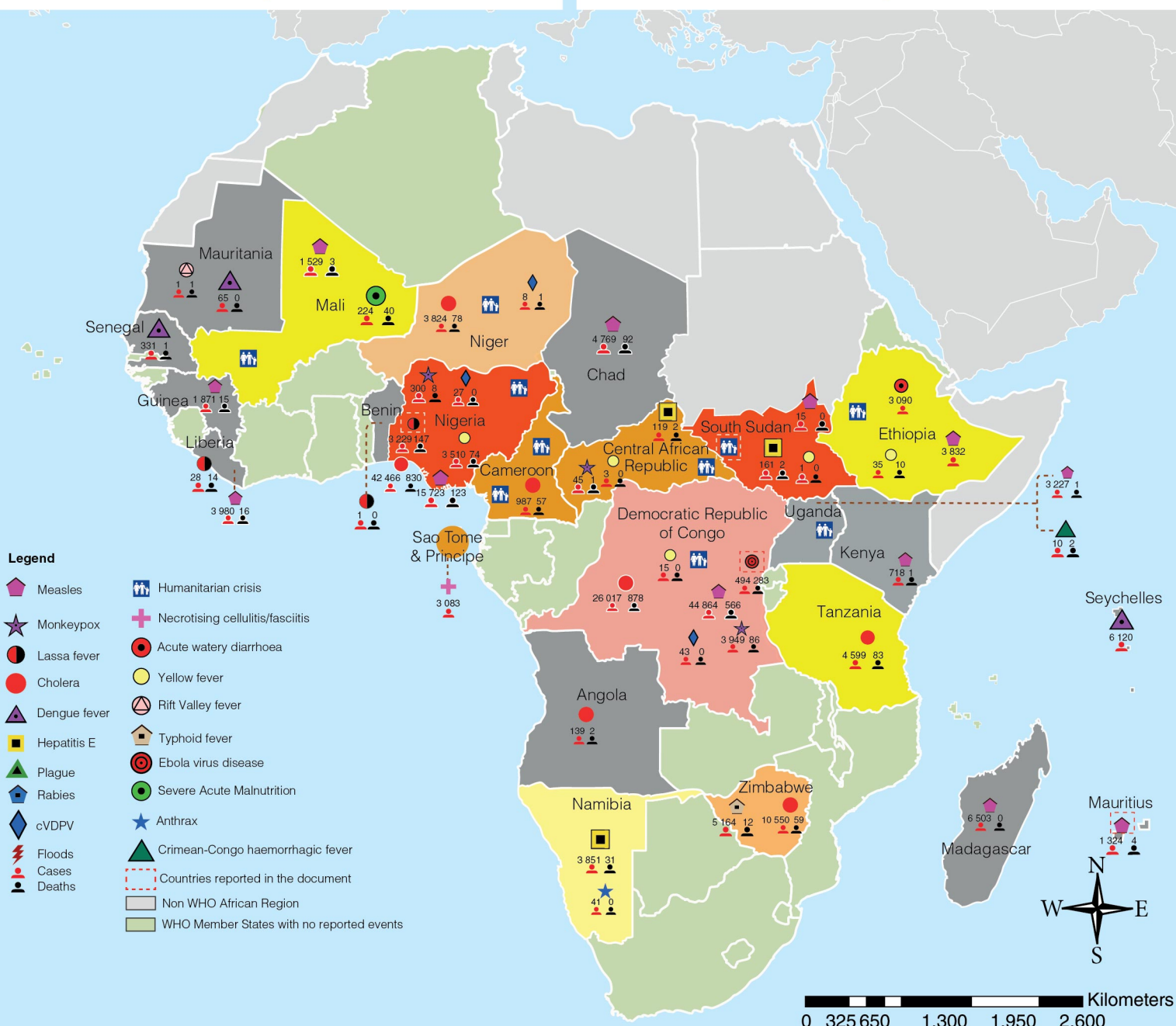
Ongoing events

47

Outbreaks

10

Humanitarian
crises



Graded events †

2

Grade 3 events

7

Grade 2 events

3

Grade 1 events

36

Ungraded events

2

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Protracted 2 events

4

Protracted 1 events

Overview

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8 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 57 events in the region. This week's edition covers key new and ongoing events, including:

- [Ebola virus disease in the Democratic Republic of the Congo](#)
- [Lassa fever in Nigeria](#)
- [Measles in Mauritius](#)
- [Humanitarian crisis in South Sudan.](#)

- 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 recent events that have largely been controlled thus closed.

- **Major issues and challenges include:**

- The continuous propagation of the Ebola virus disease (EVD) in North Kivu and Ituri provinces, Democratic Republic of the Congo, as well as the underlying insecurity and pockets of community resistance are concerning. Efforts are ongoing to intensify conventional public health measures that are known to be effective (such as contact tracing and engaging communities) and the use of new tools at hand (namely immunization and therapeutics). It is anticipated that the current thrust in efforts will turn the tide in the evolution of the outbreak.
- Nigeria is seeing an increasing incidence of confirmed Lassa fever cases in the past few weeks. This trend is corresponding with the usual peak seasonal for Lassa fever in the country, starting from December to June. The recent increase should serve as an early warning and trigger for the authorities from relevant sectors at all levels to step up concrete preparedness and response measures, in order to prevent a repeat of the unprecedented outbreak that occurred at the beginning of the year.

Ongoing events

Ebola virus disease

Democratic Republic of the Congo

494
Cases

283
Deaths

57%
CFR

EVENT DESCRIPTION

The Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo continues to be closely monitored. Since our last report on 30 November 2018 (*Weekly Bulletin 48*), 54 new confirmed EVD cases and 28 new deaths have been reported. Three health workers were among the new confirmed cases, bringing the total number of health workers affected to 49, with 15 deaths (the increase following data reconciliation). On 8 December 2018, five new confirmed cases were reported, one each, in Beni, Butembo, Kyondo, and Mabalako in North Kivu Province, and Mambasa in Ituri Province. Of these, two cases were known contacts and investigations to establish the epidemiological links of the other four cases are ongoing. There were three new deaths, one each, in Beni (the case from Mambasa), Butembo and Mangina.

As of 8 December 2018, there have been a total of 494 EVD cases, including 446 confirmed and 48 probable cases. To date, confirmed cases have been reported from 15 health zones: Beni (203), Mabalako (72), Katwa (53), Kalunguta (31), Butembo (30), Masereka (7), Oicha (7), Vuhovi (7), Kyondo (4), Mutwanga (3) and Musienene (2) in North Kivu Province; and Mandima (16), Komanda (8), Tchomia (2) and Mambasa (1) in Ituri Province. Twelve of the 15 affected health zones reported at least one new confirmed case in the previous 21 days (29 November–8 December 2018). A total of 283 deaths were recorded, including 235 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 53% (235/446).

As of 8 December 2018, a total of 132 patients were hospitalized in ETCs and transit centres, of which 37 are confirmed cases. All confirmed cases are on compassionate therapy.

Beni, Katwa and Kalunguta remain the main hot spots of the outbreak, with, respectively, 30% (n=36), 27% (n=32) and 17% (n=20) of the 119 confirmed and probable cases reported in the last 21 days (from 18 November–8 December 2018). Komanda is also an area of concern.

Contact tracing is still of concern due to insecurity and continuing pockets of community resistance. The number of contacts being followed as of 8 December 2018 was 6 417, of whom 5 812 had been seen in the previous 24 hours, representing 92%. Twelve health zones have contacts identified during follow-up.

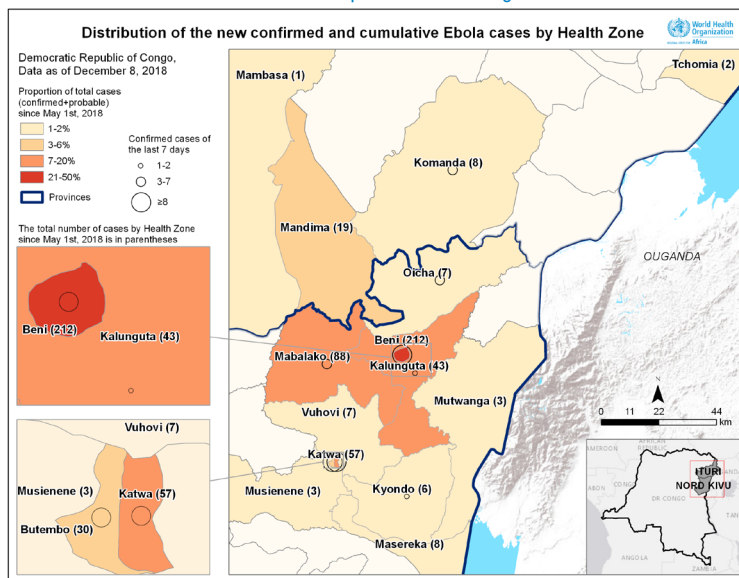
PUBLIC HEALTH ACTIONS

- Two health posts and the Hope Health Centre in Katwa were burnt by the community.
- All surveillance activities continue, including case investigations, active case finding in health facilities and in the communities, and identification and listing of contacts around the latest confirmed cases. There are continued efforts to strengthen surveillance in Komanda, with continuation of listing activities and contact follow-up in those health zones that reported the most recent confirmed cases.
- The laboratory in Butembo received two additional staff and three new GeneXpert testing devices. The EVD laboratory in Bunia has been moved from the Ituri Provincial Laboratory to a position next to the Bunia General Reference Hospital.
- As of 6 December 2018, a total of 237 319 travellers were screened and vehicles decontaminated at 67 of 71 Points of Entry (PoE) and Points of Control (PoC). An alert received from the PoC Public Port/Goma was investigated and validated.
- On 5 December 2018, a total of 733 new people were vaccinated in 17 rings, bringing the cumulative numbers vaccinated to 41 226. The current stock of vaccine in Beni is 4 290 doses. Targeted vaccination continues in all affected health zones.
- There are continued community reintegration activities for patients discharged from ETCs, along with psychoeducation sessions to strengthen community engagement and collaboration in the response.
- Infection prevention and control (IPC) and water, sanitation and hygiene (WASH) activities continue, with decontamination of households and health facilities; distribution of personal protective equipment; and briefing of 37 traditional healers in basic IPC.
- Community awareness and mobilization sessions continue, with educational talks; youth awareness through a football tournament; continuing daily door-to-door outreach activities in households in affected areas; and continuation of awareness activities through the involvement of community leaders and local media.

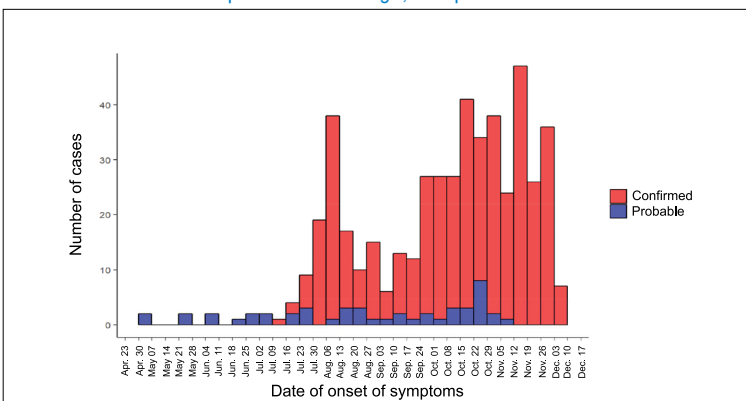
SITUATION INTERPRETATION

The EVD outbreak in Democratic Republic of the Congo continues to be of significant concern, with continuing insecurity and community resistance, with the burning of two health facilities in Katwa particularly worrying. Particular challenges lie in investigating new confirmed cases without clear epidemiological links to other cases, the need to strengthen contact monitoring in Beni and Komanda and the need to intensify community engagement in Katwa. In addition, the potential implication of the upcoming elections bringing large numbers of people together remains an issue. All response pillars need to be further strengthened and local and international authorities need to remain vigilant in the face of this ongoing outbreak.

Geographical distribution of confirmed and probable Ebola virus disease cases reported from 1 May to 8 December 2018, North Kivu and Ituri provinces, Democratic Republic of the Congo.



Epidemic curve of Ebola virus disease outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo, 30 April – 8 December 2018



EVENT DESCRIPTION

In early 2018, Nigeria experienced an unprecedented outbreak of Lassa fever, leading to the declaration of a national emergency. Following a concerted multifaceted response, the acute phase of the outbreak was declared over on 10 May 2018. However, sporadic Lassa fever cases have continued to occur since then. Lately, Lassa fever transmission activity appears to be increasing. In week 48 (week ending 2 December 2018), 13 new confirmed cases were reported from five states: Ondo (8), Edo (2), Gombe (1), Kano (1) and Plateau (1). There were three new deaths, one each, in Edo, Gombe and Plateau states. As of 2 December 2018, 15 patients were admitted in three designated treatment centres in Ondo (10), Edo (4) and Kano (1). In the last five weeks (44 to 48), six states (Ebonyi, Edo, Gombe, Kano, Ondo and Plateau) reported a total of 32 confirmed cases and six deaths, with Edo and Ondo being the hotspots, accounting for 88% of all cases. In the current phase of the outbreak, 303 contacts have been identified and are being followed up.

From 1 January to 2 December 2018, a total of 3 229 suspected Lassa fever cases have been reported from 23 states. Of these, 581 (18%) have been confirmed, 17 were classified as probable, and 2 631 (81.5%) tested negative (non-cases). Overall, the majority of all confirmed cases were reported in Edo (45%), Ondo (25%) and Ebonyi (12%) states. A total of 147 deaths have been recorded among confirmed cases, with a case fatality ratio of 25.3% among this group.

Since the onset of the outbreak, 44 healthcare workers have been affected in seven states: Ebonyi (16), Edo (15), Ondo (8), Kogi (2), Nasarawa (1), Taraba (1) and Abia (1). Ten deaths have been reported among healthcare workers in five states: Ebonyi (5), Kogi (1), Abia (1), Ondo (2) and Edo (1). Between weeks 44 to 48, three health workers have been affected.

PUBLIC HEALTH ACTIONS

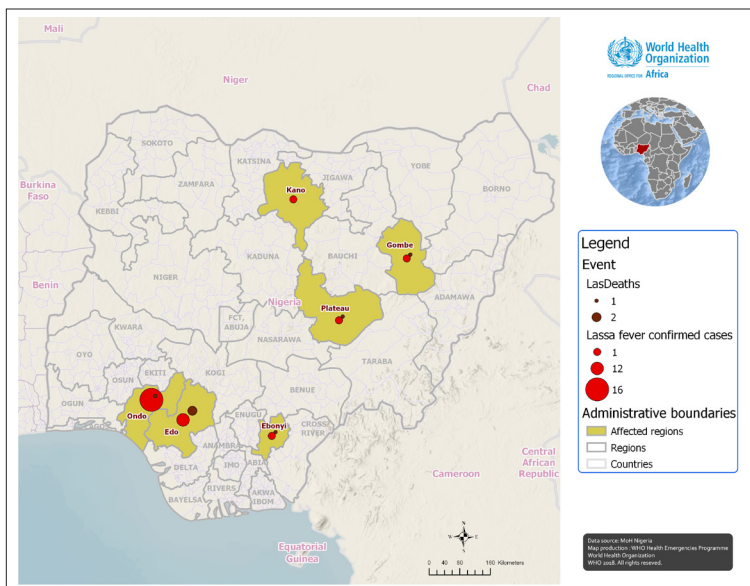
- The Nigeria Centre for Disease Control (NCDC) continues to coordinate the response activities through the Lassa fever technical working group and in collaboration with relevant ministries and partners.
- Three major treatment centres established in the three hotspot states, as well as others across the country, continue to manage confirmed cases. Commodities including personal protective equipment, ribavirin, thermometers and hand sanitizers have been prepositioned in these treatment centres.
- Assessments for case management, infection prevention and control, and diagnostic testing have been conducted in the three major treatment centres and testing laboratories. Measures to strengthen these areas include organising training and fulfilling equipment needs.
- Surveillance has been enhanced in hotspot and high risk communities. Capacity building workshops for surveillance officers and contact tracing teams have been organised, particularly in the three hotspot states.
- A sample transportation mechanism has been established to facilitate sample transportation to the laboratories. Four public health laboratories have been appropriately equipped and currently have the capacity to conduct diagnostic testing.
- Risk communication materials, guidelines and SOPs have been distributed across all states. Community engagement activities have been escalated ahead of the peak transmission season.
- A research and development consortium is being set up to provide evidence for improvement in the areas of operations, diagnostics, therapy and vaccination.

SITUATION INTERPRETATION

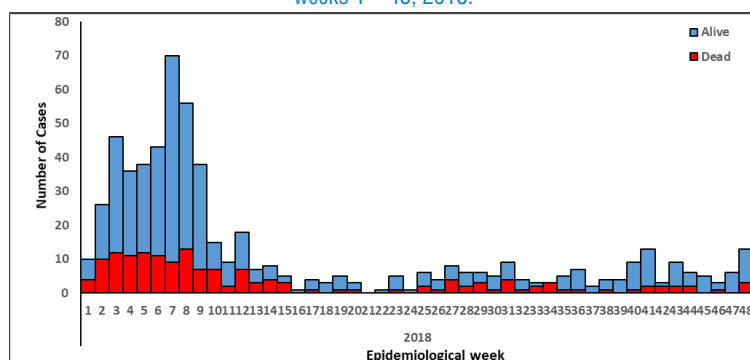
Lassa fever is endemic in Nigeria, with cases being reported all year round and peaking between December and June. The unprecedented scale of the outbreak that occurred early this year overwhelmed the existing capacities for response, leading to a declaration of an emergency. However, during and following the outbreak, sufficient capacity has been established. In-country capacity exist for surveillance, laboratory confirmation, case management and infection prevention and control, as well as risk communication and community engagement. These response structures and systems need to be activated now at the beginning of the peak season in order to avert further resurgence of the Lassa fever outbreak. Increased awareness and adherence to infection prevention and control measures are essential to limiting hospital-acquired infections, which are already being observed. Disease surveillance needs to be enhanced, both in the health facilities and communities.

Lassa fever, being a zoonotic disease, requires a One Health approach, especially in the areas of disease prevention, surveillance, investigation and response. While efforts have begun to incorporate this approach, more need to be done to translate the ongoing initiatives into tangible actions, especially at community level where the animal-human interaction occurs.

Geographical distribution of Lassa fever cases and deaths in Nigeria, weeks 44 – 48, 2018



Weekly trend of confirmed Lassa fever cases in Nigeria, weeks 1 – 48, 2018.



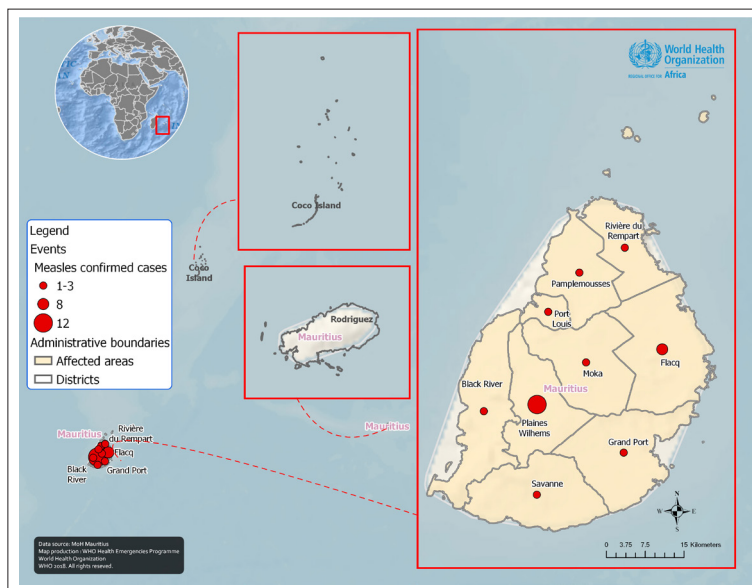
EVENT DESCRIPTION

The measles outbreak in Mauritius that started in early May 2018 has greatly improved, with fewer incidence cases being reported. After attaining a peak of 88 confirmed cases in week 24 (week ending 16 June 2018), followed by several smaller peaks until week 38, the disease trend has been steadily declining. In week 48 (week ending 2 December 2018), 15 new confirmed measles cases were reported compared to 21 confirmed cases in week 47. The confirmed cases (reported in week 48) came from six (out of 10) districts in the country, with 33% and 22% of the cases in Plaines-Wilhems and Flacq districts, respectively.

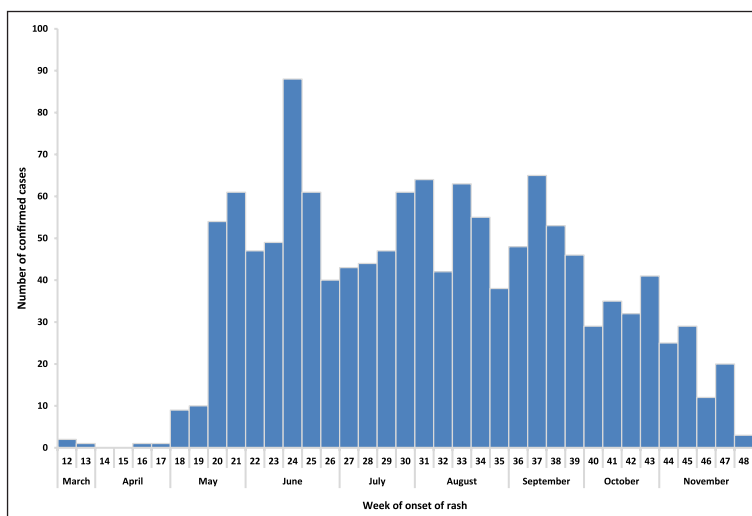
As of 2 December 2018, 1 324 laboratory confirmed cases have been notified by the virology laboratory of Candos. Seventeen throat swabs collected from confirmed cases were shipped to South Africa for genotyping, and genotype D8 was identified in 13 samples. There were four deaths, all occurring in young adult women, two of whom were immunocompromised. The vaccination status of the patients who died is unknown.

Children less than one year of age are the most affected age group, accounting for over 70% of all cases, followed by 1-4 years and 25-29 years. The districts of Port Louis and Black River have been the most affected. Just over one-third (33%) of cases are among patients of unknown vaccination status, 49% are not vaccinated, 16% received one dose of measles containing vaccine (MCV) and only 2% received two doses.

Geographical distribution of measles cases and deaths in Mauritius, weeks 47-48, 2018



Weekly trend of confirmed cases of measles in Mauritius, weeks 12-48, 2018



PUBLIC HEALTH ACTIONS

- A total of 10 rapid response teams made up of a medical health officer and a healthcare assistant have been set up to conduct active case search (screening for fever and rash) and ascertain vaccination status in pre-primary, primary and secondary schools, who then vaccinate with the measles, mumps and rubella (MMR) vaccine according to vaccination status.
- Supplementary vaccination activities (SIA) are being carried out in high risk areas, targeting children and people between 15 and 45 years of age. The MMR vaccines were also administered to company workforces in the public and private sectors, as well as those working in the transport sector and health workers in both the public and private sectors.
- Several communiques have been issued advising people in the 15-45 age groups to be immunized, in addition to younger children.
- The national Expanded Programme for Immunization (EPI) reviewed the vaccination schedule for MMR, with the first dose being given at nine months and the second dose at 17 months.
- Patients diagnosed with measles are advised to stay at home and avoid travel, and people in contact with measles cases are screened for fever and rash and then vaccinated with MMR vaccines according to their vaccination status.
- Community leaders in high risk areas are being sensitized on the importance of vaccination, and the general population is being sensitized on measles symptoms and vaccination by radio, press and television, as well as flyers that are distributed to schools in all regions.
- Information sheets are being provided to all health facilities (public and private) and well as updates on measles to hospital staff.

SITUATION INTERPRETATION

The measles outbreak in Mauritius, which occurred as a result of low vaccination coverage in many sectors of the population, has greatly improved. Several measures have been put in place, including supplementary immunization campaigns, active case search and enhanced community mobilization. The MMR vaccination schedule has also been revised to two years of age, from five years and the first dose given at less than one year. Authorities need to continue to intensify these measures, especially public education on the importance of vaccination as well as vaccination campaigns to improve MMR coverage to ensure that the current declining trend in new cases is maintained.

EVENT DESCRIPTION

There is currently relative peace in South Sudan, although the security situation is still unpredictable, with reports of sporadic armed attacks, incidents of gender-based violence, cattle raiding, robbery and revenge killing reported across the country. The Sudan's Humanitarian Aid Commission recently extended its humanitarian corridor to South Sudan for six months, aimed to improve provision of aid to the people in need. On 30 November 2018, local authorities in Atar 3 reportedly confiscated nutrition supplies meant for children from an NGO in Diel/Atar 3, Pigi Canal County, the second time this has happened. On 23 November 2018, intercommunal fighting was reported between armed youths in Koch town, affecting locally recruited aid workers belonging to the feuding clans. As a result, 53 aid workers, including international staff, were relocated to Bentiui road on 24 November 2018.

On 29 November 2018, partners were able to access and assess the humanitarian situation in Rimenze and James Diko, 43 km north-east of Yambio, which has not been accessed without Force Protection since 2016. Critical needs in water, sanitation and hygiene (WASH), health and food were noted.

On 21 November 2018, 230 children under the age of five were screened for malnutrition in Mugwo, with nine found with severe acute malnutrition (SAM) and 32 with moderate acute malnutrition (MAM), compared with one case of SAM and five of MAM reported out of 159 children under five in a similar assessment in the same area on 9 November 2018. Malnutrition in pregnant and lactating women has also risen.

Epidemic-prone diseases continue to be monitored. During week 47 (week ending 24 November 2018) malaria and measles were the most frequent infectious hazards reported. Other diseases investigated include yellow fever in Sakure and suspected Guinea worm in Pibor and Longechuk. A new outbreak of yellow fever was reported in Nzara and of measles in Rumbek East County. Two new hepatitis E cases were reported in the same week, bringing the cumulative total of cases reported in Bentiui protection of civilians site to 147, with 18 confirmed, during 2018. Malaria remains the top cause of morbidity and mortality, accounting for 46.6% of deaths during 2018, with at least 21 counties with malaria trends exceeding expected levels. A total of 1.58 million cases with 614 deaths have been registered since week 1 of 2018. Acute respiratory infections, acute watery diarrhoea and bloody diarrhoea follow malaria as causes of morbidity and mortality.

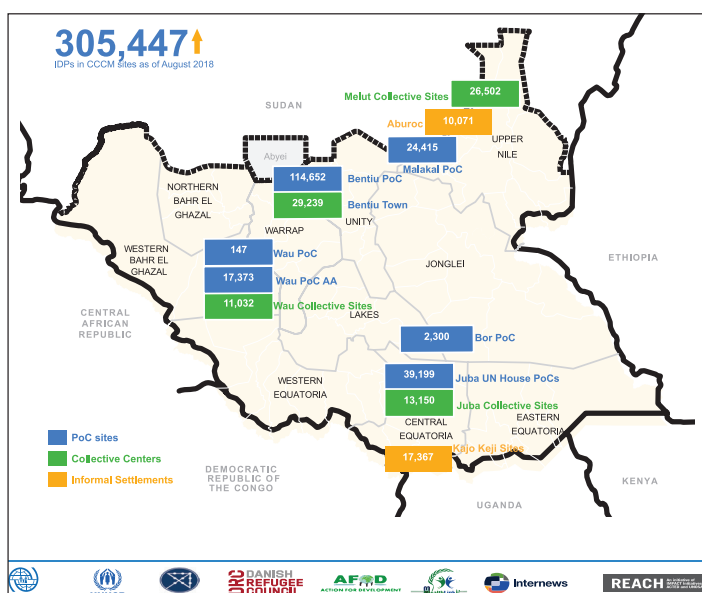
PUBLIC HEALTH ACTIONS

- Ebola virus disease preparedness and response continues with regular meetings of the National and State Level EVD task force and the fourth Strategic Advisory Group meeting chaired by WHO and UN OCHA held on 25 November 2018.
- Travellers entering South Sudan continue to be screened at 18 designated sites supported by WHO, International Organization for Migration, SCI, World Vision International South Sudan and other partners, although porous entry points remain a major threat. To date 637 880 travellers have been screened.
- Community education and surveillance on Ebola prevention is ongoing in all high-risk states with support from UNICEF, WHO and other partners. The risk communication and engagement strategy has been updated, aimed at strengthening response.
- The Ebola virus disease contingency plan for United Nations personnel and their families in South Sudan has been developed, which ensures that the body continues to function in the event of an outbreak.
- A three-day workshop was held by the Ministry of Health from 26-28 November 2018, with the support of WHO, to train immunization officers, state surveillance officers and state laboratory focal points in detection, confirmation and response to meningitis.
- WHO is facilitating the revision of the malaria treatment guidelines for South Sudan. Malaria incidence trends continue to be tracked, along with social mobilization and mass distribution of 855 000 long lasting insecticide treated nets in Western Equatoria and Western Bahr el Ghazal states.
- Polio Sub National Immunization Days have been completed in all six targeted states; Lot Quality Assurance Sampling surveys were conducted in 16 counties using the Open Data Kit; and Post Campaign Evaluation Surveys are ongoing in six states, administered by an independent agent to validate administrative results by county.
- WHO, in collaboration with the Ministry of Health, conducted training-of-trainers workshop in immunization practice from 26-30 November 2018 in Kuajok town, Gogrial State for 35 participants from six counties of Greater Warrap, to build capacity for delivery of high quality immunization services.
- Nutrition training continues, supported by WHO, to improve management of severe acute malnutrition with medical complications.

SITUATION INTERPRETATION

The overall situation in South Sudan appears to be relatively peaceful, giving hope that recent peace agreements will hold and that access to humanitarian aid will improve over time. However, the sporadic incidents of insecurity, as well as poor road networks and adverse weather events continue to hamper humanitarian access. Assessments of nutrition and other health indicators still reveal major humanitarian needs, along with continued outbreaks of epidemic-prone and vector-borne diseases. Funding to bring both the humanitarian response plan and Ebola preparedness up to the amounts required is still needed. International authorities must remain vigilant in this precarious humanitarian situation.

Population displacement in South Sudan as of 15 August 2018



Summary of major issues challenges, and proposed actions

Major issues and challenges

- ▶ The continuous transmission of EVD in North Kivu and Ituri provinces, Democratic Republic of the Congo is extremely worrying despite progress in many intervention areas. Security challenges and pockets of community resistance remain major impediments. Two health facilities were burnt down by the community during the reporting week. The proportion of contacts that cannot be reached and monitored is also unacceptably high. Efforts are ongoing to intensify conventional public health measures that are known to be effective (such as contact tracing and engaging communities) and the use of new tools at hand (namely immunization and therapeutics). It remains to be seen whether the current thrust in efforts will turn the tide in the evolution of the outbreak, sooner rather than later.
- ▶ The incidence of confirmed Lassa fever cases has started to increase in Nigeria during the past few weeks. This increasing trend corresponds to the known Lassa fever seasonal pattern in the country, which starts from December to June. Coming out of the unprecedented outbreak at the beginning of the year, it is anticipated that the country has put together adequate preparedness and response capacity. However, it is concerning that infection among health workers continues to occur. The increasing cases of Lassa fever should serve as an early warning and a trigger for the authorities to step up preparedness and response measures, in order to avert a repeat of the unprecedented outbreak that occurred at the beginning of the year.

Proposed actions

- ▶ The national authorities and partners in the Democratic Republic of the Congo need to continue with intense implementation of conventional public health measures and application of new tools. Key among these measures is community engagement, meticulous case investigation and effective contact tracing.
- ▶ The national authorities and partners in Nigeria need to scale up implementation of Lassa fever preparedness and response interventions across the country. Additionally, there is a need to strengthen implementation of preventive measures using the One Health approach.

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										
Benin	Lassa Fever	Ungraded	7-Dec-18	7-Dec-18	7-Dec-18	1	1	0	0.0%	A case of Lassa fever in Benin was reported on 7 December 2018. The case (female, 22 years) is a Benin national, but resides in Taberou, Nigeria, near the border with Benin. She developed symptoms on 23 November 2018, and was first treated in Taberou (Nigeria) prior to being admitted to the CHUD Borgou-Alibori hospital (Parakou commune, Borgou department) on 29 November 2018. The case was confirmed by Benin's national VHF reference laboratory on 7 December 2018. Three contacts have been identified and are currently under observation. One of the contacts, the case's husband, is being considered a suspected case.
Ongoing events										
Angola	Cholera	Ungraded	20-Nov-18	9-Oct-18	12-Nov-18	139	-	2	1.4%	Two community deaths have been reported in this outbreak which began on 9 October 2018. The peak of the outbreak was on week 44 (week ending 4 November 2018) with 41 cases including one death reported. Since then, there has been a declining trend in the weekly number of cases. Papelao is the most affected area in Uige Province, reporting a total of 35 cases.
Cameroon (Far North, North, Adamawa & East)	Humanitarian crisis (Far North, North, Adamawa & East)	Protracted 2	31-Dec-13	27-Jun-17	23-Nov-18	-	-	-	-	The situation remains precarious with several regions of the country affected. In the Far North, the situation is marked by attacks linked to Boko Haram thus generating an influx of refugees from Nigeria including mass displacement of the local population. In other regions, similar trends are noted with a huge influx of refugees from the neighbouring Central African Republic. Humanitarian access also remains a challenge.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Cameroon (NW & SW)	Humanitarian crisis (NW & SW)	G2	1-Oct-16	27-Jun-18	7-Dec-18	-	-	-	-	The security situation in the North west and South West remain volatile. Clashes between secessionists and the army continue, triggering further displacement and disrupting the healthcare, education and livelihood systems, driving significant needs. This is impacting the health status of the population, and the possible occurrence of infectious disease outbreaks is a concern.
Cameroon	Cholera	G1	24-May-18	18-May-18	2-Dec-18	987	73	57	5.8%	The outbreak has affected 4 out of 10 regions in Cameroon, these include: North, Far North, Central and Littoral region. From 23 to 28 November 2018, 45 new suspected cases were reported in the far North (8 cases) and North (37 cases) and a total of five samples tested positive for cholera (Far North:1, and North: 4). No new confirmed case has been reported from the Central and Littoral regions since 27 August 2018 and 11 October 2018, respectively.
Central African Republic	Humanitarian crisis	Protracted 2	11-Dec-13	11-Dec-13	2-Dec-18	-	-	-	-	The security situation was calm but tense during the week (from 26 November to 2 December 2018). WHO and health sector partners continue to assist those affected who return to the ruins of the Catholic Church site and those who moved from Alindao to Datoko Village. There was a security tension in the Pk5 area of Bangui on 25 November 2018 between criminal groups and armed traders.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Central African Republic	Monkeypox	Ungraded	20-Mar-18	2-Mar-18	3-Dec-18	45	24	1	2.2%	Since 2 October 2018, three clusters of monkeypox cases were reported from three health districts. Mbaiki district reported 9 cases, including 8 confirmed, from week 40 to week 46. Bangassou district reported 5 cases, including 3 confirmed, from week 46 to week 47. On week 48, two cases (both confirmed) were reported from Bossembele district. No deaths were reported. Most cases from each district are epidemiologically linked (same household). Previous clusters have occurred in three districts: Bangassou (weeks 9-11, nine cases including six confirmed), Bambari (weeks 13-16, 15 cases, including three confirmed) and Mbaiki (weeks 26-27, five cases, including two confirmed). One death had been reported among the previous confirmed cases.
Central African Republic	Hepatitis E	Ungraded	2-Oct-18	10-Sep-18	26-Nov-18	119	80	2	1.7%	As of 26 November 2018, a total of 119 cases were reported, including 80 confirmed and 39 probable. One death was reported among the cases.
Democratic Republic of the Congo	Yellow fever	Ungraded	23-Jun-18	1-Jul-18	1-Dec-18	15	3	0	0.0%	Fifteen cases of yellow fever have been confirmed at the National Reference Laboratory (INRB) since the beginning of 2018. Of these, three cases were confirmed by IP Dakar from Yalifafu health zone in Tshuapa Province (2 cases) and Ango health zone in Bas Uele Province (1 case).
Chad	Measles	Ungraded	24-May-18	1-Jan-18	18-Nov-18	4 769	919	92	1.9%	In week 48 (ending 2 December 2018), 259 suspected cases were reported. There has been an increasing trend in the reported number of cases since week 43. Of the total confirmed cases, 356 were laboratory confirmed by IgM. Thirty-nine districts have reported a confirmed epidemic.

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	20-Nov-18	-	-	-	-	The humanitarian crisis in the country remains volatile. Inter-communal conflicts and violence perpetrated by militias including the kidnapping of humanitarian staffs continue to contribute to mass population displacement and difficulty in access to humanitarian assistance in several localities in the east of the country. Since early October 2018, more than 308 000 displaced people have returned from Angola to the Kasai region and are in urgent need of humanitarian assistance. The response activities to Ebola outbreak are ongoing in North Kivu and Ituri, however disrupted by the insecurity in some areas. The ongoing cholera outbreak is affecting mainly Kasai Oriental, Sankuru, Lomami, Tanganyika, South Kivu and Haut Katanga.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-18	11-Nov-18	26 017	-	878	3.4%	A total of 639 suspected cases of cholera including 18 deaths (CFR:2.8%) were reported during week 45 (ending on 11 November 2018). Ten out of twenty-four provinces have sent date reported at least one case. The six most affected provinces (Kasai Oriental, Sankuru, Lomami, Tanganyika, Upper Katanga and South Kivu) reported 94% of cases and 89% of deaths during week 45. There is a decrease in the total number of cases reported in week 45 compared to the previous week.
Democratic Republic of the Congo	Ebola virus disease	G3	31-Jul-18	11-May-18	8-Dec-18	494	446	283	57%	Detailed update given above.
Democratic Republic of the Congo	Measles	Ungraded	10-Jan-17	1-Jan-18	11-Nov-18	44 864	842	566	1.3%	During week 45 (ending 11 November 2018), 2 551 suspected cases including 33 deaths (CFR: 1.3%) were reported across the country. Ninety four percent (94%) of all cases were reported from nine provinces: Tshopo, Haut Katanga, Haut Lomami, Lualaba, South Kivu, Maniema, Ituri, Tanganyika and Kasai Oriental. Since week 23, there has been an increasing trend in the weekly number of cases since week 22.

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	Monkeypox	Ungraded	n/a	1-Jan-18	11-Nov-18	3 949	-	86	2.2%	During week 45 (ending 11 November 2018), 74 suspected cases with two deaths were reported across the country. Suspected cases have been detected in 14 provinces. Sankuru Province has had an exceptionally high number of suspected cases this year.
Democratic Republic of the Congo	Polio-myelitis (cVDPV2)	G2	15-Feb-18	15-Jun-17	6-Dec-18	43	43	0	0.0%	Two new genetically-linked circulating vaccine-derived poliovirus type 2 (cVDPV2) isolates were detected, from an acute flaccid paralysis (AFP) case (with onset of paralysis on 7 October 2018, in a 29-month old child), and a contact of a second AFP case (the case is an 11-year old child), from Haut-Katanga province (Mufunga-Sampwe district). The isolated viruses are a new emergence and unrelated to previously-detected cVDPV2s affecting the country.
Democratic Republic of Congo	Yellow fever	Ungraded	23-Jun-18	1-Jul-18	1-Dec-18	15	3	0	0.0%	Fifteen cases of yellow fever have been confirmed at the National Reference Laboratory (INRB) since the beginning of 2018. Of these, three cases were confirmed by IP Dakar from Yalifafu health zone in Tshuapa Province (2 cases) and Ango health zone in Bas Uele Province (1 case).
Ethiopia	Humanitarian crisis	G2	15-Nov-15	n/a	28-Nov-18	-	-	-	-	About 2.6 million IDPs and 905 000 refugees are in Ethiopia. Although conflict is the main cause of displacement, around 500 000 have been displaced due to climatic shocks and their impact on food production. Currently there are about 946 788 IDPs in the West Guji zone (Oromia region) and neighbouring Gedeo zone (SNNPR region). Renewed violence in Benishangul Gumuz has led to a surge in the internal displacement of about 121 528 displaced persons from 7 districts consisting of 21 643 households and number are expected to increase in both East and West Wollega zones of Oromia region.
Ethiopia	Acute watery diarrhoea (AWD)	Protracted 1	15-Nov-15	1-Jan-18	25-Nov-18	3 090	-	-	-	No new cases of AWD were reported in the existing hotspots on weeks 46 and 47. In total, 3 090 cases have been reported in 2018.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Ethiopia	Measles	Protracted 1	14-Jan-17	1-Jan-18	18-Nov-18	3 832	1 312	-	-	Six new measles cases were reported on week 46. Of the 1 312 cumulative confirmed cases reported in 2018, 280 were lab-confirmed, 963 were epi-linked and 69 were clinically compatible. Most cases were reported from Somali Region (24%), Addis Ababa (22%), Oromia (19%), Amhara (16%) and SNNPR (11%).
Ethiopia	Yellow fever	Ungraded	4-Oct-18	21-Aug-18	25-Nov-18	35	5	10	28.6%	No new cases of yellow fever were reported on weeks 46 and 47. From 21 August 2018, 35 cases were reported from Wolayita Zone in South Nation, Nationalities and Peoples (SNNP) region located in southwest Ethiopia. Five out of 21 samples sent to IP Dakar were confirmed for yellow fever using plaque reduction neutralization test (PRNT).
Guinea	Measles	Ungraded	9-May-18	1-Jan-18	25-Nov-18	1 871	476	15	0.8%	Cases have been reported in all parts of the country. Four localities are currently considered to be in active epidemic phase: Siguiri (since week 32), de Labé (week 43), Kérouané (week 45) and Popodara (Labé District). A total of fifteen deaths have been reported amongst suspect cases.
Kenya	Measles	Ungraded	19-Feb-18	19-Feb-18	20-Nov-18	718	66	1	0.1%	Since the beginning of the year, six counties were affected by the measles outbreak, namely Mandera, Wajir, Garissa, Nairobi, Kitui and Muranga. The outbreak is ongoing three counties: Wajir, Garissa and Kitui.
Liberia	Measles	Ungraded	24-Sep-17	1-Jan-18	25-Nov-18	3 980	3 606	16	0.4%	Thirty-three suspected cases (including one IgM-positive) with zero deaths were reported during week 47 (ending 25 November 2018) across the country. The cases were reported from seven counties: Sinoe (8), Grand Bassa (7), Grand Gedeh (6), Grand Kru (4), River Gee (4) Montserrado (3) and Margibi (1). Of the 3 980 cumulative confirmed cases reported in 2018, 313 are laboratory-confirmed, 523 epidemiologically linked, and 2 770 are clinically confirmed.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Liberia	Lassa fever	Ungraded	14-Nov-17	1-Jan-18	25-Nov-18	28	21	14	50.0%	No new Lassa cases were confirmed in week 47. Since the beginning of January 2018, a total of 189 suspected cases including 50 deaths have been reported. Of these, 21 cases have been confirmed by RT-PCR (Nimba-9, Bong-5, Montserrado-3, Margibi-2, and Grand Bassa-2); 153 tested negative, and 7 specimens were not tested due to poor quality. The case fatality ratio among confirmed cases is 66% (14/21).
Madagascar	Measles	Ungraded	26-Oct-18	4-Oct-18	3-Dec-18	6 503	6 503	0	0.0%	From 27 November 2018 to 3 December 2018, 2 399 new confirmed cases were reported, including 13 lab confirmed and 2 386 epi-linked, and three more regions were affected. As of 3 December 2018, 6 503 confirmed cases have been reported (220 lab-confirmed and 6 283 epi-linked) from 39 health districts in 20 regions. The most affected district is Antananarivo Renivohitra with 4 106 cases. No deaths were reported.
Mali	Humanitarian crisis	Protracted 1	n/a	n/a	23-Nov-18	-	-	-	-	Mali has suffered a complex political and security crisis since 2012. Northern and central Mali are facing an increasing number of incidents affecting the population. More than five million people are affected by the crisis and in need of humanitarian assistance at the national level, including 77 046 IDPs and 140 123 refugees in neighbouring countries such as Niger, Mauritania and Burkina Faso.
Mali	Severe acute malnutrition	Ungraded	1-Aug-18	15-Mar-18	5-Aug-18	224	0	40	17.9%	Three villages (Douna, Niagassadiou and Tigoula) in the commune of Mondoro, Douentza district, Mopti Region, Central Mali are experiencing an epidemic of malnutrition following the inter-communal conflict that prevails in the locality. A dozen samples from patients analyzed at INRSP in Bamako showed iron deficiency anaemia.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Mali	Measles	Ungraded	20-Feb-18	1-Jan-18	4-Nov-18	1 529	374	3	0.2%	In week 44, 26 new suspected cases were reported from Bamako (9), Sikasso (8), Segou (5) and Mopti(1) regions. From Week 1 to 44 of 2018, a total of 1 064 blood samples that have been collected, 374 were confirmed (IgM-positive), 578 discarded (IgM-negative), and 112 are pending at the National Reference Laboratory (INRSP). Forty five Health districts in the country have reported cases since the beginning of the outbreak.
Mauritania	Dengue fever	Ungraded	26-Oct-18	15-Sep-18	26-Oct-18	65	65	0	0.0%	WHO has been notified of 65 confirmed cases of dengue fever reported across six regions of the country since mid-september. Test results from the National Institute of Research and Public Health (INRSP) confirmed the cases for Dengue virus serotype II infection. Additional investigation is ongoing.
Mauritania	Rift Valley fever (RVF)	Ungraded	23-Nov-18	4-Nov-18	24-Nov-18	1	1	1	100.0%	On 16 November 2018, a 40-year-old male farmer from a village in Adel Bagrou commune, located 30 km away from the boarder with the Republic of Mali was confirmed by PCR with Rift Valley fever at INRSP. The case died after 11 days of symptom presentation following poor response to treatment. A safe and dignified burial was conducted and a total of 22 contacts including 12 health care workers have been listed for follow up.
Mauritius	Measles	Ungraded	23-May-18	19-Mar-18	2-Dec-18	1 324	1 324	4	0.3%	Detailed update given above.
Namibia	Anthrax (suspected)	Ungraded	2-Nov-18	30-Oct-18	2-Nov-18	41	-	0	0.0%	Forty-one suspected human cases of anthrax including 6 cases of cutaneous anthrax and 35 cases of gastrointestinal anthrax have been reported from Sesfontein settlement, Opuwo district, Kunene region in north-western Namibia. Laboratory confirmation is pending.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Namibia	Hepatitis E	G1	18-Dec-17	8-Sep-17	4-Nov-18	3 851	508	31	0.8%	A total of 34 cases (one lab-confirmed, 27 epi-linked, and six suspected) were reported from four regions (Erongo, Khomas, Ohangwena and Omusati) across the country. As of 21 October 2018, seven out of 14 regions in Namibia have been affected by the HEV outbreak namely; Khomas, Omusati, Erongo, Oshana, Oshikoto, Kavango, and Ohangwena regions. Cases reported across the country are mainly from informal settlements with limited access to clean water and sanitation services.
Niger	Humanitarian crisis	G2	1-Feb-15	1-Feb-15	3-Oct-18	-	-	-	-	The country continues to face food insecurity, malnutrition, and health crises due to drought, floods, and epidemics. The insecurity instigated by Boko Haram group persists in the country.
Niger	Cholera	G2	13-Jul-18	13-Jul-18	3-Dec-18	3 824	43	78	2.0%	No new suspected case of cholera was reported since 19 November 2018. A total of 107 495 persons (Males: 48 268 and female: 59 227) were vaccinated on the third day (vaccination coverage: 70.5%) of the OCV campaign that started on 3 December 2018 in Aguié District.
Niger	Circulating vaccine-derived polio virus type 2 (cVDPV2)	G2	8-Jul-18	8-Jul-18	30-Nov-18	8	8	1	12.5%	A total of eight cVDPV2 cases have been reported in 2018 in Niger, which are genetically linked to a cVDPV2 case in Jigawa and Katsina states, Nigeria.
Nigeria	Humanitarian crisis	Protracted 3	10-Oct-16	n/a	18-Nov-18	-	-	-	-	Since the start of the conflict in 2009, more than 27 000 people have been killed in Borno, Adamawa, and Yobe states while thousands of girls and women abducted and children used as so-called “suicide” bombers. About 1.8 million people are internally displaced in these states, and 7.7 million people are in need of humanitarian assistance. More than 130 000 people have been displaced since October 2017.
Nigeria	Cholera	G1	7-Jun-17	1-Jan-18	28-Oct-18	42 466	47	830	2.0%	In week 43 (ending 28 October 2018), 173 new suspected cases with one death were reported from five states: Adamawa (92 cases with one death), Zamfara (37 cases), Borno (35 cases), Yobe (6 cases), and Katsina (4 cases). There is an overall downward trend in the number of cases across the country.
Nigeria	Lassa fever	Ungraded	24-Mar-15	1-Jan-18	2-Dec-18	3 229	581	147	25.3%	Detailed update given above.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Measles	Ungraded	25-Sep-17	1-Jan-18	11-Nov-18	15 723	1 110	123	0.8%	In week 45 (ending 11 November 2018), 205 suspected cases of measles were reported from 28 states across the country. Since the beginning of the year, 4 604 fewer cases were reported compared with the same period in 2017.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	13-Nov-18	300	126	8	2.7%	Nigeria continues to report sporadic cases of monkeypox since the beginning of the outbreak in September 2017. As of 13 November 2018, a total of 104 cases have been reported since the beginning of the year from 19 States (Rivers, Akwa-Ibom, Bayelsa, Cross River, Delta, Ebonyi, Edo, Enugu, Imo, Kebbi, Lagos, Nasarawa, Oyo, Abia, Anambra, Bauchi, Plateau, Adamawa and the FCT). Rivers state and Bayelsa state in South-south Nigeria remain the most affected states. The number of reported cases has been decreasing gradually in the last 4 epi weeks.
Nigeria	Polio-myelitis (cVDPV2)	Ungraded	1-Jun-18	1-Jan-18	27-Nov-18	27	27	0	0.0%	No new cases of circulating vaccine-derived poliovirus type 2 (cVDPV2) cases were reported this week. The country continues to be affected by two separate cVDPV2 outbreaks, the first centered in Jigawa state with subsequent spread to other states as well as to neighbouring Republic of Niger, and the second in Sokoto state.
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	25-Nov-18	3 510	58	74	2.1%	In week 47 (ending on 25th of November 2018), 3 new suspected cases were reported from Edo state. Since the onset of this outbreak, cases have been reported from 570 Local Government Areas (LGAs) in all Nigerian states. Confirmed cases have been recorded in 27 LGAs across 14 states (Kwara, Kogi, Kano, Zamfara, Kebbi, Nasarawa, Niger, Katsina, Edo, Ekiti, Rivers, Anambra, FCT, and Benue States).

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Senegal	Dengue fever	Ungraded	21-Sep-18	19-Sep-18	2-Dec-18	331	331	1	0.3%	In week 48 (ending 2 December 2018), 17 new cases were confirmed with no severe cases or deaths. As of 2 December 2018, a total of 2 811 suspected cases including 331 confirmed cases (12%) have been reported from eight regions across the country; Diourbel (205 cases), Fatick (37 cases), Saint-Louis (352 cases), Dakar (22 Cases), Thies (7 case), Louga (6 case) and Matam (2). A total of three dengue haemorrhagic fever cases were reported, one from Diourbel and two from Dakar.
São Tomé and Príncipe	Necrotising cellulitis/fasciitis	Protracted 2	10-Jan-17	25-Sep-16	25-Nov-18	3 083	-	0	0.0%	During week 47 (ending on 25 November 2018), 8 new cases were notified from 3 districts Agua Grande (1), Lobata (2) and Me-zochi (5). The national attack rate as of week 47 is 15.6 per 1000.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	21-Oct-18	6 120	1 511	-	-	Increasing trends were observed for the past four weeks. There was general decreasing trend between week 23 and week 35. Analyses on serotypes from week 35 showed circulation of DENV1, DENV2 and DENV3.
South Sudan	Humanitarian crisis	Protracted 3	15-Aug-16	n/a	23-Nov-18	-	-	-	-	Detailed update given above.
South Sudan	Hepatitis E	Ungraded	-	3-Jan-18	2-Dec-18	161	18	2	1.3%	No new cases were reported in week 48 (ending 2 December 2018). Of the cumulative cases reported in 2018, 147 are from Bentiu PoC and 14 from Old Fangak. In week 43, one new suspected death was reported from Old Fangak.
South Sudan	Measles	Ungraded	24-Nov-18	24-Nov-18	25-Nov-18	15	9	1	6.7%	Fifteen cases of suspected measles were reported from Mabor Duang and Payam villages (Rumbek East) since 20 October 2018. All the suspected cases were not vaccinated for measles and 80 % of them were under five years old. A total of 9 samples tested measles IgM positive on 22 November 2018.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
South Sudan	Yellow fever	Ungraded	29-Nov-18	18-Nov-18	29-Nov-18	1	1	0	0.0%	On 23 Nov 2018, a suspect Ebola alert was reported in Sakure, Nzara county, Gbudue state. The suspect, is a 25 years old male farmer who resides in village called Hai-Network in Sakure Payam, Nzara County in Gbudue state. He allegedly went on business mission to Bangadi DRC on 16 November 2018. After spending two days in DRC, he developed fever, headache, joint pain, diarrhoea and vomiting of blood on the 18 November 2018. He spent 6 days without improvement in DRC and decided to return so that he could get medical service in Yambio, South Sudan. He was escorted by two brothers on a motorcycle. He got screened at Sakure PoE and was isolated on the 23 November 2018.
Tanzania	Cholera	Protracted 1	20-Aug-15	1-Jan-18	2-Dec-18	4 599	50	83	1.8%	During week 48 (ending 2 December 2018), 4 new cases with no deaths were reported from Momba district in Songwe region. The total number of cholera cases in the United Republic of Tanzania since 2015 is 33 214 cases including 550 deaths
Uganda	Humanitarian crisis - refugee	Ungraded	20-Jul-17	n/a	5-Dec-18	-	-	-	-	After the countrywide refugee-verification process was completed on 24 October, 1 091 024 refugees and asylum-seekers were registered, representing 75% of the previously estimated target population of 1.4 million. South Sudanese refugees and asylum seekers make up the largest group seeking refuge in Uganda (770 667 people), followed by those originating from DR Congo (242 608 people). The influx of refugees have strained Uganda's public services, creating tensions between refugees and host communities.
Uganda	Crime-an-Congo haemorrhagic fever (CCHF)	Ungraded	24-May-18	-	23-Oct-18	10	6	2	20.0%	One new case involving a 30-year-old female from Kabarole District tested positive for CCHF and is currently in admission under-going treatment. The presentation was initially with high fever, tremors and later developed a history of bleeding from the nose.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Uganda	Measles	Ungraded	8-Aug-17	1-Jan-17	20-Nov-18	3 227	843	1	0.0%	The majority of confirmed cases were under five years old (61.4%), not vaccinated (67%) or residents of rural areas (99%). In total, 116 confirmed cases (13.8%) were below 9 months of age which is the minimum age restriction for the vaccine. Cases have been confirmed either by epidemiological link or laboratory testing (IgM-positive) since the beginning of the year. Fifty-three districts in the country have reported measles outbreaks.
Zimbabwe	Cholera	G2	6-Sep-18	6-Sep-18	7-Dec-18	10 550	281	59	0.6%	Gwanda district in Matabeleland South Province is the latest area to report an outbreak of cholera with two suspected cases, of which none have been confirmed by culture as of 7 December 2018. Across the country, 17 new suspected cases were reported on 7 December 2018, with eleven from Harare City and four from Mount Darwin District in Mashonaland Central Province, in addition to those reported in Gwanda. No new deaths were reported. The outbreak is largely under control in Harare City, but there has been a recent spike of cases in Mount Darwin and Chiredzi districts.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Zimbabwe	Typhoid fever	Ungraded	-	1-Oct-17	16-Nov-18	5 164	262	12	0.2%	There is a resurgence of typhoid fever in Harare, the capital city of Zimbabwe, since mid-September 2018. The increase started in week 37 (week ending 16 September 2018) when 57 suspected typhoid fever cases were reported, compared to 10 cases (which lies within normal range) in week 36. The weekly incidence eventually peaked in week 41 (week ending 14 October 2018), with 130 cases and has since started declining gradually. There were 90 suspected cases reported in week 45 (week ending 11 November 2018).
Recently closed events										
South Africa	Cholera	Ungraded	5-Oct-18	29-Sep-18	13-Oct-18	3	3	0	0.0%	A third case of cholera was notified to WHO on 16 November 2018. The patient is a migrant worker from Zimbabwe, working and living in Alidays, Blouberg area, Limpopo Province. He is believed to have visited Zimbabwe two weeks ago. On returning he presented at Alidays Clinic complaining of acute watery diarrhea and vomiting. He was transferred to Helena Franz Hospital for further management. The laboratory tests of the stool specimen confirmed cholera.
Uganda	Rift Valley fever (RVF)	Ungraded	29-Jun-18	20-Jun-18	14-Aug-18	23	19	8	34.8%	Cases have been reported from 11 districts in Western Uganda with Insingiro being the most affected district reporting 11 cases and two deaths. In total, nineteen cases have been confirmed by PCR. Ninety-six percent (96%) of cases reported are males, the majority of whom are herdsman and butchers.

†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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