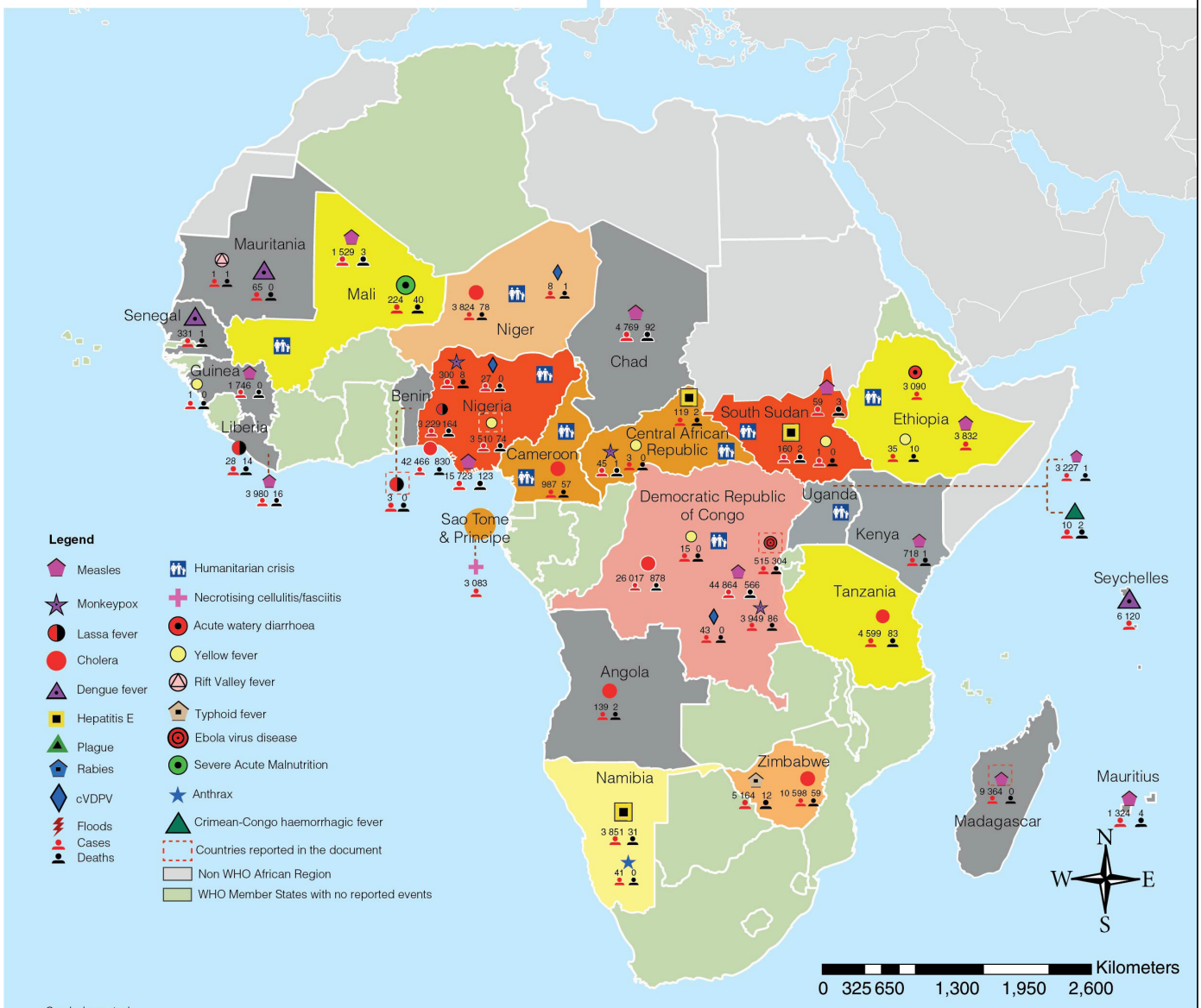
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 50: 8 - 14 December 2018
Data as reported by 17:00; 14 December 2018

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

1	57	48	10
New event	Ongoing events	Outbreaks	Humanitarian crises



Graded events †

2 Grade 3 events	**6** Grade 2 events	**3** Grade 1 events	**38** Ungraded events
2 Protracted 3 events	**3** Protracted 2 events	**4** Protracted 1 events	

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

  - Lassa fever in Benin
  - Ebola virus disease in the Democratic Republic of the Congo
  - Yellow fever in Nigeria
  - Measles in Madagascar.

- 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 and thus closed.

- **Major issues and challenges include:**

  - Responding to the Ebola virus disease outbreak in north-eastern part of the Democratic Republic of the Congo continues to face enormous multifaceted challenges. The major issues remain insecurity, population mobility and pockets of community reluctance due to misinformation and rumours. Efforts to tackle the community aspects affecting the response are ongoing as well as strengthening proven public health measures (contact tracing, engaging communities) and the application of new tools at hand (immunization and therapeutics). WHO remains confident that this outbreak will be contained and brought to an end.

  - A new focus of yellow fever outbreak has emerged in Edo State, Nigeria, following a large outbreak that occurred from September 2017 to March 2018. Additionally, a number of countries in the African Region have confirmed yellow fever outbreaks, lately, including Congo, Democratic Republic of the Congo, Ethiopia, Guinea and South Sudan. The recent resurgence of yellow fever outbreaks in the African region is concerning, and needs to be tackled swiftly if the target to eliminate yellow fever outbreaks by 2026 is to be achieved in a timely way.

New events

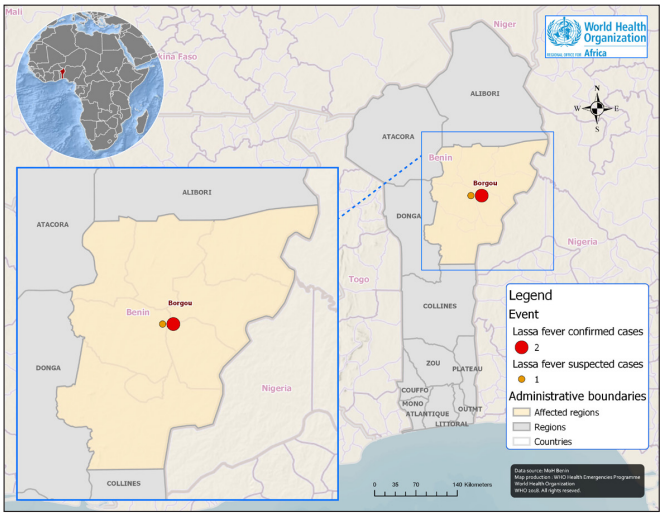
Lassa fever | **Benin** | 3 **Cases** | 0 **Deaths** | 0% **CFR**

EVENT DESCRIPTION

On 7 December 2018, the Ministry of Health in Benin notified WHO of an outbreak of Lassa fever in Borgou Department, located in the north-east, at the border with Nigeria. The event was initially reported by the departmental health authority on 6 December 2018, following detection of a suspected Lassa fever case in the Departmental University Hospital Centre (CHUD) of Borgou-Alibori in Parakou city. The case-patient, a 22-year old Beninese housewife who live in Taberou village, Kwara State, Nigeria, reportedly developed a febrile illness on 23 November 2018 while in Nigeria, from where she initially sought medical treatment. However due to lack of improvement, the family brought her back home to Benin on 29 November 2018 and she was admitted to the teaching hospital (the same day), presenting with fever, haematemesis (vomiting blood), and melaena (blood in her stools). The disease eventually progressed in the subsequent days, with conjunctival hyperaemia, severe weakness and dysphagia, among other symptoms. Blood and urine specimens were obtained and shipped to the viral haemorrhagic fever national laboratory in Cotonou, arriving on 6 December 2018. Test results released on 7 December 2018 were positive for Lassa fever by reverse transcription polymerase chain reaction (RT-PCR).

On 6 December 2018, the spouse of the confirmed index case was found to have symptoms and a blood specimen was obtained, and the test result also turned out positive for Lassa fever. On 9 December 2018, one of the two children of the confirmed cases (a couple) developed high fever and a blood specimen was obtained and the initial test result was negative. However, a repeat sample tested positive for Lassa fever.

Geographical distribution of Lassa fever cases in Benin, 23 November – 16 December 2018



As of 16 December 2018, three confirmed cases have been reported, with no deaths. The three patients are admitted in the CHUD and all are reported to be in good clinical condition. A total of 33 contacts, including 24 health professionals, four carers and four patients, have been identified and are being monitored. Further epidemiological investigations are ongoing.

PUBLIC HEALTH ACTIONS

- On 7 December 2018, the Minister of Health held a press conference to declare the Lassa fever outbreak and provide information on preventive measures to the public.
- The Ministry of Health convened an emergency meeting of the Crisis Management Committee (CMC) on 7 December 2018 to plan and institute response measures to the outbreak. Structures of the CMC have been activated, including the sub-committees and coordination meetings have been scheduled at the national and sub-national levels.
- The national rapid response team have been deployed to the affected area to conduct detailed epidemiological investigations and support local response efforts.
- Isolation and treatment rooms have been prepared to manage the suspected and confirmed cases. Medical commodities, including personal protective equipment, medicines, and medical consumables previously positioned are being used, while additional supplies are being mobilized.
- Surveillance has been enhanced, including active case search, identification and follow-up of contacts.
- Public health education and sensitization of the population is ongoing, in particular native healers, opinion, religious and traditional leaders.
- Dissemination of public awareness messages on prevention measures through local radios and other communication channels is taking place.
- Aware raising activities have been conducted, targeting taxi and motorcycle-taxi drivers, community relays, religious leaders, teachers and traditional healers, aimed to improve case detection and prevention of Lassa fever infections.

SITUATION INTERPRETATION

An outbreak of Lassa fever has been confirmed in Benin, with an epidemiological link to Kwara State in Nigeria. The national authorities have moved quickly in the bid to contain this outbreak, to prevent further spread and establishment of local transmission. Several measures have been instituted, including contact identification and follow-up, aimed to promptly detect, isolate and investigate suspected cases for speedy laboratory confirmation. Further investigations are also ongoing to better understand the outbreak.

However, this event should be a wakeup call to the national authorities to step up preparedness measures for Lassa fever across the country, especially along the borders with Nigeria. Functional port health services and cross border surveillance is paramount, in light of the fact that the index case in this event crossed the border with symptoms. Improving routine universal precautions in healthcare settings is also critical, since about 70% of contacts during this event are health professionals.

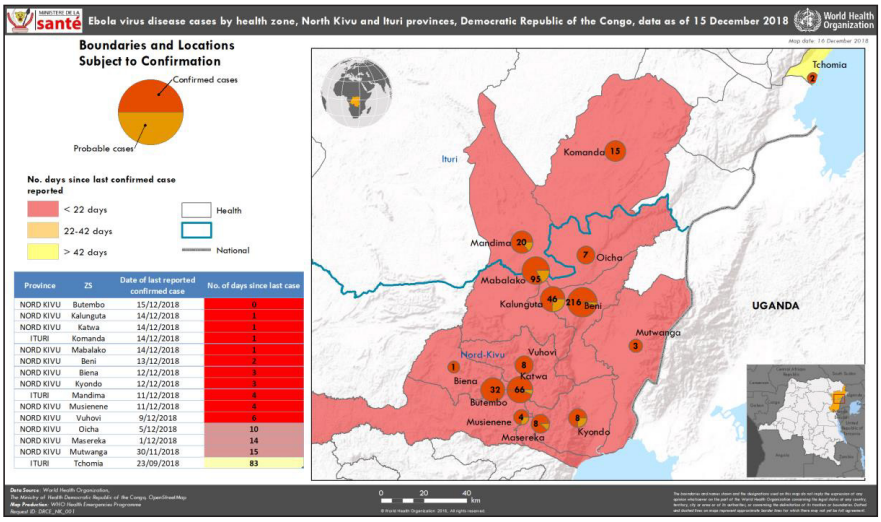
Ongoing events

Ebola virus disease | **Democratic Republic of the Congo** | 531 **Cases** | 313 **Deaths** | 59% **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 7 December 2018 *(Weekly Bulletin 49)*, 37 new confirmed EVD cases and 30 new deaths have been reported. On 15 December 2018, there were two confirmed cases in Beni and two deaths occurred, one each, in Beni and Butembo. Three more health workers have been affected during the reporting week, bringing the total number of health workers affected to 52 (50 confirmed and two probable), with 17 deaths.

Geographical distribution of confirmed and probable Ebola virus disease cases reported from 1 May to 15 December 2018, North Kivu and Ituri provinces, Democratic Republic of the Congo.



As of 15 December 2018, there have been a total of 531 EVD cases, including 483 confirmed and 48 probable cases. To date, confirmed cases have been reported from 15 health zones: Beni (207), Mabalako (79), Katwa (62), Kalunguta (34), Butembo (32), Masereka (7), Oicha (7), Vuhovi (8), Kyondo (6), Mutwanga (3) and Musienene (3) in North Kivu Province; and Mandima (17), Tchomia (2) and Komanda (15) in Ituri Province. Fourteen of the 15 affected health zones reported at least one new confirmed case in the previous 21 days (25 November to 15 December 2018). A new health zone, Biena, has recorded a confirmed case. A total of 313 deaths were recorded, including 265 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 55% (265/483).

As of 15 December 2018, a total of 140 patients were hospitalized in ETCs and transit centres, of which 29 are confirmed cases. All confirmed cases are on compassionate therapy. As of 15 December 2018, the number of patients cured and discharged back into the community is 184, with four new patients cured and discharged, three from Beni ETC and one from Butembo ETC.

Katwa, Beni, Butembo and Komanda remain the main hot spots of the outbreak, reporting, respectively, 25% (n=26), 19% (n=20), 13% (n=13) and 12% (n=12) of the 103 confirmed and probable cases reported in the last 21 days (from 25 November 2018 to 15 December 2018).

Contact tracing is still of concern due to insecurity, mobility of contacts and continuing pockets of community resistance. The number of contacts being followed as of 15 December 2018 was 6 695, of whom 6 254 had been seen in the previous 24 hours, representing 93%.

PUBLIC HEALTH ACTIONS

- 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.
- As of 12 December 2018, a total of 263 933 travellers were screened and vehicles decontaminated at 65 of 71 Points of Entry (PoE) and Points of Control (PoC). An alert received from the PoC Public Port/Goma was investigated and validated as a suspected EVD case.
- On 12 December 2018, a total of 447 new people were vaccinated in 10 rings, bringing the cumulative numbers vaccinated to 45 647. The current stock of vaccine in Beni is 4 060 doses, with the receipt of 2 160 doses of vaccine at central level. Targeted vaccination continues in all affected health zones.
- There is continued reintegration of patients discharged from ETCs into the community, preceded by psychoeducation sessions to improve community acceptance.
- Infection prevention and control (IPC) and water, sanitation and hygiene (WASH) activities continue, with decontamination of households and health facilities in relation to confirmed cases; and continued monitoring of the hand washing facilities provided.
- Community awareness and mobilization sessions continue, with educational talks; youth awareness; 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, population mobility and pockets of community reluctance, as well as the potential social disruption and violence associated with the ongoing election activities. The major challenges lie in investigating new confirmed cases without clear epidemiological links to other cases and comprehensively listing contacts of the new confirmed cases. The national authorities and partners need to strengthen all response pillars while remaining vigilant in the face of the upcoming general elections.

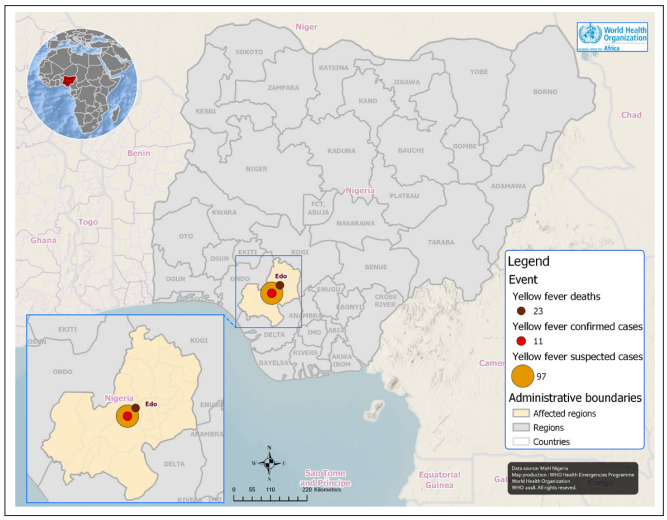
EVENT DESCRIPTION

Nigeria experienced a large yellow fever outbreak from September 2017 to late-March 2018 and since then, sporadic cases continued to occur. However since late-September 2018, a new cluster of suspected yellow fever cases emerged in Edo State, located in the southern part of Nigeria. In week 41 (week ending 14 October 2018), one presumptive yellow fever case was confirmed, followed by three presumptive cases in week 42, and more cases occurred subsequently. Between 22 September and 10 December 2018, a total of 97 suspected yellow fever cases, including 23 deaths (case fatality ratio (CFR) 23.7%) were reported across 15 (out of 18) local government areas (LGAs) in Edo State. More than half of these cases occurred in the last two weeks.

A total of 73 blood specimens were obtained from the suspected cases in Edo State and analysed in Nigeria national laboratories, of which 27 (35.6%) tested positive (presumptive) for yellow fever on immunoglobulin M (IgM) serology. Aliquots of 14 presumptive positive specimens were subsequently shipped to the Institut Pasteur Dakar (IPD) - a WHO regional reference laboratory - for confirmatory testing. Of the 14 specimens, 11 tested positive by yellow fever IgM and one positive by polymerase chain reaction (PCR). Differential tests for other pathogens performed at the IPD were negative for all specimens.

About 60% (56/97) of the suspected yellow fever cases and 67% (18/27) of the presumptive positive cases came from Uhunmwonde LGA, a rural farming community which frequently travels to the nearby state capital, Benin City, with a population of 1.5 million people.

Geographical distribution of yellow fever cases and deaths in Edo State, Nigeria, 22 September - 10 December 2018



Since the beginning of the yellow fever outbreak on 12 September 2017, a total of 3 510 suspected cases including 74 deaths (CFR 2.1%), have been reported from all 36 states and the Federal Capital Territory. A total of 58 cases from 14 states (Kwara, Kogi, Kano, Zamfara, Kebbi, Nasarawa, Niger, Katsina, Edo, Ekiti, Rivers, Anambra, FCT, and Benue States) have been confirmed by the IPD. Males constitute 58% of all cases and the most affected age groups are 1-10 years (41%), followed by 11-20 years (22%) and 21-30 years (19%).

PUBLIC HEALTH ACTIONS

- The International Coordinating Group (ICG) has approved 1.38 million doses of yellow fever vaccine from the global emergency vaccine stockpile for an immediate reactive mass vaccination campaign, targeting 1.24 million people in eight LGAs.
- Active surveillance has been enhanced across the country, including active case search and case investigations of alerts.
- A National Rapid Response Team (RRT) has been deployed to Edo State to conduct epidemiological, entomological and laboratory investigations and support local response efforts.
- The RRT is working with the state health authorities, WHO and other partners to implement outbreak response activities, including active case search, sensitization of health workers and communities, and entomological surveillance.
- Implementation of vector surveillance and targeted vector control activities are ongoing, with emphasis on managing *Aedes* species.
- WHO is providing technical support to the state and national authorities, including deploying yellow fever experts to support the country response in Edo State.

SITUATION INTERPRETATION

A new focus of yellow fever outbreak has been confirmed in Edo State, Nigeria, following the large outbreak that started in September 2017 up to late-March 2018. While Nigeria introduced yellow fever vaccine into routine immunization in September 2016, the country remains vulnerable to the disease. The global strategy to Eliminate Yellow Fever Epidemic (EYE) identified Nigeria as a high priority country for large preventive mass vaccination campaigns. Entomological investigations conducted in various parts of the country identified the presence of competent mosquito vectors (Aedes aegypti). In response to the 2017 outbreak, several rounds of reactive vaccination campaign have already been conducted in a number of states, while a scheduled preventive vaccination campaign is currently ongoing in six states.

In Edo State, yellow fever vaccination coverage in children below one year of age is about 69% and approximately 60% in the rest of the population, leaving a significant number of people susceptible to the disease. The current outbreak has occurred close to the state capital, Benin city, which is moderately cosmopolitan, with high population movements due to trade. An influx of persons with low immunity to yellow fever coming from other parts of the country, Europe and America into Edo state for the Christmas holidays is expected. All these underlying issues are significant, calling for the rapid implementation of the upcoming reactive vaccination campaign.

Measles | Madagascar

9 364 Cases	0 Deaths	0% CFR

EVENT DESCRIPTION

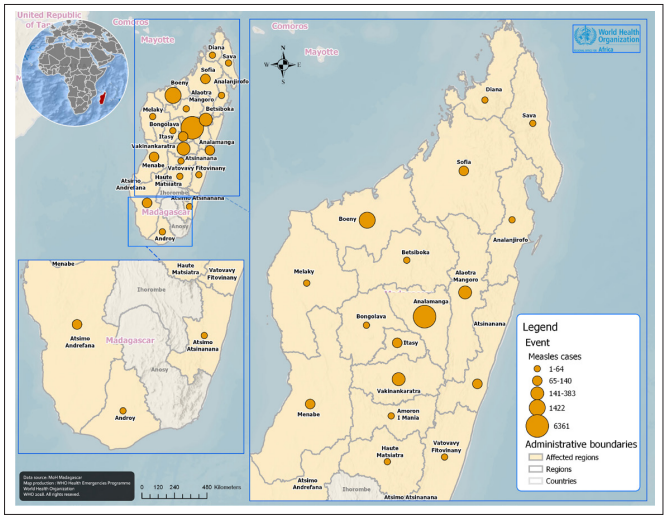
The measles outbreak in Madagascar has seen a dramatic increase in incidence cases in the last three weeks. Since our last report on 23 November 2018 *(Weekly Bulletin 47)*, 6 125 additional cases have been reported, of which 89 were laboratory-confirmed (immunoglobulin M (IgM) positive) and 6 036 were epidemiologically linked. Eleven new districts have been affected during the past three weeks.

As of 11 December 2018, a total 9 364 cases have been reported, of which 271 were laboratory-confirmed (IgM positive) and 9 093 were epidemiologically linked. A total of 44 districts in 20 regions have been reporting cases. The urban district of Antananarivo-Renivohitra is the most affected, accounting for 60% (5 593 cases) of all reported cases and presenting the highest attack rate of 397 per 100 000 inhabitants. The other health districts with a high numbers of cases are Ambato-Boina (8%, 722 cases), Marovoay (5%, 447 cases) and Antananarivo-Atsimondrano (4%, 400 cases). The remaining districts have fewer cases.

Most (76%) cases occur in children below 15 years, with the overall age distribution is as follows: under one year at 9%, 1-4 years at 24%, 5-9 years at 23%, 10-14 years at 21%, 15-19 years at 12%, and 20 years and above at 12%. Both sexes are equally affected (male to female sex ratio of 1.05). No deaths have been reported to date.

The outbreak of measles in Madagascar started in the urban health district of Antananarivo-Renivohitra (in the capital city, Antananarivo) in early-October 2018 and the outbreak was formally declared on 4 October 2018 following laboratory confirmed at Institut Pasteur of Madagascar (IPM). The Ministry of Public Health formally declared the outbreak on 26 October 2018.

Geographical distribution of measles cases in Madagascar, 4 October - 11 December 2018



PUBLIC HEALTH ACTIONS

- The Ministry of Public Health, working together with partners, is coordinating the response activities through four clusters: surveillance, case management, vaccination and communication/social mobilization.
- Epidemiological surveillance, including active search case, outbreak investigation and community-based surveillance has been enhanced in all regions.
- Risk analyses using the Global Measles Programmatic Risk Assessment Tool are being regularly conducted to help target priority districts for vaccination, taking into account the changing situation.
- Measles vaccination campaigns have been conducted in the four districts of Antananarivo city from 22 October-9 November 2018, targeting children 9 to 59 months. Partial results on 5 December 2018 show coverage of 78% of the targeted population.
- A large vaccination campaign is under preparation. The campaign is targeting children between 9 months to 14 years from 25 districts of 13 priority regions, for a total of over 3.5 million children. The Measles and Rubella Initiative (MRI) is partially funding the campaign with US$ 2 million. UNICEF provided 300 000 doses of measles vaccine and US$ 110 000 to refurbish vaccines stocks.
- WHO is providing financial (US$ 80 000), technical and logistical support to the operations and will deploy an international expert to assist the response.
- Several other partners are supporting the response: USAID donated 50 000 boxes of amoxicillin, PSI and MCSP (USAID) provided three vehicles to support activities in Antananarivo city, the French Embassy donated 23 500 € to IPM for measles laboratory reagents.

SITUATION INTERPRETATION

The continuous propagation and the rapid increase in the number of measles cases in Madagascar is concerning. The outbreak is already in highly populated areas, and in a largely non-immune population as indicated by the wide range of the age groups affected. Given the high transmissibility of measles, it can be expected that this outbreak may evolve exponentially. It is therefore critical that the planned reactive vaccination campaign is swiftly undertaken without any delays and the coverage broadened to cover the entire country. This requires additional resources from the national authorities and partners. Additionally, a comprehensive strategy to improve and sustain high national measles immunization coverage (including other antigens) needs to be developed and implemented meticulously.

Summary of major issues challenges, and proposed actions

Major issues and challenges

- The EVD outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo remains deeply worrying in the face of enormous multifaceted challenges. Aside from the broader issues such as insecurity and pockets of community resistance/reluctance, the specific challenges at hand revolve around comprehensive contact identification and follow-up, investigations of new confirmed cases whose epidemiological links are not established, community deaths and weak IPC in healthcare setting. These issues are the major drivers of the continuing transmission of infections.
- Nigeria has confirmed a new yellow fever outbreak in Edo State, following a large outbreak that occurred from September 2017 to March 2018. In addition, several African countries, including Congo, Democratic Republic of the Congo, Ethiopia, Guinea and South Sudan have confirmed yellow fever outbreaks in recent times. The resurgence of yellow fever in Africa is due to a combination of factors, including the changing epidemiology of the disease, increasing population movements, climate change and suboptimal performance of the national immunization programmes. Despite efforts to increase yellow fever vaccine production, there is still a risk that supply will fail to meet demand in Africa if demand reaches the highest projected levels. The yellow fever resurgence can be prevented through routine immunization, preventive mass campaigns, catch-up campaigns (where vaccine coverage is low) and outbreak response (when vaccines need to be supplied rapidly to avoid further spread of the disease).

Proposed actions

- The national authorities and partners in the Democratic Republic of the Congo need to specifically tackle the key factors fuelling continuing propagation of infections at community level, through improved epidemiology and engaging communities.
- The national authorities and partners in Nigeria need to work closely with the global partners to swiftly conduct reactive vaccination campaigns in Edo State and other at-risk areas. Additionally, the ICG in collaboration with vaccine manufacturers, need to increase the level of the global vaccine stockpile in the face of the current resurgence of yellow fever outbreaks as well as the increasing demand for routine immunization.

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										
Guinea	Yellow fever	Ungraded	10-Dec-18	10-Dec-18	10-Dec-18	1	1	0	0.0%	A case of yellow fever was confirmed by the laboratory of the Institut Pasteur of Dakar on 10 December 2018 in a 12-year-old female living in rurale de Cissela, in the village Bambafara. The onset of symptoms was on 15 October 2018, with sudden onset of fever, followed by vomiting and coughs. The patient was treated in different health structures and seen by a traditional healer without success. On 20 October 2018, the patient was reffered to CT-epi of Kankan regional hospital by the health center of Kelera, where the presumptive diagnosis of yellow fever was made and notification sent to ANSS by the DPS.
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.
Benin	Lassa Fever	Ungraded	7-Dec-18	7-Dec-18	13-Dec-18	3	2	0	0.0%	Detailed update given above.
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.
Cameroon (NW& SW)	Humanitarian crisis (NW & SW)	Ungraded	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.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
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.
Central African Republic	Monkeypox	Ungraded	20-Mar-18	2-Mar-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 Mbaïki (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. Two deaths were reported among the cases.
Central African Republic	Yellow fever	Ungraded	20-Oct-18	12-Aug-18	26-Nov-18	3	3	0	0.0%	No new yellow fever case was detected between 18 October 2018 and 25 November 2018. Three cases were confirmed in 2018: one case from Bangui sampled in February 2018 but tested in October 2018, one case from Mboki sampled in August and one case from Bacaranga sampled in October 2018. Population immunity is high in the country. There were national mass vaccination campaigns with high coverage in 2009-2010 and the yellow fever vaccination is also provided to children through the routine immunization programme.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
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.
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 staff 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 Kassai 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 24 provinces have to 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	15-Dec-18	531	483	313	59.2%	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. Nighty 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.
Democratic Republic of 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.

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	Poliomyelitis (cVDPV2)	G2	15-Feb-18	n/a	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.
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, 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).

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Guinea	Measles	Ungraded	9-May-18	1-Jan-18	23-Sep-18	1 746	440	0	0.0%	In week 38, 10 new suspected cases were reported including five IgM-positive cases. The number of cases has been decreasing gradually during the last four epidemiological weeks (week 35 to 38). Cases have been reported in all parts of the country and the most affected zones include Kankan, Conakry and Faraneh.
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 in all those counties.
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.
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 rate among confirmed cases is 66% (14/21).
Madagascar	Measles	Ungraded	26-Oct-18	4-Oct-18	11-Dec-18	9 364	271	0	0.0%	Detailed update given above.
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 Tiguila) 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). Fourty five Health districts in the country have reported cases since the beggining 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 form 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 11 days after 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%	During week 48 (ending 2 December 2018), 15 new confirmed cases were reported across the country. Of 17 throat swabs analyzed, the genotype D8 was detected in 13 samples. The trend is decreasing since the peak in week 37. The most affected districts are Port Louis and Black River.
Namibia	Anthrax (suspected)	Ungraded	2-Nov-18	30-Oct-18	2-Nov-18	41	-	0	0.0%	Fourty-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.
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.

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	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 campain that started on 3 December 2018 in Aguie 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	164	5.1%	In week 48 (week ending 2 December 2018), thirteen new confirmed cases were reported from Edo (2 cases), Ondo (8 cases), Gombe (1 case), Plateau (1 case) and Kano (1 case) states. Three new deaths were reported in Plateau (1), Edo (1), and Gombe (1) states. No new cases were identified amongst healthcare workers. From 1 January 2018, a total of 3 229 suspected cases and 164 deaths have been reported from 23 states. Of the suspected cases, 581 were confirmed positive, 17 probables and 2 631 negative (not a case). Twenty-three states have recorded at least one confirmed case in 2018. Five states are currently considered to be in active outbreak phase: Edo, Ondo, Plateau, Gombe and Kano.
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.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
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	Poliomyelitis (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%	Detailed update given above.
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 Principé	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	-	-	-	-	The complex emergency has continued for five years, with multiple episodes of armed conflict, population displacement, disease outbreaks, malnutrition and flooding. Despite recent regional efforts and commitment by the government and opposition groups toward lasting peace, the humanitarian situation remains dire, and the needs are huge.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
South Sudan	Hepatitis E	Ungraded	-	3-Jan-18	25-Nov-18	160	19	2	1.3%	Two new cases were reported in week 47 (ending 25 November 2018). Of the cumulative cases reported in 2018, 147 are from Bentiu PoC and 13 from Old Fangak. In week 43, one new suspected death was reported from Old Fangak.
South Sudan	Measles	Ungraded	20-Oct-18	20-Oct-18	24-Nov-18	59	9	3	5.0%	The outbreak started in Mabor Duang village, Aduel payam in Rumbek East. The index case was a 38 year female whose illness started on 12 October 2018. Cases are reported from six payams with most originating from Aduel; Atiaba, and Mathian kok.
South Sudan	Yellow fever	Ungraded	29-Nov-18	18-Nov-18	9-Dec-18	1	1	0	0.0%	On 23 Nov 2018, a suspect Ebola alert was reported in Sakure, Nzara county, Gbudue state. The suspected case and is a 25-year-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	Crimean-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 she 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	12-Dec-18	10 598	281	59	0.6%	Chiredzi district in Masvingo Province is the latest area to report an outbreak of cholera with three suspected cases, of which one has been confirmed by culture. Across the country, 15 new cases were reported on 12 December 2018, with nine from Harare City and six from Mount Darwin District in Mashonaland Central Province. The outbreak is largely under control in Harare City, but there has been a recent spike of cases in Mount Darwin and Chiredzi districts.
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).

†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 and information 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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