WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

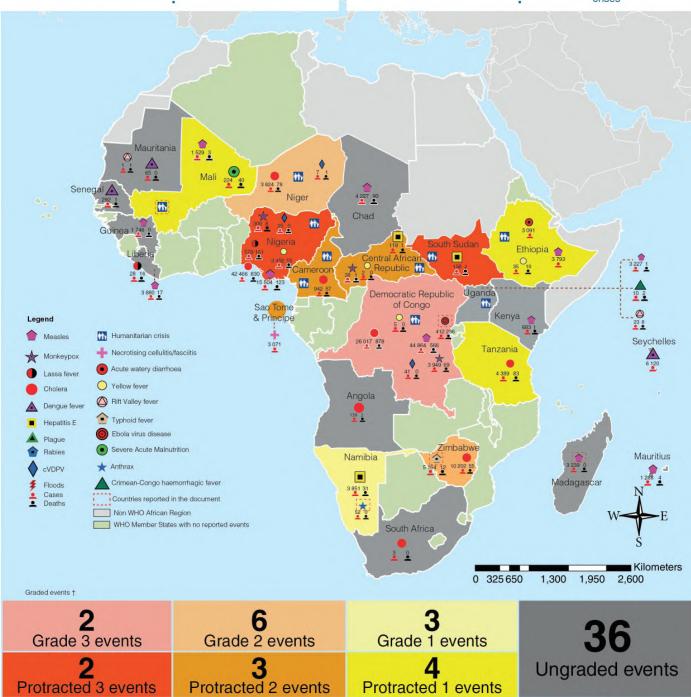
Week 47: 17 - 23 November 2018
Data as reported by 17:00; 23 November 2018



2 New events 55
Ongoing events

45
Outbreaks

12
Humanitarian



Overview

Contents

- 2 Overview
- 3 7 Ongoing events
- 8 Summary of major issues challenges and proposed actions
- 9 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
 - Anthrax (suspected) in Namibia
 - Measles in Madagascar
 - Typhoid fever in Zimbabwe
 - Humanitarian crisis in Mali.
- 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 are thus closed.

• Major issues and challenges include:

- The Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo continues, with occurrence of new cases and deaths. It is now clear that informal health centres are a major source of amplification of the outbreak. There are also instances of risky practices in the community, for example, the exhuming (this week) of a dead body of a confirmed case that was safely buried. Such practices only help to aid further transmission of the disease. This EVD outbreak remains dangerous and unpredictable, calling for strong measures.
- A complex but little known humanitarian crisis has been ongoing in Mali since 2012, arising from underlying political conflict and insecurity. The situation has been deteriorating since the beginning of 2018, with increasing mass population displacement, food insecurity, acute malnutrition, and disease outbreaks. However, the capacity to respond to the humanitarian needs is severely limited due to a lack of access in the conflict-affected areas as well as under-funding. The complex humanitarian crisis in Mali calls for greater involvement and support from the global community.

Ongoing events

Ebola virus disease

Democratic Republic of the Congo

412 Cases 236 **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 16 November 2018 (*Weekly Bulletin 46*), 46 new confirmed EVD cases have been reported and 22 new deaths have occurred. On 24 November 2018, nine new confirmed EVD cases were reported in Beni (4), Kalunguta (2), Butembo (2) and Katwa (1). Of the nine cases, two were known contacts and the search for epidemiological links for the other seven cases continues. There were five new deaths, one of them in the community. An incident occurred in Butembo where the dead body of a confirmed case safely buried was exhumed by some community members.

As of 24 November 2018, there have been a total of 412 EVD cases, including 365 confirmed and 47 probable cases. To date, confirmed cases have been reported from 14 health zones: Beni (179), Mabalako (67), Katwa (37), Kalunguta (31), Butembo (14), Masereka (6), Oicha (4), Kyondo (2), Musienene (2), Vuhovi (2), and Mutwanga (2) in North Kivu Province; and Mandima (16), Tchomia (2) and Komanda (1) in Ituri Province. A total of 236 deaths were recorded, including 189 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 52% (189 / 365). The cumulative number of cases among health workers is 40, including 38 confirmed, 2 probable and 12 deaths.

On 24 November 2018, 45 new suspected patients were hospitalized, bringing the total number of patients admitted to 128, including 45 confirmed cases. All are on compassionate therapy. As of 22 November 2018, the number of patients cured and discharged back into the community is 120. Bed occupancy in Beni Ebola Treatment Centre (ETC) is 93%, while in Butembo it is 74%.

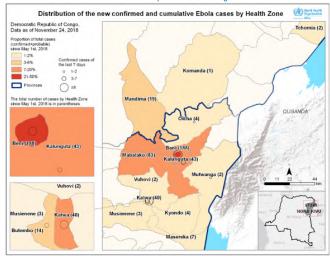
Beni, Katwa and Kalunguta remain the main hot spots of the outbreak, respectively, reporting 40% (n = 42), 25% (n = 26) and 20% (n = 21) of the 104 confirmed and probable cases reported in the last 21 days (from 4-24 November 2018).

Contact tracing is still of concern due to insecurity and continuing community resistance. The number of contacts being followed as of 24 November 2018 was 4 354, of whom 4 094 had been seen in the previous 24 hours representing 94%. A total of 436 new contacts were identified on 24 November 2018 while 591 contacts completed 21-day follow-up.

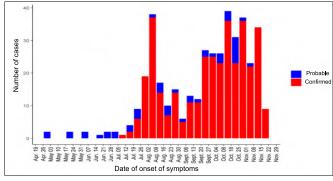
PUBLIC HEALTH ACTIONS

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. There is intensified search for contacts lost to follow up. Reclassification of confirmed and probable cases by health zones and validation of suspicious community deaths are also ongoing

Geographical distribution of confirmed and probable Ebola virus disease cases reported between 1 May to 24 November 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 - 24 November 2018



- On 20 November 2018, 61 out of 67 points of entry (PoE) reported their activities; 184 281 travellers were checked, bringing the total number of travellers checked to 15.7 million. Three alerts were notified on that date, in PK5, Komba and Mavivi, bringing the total number of alerts to date to 112, of which 28 have been validated and one confirmed. Additionally, 11 vehicles were decontaminated, totalling 17 811 to date.
- On 20 November 2018, a total of 415 new people were vaccinated in 12 rings, bringing the cumulative numbers vaccinated to 33 077. A family cluster of contacts of a confirmed case in Katwa refused vaccination. The current stock of vaccine in Beni is 5 480 doses. Targeted vaccination continues in Beni, Butembo, Katwa and Kalunguta rings.
- Ommunity reintegration of 25 patients discharged from ETCs took place, along with pyschosocial support to 143 patients and their escorts in ETCs. A total of 13 psycho-education sessions were completed, including eight in Beni, reaching a total of 778 participants.
- Infection prevention and control (IPC) and water, sanitation and hygiene (WASH) activities continue, with decontamination of ten households and eight health facilities in Beni, Butembo, Katwa and Kalunguta; distribution of personal protective equipment in nine health facilities in Beni, Oicha, Butembo, Katwa and Musienene and briefing of 137 health providers includiung 45 in Butembo, 17 in Beni, 14 in Katwa, 18 in Mabalako and 43 in Komanda; training in IPC in eight health facilities in Beni, Butembo and Mabalako; and distribution of hygiene kits in five schools in Butembo.
- There were six safe and dignified burials (SDB) in Beni (4) and Mabalako (2); of the 549 requests for SDBs since the start of the outbreak, 490 (82%) have been completed successfully
- Ommunity awareness and mobilization sessions continue, with intensification of communication activities in Kanyihunga, Kalunguta Health Zone; monitoring and evaluation of community engagement by youth leaders in Butembo, religious leaders in Vuhovi and community leaders and bike carriers in Musienene and Butembo. A total of 12 163 door-to-door outreach sessions were carried out; and 59 media outlets were involved in dissemination of response and prevention messages.

SITUATION INTERPRETATION

The EVD outbreak in Democratic Republic of the Congo continues to be of grave concern, with ongoing challenges around insecurity and community resistance. Risk communication efforts and community engagement needs to be intensified, with continued efforts to strengthen contact tracing. There is a need to develop a contingency plan to strengthen epidemiological surveillance among the expected large gathering of people during the upcoming election campaign.



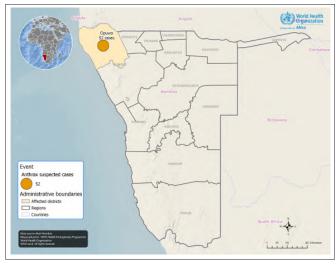
52 0 0% **Anthrax** Namibia Cases Deaths **CFR**

EVENT DESCRIPTION

On 12 November 2018, the Ministry of Health and Social Services in Namibia notified WHO of a suspected outbreak of anthrax in Opuwo District, Kunene Region, located in the far north-west at the border with Angola. The event was initially detected on 21 October 2018 when four case-patients from Sesfontein area in Opuwo presented to the district hospital with wounds (skin lesions) and swelling on various parts of their bodies. It was established that these case-patients had either handled carcasses of dead goats or consumed the meat. Retrospective investigations established that the index case was an 11-year old boy who presented to the health facility on 15 October 2018 and was treated as a cellulitis case.

As of 21 November 2018, a total of 52 suspected cases of anthrax were reported, manifesting either as the cutaneous or the gastrointestinal form of the disease. In week 46 (week ending 18 November 2018), four new suspected cases were reported and are still admitted in the district hospital. A total seven blood specimens were collected and sent to the National Institute of Communicable Diseases in South Africa. Of these, two tested negative, three were never tested because the samples were of poor quality and four results are still pending.

About 138 community members reportedly consumed meat from dead goats and/or handled the carcasses, and were administered antibiotic prophylaxis. The veterinary division of the Ministry of Agriculture, Water and Forestry earlier reported that a total of 98 goats, donkeys and cattle died of an unknown cause in the Sesfontein settlement since August 2018. Geographical distribution of anthrax cases and deaths in Namibia, 21 October - 21 November 2018



On 1 November 2018, Bacillus anthracis bacterium was isolated from a specimen collected from a dead goat in Sesfontein settlement.

PUBLIC HEALTH ACTIONS

- The national and regional health authorities mounted a response to the outbreak and an emergency coordination meeting was held on 2 November 2018, involving the Ministries of Health and Social Services and Agriculture, Water and Forestry.
- A multi-disciplinary rapid response team, including epidemiologists and veterinarians from the national level, were deployed to the affected area to support outbreak investigation and response activities.
- The Ministry of Health and Social Services has raised a national alert regarding the event and surveillance has been enhanced to identify suspected cases at the household level in the affected areas. Provision of prophylactic treatment to people who have been exposed is ongoing.

SITUATION INTERPRETATION

A suspected anthrax outbreak in humans has been reported in the far north-western part of Namibia, reportedly preceded by an epizootic (outbreak in animals). With the main occupation of the community in the affected area being goat farming, the likelihood of more human cases is high, given the outbreak in goats (their animal of choice) and the common risk practices such as slaughtering sick animals and/or skinning and consuming meat from animals that have died of unknown causes. Although the clinical features of the reported cases are typical of anthrax infection, the authorities need to conduct detailed outbreak investigation to confirm and assess the true extent and impact of the event, as well as implement effective control measures. A collective One Health approach, with cross-border collaboration between Namibia and Angola is urgently needed to control the event and prevent further human infections. There is also a need to enhance preparedness and response interventions in the other non-affected districts.

Go to map of the outbreaks

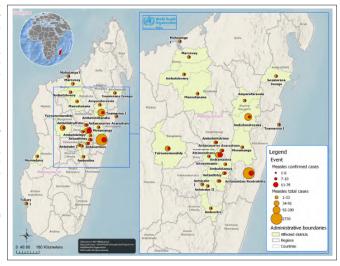
EVENT DESCRIPTION

Madagascar has been experiencing a measles outbreak since early October 2018. The outbreak started in the urban health district of Antananarivo-Renivohitra (in the heart of the capital city, Antanarivo) on 4 October 2018 when three measles cases were confirmed at the Pasteur Institute of Madagascar (IPM) by serology. The disease then spread to other health districts (Tanà South, Tanà North and Ambohidratrimo) in Analamanga Region (where the capital city is located) and subsequently to other parts of the country. The Ministry of Public Health formally declared the measles outbreak on 26 October 2018.

As of 18 November 2018, a total of 3 239 measles cases have been reported, of which 182 were confirmed immunoglobulin M (IgM) positive and 3 057 were epidemiologically linked. No deaths have been reported to date. A total of 23 districts (out of 114) in 12 regions (out of 22) are currently in epidemic phase. The urban health district of Antananarivo-Renivohitra is the most affected, accounting for 84% (2 730) of all reported cases. The other health districts with high numbers of cases are Ambatondratrimo (6%, 200), Antananarivo-Atsimondrano (3%, 91). The remaining health districts have fewer cases.

The majority, 74%, of the reported cases are between one and 14 years of age, while 10% are between 15 and 19 years and 6% are under nine months. There is a minimal male predominance with a sex ratio 1:0.9. About 44% of the cases were either unvaccinated or had unknown vaccination status.

Geographical distribution of measles cases and deaths in Madagascar, 4 October - 18 November 2018



PUBLIC HEALTH ACTIONS

- The Ministry of Public Health, working together with partners, is responding to the measles outbreak, with the interventions structured around coordination, vaccination, case management, epidemiological and laboratory surveillance, and communication/social mobilization.
- Measles vaccination campaigns have been ongoing in several districts from 22 October-9 November 2018, targeting children 9 to 59 months. Partial results show coverage of 84% of the targeted population. Routine immunization targeting children between nine to 11 months has been reinforced, as well as vaccination activities in preschools. Plans are underway to expand the vaccination campaign to cover children aged nine months to 14 years.
- A risk analysis using the Global Measles Programmatic Risk Assessment Tool was conducted to help target priority districts for vaccination.
- O Active surveillance has enhanced in all regions, including active search case, outbreak investigation and distribution of specimen collection kits.
- A national measles response strategy and guidelines have been developed (with support from WHO) and disseminated to health districts to guide field activities.
- Sensitization of the community is being conducted with support of partners (UNICEF and USAID) to increase uptake of the vaccination exercise.
- Several partners supported the response: USAID donated 50 000 boxes of amoxicillin, PSI and MCSP (USAID) provided three vehicles to support activities in Grand Tana, the French Embassy donated 12 000 Euro to IPM for measles laboratory kits, UNICEF provided 580 000 doses of measles vaccine, and WHO provided overall technical support as well as follow up of the MRI funding request for the vaccine response targeting children from 9 months to 14 years old.

SITUATION INTERPRETATION

Madagascar has been experiencing a measles outbreak since early-October 2018, with more than 3 000 people (mainly children) affected in 23 health districts within a few weeks. The rapid propagation of the disease denotes the underlying population's vulnerability. WHO/UNICEF estimates put the average measles vaccination coverage at 58% in 2016 and 2017. The low vaccination coverage has led to accumulation of susceptible children in the country. The declining immunity over several years is attested to by the fact that close to 75% of the cases are children between 1 and 14 years. Madagascar had not registered any measles outbreaks in the last 13 years (since 2005) and was already on the path to measles elimination. The country has not yet introduced the second dose of measles-rubella vaccines into the national immunization programme. The recent risk analysis shows that 34 out of 114 districts are at risk of a measles outbreak, with 11 being at very high risk and 23 at high risk. The 11 districts at very high risk are already in active epidemic.

The current measles outbreak has occurred at a time when there is some resurgence of plague in the country, straining the public health response system. The ongoing political election, with the risks of social tensions and conflict, has also downgraded the response to these public health events.



Typhoid fever Zimbabwe 5 164 12 0.2% Cases Deaths CFR

EVENT DESCRIPTION

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).

The outbreak of typhoid fever in Harare city started in the suburb of Mbare on 1 October 2017, with laboratory confirmation on 13 October 2017. Since then, there has been ongoing transmission of the disease, with several waves. From October 2017 to 16 November 2018, a total of 5 164 cases with 12 deaths (case fatality ratio 0.2%) have been reported from Harare. Of these, 262 cases have been confirmed positive for *Salmonella typhi*. The most affected areas are in the western and southern districts of Harare with the epi-centre being Mbare, Kuwadzana, Glen View, and Budiriro. In the current wave, the majority of the cases are from the suburbs of Glen View, Budiriro and Mbare. Males constitute 54.1% of the reported cases.

The current resurgence of the disease in Harare City comes in the aftermath of another typhoid fever outbreak in Gweru city, Midland Province, notified to WHO on 7 August 2018 by the Zimbabwe Ministry of Health and Child Care. In that event, a total of 1 983 cases and eight deaths were reported from 6 July - 10 September 2018.

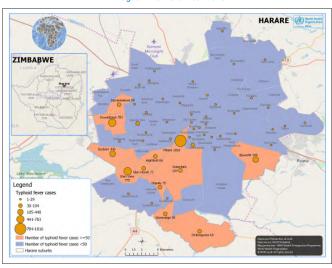
PUBLIC HEALTH ACTIONS

- An eight-day vaccination campaign using the typhoid conjugate vaccine is planned to take place in January 2018, targeting 320 000 people at risk in the most affected suburbs of Mbare, Kuwadzana, Budidiro and Glenview, as well as four informal settlements (Caledonia, Hopley/ Stoneridge, Dzivarasekwa, and Hatcliffe) with no or little coverage from governmental water and sanitation services. Children from 6 months to 15 years old are targeted, except in Mbare where the targeted age group is from 6 months to 45 years.
- Multi-partner coordination meetings are being held with the involvement of the Ministry of Health and Child Care, Harare City Council, WHO, UNICEF, and US CDC, among others.
- Training for strengthening surveillance for Adverse Event Following Immunization (AEFI) during the campaign took place from 15 - 16 November 2018, involving 175 healthcare workers.
- Rapid community-based survey on messaging for the campaign has been conducted from 15 - 16 November 2018.
- Routine active surveillance for typhoid fever is also being strengthened through the training of healthcare workers, with the most recent training for hospital-based surveillance held from 19 20 November 2018.
- Oases are being treated at health facilities across the affected areas.

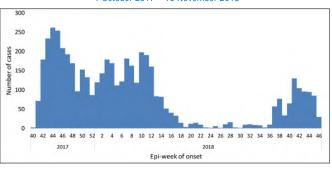
SITUATION INTERPRETATION

Typhoid fever remains endemic in Zimbabwe, with occasional spikes in the number of cases, as a result of inadequate access to clean water, sanitation, and hygiene. The outbreak of typhoid fever is occurring concurrently with a cholera outbreak, which the government and partners have been responding to for over three months. The epi-centres of both outbreaks are largely the same densely-populated suburbs of Harare, where massive interventions have been implemented, including an oral cholera vaccination. The cholera outbreak is largely under control at this stage. The planned typhoid fever vaccination campaign is expected to contribute to similar short-term relief. However, the risk factors for further transmission remain, being facilitated by the ongoing rainy season. The government and partners need to scale up efforts to ensure improve access to clean water, sanitation, and hygiene as well as strengthening community engagements and risk communications to promote behavioural change.

Geographical distribution of typhoid fever cases and deaths in Zimbabwe, 7 August - 16 November 2018



Cases of typhoid fever by week of onset, Harare City, Zimbabwe, 1 October 2017 – 16 November 2018



Go to map of the outbreaks

Mali

EVENT DESCRIPTION

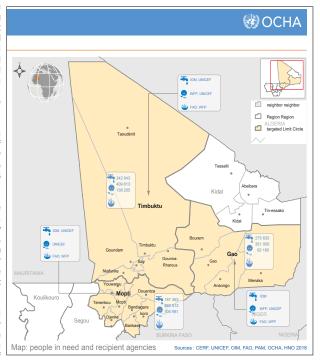
Mali has suffered a complex political and security crisis since 2012. Currently, the situation in northern and central Mali is deteriorating further, with an increasing number of incidents affecting the civilian population. From 1 January to 31 August 2018 there have been 146 security incidents affecting humanitarian workers, compared to 133 during the whole of 2017. The ongoing insecurity has caused continuous and complex population displacement, with previously displaced people returning, as well as new displacements within the country and to neighbouring countries. International Organization for Migration figures put the number of people displaced at more than 77 000 from 14 000 households, mainly in Mopti, Gao, Menaka and Timbuktu. Currently, there are close to 140 000 Malians in neighbouring countries, according to the UNHCR, with some 2 000 new refugees registered in Burkina Faso in April 2018.

Departure of humanitarian staff and destruction of infrastructure in Gao, Timbuktu and Kidal has left 17% of health facilities non-functional, with limited presence of partners leading to inadequate primary healthcare provision. Permanent insecurity and tension in communities means that there is insufficient humanitarian access to many regions of the country, with six of the ten regions in Mali ranked at level 5 security, according to the United Nations Security Management System.

Food security is deteriorating significantly at household level, particularly during the lean season (May to September). The rate of severe acute malnutrition (SAM) is 2.6% across the country, while that of moderate acute malnutrition is 10.7%, significantly above the 2% emergency threshold. At least 274 000 children aged 6-59 months are expected to suffer SAM in 2018. Across the country, 9.4% (1.7 million) of the population require assistance with basic healthcare, with only 3.1 health workers per 10 000 people. An estimated 908 000 people require water, sanitation and hygiene (WASH) assistance. More than 40% of women in the country give birth without qualified medical care.

Outbreaks of epidemic-prone diseases complicate the situation, with measles reported in 19 districts in eight of the ten regions of the country, and meningitis reported in four regions. A total of 29 districts out of 75 have been in measles epidemic phase. There was also an outbreak of whooping cough in Niono as a result of poor immunization coverage. A comparison between 2017 and 2018 shows an increase in the number of cases of malaria, meningitis and measles in all affected regions.

Map showing coverage of CERF funding in Mali, October 2018



PUBLIC HEALTH ACTIONS

- A Humanitarian Response Plan is being implemented by more than 50 partners, through a Central Emergency Fund project with partnership between WHO, ALIMA, Idea and HELP, aimed at improving the health of more than 336 000 children under the age of five years in targeted districts in Gao, Timbuktu and Mopti with improved access to healthcare, including screening, management of malnutrition and other diseases and immunization. More than 180 000 children benefited as of the end of October 2018
- Ocordination of health interventions is being strengthened at regional and national level, with regular meetings that contribute to the Humanitarian Overview and Humanitarian Response Plan for 2019.
- WHO is strengthening Ministry of Health capacity at regional level, through the Regional Directorates of Health as well as the National Director of Health by providing 30 medical doctors in the ten regions and a support team in Bamako, who are providing weekly disease reports to aid early warning and timely intervention in epidemic-prone diseases.
- A surveillance system and weekly bulletin contributed to the polio eradication campaign, which reaches more than 500 people quarterly, including 48% of health staff, along with technical guidelines to support identification, notification and investigation.
- WHO, LEDA and HELP are implementing a surveillance system for attacks on healthcare in Mali, with a project to develop a strong advocacy campaign to try to protect healthcare facilities, delivery of healthcare and application of international humanitarian law. Since the project was launched in June 2018, eight attacks have been reported.

SITUATION INTERPRETATION

The crisis in Mali is unlikely to end soon. Local administrative authorities and security personnel are lacking in some areas, leaving a vacuum that is being exploited by armed groups who continue to threaten local communities and prevent provision of humanitarian aid. An estimated 1.4 million people are in need within north and central regions of the country, with at least 1.3 million of these needing health assistance. The situation is little better in other areas. Mali is ranked 20 out of 191 countries at high risk of humanitarian crises and natural disasters, with an Index of Risk Management (INFORM) of six out of ten, calculated on its high level of exposure to conflict, floods and drought. Largely a forgotten country, Mali also suffers from low levels of funding, with only 33% of the US\$20.4 million requested supplied. International actors need urgently to intervene to prevent further suffering in an already vulnerable population.



Summary of major issues challenges, and proposed actions

Major issues and challenges

- The Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo remains dangerous and unpredictable. While insecurity is a major underlying hindrance, there are other important factors contributing to the continuation of the outbreak. One of these key drivers is inadequate infection prevention and control practices in healthcare settings. Informal health facilities have been found to be a major source of infections. While health workers are vulnerable to being infected by Ebola (being the first point of contact), they also amplify spread of the disease (as they have contact with many patients) if adequate precautions are not taken.
 - Additionally, there are ongoing negative and risky practices in the community, fuelled by rumours, misinformation and mistrust. A typical example is the exhuming of a dead body of a confirmed case that has already been safely buried. These and other risk factors need to be addressed effectively.
- Mali has been experiencing a complex but little known humanitarian crisis, especially in northern and central part of the country. Conflict and insecurity have resulted in large numbers of displaced people, with increasing humanitarian needs, mostly food security, health and protection. The situation has been deteriorating since the beginning of 2018, with increasing levels of acute malnutrition and risks of occurrence of major disease outbreaks. Health needs are high as access to services is poor. While the hazard exposure and vulnerability increase, the lack of coping capacity diminishes. Additionally, the capacity to respond to the humanitarian needs is severely limited due to a lack of access and underfunding, with only 33% of the humanitarian response plan funded. This complex humanitarian crisis calls for greater involvement and support from the global community.

Proposed actions

- The national authorities and partners in the Democratic Republic of the Congo need to continue reinforcing measures to eliminate the key known risk factors for EVD transmission, including improving infection prevention and control measures in healthcare settings and working closely with community leaders and local structures to address the misinformation, rumours and mistrust.
- The global community needs to increase funding support to the humanitarian crisis in Mali. While more aid agencies are needed on the ground, the response operations should also be rapidly stepped up.

Go to map of the outbreaks

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 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 since 9 October 2018. The peak of the outbreak was in week 44 (week ending 4 November 2018) when 41 cases with one death were 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.
Mauritania	Rift valley fever (RVF)	Ungraded	23-Nov-18	4-Nov-18	23-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 presented with symptoms of fever, headache, joint pain, nausea and vomiting on 4 November 2018. He was initially treated for malaria at a local health centre since 10 November 2018. Due to poor response to treatment, the case was referred to Nema hospital on 14 November 2018 where he died the next day following the resentation of haemorrhagic symptoms. A safe and dignified burial was conducted and a total of 22 contacts including 12 healthcare workers have been listed for follow up
Ongoing events	1	1			1		1	'	<u>'</u>	
Cameroon (Far North, North,Ad - amawa & East)	Humani - tarian 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)	Humani - tarian crisis (NW & SW)	Ungraded	31-Dec-13	27-Jun-17	22-Nov-18	-	-	-	-	The Anglophone crisis in the Northwest and Southwest regions of Cameroon is disrupting health services and disease surveillance capacities. This is impacting the health status of the population, and the possible occurrence of infectious disease outbreaks is a concern. Of particular concern is the risk of cholera resurfacing in the region as a result of the ongoing outbreak in northern Cameroon.
Cameroon	Cholera	GI	24-May-18	18-May-18	23-Nov-18	942	73	57	6.1%	The outbreak has affected 4 out of 10 regions in Cameroon, these include: North, Far North, Central and Littoral region. From 18 to 23 Novemebr 2018, 11 new suspected cases were reported, 6 cases from the Far North and 5 cases from North region. No new confirmed case has been reported from the Central and Littoral regions since the 27 August 2018 and 11 October 2018 respectively. There is an overall declining trend in the number of cases reported

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Central African Republic	Humanitar- ian crisis	Protracted 2	11-Dec-13	11-Dec-13	18-Nov-18	-	-	-	-	The humanitarian situation in Central African Republic remains precarious. On 15 november 2018, an attack on displaced people in a site located in Alindao, where around 60 peple were killed and around 37 wounded was reported. The insecurity persist in Zemio. In October 2018, the Central African Republic had 642 842 internally displaced persons and 573 200 refugees in neighbouring countries. Acts of violence against humanitarian workers persist (338 incidents reported in 2018). Three outbreaks were reported in October 2018: hepatitis E, yellow fever and monkey pox.
Central African Republic	Monkeypox	Ungraded	20-Mar-18	2-Mar-18	9-Nov-18	38	19	1	2.6%	From 9 October to 9 November 2018, Central African Republic reported 8 confirmed cases and 1 suspected case of Monkeypox in Mbaiki district. The 8 confirmed cases belong to the same family and there are evidence of human-to-human transmission within the family. This is the fourth monkeypox public health event in the country in 2018 and the second time that Mbaiki District has been affected by the disease.
Central African Republic	Hepatitis E	Ungraded	2-Oct-18	10-Sep-18	18-Nov-18	119	80	1	0.8%	In week 46 (week ending on 18 November 2018), 15 confirmed cases of viral hepatitis E were reported by the Institut Pasteur Bangui Laboratory compared to 13 cases reported in week 45. Sixteen localities of Bokarangue-Koui health district have been affected.
Central African Republic	Yellow fever	Ungraded	20-Oct-18	12-Aug-18	6-Nov-18	2	2	0	0.0%	Confirmatory analyses from IP Dakar confirmed the case of a 80-year-old female from Bocaranga which is currently experiencing an hepatitis E outbreak. Despite ongoing case investigations, no additional cases were detected after 18 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.
Chad	Measles	Ungraded	24-May-18	1-Jan-18	18-Nov-18	4 227	815	90	2.1%	In week 46 (week ending 18 November 2018), 204 suspected cases were reported. This is an increase in the number of cases compared to the previous week when 121 cases were reported. Of the total confirmed cases, 356 were laboratory confirmed by IgM and 459 were epidemiologically linked. Thirty-nine districts have reported a confirmed epidemic, this includes: Abdi, Abeche, Abougudam, Adre, Am dam, Am Timan, Amzoer, Arada, Ati, Bahai, Bardai, Bokoro, Bol, Chadra, Fada, Gama, Goz Beida, Guereda , Haraze Mangueigne, Iriba, Karal, Kirdimi, Kouloudia, Mao, Massaguet, Massakory, Massenya, Matadjana, Mondo, Mongo, N'Djamena East, N'Djamena South, NGouri, Nokou, Oum Hadjer, Rig Rig, Salal, Tissue and Zouar.

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	Humanitar- ian crisis	G3	20-Dec-16	17-Apr-17	29-Oct-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. Returnees are in urgent need of humanitarian assistance.
Democratic Republic of the Congo	Cholera	G3	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 (week ending on 11 November 2018). Ten out of 24 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	24-Nov-18	412	365	236	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 (week 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	-	69	1.7%	During week 45 (week 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	n/a	23-Nov-18	41	41	0	0.0%	One new case with symptom onset on 25 September 2018 has been reported from Djalo-Ndjeka Zone in Sankuru Province. Since 2017, 41 cases have been reported from the following provinces: Tanganyika (15 cases), Haut-Lomami (9 cases), Mongala (11 cases), Maniema (2 cases), Haut Katanga (2 cases), Ituri (1 case) and Sankuru (1 case). The country is affected by three separate strains of circulating vaccine-derived poliovirus type 2 (cVDPV2) since 2017.
Democratic Republic of Congo	Yellow fever	Ungraded	16-Aug-18	1-Jul-18	17-Aug-18	5	4	0	0.0%	Samples from four out of five suspected cases have been confirmed for Yellow fever by Plaque Reduction Neutralization Test (PRNT) at Institute Pasteur Dakar (IPD). Cases are from Ango District in Bas Uele Province, Yalifafu district in Tshuapa Province and Lualaba Province.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Ethiopia	Humanitar- ian crisis	G2	15-Nov-15	n/a	14-Oct-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 450 000 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 between 93 000 to 113 152 people.
Ethiopia	Acute watery diarrhoea (AWD)	Protracted 1	15-Nov-15	1-Jan-18	5-Nov-18	3 091	-	-	-	In 2018, cases have been reported from five regions, namely Oromia, Dire Dawa, Somalia as wel as Tigray and Afar which have been most affected. Although risk factors remain in the regions, there has been a general decline since the peak in week 33 when more than 500 cases were reported. In week 43 and 44, only Tigray reported new cases (n=7). Lab data is currently reviewed for re-classification of the outbreak.
Ethiopia	Measles	Protracted 1	14-Jan-17	1-Jan-18	5-Nov-18	3 793	1 298	-	-	Cases have been reported throughout the country and appear on the rise from 66 suspected cases in week 43 to 74 suspected cases in week 44. The most affected regions in week 44 were Amhara (66%) and Somali (34%). The most affected age groups throughout 2018 were 5-14 yrs olds (42%) followed by under 5 yrs olds (35%). Of all confirmed cases in 2018, 266 were lab-confirmed, 963 epilinked and 69 clinically compatible.
Ethiopia	Yellow fever	Ungraded	4-Oct-18	21-Aug-18	19-Nov-18	35	5	10	28.6%	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	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	683	66	1	0.1%	Since the beginning of the year, six counties were hit 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	4-Nov-18	3 880	3 566	17	0.4%	Fifty-two suspected cases (including two IgM-positive) with zero deaths were reported during week 44 (week ending 4 November 2018) across the country. Seven health districts in six counties (Grand Gedeh, Bong, Margibi, Nimba, Rivercess, and Sinoe) are at the epidemic threshold for measles. Of the 3 566 cumulative confirmed cases reported in 2018, 306 are laboratory-confirmed, 502 epidemiologically linked, and 2 758 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	15-Nov-18	28	21	16	57.1%	On 9 November 2018 one new case was confirmed by PCR from Bongo county. As of week 46, since the beginning of January 2018, a total of 182 suspected cases including 43 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); 168 tested negative, and 7 specimens were not tested due to poor quality. The case fatality rate among confirmed cases is 62% (13/21).
Madagascar	Measles	Ungraded	26-Oct-18	4-Oct-18	18-Nov-18	3 239	182	0	0.0%	Detailed update given above.
Mali	Humanitar- ian crisis	Protracted 1	n/a	n/a	18-Oct-18	-	-	-	-	Detailed update given above.
Mali	Severe Acute Mal- nutrition	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.
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.
Mauritius	Measles	Ungraded	23-May-18	19-Mar-18	18-Nov-18	1 288	1 288	4	0.3%	During week 46 (week ending 18 November 2018), 23 new confirmed cases were reported across the country. Of 17 throat swab 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	21-Nov-18	52	-	0	0.0%	Detailed update given above.
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	Humanitar- ian 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 the Boko Haram group persists in the country.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Niger	Cholera	G2	13-Jul-18	13-Jul-18	19-Nov-18	3 824	42	78	2.0%	In week 46 (as of 19 November 2018), 2 new suspected cases were reported from Madarounfa district (Maradi region). No case of death was reported. Overall, the most affected area remains Madarounfa Health District in Maradi Region accounting for about 69% of the cumulative cases reported. Other affected regions include Tahoua, Dosso and Zinder.
Niger	Circulating vaccine-de- rived polio virus type 2 (cVDPV2)	G2	8-Jul-18	8-Jul-18	9-Nov-18	7	7	1	14.3%	A total of seven cVDPV2 cases have been reported in 2018 in Niger, which are genetically linked to a cVDPV2 case in Jigawa and Katsina states, Nigeria.
Nigeria	Humanitar- ian 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.
Nigeria	Cholera	G1	7-Jun-17	1-Jan-18	28-Oct-18	42 466	47	830	2.0%	In week 43 (week 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	18-Nov-18	579	562	161	27.8%	In week 46 (week ending 18 November 2018), three new confirmed cases with one death were reported from Edo (1 cases), Ondo (2 cases with one death) states. From 1 Januar 2018, a total of 3 086 suspected cases have been reported from 22 states. Of these, 562 were confirmed positive, 17 probables and 2 507 negative (not a case). Nineteen states have exited the active phase of the outbreak while three- Edo, Ondo and Ebonyi states remain active.
Nigeria	Measles	Ungraded	25-Sep-17	1-Jan-18	4-Nov-18	15 504	1 110	123	0.8%	In week 44 (week ending 4 November 2018), 233 suspected cases of measles were reported from 31 states across the country. Since the beginning of the year, 4 512 fewer cases were reported from 36 states and the Federal Capital Territory 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 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.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Polio- myelitis (cVDPV2)	Ungraded	1-Jun-18	1-Jan-18	13-Nov-18	25	25	0	0.0%	Two new circulating vaccine-derived poliovirus type 2 (cVDPV2) cases were reported in week 45 (week ending 11 November 2018), one from Katsina State and one from Kaduna State (newly infected district and province, part of the Jigawa outbreak) with onset of paralysis on 9 October 2018 and 10 September 2018 respectively. The country continues to be affected by two separate cVDPV2 outbreaks, the first centered in Jigawa State, and the second in Sokoto State.
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	11-Nov-18	3 456	56	55	1.6%	In week 45 (week ending on 11 November 2018), 85 suspected cases were reported across the country. From 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).
Senegal	Dengue fever	Ungraded	21-Sep-18	19-Sep-18	18-Nov-18	292	292	1	0.3%	In week 46 (week ending on 18 November 2018), 48 new cases were confirmed with no severe cases or deaths. As of 18 November 2018, a total of 2 567 suspected cases including 292 confirmed cases (11.4%) have been reported from seven regions across the country namely; Diourbel (205 cases), Fatick (34 cases), Saint-Louis (32 cases), Dakar (10 Cases), Louga (6 case), Thies (4 case) and Matam (1). A total of three dengue haemorrhagic fever cases were reported, one from Diourbel and two from Dakar.
São Tomé and Prin- cipé	Necrotising cellulitis/ fasciitis	Protracted 2	10-Jan-17	25-Sep-16	11-Nov-18	3 071	-	0	0.0%	During week 45 (week ending on 11 November 2018), 11 new cases were notified across five districts. Of the cases notified, 6 were hospitalized. The national attack rate as of week 45 is 15.5 per 1000. Sixty-five percent (65%) of the total cases reported during the last 13 weeks are from Me-zochi (39%) and Cantagalo (26%) districts.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	21-Oct-18	6 120	1 511	1	1	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 circula- tion of DENV1, DENV2 and DENV3.
South Sudan	Humanitar- ian 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.
South Sudan	Hepatitis E	Ungraded	-	3-Jan-18	11-Nov-18	158	19	2	1.3%	No new cases were reported in week 45 (week ending 11 November 2018). Of the cumulative cases reported in 2018, 144 are from Bentiu PoC and 14 from Old Fangok. In week 43, one new suspected death was reported from Old Fangok.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
South Africa	Cholera	Ungraded	5-Oct-18	29-Sep-18	13-Nov-18	3	3	0	0.0%	A third case of cholera was notified to WHO on 16 November 2018. The case is in a migrant worker from Zimbabwe, working and living in Alidays. 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.
Tanzania	Cholera	Protracted 1	20-Aug-15	1-Jan-18	18-Nov-18	4 389	50	83	1.9%	During week 46 (week ending 18 November 2018), 19 new cases with one death were reported from two districts namely Ngorongoro District (18 cases, one death) in Arusha Region and Momba district (one case) in Songwe region. In the past four weeks, Arusha Region reported 107 (85.6%) and Songwe region reported 18 (14.4%) of 125 cases in total.
Uganda	Humani- tarian crisis - refugee	Ungraded	20-Jul-17	n/a	24-Oct-18	-	-	-	-	After the countrywide refugee-verification process was completed on 24 October 2018, 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 haemor- rhagic 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 bleeding from the nose.
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.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Uganda	Rift Valley fever (RVF)	Ungraded	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, 19 cases have been confirmed by PCR. Ninety-six percent (96%) of cases reported are males, the majority of whom are herdsman and butchers.
Zimbabwe	Cholera	G2	6-Sep-18	6-Sep-18	21-Nov-18	10 202	269	55	0.5%	Cases have been reported from 9 provinces across the country. Harare City is the most affected constituting about 97% of the cumulative cases reported. The main affected areas in Harare are Glen View and Budiriro suburbs. A downward trend in case incidence continue since week 39.
Zimbabwe	Typhoid fever	Ungraded	7-Aug-18	6-Jul-18	16-Nov-18	5 164	262	12	0.2%	Detailed update given above.
Recently clos	ed events									
Kenya	Cholera	Ungraded	8-Sep-18	8-Sep-18	20-Nov-18	40	8	0	0.0%	A new wave of cholera outbreak was reported in Turkana, Embu and Isiolo Counties since 8 September 2018. No new case has been detected countrywide since 23 October 2018. Since the last case, three incubation periods have passed and therefore the unit considers the outbreak controlled. The country has experienced two outbreaks since 2014. The first outbreak began on 26 December 2014 and ended on 19 August 2018. Cumulatively, 5 796 cases including 78 deaths (CFR 1.3%) have been reported since 1 January 2018 in 20 out of 47 counties.

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

Data are taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.



© WHO Regional Office for Africa

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

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

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

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

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

Contributors

F. Mboussou (Democratic Republic of the Congo)

P. Mhata (Namibia)

A. Nundoochan (Madagascar)

S. Maphosa (Zimbabwe)

B. Mbodj (Mali).

Graphic design

A. Moussongo

Editorial Team

B. Impouma

C. Okot

E. Hamblion

B. Farham

G. Williams

Z. Kassamali

P. Ndumbi

J. Kimenyi

F. Chereau

E. Kibangou

D. Hendrickx

R. Kramer

Production Team

A. Bukhari

T. Mlanda

C. Massidi

R. Ngom

C. Eyema C. Sounga

Editorial Advisory Group

I. Soce-Fall, Regional Emergency Director

B. Impouma

Z. Yoti

Y. Ali Ahmed

M. Yao

M. Djingarey

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.

World Health Companies of the Companies of the

Health Emergency Information and Risk Assessment

© WHO Regional Office for Africa

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

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

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

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

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

Contributors

F. Mboussou (Democratic Republic of the Congo – EVD)

G. Folefack (Democratic Republic of the Congo – cholera)

E. Douba (Cameroon)

R. Fotsing (Central African Republic)

O. Ogundiran (north-east Nigeria).

Graphic design

A. Moussongo

Editorial Team

B. Impouma

C. Okot

E. Hamblion

B. Farham

G. Williams

Z. Kassamali

P. Ndumbi

J. Kimenyi

F. Chereau

E. Kibangou

D. Hendrickx

R. Kramer

Production Team

A. Bukhari

T. Mlanda

C. Massidi

R. Ngom

C. Eyema

C. Sounga

Editorial Advisory Group

I. Soce-Fall, Regional Emergency Director

B. Impouma

Z. Yoti

Y. Ali Ahmed

M. Yao

M. Djingarey

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.

Health Emergency Information and Risk Assessment