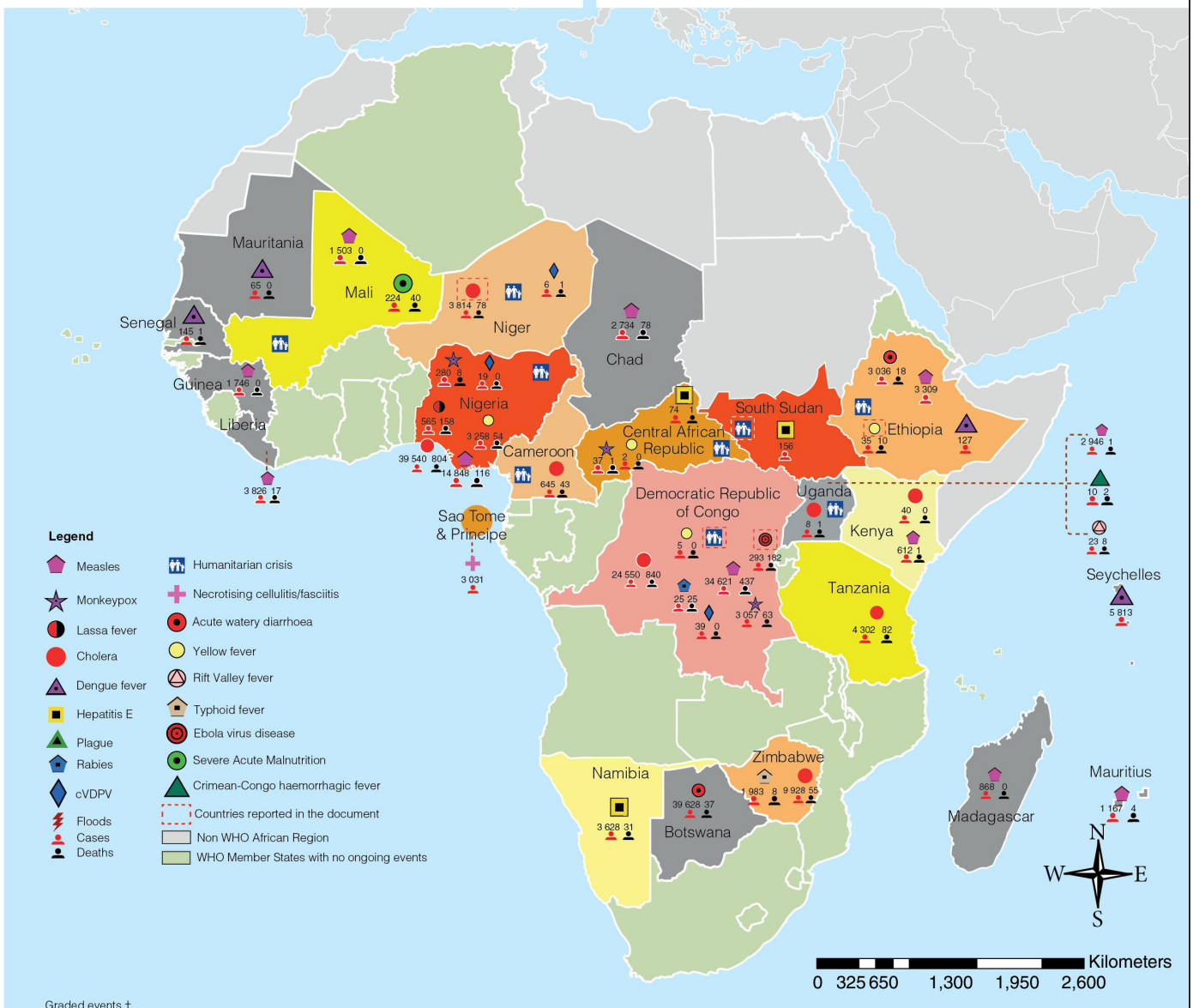
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 44: 27 October - 2 November 2018
Data as reported by 17:00; 2 November 2018

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

1	54	44	11
New event	Ongoing events	Outbreaks	Humanitarian crises



Graded events †

2	6	3	34
Grade 3 events	Grade 2 events	Grade 1 events	Ungraded events
2	3	4	
Protracted 3 events	Protracted 2 events	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 55 events in the region. This week's edition covers key new and ongoing events, including:

  - Yellow fever in Ethiopia
  - Ebola virus disease in the Democratic Republic of the Congo
  - Cholera in Niger
  - Humanitarian crisis in Democratic Republic of the Congo
  - Humanitarian crisis in South Sudan.

- For each of these events, a brief description, followed by public health measures implemented and an interpretation of the situation is provided.

- A table is provided at the end of the bulletin with information on all new and ongoing public health events currently being monitored in the region, as well as events that have recently been closed.

- **Major issues and challenges include:**

  - The persistence of the Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo remains a serious concern. The incidence of new confirmed EVD cases has been increasing in the last four weeks, most notably in the city of Beni and communities around Butembo. There is a complex environment around the EVD outbreak emanating from a mixture of security challenges and misconception/mistrust within some communities. This has complicated the response efforts in many ways. The Ministry of Health, WHO and partners continue to work closely with communities, constantly adapting to the complex situations, while fully aware that there is a challenging road ahead before this outbreak will be declared over.

  - A new outbreak of yellow fever has been confirmed in the Southern Nations, Nationalities, and Peoples' (SNNP) Region, located in the south-western part of Ethiopia. This outbreak is of concern since the population of Ethiopia is highly susceptible to yellow fever due to absence of recent exposure and lack of large-scale immunizations. Ongoing population and livestock movements due to conflicts in the region also constitute a risk for further spread of the disease. While a reactive vaccination campaign was swiftly carried out in the affected area, there is a need to scale up the response to other at-risk areas as well as adopting longer term control measures.

New events

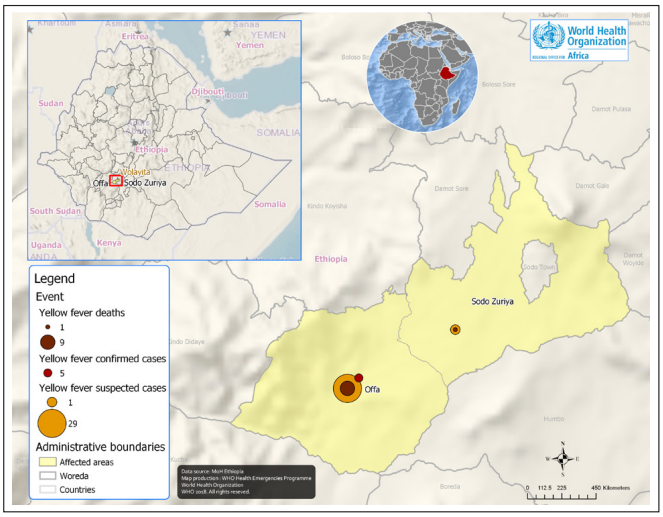
Yellow fever | **Ethiopia** | 35 **Cases** | 10 **Deaths** | 29% **CFR**

EVENT DESCRIPTION

An outbreak of yellow fever has been confirmed in Wolaita Zone of the Southern Nations, Nationalities, and Peoples' (SNNP) Region, located in south-west Ethiopia. Test results released by the Institut Pasteur Dakar (IPD) on 29 October 2018 showed that five out of 21 specimens were positive for yellow fever using the plaque reduction neutralization test (PRNT). Preliminary test results (on 26 October 2018 at IPD) had indicated that five specimens were positive for yellow fever immunoglobulin M (IgM) serology and two were positive on polymerase chain reaction (PCR).

This event was initially reported by the SNNP Regional Health Bureau on 3 October 2018 when 16 suspected yellow fever cases, including seven deaths, occurred in Offa Woreda (equivalent to district), Wolaita Zone. The index case developed illness on 21 August 2018 and presented to the local hospital on 28 August 2018 with jaundice and bleeding from the nose, in addition to other constitutional symptoms. Of the 16 initial case-patients, 11 had nasal bleeding while seven had jaundice, five of whom died. None of the case-patients had been vaccinated against yellow fever and none had any history of travel. One out of nine blood specimens collected from the initial case-patients tested positive for yellow fever by PCR at the Ethiopian Public Health Institute.

Geographical distribution of yellow fever cases and deaths in Ethiopia, 21 August - 29 October 2018



Between 21 August 2018 and 26 October 2018, 35 suspected yellow fever cases have been reported in two woredas of Wolaita Zone in the SNNP Region. All the confirmed cases came from Offa Woreda in weeks 38 to 40. Ten deaths were recorded (case fatality ratio 28.6%), including six in health facilities and four in the community. Males and females are equally affected (sex ratio 1:1) and the ages of the affected people ranges from 7 to 70 years. No new cases have been reported since week 42.

PUBLIC HEALTH ACTIONS

- The International Coordinating Group (ICG) has approved 1.45 million doses of yellow fever vaccine from the global emergency vaccine stockpile for a mass reactive vaccination campaign, targeting 1.34 million people in nine districts of two zones (Gamo Gofa and Wolaita). Microplanning and other activities regarding the campaign are ongoing, including public awareness.
- An immediate reactive vaccination campaign was conducted in Offa Woreda in mid-October 2018, targeting 31 365 people and attained a coverage of 99.2%.
- Joint rapid response teams from the Federal Ministry of Health and the local health departments have been deployed to the affected areas, with the support of WHO and other partners.
- Enhanced surveillance, including active case search and case investigations are ongoing in all districts of Wolaita.
- Case management at Gesuba health centre has been implemented and is ongoing.
- An entomological investigation was conducted in Offa, Wolaita Zuriya and Humbo woredas of Wolaita Zone and the findings used to inform the response.
- Vector control measures were strengthened in affected areas, including distribution of insecticide-treated bed nets and indoor residual spraying.
- Awareness campaigns and promotion of preventive activities are ongoing using local radio broadcast.

SITUATION INTERPRETATION

An outbreak of yellow fever has been confirmed in the SNNP Region of Ethiopia, located in the south-western part of the country. This outbreak is of concern since the population of Ethiopia is highly susceptible to yellow fever due to absence of recent exposure and lack of large-scale immunization. Lying within the yellow fever belt geographically, Ethiopia previously experienced frequent outbreaks until the 1960s. Since then, there were no outbreaks until 2013 when yellow fever re-emerged in the SNNP Region, with 143 confirmed cases. The global strategy to Eliminate Yellow Fever Epidemic (EYE) identified Ethiopia as a high priority country, and the introduction of yellow fever vaccination into routine immunization is planned for 2020.

Although the affected areas are rural, with a low population density, ongoing population and livestock movements due to conflicts in the region constitute a risk for further spread. Health infrastructure and healthcare seeking behaviour are sub-optimal in the affected areas, which probably contributed to the relatively high mortality rate. The observed risk factors are the presence of the vector (*Aedes* mosquitos) and its breeding sites around households, as well as the proximity of households and farm lands to jungle areas.

Vaccination is the primary means for prevention and control of yellow fever in rural areas. An immediate reactive vaccination campaign was conducted in Offa Woreda. The planned mass vaccination campaign needs to commence without further delay.

Ongoing events

Ebola virus disease | **Democratic Republic of the Congo** | 298 **Cases** | 186 **Deaths** | 62.4% **CFR**

EVENT DESCRIPTION

The Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces of the Democratic Republic of the Congo continues. Since our last report on 26 October 2018 *(Weekly Bulletin 43)*, 31 new confirmed EVD cases and 16 new deaths have occurred as of 3 November 2018. On 30 October 2018, Vuhovi, a Health Zone located between Butembo and Beni, reported one confirmed EVD case for the first time.

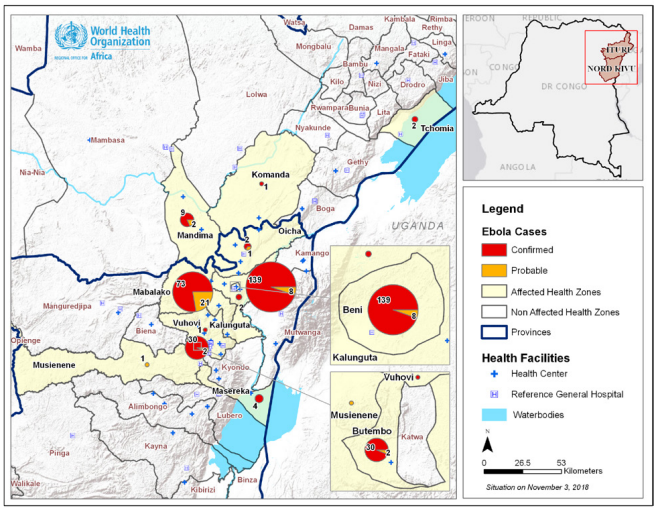
As of 3 November 2018, there have been a total of 296 EVD cases, including 263 confirmed and 35 probable cases. To date, confirmed cases have been reported from 10 health zones: Beni (139), Mabalako (73), Butembo (30), Masereka (4), Oicha (2), Kalunguta (2), Komanda (1) and Vuhovi (1) in North Kivu Province; and Mandima (9) and Tchomia (2) in Ituri Province. A total of 186 deaths were recorded, including 151 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 57.4% (151/263). Since the last report, three new confirmed cases have been reported among health workers in Beni, increasing the number of health workers affected to 27, including 26 confirmed, and three deaths.

On 3 November 2018, 31 new patients were hospitalized, including 29 in Beni and two in Butembo, bringing the total number of patients admitted to 107 (70 suspected cases and 37 confirmed cases). As of 3 November 2018, the number of patients cured and discharged back into the community is 81 (including 11 new patients discharged since the last report).

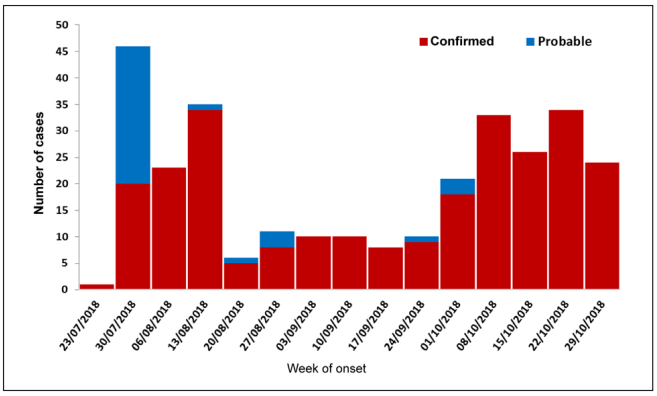
Beni and Mabalako remain the most affected health zones, with 49.3% (147/298) and 31.5% (94/298) of cases, respectively. Beni is the current hotspot of the outbreak. There are also active chains of transmission in Butembo.

Contact tracing is still of concern due to insecurity and persistent community resistance. On 3 November 2018, the proportion of contacts followed was 92.3% (4599/5036).

Geographical distribution of confirmed and probable Ebola virus disease cases reported betwwen 1 May to 3 November 2018, North Kivu and Ituri provinces, Democratic Republic of the Congo.



Distribution of confirmed and probable cases by week of onset, North Kivu and Ituri, Democratic Republic of the Congo.



PUBLIC HEALTH ACTIONS

- All surveillance activities continue, including investigations around the last confirmed cases not known as contacts, active case finding in health facilities and in the affected health zone communities and investigation and listing of contacts around the latest confirmed cases.
- In Mabalako, multi-disciplinary teams of epidemiologists, communication and psychosocial care experts and clinicians visited the village of Kaukobo in connection with the confirmed case who escaped from the ETC in Beni and was found in Mabalako. Cases were transferred to Mangina ECT, contacts listed, the clinic at Kaukobo was decontaminated and the community around the village were sensitized.
- There is continued monitoring at points of entry (POE) and sanitary control points (POS), with a total of 67 functional on 2 November 2018 (out of 66), with 187 809 travellers checked, bringing the total number of travellers checked since the start of the outbreak to 12.4 million. Fifteen transport vehicles were decontaminated the same day, bringing the total of decontaminated vehicles to 17 530.
- Vaccination continues in nine rings in Beni, one in Kalunguta, one in Katwa and one in Oicha (opened between 31 October 2018 and 2 November 2018) with a total of 275 people vaccinated on 2 November 2018, bringing the total number of people vaccinated since 8 August 2018 to 25 845.
- Several activities were carried out to raise public awareness on EVD and to combat rumours about the disease and community resistance to the response measures to the epidemic. Door-to-door outreach sessions were conducted in Beni (n=410), Oicha (n=661), Mabalako (n=1 076), Butembo (n=756) and Masereka (n=76).
- Psychoeducation sessions were carried out in Beni, Mabalako, Butembo, Mandima and Masereka health zones reaching 920 people. Twenty-seven patients discharged from ECTs were re-integrated into their communities.
- Infection prevention and control (IPC) and water sanitation and hygiene (WASH) activities continued: 11 IPC training sessions took place in health facilities, including five in Mabalako and six in Tchomia; a hygiene committee was established at Beni Reference General Hospital; 130 health workers were trained in Beni (12), Butembo (54), Mabalako (15), Komanda (33) and Tchomia (16); IPC kits were distributed in two health facilities, one in Beni and one in Butembo; four health facilities and two households in Beni were decontaminated.

SITUATION INTERPRETATION

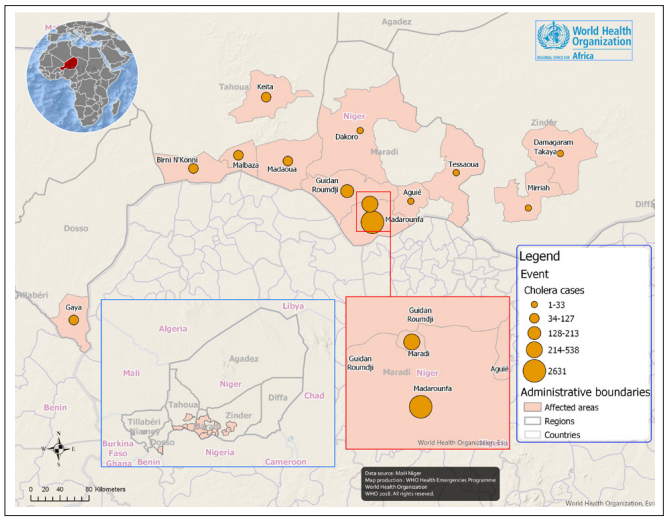
The EVD outbreak continues to be of grave concern, particularly with geographical spread of the disease to a new area, as well as the increasing number of confirmed cases and contacts to be followed in Beni. The current situation requires intensive and innovative measures to address the challenges on the ground. Intensified surveillance, including active case finding, case investigations, and identification and monitoring of all contacts is critical so that new suspected cases are isolated rapidly. Medical inputs and patient reception capacity at the ETCs also require expansion, in light of the increasing number of confirmed cases. Efforts to reinforce IPC capacities at all levels are paramount. All national and international actors need to continue to offer their strongest support to the continuing EVD response.

EVENT DESCRIPTION

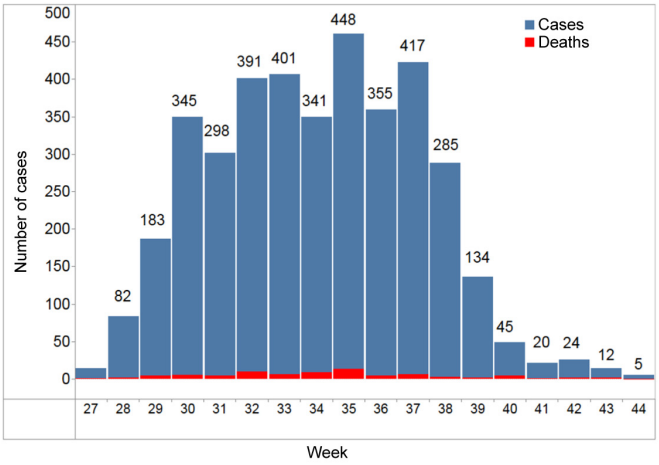
The cholera outbreak in Niger has continued to improve in the past 10 weeks, following a steady decline starting from week 35 when the weekly incidence peaked. In week 43, 12 new suspected cholera cases and two deaths were reported, compared to 24 cases reported in week 42. Partial data for week 44 has five new suspected cases and no deaths as of 1 November 2018. Tessaoua Health District in Maradi Region, newly affected since 20 October 2018, has not reported new cases since 25 October 2018.

Since the beginning of the cholera outbreak on 5 July 2018, a cumulative total of 3 814 cases and 78 deaths (case fatality ratio 2%) have been reported in 13 out of 72 districts, as of 1 November 2018. Most cases (56.8%) are 15 years and older, and women make up the majority (57%) of cases. Ninety percent (3 435/3 814) of reported cases are from Maradi Region, with Madarounfa District continuing to report the most (69%) cases and deaths (54%).

Geographical distribution of cholera cases and deaths in Niger, 20 October - 1 November 2018



Weekly trend of cholera cases and deaths in Niger, Week 27 – week 44, 2018



PUBLIC HEALTH ACTIONS

- A joint mission of managers of the Directorate for Surveillance and Response to Epidemics (DSRP), the Maradi DRSP and WHO is assessing the situation following the alert in the Tessaoua health district, where the WHO cholera Incident Manager in Niger has been present since 23 October 2018 to assess the extent of the outbreak, the on-site care and to hold discussions with community actors and partners.
- A humanitarian country team meeting was held at the OCHA's office on 23 October 2018, where the cholera situation was presented to the partners and various agency heads.
- The Regional Committee for the Management of Epidemics has held meetings in Tessaoua, with WHO support, to assess the water, sanitation and hygiene (WASH) situation.
- Médicines Sans Frontièrs (MSF), Red Cross, WHO and PISC are involved in surveillance, care, awareness raising, risk communication and support for community-based activities.
- An early warning system is in place to systematically investigate suspected cases.
- Ten community relays are deployed to the two affected villages in Tessaoua health district to increase awareness, and contracts have been signed with Tessaoua community radio for dissemination of awareness messages in local languages.
- Two trained WASH workers are treating the community wells and people are being advised to boil any water before domestic use.
- Case management continues, with cooperation between the community health centres and the cholera treatment centres in Maradi, supported by BEFEN/ALIMA, and in Tessaoua, supported by MSF.
- The first round of reactive oral cholera vaccination is scheduled for 16-19 November 2018 and the second round for 3-6 December 2018.

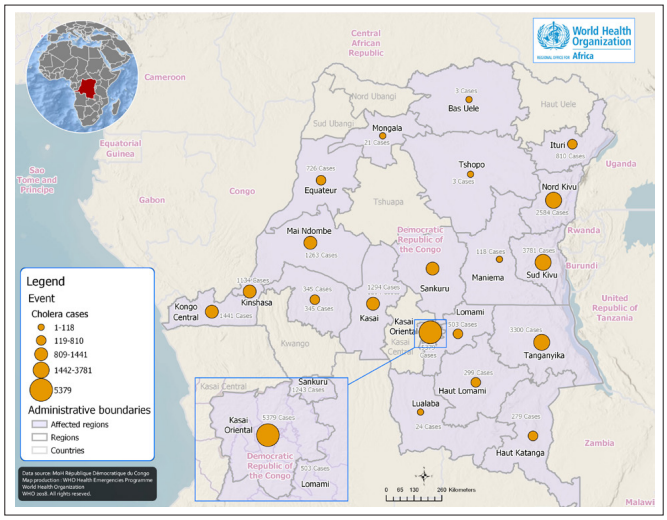
SITUATION INTERPRETATION

The cholera outbreak situation in Niger has continued to improve. Nevertheless, there is a need to continue with intense response measures, especially active surveillance, public health education/social mobilization as well as WASH interventions. The risk factors for cholera transmission are still known to be high, namely poor local hygiene and sanitation, along with major population movement and trade between the affected districts and neighbouring Nigeria, also experiencing a cholera outbreak. The upcoming vaccination campaigns may well reverse the trend still further, but while there is a poor WASH situation, the risk will remain. Cross-border activities with Nigeria need to be strengthened and national authorities need to address the underlying transmission factors in order to bring the outbreak to a complete close.

EVENT DESCRIPTION

The complex humanitarian crisis in the Democratic Republic of Congo (DRC) remains precarious, characterized by continuing violence resulting in mass internal population movements. Additional population movement across international borders is creating a more challenging situation. Since October 2018, over 250 000 Congolese returned from Angola back to the greater Kasai region. Humanitarian partners are currently responding to this new situation. Recent inter-ethnic armed clashes in Kalehe territory in South Kivu Province reportedly displaced an estimated 7 200 people, who joined over 8 000 other displaced people already living in difficult conditions in three schools and two churches in Kalehe territory.

Geographical distribution of cholera cases and deaths in Democratic Republic of the Congo, 21 September - 21 October 2018



The volatile security situation has facilitated and exacerbated the multiple ongoing public health events, negatively impacting on the population's health and the national economy. In addition to the ongoing Ebola virus disease outbreak, the pervasive national epidemic of cholera has continued and is beginning to escalate. In week 42 (week ending 21 October 2018), 706 new suspected cholera cases and 23 deaths (case fatality ratio 3.3%) were reported from 14 provinces. As of 28 October 2018, a total of 24 550 suspected cholera cases and 840 deaths (CFR 3.4%) were notified nationwide. The five most affected provinces are Tanganyika, Kasai Oriental, South Kivu, Lomami, and Kongo Central, accounting for 86% of all cases and 65% of deaths reported in the previous week.

The measles outbreak has been worsening in recent weeks, especially in six provinces (Haut Katanga, Haut Lomami, Ituri, Kasai Oriental, Tanganyika, and Tshopo). In week 41, 2 253 suspected measles cases and 35 deaths were reported. From weeks 1-41 of 2018, 28 237 suspected measles cases and 324 deaths have been reported.

Other ongoing public events of concern are the circulating vaccine derived poliovirus (type 11) and yellow fever, placing additional strains on the health system.

PUBLIC HEALTH ACTIONS

- WHO is continuing its cholera response support activities in the principal cholera hotspots and risk areas: Kasai Oriental, Tanganyika, South Kivu, Kinshasa and Kongo Central. These include support for the establishment of additional cholera treatment centres, case management, data management, surveillance strengthening, WASH interventions, and logistical assistance.
- WHO is supporting a mission planned by the Ministry of Public Health to evaluate the situation in Tanganyika and South Kivu provinces, and to reorient prevention and control strategies accordingly.
- An increase of cholera response measures is currently underway in Kongo Central and Lomami provinces, which have shown increased cholera incidence in recent weeks.
- WHO is providing support for the planning of vaccination campaigns in risk zones. The MoH has requested approximately 12 million oral cholera vaccine doses from the Global Task Force for Cholera Control.

SITUATION INTERPRETATION

The humanitarian situation in the Democratic Republic of the Congo remains serious. The cholera outbreak in DRC has been ongoing since the end of 2015 and is considered as the worst cholera epidemic experienced by the country since 1994. The situation remains of concern, particularly in the wider Kasai region where large population displacements are occurring following the return of more than 250 000 displaced people from Angola. The occurrence of cases in Kinshasa also requires close monitoring, in order to prevent a repeat of the 2017 cholera outbreak in the capital city. The country's resources and capacity to effectively respond to the current cholera epidemic are limited, and have been hampered further by the ongoing Ebola outbreak in eastern DRC. Reinforcement of case management and risk communications strategies are critical, considering the over-stretched capacity of health providers facing multiple disease challenges and the necessity of community-level prevention.

EVENT DESCRIPTION

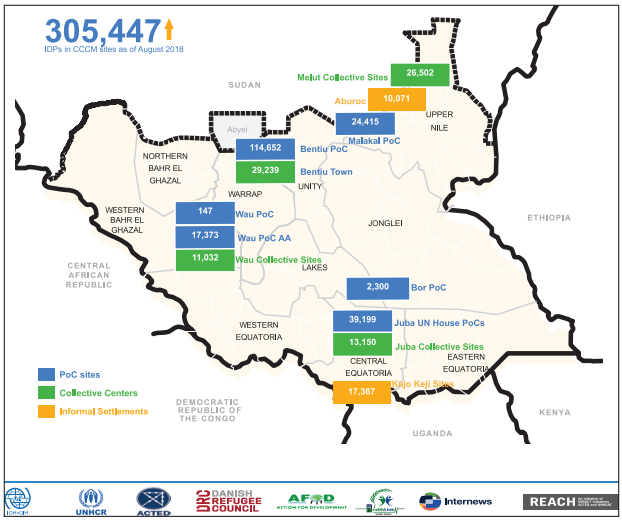
The Peace Agreement signed in Addis Ababa on 12 September 2018 has been greeted with cautious optimism. A national peace celebration was held at the capital Juba on 31 October 2018, attended by Government and opposition leaders, the IGAD leaders and other regional leaders. However, analysts fear that the agreement, although backed by regional powers, will not halt the ongoing violence, the main driver of the complex humanitarian crisis, ongoing since 2013.

Biometric registration exercises have been undertaken by the International Organization for Migration (IOM) at Juba protection of civilian (POC) sites. A total of 32 113 displaced people have been registered at Juba's two POC sites, of whom 55% are children and youth under the age of 18. The registration data also indicated that more than 3 600 individuals had left the POC sites for unknown destinations.

Ongoing violence is reported from various regions. There are more than 3 000 vulnerable people in need of humanitarian assistance in Labarap County, Boma State, mainly women and children displaced in fighting relating to cattle in the past month. There are reports of 12 wounded and 12 children abducted during the fighting, which are being followed up by humanitarian partners.

On 22 October 2018, sporadic shooting was reported at the food distribution site in Ding-Ding, Rubkona County, forcing civilians and humanitarian partners to flee the area and food distribution has been temporarily suspended until further notice. Gender-based violence (GBV) is reportedly increasing in Leer County and the GBV partner in the region has also raised concerns about the lack of critical medical and other referral services for survivors in Southern Unity.

Humanitarian crisis in South Sudan as of 1 - 15 August 2018



Malaria remains the top cause of morbidity (66%) and mortality (34%) in the region, accounting for 66.1% of cases in week 42 of 2018. At least 21 counties in six hubs currently have malaria trends that significantly exceed expected levels for this time of year. A total of 2.17 million cases, with 306 deaths have been registered since the beginning of 2018. Ongoing outbreaks in the region include Guinea worm in Rumbek Center and Rumbek North, Rift valley fever in Yirol East, hepatitis E in Bentiu POC and rubella in Bor South, measles in Juba in Al Mahad ID camp and a possible malaria upsurge in 21 counties.

During week 42, malaria, bloody diarrhoea, measles and acute watery diarrhoea were the most frequent infectious hazards reported. No new hepatitis E virus (HEV) cases were reported in week 42. A cumulative total of 139 HEV cases (18 PCR confirmed) were reported in Bentiu POC in 2018.

There was a suspected Ebola virus disease alert in Hai-Sura, Northwest Yambio reported by the Yambio State Task Force on 21 October 2018.

PUBLIC HEALTH ACTIONS

- The WHO Regional Director for Africa, Dr Matshidiso Moeti, was in South Sudan on a four-day official visit from 20-23 October 2018, during which time she, along with the Vice President, officially inaugurated the first Public Health Emergency Operations Centre (PHOE) in Juba.
- As part of EBV disease preparedness, the Ministry of Health has prioritized capacity building for Rapid Response teams (RRT) in high-risk states, involving 214 participants. National training of 40 RRT participants took place in Jubek, with support from WHO and UNICEF. Training also took place in Yei, involving 30 participants. RRT training is scheduled in Yambio, Malakal, Bor and Wau for 29 October 2018 to 2 November 2018, and in Torit from 3-7 November 2018.
- National Task Force meetings continue to be held twice weekly, with meetings held on 23 and 25 October 2018 at the PHEOC, Juba. State level meetings are also ongoing, with three states' task forces forwarding weekly minutes, which were shared during the EVD National Task Force meetings.
- Risk mitigation against imported EVD continues, with entry screening at 14 sites, with support of WHO, IOM, SCI, World Vision International South Sudan and other partners. A cumulative total of 362 619 travellers have been screened.
- WHO will deploy six international consultants and two WHO international staff from 1 November 2018 to support and enhance capacity for infection prevention and control (IPC), surveillance, and laboratory and overall coordination of EVD preparedness activities.
- Preparedness was enhanced with IPC and communication training, facilitated by WHO, UNICEF and SSDO, was provided by Yei State Ministry of Health for 21 clinicians from 23-26 October 2018.
- Community sensitization and awareness of hand hygiene and personal protective equipment is ongoing, along with active mitigation of rumours at all levels, particularly aimed at correcting the miscommunication of a confirmed EVD death in Yei River State.
- WHO supported an NGO operating mobile clinics and health facilities in Kapoeta South and East with donations of pneumonia kits B (1), malaria kits (2), malaria supplementary kits (1), emergency delivery kits (2), cholera kits (2), Cary Blair (10), triple packaging (1), TI Media (5 ampules) and outbreak investigation guidelines and IDSR guidelines. Essential medical supplies were also provided by the WHO sub office in Yambio.
- Integrated Surveillance and Response (IDSR) training is ongoing in different states with support from WHO.
- The Expanded Program on Immunization continues with the conclusion of a mass vaccination campaign against meningitis, measles, polio and tetanus in Upper Nile and Ulang. Micro planning for National Immunization Days was conducted in Rubkona and Panrieng counties, along with community sensitization.

SITUATION INTERPRETATION

The effects of the recently signed peace agreement, officially celebrated on 31 October 2018, remain to be seen. South Sudan has suffered ongoing violence, leading to population displacement and disease since 2013. There are currently seven million people in need of humanitarian assistance, 1.91 million internally displaced people and 2.47 million refugees in the country. A total of 261 424 children are estimated to be severely malnourished, with only 55 functional stabilization centres across the country. In the meantime, humanitarian operations continue to be hampered by insecurity limiting access, poor road networks, floods, and bureaucracy at all levels. National, Regional and International actors need to ensure that this peace agreement is lasting and effective.

Go to overview | Go to map of the outbreaks

Summary of major issues challenges, and proposed actions

Major issues and challenges

- The Ebola virus disease (EVD) outbreak in the Democratic Republic of the Congo continues, with new confirmed cases and deaths being reported. The city of Beni and Butembo are the current hotspots with active transmission. The identification of a confirmed EVD case in a new health zone during the reporting week is concerning, as well as emergence of confirmed cases outside known transmission chains. The volatile security situation and pockets of community reluctance/mistrust have created a complex environment, complicating the response efforts. The Ministry of Health, WHO and partners continue to work closely with communities, continually adapting to the situation, while fully aware that there is a challenging road ahead before this outbreak will be declared over.
- An outbreak of yellow fever has been confirmed in the Southern Nations, Nationalities, and Peoples' (SNNP) Region, located in the south-western part of Ethiopia. The population in Ethiopia is considered highly vulnerable to yellow fever due to absence of recent exposure and large-scale immunizations. The constant population and livestock movements in the region as a result of conflict also constitute a risk for further spread of the disease. While a reactive vaccination campaign was swiftly done in the affected area and more are being planned, there is a need to expand the response to the yellow fever outbreak to include longer-term measures such as introduction of the vaccine into the national immunization schedule.

Proposed actions

- The national authorities and partners in the Democratic Republic of the Congo have to continue working closely with community leaders and local structures using innovative approaches.
- The national authorities and partners in Ethiopia need to quickly conduct the planned reactive yellow fever mass vaccination campaign. In addition, longer-term measures including introduction of yellow fever vaccine into the national immunization programme need to be undertaken immediately.

All events currently being monitored by WHO AFRO

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Con-firmed cases	Deaths	CFR	Comments
New events										
Madagas-car	Measles	Ungraded	26-Oct-18	4-Oct-18	25-Oct-18	868	868	0	0.0%	From 4 - 25 October 2018, a total of 868 measles cases were confirmed by laboratory diagnostics (n=39) and epidemiological link (n=828). No deaths were reported. Confirmed cases were mostly reported from Antananarivo district (n=864).
Ongoing events										
Botswana	Acute watery diarrhoea (AWD)	Ungraded	19-Sep-18	3-Sep-18	29-Oct-18	39 628	352	37	-	The outbreak peaked in week 38 (7672 cases). Case numbers decreased to 3 969 cases in week 42. Two districts (Gaborone and North-east) are still in active epidemic phase based on their district-specific thresholds. Rotavirus was detected in 67% of a total of 228 samples tested by the National Health Laboratory (NHL).
Cameroon	Human-itarian crisis	Protracted 2	31-Dec-13	27-Jun-17	18-Sep-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 neighbour-ing Central African Republic.
Cameroon	Cholera	G1	24-May-18	18-May-18	29-Oct-18	645	53	43	6.7%	From 23 to 29 October 2018, 44 new suspected cases were reported from the Far North (8 cases with zero deaths) and North (36 cases with three deaths) regions. No new confirmed case has been reported from the Central and Littoral regions since the 27 Au-gust 2018 and 11 October 2018 respectively.
Central African Republic	Human-itarian crisis	Protracted 2	11-Dec-13	11-Dec-13	30-Sep-18	-	-	-	-	In August 2018, the Central African Republic had 621 000 internally displaced persons and 572 000 refugees in neighbouring countries. The situation in Bria has deteriorated, as tensions between armed groups have flared.
Central African Republic	Monkey-pox	Ungraded	20-Mar-18	2-Mar-18	25-Oct-18	37	17	1	2.7%	From 9 - 25 October 2018, Central African Republic reported six confirmed cases of Monkeypox in Mbaiki district. 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	30-Oct-18	74	32	1	1.4%	Sixteen localities of Bokarangue-Koui health district are affected of which Barage II and Baragué I report the most cases with 24% (n=18) and 11% (n=8), respectively. Since the latest update from week 43, three additional cases were confirmed for viral hepatitis E (IgM HVE POS) by Institute Pasteur Bangui Laboratory. As of 20 October 2018, the age range of cases was 7 to 80 years old, with the 10 to 24 years and the 25 to 59 years age groups representing 42% and 40% of cases, respectively.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Con-firmed cases	Deaths	CFR	Comments
Central African Republic	Yellow fever	Ungraded	20-Oct-18	19-Oct-18	28-Oct-18	2	2	0	0.0%	A total of two cases have been confirmed for Yellow fever at Institut Pasteur de Bangui. Samples have been sent to IP Dakar for confirmatory testing. One of the cases is a 80-year-old female from Bocaranga City in l'Ouham Pendé Prefecture which is currently experiencing a hepatitis E outbreak. Detailed investigations and active case findings are ongoing.
Chad	Measles	Ungraded	24-May-18	1-Jan-18	9-Sep-18	2 734	650	78	2.9%	In week 36 (week ending 9 September 2018), 155 suspected cases with zero deaths were reported. This is an increase in the number of cases compared to the previous week when 122 cases with one death were reported. Twelve districts: Faya, Mondo, Moussoro, Amzoer, Iriba, Kalait, Chadra, Oum Hadjer, Mangalme, Biltine, Isseriom and Ngouri have reported cases.
Democratic Republic of the Congo	Human-itarian crisis	G3	20-Dec-16	17-Apr-17	25-Oct-18	-	-	-	-	Detailed update given above.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-18	28-Oct-18	24 550	-	840	3.4%	A total of 784 suspected cases of cholera including 26 deaths (CFR 3.32%) were reported during week 43 (week ending 28 October 2018). Fourteen out of 26 provinces have reported at least one case. The five most affected provinces (Eastern Kasai, Kongo Central, Lomami, Tanganyika and South Kivu) notified 82.3% of the cases and 46.2% of all deaths. There is an increase in the total number of cases reported in week 43 com-pared to the previous week.
Democratic Republic of the Congo	Ebola virus disease	G3	31-Jul-18	11-May-18	3-Nov-18	298	263	186	62.4%	Detailed update given above.
Democratic Republic of the Congo	Measles	Ungraded	10-Jan-17	1-Jan-18	14-Oct-18	34 621	505	437	1.3%	During week 41 (week ending 14 October 2018), 2 253 suspected cases including 35 deaths (CFR: 1.6%) were reported across the country. Ninety-two percent of all cases and 71% of all deaths were reported from six provinces: Upper Katanga, Upper Lomami, Tshopo, Kasai Oriental, Tanganyika and Ituri. Since week 23, there has been an increasing trend in the weekly number of cases.
Democrat-ic Republic of Congo	Monkey-pox	Ungraded	n/a	1-Jan-18	14-Oct-18	3 057	-	63	2.1%	During week 41 (week ending 14 October 2018), 49 suspected cases with zero 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	1-Nov-18	39	39	0	0.0%	One new case with onset on 5 September 2018 has been reported from Yambuku Zone in Mongala Province. Since 2017, 39 cases have been reported from the following prov-inces: Tanganyika (15 cases), Haut-Lomami (9 cases), Mongala (10 cases), Maniema (2 cases), Haut Katanga (2 cases), and Ituri (1 case). The country is affected by three sep-arate strains of circulating vaccine-derived poliovirus type 2 (cVDPV2) since 2017.
Democrat-ic Republic of Congo	Rabies	Ungraded	19-Feb-18	1-Jan-18	23-Sep-18	25	0	25	100.0%	In epi week 38 (week ending 23 September 2018), two new cases were reported. From week 1 to 38, a total of 25 cases of probable rabies have been reported. Case fatality ratio is 100%.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
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 Institut Pasteur Dakar (IPD). Cases are from Ango District in Bas Uele Province, Yalifafu district in Tshuapa Province and Lualaba Province.
Ethiopia	Humanitarian crisis	G2	15-Nov-15	n/a	14-Oct-18	-	-	-	-	The latest humanitarian report shows that 2 881 975 people are internally displaced across Ethiopia with Somali (1 091 210) and Oromia (931 802) regions being the most affected. Renewed violence over the past three weeks in Benishangul Gumuz has led to a surge in the internal displacement of between 93 000 to 113 152 people. High disease burden due to malaria, dysentery, typhoid fever, and severe acute malnutrition have been reported among IDPs. Limited staff and medical supplies couple with insecurity in some areas continue to hinder access to services among the affected population.
Ethiopia	Acute watery diarrhoea (AWD)	Protracted 1	15-Nov-15	1-Jan-18	14-Oct-18	3 036	-	18	0.6%	In 2018, cases have been reported from five regions, namely; Oromia, Dire Dawa, Somalia, Tigray and Afar. There has been a general decline since the peak in week 33 when more than 500 cases were reported. In week 41 (ending 14 October 2018), 48 cases of AWD were reported from two regions: Oromia (7) and Tigray (41).
Ethiopia	Measles	Protracted 1	14-Jan-17	1-Jan-18	14-Oct-18	3 309	949	-	-	Sixty-six new cases were reported from ten regions in week 41 (ending 14 October 2018) with majority of the cases reported from Oromia (22) and Somali (20). Of the 949 cumulative confirmed cases in 2018, 202 are lab-confirmed, 687 epi-linked and 60 clinically compatible.
Ethiopia	Dengue fever	Ungraded	18-Jun-18	19-Jan-18	29-Jul-18	127	52	-	-	An outbreak of dengue fever which started on 8 June 2018 involving 52 cases in the flood-affected Gode Zone of Somali Region has been confirmed by laboratory testing. In week 30, two cases were reported from Liban Zone in Somali Region.
Ethiopia	Yellow fever	Ungraded	4-Oct-18	21-Aug-18	29-Oct-18	35	5	10	28.6%	Detailed update given above.
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	Cholera	Ungraded	8-Sep-18	8-Sep-18	30-Oct-18	40	8	0	0.0%	From 8 September 2018 to 30 October 2018, a total of 40 cases including eight confirmed cases were reported from Turkana, Embu and Isiolo Counties in a new wave of cholera outbreak. Cumulatively, as of 30 October 2018, 5 796 cases including 78 deaths (CFR 1.3%) have been reported since 1 January 2018 in 20 out of 47 counties.
Kenya	Measles	Ungraded	19-Feb-18	19-Feb-18	30-Oct-18	612	52	1	0.2%	Since the beginning of the year, six counties have reported measles outbreaks namely; Mandera, Wajir, Garissa, Nairobi, Kitui and Muranga. The outbreak is still active in Mandera, Garissa, Nairobi, Wajir and Muranga Counties.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Con-firmed cases	Deaths	CFR	Comments
Liberia	Measles	Ungraded	24-Sep-17	1-Jan-18	28-Oct-18	3 826	3 519	17	0.4%	Twenty-seven suspected cases with zero deaths of which four were confirmed (IgM-positive) were reported during week 43 (week ending 28 October 2018) across the country. Six health districts in five counties (Grand Gedeh, Bong, Margibi, Nimba, and Rivercess) are at the epidemic threshold for measles. Of the 3 519 cumulative confirmed cases reported in 2018, 301 are laboratory-confirmed, 476 epidemiologically linked, and 2 742 are clinically confirmed.
Mali	Human-itarian crisis	Protracted 1	n/a	n/a	12-Oct-18	-	-	-	-	The complex humanitarian crisis exacerbated by the political-security crisis and intercommunity conflicts continue in Mali. More than four million people (nearly a quarter of the population) are affected by the crisis, including 61 404 IDPs and 140 000 refugees in neighbouring countries such as Niger, Mauritania and Burkina Faso (data from CMP report, 7 June 2018).
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	28-Oct-18	1 503	374	0	0.0%	From Week 1 to 43 of 2018, a total of 1 503 suspected cases with zero deaths have been reported. Of the cumulative 1 064 blood samples that have been collected, 374 were confirmed (IgM-positive), 578 discarded (IgM-negative), and 312 are pending at the National Reference Laboratory (INRSP). Age group below five-year constitute 69% of the cumulative cases that have been confirmed.
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	21-Oct-18	1 167	1 167	4	0.3%	During week 42 (ending 21 October 2018), 32 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	Hepatitis E	G1	18-Dec-17	8-Sep-17	21-Oct-18	3 628	506	31	0.9%	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	Human-itarian 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	1-Nov-18	3 814	34	78	2.0%	Detailed update given above.
Niger	Circulating vaccine-derived polio virus type 2 (cVDPV2)	G2	8-Jul-18	8-Jul-18	21-Oct-18	6	6	1	16.7%	No new cases have been reported in the past week. A total of six 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	10-Oct-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	7-Oct-18	39 540	47	804	2.0%	In week 40 (week ending 7 October 2018), 1 210 suspected cases including nine deaths (CFR: 0.7%) were reported from six states: Zamfara (327 cases with three deaths), Katsina (342 cases), Borno (363 cases with two deaths), Adamawa (80 cases with three deaths), Gombe (18 cases), and Yobe (84 cases with one death). There is an overall downward trend but the number of cases in Katsina State remains very high.
Nigeria	Lassa fever	Ungraded	24-Mar-15	1-Jan-18	28-Oct-18	565	548	158	28.0%	In week 43 (week ending 28 October 2018), ten cases (nine confirmed and one probable) were reported from three states. The confirmed cases were reported from Ondo (4 cases with one death), Edo (4 cases with one death), and Ebonyi (one case with zero deaths) states. The probable case (deceased without sample collected) was reported from Ebonyi State. This is an increase compared to the previous week when three confirmed cases were reported. Sixteen states have exited the active phase of the outbreak while six states- Edo, Delta, Ondo, Ebonyi, Kogi and Imo states remain active.
Nigeria	Measles	Ungraded	25-Sep-17	1-Jan-18	14-Oct-18	14 848	1 110	116	0.8%	In week 41 (week ending 14 October 2018), 177 suspected cases of measles were reported from 30 states across the country. Since the beginning of the year, 4 112 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-Oct-18	280	116	8	2.9%	On 13 October 2018, the Ministry of Health of Israel reported a confirmed case of monkeypox in a person with travel history to Nigeria. The monkeypox outbreak has been ongoing in Nigeria since September 2017, with cases reported from 26 States and the Federal Capital Territory (FCT). Rivers State is the most affected having reported 58 cases.
Nigeria	Poliomyelitis (cVDPV2)	Ungraded	1-Jun-18	1-Jan-18	30-Oct-18	19	19	0	0.0%	Two new cases have been reported: one from Daura Local Government Area, Katsina State with onset of paralysis on 18 September 2018 and the other from Monguno Local Government Area, Borno State, with onset of paralysis on 25 September 2018. The country continues to be affected by two separate cVDPV2 outbreaks, the first centered in Jigawa State, and the second in Sokoto State.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Con-firmed cases	Deaths	CFR	Comments
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	21-Oct-18	3 258	56	54	1.7%	Eighteen suspected cases were reported during week 42 (week ending 21 October 2018) across the country. From the onset of this outbreak on 12 September 2017, 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	27-Oct-18	145	145	1	0.7%	As of 27 October 2018, 145 confirmed cases have been reported from four regions across the country namely; Diourbel (107 cases), Fatick (34 cases), Saint-Louis (3 cases), and Louga (one case).
São Tomé and Prin-cipé	Necro-tising cellulitis/ fasciitis	Protracted 2	10-Jan-17	25-Sep-16	21-Oct-18	3 031	-	0	0.0%	During week 42 (week ending 21 October 2018), 20 new cases were notified across six districts. Of the cases notified, 11 were hospitalized. The national attack rate as of week 42 is 15.3 per 100 000. Sixty-eight percent (68%) of the total cases reported during the last nine weeks are from Me-zochi (43%) and Cantagalo (25%) districts.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	2-Sep-18	5 813	1 511	-	-	As of week 35, there is a general decreasing trend in reported cases since week 23. Currently in circulation are the serotypes DENV1, DENV2 and DENV3. The suspected cases were distributed in 14 districts on Mahe Island for week 35 and no suspected cases are reported from the inner islands.
South Sudan	Human-itarian crisis	Protracted 3	15-Aug-16	n/a	28-Oct-18	-	-	-	-	Detailed update given above.
South Sudan	Hepatitis E	Ungraded	-	3-Jan-18	28-Oct-18	156	19	-	-	Four new cases were reported from Bentiu PoC in week 43 (week ending 28 October 2018). Of the cumulative cases reported in 2018, 143 are from Bentiu PoC and 13 from Old Fangok. Since week 36, no new cases have been reported from Old Fangok.
Tanzania	Cholera	Protracted 1	20-Aug-15	1-Jan-18	28-Oct-18	4 302	50	82	1.9%	During week 43(week ending 28 October 2018), 38 new cases with zero deaths were reported from Ngorongoro District in Arusha Region. Since week 38 in 2018, there has been a dramatic decline in the weekly number of cases reported. However, the number of cases reported in week 43 is an increase compared to the previous week when 28 cases were reported.
Uganda	Human-itarian crisis - refugee	Ungraded	20-Jul-17	n/a	31-Sep-2018	-	-	-	-	Uganda continues to be home to over 1.5 million refugees, with over 1.1 million refugees from South Sudan, about 300 000 from the DRC, 40 000 from Burundi, and nearly 40 000 from Somalia, among other countries.
Uganda	Cholera	Ungraded	10-Oct-18	10-Oct-18	11-Oct-18	8	2	1	12.5%	The cholera outbreak was notified in Kampala after laboratory confirmation of subtype Ogawa in two children from Mubalak Zone, Makindye division. Six more suspected cases have been reported in Hoima (5) and Kikuube district (1 death) since 3 October 2018. Culture results for 60% of the suspected cases are pending.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Con-firmed cases	Deaths	CFR	Comments
Uganda	Crime-an-Congo haem-orrhagic 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 de-veloped a history of bleeding from the nose.
Uganda	Measles	Ungraded	8-Aug-17	1-Jan-17	30-Sep-18	2 946	771	1	0.0%	In total, 771 cases have been confirmed either by epidemiological link or laboratory testing (IgM-positive) since the beginning of the year. Fifty-four districts in the country have reported a measles outbreak.
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	31-Oct-18	9 928	261	55	0.6%	Cases have been reported from 9 provinc-es 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	10-Sep-18	1 983	16	8	0.4%	An outbreak was notified of typhoid fever in Gweru City, Midland Province. A decline in daily numbers of cases was reported since the peak on 8 August 2018 when 186 cases where reported.
Recently closed events										
Madagas-car	Plague	Ungraded	19-Aug-18	19-Aug-18	25-Oct-18	97	31	9	9.3%	From 19 August 2018 to 25 October 2018, 31 confirmed cases with nine deaths (confirmed case fatality ratio 29%) were reported across the country. These include 26 bubonic cases with four deaths and five pneumonic cases with five deaths. Heigt regions are affected: Amoron'I Mania (8), Atsimo Atsinanana (7), Bongolava (6), , Haute-Matsiatra (3), Anala-manga (3), Itasy (2), Vakinankaratra (1) and Alaotra Mangoro (1).

†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.

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

Contributors
V. Tugumizemu (Ethiopia)
S. Vong (Democratic Republic of the Congo – EVD))
B. Baruani (Niger)
G. Folefack (Democratic Republic of Congo - Humanitarian Crisis)
G. Guyo (South Sudan).

Graphic design
Mr. A. Moussongo

Editorial Team
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Data sources
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