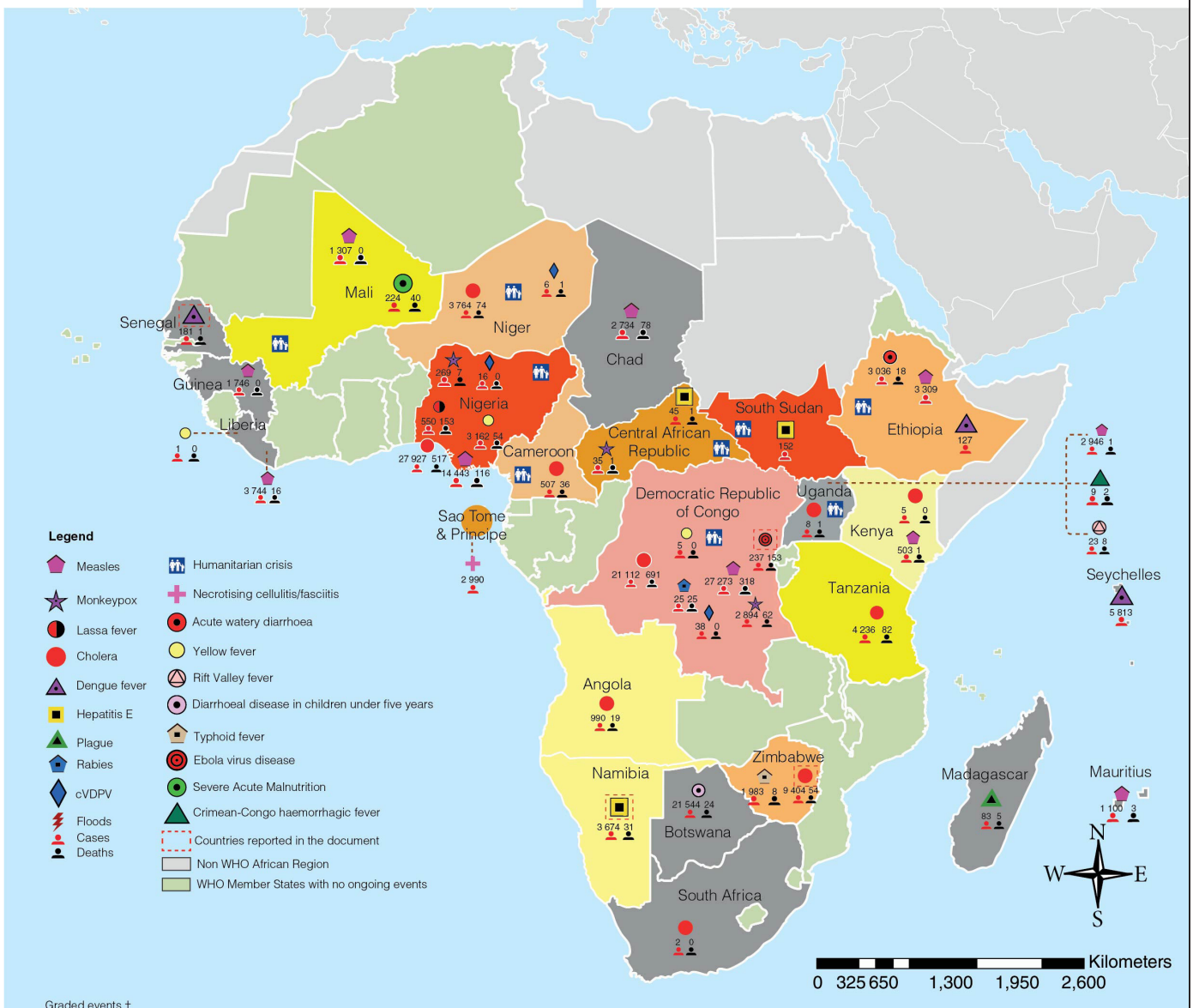
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 42: 13 – 19 October 2018
Data as reported by 17:00; 19 October 2018

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

0	55	44	11
New events	Ongoing events	Outbreaks	Humanitarian crises



Graded events †

2 Grade 3 events	**7** Grade 2 events	**4** Grade 1 events	**33** Ungraded events
2 Protracted 3 events	**2** Protracted 2 events	**4** Protracted 1 events	

Health Emergency Information and Risk Assessment

Overview

Contents

- This Weekly Bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 55 events in the region. This week's edition covers key ongoing events, including:

  - Ebola virus disease outbreak in the Democratic Republic of the Congo
  - Dengue Fever in Senegal
  - Hepatitis E in Namibia
  - Cholera in Zimbabwe.

- 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 Ebola virus disease situation in North Kivu and Ituri provinces remains of grave concern. New cases and deaths continue to be recorded daily, particularly in Beni Health Zone. Cases emerging closer to insecure areas, as well as continuing community resistance, high population mobility and constant insecurity in some areas continue to pose a challenge to the implementation of response activities. These challenges are fully recognized by the MoH and WHO. The new strategic response plan and the Emergency Committee recommendations are aiming to address these challenges.

  - The geographical expansion of the dengue outbreak to three additional regions in Senegal and the recent occurrence of cases in Touba district, Diourbel region, is concerning. Touba district will soon host the Grand Magal; an annual religious pilgrimage of the Senegalese Mouride Brotherhood which gathers over 3 million people. The influx of viraemic travellers attending this celebration may increase the risk of expansion of the outbreak within and outside the country.

Ongoing events

Ebola virus disease | **Democratic Republic of the Congo** | 237 **Cases** | 153 **Deaths** | 65% **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 by the Ministry of Health (MoH), WHO and partners. Since our last report on 12 October 2018 *(Weekly Bulletin 41)*, there have been, as of 20 October 2018, 26 new confirmed cases, 18 new deaths of confirmed cases. Beni reported 85% of new confirmed cases (n=22). The remaining four new confirmed cases were from Butembo.

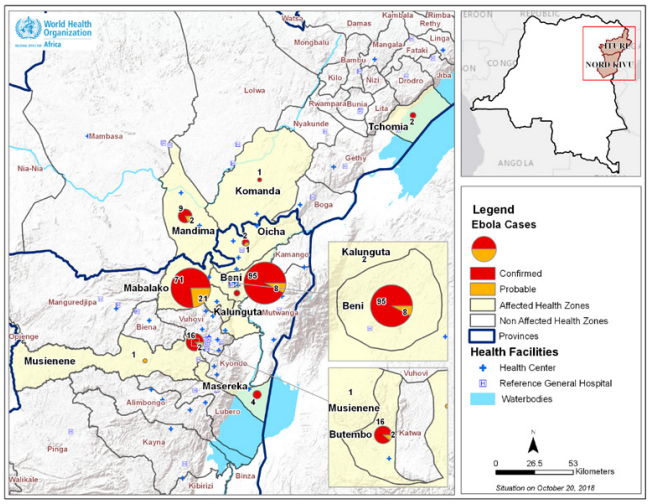
As of 20 October 2018, there have been a total of 237 EVD cases, including 202 confirmed and 35 probable cases. Beni has surpassed Mabalako in term of cumulative number of confirmed cases with 95 cases vs 71 cases in Mabalako. Seven other health zones have reported at least one confirmed case: Butembo (16), Masereka (4), Oicha (2) and Kalunguta (2) in North Kivu Province; and Mandima (9), Tchomia (2) and Komanda (1) in Ituri Province. A total of 153 deaths were recorded, including 118 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 58% (118/202). A health worker from Beni was confirmed positive to Ebola virus disease on 20 October, raising the total number of health workers affected in this outbreak to 21, including 20 confirmed and three deaths. On 20 October 2018, 53 patients were hospitalized in four Ebola treatment centres (ETCs) in Beni (34), Butembo (17), Mangina (1) and Makeke (1). Sixty-three patients were cured and discharged back into the community. On 20 October 2018, 33 suspected cases were under investigation and 21 patients confirmed as EVD cases were hospitalized in Ebola Treatment Centres (ETC).

The health zone of Beni is the current hotspot of the outbreak with 80% of new confirmed and probable cases reported since the beginning of October (61 cases out of 77). Since 1 October 2018, 23 out of 61 new confirmed cases in Beni were aged under 15 years old (38%).

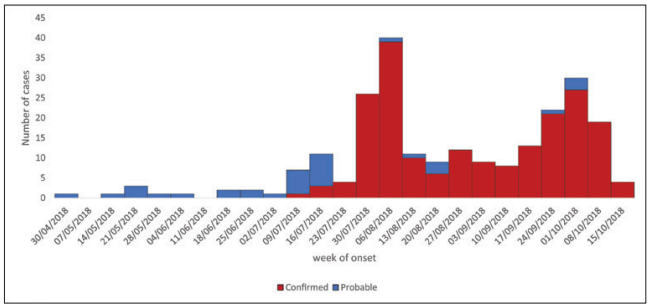
On 20 October 2018, the proportion of contacts followed was 89% (4 916/5 518). There was a significant improvement of contact monitoring in Beni Health Zone, with an average of 86% of the contacts monitored during the last seven days. A total of 423 new contacts were identified on 20 October 2018: 405 in Beni and 18 in Butembo.

Security and community mistrust remain the biggest challenges faced by the response teams for case investigation, contact tracing, safe burial and point of entry in Beni and Butembo. On 18 October, a group of 22 young bikers of Butembo exhumed the body of a confirmed case previously buried safely, and opened the body bag to verify whether the organs of the deceased person had been taken by the EVD response team. The next day, they were listed as contacts and vaccinated. On 19 October, two agents of the Rapid Intervention Medical Unit (UMIR) of the national Armed Forces died following an attack at Vulindi entry point, located at the entrance from the city of Butembo. On 20 October, 12 persons were killed and several kidnapped in an attack in Beni.

Geographical distribution of confirmed and probable Ebola virus disease cases reported betwwen 1 May to 20 October 2018, North Kivu and Ituri provinces, Democratic Republic of the Congo.



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



PUBLIC HEALTH ACTIONS

- On 17 October 2018 the first International Health Regulation (IHR) Emergency Committee on the Ebola Virus Disease Outbreak was convened to discuss the current context of the outbreak in terms of security risk, community resistance and continued reporting of confirmed cases. The Emergency Committee concluded that the outbreak does not currently constitute a public health event of international concern at this point in time, although the risk of spread to neighbouring countries remains very high.
- An updated response plan was launched by Ministry of Health of the Democratic Republic of Congo on 18 October 2018. The plan lays out the approach for the response over coming months, with a greater focus on building local capacity to manage the response.
- On 20 October 2018, vaccination continued in 10 rings in Beni (8), Katwa (1) and Mutwanga (1). A total of 560 people were vaccinated on the reporting date, bringing the cumulative total vaccinated to 20 789. The stock of vaccines available at Beni is 1 720doses.
- Out of 64 points of entry (POE), 54 were functional on 20 October 2018 and a total of 186 042 travellers were monitored, bringing the total number of travellers monitored to 10.1 million.
- Infection prevention and control (IPC) activities are ongoing, with 251 care providers in Beni (96), Butembo (60), Mabalako (56) and Tchomia (39) trained on 17 October. IPC-WASH kits were distributed in Beni, Butembo and Tchomia over the last week. Decontamination of households, schools and clinics is ongoing.
- Community relays carried out door-to-door visits to 1 313 households in Beni, 218 in Mabalako and 356 in Tchomia. Communication activities are ongoing with the daily dissemination of magazines, radio broadcasts and testimonies of former patients, reports of CTC visits and other media responses.

SITUATION INTERPRETATION

The increasing number of confirmed/probable cases and contacts to be followed, mainly in the Beni Health Zone, requires strengthening human and material resources as well as medical input. Cases emerging closer to insecure areas, as well as community resistance, high mobility of the population, and insecurity in some localities continue to pose a challenge to the implementation of the response activities. Response teams at every level, particularly those at the frontline of the response, have generated significant successes in community engagement, vaccinations, high-quality care at ETCs and contact tracing, despite challenges by working in close coordination with local leaders and community members. The rapid adjustment of the response teams' activities under these challenging conditions demonstrate the commitment of the Ministry of Health, WHO, and partners to stop this outbreak.

Go to overview

Go to map of the outbreaks

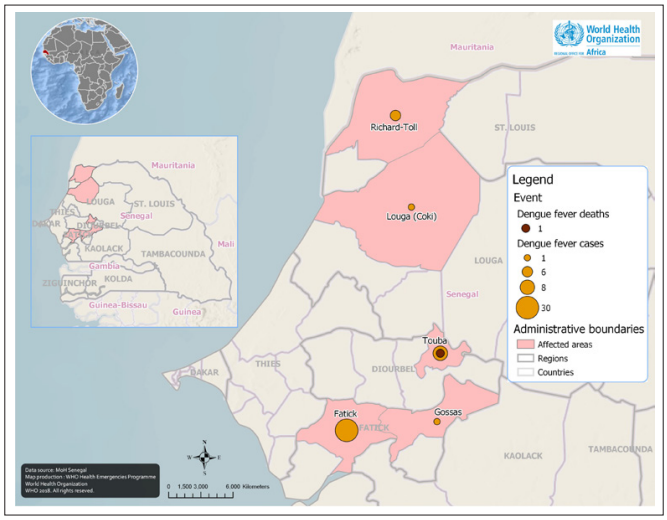
EVENT DESCRIPTION

The dengue fever outbreak notified by the Senegalese Ministry of Health on 21 September 2018 is ongoing. The outbreak was initially detected in Fatick Region, located in the south-western part of the country, on 19 September 2018 (Week 38). Since our last report on 5 October 2018 *(Weekly Bulletin 40)*, 534 new suspected cases including 24 confirmed cases were reported. Initially localized to the Fatick region, the outbreak has spread to Diourbel, Louga and Saint-Louis regions.

As of 18 October 2018, the four affected regions reported a total of 46 confirmed cases including 31 cases from Fatick region (30 from Fatick district, one from Gossas district), eight from Diourbel region (all from Touba district), six from Saint-Louis region (all from Richard-Toll district) and one from Louga region (from Coki district). Women represent 52% (n=24) of cases. One death was notified among the confirmed cases from Touba; a 4-year-old girl who developed disseminated intravascular coagulation, shock and subsequently died. The case fatality ratio among confirmed cases is 2.2%.

Fatick region is the main hotspot of the outbreak accounting for 67% of confirmed cases. The district of Touba which reported 100% of the confirmed cases in the Diourbel region (including the only death of a confirmed case) is of concern due the imminent start of the the Grand Magal (an annual religious pilgrimage of the Senegalese Mouride Brotherhood). The Grand Magal is one of the most popular pilgrimages in the world with over 3 million people participating. In Touba, due to water supply problems, most of the households store water in large basins.

Geographical distribution of dengue cases and deaths in Senegal, 19 September - 18 October 2018



Since the beginning of the outbreak, 1 148 suspected cases were notified: 1 035 from Fatick region, 99 from Diourbel region, 11 from Saint-Louis region and three from Louga region. All the suspected cases had blood sampled for confirmation of dengue virus. As of 18 October 2018, 967 samples tested negative and 46 were positive for dengue virus. An additional 135 samples are still pending laboratory results. Further analysis of the 31 positive samples from Fatick region show a circulation of dengue fever virus serotype 1 (DENV-1). Serotyping results of specimens from Touba district, in Dirourbel region, are pending.

Entomological investigation conducted in affected health zones in Fatick district showed that *Aedes aegypti* was the main vector, exhibiting diurnal activity and a tendency to bite outdoors.

PUBLIC HEALTH ACTIONS

- The National Epidemic Management Committee is meeting regularly to plan, implement and coordinate response to the ongoing outbreak, with involvement of partners.
- A rapid response team has been established in each affected district and is conducting active case finding, risk communication and vector control activities around the household of each confirmed case.
- WHO deployed three epidemiologists to support investigations, active case finding at health facility level, and training of health staff on case definition and management of cases.
- Sentinel surveillance through Réseau 4 Syndromes (respiratory syndrome, malaria, arbovirus and diarrhoea) is supporting surveillance activities.
- Entomological investigations were conducted by teams from Institut Pasteur Dakar and vector control was adjusted to the behaviour of the vector.
- The field based mobile laboratory for diagnosing dengue fever was moved from Fatick to Diourbel Region (in Touba District) on 17 October 2018.

SITUATION INTERPRETATION

The current outbreak is affecting four regions: Fatick, Diourbel, Louga and Saint-Louis. The affected district in Diourbel region, Touba, hosts a large annual religious pilgrimage, the Grand Magal of Touba (over 3 million pilgrims from all over the world, each year) for five days from 28 October 2018. Of concern is that the Richard-Toll district in Saint-Louis region borders Mauritania. There is thus a risk of expansion of the outbreak within and outside the country, with an influx of viraemic travellers as well as cross-border movements.

The last dengue outbreak in Senegal occurred in the fourth quarter of 2017. During this outbreak, 138 confirmed cases were reported, and four regions were affected: Louga (129 cases), Dakar (five cases), Fatick (two cases) and Thies (two cases). The circulating serotype identified was DENV-1, the same as in the current outbreak. Sequential dengue infections can put people at greater risk for dengue hemorrhagic fever and dengue shock syndrome. Effective vector control activities, enhanced surveillance and risk communication will be essential to bring this outbreak under control.

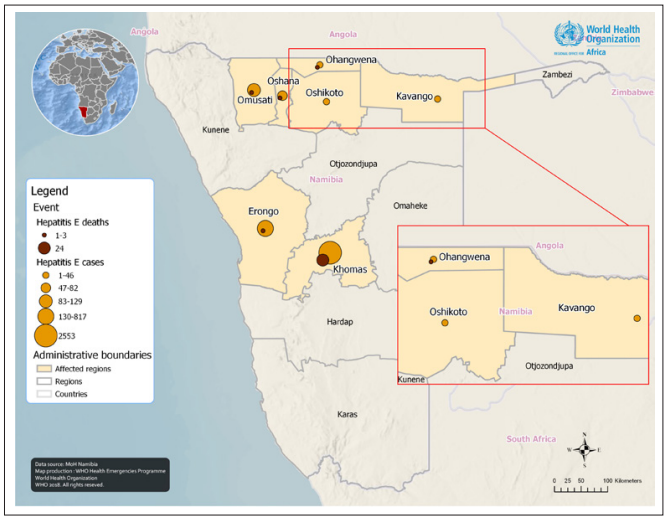
EVENT DESCRIPTION

The outbreak of hepatitis E that was declared on 14 December 2017 by the Ministry of Health and Social Services of Namibia, is still ongoing. The outbreak was initially detected in Windhoek district, Khomas Region, following confirmation of hepatitis E in seven patients presenting with acute jaundice syndrome by the Lancet Laboratory in South Africa. Since April 2018, the outbreak has spread to six other regions across the country, namely Erongo, Omusati, Oshana, Ohangwen, Oshikoto and Kavango. Following the peak of the outbreak in week 33 of 2018, when 165 cases were reported, the weekly incidence of cases has been on a declining trend up to the lowest point in week 39, when 54 cases were reported. The weekly incidence has risen again with 69 and 77 cases reported during weeks 40 and 41, respectively.

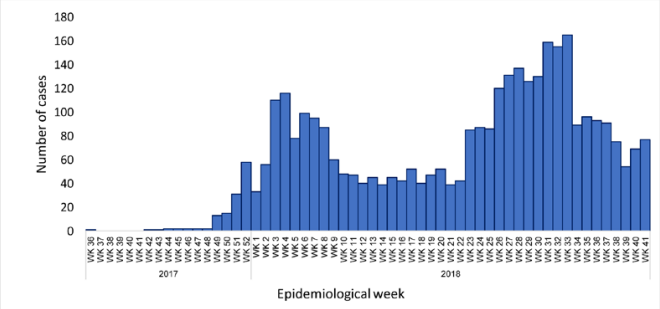
As of 14 October 2018, a cumulative total of 3 674 cases of acute jaundice syndrome (AJS) including 31 deaths (case fatality ratio 0.8%) have been reported from seven regions across the country. Of these, 540 are laboratory-confirmed, 2 657 epidemiologically-linked and 477 suspected. Pregnant women account for 34% (N= 184) of confirmed cases. Of the 31 deaths that have been reported, 14 (45%) are maternal deaths.

Khomas Region remains the most affected region with a total of 2 553 (69%) cases including 24 deaths, reported mainly from informal settlements such as Havana and Goreangab in Windhoek, where access to safe water, sanitation and hygiene is limited. Other regions reporting cases include Erongo (817 cases with two deaths), Omusati (129 cases with three deaths), Oshana (82 cases with one death), Oshikoto (46 cases with zero deaths), Ohangwen (29 cases with one death), and Kavango (18 cases with zero deaths). Most cases from less affected regions have a travel history to the aforementioned informal settlements in Windhoek.

Geographical distribution of hepatitis E cases and deaths in Namibia, April - 14 October 2018



Cases of hepatitis E by epi-week of onset, 4 September 2017 - 14 October 2018, Namibia (n = 3 674)



PUBLIC HEALTH ACTIONS

- Response to the outbreak continues to be coordinated by the National Health Emergency Management Committee (NHEMC) under the leadership of the Ministry of Health and Social Services with technical and operational support from the WHO, US Centers for Disease Control, and other partners. At sub-national levels, coordination of response activities is led by the Regional or District Health Emergency Committees.
- WHO has deployed an international epidemiologist and a risk communication expert to support response activities.
- Case detection and reporting is being strengthened through the deployment of hepatitis E algorithms at all health facilities in the affected regions to aid health workers in identification, reporting, and investigation of suspected cases.
- Identification, training and deployment of multipurpose community volunteers to conduct social mobilization, community surveillance, and WASH promotion in the affected communities is ongoing with support from WHO.
- A total of 39 platforms have been completed with water tanks installed in Havana and Goreangab areas in the Khomas Region and supply of water provided to the tanks.
- A cross-border coordination meeting with authorities in neighboring Angola has been planned for the ensuing week.
- Additional information, educational, and communication materials (posters, flyers, etc.) are being printed with support from UNFPA and WHO for dissemination in affected areas. These include messages targeting pregnant women on risk and prevention of the disease. Multi-media spot messaging is being prepared for television and radio.

SITUATION INTERPRETATION

Despite the interventions initiated to date, the outbreak is becoming protracted, which signals the need to scale up response efforts. The majority of the cases have been reported from densely populated informal settlements in the affected regions where there is inadequate access to clean water, sanitation and hygiene. With more stagnant and surface water anticipated during the upcoming rainy season, which begins in November, the risk for further transmission of the disease will likely increase due to use of these water sources for drinking and other domestic purposes. The government and partners will need to scale up efforts to ensure improve access to safe water, sanitation, and hygiene. Strengthening community engagements and risk communications to promote behavioural change and community ownership must be mainstreamed into the package of interventions needed to bring this outbreak under control.

EVENT DESCRIPTION

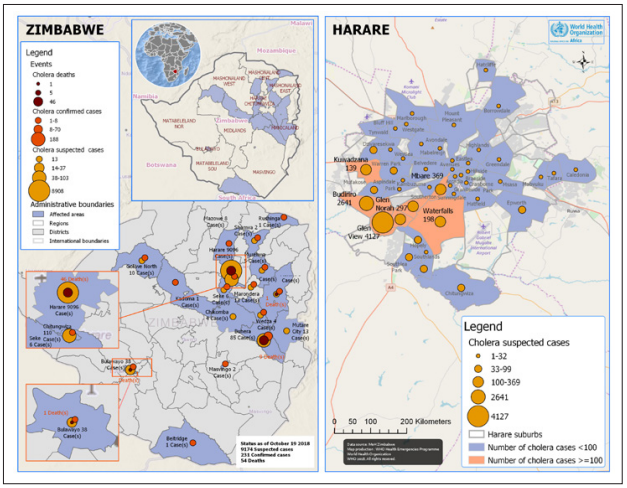
The outbreak of cholera in Zimbabwe has entered its seventh week since its declaration on 6 September 2018 by the Ministry of Health and Child Care. From a peak in week 38 when 2 339 cases were reported, the weekly case incidence has been on a downward trend with 193 new cases reported in week 42. Of the 19 districts that have reported a case during this outbreak, only three notified new cases during week 42. The majority of the new cases reported in week 42 were from the Harare suburbs of Budiriro (103) and Glen View (50) accounting for (79%) of the new cases followed by Buhera district in Manicaland Province (15; 8%).

As of 19 October 2018, a cumulative total of 9 404 cases with 54 deaths (case fatality ratio 0.57%) have been reported from nine provinces across the country. Of the reported cases, 231 are confirmed by culture. Harare (9 096 cases) and Chitungwiza (110 cases) cities in Harare Province have reported the majority of the cases (suspected and confirmed) accounting for 98% of the cumulative cases reported across the country. The most affected areas in Harare City are the densely populated urban suburbs of Glen View (4 154 cases), Budiriro (2 691 cases), Mbare (373 cases) and Glen Nora (297 cases). Other provinces reporting cases include Manicaland Province (100), Bulawayo (38), Mashonaland East province (35), Mashonaland Central province (11), Midlands Province (10), Masvingo (2), Matabeleland South (1), and Mashonaland West (1).

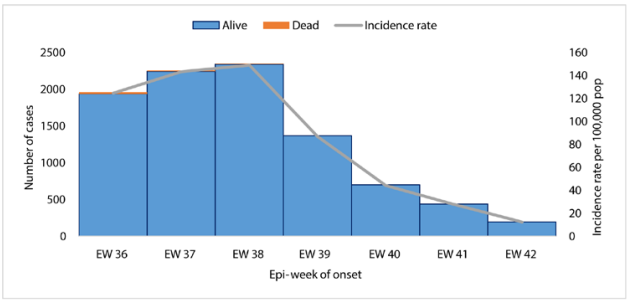
There are equal proportion of males and females affected. Of the 9 198 cases for which age is known, the majority (5 189; 56%) are in the age group five to 34 years; children under five years represent 22% of cases. Of the 54 deaths reported, the majority have occurred in Harare City (46) followed by Buhera in Manicaland (5). The majority of deaths (33/46; 72%) in Harare City have occurred in a healthcare institution, with most (30) reported from the Beatrice Road Infectious Diseases Hospital (BRIDH).

The pathogen detected among confirmed cases is *Vibrio cholerae* O1 serotype Ogawa. Since confirmation on 6 September 2018, a multi-drug resistant strain has been identified and is in circulation; however, antibiotics are only recommended for severe cases. Contaminated water sources, including wells and boreholes, are suspected as the source of the outbreak.

Geographical distribution of cholera cases and deaths in Zimbabwe, 6 September -16 October 2018



Cases of cholera by week of onset, Harare, Zimbabwe, 4 September – 19 October 2018



PUBLIC HEALTH ACTIONS

- The National Emergency Operations Centre (EOC) continues to support coordination of response activities led by the Ministry of Health and Child Care with support from WHO, MSF, US CDC, and other partners.
- Enhanced surveillance including active case finding remains ongoing as the cholera case definition has been updated and refresher training held for staff at BRIDH, Budiriro and Glen View to aid detection, reporting, and early treatment of cases.
- WHO is providing technical oversight into case management and providing guidance on the interpretation of laboratory findings to guide the choice of antibiotics.
- The 2009 Zimbabwe Cholera Control guidelines, adapted from WHO guidelines, remain in use, with Médicines sans Frontièrs (MSF) orientating health workers on these guidelines.
- The four treatment sites which were set up for case management remain operational with support from MSF and other partners. UNICEF has prepositioned seven tents at Glenview for the cholera treatment centers (CTCs) and Oxfam is providing mobile toilets in three CTCs.
- The second phase of the reactive oral cholera vaccination (OCV) campaign targeting 170 000 people in Epworth and Seke districts commenced on 15 October 2018 with an administrative coverage of 58% by the end of day four. Phase two is expected to end on 22 October 2018. On 17 October 2018, the OCV campaign in Chitungwiza district targeting 200 000 people commenced and will end on 24 October. As of 19 October 2018, the administrative coverage is 32%. The first phase took place in the most affected suburbs of Harare (Glen View, Budiriro, Glen Norah, and Mbare) from 3 to 11 October 2018 with an administrative coverage of 95% out of 422 722 people targeted.
- Water, sanitation and hygiene (WASH) activities include enforcement of regulations for food vendors, City of Harare fixing burst water pipes and increasing the water supply to hotspots, and private sector players supporting installation of water tanks and water trucking.
- WASH partners (UNICEF, Higher life Foundation, Oxfam, WHH, Mercy Corps, Christian Care, World Vision and ADRA) are also supporting distribution of hygiene kits to vulnerable households.
- Risk communication, social mobilization, and community engagement activities continue with approximately 350 000 posters and flyers produced and distributed to inform the public on cholera prevention messages as well as the oral cholera vaccination campaign.

SITUATION INTERPRETATION

The Ministry of Health and Child Care has shown leadership, moving quickly to respond to the outbreak with the support of WHO and other partners. As a result of these efforts, the number of new cholera cases is now on a declining trend. The scale-up of WASH interventions including early detection and treatment of cases have largely contributed to the decline in the number of cases. However, the outbreak is not yet under control. The targeted use of oral cholera vaccines is anticipated to shorten the tail of the outbreak in the immunized suburbs. The need to not only continue to strengthen early detection and treatment of cases but also ensure increased access to clean water, sanitation and hygiene cannot be overemphasized. With the beginning of the rainy season anticipated in November, the government and partners are racing against time to bring this outbreak under control. There is a need to implement conventional cholera prevention and control strategies, including strengthening surveillance and preparedness activities across at-risk provinces in the country.

Summary of major issues challenges, and proposed actions

Issues and challenges

- Although the response to the Ebola virus disease outbreak remains robust it continues to be challenged by a particularly complex context characterized by continuing insecurity, community mistrust, and increased incidence of new cases without epidemiological links. About eight major security incidents have taken place in Beni in the past eight weeks, severely complicating contact tracing and other aspects of the response. Although a recent meeting of the IHR Emergency Committee concluded that this outbreak did not constitute a public health event of international concern at this time, the situation is being closely monitored and another committee could be called if there are significant developments.
- The geographically expansion of the dengue outbreak, from Fatick region to three additional regions namely Diourbel, Louga and Saint-Louis is concerning. Fatick and Louga districts were both affected by the previous dengue outbreak which occurred during the same period in 2017. Sequential dengue infections could result in an increased incidence of cases with dengue hemorrhagic fever and dengue shock syndrome. Furthermore, the recent occurrence of cases in Touba district, Diourbel region, is concerning given the imminent start of the Grand Magal; a mass gathering event which could result in further expansion of the outbreak within and outside the country.

Proposed actions

- In line with the advice of the Emergency Committee, the government of the Democratic Republic of the Congo, WHO and partners must intensify the current response, which should be supported by the entire international community. Special emphasis should be placed on the response in Beni and Butembo, with particular reference to community engagement. In light of this, an updated response plan was launched by Ministry of Health in Beni on 18 October 2018, based on consultation and involvement of all the partners. The plan lays out the approach for the response over coming months, with a greater focus on building local capacity to manage the response.
- In order to bring the dengue outbreak under control a multidisciplinary One Health approach including effective vector control strategies, enhanced surveillance and risk communication is essential. Furthermore, healthcare workers should be oriented in clinical detection and management of dengue patients as this can significantly reduce mortality rates from severe dengue.

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
Ongoing events										
Angola	Cholera	G1	2-Jan-18	21-Dec-17	29-Jul-18	990	12	19	1.9%	From 21 December 2017 to 18 May 2018, a total of 895 cases were reported initially from two districts in Uíge province. From 22 May to 29 July 2018, 95 cases with seven deaths (CFR 7.4%) have been reported from 14 districts in Luanda Province. The most affected district was Talatona.
Botswana	Diarrhoeal disease in children under five years	Ungraded	19-Sep-18	3-Sep-18	10-Oct-18	21 544	246	24	0.1%	As of week 39, 17 out of 27 districts are in outbreak status while 3 are in the alert status. The trend of reported cases in decreasing since the peak in week 38. Eighty percent of the reported cases are below 2 years of age. Samples from 487 patients with diarrhoea were tested, among them 246 (51%) were positive for rotavirus.
Cameroon	Humanitarian crisis	G2	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 huge influx of refugees from neighboring the Central African Republic.
Cameroon	Cholera	G1	24-May-18	18-May-18	16-Oct-18	507	46	36	7.1%	Outbreak is showing a decreasing trend. Between 12 to 16 October 2018, one case was confirmed in the Littoral region and thirty seven new suspected cases notified in North (n=36) and Littoral. Two deaths were reported in the North. No new case was confirmed in the Central region since the 27 august 2018.
Central African Republic	Humanitarian crisis	Protracted 2	11-Dec-13	11-Dec-13	5-Sep-18	-	-	-	-	The situation is particularly volatile along Kaga Bandoro, Bocaranga-Paoua axis, and Alindao. About 2 500 new displaced people arrived at the Pk3 site in Bria following the clashes between armed groups on the Bria- Irabanda and Bria-Ippy routes since August 31.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Central African Republic	Monkeypox	Ungraded	20-Mar-18	2-Mar-18	9-Oct-18	35	14	1	2.9%	On 9 October 2018, Central African Republic reported six cases of monkeypox in Mbaiki district. The six cases are from the same village, in a forest area. Five cases belong to a same household. The five cases were sampled: three were confirmed at Institut Pateur de Bangui and results are pending for the remaining two cases.
Central African Republic	Hepatitis E	Ungraded	2-Oct-18	10-Sep-18	12-Oct-18	45	29	1	2.2%	Between epidemiological weeks 37 to 39 an outbreak of fever with jaundice in the city of Bocaranga was reported. As of 12 October 2018, a total of 45 suspected cases with one death involving a pregnant woman (case fatality ratio 3.2%) has been reported from three districts in the City of Bacaranga. Of the 31 samples tested by the Institut Pasteur Bangui Laboratory, 29 were positives for viral hepatitis E (IgM HVE POS).
Chad	Measles	Ungraded	24-May-18	1-Jan-18	9-Sep-18	2 734	650	78	2.9%	In week 36, 155 suspected cases with no deaths were reported. An increase in the number of cases compared to the previous week when 122 cases and 1 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	Humanitarian crisis	G3	20-Dec-16	17-Apr-17	23-Sep-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.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-18	23-Sep-18	21 112	0	691	3.3%	In week 38 (week ending 23 September 2018), 724 cases with 18 deaths (CFR 2.5%) were reported from 12 out of 26 provinces. Six out of the total provinces that reported cases (Kasai Oriental, Tanganyika, Katanga, Kasai, Kongo Central, and Sankuru) reported 92% of the total cases. There has been a trend of increasing cases since week 21.
Democratic Republic of the Congo	Ebola virus disease	G3	31-Jul-18	11-May-18	19-Oct-18	237	202	153	65%	Detailed update given above.

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	Measles	Ungraded	10-Jan-17	1-Jan-18	23-Sep-18	27 273	505	318	1.2%	During week 38 (week ending 23 September 2018), 615 cases including eight deaths were reported across the country. Four (4) provinces including 3 of the extreme Southeast (Haut Katanga, Lualaba and Tanganyika) and Sankuru in the center of the country reported 84.4% of cases and 87.5% of deaths.
Democratic Republic of Congo	Monkeypox	Ungraded	n/a	1-Jan-18	23-Sep-18	2 894	-	62	2.1%	In week 38, a total of 48 suspected cases including two deaths were reported. 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	19-Oct-18	38	38	0	0.0%	The latest case of cVDPV2 was reported from Tchomia Health Zone, Ituri Province with paralysis onset on 22 August 2018. Six provinces have been affected, namely Tanganyika (15 cases), Haut-Lomami (9 cases), Mongala (8 cases), Maniema (2 cases), Haut Katanga (2 cases), and Ituri (2 case).
Democratic 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%.
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	3-Oct-18	-	-	-	-	As of 3 october, over 70 000 people have been displaced in Kamashi zone of Benishangul Gumuz to East Wollega and West Wollega zones of Oromia region by violence. Urgent humanitarian needs are reported in that area. The daily arrival rate of Eritreans to Ethiopia has increased from an average of 50 people per day to 180 people per day since 11 September , bringing the total to over 15 000 people.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
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 Somalia (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.
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 5 IgM positive cases. The number of case has been dcreasing gradually during the last four epidemiological weeks (week 35 to 38). Cases has 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	9-Oct-18	5	4	0	0.0%	Between 8 September 2018 and 9 October 2018, 4 confirmed cases of cholera were reported from Turkana county (2) and Embu county (2). All the cases are epidemiologically linked to Nairobi, Embakasi East sub county. The first case was notified from Kakuma refugee camp in Turkana West sub county, Turkana county.
Kenya	Measles	Ungraded	19-Feb-18	19-Feb-18	14-Oct-18	503	44	1	0.2%	Since the beginning of the year, five Counties have reported measles outbreak, (Mandera, Wajir, Garissa, Nairobi and Kitui). Kitui County is not reporting any new case. The outbreak is still active in Mandera, Garissa, Nairobi and Wajir Counties.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Liberia	Measles	Ungraded	24-Sep-17	1-Jan-18	7-Oct-18	3 744	3 455	16	0.4%	Twelve suspected cases including five confirmed were reported during week 40 (ending 7 October 2018) across the country. Tchien district in Grand Gedeh County is the latest to reached epidemic threshold. Of the 3 455 cumulative confirmed cases reported in 2018, 286 are laboratory confirmed, epi-linked 440 and clinically confirmed 2 729.
Liberia	Yellow fever	Ungraded	16-Sep-18	3-Sep-18	12-Oct-18	1	1	0	0.0%	One confirmed case of Yellow fever was reported from Farina Town, Barclayville District, Grand Kru County, Southeastern Liberia. In Epi-week 40 (week ending 7 October 2018), four new suspected cases were reported from Barclayville district and all tested negative by serology for yellow fever.
Madagascar	Plague	Ungraded	19-Aug-18	19-Aug-18	17-Oct-18	83	21	7	8.4%	From 19 August to 17 October 2018, 21 confirmed cases and seven were, including 16 bubonic cases (with two deaths) and five pneumonic cases (with five deaths). Six regions are affected: Bongolava (6), Atsimo Atsinanana (5), Amoron'I Mania (3), Haute-Matsiatra (3), Analamanga (2) and Itasy (2).
Mali	Humanitarian crisis	Protracted 1	n/a	n/a	12-Oct-18	-	-	-	-	The complex humanitarian crisis exacerbated by the political-security crisis and inter-community 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 Malnutrition	Ungraded	1-Aug-18	15-Mar-18	5-Aug-18	224	0	40	17.9%	Three villages (Douna, Niagassadiou and Tiguila) in the commune of Mondoro, Douentza district, Mopti Region, Central Mali are experiencing an epidemic of malnutrition following the inter-communal conflict that prevails in the locality. A dozen samples from patients analyzed at INRSP in Bamako showed iron deficiency anaemia.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Mali	Measles	Ungraded	20-Feb-18	1-Jan-18	10-Oct-18	1 307	374	0	0.0%	The cumulative blood samples from 1 008 suspected cases have been tested of which, 374 were confirmed (IgM-positive) at the National Reference Laboratory (INRSP). The affected health districts are Maciana, Bougouni, Kati, Koutiala, Kokolani, Kolondieba, Ouélessebougou, Sikasso, Douentza, Macina,Tombouctou, Dioila, Taoudenit and Kalabancoro.
Mauritius	Measles	Ungraded	23-May-18	19-Mar-18	7-Oct-18	1 100	1 100	3	0.3%	In week 40 (ending 7 October 2018), less than 10 onfirmed cases were reported. The trend is decreasing since the peak in week 37. All cases have been confirmed by the virology laboratory of Candos (IgM antibodies). The most affected districts are Port Louis and Black River. A single genotype of measles virus, D8, was detected in 13 samples.
Namibia	Hepatitis E	G1	18-Dec-17	8-Sep-17	14-Oct-18	3 674	540	31	0.8%	Detailed update given above.
Niger	Humanitarian crisis	G2	1-Feb-15	1-Feb-15	3-Oct-18	-	-	-	-	The country continues to face food insecurity, malnutrition, and health crises due to drought, floods, and epidemics. The insecurity instigated by Boko Haram persists in the country.
Niger	Cholera	G2	13-Jul-18	13-Jul-18	18-Oct-18	3 764	34	74	2.0%	Cholera is showing a downward trend since week 37. In week 42 (only partial data available), a total of 6 new cases with no death were notified at the national level. Four regions have been affected and these include Maradi, Tahoua, Dosso and Zinder. Almost 70% of cases have been reported from Madarounfa Health District in Maradi Region.
Niger	Circulating vaccine-derived polio virus type 2 (cVDPV2)	G2	8-Jul-18	8-Jul-18	14-Oct-18	6	6	1	16%	Six cases of acute flaccid paralysis have been detected with this cVDPV2, from Zinder province, Niger, since 28 september 2018. Based on the genetic analyses of the isolated polioviruses, these cases are linked to the ongoing cVDPV2 outbreak in Jigawa, 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, 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.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Cholera	G1	7-Jun-17	1-Jan-18	9-Sep-18	27 927	45	517	1.9%	In week 36 (week ending 9 September 2018), 1 306 suspected cases including 24 deaths (CFR 1.8%) were reported from five states: Zamfara (588 cases with 12 deaths), Katsina (377 cases with 12 deaths), Borno (280 cases), Adamawa (55 cases), and Kano (6 cases). No new cases were reported in the last three or more weeks from Anambra, Bauchi, Ebonyi, FCT, Gombe, Jigawa, Kaduna, Kogi, Nasarawa, Niger, Plateau, Sokoto and Yobe states.
Nigeria	Lassa fever	Ungraded	24-Mar-15	1-Jan-18	14-Oct-18	550	536	153	27.8%	In week 41 (week ending 14 October 2018), thirteen new confirmed cases were reported from Edo(4), Ondo(4), Ebonyi(2), Delta(1), Kogi(1) and Imo(1) states with two new deaths in Ondo(1) and Ebonyi(1) and one death in probable case from Ebonyi state. The trend of cases is increasing since epi week 37 when only two confirmed cases were reported. Fifteen states have exited the active phase of the outbreak while seven - Edo, Delta, Ondo, Bauchi, Ebonyi, Kogi and Imo states remain active.
Nigeria	Measles	Ungraded	25-Sep-17	1-Jan-18	30-Sep-18	14 443	901	116	0.8%	In week 39 (ending on 30 September 2018), 124 suspected cases of measles were reported from 30 states. Since the beginning of the year, 4 000 less cases were reported from 36 States and Federal Capital Territory compared with the same period in 2017.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	15-Sep-18	269	115	7	2.6%	Since September 2017, cases were reported from 26 States (Rivers, Abia, Akwa-Ibom, Bayelsa, Cross River, Delta, Edo, Enugu, Imo, Lagos, Nasarawa, Oyo, Anambra, Plateau, Ekiti, Benue, Plateau, Katsina, Kaduna, Kwara, Bauchi, Ebonyi, Kano, Kogi, Ondo) and the Federal Capital Territory (FCT).
Nigeria	Polio-myelitis (cVDPV2)	Ungraded	1-Jun-18	1-Jan-18	9-Oct-18	16	16	0	0.0%	Two new cases of circulating vaccine-derived poliovirus type 2 (cVDPV2) cases were reported this week. These latest reported cases from Katsina and Borno states, linked to the cVDPV2 outbreak centred around Jigawa.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	7-Oct-18	3 162	47	54	1.7%	Six presumptive positive cases and two inconclusive case were reported from three of the diagnostic laboratories during week 40 (week ending 7 October 2018). From the onset of this outbreak on 12 September 2017, cases have been reported from 564 LGAs in all Nigerian states.
Senegal	Dengue fever	Ungraded	21-Sep-18	19-Sep-18	15-Oct-18	181	40	1	2.5%	Detailed update given above.
São Tomé and Prin-cipé	Necrotising cellulitis/ fasciitis	Protracted 2	10-Jan-17	25-Sep-16	7-Oct-18	2 990	0	0	0.0%	During week 40 (week ending on 7 October 2018), 19 new cases were notified. The trend has been decreasing in the last two consecutive weeks. During the last 5 weeks, 75% of the cases notified come from the districts of Me-zochi (45%) and Cantagalo (25%).
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 sus-pected cases were distributed in 14 districts on Mahe Island for week 35 and no suspected cases are reported from the inner islands.
South Sudan	Humanitar-ian crisis	Protracted 3	15-Aug-16	n/a	23-Sep-18	-	-	-	-	The complex emergency has continued for five years, with multiple episodes of armed conflict, population displace-ment, 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	7-Oct-18	152	19	-	-	Zero new cases were reported in week 40 (ending 7 October 2018). The last reported cases were in week 39 when two cases were reported from Bentiu PoC. Of the cumulative cases reported in 2018, 139 are from Bentiu PoC and 13 from Old Fangok. Since week 36, no new cases have been reported from Old Fangok.
South Africa	Cholera	Ungraded	5-Oct-18	29-Sep-18	9-Oct-18	2	2	0	0.0%	A second case of cholera, husband of the first case who had travel history to Zim-babwe, has been confirmed in Gauteng Province, South Africa.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Tanzania	Cholera	Protracted 1	20-Aug-15	1-Jan-18	14-Oct-18	4 236	50	82	1.9%	During week 41(week ending 14 October 2018), 35 new cases with one death were reported from Ngorongoro District, in Arusha Region; Simanjiro District in Manayara Region; Moshi District in Kilimanjaro Region and Songwe District in Songwe Region. Cholera cases reported from week 1 to 41 in 2018 increased and nearly doubled compared to the same period in 2017 (3 081 cases). The total number of cholera cases in the United Republic of Tanzania since 2015 is 37 530 cases including 620 deaths.
Uganda	Humanitarian crisis - refugee	Ungraded	20-Jul-17	n/a	21-Jun-18	-	-	-	-	Uganda continues to receive new refugees precipitated by increased tensions mainly in the neighboring DRC and South Sudan. Despite responding to one of the largest refugee emergencies in Africa, humanitarian funding has remained low especially to the health sector. Current refugee caseload stands at almost 1.5 million refugees and asylum seekers from South Sudan, DRC, Burundi, Somalia and others 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.
Uganda	Crimean-Congo haemorrhagic fever (CCHF)	Ungraded	24-May-18	-	25-Sep-18	9	5	2	22.2%	Two new cases were confirmed on 25 September 2018, at the Uganda Virus Research Institute (UVRI). As of 25 September 2018, a total of nine cases (five confirmed and four suspected) and two deaths (CFR 22%) have been reported across the country.
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 (by IgM: n=512) since the beginning of the year. Fifty-four districts in the country have reported a measles outbreak.

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, nineteen 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	19-Oct-18	9 404	231	54	0.57%	Detailed update given above.
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										
Algeria	Cholera	Ungraded	25-Aug-18	7-Aug-18	6-Sep-18	217	83	2	0.9%	The outbreak was initially announced by the Ministry of Health of Algeria on 23 August 2018 following confirmation of 41 cases for *Vibrio cholerae* out of 88 suspected cases reported from four provinces (wilayas). By 6 September 2018, a total of 217 suspected cases with two deaths (CFR 0.9%) have been reported from six wilayas. Laboratory examinations conducted at Institute Pasteur of Algeria have confirmed 83 of the cases for *Vibrio cholerae* O1 serotype ogawa. No new cases have been reported for more than a month.
Kenya	Rift Valley fever (RVF)	G1	6-Jun-18	11-May-18	13-Aug-18	95	21	11	11.6%	Following the initial confirmation of RVF by PCR on 7 June 2018, a total of 95 cases including 11 deaths (CFR 11%) have been reported from three counties in Kenya. Twenty-one samples submitted to the KEMRI tested positive by PCR for RVF. Wajir has reported 82 cases with six deaths, Marsabit reported 11 cases with three deaths and Siaya country reported 1 case with one death. The Eldas sub-county in Wajir has reported the highest number of cases (79) since the 11 May 2018. The last case was reported on 20 July 2018.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Liberia	Flood	Ungraded	14-Jul-18	14-Jul-18	24-Sep-18	-	-	-	-	The country experienced heavy rainfall and flooding from 11 July to 24 September 2018, thirteen districts across 5 counties (Margibi, Montserrado, Grand Bassa, Sinoe and Bomi) have been affected, leading to 62 563 people affected (49% women and 21% children) with one death in a 4-year-old child. A multisectorial response activity was conducted for this event.

†Grading is an internal WHO process, based on the Emergency Response Framework. For further information, please see the Emergency Response Framework: http://www.who.int/hac/about/erf/en/.
Data are taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.

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Data sources
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