

Overview

Contents



3 - 7 Ongoing events

- 8 Summary of major issues challenges and proposed actions
- 9 All events currently being monitored

- This Weekly Bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 60 events in the region. This week's edition covers key ongoing events, including:
 - Ebola virus disease in the Democratic Republic of the Congo
 - Cholera in Nigeria
 - Cholera in Tanzania
 - Typhoid fever in Zimbabwe
 - Humanitarian crisis in Ethiopia.
- 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 (EVD) outbreak in North Kivu and Ituri provinces of the Democratic Republic of the Congo continues to evolve. The number of new cases and deaths rapidly increased in the past weeks, presumably due to exposures to infections that occurred before the outbreak was detected and appropriate containment measures put in place. With all components of the response functioning, it is hoped that new infections are minimised and further transmissions are curtailed. The coming days and weeks are thus critical to the evolution of the outbreak. In the light of the prevailing circumstances, including the insecurity in the affected provinces, the priority remains consolidating all components of the response structures on the ground.
- Nigeria has been experiencing a cholera outbreak since the beginning of the year, with several states affected. Although the number of states with active transmission has reduced significantly in the recent past weeks, intense transmission continues in Katsina, Sokoto and Zamfara states, all in the northern part of the country. These states already have underlying vulnerabilities favouring propagation of cholera. The case fatality ratio (for the reporting week) was particularly high in Sokoto State, signifying underlying problems. While the overall cholera outbreak situation has shown some signs of improving, it remains a serious public health problem to the country and a potential threat to the neighbouring countries. Some of the affected states share borders with other countries in the region. This cholera outbreak calls for more attention from all stakeholders in and around Nigeria.

Ongoing events

Ebola virus disease

Democratic Republic of the Congo

111 Cases

72 65% Deaths CFR

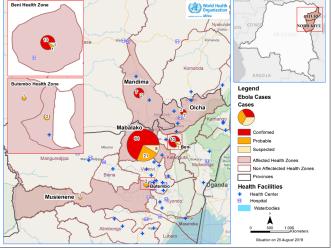
EVENT DESCRIPTION

The Ebola virus disease (EVD) outbreak in North Kivu and Ituri provinces, Democratic Republic of the Congo continues to evolve. Since our last situation report on 17 August 2018 (Weekly Bulletin 33), an additional 20 new confirmed EVD cases and 24 new deaths have been reported. Six other suspected cases were under investigation to confirm or exclude EVD. By 25 August 2018, 37 case-patients were admitted in the Ebola treatment centres (ETCs).

As of 25 August 2018, a total of 111 confirmed and probable EVD cases, including 72 deaths (case fatality ratio 65%), have been reported. Of the 111 cases, 83 are confirmed and 28 are probable. Of the 72 deaths, 44 occurred in confirmed cases and 28 remain probable (one community death occurred in Beni Health Area on 23 August 2018). A total of 15 healthcare workers have been affected, of which 14 are confirmed and one has died. Since the onset of the outbreak, a total of 15 case-patients have recovered from the disease and have been discharged and re-integrated into their communities. Among 88 of the 105 confirmed and probable cases for which age and sex are known, the median age was 32 years (age range: 0-74), with the age group 30-39 being most affected, accounting for 28% (25/88) of cases. Women accounted for 58% (51/88) of all cases.

The epicentre of the outbreak remains Mabalako Health Zone in North Kivu Province, reporting 77% (85) of all cases, including 64 confirmed and 21 probable cases, with 58 deaths. Additionally, four other health zones in

Geographical distribution of confirmed, probable and suspected Ebola virus disease cases, Democratic Republic of the Congo, 25 August 2018



North Kivu Province have been affected, namely: Beni (10 confirmed, 1 probable, 7 deaths), Butembo (2 probable, 2 deaths), Oicha (2 confirmed, 1 probable, 1 death), and Musienene (1 probable, 1 death). Mandima Health Zone in Ituri Province has reported seven confirmed and two probable cases, with three deaths.

As of 25 August 2018, a total of 3 421 contacts were listed, and of these, 969 completed their 21-day mandatory follow up period. Of the 2 324 contacts currently under surveillance, 1 857 (80%) were seen on the reporting day.

PUBLIC HEALTH ACTIONS

- On 23 August 2018, the Minister of Health visited the ETC in Mangina and held discussions with the medical team.
- On 17 August 2018, the National Minister of Public Health visited patients admitted to treatment centres in Beni and Mangina, accompanied by a delegation from US Government agencies (CDC Atlanta, USAID, US Embassy in the Democratic Republic of the Congo).
- The Ministry of Health, WHO and partners are monitoring and investigating alerts in other non-affected provinces in the Democratic Republic of the Congo and in the nine neighbouring countries. Alerts were investigated in several provinces of the Democratic Republic of the Congo as well as in Uganda, Rwanda and the Central African Republic, and EVD has been ruled out in all these alerts to date. This indicates significant progress made in regards to surveillance system for early detection.
- The Ministry of Health, WHO and partners have deployed Rapid Response Teams to the affected health zones to implement response activities. As of 19 August 2018, WHO has deployed a total of 119 experts in the various response pillars, 113 of them are based in Beni and Mangina.
- The Ministry of Health Border health programme, with support from WHO, IOM and US CDC, have mapped 28 key points of entry (PoEs) and established measures to enable rapid detection and response to potential new EVD cases. Community engagement is also taking place along the border areas to improve knowledge of EVD and its prevention.
- The Ethics Committee in the Democratic Republic of the Congo has approved the use of four additional experimental medicines, namely: ZMapp, Remdesivir, Favipiravir, and Regn3450-3471-3479, to be used by the ETC medical and research teams. This is in addition to the mAb114, approved earlier.
- Since vaccination began on 8 August 2018, a total of 3 591 people have been vaccinated in Mabalako (1 822), Mandima (887), Beni (761), and Oicha (121).

SITUATION INTERPRETATION

The EVD outbreak in the Democratic Republic of the Congo continues to evolve, with new cases and deaths occurring. The increased number of cases and deaths observed during the past weeks was likely due to transmission activity that occurred before or slightly after the establishment of outbreak containment measures. Currently, all elements of the response are in place, including an alert management system, systematic contact tracing, appropriate barrier-nursing facilities and use of experimental medicines, preventive vaccination, and community mobilization and engagement. These measures should be able to prevent further exposures to infections and break the chain of transmission. Notwithstanding, there are still some serious issues that require urgent attention, for instance, occurrence of community deaths and emergence of cases outside known transmission chains. It is critical that all aspects of the response are strengthened in order interrupt more transmission and contain the outbreak.

There is observed improvement in preparedness and readiness activities in other provinces of the Democratic Republic of the Congo and in the neighbouring countries, evidenced by the increased number of alerts being detected and investigated.



EVENT DESCRIPTION

Chol

The cholera outbreak in Nigeria continues, with high transmission activity observed in Katsina, Sokoto and Zamfara states. In week 32 (week ending 12 August 2018), a total of 898 new suspected cholera cases, including 22 deaths (case fatality ratio 2.5%), were reported from three states, namely Zamfara (575 cases, 2 deaths), Katsina (171 cases, 4 deaths) and Sokoto (152 cases, 16 deaths). Zamfara State is now the main hotspot, accounting for 64% of new cases reported in week 32.

Since the beginning of 2018, a total of 21 935 suspected cholera cases, including 353 deaths (case fatality ratio 1.6%) have been reported, as of 13 August 2018. Of the suspected cases, a total of 419 have been laboratory confirmed. Among the confirmed cases, 26.3% are in the age range 5-14 years and the male to female ratio is similar, 50.3% to 49.7%, respectively.

Eighteen states across the country have experienced cholera outbreaks in 2018, including Adamawa, Anambra, Bauchi, Borno, Ebonyi, Federal Capital Territory, Gombe, Jigawa, Kaduna, Kano, Katsina, Kogi, Nasarawa, Niger, Plateau, Yobe, Sokoto, and Zamfara. However, there is a declining trend in some states, with no new cases reported in Anambra, Nasarawa, Gombe, Kogi, and Jigwa states in the past three weeks.

<complex-block>

Geographical distribution of cholera cases in Nigeria, week 32, 2018

PUBLIC HEALTH ACTIONS

- The cholera outbreak response is being coordinated by the Nigerian Centre for Disease Control (NCDC) through an Emergency Operations Centre (EOC) in collaboration with the National Primary Healthcare Development Agency (NPHCDA), Federal Ministry of Water Resources (FMWR), WHO, UNICEF, the African Field Epidemiology Network (AFENET), University of Maryland, Baltimore and the US Centers for Disease Control. The EOC holds meetings in most affected states to coordinate the outbreak response.
- Papid Response Teams (RRTs) have been deployed to support response in the three hotspot states of Katsina, Sokoto and Zamfara.
- Active case search in communities is ongoing by state surveillance officers, supported by national RRTs, with orientation on enhanced surveillance in priority states.
- Ocholera patients are being treated at designated health facilities or cholera treatment centres (CTCs) in the affected states, and the Case Management Protocol has been distributed to priority states.
- > The water, sanitation and hygiene (WASH) cluster carried out certification of five water laboratories in three states, Katsina (2), Zamfara (2) and Sokoto (1).
- Samples are being tested with Rapid Diagnostic Test kits (RDTs) in the field and confirmed by stool culture.
- Awareness and sensitization activities continue with dissemination of radio jingles in English, Hausa and Pidgin to affected states, a social media campaign, announcements in 69 mosques during Friday prayers in Sokoto State, and sensitization in communities and in primary health clinics in Zamfara.
- A second round of reactive vaccination is ongoing in Maiha, Mubi North and Mubi South Local Government Areas in Adamawa State, with plans for a coverage survey.

SITUATION INTERPRETATION

The cholera outbreak in Nigeria continues. Although the number of affected states has reduced, the high number of cases and deaths being reported in the three states is of concern, suggesting that in spite of a considerable improvement in the response capacity, challenges remain. The high case fatality ratio recorded in Sokoto State (at 10%) needs to be closely examined and appropriate remedial measures put in place. Inadequate sanitary facilities, limited access to safe drinking water and poor personal hygiene practices in the affected communities remain the risk factors driving transmission.

The concentration of cases in the north of the country, where conditions are already difficult, with continued movement between this region and neighbouring Niger, Chad and Cameroon is of concern, with the potential for further spread of the disease. Improved access to clean water, sanitation and hygiene facilities is required urgently, as is improved case management and surveillance.



Cholera

3 549671.9%TanzaniaCasesDeathsCFR

EVENT DESCRIPTION

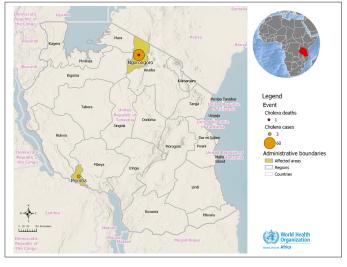
The cholera outbreak in Tanzania continues, with the weekly trend stagnating at about 60 cases per week in the last four weeks. Since our last report on 10 August 2018 (*Weekly Bulletin 32*), there have been 127 additional suspected cholera cases and one death. In week 33 (week ending 19 August 2018), 63 new suspected cholera cases and one death were reported, compared to 64 cases in week 32 and 60 cases in week 31. Ninety-five percent (60/63) of the cases (and one death) reported in week 33 came from Ngorongoro District in Arusha Region. The other three cases were in Momba District in Songwe Region. In the past four weeks, active transmission was localised to three regions, with most (81%) of the cases coming from Arusha Region, 14% from Songwe and 5% from Rukwa.

From 1 January to 19 August 2018, a total of 3 549 suspected cholera cases and 67 deaths (case fatality ratio 1.9%) have been reported. All six zones in Tanzania, except Lake Zone, have reported cholera cases in 2018. Out of 195 districts in the country, 18 have reported cholera cases in 2018. Zanzibar Island continues to report zero cases, reporting its last case on 11 July 2017.

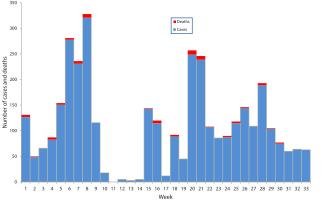
PUBLIC HEALTH ACTIONS

- A coordination meeting for Arusha Region was held on 15 August 2018 to address multisector involvement in the control of the cholera outbreak. The meeting involved the water sector and local government authorities, who agreed to provide maximum support and promote community mobilization and awareness.
- A national Rapid Response Team (RRT) was deployed to Arusha from 13-25 August 2018 to provide support for the response, including active case search and contact tracing. The team identified common challenges related to water, sanitation and hygiene (WASH) and have advised local government authorities to address the issues accordingly. An anthropologist from WHO and risk communication experts from the Ministry of Health have joined the RRT in Arusha to support control efforts.
- The National RRT carried out water source mapping and identification of contaminated water sources, and found that 13 out of 18 water sources were contaminated, and the team advocated for alternative water sources and treatment of current water sources.
- Hygiene and health promotion activities are ongoing in Ngorongoro District.
- Information, education and communication materials, disinfectants and Aqua tabs from UNICEF were shipped to Arusha on 13 August 2018.
- Zanzibar Island continues to closely monitor all acute watery diarrhoea cases and ensure finalization of the Cholera Elimination Plan, due for launch in September 2018.

Geographical distribution of cholera cases in Tanzania, week 1 - week 33, 2018



Weekly trend of cholera cases in Tanzania Mainland, week 1 - week 33, 2018



SITUATION INTERPRETATION

The cholera outbreak in Tanzania Mainland continues, with an apparent stagnation in the trend in the past weeks. In a series of meetings held a couple of weeks back, the national and local authorities committed to intensifying the efforts to stamp out this prolonged outbreak. Several partners provided inputs to this effect and there was some reduction in the number of new cases reported, which has since slowed down. With only a few districts currently having active transmission, there is a window of opportunity to control this cholera outbreak, however, not without hard work. There are still some challenges in the ongoing response, including delayed reporting of cases, linking surveillance data with WASH and risk communication activities at community level, and laboratory diagnostic capacity, especially at local level. The national authorities and partners need to improve the current response in order to prevent cholera becoming endemic in Tanzania.



Typhoid fever

Zimbabwe

1 6 5 7 8 Cases Deaths ÷ CFR

0.5%

EVENT DESCRIPTION

The typhoid fever outbreak in Gweru City, Zimbabwe, continues. Since our last report on 17 August 2018 (Weekly Bulletin 33), an additional 197 suspected typhoid fever cases and two deaths were reported. Of these suspected cases, nine have been confirmed at the National Microbiology Reference Laboratory (NMRL) in Harare. Four of the confirmed cases had sensitivity test done and all were sensitive to only azithromycin and ceftriaxone

As of 26 August 2018, a total of 1 657 suspected typhoid fever cases, including eight deaths (case fatality ratio 0.5%) have been reported, since the onset of the outbreak on 5 July 2018. Two deaths reported previously have been discarded following investigations, leaving the total number of deaths at eight. The majority (43%) of the affected people are below 15 years of age, follow by 15 - 34 years at 30% and 35 years and above at 27%

The outbreak of typhoid fever in Gweru City, Midlands Province was declared by the Zimbabwe Ministry of Health and Child Care on 7 August 2018 when Salmonella typhii was confirmed on 6 August 2018 as the cause of illness in three case-patients. The NMRL confirmed the diagnosis on 9 August 2018.

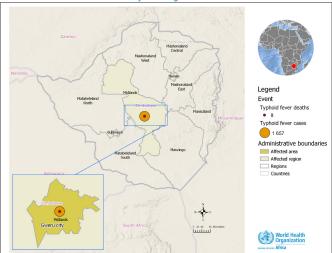
PUBLIC HEALTH ACTIONS

factors for propagation of the disease.

- The National Typhoid Task Force continues to coordinate response Ω to the outbreak, with all the six sub-committees functional. The task force meets on a daily basis, reviewing the evolution of the event and progress made in the response.
- Ω The Ministry of Health has deployed a rapid response team to conduct outbreak investigation and environmental assessment, including establishing the risk
- A total of 254 water samples have been collected and are being analysed for bacteriology and physio-chemical parameters. Ø
- Two treatment centres have been designated, one specifically to handle in-patients. Other health facilities are also ready to provide treatment for mild illness. O
- The Ministry of Health is working with other stakeholders to mobilize resources for the response to this outbreak. O
- Ð Public health education and social mobilization activities are ongoing, with a total of 60 613 people from 15 655 households reached and 200 posters distributed.

SITUATION INTERPRETATION

The typhoid fever outbreak in Gweru City continues. While several outbreak control interventions are being implemented (and with reasonably good progress), it is still early to ascertain the outcome. At this stage, there is a need to intensify and continue improving all aspect of the response, especially WASH and risk communication activities. The current antibiotic sensitivity pattern being seen is concerning, with only two antibiotics remaining for treatment. In this regard, there is an urgent need to ensure rational use of antibiotics, including dissuading the public from self-medication, as part of efforts to prevent antibiotic resistance. Furthermore, antimicrobial resistance, including to S. typhii, should be closely monitored.



Geographical distribution of typhiod fever cases in Gweru City, Zimbabwe,

5 July - 23 August 2018

Ethiopia

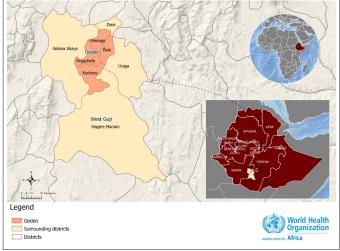
EVENT DESCRIPTION

The complex humanitarian crisis in Ethiopia remains unstable. There has been a new wave of inter-communal violence in the Somali region since early-August 2018, particularly in Jigjiga, Degahbour, Warder, Kabridahar, and Gode woredas. Up to 50 people reportedly lost their lives in the latest incident and more than 160 others suffered major injuries. There were reports of massive looting of shops and private properties. Early post-conflict rapid assessments estimated the number of internally displaced people (IDPs) at about 80 000, who have sheltered in public facilities, including schools and administrative offices, as well as with the host communities. The number of IDPs continues to rise, despite improved security and a calming down of the situation following the interventions of the state authorities.

Shortages of food and non-food items (NFIs) are considered the most critical needs for the IDPs and the host communities. The water, sanitation and hygiene (WASH) situation in the IDP sites is reported to be lacking. Most health sector partners reportedly suspended their operations due to security concerns, affecting delivery of healthcare services.

Outbreaks of communicable diseases continue in the country. In weeks 31-32, 251 cases of acute watery diarrhoea (AWD) were reported from Tigray (173), Dire Dawa (75) and Afar (3) regions. Somali region has reported no new AWD cases since week 25. In 2018, a total of 1 455 AWD cases have been reported from four regions.

Geographical location of humanitarian crisis in Ethiopia as of week 26, 2018



In weeks 31 and 32, 638 new cases of severe acute malnutrition (SAM) were admitted to the stabilization centres (SCs). While the overall number of SAM cases continues to decrease, a sharp rise (by 50%) was observed in West Harerge zone compared to the previous week. In comparison, West Guij reported only nine new SAM cases in week 32 compared to 26 in week 31.

PUBLIC HEALTH ACTIONS

- The Ministry of Health, with support from WHO and partners, launched a preventive measles vaccination campaign targeting 1.4 million children aged 6 months to 15 years among the internally displaced and host communities in Gedeo Zone of SNNP region and in West Guji zone of Oromia region. The campaign ran from 5-18 August 2018 and involved administration of vitamin A to children aged six months to five years and deworming of children aged two to five years.
- Two mobile health and nutrition teams have been deployed to Aysaita woreda in Afar Region to support AWD case management.
- On-the-job training for health extension workers and their supervisors on surveillance, active case finding, contact tracing, and household disinfection continued.
- A joined inter-cluster rapid assessment was conducted, led by OCHA, with the participation of WHO, UNFPA and other partners.
- Partners including UNICEF, GOAL, UNFPA, EMCO, MSF-H, MSF-Spain, ACPA, JSI, Concern, and Save the Children (SCI) are actively participating in the regional health command post meeting in Somali, led by the regional health Bureau (RHB) and WHO as co-lead.
- WHO donated medical supplies consisting of 20 inter-agency emergency health kits (IEHK) 2015-module, 15 IEHK supplementary module-medicines/supplies/ infusions kits, 15 IEHK supplementary renewable kits, one cholera kit, and seven SAM kits. The materials can cater for 370 000 patients for three months.

SITUATION INTERPRETATION

The recent upsurge of violence in Somali Region, Ethiopia, has worsened the complex humanitarian situation, which had shown some relative stability. Security threats still persist in spite of government interventions, especially in East Harerge, and population displacement continues. The living conditions of the IDPs and host communities, described as lacking, call for urgent attention. The health system has nearly collapsed due to massive displacement of people, including health workers themselves, rendering major health facilities non-functional. There is a shortage of drugs and medical supplies. Psychosocial care and mental health services for IDPs are not readily available, mainly due to absence of qualified personnel. Shortage of safe drinking water also remains a problem in the majority of IDP sites, as well as the need for NFIs.

The current deteriorating situation in the conflict-affected parts of Ethiopia calls for the urgent intervention of the humanitarian community to alleviate the suffering of the IDPs and host communities. The state authorities also need to restore lasting peace and security to all the people in the country.



Issues and challenges

- The Ebola virus disease (EVD) outbreak in the Democratic Republic of the Congo continues to evolve. Several new cases and new deaths occurred in the past weeks, presumably due to exposures to infections that occurred before the outbreak was detected and appropriate containment measures were established. Currently, all elements of the response are in place and should be able to prevent further exposures to infections, thus breaking the transmission chain. Notwithstanding the shortcomings on the ground, it is hoped that new infections are minimised and further transmissions are curtailed in the coming days and weeks. The events unfolding in the coming days and weeks will, therefore, be critical in the evolution of the outbreak. Aware of the prevailing circumstances, the priority now remains consolidating all components of the response structures on the ground.
- Nigeria has been experiencing a cholera outbreak since the beginning of the year, with 18 states affected. Active transmission is ongoing in Katsina, Sokoto and Zamfara states, all in the northern part of the country. The predisposing factors for propagation of cholera are prevalent in these states, including limited access to safe potable water, inadequate sanitation and poor personal and environmental hygiene practices. The case fatality ratio, standing at 10% for Sokoto State (during the reporting week), was unusually high, an indication of gaps in the ongoing response. While the number of states having active transmission is declining, the current cholera outbreak remains a serious public health problem to the country and a potential threat to the neighbouring countries. This cholera outbreak requires urgent attention to scale up ongoing response interventions in Nigeria as well as preparedness and readiness measures in the neighbouring countries.

Proposed actions

- The national authority and partners in the Democratic Republic of the Congo need to continue strengthening as elements of response on the ground. Additionally, the neighbouring countries need to continue to enhance their readiness and preparedness capacity for rapidly detection and response to any potential imported EVD cases.
- The national authorities and partners in Nigeria need to scale up implementation of cholera outbreak control interventions. Adequate resources need to be mobilized and provided to the responders for effective implementation of these interventions.

All events currently being monitored by WHO AFRO

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|------------------------|--------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|--|
| New events | | | | | | | | | | |
| Algeria | Cholera | Ungraded | 24-Aug-18 | 7-Aug-18 | 25-Aug-18 | 138 | 46 | 2 | 1.4% | The outbreak was initially announced by the Minis- try of Health of Algeria on 23 August 2018 following confirmation of 41 cases out of 88 suspected cases reported from four provinces (wilayas). By 25 August 2018, a total of 138 suspected cases with two deaths (CFR 1.4%) have been reported from five wilayas. Laboratory examinations conducted at Institute Pasteur of Algeria have confirmed 46 of the cases in five wilayas for <i>Vibrio cholerae</i> as follow: Blida (25 cases with two deaths), Tipaza (12 cases), Algiers (5 cases), Bouira (3 cases), and Medea (1 case). |
| Congo (Republic of) | Yellow fever | Ungraded | 10-Jul-18 | 9-Jul-18 | 21-Aug-18 | 1 | 1 | 0 | 0.0% | On 9 July 2018, a 20-year-old male from Bissongo market visited Bissongo health centre in Loandjili district, Pointe- Noire, with fever and Jaundice that began 5 July 2018. The case did not have a history of yellow fever vaccination. There was history of travel to Ngoyo and Tchiamba Nzassi districts, the latter one which is a rural district in Pointe- Noire located along the border with Angola during two weeks prior to symptoms onset. He was admitted to the health facility and received treatment. As yellow fever was suspected, a blood sample was collected on 10 July 2018 and sent to INRB in Kinshasa for testing. On 26 July 2018, the sample tested positive for yellow fever by serology. INRB sent a sample to IP Dakar for confirmation on 30 July 2018 were the sample tested positive by seroneutralization on 21 August 2018. |



| 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 | 954 | 12 | 19 | 2.0% | On 21 December 2018, two suspected cholera cases were reported from Uíge district, Uíge province. Both of these cases had a history of travel to Kimpangu (DRC). From 21 December 2017 to 18 May 2018, a total of 895 cases were reported from two districts in Uíge province. The neigh- bouring province of Luanda started reporting cases on 22 May 2018. From 22 May to 29 July 2018, 95 cases with seven deaths (CFR 7.4%) have been reported from fourteen districts in Luanda Prov- ince. Twelve cases have been confirmed for <i>Vibrio cholerae</i> . Fifty-seven percent of cases are males and 69% are aged five-year and above. The most affected district is Talatona having reported a total of 26 cases with five deaths (CFR 19%). |
| Angola | Guinea worm disease | Ungraded | 29-Jun-18 | 1-Apr-18 | 17-Aug-18 | 1 | 1 | 0 | 0.0% | Angola has reported for the first time a case of Guinea worm which was diagnosed in an eight-year-old girl from Cunene Province with onset of signs and symptoms in April 2018. The case was detected through a nation- wide guinea-worm case search during the national immunization campaign against measles and rubella. The specimen was sent to the WHO Collaborating Center for Dracunculiasis Eradication at the United States Centres for Disease Control and Pre- vention, where a polymerase chain reaction (PCR) test confirmed the worm as <i>Dra- cunculus medinensis</i> . |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|----------|--------------------------|--------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|---|
| Cameroon | Humanitar- ian crisis | G2 | 31-Dec-13 | 27-Jun-17 | 6-Aug-18 | - | - | - | - | The security situation in the far north remains volatile. According to OCHA's latest humanitarian snapshot cov- ering the period 31 July to 6 August 2018, a Multinational Joint Task Force truck carry- ing 12 Nigerian refugees was hit by an improvised explosive device (IED) in a border village in Mora district, in the Far North region on 29 July 2018. Six refugees died in the incident, amongst whom were three children. The other six refugees and six Cameroonian soldiers were severely injured. The road where the explo- sion took place is the axis on which IED threats are the highest. In the North-West and South-West Regions, the crisis which began in October 2016 continues with around 160 000 people uprooted from their homes and more than 21 000 others forced to seek refuge in neighbouring Nige- ria. The humanitarian needs include food, shelter, access to basic health services including water, sanitation and hygiene. |
| Cameroon | Cholera | G1 | 24-May-18 | 18-May-18 | 17-Aug-18 | 178 | 17 | 12 | 6.7% | Between 18 May and 13 August 2018, a total of 168 suspected cases with 12 deaths (CFR 7.1%) have been reported from North and Central regions of Cameroon where there is an ongoing outbreak of cholera. Seventeen cases have been confirmed for <i>Vibrio cholerae</i> by culture in the North (13) and Central (4) regions. Five other regions have reported a cumulative of 57 suspected cases which in- clude 52 suspected cases in the Littoral Region. None of the suspected cases in these five regions has been confirmed. So far, the peak of the out- break was in week 30 (week ending 29 July 2018) when 58 suspected cases including one death were reported. The age of cases ranges from 1 to 85 years with a median of 30 years. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|-----------------------------|--------------------------|--------------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|---|
| Cameroon | Monkeypox | Ungraded | 16-May-18 | 30-Apr-18 | 13-Jun-18 | 36 | 1 | 0 | 0.0% | On 30 April 2018, two sus- pected cases of monkey- pox were reported to the Directorate of Control of Epidemic and Pandem- ic Diseases (DLMEP) by the Njikwa Health District in the North-west Region of Cameroon. On 14 May 2018, one of the suspected cases tested positive for monkeypox virus by PCR. On 15 May 2018, the incident manage- ment system was set up at the National Emergency Opera- tions Center. An investigative mission to the North-west and South-west from 1 - 8 June 2018, found 21 new suspected cases without active lesions. As of 13 June 2018, a total of 36 suspected cases have been reported from both North- west and South-west regions. |
| Central African Republic | Humanitar- ian crisis | Protracted 2 | 11-Dec-13 | 11-Dec-13 | 5-Aug-18 | - | - | - | - | Despite the commitment of armed groups to the African initiative for peace in the country, the security and hu- manitarian situation remain precarious. This climate of insecurity continues to cause population displacement and disrupt the implementation of health sector activities in several localities. The situation is particularly volatile along Kaga Bandoro, Bocaran- ga-Paoua axis, and Alindao. Humanitarian workers have been targeted with eight deaths reported in 2018 including the latest fatality occurring on 1 August 2018. There are an estimated 90 000 vulnerable people in the lo- calities of Paoua, Markounda, Bambari, and Zémio. |
| Central African Republic | Monkeypox | Ungraded | 20-Mar-18 | 2-Mar-18 | 22-Aug-18 | 40 | 13 | 1 | 2.5% | The outbreak was officially declared on 17 March 2018 in the sub-province of Ippy, Bambari district. Since the be- ginning of the outbreak, three districts have been affected, namely Bambari, Bangassou and Mbaiki districts. Cumula- tively, 40 cases of monkeypox with one death (case fatality ratio 2.5%) have been report- ed from 2 March to 22 August 2018 in the country, and 13 cases have been laboratory confirmed out of 23 samples tested. No new cases notified in the three districts after the end of the epidemic. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|---------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|--|
| Chad | Measles | Ungraded | 24-May-18 | 1-Jan-18 | 5-Aug-18 | 1 889 | 588 | 72 | 3.8% | Since week 18, there has been a dramatic increase in the number of measles cases reported. Ninety-eight cases with four deaths were report- ed in week 31 (week ending 5 August 2018), a reduction in the number of cases compared to the previous week when 162 cases with six deaths were reported. Two districts (Guereda and Massakory) entered the epidemic phase in week 31 bringing the total number of districts in the epidemic to eighteen. The number of cases reported since the peak in week 25 when 175 cases were reported has ranged from 98 to 162 with an average of 118 cases per week. As of week 31, there are 1 889 suspected cases with 72 deaths (CFR 3.8%). A total of 588 cases have been confirmed (IgM-positive -141, Epi-linked-419, and clinically confirmed 28). Children aged 1 to 4 years are the most affected constituting 33% of cases reported. The high case fatality rate in this outbreak is of serious concern. The location of epidemic districts on the border with Libya, Su- dan, Nigeria and the Central African Republic also has implication for the cross-bor- der spread of the disease. |

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|--|--------------------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|---|
| Democratic Republic of the Congo | Humanitar- ian crisis | | 20-Dec-16 | 17-Apr-17 | 5-Aug-18 | - | - | - | - | The humanitarian crisis in the country remains volatile. In- ter-community conflicts, mili- tia interventions, kidnapping of humanitarian staffs make difficult the interventions in several localities of the East of the country. |
| Democratic Republic of the Congo | Cholera | G3 | 16-Jan-15 | 1-Jan-18 | 12-Aug-18 | 16 371 | 0 | 531 | 3.2% | Five hundred thirty-seven cas- es with 14 deaths (CFR: 2.6%) were reported in week 32 from 13 out of 26 provinces, a slight increase in cases compare to the previous week when 513 cases were reported. Four provinces (Kasai Oriental, South Kivu, Tanganyika, and Sankuru) reported 82.1% of the total cases in week 32. From week 1 to 32 of 2018, a total of 16 371 cases of cholera including 531 deaths (CFR 3.2%) were reported. From week 1 of 2017, until week 22 of 2018, majority of cases were reported from endemic provinces; since week 23 of 2018 majority of the cases are reported from epidemic provinces. There has been an upward trend in the number of cases since week 24 of 2018, as it was the case in 2017. |
| Democratic Republic of the Congo | Ebola virus disease | G3 | 31-Jul-18 | 11-May-18 | 20-Aug-18 | 111 | 75 | 72 | 57.8% | See detailed update as stated above. |
| Democratic Republic of the Congo | Measles | Ungraded | 10-Jan-17 | 1-Jan-18 | 5-Aug-18 | 20 080 | 505 | 220 | 1.1% | From 2018 week 1 to week 31 (ending 5 August 2018), 20 080 cases with 220 deaths (CFR 1.1%) have been report- ed. During week 31, a total of 728 new cases were reported with eight deaths (CFR 1.1%). The number of cases has been decreasing gradually since week 29. Epidemic zones are mainly focused in the eastern part of the country. |
| Democratic Re- public of Congo | Monkeypox | Ungraded | n/a | 1-Jan-18 | 5-Aug-18 | 3 298 | - | 40 | 1.2% | From week 1 to week 31, 2018, there have been 3 298 suspected cases of monkeypox including 40 deaths (CFR 1.2%). In week 31, a total of 81 suspected cases includ- ing three deaths have been reported. Suspected cases have been detected in 14 provinces. Sankuru Province has had an exceptionally high number of suspected cases this year. |

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|--|--------------------------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|--------|--|
| Democratic Republic of the Congo | Polio- myelitis (cVDPV2) | G2 | 15-Feb-18 | n/a | 24-Aug-18 | 35 | 35 | 0 | 0.0% | The latest case of cVDPV2 was reported from Yamaluka Health Zone, Mongala Prov- ince. As of 24 August 2018, a total of 35 cases with onset in 2017 (22 cases) and 2018 (13 cases) have been confirmed. Six provinces have been affected, namely Tanganyika (15 cases), Haut-Lomami (9 cases), Mongala (6 cases), Maniema (2 cases), Haut Katanga (2 cases), and Ituri (1 case). The outbreak has been ongoing since February 2017. A public health emergency was officially declared by the Ministry of Health on 13 February 2018 when samples from 21 cases of acute flaccid paralysis were confirmed retrospectively for vaccine-de- rived poliovirus type 2. |
| Democratic Re- public of Congo | Rabies | Ungraded | 19-Feb-18 | 1-Jan-18 | 5-Aug-18 | 20 | 0 | 20 | 100.0% | This outbreak began towards the end of October 2017 in Kibua health district, North Kivu province. In epi week 31, six new suspected cases were reported. A total of 146 suspected cases with 20 deaths (CFR 13.7%) have been reported from week 1 to 31, 2018. |
| Democratic Re- public of Congo | Yellow fever | Ungraded | 16-Aug-18 | 1-Jul-18 | 17-Aug-18 | 4 | 2 | 0 | 0.0% | Samples from two suspected cases have been confirmed for yellow fever by Plaque Reduction Neutralization Test (PRNT) at Institute Pasteur Dakar (IPD). One of the cases is a 29-year-old male from Ango District in Bas Uele Province and the other is a 42-year-old male from Yalifafu district in Tshuapa Province. Vaccination status of the cases are unknown and detailed investigation is ongoing. Two other IgM-positive cases from Tshuapa Province are awaiting confirmation by the IPD. |
| Ethiopia | Humanitar- ian crisis | G2 | 15-Nov-15 | n/a | 12-Aug-18 | - | - | - | - | See detailed update as stated above. |

| 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 | 12-Aug-18 | 1 455 | - | 18 | 1.2% | This has been an ongoing outbreak since the beginning of 2017. In most parts of the country, the situation has sta- bilized except for three region which continues to report cases. In weeks 31 and 32, a total of 251 AWD cases were reported from three regions, Afar (3) Dire Dawa (75), and Tigray (173). No new AWD cases have been reported from Somali region since week 25. From week 1 to 32 in 2018, a cumulative 1 455 AWD cases have been reported from Afar 1 004 (69%), Dire Dawa 92 (6%), Somali 116 (8%) and Tigray 243 (17%). |
| Ethiopia | Measles | Protracted 1 | 14-Jan-17 | 1-Jan-18 | 12-Aug-18 | 3 046 | 857 | - | - | This has been an ongoing outbreak since the beginning of 2017. In 2018, a total of 3 046 suspected measles cases have been reported across the country including 102 new suspected cases reported in week 32. From the total sus- pected cases reported, 857 are confirmed cases (137 labora- tory confirmed, 688 epi-linked and 52 clinically compatible). There are three new confirmed outbreaks have been reported from Tselemti woreda in Tigray region (10 cases), Dera woreda in Oromia region (4 cases), and Arthuma Fursi in Amhara region (32 cases). No new cases have been reported from the active woredas in Afar (Berhale woreda) and Gambella (Dimma woreda). |
| 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 con- firmed 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 | 22-Jul-18 | 1 638 | 416 | 11 | 0.7% | A measles outbreak was detected in epidemiological week 8, 2018. Cases has been reported in all parts of the country since the beginning of the year. The most affected zones include Kankan, Cona- kry and Faraneh. In week 31, 18 new suspected cases were reported and 8 samples sent to the laboratory. Since the beginning of the year, a total of 1 638 suspected cases were reported |

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|---------|------------------|----------|---------------------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|--|
| Kenya | Chikun- gunya | Ungraded | mid-De- cember 2017 | mid-De- cember 2017 | 24-Jun-18 | 1 465 | 50 | 0 | 0.0% | The outbreak is still ongoing in Mombasa since December 2017. A total of 1 465 chiku- ngunya cases with 50 being laboratory confirmed have been reported. The outbreak has affected six sub-counties; Mvita (297 cases), Changam- we (499 cases), Jomvu (176 cases), Likoni (250 cases), Kisauni (153 cases) and Nyali (61cases). |
| Kenya | Cholera | G1 | 6-Mar-17 | 1-Jan-18 | 20-Aug-18 | 5 756 | 332 | 78 | 1.4% | The outbreak in Kenya is ongoing since December 2014. As of 20 August 2018, a total of 5 756 cases including 78 deaths have been reported since the 1 January 2018. Since week 23, the number of cases reported has decreased. During this outbreak 19 out of 47 counties in Kenya were affected. Currently, the outbreak is active in Garissa county with six cases reported in week 33. Cases are reported from Dagahaley camp in Dadaab sub county. |
| Kenya | Measles | Ungraded | 19-Feb-18 | 19-Feb-18 | 20-Aug-18 | 258 | 26 | 1 | 0.4% | Since June 2018 the second wave of measles outbreak was reported in three counties, Mandera, Garissa and Nairobi. Mandera County has reported a total of 117 cases including 8 confirmed cases from Man- dera West sub county, Takaba Sub-county Hospital and Mandera North Sub county. Garissa County reported a to- tal of 3 confirmed cases from Garissa sub-county. Nairobi county has reported 4 con- firmed cases from Kamukunji sub county. Initially, cases were reported from Wajir (39 cases and 7 confirmed) and Mandera County (102 cases with 4 confirmed cases and one death). The date of onset of the index case in Wajir County was on 15 December 2017 from Kajaja village. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|----------------------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|--|
| Kenya | Rift Valley fever (RVF) | G1 | 6-Jun-18 | 11-May-18 | 13-Aug-18 | 95 | 21 | 11 | 11.6% | Following the initial confirma- tion of RVF by PCR on 7 June 2018, a total of 95 cases in- cluding 11 deaths (CFR 11%) have been reported from three counties in Kenya. Twen- ty-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 report- ed on 20 July 2018. |
| Liberia | Floods | Ungraded | 14-Jul-18 | 14-Jul-18 | 20-Aug-18 | - | - | - | - | Liberia is experiencing very heavy rainfall that has resulted in flooding in six districts across three counties (Margibi, Montserrado and Grand Bassa) affecting more than 50 000 people (54% women and 17% children) with one death in a 4-year-old child). The flood which start- ed on 11 July 2018, has led to destruction of infrastructures and the water supply system forcing the people to look for alternative and unsafe water sources, thus increasing the risk for waterborne diseases. The affected people received humanitarian aid of food and nonfood items as well as treated for various illnesses by mobile medical teams. |
| Liberia | Lassa fever | Ungraded | 14-Nov-17 | 1-Jan-18 | 12-Aug-18 | 44 | 20 | 13 | 29.5% | Two deaths due to suspected Lassa fever were reported during week 32 (week ending 12 August 2018). From 1 Janu- ary to 12 August 2018, 155 suspected cases with 37 deaths have been reported. Samples from twenty cases were con- firmed by PCR at the National Reference Laboratory while 111 tested negative (not a case). Thirteen deaths (CFR 65%) have been reported among confirmed cases. Fe- males constitute 60% (12/20) of confirmed cases. The age range among confirmed cases is 1 to 65 years old with a median age of 32 years. Cumulatively, 44 confirmed and suspected cases (negative cases removed) have been reported with 13 deaths. |

| 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 | 19-Aug-18 | 3 632 | 3 372 | 17 | 0.5% | There has been a gradual decline in the number of suspected cases since the peak in week 14 when approxi- mately 230 suspected cases were reported. A total of 541 suspected cases of measles with one death were reported from 15 counties in Liberia since week 20 to week 33 (week ending 19 August 2018). O the total suspected cases, 62% were reported from Grand Kru (136), Maryland (79), River Gee (62), and Montserrado (57) Counties. From week 1 to week 33 of 2018, 3 632 suspected cases have been reported includ- ing 17 deaths (CFR:0.4%). Cases are epidemiologically classified as follows: 242 (6.6%) laboratory confirmed, 858 (23.7%) epi-linked, 2 635 (62.9%) clinically compatible, and 254 (7%) discarded. |
| Mali | Humanitar- ian crisis | Protracted 1 | n/a | n/a | 20-Jul-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 humani- tarian crisis, including 61 404 who are internally displaced and nearly 140 000 who are refugees in neighbouring countries such as Niger, Mauritania and Burkina Faso (data from CMP report, 7 June 2018). The health system is still weak, while the health need is increasing. The departure of health system personnel and incidents targeting health infrastruc- ture, personnel and health equipment are worsening the existing health system. There are 1.7 million people in need of health assistance in the face of inadequate numbers of health care workers (3.1 per 10 000 people, compared to the WHO recommended 17 per 10 000). |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|-----------------------------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|--|
| Mali | Severe Acute mal- nutrition | Ungraded | 1-Aug-18 | 15-Mar-18 | 5-Aug-18 | 224 | 0 | 40 | 17.9% | Three villages in the com- mune of Mondoro, Douent- za district, Mopti Region, Central Mali are experiencing an epidemic of malnutrition following the inter-communal conflict that prevails in the locality. From mid-March to 5 August 2018, a total of 224 cases including 40 deaths (CFR 17.9%) have been reported from three villages (Douna, Niagassadiou and Tiguila) in the commune of Mondoro, Douentza district, Central Mali. This disease is manifested by the following signs: oedema of the lower limbs, myalgia, functional impotence, dyspnoea some- times followed by death. A dozen samples from patients analyzed at INRSP in Bamako showed iron deficiency anaemia. |
| Mali | Measles | Ungraded | 20-Feb-18 | 1-Jan-18 | 19-Aug-18 | 1 217 | 312 | 0 | 0.0% | From Week 1 to Week 33 of 2018, a total of 1 217 suspect- ed cases with zero deaths have been reported. In week 33, twelve blood samples have been tested, and seven of them were positive. The cumulative blood samples from 914 sus- pected cases have been tested of which 312 were confirmed (IgM-positive) at the National Reference Laboratory (INR- SP). Over 66% of confirmed cases are below 5 years old. The affected health districts are Maciana, Bougouni, Kati, Koutiala, Kokolani, Kolondie- ba, Ouélessebougou, Sikasso, Douentza, Macina, Tom- bouctou, Dioila, Taoudenit and Kalabancoro. Reactive vaccination campaigns, enhancement of surveillance, and community sensitization activities are ongoing in the affected health districts. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|-----------|-------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|--|
| Mauritius | Measles | Ungraded | 23-May-18 | 19-Mar-18 | 12-Aug-18 | 689 | 689 | 3 | 0.4% | As of 12 August 2018, 689 confirmed cases of measles have been reported including three deaths (CFR 0.4%). All cases have been confirmed by the virology laboratory of Candos (IgM antibodies). The onset of symptoms of the first cases was in week 12. The reported measles cases have decreased drastically in week 32 compared to epi week 31. The three deaths were in women between the ages of 28 and 31 years. The most affected districts are Point Louis, Black river and Pample- mousses. A single genotype of measles virus, D8, was detect- ed in 13 samples. The source of infection of measles is most likely an imported case. |
| Namibia | Hepatitis E | G1 | 18-Dec-17 | 8-Sep-17 | 29-Jul-18 | 2 435 | 250 | 20 | 0.8% | As of 29 July 2018, four out of 14 regions in Namibia have been affected by the HEV outbreak namely, Khomas, Omusati, Erongo and Oshana regions. From week 36 of 2017 (week ending 10 Septem- ber 2017) to 29 July 2018, a total of 2 435 cases with 20 deaths (CFR 0.8%) have been reported in Khomas (1 968), Omusati (133), Erongo (296), Oshana (24) and six other regions of Namibia (14). A total of 250 cases have been laboratory confirmed (IgM ELISA) and ten mater- nal deaths (probable and confirmed cases) have been notified. Over 80% of reported cases are epidemiologically linked to cases reported in Windhoek, the epi-centre of the epidemic. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|--------------------------|--------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|---|
| Niger | Humanitar- ian crisis | G2 | 1-Feb-15 | 1-Feb-15 | 2-Aug-18 | - | - | - | - | The security situation in Niger's Diffa Region remains precarious. According to USAID's Lake Chad Basin complex emergency report dated 2 August 2018, Boko Haram-related insecurity con- tinues to restrict food access and livelihood activities for displaced populations in Diffa Region, Southeast Niger. Lim- ited access to pasture is also undermining livestock activ- ities in Diffa's pastoral zones, reducing herders' purchasing power. According to the report, crisis levels of acute food insecurity may persist in parts of Diffa through January 2019, although food security in many areas could improve to Stressed levels beginning in October. UNHCR's June 2018 report indicated around 104 288 internally displaced peo- ple in the Diffa Region. From January-June, relief actors admitted nearly 7 000 children ages five years and younger experiencing severe acute malnutrition for treatment in Diffa, including nearly 650 patients with medical compli- cations, according to the UN Children's Fund (UNICEF). |
| Niger | Cholera | G1 | 13-Jul-18 | 13-Jul-18 | 15-Aug-18 | 1 489 | 19 | 26 | 1.7% | A new peak was established in week 32 (week ending 12 August 2018) when 389 cases were reported.The outbreak which initially started in Madarounfa health district on the border with Nigeria has now spread to a second health district, Maradi Commune. Both health districts are in Maradi Region. The total number of health areas af- fected throughout the Maradi region increased from 09 to 19. From 5 July to 15 August 2018, a total of 1 489 cases including 26 deaths (CFR 1.7%) have been reported from Maradi Region. Seven- ty-eight percent (78%) of cases are aged 5-year and above. A total of 19 samples have tested positive by culture for <i>Vibrio</i> <i>cholerae</i> O1 inaba. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|--------------------------|--------------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|---|
| Nigeria | Humanitar- ian crisis | Protracted 3 | 10-Oct-16 | n/a | 5-May-18 | - | - | - | - | The security situation in north-east Nigeria remains volatile, with frequent inci- dents, often suicide attacks us- ing person-borne improvised explosive devices (PBIED) and indiscriminate armed attacks on civilian and other targets. On 1 May 2018, an attack in Mubi town in Adamawa State resulted in 27 deaths and more than 50 injuries, while 13 people were killed in Zamfara State on 3 May 2018. In a related incident that took place on 5 May 2018, at least 45 people from Gwaska village in Kaduna State (outside north-east Nigeria) died in fighting between bandits and armed militia. Internal displacement continues across north-east Nigeria, especial- ly in Borno, Adamawa and Yobe states, partly fuelled by deteriorating living conditions and the ongoing conflict. The number of internally displaced persons (IDPs) across the six states (Adamawa, Bauchi, Borno, Gombe, Taraba, and Yobe) in northeast Nigeria increased to over 1.88 million in April 2018. In addition, there are over 1.4 million returnees in the area. The communal conflicts between herders and farmers, which has been taking place since January 2018 outside north- east Nigeria, also displaced approximately 130 000 people in Benue, Nasarawa, Kaduna, and Taraba States. |
| Nigeria | Cholera | G1 | 7-Jun-17 | 1-Jan-18 | 12-Aug-18 | 21 935 | 419 | 353 | 1.6% | See detailed update as stated above. |

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| Nigeria | Lassa fever | Ungraded | 24-Mar-15 | 1-Jan-18 | 5-Aug-18 | 492 | 482 | 133 | 27.0% | The outbreak is continuing with less than ten cases reported each week. In week 31 (week ending 5 August 2018), nine new confirmed cases with two deaths were reported. From 1 January to 5 August 2018, a total of 2 334 suspected cases have been reported from 22 states. Of the suspected cases, 481 were confirmed, 10 are probable, 1 844 negative (not a case). Thirty-nine health care workers have been affected since the onset of the outbreak in seven states with ten deaths. Nineteen states have exited the active phase of the outbreak while three – Edo, Ondo and Enugu States still remain active. |
| Nigeria | Measles | Ungraded | 25-Sep-17 | 1-Jan-18 | 29-Jul-18 | 12 751 | 14 | 99 | 0.8% | In week 30 (week ending 29 July 2018), 246 suspected cases of measles with one Laboratory confirmed and three deaths (CFR 1.3%) were reported from 20 States. Since the beginning of the year, a total of 12.751 suspected mea- sles cases with 14 laboratory confirmed cases and 99 deaths (CFR 0.8%) were reported from 36 States compared with 15 607 suspected cases with 108 laboratory confirmed and 89 deaths (CFR 0.6%) from 37 States during the same period in 2017. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|--------------------------|---|--------------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|---|
| Nigeria | Monkeypox | Ungraded | 26-Sep-17 | 24-Sep-17 | 30-Apr-18 | 244 | 101 | 6 | 2.5% | Suspected cases are geo- graphically spread across 25 states and the Federal Capital Territory (FCT). One hundred one (101) laboratory-con- firmed and 3 probable cas- es have been reported from 15 states/territories (Akwa Ibom, Abia, Anambra, Bayelsa, Cross River, Delta, Edo, Ekiti, Enugu, Lagos, Imo, Nasarawa, Oyo, Rivers, and FCT). |
| Nigeria | Polio- myelitis (cVDPV2) | Ungraded | 1-Jun-18 | 1-Jan-18 | 8-Aug-18 | 2 | 2 | 0 | 0.0% | Circulating vaccine-derived polio virus type 2 (cVDPV2) was confirmed in a stool sample from a case of Acute flaccid paralysis (AFP) with symptom onset on 16 June 2018 in Yobe State. This is the second AFP case since the beginning of 2018 with a confirmed cVDPV2. The first was an AFP case in Kaugama district, Jigawa state, with onset on 15 April 2018. |
| Nigeria | Yellow fever | Ungraded | 14-Sep-17 | 7-Sep-17 | 5-Aug-18 | 2 418 | 47 | 47 | 1.9% | From the onset of this out- break on 12 September 2017, a total of 2 418 suspected yellow fever cases including 47 deaths have been reported as at week 31 (week ending on 5 August 2018), from 507 LGAs in all Nigerian states. No new in-country presumptive posi- tive case in the reporting week and the last case confirmed by IP Dakar was on 6 June 2018 from River State. A total of 47 out of 126 presumptive posi- tive samples were laboratory confirmed at IP Dakar. |
| São Tomé and Principé | Necrotising cellulitis/ fasciitis | Protracted 2 | 10-Jan-17 | 25-Sep-16 | 12-Aug-18 | 2 844 | 0 | 0 | 0.0% | From week 40 in 2016 to week 32 in 2018, a total of 2 844 cases have been notified. In week 32 (week ending 12 August 2018), 17 cases were notified, five more than the previous week. Five out of seven districts reported cases during week 30, namely, Mé-zochi (9), Cantagalo (4), Agua grande (1), Caue (1), and Principe (2). The attack rate of necrotising cellulitis in Sao Tome and Principe is 14.4 cases per 1 000 inhabitants. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|--------------|-----------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|--|
| Seychelles | Dengue fever | Ungraded | 20-Jul-17 | 18-Dec-15 | 8-Jul-18 | 5 443 | 1 429 | - | - | As of week 27, a total of 5 443 suspected cases have been reported from two of the three main islands, Mahé and Praslin. No case has been reported from La Digue during week 27. A fluctuating trend has been observed for the past 4 weeks. For week 27, 41 suspected cases were reported. Thirty-nine samples were tested for dengue of which 33 were negative and six were probable. The last case was confirmed in week 26 (ending 1 July 2018). No recent serotyping results and so far for this epidemic DENV1, DENV2 and DENV3 have been detected. |
| Sierra Leone | Lassa fever | Ungraded | 8-Jun-18 | 1-Jan-18 | 1-Jul-18 | 20 | 20 | 12 | 60.0% | A total of 20 confirmed Lassa fever cases with 12 deaths have been reported since the beginning of the year, amounting to a case fatality rate (CFR) of 60 %. The cases have been reported from two districts, Bo (two cases with two deaths) and Kenema (18 cases with 10 deaths). The last confirmed case was reported during week 23 from Kenema district involving a 32 year old female who died while in admission at Kenema Govern- ment Hospital. |
| South Africa | Listeriosis | Ungraded | 6-Dec-17 | 1-Jan-17 | 26-Jul-18 | 1 060 | 1 060 | 216 | 20.4% | This outbreak is ongoing since the beginning of 2017. As of 26 July 2018, 1 060 cases have been reported in total. Around 79% of cases are re- ported from three provinces; Gauteng (58%, 614/1 060), Western Cape (13%, 136/1 060 and KwaZulu-Natal (8%, 83/1 060). The number of reported cases per week has decreased since the implicated products were recalled on 4 March 2018 with a total of 87 cases reported since 5 March 2018. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|-------------|--------------------------|--------------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|------|--|
| South Sudan | Humanitar- ian crisis | Protracted 3 | 15-Aug-16 | n/a | 29-Jul-18 | - | - | - | - | The humanitarian situation in South Sudan has remained volatile and unpredictable since the beginning of the crisis 4 years ago. The latest round of peace talks took place in Khartoum and a per- manent ceasefire agreement was signed. However, despite this, it is apparent that the fighting leading to loss of lives has continued unabated. The economic crisis with hy- perinflation, food insecurity, and continued fighting has put lives of millions South Sudanese at risk. As of 8 July 2018, there are approximately 2.5 million refugees as a result of this crisis and 1.74 million IDPs. |
| South Sudan | Hepatitis E | Ungraded | - | 3-Jan-18 | 12-Aug-18 | 130 | 16 | - | - | One new case of hepatitis E was reported in week 32, one new RDT-positive case was reported in week 29. As of 12 August 2018, 130 suspect cas- es have been reported in 2018. Of the total suspect cases, 16 cases have been confirmed by PCR (15 in Bentiu PoC and 1 in Old Fangak). No new cases identified after active follow up in Fangak. Only 5 HEV cases have been admitted. At least 45% of the cases are 1-9 years of age; and 66% being male. Among the females, most cases have been reported in those aged 15-44 years (who are at risk of adverse outcomes if infected in the 3rd trimester of pregnancy). |
| Tanzania | Cholera | Protracted 1 | 20-Aug-15 | 1-Jan-18 | 19-Aug-18 | 3 549 | 50 | 67 | 1.9% | During week 33, 63 new cases including one death were re- ported from Ngorongoro DC (60 cases and 1 death) in Aru- sha region and Momba DC (3 cases) in Songwe Region. As of week 33, a total of 3 549 cases with 67 deaths (CFR: 1.9%) were reported from Tanzania Mainland, no case was reported from Zanzibar (the last case was reported on 11 July 2017). Cholera cases in 2018 increased and nearly doubled during the period of January – August 2018 (3 459 cases), when compared to the same period in 2017 (2 090 cases). Since the beginning of the outbreak over 7 000 spec- imens have been tested for cholera and 47% were positive for <i>V. cholerae</i> by culture. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|----------|---------------------------------------|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-----|--|
| Tanzania | Dengue fever | Ungraded | 19-Mar-18 | 1-Dec-17 | 22-Jun-18 | 226 | 37 | - | - | Dengue fever has been report- ed from Dar es Salaam since January 2018. As of 22 June 2018, a total of 226 cases with no death have been reported. The Tanzania National Health Laboratory and Quality As- surance and Training Centre (NHLQATC) has so far received a total of 92 samples of suspected dengue cases, of which 37 samples have tested positive for dengue fever and the circulating serotype is dengue type III. |
| Uganda | Humani- tarian crisis - refugee | Ungraded | 20-Jul-17 | n/a | 21-Jun-18 | - | - | - | - | Uganda continued to receive new refugees precipitated by increased tensions mainly in the neighboring DRC and South Sudan. Despite resp onding 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. Daily arrival stands at approximately 250 – 500 per day. A total of 376 081 refugees and asylum seekers were received in 2017. |
| Uganda | Anthrax | Ungraded | - | 12-Apr-18 | 19-Jun-18 | 80 | 4 | - | - | Three districts in Uganda are affected by anthrax. As of 19 June 2018, a cumulative total of 80 suspected cases with zero deaths have been report- ed – Arua (10), Kween (48) and Kiruhura (22). One case has been confirmed in Arua district by polymerase chain reaction (PCR). The event was initially detected on 9 Febru- ary 2018 in Arua district when a cluster of three case-patients presented to a local health fa- cility with skin lesions, mainly localized to the forearms. Three blood samples collected from the case-patients on 9 February 2018 were shipped to the Uganda Virus Research Institute (UVRI). One tested positive for <i>Bacillus anthracis</i> by polymerase chain reaction (PCR) based on laboratory results released by the UVRI on 5 April 2018. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|---------|---|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|---|
| Uganda | Cholera | Ungraded | 7-May-18 | 29-Apr-18 | 24-Jul-18 | 263 | 45 | 9 | 3.4% | As of 24 July 2018, a total of 263 cases including 9 deaths was reported from four differ- ent districts in Uganda. These districts include Kampala (92 cases and 1 death), Kween (83 cases and 4 deaths), Mbale (46 cases and 3 deaths) and Bulambuli (42 cases and 1 death). All outbreaks have been confirmed by culture, a total of 45 samples from all the affected districts have tested positive for <i>Vibrio chol-</i> <i>erae</i> . Other cholera outbreaks in the country that have been recorded this year include: Amudat, Kyegegwa, Kagadi, Mbale, Tororo and Hoima. |
| Uganda | Crime- an-Congo haemor- rhagic fever (CCHF) | Ungraded | 24-May-18 | - | 17-Jul-18 | 7 | 3 | 2 | 28.6% | On 23 May 2018, a 35-year- old male suspected of having a viral haemorrhagic fever died at a hospital in Mubende. Test result released on 24 May 2018, confirmed the case as positive for Crimean-Congo haemorrhagic fever (CCHF) by PCR at Uganda Virus Rea- search Institute. As of 18 June 2018, there were a total of five cases (one confirmed and four suspected) and two deaths (CFR 40%). Three of the sus- pected cases were identified from the same household as the confirmed case in Nkooko sub-county. Samples taken from the suspected cases were negative for CCHF. As of 17 July 2018, two new CCHF cases were confirmed from Mbarara RRH. The cases are a couple from Nakivale Refugee settlement from Isingiro district. Contact tracing is ongoing in the district and 42 out of 57 contacts were under follow up on day of report. |
| Uganda | Measles | Ungraded | 8-Aug-17 | 1-Jan-17 | 24-Jul-18 | 2 097 | 568 | - | - | As of 24 July 2018, a total of 2 097 cases have been reported of which 568 cases have been confirmed either by epidemiological link or laboratory since the beginning of the year. One hundred ninety-nine (199) cases were laboratory confirmed by IgM. Fourty-two districts in the country have confirmed a measles outbreak. Kampala and Wakiso were the index districts to report an outbreak, these are both metropolitan and business districts. The number of reported suspected and confirmed cases has decreased gradually since May 2018. |

| 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% | One new case from Kiruhura district has been confirmed for Rift Valley fever by PCR at Uganda Virus Research Institute on 14 August 2018. From 18 June to 14 August 2018, a total of 23 suspected cases with eight deaths (CFR 34.8%) have been reported from 11 districts in Western Uganda. Nineteen(19) cases have been confirmed by PCR at the Uganda Virus Research Institute (UVRI). The most affected district is Insingiro having reported 11 cases with two deaths (CFR 18.2%). Ninety-six percent (96%) of cases reported are males, the majority of whom are herds- man and butchers. |
| Zambia | Measles | Ungraded | 2-Aug-18 | 6-Jul-18 | 1-Aug-18 | 20 | 4 | - | - | On 1 August 2018, an out- break of measles was reported in the Paul Mambilima catch- ment area of Mansa District in Luapula Province, Zambia. The affected community lies astride the international border with the Democratic Republic of the Congo. The first case, a 3-year-old baby was seen at a facility on 19 July 2018 presenting with an illness meeting the standard case definition for measles. By 1 August 2018, further inves- tigations had identified a total of 20 measles suspected cases from the Democratic Republic of the Congo (11 suspected, 2 confirmed) and Zambia (5 suspected and 2 confirmed). |
| Zimbabwe | Typhoid | Ungraded | 7-Aug-18 | 6-Jul-18 | 21-Aug-18 | 1 657 | 6 | 8 | 0.5% | See detailed update as stated above. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR | Comments |
|--------------------|---|----------|-----------------|---------------------------------|-------------------------------|----------------|--------------------|--------|-------|--|
| Recently closed ev | ents | | | | | | | | | |
| Mauritania | Crime- an-Congo haemor- rhagic fever (CCHF) | Ungraded | 26-Jul-18 | 19-Jul-18 | 21-Aug-18 | 2 | 2 | 1 | 50.0% | A 35-year-old male farm- er from Bassiknou health district located on the border with Mali, presented with symptoms of VHF (myalgia, vomiting and haemorrhage) on 19 July 2018. The cases was admitted at and tested positive for CCHF by RT-PCR and ELISA on 26 July 2018. Three days later he died. A second case of CCHF, a 65-year-old shepherd from the same district was confirmed on 1 August 2018 by the INRSP. All contacts have completed their 21 days follow up and no epi-link was found between these two cases. No new cases have been reported since 1 August 2018 |
| South Sudan | Measles | Ungraded | 10-Jun-18 | 13-May-18 | 12-Aug-18 | 40 | 3 | 0 | 0.0% | Measles outbreak confirmed in Rumbek Center after 3 IgM positive cases were reported. As of 12 August 2018, a cumu- lative of 40 measles cases with zero deaths have been line listed since week 19. Most cas- es are from Akuach village (2 km from Rumbek hospital) in Biir Payam. This is where the index cluster originated. Near- ly 70% of the cases are under 5 years. Routine measles cov- erage for the first quarter of 2018 for the county was 19%. As part of the response; out- break investigation, line listing and vaccination micro plan targeting 44 049 children 6-59 months of age have been com- pleted. A reactive response is planned by MedAir and CUAMM supported by WHO and UNICEF. A long-term strategy for improving routine immunization has been de- veloped by EPI-MoH. No new cases have been reported for the last 4 epi weeks. |

†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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