

WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 37: 9 - 15 September 2017
Data as reported by 17:00; 15 September 2017



3

New events

45

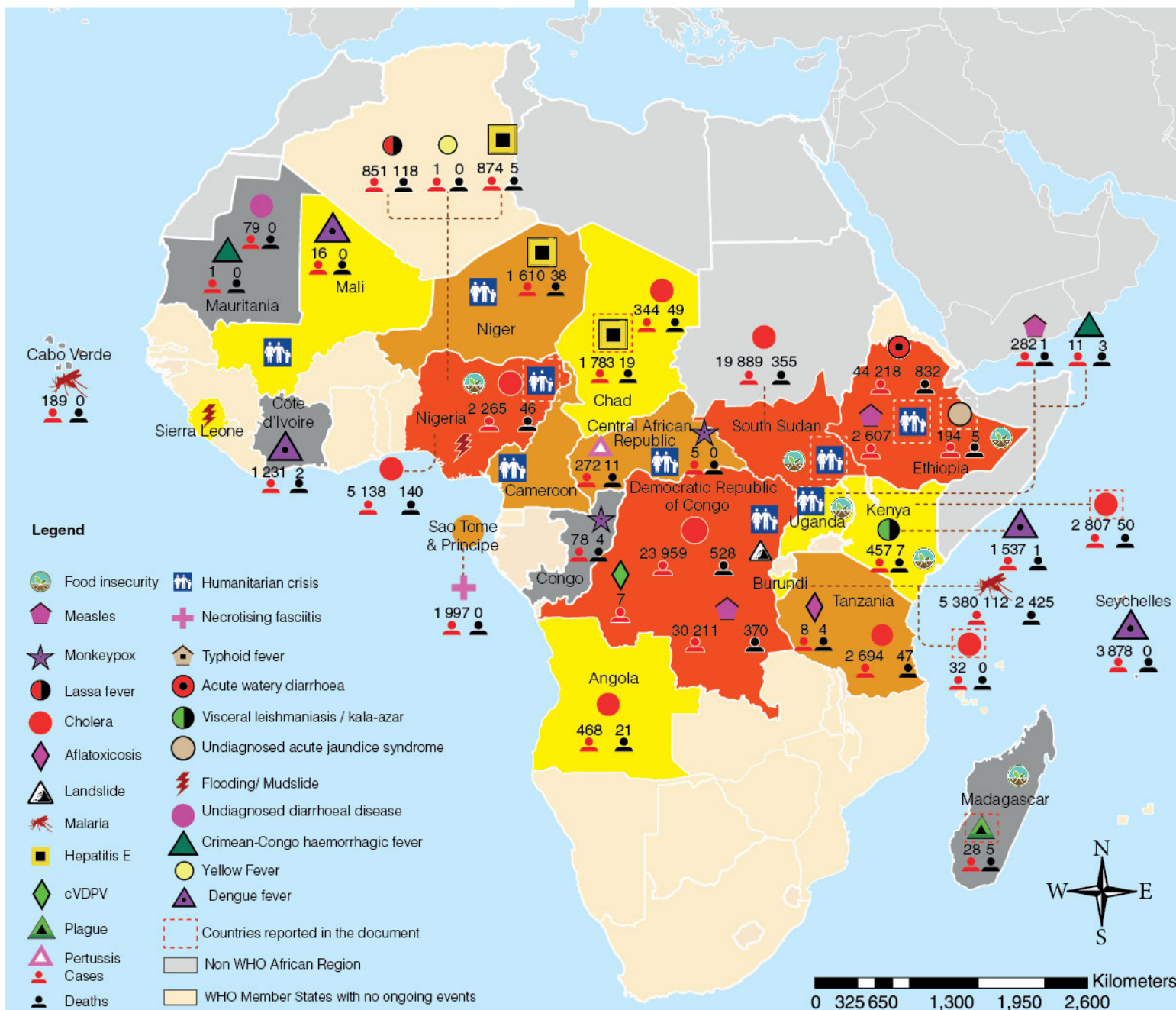
Ongoing events

33

Outbreaks

15

Humanitarian crises



2

Grade 3 events

8

Grade 2 events

7

Grade 1 events

28

Ungraded events

2

Protracted 3 events

0

Protracted 2 events

1

Protracted 1 event

Overview

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- This weekly bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 48 events in the region. This week's edition covers key new and ongoing events, including:
 - Plague in Madagascar
 - Undiagnosed acute jaundice syndrome in Ethiopia
 - Humanitarian crisis in Nigeria
 - Humanitarian crisis in Ethiopia
 - Humanitarian crisis in South Sudan
 - Hepatitis E in Chad
 - Malaria in Burundi
 - Cholera in Kenya.
- 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 challenges include:
 - Delayed, suboptimal or obstructed laboratory investigations impacting the timely identification of the cause of some outbreaks, and in turn hindering interventions
 - Inaccessibility of communities affected by various emergencies inhibiting health and other humanitarian interventions

New event

Plague

Madagascar

28
Cases

5
Deaths

17.8%
CFR

Event description

On 13 September 2017, the WHO was notified of an outbreak of pulmonary plague in Madagascar. The outbreak was detected on 11 September 2017 following the notification of the death of 47-year-old woman from Fort Duchesne, admitted to Soavinandriana Hospital with respiratory disease. After confirmation that the cause of illness and death was pneumonic plague, the Directorate of Health Surveillance and Epidemiological Surveillance (DVSSE) immediately launched field investigations.

These investigations revealed that the primary case was likely to have been a 31-year-old male from Tamatave (a.k.a. Toamasina) on the east coast, visiting Ankazobe District in the Central Highlands (Hauts-Plateaux) – a plague endemic area. He developed malaria-like symptoms in mid-August, and during his journey in a bush-taxi from Ankazobe District to Tamatave (via Antananarivo) on 27 August 2017, he developed severe respiratory symptoms and died. After preservation of the body at Moramanga District Hospital, he was buried in a village close to Tamatave. Subsequently, 27 other individuals became ill – all cases either had direct contact with the primary case or other epidemiologic links.

As of 14 September 2017, a total of 28 cases, including five deaths (case fatality rate 17.8%) have been reported since the initial case was detected on 27 August 2017. Two cases have been confirmed by rapid diagnostic test (RDT) at the Institut Pasteur de Madagascar (IPM). Thus far the outbreak is localized in Tamatave and Faratsiho in Vakinankaratra Region (100km southwest of Antananarivo).

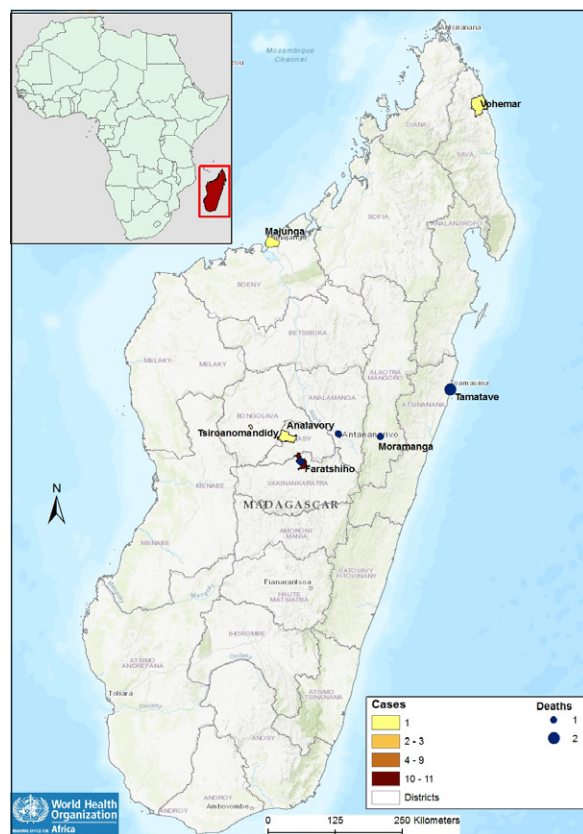
Public health actions

- The Ministry of Public Health is coordinating the response to the outbreak by conducting field investigations and contact tracing in all the main affected areas. Active case search for cases is ongoing.
- Chemoprophylaxis has been provided to all the contacts of confirmed and suspected cases.
- Information on pneumonic plague has been distributed to the health professionals to improve the case management.
- Technical support for testing and analysis is being provided by IPM.
- Awareness campaigns are being conducted through the community to sensitize those affected on plague, and prevention methods.
- Houses of all the identified cases and close contacts in Antananarivo have been sprayed with insecticides.
- Recommendations to follow proper burial procedures for all suspected and confirmed cases have been provided.

Situation interpretation

Plague is endemic in Madagascar and cases are reported nearly every year between the months of September and April. The last outbreak was from August 2016 to January 2017. These epidemics usually provoke fear in the communities, which in turn leads to communities indiscriminately obtaining over-the-counter prophylactic antibiotics directly from pharmacies. Other people wear masks to protect themselves. These exaggerated behaviours stigmatise cases and their relatives, and could promote antimicrobial resistance. More measures need to be put in place to educate the communities on appropriate preventive measures. Focus should be on hygiene promotion in surrounding areas. Plague is only severe when not properly treated. Due to low effectiveness, vaccines against pneumonic plague are not recommended, except in high-risk groups.

Geographic distribution of plague cases, Madagascar, 27 August – 14 September 2017



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Ongoing events

Undiagnosed acute jaundice syndrome

Ethiopia

194 Cases

5 Deaths

2.6% CFR

Event description

Cases of acute jaundice syndrome (AJS) have surged in Dollo zone, Somali region, Ethiopia since July 2017. The index cluster involving five children was reported to Dollo Zonal Command Post on 25 July 2017 from a community of pastoralists living as internally displaced persons (IDPs).

Retrospectively, cases have been identified from 1 July 2017 (possibly earlier). As of 14 September 2017, 194 cases of AJS and five deaths (case fatality rate 2.6%) have been reported. More than 70% of those affected were children below the age of 15 years, and four out of five of the deaths were in children under the age of 10 years.

The cause remains unknown. In addition to jaundice, other commonly reported symptoms include abdominal pain, loss of appetite, fatigue, fever and vomiting. Severe neurological and haemorrhagic symptoms were observed and reported in a few cases, and all of the AJS-related deaths. Significantly elevated liver function markers were evident in the few cases tested.

Most cases have recovered without treatment. A traditional healing practice of partial thickness burns at four to six points on the abdomen has been the main form of treatment sought by affected communities. Health outreach workers are encouraging severe cases to attend local hospitals.

Only one of the 15 samples tested to date at the National Reference Laboratory has tested positive for hepatitis E virus infection using a rapid diagnostic test (RDT). The remainder have tested negative for hepatitis E, yellow fever, chikungunya, and dengue fever by PCR. MSF has performed RDTs for malaria on a number of cases, which were similarly negative.

Public health actions

- Two joint Federal Ministry of Health and WHO missions to the affected areas in Somali Region have been conducted to investigate this outbreak.
- WHO is supporting the Ministry to transport samples to WHO collaborating centres for further testing.
- MSF continues to support the management of cases and WHO and other partners are supporting water, sanitation and hygiene (WASH) and health education activities.
- Community sensitization activities are ongoing.

Situation interpretation

Dollo is one of the 11 zones within Somali Region and is bordered by Somalia. The region has been one of the worst affected by the ongoing humanitarian crisis, with the concurrent occurrence of severe acute malnutrition and outbreaks of acute watery diarrhoea. The increasing numbers of IDPs resulting from the ongoing humanitarian crisis and food insecurity further deplete the already limited resources available to investigate and contain this outbreak. Poor sanitation practices, including open defecation within the IDP camps and lack of safe water sources in the area, place people at high risk of contracting waterborne illnesses. The main water sources ranged from birkas (an open water source shared with animals) to trucked water. The region is considered a low malaria risk area.

Reports from local healthcare workers, traditional healers, and community members, as well as organizations such as MSF suggest that the current numbers of cases of jaundice are unprecedented. Given that most of the affected cases are young children, and the etiology and mode of transmission remain unknown, more thorough laboratory investigations are urgently needed. Technical experts at WHO have recommended the prioritization of hepatitis E, A, D and B viral infections, yellow fever and leptospirosis testing. Thereafter, other potential causes such as aflatoxin, herpes viruses, cytomegalovirus, Epstein-Barr virus, typhus and rickettsial disease should be considered.

Geographic distribution of acute jaundice syndrome cases, Ethiopia, 1 July – 14 September 2017



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Event description

The humanitarian situation in north-eastern Nigeria remains dire and may deteriorate further with the military and civilian joint task force suffering casualties in recent weeks, and the situation remaining tense. Roadside ambushes and improvised explosive device (IED) explosions in camps continue to disrupt the activities of humanitarian partners, including the health cluster. There are also challenges in physically reaching some high risk locations, as general insecurity and possible ambushes make road movement too risky. Also, as of the end of August 2017, there were limited air assets (three UNHAS helicopters) to support 71 organizations involved in the overall humanitarian response.

About 200 000 Nigerian refugees hosted in neighbouring countries (Cameroon, Chad and Niger) are starting to return to Nigeria. In Cameroon, which hosted almost half of these refugees, concerns have been raised about reports of thousands of refugees being forced to return. Returnees face terrible conditions and end up in a situation of secondary internal displacement when they arrive back in Nigeria. To address these concerns, a meeting of the Tri-Partite Commission was held in August 2017. This follows the signing of a tripartite agreement between the UN Refugee Agency, Nigeria and Cameroon on the voluntary repatriation of Nigerian refugees once conditions improve.

The most prevalent health problems among the IDPs include malaria, acute malnutrition and the ongoing hepatitis E and cholera outbreaks in the region. In epi week 35 (week ending 03 September 2017), 5 975 suspected cases of malaria were reported, with five deaths. During the same reporting week, 1 204 cases of severe malnutrition were reported, with over 70% of these cases from local government areas (LGAs) in southern Borno State. Between 14 August to 15 September 2017, 2 265 cholera cases, including 46 deaths (case fatality rate 2.0%), have been reported from the Muna corridor/Jere (1 271 cases), Dikwa (579) and Monguno (415) in Borno State.

Public health actions

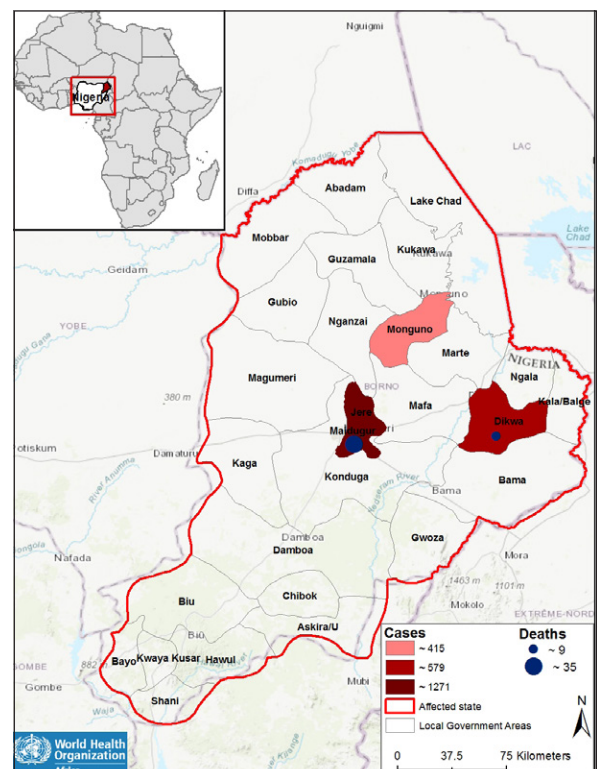
- A second round of anti-malarial age-restricted mass drug administration (MDA) took place from the 23-26 August 2017, with a total of 1 207 709 children below 5 years of age reached (101% of target population). The next rounds (rounds 3 and 4) are tentatively scheduled to start on 27 September 2017 and 14 October 2017.
- The Emergency Operations Centre (EOC) continues to coordinate the overall response. A multi-sector cholera response and prevention plan, costed at US\$ 3.2 million, has been developed and is being implemented. Oral rehydration points (ORP) and cholera treatment centres (CTC) are operational in the three hotspot LGAs (Dikwa, Jere and Monguno).
- An oral cholera vaccination (OCV) campaign has been scheduled to start on 18 September 2017, targeting over 881 817 people in IDP camps and communities across 11 wards of five LGAs (Dikwa, Jere, Konduga, Monguno and Maiduguri Metropolitan area). 915 005 doses of OCV are expected to arrive in-country on 15 September 2017 and in-state the next day.
- A senior mental health consultant has been deployed. WHO Mental Health Gap Action Programme (mhGAP) training is on-going for 66 participants from six LGAs.

Situation interpretation

The prolonged conflict in the Lake Chad Basin area has had a devastating impact on vital infrastructure, social services and economic activity. This, combined with rapid population growth, severe vulnerability of the region to climate change, environmental degradation, poverty and underinvestment in social services, is translating into record numbers of people in need of emergency relief across the entire north-eastern part of Nigeria.

Considering the evolving and protracted nature of the situation, there is a need to increase effectiveness and bridge health sector humanitarian-development divides in planning, financing and implementation. An operational review of the WHO response in north-eastern Nigeria was undertaken recently, with the humanitarian-development nexus in consideration for planning into 2018-2019.

Geographic distribution of cholera cases in Borno, Nigeria, 14 August - 15 September 2017

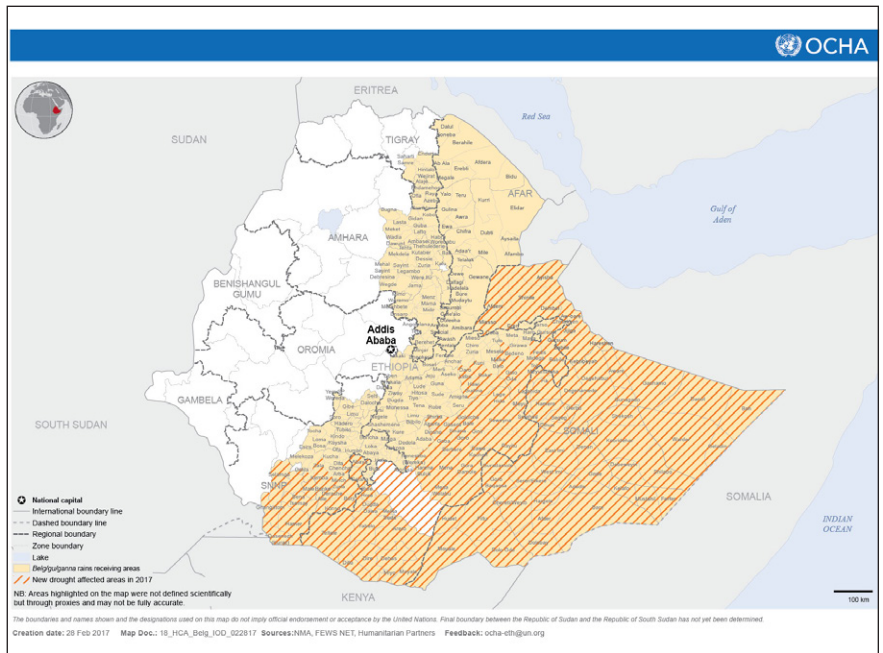


Event description

The humanitarian crisis in Ethiopia continues, with an estimated 8.5 million people in need of humanitarian assistance. This includes 1.5 million people internally displaced and 838 722 refugees hosted in the country. An estimated 10.5 million people require access to safe drinking water and sanitation services. In Somali Region, the water crisis is deepening, with an anticipated 1.2 million people remaining affected by water shortages. In Oromia region, over 300 000 people continue to suffer from water shortages and require emergency water trucking services.

Food insecurity continues, with a rapidly deteriorating nutritional crisis in Somali Region in particular. Global acute malnutrition (GAM) among children under 5 years is 16.2%, moderate acute malnutrition (MAM) is 14.9% and severe acute malnutrition (SAM) is 1.9%. Among pregnant and lactating women MAM is 39%. Across the whole Ethiopian region, 8.5 million people are estimated to be in need of food assistance in the second half of 2017 and 376 000 children are expected to require treatment for SAM. In addition, 1.9 million school-aged children require emergency school feeding (and assistance with learning materials).

Areas receiving *belg/gu/ganna* rains and area affected by drought in Ethiopia, 2017



As of 12 September 2017, the number of cases of acute watery diarrhoea (AWD) is rising in Afar (110 cases), Amhara (222), Oromia (139) and Tigray (167). The outbreak appears to be stabilizing in SNNP, Beneshangul Gumuz and Somali regions. The cumulative total from 1 January 2017 to 10 September 2017 is 44 218 cases, with 832 deaths (case fatality rate 1.8%). Of these, 78% (34 794/44 218) were in Somali, the epicentre of the outbreak, with 749 deaths (case fatality rate 2.15%). However, daily case reporting in Somali has shown a consistent downward trend since peaking in April 2017, with between 90-96 cases reported per month since July, mainly in the Fazan Zone.

Public health actions

- The Federal Ministry of Health and Regional Health Bureaus, supported by WHO, UNICEF and partners, are leading integrated responses to the ongoing AWD outbreaks, implementing multisector preventive and control measures.
- In Amhara Region, the regional president held a meeting with private investors to encourage their participation in the ongoing AWD outbreak prevention and response efforts, as well as other public health threats.
- The water, sanitation and hygiene (WASH) cluster has been working closely with the health and nutrition clusters to support ongoing multisectoral/integrated efforts to address the deepening nutrition crisis in Somali Region. Blanket supplementary feeding, along with general relief food distribution and targeted supplementary feeding, is being provided by the World Food Programme through its Rapid Response window.
- Social mobilization activities continue, including engagement of religious and community leaders, and teachers in risk communication and health promotion.

Situation interpretation

Currently, the major risk factors for the spread of AWD in Ethiopia are lack of access to potable water and sanitation, propagation of infections around holy water sites (where large numbers of Christian pilgrims congregate from around the country, especially in Amhara and Tigray), and seasonal mobility of daily labourers to commercial farms. The high risk for further spread and poor outcome of cases of AWD continues due to the continued degradation of health determinants on the backdrop of overburdened local health systems.

Likewise, lack of access to safe drinking water and sanitation and poor food security continue to contribute to the serious humanitarian crisis in the country, which continues to be exacerbated by both internal and external population movements following the ongoing drought and insecurity across the Horn of Africa. According to the Famine Early Warning Systems Network, it is estimated that large areas of southern Ethiopia will continue to face Emergency (IPC Phase 4) acute food insecurity into 2018, and are at risk of worsening to IPC Phase 5. Urgent and sustained humanitarian assistance will be required to mitigate very high levels of acute malnutrition, along with the spread of epidemic prone diseases.

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Event description

The humanitarian situation in South Sudan remains grim with intense clashes reported in different parts of the country, causing a large number of people to be internally displaced or forced to cross into neighbouring countries. An estimated 1.87 million people are internally displaced, about two million people are refugees in neighbouring countries, and six million people are food insecure. Uganda is currently hosting more than 50% of South Sudanese refugees in the region. Children and women are the most affected, constituting about 85% of the refugee population. In August, clashes were reported in Upper Nile, Greater Equatoria, Jonglei and Lakes states. According to UNICEF's humanitarian response plan, the number of people targeted for humanitarian assistance in 2017 has increased from 5.8 million to 6.2 million, as per the mid-year data.

The ongoing humanitarian crisis is also affecting the health and well-being of the affected population. The global acute malnutrition (GAM) in the affected areas is reported to be above the WHO emergency threshold of 15% in different parts of the country, with the most affected areas being Northern Bahr el Ghazal (23.3%) and Kapoeta North (17.3%).

The associated cholera outbreak is ongoing with new cases reported every week. However, the number of cases has declined in the past few weeks. In the last four weeks (weeks 33-36), 90 cases and no deaths were reported from three counties: Bor, Juba and Torit. Since the beginning of the outbreak in June 2016, 19 889 cases and 355 deaths (case fatality rate 1.8%) have been reported as of 10 September 2017.

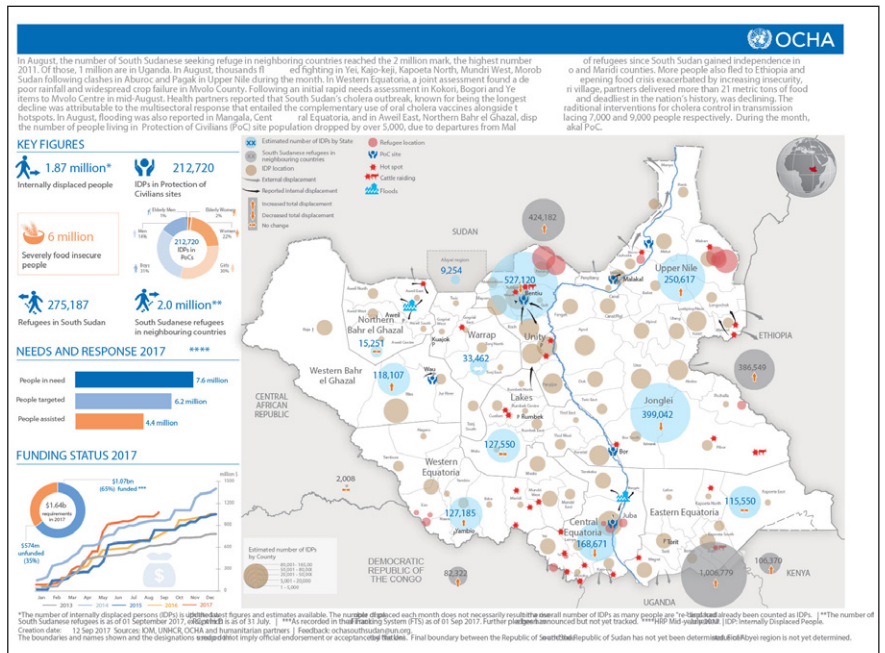
Public health actions

- Humanitarian coordinators called for an immediate end to attacks on civilians and aid workers in South Sudan.
- The World Food Programme initiated a School Meals Programme in Yei with 108 participants (representing 27 schools) receiving training and orientation on the implementation of food for education. Each school also received a first consignment of food commodities (cereal, pulses, oil and salt). The Yei School Meals Programme aims to support 10 000 schoolchildren with 147 metric tons of food until the end of the school year in December.
- WHO continues to support the overall coordination of cholera preparedness and response activities and is co-chairing the cholera taskforce.
- WHO is coordinating the deployment of oral cholera vaccines to complement the current response. WHO is also supporting surveillance and laboratory activities through collation of cholera data, compilation of situation reports, provision of investigation kits, specimen transportation, support for laboratory testing, and the deployment of rapid response teams to augment the response in areas with active transmission.
- UNICEF continues to provide supplies for medical management of cholera cases at both community and facility levels in the affected areas. As part of cholera case management, UNICEF is supporting 46 oral rehydration points, 15 cholera treatment units and two cholera treatment centres through partners in key hotspots. Over 30 Diarrhoeal Disease Kits have been distributed in 2017.
- UNICEF provided cholera supplies (drugs, WASH/Hygiene kits) for the response in Budi County through CORDAID. UNICEF has prepositioned supplies in all field offices and supported the development of contingency plans in hot spot counties. Cholera and Log/WASH consultants have been recruited to strengthen the response, especially case management and infection prevention and control in treatment sites.

Situation interpretation

The humanitarian situation in South Sudan remains unchanged, with new attacks reported in the month of August 2017 forcing people to seek refuge in neighbouring countries. The majority of the population is suffering economic hardship and food insecurity. Humanitarian agencies in country continue to assist vulnerable populations. However, they are facing difficulties in reaching areas of need because of continuing denial of access and the long rainy season limiting road access. The ongoing humanitarian crisis has significantly affected the health system causing the depletion of resources needed to respond to the ongoing health problems in IDP camps and the wider communities. The current fragile state, and suboptimal routine immunization activities greatly increase the risk of outbreaks, including escalation of the ongoing cholera outbreak.

Humanitarian Snapshot in South Sudan, August 2017



Event description

The hepatitis E outbreak in the Salamat Region of Chad remains serious, although there has been a slight drop in reported cases since week 29, when 39 new cases were reported. In week 35, there were 20 suspected cases and one death, with cases reported from North Am Timan (9 cases), Amsinéné (4 cases), South Am Timan (4 cases), Mouraye (1 case), Foulonga (1 case) and Aboudeia (1 case). Since the start of the outbreak there have been 1 783 cases, with 22 deaths (overall case fatality rate 1.23%) and 83 hospitalisations, as of 3 September 2017. Of the 64 cases occurring in pregnant women, five died (case fatality rate 7.8%) and 20 were hospitalized.

The outbreak was first detected on 1 August 2016, confirmed in January 2017 and declared by the Ministry of Health in February 2017.

Public health actions

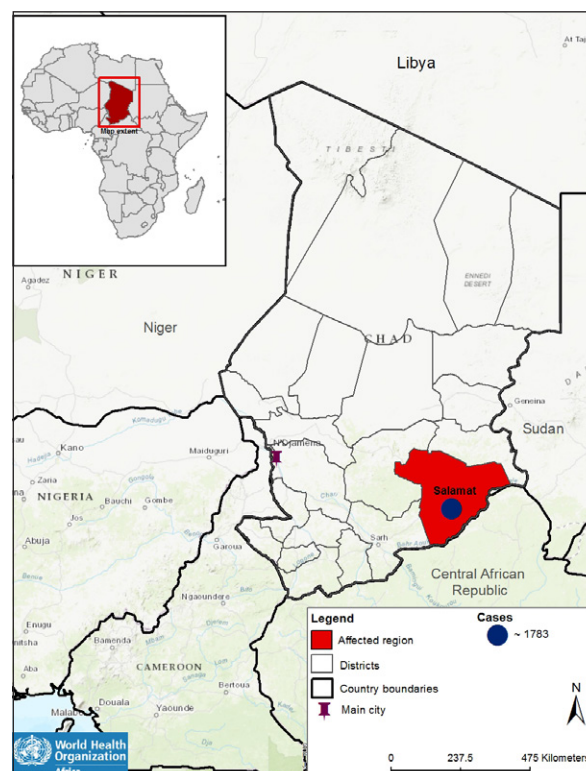
- Under the leadership of the head of the Department of Health, with technical support from WHO, the partners involved in the response to the outbreak continue to hold weekly coordination meetings and an epidemiologist is present in Am Timan to ensure continuity of WHO operations.
- The coordination committee was recently restructured at the request of WHO in order to facilitate jointly planned activities, including: communication around social mobilization and information products; water, sanitation and hygiene (WASH) activities; epidemiological surveillance to monitor the course of the outbreak, and follow-up of patient management and discharge data.
- Case detection is ongoing in Am Timan and Aboudeia.
- MSF-Holland continues to provide technical and managerial support, and drug supplies, to the Am Timan Hospital.
- WASH activities are ongoing in the Salamat and Alhoughna districts and the Am Timan markets, with distribution of hand soap to households, and refilling of hand washes in butchers and restaurants.
- In week 35, bucket chlorination continued, covering 73 water points with over 3 million litres of chlorinated water distributed to families in need.
- Social mobilization activities included sensitisation to the importance of water chlorination, hand washing with soap and protection of food stuff against flies and dust.

Situation interpretation

The hepatitis E outbreak in the Salamat Region remains a concern, even though weekly cases are declining. Limited access to safe water and sanitation, and the absence of large-scale remediation activities around WASH are critical gaps that need to be addressed, as are the lack of WASH partners and low resource mobilization. Continued underfunding remains an issue, which will affect active case detection and chlorination activities. These interventions have become even more imperative given the escalating cholera outbreak in neighbouring Sila Region, and recent detection of cholera cases in one village (thus far) in the Salamat Region.

The current low hepatitis E transmission rate is an opportunity to intensify WASH activities in the affected regions and conduct large-scale social mobilization activities to cover all communities, particularly with the upcoming rainy season from September to December 2017. Funding needs to be improved and more actors need to be involved to prevent further transmission, particularly given the large numbers of people potentially needing assistance in the region.

Geographic distribution of hepatitis E cases, Chad, 1 August 2016 – 3 September 2017



Event description

The malaria outbreak in Burundi is still ongoing with the case incidence rates remaining above the expected (endemic) rate and epidemic thresholds. Despite an apparent decline in number of cases in week 34 (ending 25 August) the country remains in an outbreak situation if we compare the current numbers of cases to those reported in the previous 5 years. During week 34, 97 743 cases, including 43 deaths were reported.

As of 25 August 2017, a total of 5 380 112 malaria cases (incidence rate 726 per 1 000 population) and 2 425 deaths (case fatality rate 0.05%) have been reported during 2017 – the highest rate in the last 5 years. Although the whole country is reporting a high number of cases, the northern, central and eastern part of the country are the most affected. The ten worst affected health districts, with 37% of the total cases, include Gitega, Nyabikere, Buhiga, Kibuye, Kirundo, Muyinga, Giteranyi, Musema, Vumbi and Busoni.

Surveillance data analysis showed that the number of cases started to increase and reached the epidemic threshold in 2014. This unusual trend prompted a multidisciplinary investigation in January 2017, which confirmed that the increased trend was above normal and led to the official declaration of the outbreak on 13 March 2017.

Public health actions

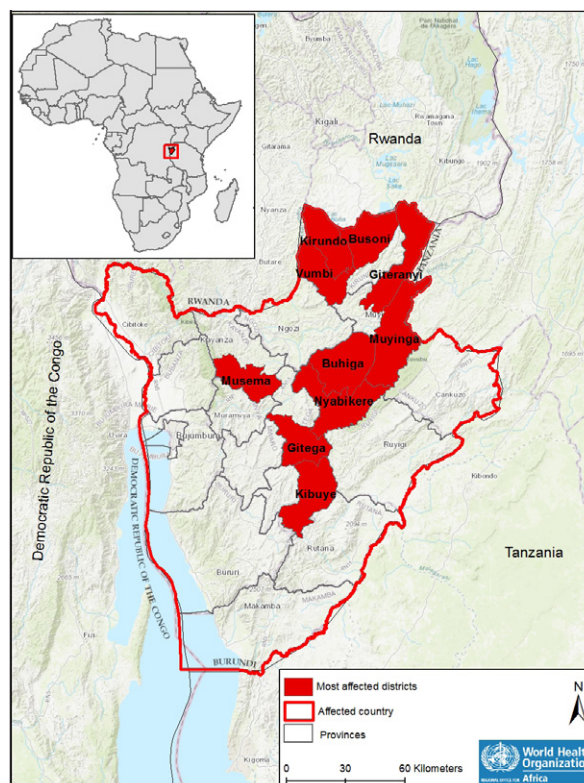
- The Ministry of Health with the support of partners has scheduled the distribution of mosquito nets from 18-22 September 2017.
- The response team is preparing for a 15-day indoor spraying campaign in Rutana, planned for 18 September 2017.
- The response team has evaluated the feasibility of optimal implementation of an indoor spraying campaign simultaneously in 26 health districts.
- Case management activities are ongoing, with sufficient quantities of antimalarial medicines currently available in all healthcare facilities. Treatment is being provided free of charge.
- The NGO Integrated Health Project Burundi (IHPB) continues to provide care in mobile clinics in the Kayanza District.
- Due to a lack of funding, NGO Malaria Care recently ceased operations of their mobile clinics in seven provinces.

Situation interpretation

The malaria outbreak in Burundi remains serious despite an apparent decline in number of cases in recent weeks. The number of cases reported, however, remains above the epidemic threshold. Based on data from previous years, the country typically observes their lowest rates of transmission during the latter half of dry season (August to September) each year. Case numbers are expected to escalate again with the onset of the rainy season later this month (September 2017). Effective prevention campaigns (such as distribution of insecticide treated bed nets and indoor residual spraying) must be scaled-up to combat this impending resurgence.

Beside the malaria outbreak, Burundi is concurrently managing several challenges, including insecurity and civil unrest (causing the displacement of populations and movement across borders); an ongoing cholera outbreak; and the planned repatriation of about 45 000 Burundian refugees from the Democratic Republic of the Congo and Tanzania, also currently experiencing cholera outbreaks. All these factors may overwhelm the health system and have a negative impact on response capacities.

Geographic distribution of malaria cases, Burundi
1 January – 25 August 2017



Event description

Earlier signs of improvement in the epidemic stalled in recent weeks with the occurrence a further cluster of cholera cases associated with a gathering, as well as ongoing transmission in communities. The most recent cluster of cases affected police officers residing at the Multimedia University, Nairobi. Between 31 August and 7 September 2017, over 100 suspected cases were reported among the group of 430 officers; 18 were positive on rapid diagnostic tests. Investigations highlighted that all officers were served lunch at the University's cafeteria and lunch was provided at Traffic Headquarters. While contamination of foods or drinks was most likely the cause of infection (for example, by an ill food handler or other source), a common source has not been definitively identified. Investigations are ongoing.

Fortunately, the epidemic appears to be once again trending downward. However, the outbreak still remains active in seven counties (Garissa, Kajiado, Kilifi, Machakos, Nairobi, Turkana and Vihiga) but has been successfully controlled in 11 others. Since the beginning of the year, a total of 2 807 cases including 50 deaths (case fatality rate 1.8%) have been reported, as of 14 September 2017. Nairobi County alone has accounted for 59% (1 650) of the national total. Here, cases have been reported from 12 sub-counties and 92 wards.

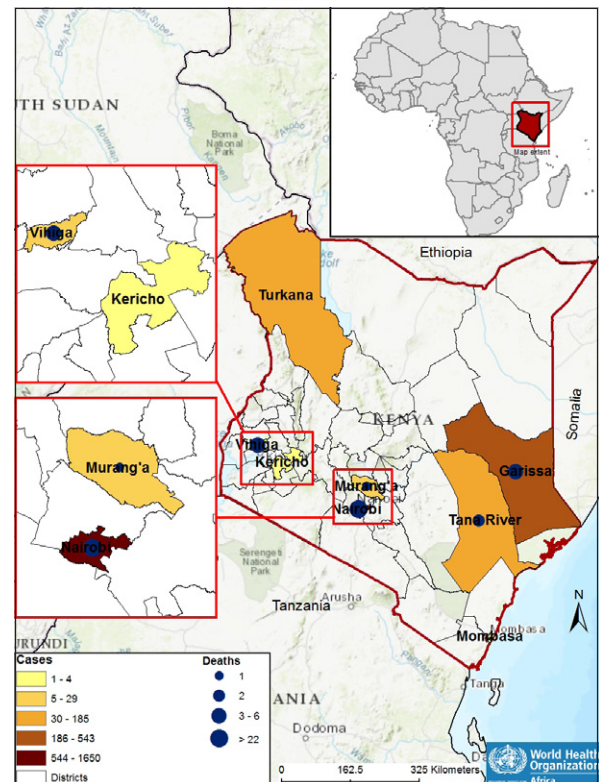
Public health actions

- The National Multisectoral Cholera Taskforce Committee continues to coordinate the response. Members include: the Ministry of Health, Nairobi County, Ministry of Water and Irrigation, Nairobi Water and Sewerage Company, Ministry of Tourism and partners: WHO, UNICEF, Kenya Red Cross Society, CDC, AMREF, MSF and others.
- The Public Health Emergency Operations Centre remains activated, with the appointed Incident Manager coordinating response sub committees: epidemiology/surveillance, case management, laboratory, WASH, risk communication, and logistics.
- The Ministry of Health and Nairobi County continue to enforce compliance with environmental health, water safety and food hygiene regulations.
- In Nairobi, cholera treatment centres (CTCs) have been set up in identified hotspots, and the communities have been notified, and community health volunteers have been trained.
- Partners are supporting the Ministry of Health on risk communication and social mobilization activities within the affected populations. Health talks on hygiene and water treatment have been held and 50 000 households have been sensitized on water treatment. Forty sanitation facilities have been constructed.
- Contact tracing activities are ongoing.

Situation interpretation

The Ministry of Health and partners in Kenya continue to respond to an ongoing cholera outbreak. The response has been hampered by a series of common-source clusters in Nairobi, which have both escalated the outbreak and contributed to ongoing transmission in these communities. Moreover, the response has been challenged by limited capacity in many county-level Rapid Response Teams, limited financial resources to undertake surveillance and response in most counties, limited supplies at treatment centres, inadequate compliance with case management guidelines, and a health workers' (nurses') strike. As outbreaks remain active in several areas, with ongoing transmission and continued risk escalation if left unchecked, the onus remains on the national authorities and partners to sustain interventions and ensure that the outbreak is completely controlled.

Geographic distribution of cholera cases, Kenya
31 August - 14 September 2017



Summary of major challenges and proposed actions

Challenges

- Despite the existing regional public health reference laboratories in various outbreak prone diseases and establishment of public health laboratory networks in the region, the uncertainty surrounding undiagnosed outbreaks presents a formidable challenge to public health authorities attempting to control these events. Not knowing the pathogen (or other hazard), nor mode of transmission, limits and delays treatment and intervention options. Laboratory investigations in the region continue to face numerous challenges such as suboptimal specimen collection and transport, limited capacity in some countries to undertake comprehensive testing, and occasional resistance to sending specimens to reference laboratories outside the country for further testing.
- Health and other humanitarian investigation and response personnel operating in the region continue to be challenged by inaccessibility of many communities affected by outbreaks and humanitarian crises. Insecurity, including attacks targeting communities or responders, results in some regions being too risky to enter. In other areas, flooding and poor infrastructure limit road access, and air transport options are inadequate or too costly to deploy adequate personnel and other resources.

Proposed actions

- Implementation of the IHR core capacities and continued advocacy by WHO and regional institutions, together with government commitment are needed to build strong laboratory systems for timely and robust laboratory investigations of all major events. This should consider (but not limited) advocating for:
 - adequate training of health staff in specimen collection and transport, and ensuring transport networks are sufficient for specimens to reach laboratories in a timely fashion;
 - building sufficient laboratory capacity within countries to confirm or exclude commonly occurring infections and networking of laboratories for timely confirmation and further characterization; and
 - logistical mechanism to be established for timely transport of specimens to reference laboratories for further investigation.
- WHO, local authorities and partners in collaboration with relevant other sectors, must continue to work and find innovative solutions for improving access to communities for health and other humanitarian responders. This should include ensuring that responders and health infrastructures are not targeted and adequately protected from attacks; improving transport networks to ensure year-round ground (road or rail) access to remote communities; and continued investment in interim alternatives such as air transport to ensure response personnel and resources are delivered to affected communities in a timely manner.

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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 |
|----------------------------------|--|----------|--------------|---------------------------|-------------------------|-------------|-----------------|--------|--------|---|
| Newly reported events | | | | | | | | | | |
| Madagascar | Plague (pneumonic) | Ungraded | 13-Sep-17 | 13-Sep-17 | 15-Sep-17 | 28 | 2 | 5 | 17.90% | Detailed update given above. |
| Central African Republic | Pertussis | Ungraded | 6-Sep-17 | 29-Jul-17 | 1-Sep-17 | 272 | 0 | 11 | 4.00% | Cases have been reported from Boda and Boganagone health districts. Investigations are ongoing to determine the cause and the extent of the problem. |
| Nigeria | Yellow fever | Ungraded | 14-Sep-17 | 7-Sep-17 | 14-Sep-17 | 1 | 1 | 0 | 0.00% | A new confirmed case was reported in an unvaccinated child from a nomadic family from Ifelodun LGA, Kwara State. |
| Ongoing events | | | | | | | | | | |
| Angola | Cholera | G1 | 15-Dec-16 | 13-Dec-16 | 6-Aug-17 | 468 | - | 21 | 4.50% | Since 13 December 2016, cases have been detected in Cabinda (236), Soyo (227) and Luanda (5). Soyo reported zero cases since epidemiological week 26 and Cabinda reported the same since epidemiologic week 29. Luanda has not reported any cases since week 5. The high transmission areas are linked to the cholera outbreak in Kongo Central Province in DRC. |
| Burundi | Cholera | Ungraded | 20-Aug-17 | 20-Aug-17 | 12-Sep-17 | 32 | 4 | 0 | 0.00% | Cases have been reported from four districts: Nyanza-Lac (27), Cibitoke (1), Bubanza (1) and Mpanda (3). |
| Burundi | Malaria | G1 | 22-Mar-17 | 1-Jan-17 | 25-Aug-17 | 5 380 112 | - | 2 425 | 0.05% | Detailed update given above. |
| Cameroon | Humanitarian crisis | G2 | 31-Dec-13 | 27-Jun-17 | 23-Jul-17 | - | - | - | - | Conflict in both north-east Nigeria and Central African Republic has led to mass population movement to Cameroon. Almost 10% of the population of Cameroon, particularly in the Far North, North, Adamaoua, and East Regions, is in need of humanitarian assistance as a result of the insecurity. A detailed update was provided in the week 31 bulletin. |
| Cabo Verde | Malaria | G2 | 26-Jul-17 | 27-Jan-17 | 10-Sep-17 | 189 | - | 0 | 0.00% | All indigenous cases have been reported from the city of Praia. Cases reported from São Vicente (6), Sal (1) and Porto Novo (1) likely all acquired the infection during travel to Praia or overseas, and there is currently no evidence of indigenous transmission within these locations. |
| Central African Republic | Humanitarian crisis | G2 | 11-Dec-13 | 11-Dec-13 | 9-Sep-17 | - | - | - | - | The security situation in the country remains precarious with several security incidents recorded in different areas. From 24-25 August 2017, clashes were reported in and around the city of Kongbo resulting in several deaths and injuries. NGOs continue to be targeted by elements of armed groups – most recently the Catholic sisters of Bangassou were attacked on 25 August 2017. A detailed description of the case was provided in the week 36 bulletin. |
| Central African Republic | Monkeypox | Ungraded | 9-Feb-17 | 7-Feb-17 | 13-Jul-17 | 5 | 2 | 0 | 0.00% | Limited information is available on this event. No new cases have been reported to WHO since the last reported case in week 24. |
| Chad | Cholera | G2 | 19-Aug-17 | 14-Aug-17 | 14-Sep-17 | 344 | 6 | 49 | 14.20% | Cases have been reported from Koukou Health District (278) and Goz Beida Health District (59) in the Sila Region, as well as Am Timan Health District (7) in the Salamat Region. |
| Chad | Hepatitis E | G1 | 20-Dec-16 | 26-Feb-17 | 3-Sep-17 | 1 783 | 98 | 19 | 1.10% | Detailed update given above. |
| Congo (Republic of) | Monkeypox | Ungraded | 1-Feb-17 | 18-Jan-17 | 14-May-17 | 78 | 7 | 4 | 5.10% | Limited information is available on this event. No new cases have been reported to WHO since the last reported cases May 2017. |
| Cote d'Ivoire | Dengue fever | Ungraded | 3-May-17 | 3-May-17 | 29-Aug-17 | 1 231 | 311 | 2 | 0.20% | Abidjan city remains the epicentre of this outbreak, accounting for 97% of the total reported cases. The main health districts affected include Cocody, Abobo, Bingerville and Yopougon. Of the cases confirmed, 181 were dengue virus serotype 2 (DENV-2), 78 were DENV-3 and 13 were DENV-1. In addition, 39 samples were confirmed IgM positive by serology. |
| Democratic Republic of the Congo | Cholera | G2 | 16-Feb-15 | 1-Jan-17 | 26-Aug-17 | 23 959 | - | 528 | 2.20% | During week 34, the threshold of 1 500 cases per week was reached with a total of 1 551 cases and 12 deaths (CFR 0.8%) affecting 41 health zones. This threshold was reached for the last time in 2002, at week 8 (1 726 cases), during the rainy season. The majority of new cases are being reported in South Kivu, North Kivu, Haut Lomami and Kwilu. |
| Democratic Republic of the Congo | Circulating vaccine-derived poliovirus (cVDPV) | Ungraded | 17-May-17 | 20-Feb-17 | 25-Aug-17 | 7 | - | 0 | 0.00% | An outbreak of a circulating vaccine-derived poliovirus type 2 was confirmed with 5 cases in Upper Lomami and 2 in Maniema. The date of the onset of paralysis of the last case of cVDPV was 13 June 2017. |

| 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 | Humanitarian crisis | G3 | 20-Dec-16 | n/a | 4-Sep-17 | - | - | - | - | Over the past weeks, the situation is becoming calmer in the main affected provinces with an important number of returnees in the main city of grand Kasai, Kasai central, and Kasai oriental. In addition to the limited accessibility to primary healthcare services, nutrition issues and the risk of extension of cholera from the bordering provinces are the main current issues. |
| Democratic Republic of the Congo | Landslide | Ungraded | 18-Aug-17 | 18-Aug-17 | 25-Aug-17 | - | - | - | - | On the evening of 15-16 August 2017, torrential rains caused a landslide which destroyed almost all of the small, remote fishing village of Tara in the Djugu Territory, Ituri Province in the northeast of the country. Some 174 people are presumed dead; however, only 34 bodies were recovered. Eight seriously injured people were transferred to the Tchomia Health Centre. According to the OHCA, around 280 children were orphaned by the disaster and are being sheltered in a neighbouring village. |
| Democratic Republic of the Congo | Measles | Ungraded | 10-Jan-17 | 2-Jan-17 | 22-Aug-17 | 30 211 | 449 | 370 | 1.20% | The incidence of new cases has declined since the current outbreak peaked in early 2017. |
| Ethiopia | Humanitarian crisis | Protracted 3 | 15-Nov-15 | n/a | 24-Aug-17 | - | - | - | - | Detailed update given above. |
| | Acute watery diarrhoea (AWD) | | 15-Nov-15 | 1-Jan-17 | 12-Sep-17 | 44 218 | - | 832 | 1.90% | Detailed update given above. |
| | Measles | | 14-Jan-17 | 1-Jan-17 | 31-Jul-17 | 2 607 | - | - | - | There have been 58 separate laboratory-confirmed measles outbreaks in the country. A detailed update was provided in the week 32 bulletin. |
| Ethiopia | Undiagnosed acute jaundice syndrome (AJS) | Ungraded | 23-Aug-17 | 23-Aug-17 | 7-Sep-17 | 194 | 0 | 5 | 2.60% | Detailed update given above. |
| Kenya | Drought/food insecurity | G1 | 10-Feb-17 | n/a | 24-Aug-17 | - | - | - | - | As of 24 August, SMART surveys estimated the (low-medium-high) prevalence GAM in Kenya at 2.6-22.9-32.8, and SAM at 0.2-4.0-9.8%. |
| Kenya | Cholera | G1 | 6-Mar-17 | 1-Jan-17 | 14-Sep-17 | 2 807 | 557 | 50 | 1.80% | Detailed update given above. |
| Kenya | Dengue fever | Ungraded | 8-May-17 | 23-Mar-17 | 14-Sep-17 | 1 537 | 806 | 1 | 0.10% | The outbreak has been reported in Mombasa County (1 455) and Wajir County (82). There were no new cases this week. The last cases reported on 30 July and 20 June 2017 within the two counties, respectively. |
| Kenya | Leishmaniasis, visceral (kala-azar) | Ungraded | 7-Jun-17 | 4-Jan-17 | 14-Sep-17 | 457 | 362 | 7 | 1.50% | Marsabit (n=338) and Wajir (n=119) counties have been affected by outbreaks since early 2017. The outbreak remains active in Marsabit, where the last reported case was reported on 26 August 2017. The outbreak has been controlled in Wajir, where the last reported case was reported on 17 June 2017. No new cases were reported in the past week. |
| Madagascar | Food insecurity | Ungraded | 23-Feb-17 | n/a | 15-Jul-17 | - | - | - | - | Food insecurity continues in the south parts of the island. A recent food security assessment showed that from June to September 2017, an estimated 409 000 people (25% of the affected area population) will be in need of humanitarian assistance. A detailed update was provided in the week 30 bulletin. |
| Mali | Dengue fever | Ungraded | 4-Sep-17 | 1-Aug-17 | 14-Sep-17 | 16 | 16 | 0 | 0.00% | Active case search activities completed following detection of a case during a study has identified a total of 16 confirmed case from 212 samples tested to date. |
| Mali | Humanitarian crisis | Protracted 1 | - | n/a | 3-May-17 | - | - | - | - | Limited information is available on this event. At the last update (3 May), the security situation remained unstable, and incidents of violence and inter-ethnic conflicts were increasingly spreading. |
| Mauritania | Crimean-Congo haemorrhagic fever (CCHF) | Ungraded | 25-Aug-17 | 20-Aug-17 | 25-Aug-17 | 1 | 1 | 0 | 0.00% | Single confirmed case in a shepherd from Boutilimit Prefecture. A detailed description of the case was provided in the week 34 bulletin. |
| Mauritania | Undiagnosed diarrhoeal disease | Ungraded | 27-Jul-17 | n/a | 3-Aug-17 | 79 | - | 0 | 0.00% | Limited information is available on this event. At the last report, viral gastroenteritis was suspected in two clusters detected in Nouakchott. |
| Niger | Hepatitis E | Ungraded | 2-Apr-17 | 2-Jan-17 | 13-Aug-17 | 1 610 | 441 | 38 | 2.40% | The majority of cases have been reported from the Diffa (912), N'Guigmi (286) and Bosso (235) health districts. Case incidence continues to decline. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR % | Comments |
|-----------------------------|---|--------------|--------------|---------------------------|-------------------------|-------------|-----------------|--------|--------|---|
| Niger | Humanitarian crisis | G2 | 1-Feb-15 | 1-Feb-15 | 11-Aug-17 | - | - | - | - | The security situation remains precarious and unpredictable. On 28 June 2017, 16 000 people were displaced after a suicide attack on an IDP camp in Kablewa. In another attack on 2 July 2017, 39 people from Ngalewa village, many of them children, were abducted. The onset of the rainy season is impeding the movements of armed forces around the region. |
| Nigeria (Borno State) | Humanitarian crisis | Protracted 3 | 10-Oct-16 | n/a | 14-Sep-17 | - | - | - | - | Detailed update given above. |
| | Cholera | | 20-Aug-17 | 14-Aug-17 | 14-Sep-17 | 2 265 | - | 46 | 2.00% | Detailed update given above. |
| Nigeria | Cholera | Ungraded | 7-Jun-17 | 1-Jan-17 | 10-Sep-17 | 5 138 | 115 | 140 | 2.70% | Confirmed outbreaks have been reported from 7 states (Borno, Kebbi, Zamfara, Kano, Lagos, Oyo and Kwara States). Apart from Borno (reported separately above), outbreaks are either declining or have been controlled in other states. |
| Nigeria | Floods | Ungraded | 3-Sep-17 | 27-Aug-17 | 11-Aug-17 | - | - | - | - | On 27 August 2017, following a heavy rains and failure of the drainage system across the city a flooding disaster occurred in Makurdi. After initial assessment of the town, the state Governor announced the setting up of two IDP camps at the Makurdi International Market and Agan town at the outskirts of the city. As of 2 September 2017, 450 households have been registered; the exact population of the households is yet to be determined as registration is still ongoing. |
| Nigeria | Hepatitis E | Ungraded | 18-Jun-17 | 3-May-17 | 28-Aug-17 | 874 | 42 | 5 | 0.60% | The outbreak is concentrated in Borno State, with incidence steadily declining after peaking in week 26. The majority of cases have been reported Ngala (697), Mobbar (71) and Monguno (62). |
| Nigeria | Lassa Fever | Ungraded | 24-Mar-15 | 19-Feb-17 | 8-Sep-17 | 851 | 256 | 118 | 13.90% | The outbreak is currently active in nine states – (Ondo, Edo, Plateau, Bauchi, Lagos, Ogun, Kaduna, Kwara, and Kogi). During week 36, 7 new confirmed cases were reported. |
| Sao Tomé and Príncipe | Necrotising cellulitis/fasciitis | G2 | 10-Jan-17 | 25-Sep-16 | 15-Sep-17 | 1 997 | - | 0 | 0.00% | Case numbers continue to fluctuate at low-moderate levels. During week 36, 32 new cases were reported. |
| Seychelles | Dengue fever | Ungraded | 20-Jul-17 | 18-Dec-15 | 10-Sep-17 | 3 878 | 1 295 | - | - | Dengue virus serotype 2 (DENV-2) is predominating. Cases have been reported from all regions of the three main islands (Mahé, Praslin and La Digue). A detailed update was provided in the week 32 bulletin. |
| Sierra Leone | Flooding/mudslide | G1 | 14-Aug-17 | 14-Aug-17 | 14-Sep-17 | - | - | - | - | Recovery efforts are ongoing a month since mudslides and flash floods devastated parts of Freetown, Sierra Leone. Burial of 502 corpses and 139 body parts was completed. Search for dead bodies has been stopped, 500 individuals declared missing. 1 247 households were affected in 6 communities with 5 905 persons displaced. |
| South Sudan | Humanitarian crisis | G3 | 15-Aug-16 | n/a | 14-Sep-17 | - | - | - | - | Detailed update given above. |
| South Sudan | Cholera | Ungraded | 25-Aug-16 | 18-Jun-17 | 10-Sep-17 | 19 889 | - | 355 | 1.80% | Detailed update given above. |
| Uganda | Crimean-Congo haemorrhagic fever (CCHF) | Ungraded | 21-Aug-17 | 10-Jul-17 | 24-Aug-17 | 11 | 2 | 3 | 27.30% | No additional cases have been reported. A detailed description of this event was provided in the week 35 bulletin. |
| Uganda | Drought/food insecurity | G1 | 1-Jul-17 | n/a | 24-Aug-17 | - | - | - | - | This event forms part of a larger food insecurity crisis in the Horn of Africa. The northern and eastern regions are predominantly affected. |
| Uganda | Humanitarian crisis – refugee | Ungraded | 20-Jul-17 | n/a | 30-Aug-17 | - | - | - | - | The influx of refugees to Uganda has continued as the security situation in the neighbouring countries remains fragile. According to UNHCR, the total number of registered refugee and asylum seekers in Uganda stands at 1 326 750, as of 1 August 2017. More than 75% of the refugees are from South Sudan. Detailed update given in the week 35 bulletin. |
| Uganda | Measles | Ungraded | 8-Aug-17 | 24-Apr-17 | 10-Aug-17 | 282 | - | 1 | 0.40% | As of 9 August 2017, a total 216 cases including one death (CFR- 0.4%) have been reported from Kampala and Wakiso District reported 66 cases. All the five divisions of Kampala have been affected, namely Rubaga (66 cases), Central (58), Kawempe (50), Nakawa (27), and Makindye (21). 47% of the cases are in the age group 1-5 years and 40% never had any measles vaccination while 39% had unknown vaccination status. |
| United Republic of Tanzania | Aflatoxicosis | Ungraded | 17-Jun-17 | 15-Jun-17 | 6-Aug-17 | 8 | - | 4 | 50.00% | Between 15 June and 13 July 2017, two unrelated clusters of suspected acute aflatoxicosis, affecting two families in separate towns in Kiteo District, Manyara Region in the northern part of Tanzania. No further cases have been reported to date. 30 blood samples collected during community investigations have been submitted for aflatoxin testing, and 28 blood samples for pesticide poisoning; results pending. |

| Country | Event | Grade† | WHO notified | Start of reporting period | End of reporting period | Total cases | Confirmed cases | Deaths | CFR % | Comments |
|----------------------------------|-------------------------------|----------|--------------|---------------------------|-------------------------|-------------|-----------------|--------|-------|--|
| United Republic of Tanzania | Cholera | G2 | 14-Apr-15 | 1-Jan-17 | 3-Sep-17 | 2 694 | - | 47 | 1.70% | The outbreak is trending upward with 116 new cases including 3 deaths (CFR 2.6%) reported in week 35. During this week, cases were reported from Mbeya region (85 cases and 3 deaths) and Tanga (31 cases) . Zanzibar has reported zero cases and deaths since week 29 (11 July 2017). |
| Recently closed events | | | | | | | | | | |
| Kenya | Measles | Ungraded | 12-Mar-17 | 21-Mar-17 | 14-Sep-17 | 49 | 49 | 1 | 2.00% | Outbreaks were reported in Dagahaley, Dadaab and IFO refugee camps in Garissa County since 21 March 2017, and from communities in Mandera County since 8 June 2017. No new cases have been identified since 4 July and 5 July in the two counties, respectively. Immediate response activities have concluded. |
| Recently excluded events | | | | | | | | | | |
| Democratic Republic of the Congo | Suspected Ebola virus disease | Ungraded | 13-Sep-17 | 9-Sep-17 | 14-Sep-17 | 1 | 0 | 1 | 100% | Ebola virus disease was excluded by INRB this week as the cause of death in a 10-year-old resident of Likati Health Zone, who presented with nausea/vomiting, diarrhoea, fatigue and bleeding tendencies on 9 September 2017. |

†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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