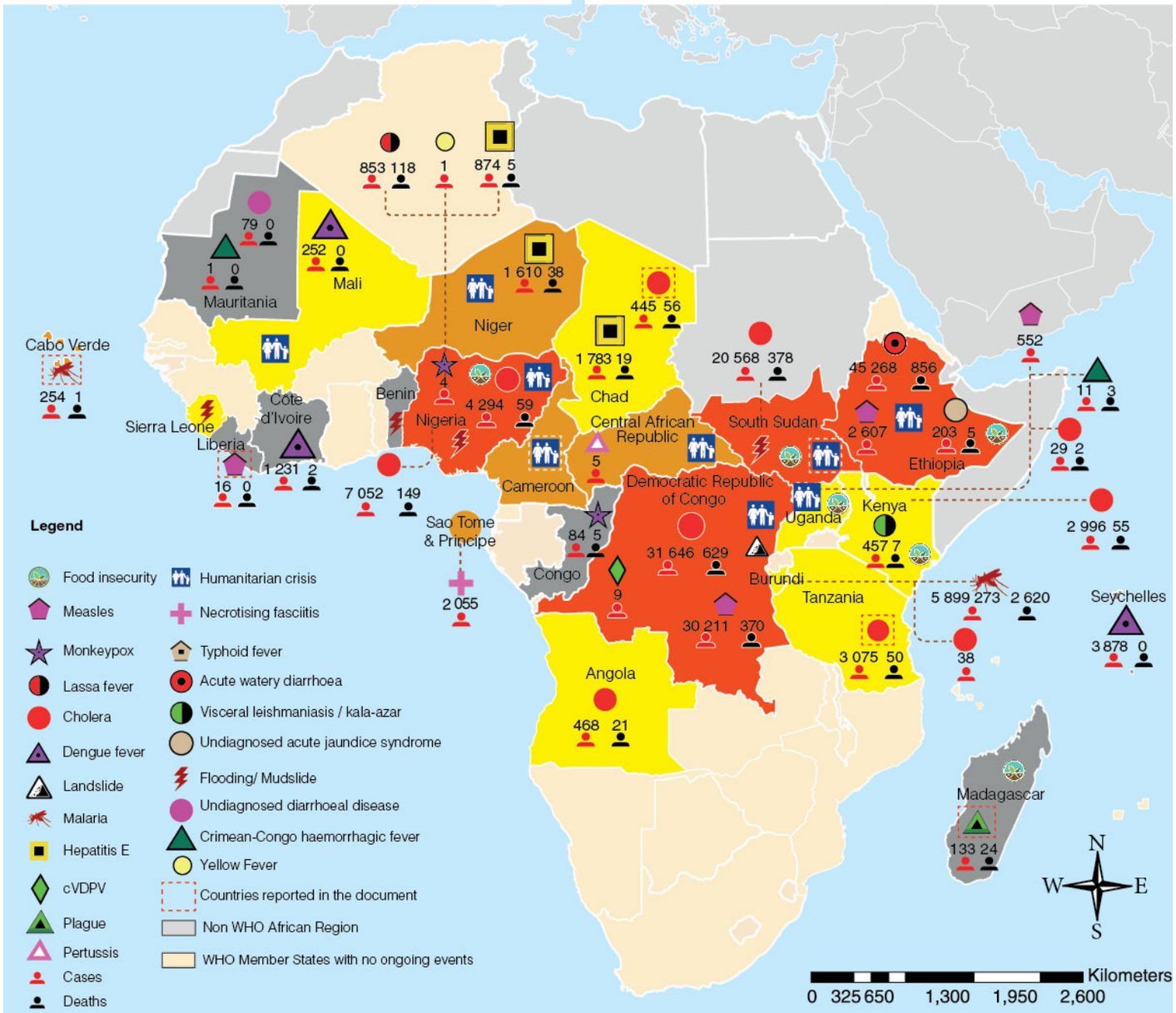
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 39: 23 - 29 September 2017
Data as reported by 17:00; 29 September 2017

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

3	46	33	16
New events	Ongoing events	Outbreaks	Humanitarian crises



2	7	9	28
Grade 3 events	Grade 2 events	Grade 1 events	Ungraded events
2	0	1	
Protracted 3 events	Protracted 2 events	Protracted 1 event	

Health Emergency Information and Risk Assessment

Overview

Contents

- This weekly bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 49 events in the region. This week, one new event has been reported: measles in Liberia. This week's edition also covers key ongoing events, including:

  - Plague in Madagascar
  - Malaria in Cabo Verde
  - Cholera in Tanzania
  - Cholera in Chad
  - Humanitarian crisis in Cameroon
  - Humanitarian crisis in South Sudan.

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

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

- **Major challenges include:**

  - The cholera outbreak in Chad, characterized by a high case fatality rate, calls for urgent multisectoral interventions.

  - The ongoing outbreak of plague in Madagascar, especially the pneumonic form, involving urban centres, remains a concern and requires urgent attention.

New event

Measles | **Liberia** | **16** Cases | **0** Deaths | **0%** CFR

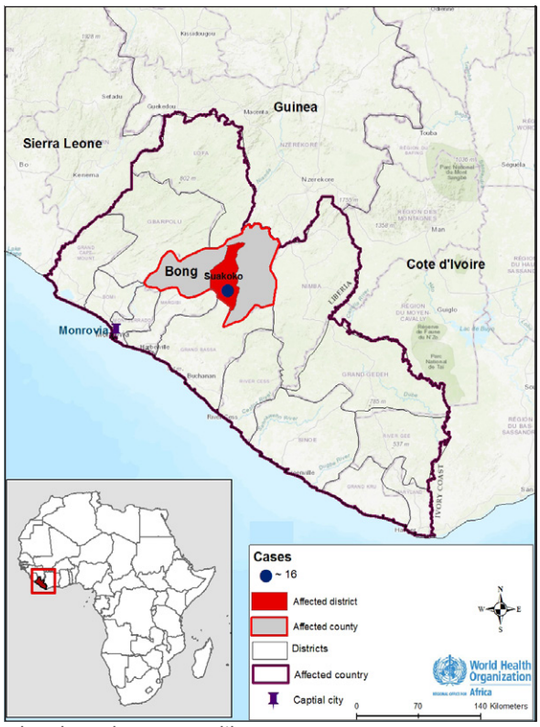
Event description

On 20 September 2017, the Liberia Ministry of Health notified WHO of an outbreak of measles in Bong County in the north-central part of the country. The index case in this outbreak was a 3-year-old girl from Kayata Community, Suakoko District who became ill on 6 September 2017 and presented to the local hospital (Phebe Hospital) with fever, red eyes, cough, and maculopapular rash. In the subsequent days, seven other cases with a similar illness were identified from the same community by a community health assistant, who informed the district health authority on 14 September 2017.

On 14 September 2017, the district rapid response team conducted a preliminary outbreak investigation and collected whole blood samples from five suspected cases. Laboratory results released by the National Reference Laboratory on 20 September 2017 showed that four of the samples were IgM positive and one was equivocal after retesting.

As of 27 September 2017, a total of 16 cases (4 confirmed and 12 epidemiologically linked) were reported from the same community. Of the 16 cases, ten (63%) were female. The ages of the cases range from 2 months to 29 years, with ten (63%) of them aged 5 years and below. All the cases were reportedly not previously vaccinated. The attack rate in the community is 10 per 1 000 population. No new cases have been reported since 21 September 2017.

Geographical distribution of measles cases in Liberia, 6 - 27 September 2017



Public health actions

- The response to the measles outbreak is being coordinated by the county health team, with the technical support of a WHO field team and logistical support from the International Rescue Committee. The National Public Health Institute of Liberia (NPHIL) is providing remote technical support.
- A multidisciplinary rapid response team of county and district health authorities and partners has been deployed to the affected community.
- Suspect cases are being investigated and an outbreak line list is being maintained for all reported cases.
- Community health assistants are conducting active case search in the affected and nearby communities.
- The cases are being clinically managed with symptomatic treatment, vitamin A and antibiotics. Two of the cases developed complications and have been admitted to the hospital for further management.
- A 4-day mini-vaccination campaign was launched in the affected area on 21 September 2017, targeting children aged 6 months to 10 years. A total of 971 children received a dose of measles vaccine and a vitamin A capsule, achieving an administrative coverage of 97% of the targeted population.
- A community engagement meeting was held to increase participation in the routine vaccination exercise and deliver health education on measles prevention and control.
- Community health assistants were orientated to track missing children and enhance disease surveillance.

Situation interpretation

Liberia has been experiencing sporadic outbreaks of measles, with the current outbreak being the eighth since the beginning of 2017 and the second in Suakoko District, Bong County. Difficult road conditions coupled with the long distance to access the nearest health facility may be one of the factors responsible for limited access and under-utilization of health services by this particular community. This may also account for the high number of unvaccinated children. The swift response of the county in mobilizing local resources to mount a full response upon confirmation of the outbreak, including the launched of a mini-vaccination campaign is commendable. Strengthening of routine immunization, including outreach activities is required to prevent future recurrence of measles outbreaks among the population.

Go to overview

Go to map of the outbreaks

Ongoing events

Plague | **Madagascar** | **133** Cases | **24** Deaths | **18.3%** CFR

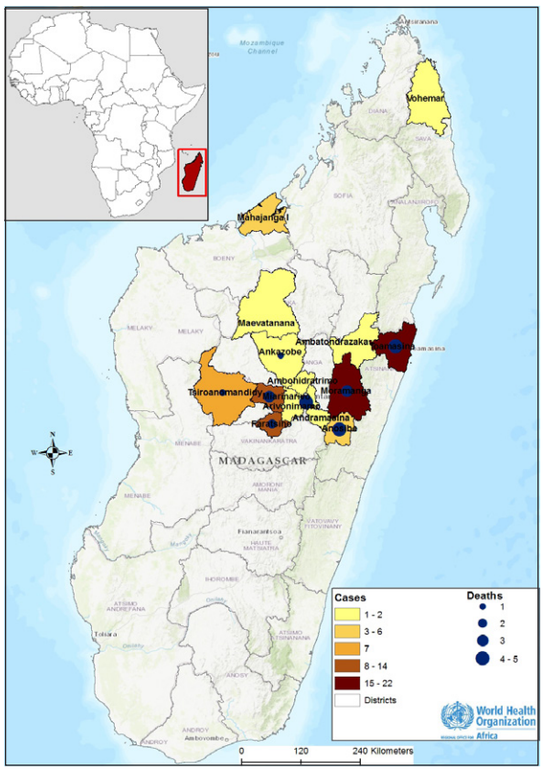
Event description

The outbreak of plague in Madagascar, which started in August 2017, is ongoing. As of 30 September 2017, a total of 73 cases (suspected, probable and confirmed) of pneumonic plague, including 17 deaths (case fatality rate 23.3%) have been reported. Of 29 cases in which specimens were collected and submitted to the Institut Pasteur de Madagascar, 19 (66%) have been confirmed by either polymerase chain reaction or rapid diagnostic tests. The 73 pneumonic cases are geographically spread across nine districts, with the capital Antananarivo (27 cases, 7 deaths) being the most affected, followed by the port city of Toamasina (18 cases, 5 deaths), and the rural district of Faratsiho (13 cases, 1 death).

Between 1 August and 30 September 2017, an additional 58 cases of bubonic plague, including seven deaths, have been reported throughout the country. One case of septicaemic plague has also been identified. Collectively, 133 cases and 24 deaths (case fatality rate 18.3%) have been reported from 14 central, east and northern districts.

The outbreak of plague in Madagascar was detected on 11 September 2017 and notified to WHO on 13 September 2017.

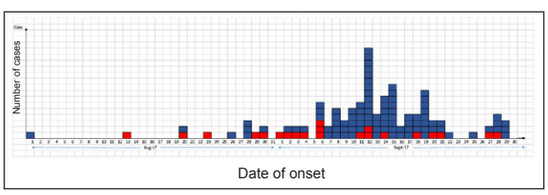
Geographical distribution of plague cases in Madagascar, 23 August - 30 September 2017



Public health actions

- The Ministry of Public Health is working with WHO to coordinate response to the outbreak, in collaboration with other stakeholders and the communities.
- WHO has released US$ 300 000 in emergency funds, as well as critical medical supplies, to quickly scale up operational efforts, and is appealing for US$ 1.5 million to support the response.
- WHO has deployed an emergency response team to provide technical guidance, conduct assessments, support disease surveillance, and engage with communities. Further deployments of WHO staff and response partners in the Global Outbreak Alert and Response Network (GOARN) are underway, as well as increased supplies of antibiotics, personal protective equipment and other supplies.
- Active case finding, field investigations and contact tracing are ongoing in all the main affected areas. In addition, monitoring of contacts of cases as well as provision of chemoprophylaxis is ongoing.
- Information on pneumonic plague has been disseminated to the health professionals to improve case detection and case management.
- Awareness campaigns are being conducted through various channels to sensitize people about the disease spread and prevention measures.
- Houses of all the identified cases and close contacts in Antananarivo have been sprayed with insecticides.
- Recommendations for standard management of dead bodies from all suspected, probable and confirmed plague cases are being put in place.
- WHO has deployed an epidemiologist to support the Country Office and the Ministry of Health in response to the outbreak.
- Procurement of rapid diagnostic tests (RDTs) is being done to enhance diagnostic capacity.

Weekly trend of plague cases in Madagascar, 1 August - 30 September 2017



Situation interpretation

Plague is endemic in Madagascar, especially in the central highlands, where a seasonal upsurge (predominantly the bubonic form) occurs each year, usually between August and September. Although the occurrence of the pneumonic form of the disease during the seasonal surge is usually expected, the current outbreak affecting major urban centres is unusual and concerning. Cases have been reported from 14 different districts, including Toamasina and Antananarivo, an overcrowded city of over 2 million people. These places have highly populated settlements, characterized by rapid and unplanned urbanization with poor living standards. The management and control of an outbreak in such setting is therefore complex and difficult.

The current outbreak of pulmonary plague originated in Ankazobe, a known plague endemic area. The initial cases probably developed bubonic plague, which later evolved to secondary pulmonary form due to lack of treatment. This pneumonic form facilitated rapid spread of the disease to several people when the initial case travelled using public transportation. The spread was further aided by the poor management of the dead bodies prior to the declaration of the outbreak. Some of the dead bodies were the subject of rituals, including funeral vigils and transportation over long distances before the final burial.

In order to control this outbreak, strategic coordination of response is required at all affected areas. Epidemiologic surveillance and early patient care needs to be well established. Infection prevention and control measures, vector control and disease risk communication to the community are crucial.

Go to overview

Go to map of the outbreaks

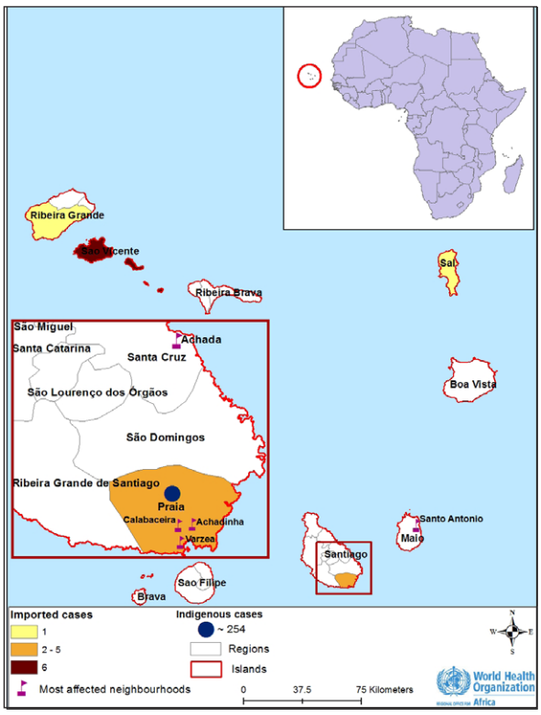
Event description

Cabo Verde continues to experience transmission of locally acquired (indigenous) malaria infections. During week 38 (week ending 24 September 2017), a total of 28 locally acquired malaria cases were reported, compared to 36 cases reported in week 37. Between 1 January and 24 September 2017, 254 indigenous cases were reported. Most cases (75%) have not sought treatment until 48-96 hours after illness onset. Despite this, case fatality rates have remained low (0.4%), with one death reported in an indigenous case to date. Seven severe malaria cases and two cases of malaria in pregnancy have been reported. There are also anecdotal reports of recrudescence.

To date, the disease has been localised to the city of Praia on Santiago Island without any further spread. A large proportion (37 zones) of Praia has been affected. The most affected neighbourhoods are Varzea (38 cases, 15%), Achada Santo Antonio (20, 8%), Achadinha (19, 7.5%), Paiol (16, 6.3%), and Calabaceira (14, 5.5%). All cases have been confirmed by either microscopy or rapid diagnostic test (RDT). About two-thirds are males and over 70% are adults aged 20 years and above.

A handful of cases have also been detected on neighbouring islands (São Vicente, Sal and Porto Novo); however, their infections were likely all acquired during travel to Praia or overseas, with no evidence of onward local transmission. Moreover, 13 imported cases, including one death, have been detected in travellers from high prevalence countries in the African Region.

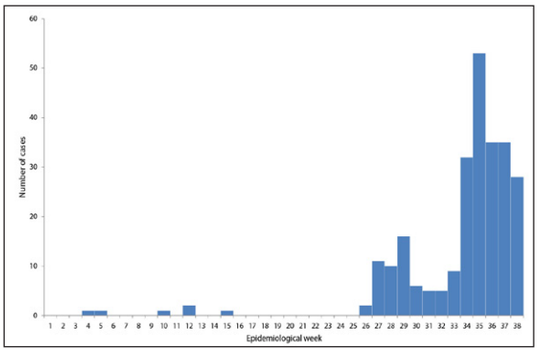
Geographical distribution of malaria cases in Cabo verde, 1 January - 24 September 2017



Public health actions

- National authorities have established a task force in Praia to coordinate and monitor technical interventions to the outbreak. The WHO Country Office and WHO Malaria Control Programme are providing technical support to the Ministry of Health to establish key response pillars. An entomologist and two epidemiologists have been deployed. An incident manager will be appointed.
- Cases continue to be managed by local health centres, which have streamlined services to cope with the influx of patients. Following a brief period of stock-outs, WHO has proactively requested supplies of antimalarial medicines and RDTs.
- Two teams have been deployed to conduct active case search within the affected communities; however, community level capacity needs to be strengthened to adequately cover all areas.
- Interventions are ongoing to raise awareness and sensitize communities regarding removal of mosquito breeding sites. IEC materials (brochures, leaflets, posters) were printed.
- WHO is supporting the development of a comprehensive response plan, which includes strengthening coordination, case-based surveillance within communities and at entry points, vector control activities, communication, and resource mobilization. Long-term response activities are also being addressed with the support of the Global Malaria Programme.

Weekly trend of malaria cases in Cabo verde, 1 January - 24 September 2017



Situation interpretation

The malaria epidemic in Cabo Verde has begun to show early signs of improvement but the situation remains tenuous, with heavy rainfall continuing between August and October. Fortunately, the current outbreak has been limited to the city of Praia. Nevertheless, there remains a risk of further spread with malaria-transmitting vectors (*Anopheles gambiae*) found in other areas of Santiago Island and neighbouring Boa Vista Island. Both urgent and sustained interventions, concentrating on proven strategies of vector control and early treatment are needed to bring the current outbreak under control and keep the country on the course to eliminating the disease by 2020.

Go to overview

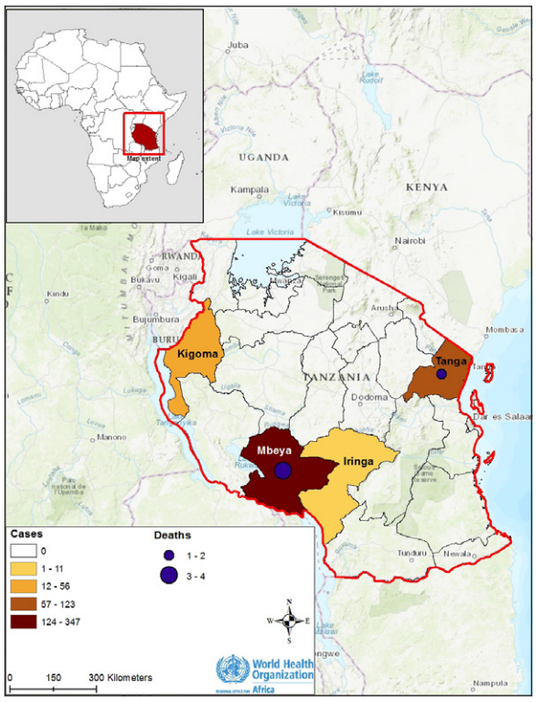
Go to map of the outbreaks

Event description

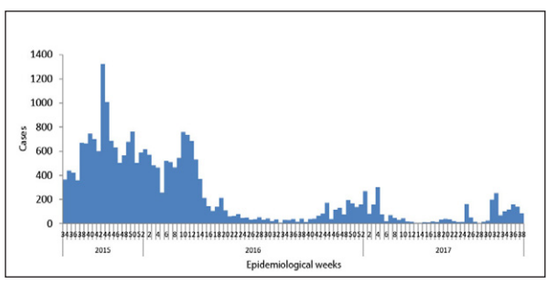
The cholera outbreak in Tanzania mainland continues, with the trend gradually declining. The number of new cases reported in week 38 (week ending 24 September 2017) dropped to 86 with one death (case fatality rate 1.2%), compared to 137 cases and one death reported in week 37. During week 38, five out of 26 regions in Tanzania mainland reported cases: Songwe (39 cases), Mbeya (35 cases), Kigoma (8 cases), Tanga (2 cases), and Iringa (2 cases). A total of 38 rectal swab specimens were collected, out of which 23 (60.5%) tested positive for *Vibrio cholerae*.

Between weeks 1 and 38 of 2017, Tanzania mainland reported a total of 2 717 cholera cases with 46 deaths (case fatality rate 1.7%). In the past four weeks, Mbeya Region has had the most intense cholera transmission activity, registering 261 cases, followed by Tanga with 123 cases, Kigoma (56 cases), Songwe (39 cases), Njombe (10 cases cases), Katavi (6 cases cases), and Iringa (2 cases). On the other hand, Zanzibar continues to report zero cholera cases and deaths since the last case was reported on 11 July 2017. In 2017, Zanzibar recorded a cumulative total of 358 cases and four deaths (case fatality rate 1.1%).

Geographical distribution of cholera cases in Tanzania, 1 January - 24 September 2017



Weekly trend of of cholera cases in Tanzania, week 3 of 2015 - week 38 of 2017



Public health actions

- The Ministry of Health and partners (WHO, UNICEF and CDC) continue to monitor the implementation of cholera control activities through the National Task Force, along with building the capacity of the Council Health Management Teams (CHMTs) for public health emergency responses. The teams are undertaking field visits to affected districts.
- There are continued efforts to break the chain of transmission through identification of sources of infection and intensified community engagement. Cholera data verification is ongoing in Tanga and Iringa Regions and the public health emergency operation centre (PHEOC) is monitoring trends and response activities.
- Chlorine tablets (Aqua tabs) are being distributed to affected households while batch water chlorination is being conducted in Dar es Salaam. The Ministry of Health is procuring more Aqua tabs for the affected districts and chlorine powder for infection prevention and control in the cholera treatment centres.
- Procurement of reagents for cholera genotyping for the national laboratory is ongoing; this is aimed to improve laboratory surveillance capacity.
- Advocacy and community mobilization for use of safe water, including water treatment at source, and improving sanitation and hygiene practices continue. Community sensitization and awareness through local radio, national television and social media, and in the local madrassas (religious schools) are ongoing.

Situation interpretation

Although a slight decrease in the overall number of cholera cases is being observed, the risk factors for cholera transmission are still present, as shown by focal increase in incidence in certain districts of Tanzania mainland. Outbreak control interventions need to be intensified at community, ward and district levels to avoid the risk of further upsurge of the cholera outbreak. The recently concluded in-depth after-action review needs to inform new control strategies to urgently bring this protracted cholera outbreak to a close. The national authorities and in-country partners need to strengthen their efforts to contain the disease.

Go to overview

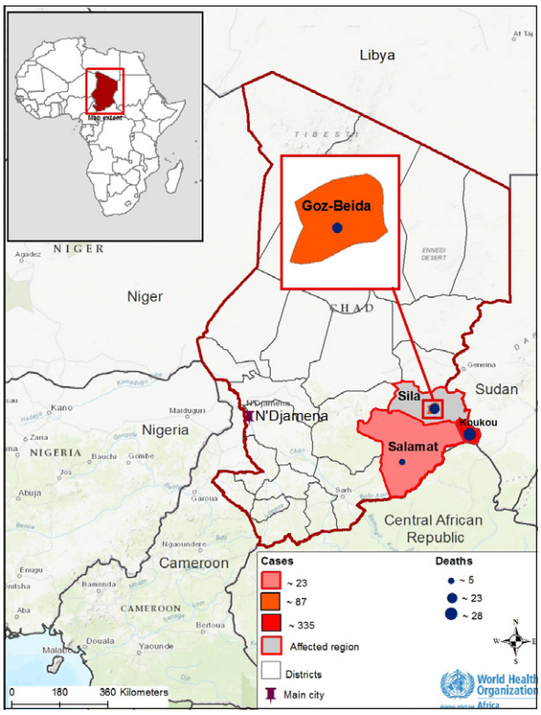
Go to map of the outbreaks

Event description

The cholera outbreak in Chad continues with active transmission occurring in two regions. Since our last report on 8 September 2017 (week 36), 139 additional cases including 26 deaths (case fatality rate 18.7%) have been reported. Since the onset of the outbreak on 14 August 2017, a total of 445 cases including 56 deaths (case fatality rate 12.6%) were reported, as of 25 September 2017. The cholera outbreak has eventually spread to the Salamat Region, in addition to Sila Region, which was initially affected. However, Sila Region is still disproportionately affected with an attack rate of 2.3%, accounting for 95% (422/445) of the total caseload.

Of seven specimens collected from Koukou Health District in Sila Region and cultured at the national laboratory, six were positive for *Vibrio cholerae* serogroup O1, serotype Ogawa. Testing of environmental samples also detected *Vibrio* and *Trichomonas* species in six water samples collected from Marena, a remote village within Koukou Health District.

Geographical distribution of cholera cases in Chad, 14 August - 25 September 2017



Public health actions

- The Ministry of Public Health continues to coordinate response to the outbreak, with support of WHO, UNICEF, OCHA, MSF, Association pour le Développement Economique et Social (ADES), and Concern Worldwide (CWW).
- Between 20 and 22 August 2017, the Minister of Health and the WHO Representative conducted a joint field mission to Gozbeida and Koukou, aimed to conduct on-the-spot assessment and support. This mission followed an earlier one carried out on 16 August 2017 in Marena.
- A case investigation form has been developed and deployed in the field to standardize data collection and follow up of suspected cases.
- A response team including officials from the Ministry of Health, WHO and UNICEF has been deployed to Koukou Health District to support response to the outbreak.
- WHO has stocked two extra cholera kits on site, which are ready for dispatch if required. This is in addition to the three cholera kits already jointly provided by WHO and UNICEF.
- Local healthcare staff and hygienists have been trained on the management of diarrhoeal diseases.
- Twelve community volunteers have been trained to assist with raising community awareness. MSF have also recruited six community health workers in each area to conduct door-to-door sensitization.
- WASH activities are ongoing in the affected communities, including the disinfection of affected households and treatment of water at source.

Situation interpretation

While the overall trend is steadily declining, the cholera outbreak in Chad requires particular attention and close monitoring. The affected regions are proximate to Darfur in Sudan (where a concurrent outbreak of acute watery diarrhoea is ongoing) and to the Central African Republic, where conflict has caused large-scale cross-border movement. The influx of refugees, inadequate potable water and unhygienic living conditions, coupled with inaccessibility of the affected regions preventing effective outbreak control measures, could facilitate the risk of continued propagation of the disease at the national and regional levels.

The extremely high case fatality rates being observed are of great concern. This has primarily been attributed to poor accessibility to healthcare centres, with factors such as flooding and others delaying their access to treatment. There is an urgent need for partners to ensure early and effective treatment in order to limit the high number of deaths. Further support on WASH interventions, early detection and response is required to maintain the declining disease trend. The current response is particularly being affected by shortage of human capacity, especially doctors (three needed), nurses (five needed) and hygienists (12 required).

Go to overview

Go to map of the outbreaks

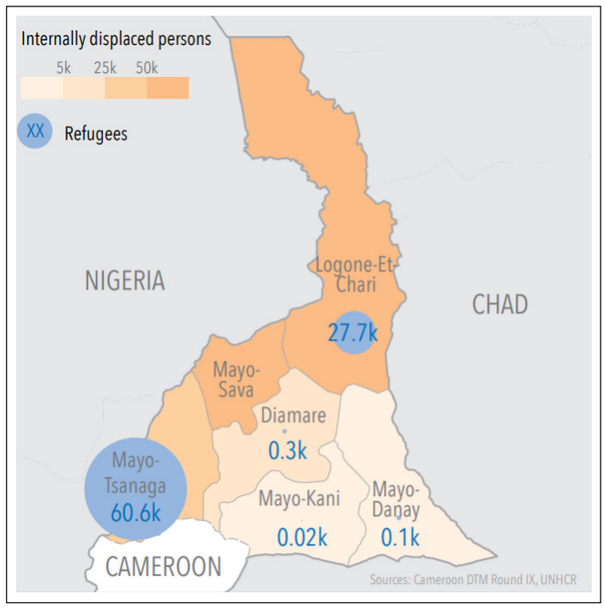
Event description

The general security situation in the northern part of Cameroon remains volatile and unpredictable, with incidents of cross-border raids and suicide bombings. The security situation has caused massive influx of refugees and internal displacement of people, creating a humanitarian crisis. Three prefectures, namely Logone and Chari, Mayo Tsanaga, and Mayo Sava in the Far North Region have been most affected.

According to UNHCR reports of July 2017, about 90 519 Nigerian refugees were still living in the northern regions of Cameroon. Minawao Camp in Mayo Tsanaga Prefecture in the Far North is the most affected, hosting more than 58 000 refugees, as of 22 September 2017. These include 15 996 households, 53.6% of them are women, 28 932 school-aged children and 13 034 people with special needs. In addition, 325 589 people from 54 418 households are internally displaced in the region.

In addition, the armed clashes that took place in the border city of Ngaoundaye in the Central African Republic led to an influx of refugees in certain communes of Cameroon especially in Touboro in the North Region. Following these clashes, 6 885 refugees (1 817 households), mostly women and children (4 026 children under 18 years of age), were registered in Cameroon, mainly in the villages of Mbaiboum, Helbao, Wakassao, Man-Regara, Touboro, Mbodo and Barka Lamou. Between July and August 2017, more than 7 100 refugees crossed to Cameroon. By July 2017, 216 617 refugees from Central African Republic had been registered in the East and Adamawa Regions of Cameroon.

Distribution of refugees and IDPs in Cameroon, September 2017



The affected communities are facing chronic vulnerabilities and limited access to basic social services, resulting in high levels of food insecurity and malnutrition, and a high risk of disease outbreaks. Since 2014, humanitarian needs have been increasing in the four priority regions and especially in the Far North Region. In 2017, it has been estimated that nearly 1.5 million people are in need of healthcare assistance in four priority regions including Far North, North, Adamaoua, and East.

Public health actions

- WHO has mapped the presence of humanitarian agencies by the three administrative levels in order to better manage and monitor the operational responses including support for the rapid response to the Nigerian refugees in Cameroon.
- WHO has deployed two medical doctors to Kolofata and Fotokol Prefectures to fill in the human resource gap and provided better healthcare to the vulnerable population. WHO also deployed six international consultants in the four health districts (Kousseri, Mada, Makary and Goulfey, Mora and Kolofata) of Logone and Chari Prefecture to support implementation of polio-related activities in the Lake Chad Basin.
- Medicines and supplies were provided by WHO to Koza health district in Kolofata and Mora hospital for management of injured victims of suicide attacks.
- UNHCR continues to register the newly arrived refugees to facilitate planning and provision of humanitarian assistance (shelter, basic household items, food, and healthcare), which aid agencies have started providing.

Situation interpretation

The insecurity in north-east Nigeria and Central African Republic continues to worsen the humanitarian crisis in Cameroon. The ongoing cross-border raids and suicide bombings have created fear and panic among communities and have escalated the movements of people from these two countries to Cameroon, causing a protracted humanitarian crisis in Far North, North and Adamaoua Regions. The perpetual attacks and insecurity have reduced access to basic humanitarian needs, including health services for more than 350 000 Cameroonians. Meanwhile, about 20 health facilities in the region are no longer functional, either because they have been destroyed, healthcare workers have left or due to lack of access by the affected communities.

The ongoing influx of refugees from Nigeria and Central African Republic, internal displacement and different ongoing health emergencies put additional burdens on the already strained health system and services. This inadequate healthcare system leads to low immunization coverage resulting into recurrence of disease outbreaks, particularly measles. In addition, limited access to safe water and poor hygiene and sanitation noted in the affected communities could lead to cholera outbreaks.

The Cameroon humanitarian crisis is silently expanding and could become difficult to manage if a multisectoral response plan is not developed and implemented. Support efforts need to be expanded to match the ongoing movement of the population and the constant need for humanitarian assistance.

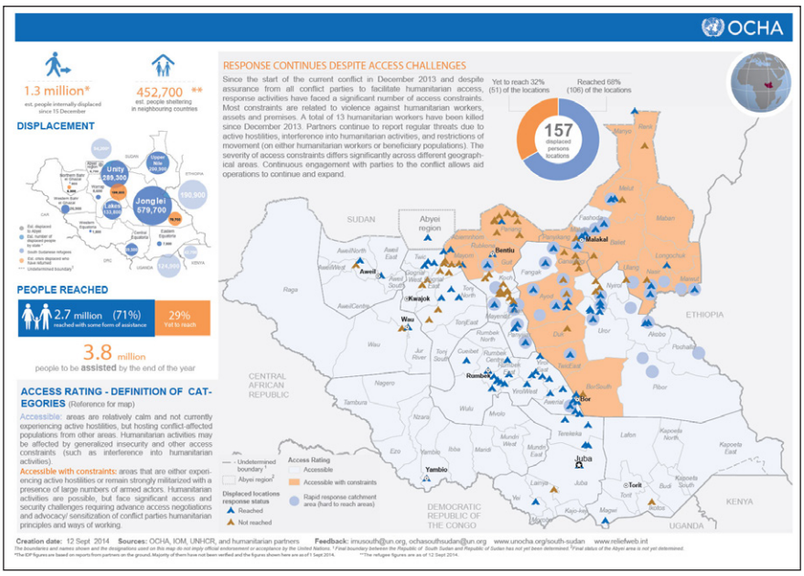
Go to overview

Go to map of the outbreaks

Event description

The armed conflict in South Sudan continues to escalate the humanitarian needs, as well as perpetuate violence against civilians and aid workers. On 20 September 2017, the Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, the African Union Commissioner for Political Affairs, and the Minister of Foreign Affairs of Norway hosted a high level side event at the opening session of the United Nations General Assembly to draw international attention to the escalating humanitarian crisis in South Sudan. In highlighting the persistent challenges in the situation, they observed that the humanitarian needs will remain high into 2018 and beyond. While acknowledging the donor support to the South Sudan crisis, they highlighted the urgent need for donors to provide additional flexible and needs-based funding to the highly prioritized 2017 South Sudan Humanitarian Response Plan and the South Sudan Regional Refugee Response Plan.

Humanitarian Snapshot in South Sudan, as of 12 September 2017



Heavy rains and floods have affected several parts of South Sudan, including Aweil North, Aweil East, Raja, and Maban counties; and parts of Eastern and western Equatoria. Thousands of people have been displaced while several roads have been washed away, making transport difficult. In addition, farmlands have been destroyed, which is likely to impact on the expected harvest, worsening the food security situation next year.

Cholera transmission has continued to decline countrywide. In the last four weeks, cholera incidence has dropped from 132 cases reported in week 35 (week ending 3 September 2017) to five cases in week 38 (week ending 24 September 2017). The cumulative total since the start of the current outbreak on 18 June 2016 is 20 563 cases and 378 deaths (case fatality rate 1.8%).

Public health actions

- WHO have dispatched emergency mobile teams to Aweil to support case management training (85 healthcare workers have been trained) and distribution of treatment protocols and guidelines in the health facilities.
- As part of the ongoing cholera response, oral cholera vaccines (OCV) have been deployed in several high-risk populations and locations to complement conventional cholera control interventions. Out of the 1 440 105 doses secured by WHO in 2017, a total of 971 942 doses have so far been deployed. Cholera transmission has ceased in all the locations where OCV have been deployed.
- A total of 395 955 doses of OCV arrived in Juba on 13 September 2017. The vaccines are for the first round vaccination campaigns in Panyijiar, parts of Juba, Akobo, and Lankien. Consequently, the vaccination campaign in Juba started on 19 September 2017, with MSF as the lead implementing partner.
- UNICEF continues to provide medical supplies for management of cholera cases at both community and facility levels in the affected areas. As part of cholera case management, UNICEF has donated cholera case management kits to 46 oral rehydration points (ORPs), 15 cholera treatment units (CTUs) and two cholera treatment centres (CTCs) through partners in key cholera hotspots.

Situation interpretation

The continuous armed conflict in South Sudan has resulted in general insecurity, mass population movements, inaccessibility of populations in need, breakdown of social services, and exacerbated food insecurity. Lately, the situation is being compounded by the ongoing heavy rainfall and floods. Nevertheless, humanitarian actors have continued to provide life-saving interventions to the people in need, amidst difficulties. The need to consistently allow safe, rapid and unhindered access for humanitarian staff, equipment and supplies, and to eliminate arbitrary bureaucratic access impediments cannot be overstated. The humanitarian needs in South Sudan will only continue to grow unless the conflict has been resolved.

Go to overview

Go to map of the outbreaks

Summary of major challenges and proposed actions

Challenges

- The cholera outbreak in Chad has been characterized by a high case fatality rate, mainly attributed to poor accessibility to healthcare services. While the overall trend is steadily declining, the outbreak requires particular attention and close monitoring, given the proximity of the affected regions to Darfur in Sudan (with the ongoing outbreak of acute watery diarrhoea) and the Central African Republic where there is an acute humanitarian crisis. The cholera outbreak therefore has high risk of continued propagation at the national level and spread widely in the region.

- The current outbreak of pulmonary plague in Madagascar that has affected numerous districts, including major urban centres and other non-endemic regions, is concerning. Pulmonary plague has the ability to spread rapidly and cause a large outbreak.

Proposed actions

- There is an urgent need to establish cholera treatment facilities within the vicinity of the affected communities in Chad, as well as strengthen active surveillance and early healthcare seeking behaviour. Furthermore, WASH interventions need to be scaled up in order to maintain the declining disease trend and ultimately control the outbreak. The current human resource gaps of three doctors, five nurses and 12 hygienists needs to be filled by partners.

- Strategic coordination, epidemiologic surveillance and early patient care need to be strengthened as part of the response to the plague outbreak in Madagascar. In addition, infection prevention and control measures, vector control and disease risk communication to the community are crucial.

Go to overview

Go to map of the outbreaks

All events currently being monitored by WHO AFRO

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR %	Comments
Newly reported events										
Liberia	Measles	Ungraded	24-Sep-17	6-Sep-17	22-Sep-17	16	4	0	0.0%	Detailed update given above.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	24-Sep-17	4	-	0	0.0%	A cluster of suspected monkeypox was detected in Agubura community, Yenegoa LGA. The index case is an 11 year-old male admitted with an illness suggestive of the disease. Three other family contacts reported similar symptoms, which resolved without specific treatment. Investigations ongoing, laboratory results pending.
Uganda	Cholera	Ungraded	29-Sep-17	25-Sep-17	29-Sep-17	29	20	2	0.0%	The outbreak was notified from Kasese District, in Western Uganda. Cases were from 6 villages: Katholhu (14), Nyakirango (6), Bunyiswa (6), and 1 each in Rusese, Nyakahya, and Kitaturwa, but all cases reported staying in Katholhu Village prior to becoming ill. The outbreak was confirmed by culture at the Bwera Hospital laboratory. Isolates have been referred for further typing.
Ongoing events										
Angola	Cholera	G1	15-Dec-16	13-Dec-16	6-Aug-17	468	-	21	4.5%	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.
Benin	Flood	Ungraded	10-Sep-17	18-Sep-17	18-Sep-17	-	-	-		On 10 September 2017, the WHO country office in Benin was informed through French international radio of flooding in the Northern part of Benin, especially Malanville and Karimama health zones. At least 544 households with 6 635 inhabitants, 367 pregnant women, and 2 688 children under 5 years of age were affected. About 172 households with 1 032 inhabitants are displaced or homeless. Most of the displaced persons have sought refuge with their parents in non-disaster areas, on farms or in the tents offered by the Red Cross. The flooding also killed about 146 animal and affected 79.8ha of Rice, 171 ha of Sorghum, 156.3 ha of Corn, and 39.3 ha of Pepper farms. No loss of human life has been reported and no particular increase in diarrhoea or malaria cases has been noted.
Burundi	Malaria	G1	22-Mar-17	1-Jan-17	26-Sep-17	5 899 273	-	2 620	0.04%	Weekly case counts are exceeding 2016 rates and on the rise. North-west and central provinces reported the highest incidence of disease in week 38.
Burundi	Cholera	Ungraded	20-Aug-17	20-Aug-17	26-Sep-17	38	4	0	0.0%	Cases have been reported from four districts: Nyanza-Lac (27), Cibitoke (1), Bubanza (1) and Mpanda (9).
Cameroon	Humanitarian crisis	G2	31-Dec-13	27-Jun-17	23-Jul-17	-	-	-	-	Detailed update given above.
Cape Verde	Malaria	G2	26-Jul-17	27-Jan-17	24-Sep-17	254	254	1	0.4%	Detailed update given above.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR %	Comments
Central African Republic	Humanitarian crisis	G2	11-Dec-13	11-Dec-13	29-Sep-17	-	-	-	-	Security incidents continue in several localities in the country. Humanitarian actors reported a total of 29 deaths related to violence during the period from 19-25 September, mostly civilians. Violence was particularly concentrated in five south-eastern localities (Alindao, Kémbé, Mobaye, Kouango, Rafaï and Zémio) and in Bocaranga and Niem in the north-west. These security incidents continue to cause new internal displacements. Humanitarian workers suspended activities in Bocaranga at the end of the week following clashes. A health centre supported by the NGO ARPE was totally plundered and two humanitarian staff were victims of these clashes: one killed and the other wounded. The CS of Bongou in the High-Kotto was also vandalized by the armed men.
Central African Republic	Pertussis	Ungraded	6-Sep-17	29-Jul-17	29-Sep-17	5	0	-	-	Field investigations were conducted in the suspected outbreak of pertussis in the Boda health district. After verification, the investigative team invalidated 118 suspect cases from the line list. 5 cases met the operational case definition. Nasopharyngeal samples were collected from these cases; results pending. Community liaison officers were briefed to strengthen community-based surveillance. WHO has provided a Pneumonia Kit to the district to strengthen case management in health facilities.
Chad	Hepatitis E	G1	20-Dec-16	1-Aug-16	3-Sep-17	1 783	98	19	1.1%	Outbreaks are ongoing in the Salamat Region predominantly affecting North and South Am Timan, Amsinéné, South Am Timan, Mouraye, Foulonga and Aboudeia. Of the 64 cases occurring in pregnant women, five died (case fatality rate 7.8%) and 20 were hospitalized.
Chad	Cholera	Revised G1	19-Aug-17	14-Aug-17	25-Sep-17	445	6	56	12.6%	Detailed update given above.
Congo (Republic of)	Monkeypox	Ungraded	1-Feb-17	18-Jan-17	4-Aug-17	84	8	5	6.0%	Since January 2017, the Republic of Congo has been going through an outbreak of monkeypox. In the week 31 (ending 4 August) three new cases were notified. Of the 38 samples collected and tested at the national laboratory in Brazzaville, eight were positive.
Cote d'Ivoire	Dengue fever	Ungraded	3-May-17	3-May-17	29-Aug-17	1 231	311	2	0.2%	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-Jan-15	1-Jan-17	29-Sep-17	31 646	-	629	2.0%	Incidence of new cases continues to increase. During week 38, 2 134 new suspected cases and 25 deaths were reported. The majority of which were from South Kivu, North Kivu, Haut-Lomami and Tanganyika provinces.

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	17-Apr-17	26-Sep-17	-	-	-	-	Over the past weeks, the situation is becoming calmer in the main affected provinces: Kasai, Kasai Central, Kasai Oriental, Lomami and Sankuru. A respite in violence has seen 271 000 people return. Since April 2016, 1.4 million of IDPs recorded, including 850,000 and 33,132 in Lunda Norte (Angola). 42% of households experiencing food insecurity, and over 400,000 children are at risk of SAM.
Democratic Republic of the Congo	Circulating vaccine-derived polio virus type 2 (cVDPV2)	Ungraded	17-May-17	20-Feb-17	22-Sep-17	9	9	0	0.0%	One new case of cVDPV2 reported in a 17-month-old child from Lwamba, Haut Lomami. Ongoing transmission is occurring in two separate outbreaks in: in Haut Lomami Province (7 cases, most recent case onset was 27 July 2017), and Maniema Province (2 cases with onset on 26 March and 18 April 2017, and an additional isolate detected in a sample collected 2 May 2017 from a healthy individual).
Democratic Republic of the Congo	Measles	Ungraded	10-Jan-17	2-Jan-17	22-Aug-17	30 211	449	370	1.2%	The incidence of new cases has declined since the current outbreak peaked in early 2017.
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.
Ethiopia	Acute watery diarrhoea (AWD)	Protracted 3	15-Nov-15	1-Jan-17	26-Sep-17	45 268	-	856	1.9%	576 new cases reported in week 37, including cases in Somali (199), Amhara (148), Oromia (57) and Afar (45) regions.
Ethiopia	Humanitarian crisis		15-Nov-15	n/a	26-Sep-17	-	-	-	-	This complex emergency includes outbreaks of AWD, measles and AJS (reported separately below) and El Niño-related drought and food insecurity affecting the Horn of Africa. The estimated IDP population stands at 1 099 776 as of 26 September 2017. Heavy rainfall causing floods have affected over 18 600 households and displaced some 93 000 people. Addis Ababa, Jima, and south-east and south-west Shewa were worst affected.
Ethiopia	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)		23-Aug-17	23-Aug-17	26-Sep-17	203	0	5	2.5%	Cases of AJS of unknown aetiology have surged in Dollo zone, Somali region since July. 17 blood samples have been sent to IP Dakar on 21 Sept 2017; results pending. A detailed update was provided in the week 37 bulletin.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR %	Comments
Kenya	Cholera	G1	6-Mar-17	1-Jan-17	28-Sep-17	2 996	572	55	1.8%	Nationally case numbers continue to decrease. Six countries are currently reporting active outbreaks: Nairobi, Nakuru, Machakos, Vihiga, Kajiado and Garissa.
Kenya	Leishmaniasis, visceral (kala-azar)	Ungraded	7-Jun-17	4-Jan-17	26-Aug-17	457	362	7	1.5%	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.
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%.
Madagascar	Plague (pneumonic)	G2	13-Sep-17	13-Sep-17	30-Sep-17	133	19	24	18.0%	Detailed update given above.
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	Humanitarian crisis	Protracted 1	n/a	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.
Mali	Dengue fever	Ungraded	4-Sep-17	1-Aug-17	27-Sep-17	252	20	0	0.0%	Active case search activities completed following detection of a case during a study has identified a total of 20 confirmed case from 252 suspected cases tested to date.
Mauritania	Undiagnosed diarrhoeal disease	Ungraded	27-Jul-17	16-Jul-17	27-Jul-17	79	-	0	0.0%	Limited information is available on this event. At the last report, viral gastroenteritis was suspected in two clusters detected in Nouakchott.
Mauritania	Crimean-Congo haemorrhagic fever (CCHF)	Ungraded	25-Aug-17	20-Aug-17	25-Aug-17	1	1	0	0.0%	Single confirmed case in a shepherd from Boutilimit Prefecture. A detailed description of the case was provided in the week 34 bulletin.
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.
Niger	Hepatitis E	Ungraded	2-Apr-17	2-Jan-17	13-Aug-17	1 610	441	38	2.4%	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
Nigeria	Lassa Fever	Ungraded	24-Mar-15	19-Feb-17	15-Sep-17	853	258	118	13.8%	The outbreak is currently active in nine states: Ondo, Edo, Plateau, Bauchi, Lagos, Ogun, Kaduna, Kwara and Kogi. During week 37, 2 new confirmed cases were reported.
Nigeria	Humanitarian crisis	Protracted 3	10-Oct-16	n/a	28-Sep-17	-	-	-	-	As of 28 September, it is estimated 8.5 million people are in need, including 1.8 million IDPs. Reports of of 7 unexplained deaths in Jere LGA, and suspected typhus in Bama LGA are being investigated.
Nigeria	Cholera (Borno State)		20-Aug-17	14-Aug-17	30-Sep-17	4 294	99	59	1.4%	The incidence of new cases is declining in all affected areas, including in Jere (2 097), MMC (34), Mafa (6), Dikwa (700) and Monguno (1 457).
Nigeria	Cholera (nationwide)	Ungraded	7-Jun-17	1-Jan-17	18-Sep-17	7 052	145	149	2.1%	Confirmed outbreaks have been reported from 7 states: Borno, Kebbi, Zamfara, Kano, Lagos, Oyo, Kwara and Kaduna States. The outbreak was recently confirmed in Kaduna State (40 cases, 2 confirmed). Apart from Kwara where the outbreak has been controlled for an extended period, outbreaks are continuing on or being sustained at low levels in other states.
Nigeria	Hepatitis E	Ungraded	18-Jun-17	3-May-17	28-Aug-17	874	42	5	0.6%	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	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 outskirt 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	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	21-Sep-17	1	1	0	0.0%	A new confirmed case was reported in an unvaccinated child from a nomadic family from Ifelodun LGA, Kwara State.
São Tomé and Principé	Necrotising cellulitis/fasciitis	G2	10-Jan-17	25-Sep-16	29-Sep-17	2 055	-	0	0.0%	Case numbers continue to fluctuate at low-moderate levels. During week 38, 24 new cases were reported.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	10-Sep-17	3 878	1295	-	-	Dengue virus serotype 2 (DEN-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	28-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. Rains have now reduced and the wet season is ex-pected to end in mid-October.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR %	Comments
South Sudan	Humanitarian crisis	G3	15-Aug-16	n/a	28-Sep-17	-	-	-	-	Detailed update given above.
South Sudan	Cholera	Ungraded	25-Aug-16	18-Jun-17	24-Sep-17	20 568	1585	378	1.8%	Detailed update given above.
South Sudan	Floods	Ungraded	12-Sep-17	13-Sep-17	19-Sep-17	-	-	-		On 12 September 2017 the Sudanese Ministry of Health reported that floods caused by heavy rains have affected 119000 people in Aweil North and Aweil West of former Northern Bahr el Ghazal State. It has caused some deaths and injuries, and deeply affected the daily lives of over 650 households in eight villages of Maban County, Upper Nile State. The floods have also destroyed roads, schools, homes, crops and vegetables in all the affected areas
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	18-Sep-17	552	-	-	-	The outbreak is in the two urban districts of Kamala (309 cases) and Wakiso (243 cases).
Uganda	Crimean-Congo haemorrhagic fever (CCHF)	Ungraded	21-Aug-17	10-Jul-17	24-Aug-17	11	2	3	27.3%	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.
United Republic of Tanzania	Cholera	G1	20-Aug-15	1-Jan-17	24-Sep-17	3 075	-	50	1.6%	Detailed update given above.

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

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

Contributors
M. Muita (Tanzania)
A. Lamina (Madagascar)
E. Douba (Cameroon)
G. Guracha (South Sudan)
G. Carolina (Cabo Verde)
G. Williams (Liberia)
A. Daizo (Chad)

Graphic design
Mr. A. Moussongo

Editorial Team
Dr. B. Impouma
Dr. C. Okot
Dr. E. Hamblion
Dr. B. Farham
Dr. V. Sodjinou
Ms. C. Machingaidze
Mr. B. Archer
Dr. D. Kpandja
Dr. Z. Kassamali

Production Team
Dr. S. Dlamini
Mr. T. Mlanda

Editorial Advisory Group
Dr. I. Soce-Fall, *Regional Emergency Director*
Dr. B. Impouma
Dr. Z. Yoti
Dr. Y. Ali Ahmed
Dr. F. Nguessan
Dr. M. Djingarey

Data sources
Data is provided by Member States through WHO Country Offices via regular situation reports, teleconferences and email exchanges. Situations are evolving and dynamic therefore numbers stated are subject to change.

Health Emergency Information and Risk Assessment

World Health Organization
Africa