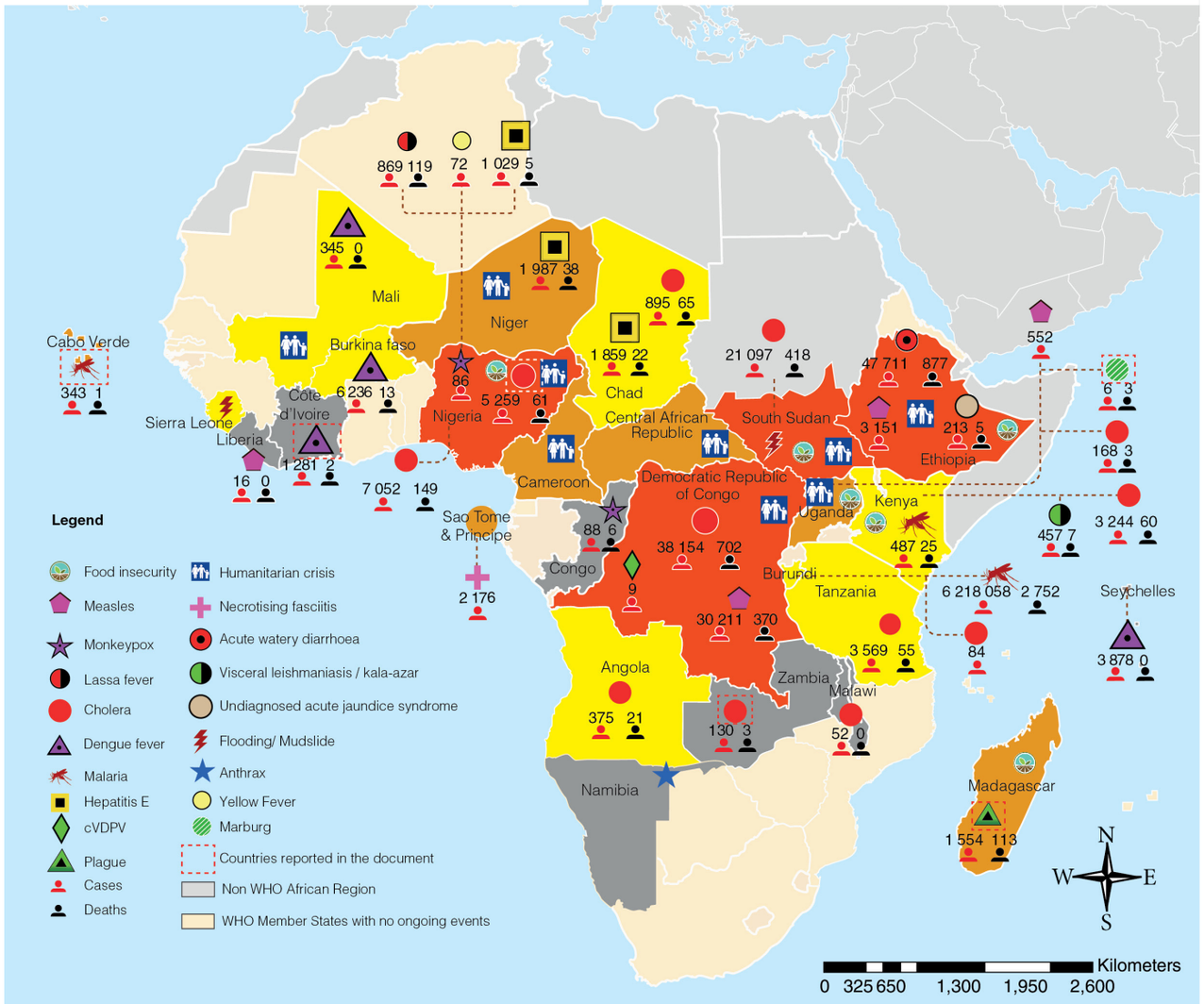
WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 43: 21 - 27 October 2017
Data as reported by 17:00; 27 October 2017

World Health Organization
REGIONAL OFFICE FOR Africa
WHO Health Emergencies Programme

0	44	31	13
New event	Ongoing events	Outbreaks	Humanitarian crises



2	7	10	22
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 44 events in the region. This week's edition covers key ongoing events, including:

  - Marburg virus disease in Uganda
  - Plague in Madagascar
  - Malaria in Cabo Verde
  - Dengue fever in Côte d'Ivoire
  - Cholera in Zambia
  - Cholera in north-east Nigeria.

- 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 outbreak of Marburg virus disease occurring in remote districts in eastern Uganda requires concerted efforts of the national authorities and partners to prevent further spread.

  - Local transmission of malaria infections in Cabo Verde continues despite ongoing interventions. The continuous propagation of indigenous malaria in the low-malaria-transmission island country is concerning and needs to be brought under control.

Ongoing events

Marburg virus disease | **Uganda** | 6 **Cases** | 3 **Deaths** | 50% **CFR**

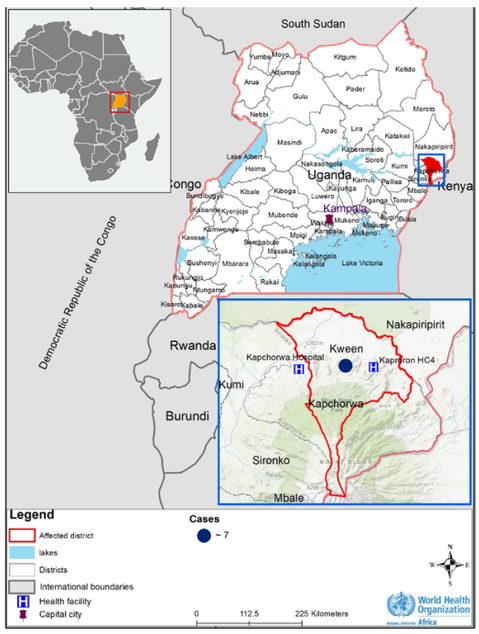
EVENT DESCRIPTION

The outbreak of Marburg virus disease (MVD) in Uganda continues to evolve. Since our last report on 20 October 2017 (Weekly Bulletin 42), one new confirmed case of MVD has been reported in Kween District. As of 29 October 2017, a total of six cases (2 confirmed, 1 probable and 3 suspected) have been reported in Kween and Kapchorwa Districts. Three of the six cases have died, giving an overall case fatality rate of 50%. The deaths occurred in the two confirmed cases and one probable case, which was epidemiologically linked to one of the confirmed cases. All the three deaths were from one family in Kween District.

The outbreak of MVD in Uganda was confirmed on 17 October 2017 and officially declared by the Ministry for Health on 19 October 2017. Chronologically, the first case (probable) was a male game hunter in his 30s who died on 25 September 2017. No laboratory specimens were collected for testing. His sister (the index and confirmed case) was a 50-year-old female who nursed him and participated in the burial rituals. She became ill on 5 October 2017 with similar symptoms and died on 13 October 2017. Marburg virus infection was confirmed at the Uganda Virus Research Institute (UVRI) by reverse transcriptase polymerase chain reaction (RT-PCR) on 17 October 2017.

The third case-patient (confirmed) is the brother of the first two cases. He transported his sister to the hospital on 10 September 2017 and subsequently became symptomatic. He initially refused to be admitted to hospital and returned to the community. While in the community, he reportedly consulted two traditional healers: one in Bukwo District and another in Kitale District in western Kenya (the health authorities in Kenya have been informed accordingly). On 24 October 2017, he was eventually admitted to the treatment centre in Kween District, where he died on 25 October 2017. The specimens collected from the case-patient confirmed Marburg virus infection by RT-PCR.

Geographical distribution of Marburg virus disease cases in Uganda, 3 - 29 October 2017



PUBLIC HEALTH ACTIONS

- The Ugandan Ministry of Health continues to respond to the outbreak with support from WHO and partners.
- WHO has deployed additional staff, six viral haemorrhagic fever kits and additional funding to support and scale up the response, including case management and facilitating specimen transport.
- Active surveillance activities are ongoing, including active case search, contact tracing and monitoring within the affected communities and healthcare centres. Cross-border surveillance activities have been initiated with the Kenyan authorities. Alert desks have been set up and are currently operational in Kween and Kapchorwa Districts.
- As of 24 October 2017, 185 contacts had been listed (120 from Kween and 65 from Kapchorwa) and 90 (49%) of these completed the follow-up period.
- Healthcare workers have been orientated in case management and infection prevention and control (IPC) protocols. Marburg treatment centres have been setup in Kapchorwa Hospital and Kaproron Health Centre IV. Burial teams have also been trained in both sites.
- Community engagement and awareness campaigns are ongoing, aimed to reduce stigma, encourage reporting and early healthcare seeking behaviours, and prevention measures.
- Various international partners have been engaged to support the response. UNICEF is assisting with communication activities, and MSF is supporting case management in the treatment centres.

SITUATION INTERPRETATION

Two weeks after initial detection, the MVD outbreak remains localized and the case count is still low. However, there are concerns around the number of contacts who have potentially been exposed in the community, especially with reports that the last confirmed case consulted traditional healers in the two countries, days before being re-admitted. Contact tracing activities are ongoing but are being hindered by the remoteness of the affected areas, with poor condition of the roads. Furthermore, there were reports of some resistance by community members to the field teams, including unwillingness to share information. The Ministry of Health, WHO and partners are developing strategies to improve community engagement and raise awareness.

The barriers impeding effective response to this outbreak need to be quickly resolved. Active surveillance activities, including contact tracing require urgent improvement, as well as strengthening cross-border surveillance (since the second confirmed case reportedly travelled to Bukwo district, which is located on the border with Kenya).

Plague | **Madagascar** | 1 554 **Cases** | 113 **Deaths** | 7% **CFR**

EVENT DESCRIPTION

The outbreak of plague in Madagascar continues to improve, with the number of new cases of pulmonary plague declining in all active areas across the country. In the past 2 weeks, 16 previously affected districts reported no new confirmed or probable cases of pulmonary plague.

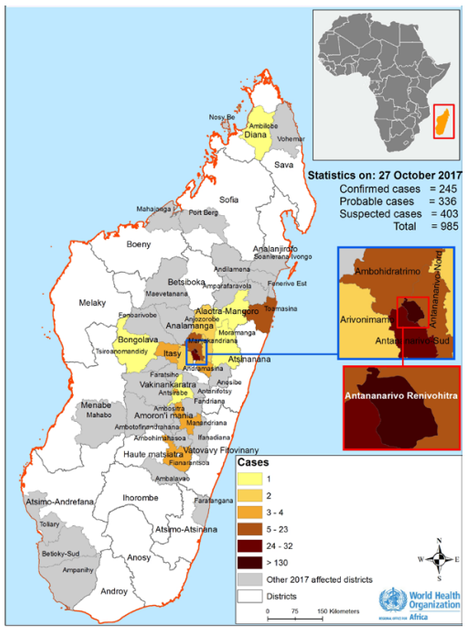
From 1 August to 27 October 2017, a total of 1 554 suspected cases of plague, including 113 deaths (case fatality rate 7%), were reported. Of these, 985 (63%) were clinically classified as pulmonary plague, 230 (15%) were bubonic plague, 1 was septicaemic, and 338 were unspecified (further classification of cases is in process). Since the beginning of the outbreak, 71 healthcare workers (with no deaths) have been affected.

Of the 985 clinical cases of pneumonic plague, 245 (25%) were confirmed, 336 (34%) were probable and 404 (41%) remain suspected (additional laboratory results are in process). Fourteen strains of *Yersinia pestis* have been isolated and were sensitive to antibiotics recommended by the National Program for the Control of Plague.

Between 1 August and 27 October 2017, 28 districts reported confirmed and probable cases of pulmonary plague. During the last two weeks, the number of districts that reported confirmed and probable cases of pulmonary plague reduced to 12.

About 78% (4 825) of 6 203 contacts identified completed their 7-day follow up and a course of prophylactic antibiotics. A total of nine contacts developed symptoms and became suspected cases. On 27 October 2017, 1 055 out of 1 087 (97%) contacts were followed up and provided with prophylactic antibiotics.

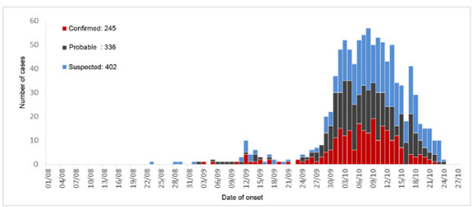
Geographical distribution of plague cases in Madagascar, 1 August - 27 October 2017



PUBLIC HEALTH ACTIONS

- A high level inter-Ministerial coordination forum, chaired by the Prime Minister, has been established to provide strategic and policy directions to the plague outbreak response. Similarly, the Country Humanitarian Team of the United Nations system established a strategic coordination platform for partners, chaired by the Resident Coordinator.
- The health response is coordinated by the Ministry of Public Health, co-led by WHO and supported by agencies and partners directly involved in the health response. The health sector response is organized into four major committees: (i) surveillance, (ii) community engagement and education, (iii) case management, and (v) communication; with the logistics committee crosscutting all committees.

Epidemic curve of comfirmed, probable and suspected cases of pulmonary plague in Madagascar, 1 August - 27 October 2017



- Coordination of partners in the Health cluster has been strengthened to ensure effectiveness, avoid duplication in the field and ensure efficient coverage of the affected areas. The Health cluster is having weekly meetings, with some partners participating in the national coordination platforms.
- Cross sectoral non-Health actors (media, transport, defence, education, etc.) are being coordinated by the National Risk and Disaster Management Office (BNGRC).
- Nine plague treatment centres have been established, of which six are in Antananarivo. The treatment centres are supported by IFRC, MSF, MdM, UNICEF, and WHO.
- USAID provided six mobile clinics to transport patients to hospitals within Antananarivo.
- UNICEF supported production of field-tested public awareness/education materials (posters, brochures, radio/television spots). A total of 69 000 posters and brochures have been produced and distributed, including to partners in the Ministries of Transport and Tourism, church groups and other key influencers.

SITUATION INTERPRETATION

While progress has been made in response to the plague outbreak in Madagascar, sustainability of ongoing operations (during the outbreak and through the plague season usually from September to April) remains critical. Funds for operations are running low, given the fact that only 26% of the multisector response plan has been funded. Additional response logistics such as temperature monitoring equipment (infrared thermometers), rapid diagnostic tests, personal protective equipment, infection prevention and control supplies, and medicines (antibiotics) need to be provided. Efforts to strengthen outbreak control measures should continue. To that effect, partners and the donor community are called upon to provide additional resources (funds, logistics and human capacity) to ensure continuity of the response operations and eventual containment of the outbreak.

Malaria | **Cabo Verde** | 343 **Cases** | 1 **Death** | 0.3% **CFR**

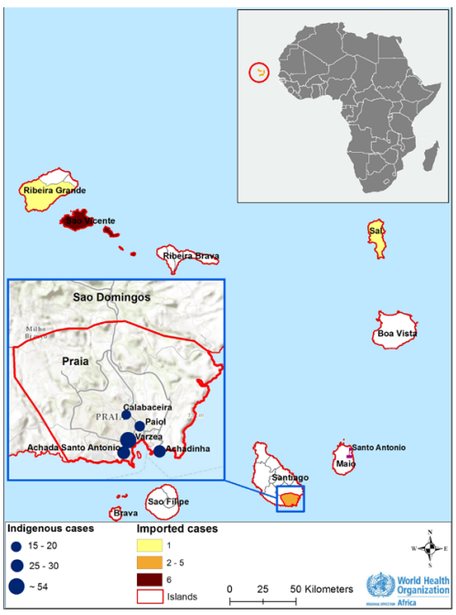
EVENT DESCRIPTION

Cabo Verde continues to experience local (indigenous) transmission of malaria infections. During week 42 (week ending 22 October 2017), 40 new locally acquired malaria cases were reported, compared to 23 cases reported in week 41. Between 1 January and 22 October 2017, a total of 343 indigenous cases with one death (case fatality rate 0.3%) have been reported. Of these, seven cases had severe malaria and there were two cases of malaria in pregnancy. About two-thirds of the cases are males and 77% are adults aged 20 years and above. All cases have been confirmed by either microscopy or rapid diagnostic tests.

To date, local malaria transmission has been limited to the city of Praia on Santiago Island, without any further spread. A large proportion of the 37 zones of Praia have been affected. The most affected neighbourhoods are Varzea (54 cases, 16%), Achada Santo Antonio (28 cases), Achadinha (27 cases), Paiol (19 cases), and Calabaceira (16 cases). A handful of cases have also been detected on neighbouring islands (São Vicente, Sal and Porto Novo); however, the infections were likely acquired during travel to Praia, with no evidence of onward local transmission.

During the same period (1 January and 22 October 2017), 17 imported malaria cases, including one death, were reported in travellers from high prevalence countries in the African Region.

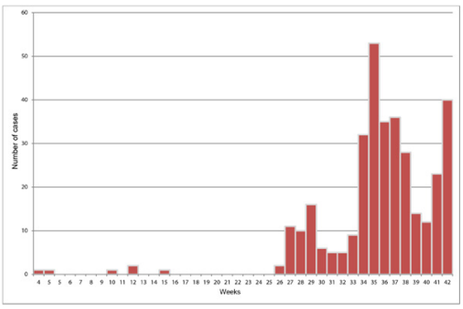
Geographical distribution of malaria cases in Cabo Verde, 1January - 22 October 2017



PUBLIC HEALTH ACTIONS

- The National Directorate of Health has established a task force in Praia to coordinate and monitor response to the outbreak. The WHO Country Office and WHO Malaria Control Programme continue to provide technical support to the Ministry of Health. An entomologist and two epidemiologists have been deployed.
- Malaria cases are being managed by local health centres, which have streamlined services to cope with the influx of patients.
- 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.
- Risk communication and community mobilization interventions are ongoing to raise awareness and sensitize communities regarding malaria prevention and control, including removal of mosquito breeding sites. Information, education and communication (IEC) materials (brochures, leaflets, posters) were printed and are being distributed to the communities. Education messages on prevention of malaria are being aired on television. These activities were supported by UNICEF.
- UNICEF also supported a rapid assessment of the communication tools, aimed to improve effectiveness of risk communication.

Weekly trend of malaria cases in Cabe Verde, 1 January - 22 October 2017 2017



SITUATION INTERPRETATION

Local transmission of malaria infection continues in Cabo Verde despite ongoing control interventions. This tenuous situation is an indication that more efforts are needed to interrupt the local transmission. While other aspects of the response may be challenged, vector control measures appear to be at its weakest point, owing to a number of factors, including inadequate technical human capacity. In addition, risk communication and community mobilization, being the cornerstone of the control measures, requires strengthening.

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 course to eliminating the disease by 2020.

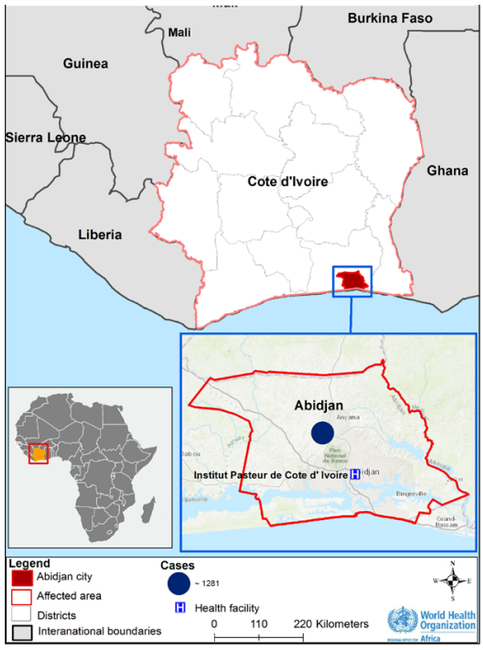
Dengue fever | **Côte d'Ivoire** | 1 281 **Cases** | 2 **Deaths** | 0.2% **CFR**

EVENT DESCRIPTION

The outbreak of dengue fever in Côte d'Ivoire has markedly improved in the last 8 weeks. In week 42 (week ending 22 October 2017), only two new suspected cases with no deaths were reported, compared to five cases reported in week 41. Since the beginning of the outbreak in April 2017, 1 281 cases (suspected, probable and confirmed) and 2 deaths (case fatality rate 0.2%) were reported, as of 23 October 2017. A total of 311 cases have been confirmed at the Institut Pasteur de Côte d'Ivoire (IPCI) laboratory. Sixty-six percent (181/272) of the positive samples isolated dengue virus serotype 2 (DENV-2), while 78 samples were DENV-3 and 13 samples DENV-1. In addition, 39 samples were confirmed IgM positive by serology.

Abidjan city remains the epicenter of the outbreak, accounting for 95% of the total caseload. Fifty-five percent (55%) of the affected people are aged 30 years and above while 25% are between 15 and 29 years. Female gender is the most affected with 54% of the cases.

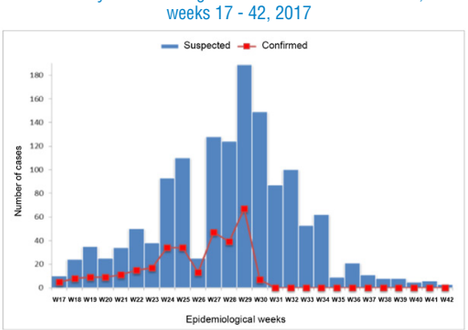
Geographical distribution of dengue fever cases in Côte d'Ivoire, April - 23 October 2017



PUBLIC HEALTH ACTIONS

- The Ministry of Health continues to coordinate implementation of outbreak control measures, with support of WHO and partners.
- There is ongoing active case search and collection of samples from suspected cases for laboratory confirmation, as well as field investigation around cases.
- The capacities of health personnel are being strengthened on disease surveillance, case management and vector control measures, in Abidjan and Bouake cities.
- Vector control interventions are being implemented, including fumigation and destruction of mosquito breeding sites.
- Sensitization of municipal authorities, religious and community leaders was conducted to enable them engage in public health education.
- Sensitization of population through local radios, national television, flyers and posters is ongoing;
- Case management of complicated dengue cases is provided free of charge in the Treichville University Hospital centre.

Weekly trend of dengue fever cases in Côte d'Ivoire, weeks 17 - 42, 2017



SITUATION INTERPRETATION

The incidence of dengue fever in Côte d'Ivoire has greatly reduced, probably due to the current decrease in rainfall. Given the fact that neighbouring Burkina Faso and Mali are experiencing outbreaks of dengue fever, it is important for the national authorities and partners sustain outbreak control measures, including strengthening disease surveillance, case investigation around suspect cases and vector control interventions.

A recent household survey in the municipality of Cocody showed a lack of knowledge by the population on the mode of transmission of the disease, as well as on vector control measures. The result of this survey should be used to reinforce sensitization strategies in order to encourage the population to eliminate, by themselves, the larval breeding sites and effectively implement vector control measures.

A research study to assess sensitivity of the *Aedes* vector to insecticide is ongoing in Abidjan. The result will advise on identification of the type of material to request for vector control interventions.

Cholera | Zambia

130 **Cases** | 3 **Deaths** | 2.3% **CFR**

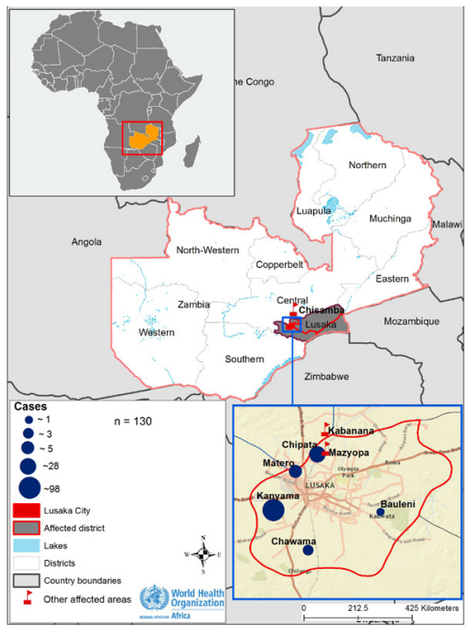
EVENT DESCRIPTION

The outbreak of cholera in the suburbs of Lusaka, the Zambian capital, has been controlled. The cholera incidence has declined since peaking on 15 October 2017, with no new cases notified since 22 October 2017 (in the last 6 days). By 27 October 2017, there were no cases admitted to the cholera treatment centres. Since the beginning of the outbreak on 4 October 2017, a total of 130 suspected/confirmed cases with three deaths (case fatality rate 2.3%) were reported, as of 27 October 2017. One of the deaths occurred in the community. Fifty percent of cases were aged below 2 years, 21% were between 2 and 14 years, and another 21% between 15 and 44 years. Cases have been reported from 15 highly populated townships within Lusaka District, known to have limited access to safe water and sanitation facilities. The majority of cases were reported from Kanyama (93) and Chipata (28) sub-districts, while only sporadic cases were observed in Matero (5), Chawama (3) and Bauleni (1).

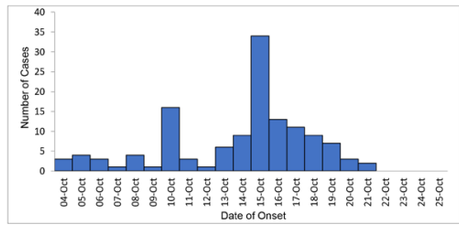
Of 83 cases aged 24 months and older with a documented vaccination history, 15 (18%) reported a history of receiving either one or two doses of oral cholera vaccine (OCV) during the 2016 cholera epidemic. The OCV campaign was, however, only conducted in four locations of Lusaka District (Kanyama, Bauleni, Chawama, and George).

The cholera outbreak in Lusaka was confirmed by culturing *Vibrio cholerae* O1 Ogawa from stool samples obtained from two patients in Chipata sub-district. In addition, of 122 samples subjected to rapid diagnostic testing (RDT), 92 (75%) were positive for cholera, including samples collected from cases usually residing in Kanyama (68), Matero (7), Chipata (9), Chawama (3), and Bauleni (1). Of 107 water samples tested during environmental investigations, *V. cholerae* was isolated from 20 samples (15 from Kanyama and 5 from Chipata), and 49 samples showed presence of *Escherichia coli*/faecal coliforms.

Geographical distribution of cholera cases in Zambia, 15 - 27 October 2017



Epidemic curve of cholera outbreak in Zambia, 4 - 27 October 2017



PUBLIC HEALTH ACTIONS

- The Ministry of Health, the Disaster Management and Mitigation Unit (DMMU) under the Office of the Vice President and WHO continue to collaborate to control the outbreak. An Incident Management System (IMS) was established to coordinate the response.
- Water, sanitation and hygiene (WASH) interventions are ongoing, and access to safe water within affected communities has been greatly improved through mounting of water tanks and provision of free home chlorine. Inspections of food premises have continued in all areas.
- Five designated CTCs were been established across the affected areas to manage cases.
- Contact follow-up activities are ongoing, with 494 contacts traced out of 598 listed contacts.
- Community sensitization and social mobilisation activities are ongoing with health education messages disseminated using various media country-wide.

SITUATION INTERPRETATION

The rapid and robust response, by local authorities and partners, to this outbreak has resulted in the successful containment with a relatively low number of cases reported, for which they must be commended. While it is too early to declare victory, the decline in cases and zero reporting observed in recent days is a promising sign. Responders, however, must remain vigilant and not ease up on control measures until the outbreak is officially declared over. Reports of a low number of cholera cases occurring among individuals vaccinated in 2016 is an important observation, which calls for further examination. While OCV is a powerful tool for cholera control, OCV effectiveness wanes in a substantial proportion of recipients after over the course of 6 months to 3 years; depending on the number of doses received. Nonetheless, the 2016 OCV campaign has likely played a significant role in helping to avert widespread disease during the current outbreak, and must now be complemented by improvements in water and sanitation infrastructure to provide longer-term protection against these recurring outbreaks.

Cholera | Nigeria (Borno State)

5 259 Cases | **61 Deaths** | **1.2% CFR**

EVENT DESCRIPTION

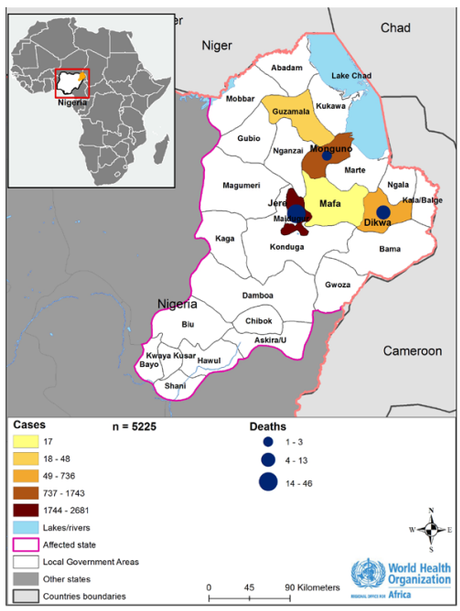
The cholera outbreak in Borno State, north-east Nigeria has continued to improve. During week 43 (week ending 29 October 2017), a total of 53 new suspected cases with no deaths were reported, compared to 1 200 cases reported at the peak of the outbreak in week 36 (average of 210 cases per day). The remaining hotspots are Muna corridor in Jere Local Government Area (LGA) and Gwaram settlement in Guzamala LGA. There have been no new cases in Dikwa in the past 2 weeks.

Since the beginning of the outbreak on 16 August 2017, a total of 5 259 suspected/confirmed cases including 61 deaths (case fatality rate 1.2%) were reported, as of 28 October 2017. Overall, six out of 27 LGAs in Borno State have been affected: Jere (2 617 cases, 43 deaths), Monguno (1 747 cases, 3 deaths), Dikwa (736 cases, 13 deaths), MCC (58 cases, 2 deaths), Guzamala (66 cases), and Mafa (17 cases). Of the 274 samples tested using rapid diagnostic tests (RDTs), 220 (80%) were positive, and 120 (64%) of 187 samples were culture positive.

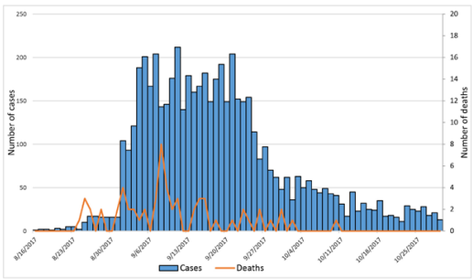
PUBLIC HEALTH ACTIONS

- The state rapid response team and the WHO hard-to-reach team were deployed to Gwaram in Guzamala LGA to support response activities, including active case search and health promotion.
- Hotspot areas in Jere LGA were identified and communicated to the water, sanitation and hygiene (WASH) and risk communication teams for priority interventions.
- Four cholera treatment centres (CTCs) and five oral rehydration points (ORPs) are fully functional across the state and plans are underway to set up an additional ORP in Milari (close to Gwaram) to take care of the cases being reported from the affected settlement.
- On 24 October 2017, the WASH sector partners reached 7 521 persons in 2 220 households in Jere and Maiduguri with hygiene promotion messaging and other WASH services. In addition, 66 latrines were cleaned/disinfected, 434 hygiene kits were distributed, 34 water points were chlorinated, and 21 shelters were disinfected.
- The proposal for the second round of oral cholera vaccination (OCV) campaign has been finalized and submitted to the International Coordinating Group (ICG) by the National Primary Health Care Development Agency (NPHCDA).
- Risk communication and social mobilization activities continue, with distribution of water purifiers and oral rehydration solution to affected communities, sensitization and mobilization of women and children on hygiene promotion and environmental sanitation as well as hand washing before and after meals, and cleaning activities in Shuwari and Madinatu.

Geographical distribution of cholera cases in Borno State, Nigeria, 16 August - 29 October 2017



Epidemic curve of cholera outbreak in Borno State, north-east Nigeria, 16 August - 29 October 2017



SITUATION INTERPRETATION

While the outbreak of cholera in Borno State has improved, the progress appears to be slowing down in the last weeks. The outbreak has reached a critical stage where interruption of the low-level transmissions requires precise high-impact and targeted interventions, guided by good epidemiological analysis and clear understanding of the dynamics. Public health authorities and partners in Borno State need to reinforce key interventions to address the observed stagnation in progress and avoid any likely upsurge, as well as prevent potential spread of the disease to new (unaffected) areas.

Summary of major challenges and proposed actions

Challenges

- The outbreak of Marburg virus disease occurring in remote districts in eastern Uganda continues. Effective response to this outbreak, including contact tracing, is being challenged by the remoteness of the affected areas, with poor condition of the roads. There were also reports of some community resistance to the field response teams, including unwillingness to share information. Furthermore, misinformation and false beliefs have been detected in some communities.

- Local transmission of malaria infections in Cabo Verde continues despite ongoing interventions. The continuous propagation of indigenous malaria in the low-malaria-transmission island country is concerning. While other aspects of the response may be challenged, vector control measures appear to be its weakest point, owing to a number of factors, including inadequate technical human capacity. In addition, risk communication and community mobilization, being the cornerstone of the control measures, requires strengthening.

Proposed actions

- The factors hindering effective response to the MVD outbreak in Uganda need to be addressed outright and appropriately in order to prevent further spread of the disease. The national authorities and partners must improve community engagement and involvement in the response, as well as countering the misinformation and false beliefs. Ongoing response interventions, especially contact tracing, investigation of new cases and enforcing infection prevention and control measures should be strengthened.

- Both urgent and sustained interventions, concentrating on proven strategies of vector control and early treatment are needed to bring the current outbreak of malaria in Cabo Verde under control and keep the country on the course to eliminating the disease by 2020.

All events currently being monitored by WHO AFRO

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Ongoing events										
Burkina Faso	Dengue	G1	4-Oct-17	1-Jan-17	23-Oct-17	6 236	141	13	0.2%	Weekly case counts have continued to increase since week 31. An additional 1 250 cases were reported during week 42. The majority (61.6%) of cases were reported in the central region, notably in Ouagadougou (the capital). Of the 241 samples tested, 141 cases were laboratory confirmed. Serotyping analyses detected the presence of dengue virus serotype 2 (58 cases), serotype 3 (12 cases) and serotype 1(2 cases).
Burundi	Malaria	G1	22-Mar-17	1-Jan-17	8-Oct-17	6 218 058	-	2 752	0.0%	Weekly case counts are exceeding 2016 rates and continue to be on the rise. In week 40, 127 175 cases and 48 deaths were reported. The most affected health districts (DS) are: Kirundo (6275) and Giteranyi (5544).
Burundi	Cholera	Ungraded	20-Aug-17	20-Aug-17	15-Oct-17	84	4	0	0.0%	During week 41, 20 new cases were reported in the health zones of Isare (09), Cibitoke (08) and Bubanza (03). As of 15 October a cumulative total of 84 cases were reported. As of 16 October 2017 no new cases have been reported in Mabayi (for 48 days), Nyanza-Lac (for 35 days), Mpanda (for 12 days), Bubanza (for 72 days), Cibitoke (for 2 days) and Isare (for 2 days).
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	1-Jan-17	22-Oct-17	343	305	1	0.3%	The incidence of new cases declined since peaking in week 35 (early Sept), but increased again in week 42 with 40 new cases reported. The outbreak has been contained to the city of Praia. Cases reported from other areas/islands likely all acquired the infection during travel to Praia or overseas, and there is currently no evidence of indigenous transmission outside of Praia. Two deaths have been reported (1 in an indigenous case and 1 in an imported case).
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 Northwest. These security incidents continue to cause new internal displacements.
Chad	Hepatitis E	G1	20-Dec-16	1-Aug-16	15-Oct-17	1 859	98	22	1.2%	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. Chlorination of water sources ended at the end of September 2017 because of a lack of partners and funding.
Chad	Cholera	G1	19-Aug-17	14-Aug-17	22-Oct-17	895	6	65	7.3%	Incidence is rapidly increasing in Amtimam Health District, with 235 new cases have been reported during week 42. Overall, cases have been reported from Koukou (290) and Goz Beida (71) health districts in the Sila Region, as well as from Am Timan Health District (529) and Amdjoudoul (5) in the Salamat Region.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Congo (Republic of)	Monkeypox	Ungraded	1-Feb-17	18-Jan-17	30-Sep-17	88	8	6	6.8%	Since January 2017, the Republic of Congo has been going through an outbreak of monkeypox. 88 cases with 6 deaths reported since the begining.
Cote d'Ivoire	Dengue fever	Ungraded	3-May-17	22-Apr-17	23-Oct-17	1 281	311	2	0.2%	Abidjan city remains the epicentre of this outbreak, accounting for 95% of the total reported cases. The main health districts affected include Cocody, Abobo, Bingerville and Yopougon. Of the 272 confirmed cases with available information on serotypes, 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	Humanitarian crisis	G3	20-Dec-16	17-Apr-17	6-Oct-17	-	-	-	-	There has been a relative lull in fighting in the Kasai region. The numbers of IDPs and returnees are estimated at 1.4 million and 271 687, respectively.
Democratic Republic of the Congo	Cholera		16-Jan-15	1-Jan-17	20-Oct-17	38 154	-	702	1.8%	During week 41, 1 854 new suspected cases and 26 deaths were reported; a moderate decline from the previous week. The majority of cases this week were reported from North Kivu, South Kivu, Tanganyika, Haut Lomami, Kongo Central and Maniema.
Democratic Republic of the Congo	Circulating vaccine-derived polio virus type 2 (cVDPV2)		17-May-17	20-Feb-17	4-Oct-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		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.
Ethiopia	Humanitarian crisis	Protracted 3	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	Acute watery diarrhoea (AWD)		15-Nov-15	1-Jan-17	24-Oct-17	47 711	-	877	1.8%	325 new cases reported in week 42. Seven regions with active transmission and one reporting over 100 cases in the week under review.
Ethiopia	Measles		14-Jan-17	1-Jan-17	3-Oct-17	3 151	-	-	-	382 new cases were reported in week 39.
Ethiopia	Acute jaundice syndrome (AJS) - hepatitis A suspected		23-Aug-17	23-Aug-17	29-Sep-17	213	11	5	2.3%	Twenty-three blood samples were sent to IP Dakar. Laboratory results show that 11/23 samples were positive for hepatitis A by RT-PCR, and one sample was IgM positive (PCR negative) for dengue virus. All other tests performed as part of the differiential diagnosis were negative.
Kenya	Cholera	G1	6-Mar-17	1-Jan-17	19-Oct-17	3 244	584	60	1.8%	Nationally case numbers continue to decrease. Three counties are currently reporting active outbreaks: Nairobi, Garissa, and Kajiado, with around 60% of the cases coming from Nairobi county.
Kenya	Leishmaniasis, visceral (kala-azar)	Ungraded	7-Jun-17	4-Jan-17	26-Aug-17	457	362	7	1.5%	Marsabit (338) and Wajir (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%.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Kenya	Malaria	Ungraded	-	25-Sep-17	10-Oct-17	487	334	25	5.1%	The suspected outbreak is affecting 3 wards in Marasbit which are Durkana, North Horr and Loiyangalani wards.
Liberia	Measles	Ungraded	24-Sep-17	6-Sep-17	1-Oct-17	16	4	0	0.0%	The situation remains unchanges in Bong County. In an unrelated event, Nimba County has reported an outbreak. During week 39, 17 new suspected cases were reported from Nimba; further details awaited.
Madagascar	Plague	G2	13-Sep-17	13-Sep-17	24-Oct-17	1 554	235	113	7%	Cases include pneumonic (882), bubonic (221), septicemic (1) and unspecified (186) forms of disease.
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.
Malawi	Cholera	Ungraded	n/a	23-Jul-17	22-Oct-17	52	3	0	0.0%	A relatively small outbreak of cholera was detected in week 30 in Chikwawa District, with low rates of illness maintained in subsequent weeks. Three new cases were reported during the past week.
Mali	Dengue fever	Ungraded	4-Sep-17	1-Aug-17	15-Oct-17	345	26	0	0.0%	Active case search activities completed following detection of a case during a study have identified a total of 26 confirmed cases from 345 suspected cases tested as of 15 October 2017.
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.
Namibia and Botswana	Anthrax	Ungraded	10-Oct-17	10-Oct-17	12-Oct-17	0	0	0	-	Mass deaths of wildlife (hippos and buffalo) in Bwabwata National Park. Dead hippos also detected downriver in Kavango River in Botswana. Public health authorities are responding. No known human infections to date.
Niger	Hepatitis E	Ungraded	2-Apr-17	2-Jan-17	12-Oct-17	1 987	441	38	1.9%	The majority of cases have been reported from the Diffa (1 408), N'Guigmi (306) and Bosso (250) health districts. Case incidence continues to decline.
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	Lassa Fever	Ungraded	24-Mar-15	19-Feb-17	29-Sep-17	869	264	119	13.7%	The outbreak is currently active in nine states: Ondo, Edo, Plateau, Bauchi, Lagos, Ogun, Kaduna, Kwara, and Kogi. During week 39, 3 new confirmed cases were reported.
Nigeria	Humanitarian crisis	Protracted 3	10-Oct-16	n/a	1-Oct-17	-	-	-	-	An estimated 8.5 million people are in need in Borno State, including 1.8 million IDPs. Aside from the cholera outbreak (see below), malaria remains the leading cause of morbidity with over 6 800 suspected cases reported through IDSR in week 39.
Nigeria	Cholera (Borno State)		20-Aug-17	14-Aug-17	26-Oct-17	5 259	274	61	1.2%	The total number of suspected cholera cases reported on 26 October 2017 shows marginal increase compared to the number of cases reported on the 25 October 2017, and remains below 50 cases. To date, cases have been reported in 6 LGAs: Jere (2 617 cases), Monguno (1 737 cases), Dikwa (736 cases), MCC (58 cases), Mafa (17 cases) and Guzamala (42 cases). In Guzamala LGA cases have been admitted and treated in Munguno CTC.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Nigeria	Cholera (nation wide)	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 or being sustained at low levels in other states.
Nigeria	Hepatitis E	Ungraded	18-Jun-17	1-May-17	24-Sep-17	1 029	-	5	0.5%	The outbreak is concentrated in Borno State, with incidence steadily declining after peaking in week 26. The majority of cases have been reported Ngala (810), Mobbar (99) and Monguno (66) LGAs.
Nigeria	Yellow fever	Ungraded	14-Sep-17	7-Sep-17	26-Oct-17	72	3	0	0.0%	Three cases have been laboratory-confirmed at IP Dakar (1 in Ifelodun LGA in Kwara State and 2 in Kogi State). Sixteen samples tested PCR positive at LUTH from five states: Kwara (10), Kogi (2), Plateau (2) Borno (1), and Abia (1). One sample from Kwara State had an inconclusive result at LUTH. Positive and inconclusive samples have been referred to IP Dakar for confirmatory testing: 3 were positive, 4 were negative, 9 are pending, and 1 is missing. Preemptive vaccination campaigns are scheduled to start in December in Kwara, Kogi, Abia, and Plateau states.
Nigeria	Monkeypox	Ungraded	26-Sep-17	24-Sep-17	19-Oct-17	86	3	0	0.0%	Suspected cases are geographically spread across 10 States and the Federal Capital Territory. 18 samples have been sent to IP Dakar (from Bayelsa and Lagos States); 3 was positive on RT-PCR for monkeypox; all from Yenagoa LGA, Bayelsa. All others were negative.
São Tomé and Principé	Necrotising cellulitis/fasciitis	G2	10-Jan-17	25-Sep-16	22-Oct-17	2 176	0	0	0.0%	The incidence of new cases continue to fluctuate between 17 and 40 cases per week, with 40 cases reported during week 42 of 2017. Six districts notified cases in week 42. The situation must be monitored closely as cases previously increased around this time last year, peaking at over 100 cases per week in epi week 50 of 2016; corresponding with the end of the rainy season.
Seychelles	Dengue fever	Ungraded	20-Jul-17	18-Dec-15	10-Sep-17	3 878	1 295	-	-	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.
South Sudan	Humanitarian crisis	G3	15-Aug-16	n/a	15-Oct-17	-	-	-	-	Situation remains volatile, fighting in multiple fronts and displacement continues. Humanitarian access to the most vulnerable population remains a major concern due to conflict and flooding in deep front areas. Severe Acute Malnutrition, malaria, measles, kala-azar, and cholera are the top ranking public health risks affecting the already distressed populations.
South Sudan	Cholera	Ungraded	25-Aug-16	18-Jun-17	15-Oct-17	21 097	1 585	418	2.0%	Cholera transmission has continued to decline countrywide and remains only in three counties (Juba, Budi and Fangak). Thirty-seven new cases including one death (CFR 2.7%) were reported in week 40; against >1 700 cases per week at the height of the most recent wave of the epidemic in week 23. A total of 21 097 and 418 deaths (CFR 2%) since the start of the outbreak on 23 June 2017.

Country	Event	Grade†	WHO notified	Start of reporting period	End of reporting period	Total cases	Confirmed cases	Deaths	CFR	Comments
Tanzania	Cholera	G1	20-Aug-15	1-Jan-17	22-Oct-17	3 569	-	55	1.5%	The trend of reported cholera cases is decreasing, with 102 new cases and 1 death in week 42, compared to 120 cases and 1 death in week 41. The three regions that reported cases this week are Songwe (75 cases and 1 death), Mbeya (23 cases) and Dodoma (4 cases). Zanzibar has reported zero cases since 11 July 2017. There is a high risk of an increase in cases because of the weak surveillance, an influx of refugees to the Kigoma region, and population movement.
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 Kampala (309 cases) and Wakiso (243 cases).
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	Cholera	Ungraded	28-Sep-17	25-Sep-17	17-Oct-17	168	15	3	1.8%	The outbreak remains confined to Kasese District but has spread from 5 sub-counties (Nyakiyumbu, Munkunyu, Bwera, Isango, and MLTC) to include Ihandiro, Karambi, and Kyondo sub-counties; however, the daily incidence of new cases remains low.
Uganda	Marburg	G2	17-Oct-17	20-Sep-17	18-Oct-17	6	1	3	50%	On 17 October 2017 the Ministry of Health notified WHO of a laboratory confirmed case of Marburg in Kween district, in Eastern Uganda. As of 25 October, a total of 9 cases have been identified in two districts: 1 confirmed fatal case, 2 probable fatal cases and 6 suspect cases including one health care worker. Three of the suspected cases are currently admitted to the isolation unit.
Zambia	Cholera	Ungraded	4-Oct-17	4-Oct-17	25-Oct-17	130	92	3	2.3%	The daily incidence of new cases has remained relatively low, and no new cases have been reported in the past 4 days. Cases have been reported from four sub-districts of Lusaka: Chipata (28), Kanyama (93), Chawama (3), Bauleni (1), and Matero (5). 50% of cases are aged <2 years.
Recently closed events										
Seychelles ex Madagascar	Plague	Ungraded	10-Oct-17	9-Oct-17	20-Oct-17	0	0	0	-	A public health response was mounted following detection of a single RDT positive in a returning traveller from Madagscar. Ten laboratory specimens the case, his contacts and two suspected cases tested negative at IP Paris. Overall, 1 223 contacts were registered and followed-up, of which 833 were given prophylactic antiboitics.

†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
S. Fisseha (Uganda)
A. Lamina (Madagascar)
C. Gomes (Cabo Verde)
G. Folefack (Côte d'Ivoire)
P. Songoro (Zambia)
D. Ayana (North East Nigeria)

Graphic design
Mr. A. Moussongo

Editorial Team
Dr. B. Impouma
Dr. C. Okot
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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.

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