This weekly bulletin focuses on selected acute public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 45 events in the region. This week, two new events have been reported: dengue fever in Mali and Crimean-Congo haemorrhagic fever in Uganda. This week’s edition also covers key ongoing events, including:

- Malaria in Cabo Verde
- Humanitarian crisis (refugee) in Uganda
- Humanitarian crisis in the Democratic Republic of the Congo
- Floods/mudslide in Sierra Leone
- Landslide in the Democratic Republic of the Congo

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 humanitarian assistance to over 900,000 internally displaced persons in the conflict-affected Kasai region of the Democratic Republic of the Congo remains grossly inadequate.

- The unprecedented influx of refugees and asylum seekers to Uganda continues to constrain local and national capacity and infrastructures, and in particular, the healthcare systems.
On 2 August 2017, the Malian Ministry of Health and Public Hygiene notified WHO of a confirmed case of dengue fever in a hospital in Bamako. The case-patient, a 14-year-old boy from Missabougou, Commune VI district in Bamako, developed a febrile illness on 15 July 2017 and presented to the local hospital on 18 July 2017 with high fever, intense headache, nasal obstruction, vomiting, and profuse diarrhoea. Blood samples were obtained and sent to the Centre d’Infectiologie Charles Mérieux du Mali (CICM) laboratory as part of systematic screening for viral haemorrhagic fever in febrile patients, which has been ongoing for almost a year. The laboratory result released on 1 August 2017 was positive for dengue fever virus on RT-qPCR method. The patient received treatment, fully recovered and was discharged.

Following the confirmation of dengue fever, the Ministry of Health launched extensive outbreak investigations involving record reviews and active case search in the affected health district. A total of 40 suspected cases were identified. Blood samples collected and analysed at the CICM indicated that 15 cases tested positive for dengue fever. All the 15 positive cases originated from Missabougou, where anecdotal reports indicated that there were cases of fever not responsive to antimalarial treatment. The first nine positive samples were subsequently sent to the Pasteur Institute in Dakar (IPD) for further analysis. Laboratory results released from IPD on 29 August 2017 showed that viral genome was detected in six out of the nine samples, indicating a recent infection. Further investigations are ongoing to understand the current outbreak of dengue fever in Bamako, Mali.

Public health actions
- On 30 August 2017, the Minister of Health convened an emergency meeting to discuss the current outbreak situation and develop strategies and plans for prevention and control.
- In accordance with the International Health Regulations, the Ministry of Health formally notified WHO of the outbreak.
- Preliminary outbreak investigation was conducted by a multi-disciplinary team consisting of officials from the National Directorate of Health, Bamako Regional Health Authority, the Reference Health Centre of Commune VI, and the Faculty of Health Medicine.
- Technical guidelines for dengue fever prevention and control have been disseminated to the regional health directorates for onward dissemination to lower level structures.
- Vector control interventions including spraying, fumigation and destruction of mosquito larvae in the neighbourhood of Missabougou have been conducted and are ongoing.
- Entomological studies have been initiated and are currently ongoing.

Situation interpretation
Dengue fever is endemic in many West African countries; however, inadequate surveillance systems often make it difficult to determine the true incidence of the disease. The current outbreak in Mali is taking place within the broader context of emergence of the disease in West Africa. Several countries in the region have experienced dengue fever outbreaks recently, including Burkina Faso, Cabo Verde and Côte d’Ivoire. Historically, Mali has not reported an outbreak of dengue fever since 2008. The coincidental identification of the current cluster of dengue fever cases, however, may be a sign of an ongoing circulation of the virus in the community, without being noticed. This is concerning given the current insecurity in the country and the fragile health systems. These sporadic cases can spread across districts and cause a major outbreak. The preliminary environmental assessment conducted established that there are favourable conditions for the proliferation of mosquitoes, including open containers, flower pots, scrap vehicles and natural mosquito breeding sites.

Appropriate measures must be taken to prevent new transmissions in the communities. Surveillance systems including screening any febrile illness for dengue cases need to be strengthened. Based on the current trend of the disease in the WHO African region, all countries in the region need to assess the risk of dengue fever outbreak and put in place adequate preparedness measures for its timely detection and response. In particular, the capacities of health personnel to detect and manage cases of dengue fever need strengthening, as well as implementation of integrated vector control interventions.
Geographical distribution of Crimean-Congo haemorrhagic fever cases in Uganda, 18 - 28 August 2017

**Event description**
On 21 August 2017, the Uganda Ministry of Health notified WHO of an outbreak of Crimean-Congo haemorrhagic fever (CCHF) in Nakaseke and Kiboga Districts, in the central region of the country. On 18 August 2017, blood samples were collected from two suspected viral haemorrhagic fever (VHF) cases from Nakaseke Hospital and another suspected case from Kiboga hospital, and shipped to the Uganda Virus Research Institute (UVRI). All the samples were tested for Ebola virus, Marburg virus, Rift Valley fever virus, Sosuga virus, and CCHF virus. Two samples (one from Nakaseke and one from Kiboga) were positive for CCHF virus by RT-qPCR and were re-confirmed on Sunday 20 August 2017. Both cases are male farmers with known exposure to livestock during the time prior to infection.

Following the initial detection of cases, an additional case was suspected at Nakaseke hospital on 22 August 2017. The patient was placed in isolation and a blood sample was sent to UVRI on 23 August 2017. Furthermore, during a review of hospital records for the months of July and August 2017, two other suspected cases which fitted the case definition were identified. In total, there are two confirmed and six suspected CCHF cases including two deaths (case fatality rate 25%), as of 28 August 2017. Available information does not suggest any epidemiological link between the two confirmed cases. Contact tracing for the suspected and confirmed cases is ongoing. Meanwhile, detailed outbreak investigation has been initiated.

**Public health actions**
- On 21 August 2017, the Ministry of Health, the Ministry of Agriculture, Animal Industry and Fisheries, and CDC deployed a multi-disciplinary rapid response team to the two districts to conduct outbreak investigation and rapid risk assessment.
- The WHO Country Office in Uganda provided personal protective equipment (PPE) to the two hospitals and provided refresher training on VHF case management for the staff.
- Enhanced surveillance has been instituted by the district surveillance team, together with members of the national rapid response team.
- The epidemiology team is in the field to investigate the source of the outbreak and conduct contact tracing.

**Situation interpretation**
CCHF is known to be endemic in Uganda, especially in the cattle corridor, which is a strip of land spanning across 18 districts, from the south-west to the north-east of the country. Smaller intermittent outbreaks have been reported in the past. The last outbreak occurred in August 2013, during which six cases were reported. However, the simultaneous occurrence of the current outbreak in two neighbouring districts may be indicative of a larger burden of the disease than expected. The current drought in some parts of the country could heighten the risk of the disease spreading to other areas as a result of livestock movement in search of pasture and water. The response to the current outbreak needs to be enhanced, including conducting detailed investigations to appreciate the extent of the disease in the country.
Health Emergency Information and Risk Assessment

Geographical distribution of malaria cases in Cabo Verde, 1 January - 28 August 2017

Event description
The unusual increase in indigenous transmission of malaria in Cabo Verde has continued since it was first noted in July 2017. Since our last report on 4 August 2017, 50 locally acquired malaria cases were reported in the country, as of 28 August 2017. All the locally acquired cases live in the capital city, Praia, Santiago Island. The causative agent has been confirmed as *Plasmodium falciparum* using both microscopy and rapid diagnostic tests (RDTs). So far, there has been no further spread to other parts of the country. The most affected neighbourhoods are Achada, Santo Antonio and Varzea.

Between 1 January and 28 August 2017, a total of 101 indigenous malaria cases have been reported. The majority, 64% (65/101) of cases are men while people aged 20 years and above account for more than 70% of the reported cases.

Cabo Verde is a low malaria risk area, usually reporting sporadic cases, many of which have recent travel history. Transmission is typically limited to the rainy season, which takes place from September to November each year. In the previous 5 years, there have been no more than four indigenous cases reported during the same period.

Public health actions
- The WHO Country Office and the WHO Malaria Control Programme continue to provide technical support to the Ministry of Health in response to the current upsurge.
- Awareness campaigns are being conducted through radio and television, encouraging preventative behaviours and vector control.
- A local youth group continues to conduct a door-to-door campaign to educate the local community in malaria prevention and control.

Situation interpretation
Cabo Verde is one of the few countries in the African Region that experience very low malaria incidence. The country adopted a malaria pre-elimination strategy 2014-2017 and elimination 2018-2020. However, the draft malaria elimination policy has not yet been adopted by government and partners. The current increase in indigenous malaria cases outside the peak transmission season in this low risk country is thus worrying. With limited underlying immunity, all people (irrespective of their age group) are at risk of infection and of developing severe disease. In addition, the capacity to effectively respond to the outbreak is constrained. As the rainy season (peak transmission) approaches, it is important that appropriate malaria control strategies, including entomological investigations and vector control are developed and implemented. Further investigations are needed to establish the risk factors and guide outbreak response.
Humanitarian crisis (refugee)  Uganda

**Event description**

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. With daily arrivals ranging between 500 and 1,000 individuals, the number of South Sudanese who took refuge in Uganda reached 1 million in August 2017. The other refugees are from the Democratic Republic of the Congo (223,924, 16.8%), Burundi (37,188, 2.8%), Somalia (35,732, 2.7%), Rwanda (14,956, 1.1%) and others (20,308, 1.5%). The refugees are located in 11 districts (Adjumani, Arua, Hoima, Isingiro, Kampala, Kamwenge, Kyirandongo, Kyegwga, Lamwo, Moy, and Yumbe) in 12 different settlement areas. These refugees live in settlements (not camps) and are provided with plots of land to erect a housing structure and for agricultural use so they can become self-reliant. In some districts the refugee population is larger than the host population.

In the context of limited and diminished resources, this unprecedented mass influx of refugees has placed enormous strain on national public services and local infrastructure, particularly in the health sector. In most instances, the refugees are settled among already impoverished communities, with limited resources and infrastructure for health.

A recent joint Ministry of Health and WHO assessment of the health status of refugees in Uganda revealed that malaria, acute respiratory tract infections and diarrhoea account for the highest disease burden. Other health conditions with significant burden include urinary tract infections, HIV/AIDS, malnutrition, hepatitis B, and measles. Twelve cases of multi-drug resistant *tuberculosis* have recently been diagnosed, of which eight were refugees and four were nationals. The risk of importation of Guinea worm into Uganda (where the disease has been eradicated) remains high since South Sudan is one of the countries that still reports cases.

**Public health actions**

- UNHCR and implementing partners conduct routine screening of refugees at the points of entry. All children aged 6-14 years are vaccinated for measles and the under-fives vaccinated for polio.
- WHO supported the MOH in conducting an assessment of the health sector response to the refugee crisis in northern Uganda.
- WHO supported the MOH in developing an integrated health response strategic plan for refugees and host communities.

**Situation interpretation**

Since 1962, Uganda has been hosting refugees and asylum seekers at an average of about 161,000 per year. Due to protracted conflicts and pre-famine/famine conditions in the Horn of Africa, this number has increased significantly. Uganda is currently receiving a very high and steady influx of refugees. It is now the largest refugee-hosting country in Africa, and the second largest in the world, after Turkey. There is no indication that the security situation within the region will improve any time soon. The refugees will, therefore, continue to come to Uganda because of its open door policy, and this will continue to cause increasing stress on the already deprived communities with a constrained health system.

At the same time, there has been no clear policy framework for integrated health service delivery for the refugees and the Ministry of Health has not been fully engaged in coordination of the refugee health service. There is, therefore, a need to articulate a policy framework for integrated health service delivery, incorporating the different health needs of both refugees and host communities. Meanwhile, the Ministry of Health needs to take leadership to coordinate refugee health sector response at district and national levels.
Armed conflict and general insecurity in the Democratic Republic of the Congo have created one of the world’s most complex and long-standing humanitarian crisis. The current complex emergency started in 2016 in the Kasai region during the violent uprising of the local militia and the death of their customary chief. The crisis has spread to the provinces of Kasai, Kasai Oriental, Lomami, and Sankuru, with repeated attacks by the militia against the symbols of the central power.

The crisis in the Kasai region has now expanded to eight of the 26 provinces in the Democratic Republic of the Congo. As of August 2017, there are 1.4 million and 3.8 million internally displaced persons (IDPs) in Kasai region and countrywide, respectively. In this crisis, children and young people aged between 9 and 18 years are the most vulnerable, given the precarious socioeconomic situation. Over 60% of the IDPs in Kasai region are children. UNICEF estimates that more than 20 000 children have been affected by the crisis. Over 298 children have been wounded so far and 644 cases of sexual violence have been reported since August 2016, with one in every two victims being a child. More than 630 schools have been either destroyed or looted in the Kasai and Kasai Central alone. UNICEF recorded more than 200 attacks on health centres in Kasai, by looting and/or burning down.

Diarrhoea rates among displaced children under five years of age are 30% higher than the national average (10%). This is certainly caused by the limited access to water – only 8% of displaced households have access to adequate drinking water and only 2% to adequate sanitation.

**Public health actions**

- WHO has conducted risk and needs assessments, and has embarked on developing a response action plan, focusing on improving coordination and provision of healthcare services, including outbreaks preparedness and response.
- WHO has also stepped up its resource mobilization efforts and deployment of additional staff for increasing the health response to the crisis.
- The Food and Agriculture Organization (FAO) have distributed vegetable kits and food crops to households to promote local production and self-reliance. In partnership with FAO, three local NGOs are supervising the farming activities of 25 000 people on a 50-hectare site. These activities are all the more crucial as fire of unknown origin in Kasai Province has destroyed 1 200 hectares of fields.
- With the support of WHO, the rapid response project continues to be implemented through the procurement of essential medicines at all project sites, routine and formative supervision in the health zones targeted by the project, free healthcare in all supported facilities, and curative activities in the Kasai area and mobile clinics in the Kansimba Health Zone.
- The rapid response project provided health kits in Kasai (13 basic kits and four additional primary healthcare kits), Kasai Central (27 basic kits and four additional primary healthcare kits), Kasai Oriental (18 basic kits and four additional primary healthcare kits), and Tanganyika (13 basic kits and four additional primary healthcare kits).
- UNICEF, in partnership with the NGO Action Against Hunger (ACF), provided medicines, therapeutic food and hygiene kits for 1 740 children suffering from severe acute malnutrition, in addition to building latrines and water sources.

**Situation interpretation**

The conflict in the Kasai Province and the subregion is having a disastrous impact on the local populations. The provinces in Kasai were already among the poorest in the country, with poverty rates hitting 70% (according to Demographic and Health Surveys 2013-2014). The current hostilities have led to a considerable increase in the number of people in need of humanitarian aid. The affected populations are often forced to flee, leaving behind their means of livelihood and household items. They often resettle in zones that are already vulnerable, and so they tend to face serious difficulties in accessing minimum services. Hundreds of people are living in the bush, in an acutely vulnerable situation. The health service is overwhelmed with a limited number of qualified personal and medical supplies to meet increased demand. Coupled with already poor health indicators in Kasai, Kivu and Tanganyika provinces, the situation around IDPs are particularly alarming.

To avoid further deterioration of the humanitarian situation, implementation of life-saving interventions needs to be urgently scaled up. The critical areas of intervention include nutrition, protection, health, food security, and WASH. For this to happen, the number of humanitarian partners on the ground needs to increase. Proportionately, adequate funds should be provided to the aid actors.
The impact of the flash floods and mudslide that occurred in Freetown, Sierra Leone on 14 August 2017 is still being felt. On 26 August 2017, additional rainfall caused fresh flash floods in three areas of Freetown, resulting in the deaths of two people, damage to property and destruction of essential medical supplies and equipment as well as stockpiles of mosquito nets in one health facility.

As of 29 August 2017, the number of dead bodies buried (following the first event) has remained 499. To date, 1,247 households in six communities have been affected and nearly 6,000 persons displaced. Major public health concerns include the risk of disease outbreaks exacerbated by flooding, over-crowding, poor hygiene, and limited access to clean and safe water. The focus is more on water-borne infections, particularly cholera, as well as mosquito-borne infections such as malaria.

The recovery phase launched by the government from 24 August to 13 September 2017 has commenced, with one of the key activities being the resettlement of displaced persons.

**Public health actions**
- The Government of Sierra Leone is coordinating the overall humanitarian response through the national incident command centre. The Public Health National Emergency Operations Centre continues to coordinate the public health component of disaster response.
- WHO is supporting the Ministry of Health and Sanitation (MoHS) with the deployment of volunteer doctors who are providing basic health services at the temporary shelters and are training all health staff stationed at the temporary shelters on infection prevention and control practices.
- Nine of 14 districts have reviewed and updated their cholera preparedness plans with the support of WHO. Health facility readiness as potential cholera treatment units have been assessed and areas for improvement highlighted for interventions.
- Sixty-five health workers have been trained by WHO in cholera case management in the Western Rural and Urban areas of Freetown.
- WHO is supporting the MoHS in preparing for a large cholera vaccination campaign. A target population of 500,000 at risk persons has been identified to receive a two dose regimen of the oral cholera vaccine (OCV). An application has been submitted to the International Coordinating Group on Vaccine Provision, training materials have been adapted and a communication strategy developed.
- Sixty community health workers, with technical support from WHO community engagement teams, continue to disseminate cholera prevention, hand hygiene and other health messages within affected communities.
- Mental health nurses with the assistance of WHO, supported 170 individuals at five locations including persons relocated to temporary holding shelters.
- Daily reporting and active case search continues at health facilities and in affected communities in order to identify people who may be suffering from epidemic prone diseases as part of an early warning system.
- The government has commissioned the World Bank to conduct a damage and loss assessment in order to quantify the losses and damage incurred during the event.

**Situation interpretation**
The country is now in the recovery phase of this disaster with the focus on the humanitarian needs of those affected and the prevention of potential epidemics. The resettlement of those affected has begun and it will be essential to ensure that these communities have access to adequate services.

The risk of disease outbreaks, particularly cholera, is a leading concern and substantive preparedness activities are being undertaken, including a preventive oral cholera vaccination campaign. However, adequate resourcing, together with partner support will be key to the success of the planned oral cholera vaccination campaign.

Vigilance must be maintained for all epidemic prone diseases. A key component of that requires maintaining a strong network of community health workers to participate in community based surveillance for early detection and response to any event in order to minimise the public health impact.
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 Dijugu Territory, Ituri Province in the northeast of the country. The latest estimates by national authorities indicate that some 174 people are presumed dead. However, in the absence of adequate logistics, only 34 bodies have been recovered. Eight seriously injured people were transferred to the Tchomia Health Centre, some 45 km from Tara. Moreover, according to the UN Office for Humanitarian Affairs (OHCA), around 280 children were orphaned by the disaster and are being sheltered in a neighbouring village. A rapid assessment mission conducted on 19 August 2017 noted that the survivors were in need of both food and non-food items. Provincial authorities offered to relocate survivors; however, the villagers have expressed little desire to leave their home area.

The Health Cluster and humanitarian partners remain concerned about the health risks. The affected village falls within the catchment of Lake Albert, which is used as a source of water for drinking and other household needs. Ituri Province is considered a cholera endemic area. Between 1 January and 26 August 2017, 654 suspected cholera cases were reported across the province. Neighbouring North Kivu Province has recorded over 1 000 cases in the past 2 weeks. Fortunately, there have been no signs of increased cholera transmission in Ituri to date, with only two cholera cases reported since the landslide.

Public health actions

- On 19 August 2017, the provincial authorities led a mission to the affected area, with support of the UN peacekeeping forces (MONUSCO) and UNICEF, to conduct a risk assessment, excavate bodies and respond to urgent needs of survivors. The Deputy Prime Minister and Minister of the Interior also visited the site.
- The Ituri Government ordered search and rescue operations to cease since neither the Congolese authorities nor humanitarian actors had the necessary equipment to excavate the dead bodies. Instead, a response and recovery plan developed by the provincial authorities will be shared with humanitarian actors. Priorities include assistance to affected people and the relocation of villages in areas currently at risk.
- A crisis committee, under the Ituri Governor, has been established to coordinate all aspects of the response.

Situation interpretation

This event occurred 2 days after the massive floods and mudslides in Freetown, Sierra Leone killed almost 500 people and displaced 6 000. Unlike the rapid and comprehensive response mounted in Sierra Leone, the remote and mountainous terrain around Tara, and limited resources available to respond, have severely hampered search, rescue and recovery efforts. In addition, the ongoing cholera transmission in the area, overcrowding of displaced persons with inadequate shelter, poor hygiene, and limited access to potable water, all increases the risk of transmission of other epidemic-prone diseases such as waterborne diseases, malaria and measles. The massive, nationwide cholera epidemic and humanitarian crisis in the Kasai Region have also distracted the attention and resources of health and humanitarian actors from the response to this event.
Summary of major challenges and proposed actions

Challenges

- The humanitarian crisis in the Democratic Republic of the Congo has been described by OXFAM as an invisible complex emergency. More than 1.4 million people have been displaced, which is higher than the combined total in Nigeria and South Sudan. Thousands of people literally live in the bush, in a desperate and vulnerable situation. The humanitarian assistance provided to the vulnerable, conflict-affected people in Kasai region remains grossly inadequate and calls for urgent action.

- The unprecedented influx of refugees and asylum seekers to Uganda continues. Uganda has become the largest refugee-hosting country in Africa and the second largest in the world, after Turkey. In the context of limited and diminished resources, this unprecedented mass influx of refugees has placed enormous strain on national public services and local infrastructure, particularly in the health sector.

Proposed actions

- Implementation of life-saving interventions is urgently needed in the Kasai region and the entire Democratic Republic of the Congo in order to avoid further deterioration of the humanitarian situation. For this to happen, the number of humanitarian partners on the ground needs to increase as well as proportionate funding to the aid actors.

- All stakeholders are urged to scale up provision of humanitarian assistance to the refugees in Uganda (and other parts of the region). In addition, the global communities are called upon to close the funding gaps for the multi-partners’ refugee response plan. WHO is supporting the MOH to develop an integrated health response strategic plan for refugees and host communities. Meanwhile, the Ministry of Health needs to take leadership in coordinating refugee health sector response at district and national levels.
# Health Emergency Information and Risk Assessment

## Shortly reported events

### Circulating vaccine-derived polio virus (cVDPV²)
- **Democratic Republic of the Congo**: Ungraded [23-Aug-17] 80
  - An outbreak of circulating vaccine-derived polio virus type 2 (cVDPV²) was confirmed in the provinces of Haut-Lomami and Maniema, with a total of 7 cases (1 in Upper Lomami and 2 in Maniema). The outbreak was successfully controlled.
  - Since the confirmation of the last case in March 2017, the surveillance of acute flaccid paralysis (AFP) has been strengthened and two rounds of vaccination campaigns conducted (end of June and mid-July 2017) targeting 20 health zones, including eight in Haut-Lomami, eight in Maniema. An investigation is underway on the new cases. With the support of its partners, the Ministry of Public Health is planning a vaccination campaign from 31 August to 2 September 2017.

### Undiagnosed febrile illness associated with jaundice
- **Ethiopia**: Ungraded [23-Aug-17] 80
  - An outbreak of un-diagnosed febrile illness associated with jaundice has been reported in the Dollo Zone. The index case reported symptom onset on 1 July 2017. Since then, 80 cases with similar symptoms have been reported from 20 villages in the zone. All samples tested to date have been negative for yellow fever. Further investigation is ongoing.

## Ongoing events

### Cholera
- **Angola**: G1 [04-Jan-17] 468 - 21 5.6% Since 13 December 2016, cases have been detected in Cabinda (236), Soyo (227) and Luanda (5). Soyo reported zero cases since epidemiological week 26 where as 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.

- **Chad**: Ungraded [15-Aug-17] 152 6 23 14.7% Since the beginning of the outbreak on 14 August 2017, the 309 cases in Kounou district, however, cross border movement of cases to and from Sudan has been reported.

- **Malaria**
  - **Burundi**: G1 [01-Jan-17] 4 864 976 2 205 0.05% *Counts include cases notified during 2017 YTD only. Weekly case counts are exceeding 2016 rates and on the rise. During week 28, 152 137 cases and 68 deaths were reported (33.6% above the same period last year).
  - **Chad**: G1 [20-Aug-17] 25 1 0 0.0% 24 cases have been reported from Nyamae Health District 1 case from Chiboke.

- **Malaria**
  - **Cabo Verde**: G2 [26-Jul-17] 101 0 0% Detailed update given above.

### Humanitarian crisis
- **Cameroon**: G2 [22-Aug-17] 15 1 0 0% 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, Adamawa, and East Regions, is in need of humanitarian assistance as a result of the insecurity. A detailed update was provided in the week 33 bulletin.

### Humanitarian crisis
- **Central African Republic**: G2 [22-Aug-17] 15 1 0 0% The security situation in the Central African Republic remains precarious, with multiple armed clashes reported in several parts of the country during the last weeks, punctuated with calm in certain areas. The conflict, characterized by targeted killings, along communal lines and human rights abuses, has resulted in over 600 000 internally displaced people (IDPs). Almost half of the population (2.2 million people) is in need of humanitarian assistance and over 1 million people are food insecure. Protection, humanitarian access and food security are priority needs, which far exceed the available resources. Delivery of humanitarian assistance has continued to decline further due to underfunding and restricted access to large parts of the country. A detailed update was provided in the week 33 bulletin.

### Monkeypox
- **Central African Republic**: Ungraded [14-Aug-17] 2 0 0.0% The outbreak of hepatitis E in the Salamat region of Chad remains serious, with a high risk of escalation. During week 33, 23 new suspected cases and zero deaths were reported from four areas: Amtiman Nord (3), Amtiman Sud (2), Amsinéné (2), and Agueintu. The index case reported symptom onset on 1 July 2017. Since then, 39 cases have been reported.

### Hepatitis E
- **Chad**: G1 [01-Sep-16] 1 735 98 19 1.1% During week 24 (week ending 18 June 2017), one new case was confirmed by the Institut Pasteur Bangui in a camp in Toma, Logbo Prefecture. Further investigations supported by the Ministry of Health and WHO revealed 24 of 26 (92.3%) of close contacts had antibodies (IgG) against monkeypox, and 4 against cowpox. This suggests a high level of circulation of the virus in the region, and may explain the low number of cases recorded during these outbreaks. Including this latest case, just 2 confirmed cases and 1 suspected case have been reported since the event was first notified to WHO on 3 April 2017.

### Monkeypox
- **Congo (Republic of)**: G2 [01-Feb-17] 78 7 4 5.1% Since 27 Jan 2017, suspected cases of monkeypox have been reported in the department of Likouala and the department of Cuvette (unconfirmed). Suspected cases have been reported from Béni, Enville, Dongou, Impfondo and Ouvambo districts.

### Dengue fever
- **Cote d’Ivoire**: G1 [06-May-17] 858 375 2 0.2% From 19 to 25 July, 112 new suspected cases were reported; 130 of them in Abidjan. Three subtypes of dengue virus have been isolated: DENV-2 (174 cases), DENV-3 (76 cases) and DENV-1 (13 cases). In addition, 112 samples were confirmed IgM positive by serology. Of 77 yellow fever virus cross reactions, further testing confirmed dengue virus on 31 samples tested to date.

### Landslide
- **Democratic Republic of the Congo (pro)***: **Democratic Republic of the Congo** (pro)***: Ungraded [18-Aug-17] 18-Aug-17 - - - Detailed update given above.

### Humanitarian crisis (Kasar Region)
- **Democratic Republic of the Congo (pro)***: **Democratic Republic of the Congo** (pro)***: G3 August 2016 - - - Detailed update given above.

### Cholera
- **Democratic Republic of the Congo (pro)***: **Democratic Republic of the Congo** (pro)***: G2 [06-Jan-15] 23 517 2.3% From 19 to 25 July, 112 new suspected cases were reported; 130 of them in Abidjan. Three subtypes of dengue virus have been isolated: DENV-2 (174 cases), DENV-3 (76 cases) and DENV-1 (13 cases). In addition, 112 samples were confirmed IgM positive by serology. Of 77 yellow fever virus cross reactions, further testing confirmed dengue virus on 31 samples tested to date.

### Humanitarian crisis
- **Ethiopia**: Protracted 3 [15-Nov-15] 15-Nov-15 - - - The complex emergency includes outbreaks of AWD and measles (reported separately below) and El Nino-related drought and food insecurity affecting the Horn of Africa.

### Acute watery diarrhoea (AWD)
- **Somalia**: G2 [15-Nov-15] 4 838 1.9% *Counts reported for are for 2017 YTD. Of 803 new cases reported in week 34. The recent resurgence is predominantly occurring in the north-eastern region of Lower Shabelle; in the towns of Tigray (212), Afar (140) and Somali (195) regions this past week.

### Measles
- **Burundi**: G2 [24-Aug-17] 14-Jan-17 2 607 0.0% *Counts reported for are for 2017 YTD. There have been 58 separate laboratory-confirmed measles outbreaks in the country: 143 new cases were reported in week 32. A detailed update was provided in the week 32 bulletin.

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*Counts reported are for 2017 YTD. There have been 58 separate laboratory-confirmed measles outbreaks in the country: 143 new cases were reported in week 32. A detailed update was provided in the week 32 bulletin.*
### Event, Country, Current grade, Date WHO notified, Total cases, Confirmed cases, Deaths, CFR %, Comments, Date of last update

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<td>40*</td>
<td>1.6%</td>
<td>Counts reported are for 2017 YTD. Seven countries are reporting active outbreaks. Garrissa, Nairobi, Nakuru, Marsabit, Sira, Turkana, and Rolo.</td>
<td>24-Aug-17</td>
</tr>
<tr>
<td>Measles</td>
<td>Kenya</td>
<td>Ungraded</td>
<td>12-Mar-17</td>
<td>49</td>
<td>49</td>
<td>1</td>
<td>2.0%</td>
<td>The outbreak has been reported in Dagaabo, Dadaab and IFO refugee camps in Garissa County since 21 March 2017, and from communities in Mandera County since 8 June 2017. No new cases have been identified since 4 July and 5 July in the two counties, respectively.</td>
<td>01-Jul-17</td>
</tr>
<tr>
<td>Leishmaniasis, visceral (kala-azar)</td>
<td>Malawi</td>
<td>G1</td>
<td>05-May-17</td>
<td>457</td>
<td>362</td>
<td>7</td>
<td>1.5%</td>
<td>The outbreak has been reported in Mamba County (1 450) and Waqdi County (82). There were no new cases this week. The last cases reported on 30 July and 20 June 2017 in the two countries, respectively.</td>
<td>28-Aug-17</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Kenya</td>
<td>Ungraded</td>
<td>09-May-17</td>
<td>1 537</td>
<td>806</td>
<td>1</td>
<td>0.1%</td>
<td>-</td>
<td>28-Aug-17</td>
</tr>
<tr>
<td>Food insecurity</td>
<td>Madagascar</td>
<td>Ungraded</td>
<td>23-Feb-17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>15-Jul-17</td>
</tr>
<tr>
<td>Undiagnosed diarrheal disease</td>
<td>Mauritania</td>
<td>Ungraded</td>
<td>27-Jul-17</td>
<td>79</td>
<td>-</td>
<td>0</td>
<td>0.0%</td>
<td>On 16 July 2017, the Ministry of Health were informed of an outbreak of diarrheal disease at Chérif Zayed Hospital, Wilya, Nouakchott, which at the time included 40 cases of non-febrile, non-typhoid, watery diarrhoea without blood/mucus from 7 separate locations. 10 stool samples collected were negative for bacteria (apart of one positive Escherichia coli, not typed). In a second cluster altered on 25 July 2017 from Centre Hospitalier Mère-Enfant, 39 children presented with similar symptoms over a period of 25 days, of whom 17 were hospitalised for 2-3 weeks. Investigations are ongoing but a viral case is suspected.</td>
<td>03-Aug-17</td>
</tr>
<tr>
<td>Crimean-Congo haemorrhagic fever (CCHF)</td>
<td>Mauritania</td>
<td>Ungraded</td>
<td>25-Aug-17</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.0%</td>
<td>Single confirmed case in a shepherd from Boutelim Prefecture. A detailed description of the case was provided in the week 34 bulletin.</td>
<td>25-Aug-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Mali</td>
<td>G1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>13-Aug-17</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Mali</td>
<td>Ungraded</td>
<td>01-Aug-17</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.0%</td>
<td>Detailed update given above.</td>
<td>16-Aug-17</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Niger (the)</td>
<td>Ungraded</td>
<td>06-Apr-17</td>
<td>1 610</td>
<td>441</td>
<td>38</td>
<td>2.4%</td>
<td>The majority of cases have been reported from the Diffa (912), NiGiangi (286) and Bissa (335) death districts. Case incidence continues to decline. During week 32, 37 new suspected cases were reported, against 48 the previous week.</td>
<td>13-Aug-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Niger (the)</td>
<td>G2</td>
<td>Beginning 2015</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>The security situation remains precarious and unpredictable as Boko Haram remains a serious threat around the region. On 28 June 2017, 1 600 people were displaced after a suicide attack on an IDP camp in Kabawo. In another attack on 2 July 2017, 39 people from Ngala village, many of them children, were abducted. The onset of the rainy season is impeding the movements of armed forces around the region.</td>
<td>11-Aug-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>Nigeria</td>
<td>Protracted 3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Since April 2017 about 15 000 Nigerian refugees have returned from Cameroon after the Tigraynet commission began implementing the agreement on the voluntary return of Nigerian refugees. Living conditions in areas of return are difficult, as the influx has overwhelmed resources such water. On 28 July 2017, a suicide attack on a newly established camp in Dikwa LGAs killed 14 people and wounded 24 others, mostly women and children.</td>
<td>25-Aug-17</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>01-Dec-16</td>
<td>788</td>
<td>247</td>
<td>117</td>
<td>14.8%</td>
<td>Detailed update given above.</td>
<td>25-Aug-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>07-Jun-17</td>
<td>1 978</td>
<td>26</td>
<td>35</td>
<td>1.8%</td>
<td>Nigeria has been experiencing an outbreak of cholera since the first week of May 2017. Per the national report as of 30 July 2017, a total of 1 978 suspected cases including 26 confirmed cases and 35 deaths (case fatality rate 1.8%) were reported from three states where outbreaks had been confirmed (Koara, Zamara and Lagos). An additional 105 cases and 8 deaths have been reported in Borno State.</td>
<td>30-Aug-17</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Nigeria</td>
<td>Ungraded</td>
<td>16-Jun-17</td>
<td>874</td>
<td>42</td>
<td>5</td>
<td>0.6%</td>
<td>The outbreak is concentrated in Borno State, with incidence steadily declining after peaking in week 26. The majority of cases have been reported in Ngala (697), Mubi (251) and Monguno (62).</td>
<td>28-Aug-17</td>
</tr>
<tr>
<td>Necrotising cellulitis/ faciitis</td>
<td>Sao Tome &amp; Principe</td>
<td>G2</td>
<td>10-Jan-17</td>
<td>1 926</td>
<td>-</td>
<td>0</td>
<td>0.0%</td>
<td>Ten new cases were reported in week 31. A detailed update was provided in the week 32 bulletin.</td>
<td>31-Aug-17</td>
</tr>
<tr>
<td>Dengue fever</td>
<td>Seychelles</td>
<td>Ungraded</td>
<td>20-Jul-17</td>
<td>3 689</td>
<td>1295</td>
<td>-</td>
<td>-</td>
<td>Detailed update was provided in the week 34 bulletin.</td>
<td>06-Aug-17</td>
</tr>
<tr>
<td>Flooding/malnut</td>
<td>Sierra Leone</td>
<td>G1</td>
<td>14-Aug-17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Detailed update given above.</td>
<td>31-Aug-17</td>
</tr>
<tr>
<td>Humanitarian crisis</td>
<td>South Sudan</td>
<td>G3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Detailed update was provided in the week 34 bulletin.</td>
<td>06-Aug-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>South Sudan</td>
<td>Ungraded</td>
<td>20-Feb-17</td>
<td>19 185</td>
<td>-</td>
<td>355</td>
<td>1.9%</td>
<td>A total of 37 new cholera cases with no fatalities (CFR 0.0%) were reported in week 32. The cumulative total since the start of the current outbreak on 18 June 2016 is 19 815 cases and 355 deaths (CFR 1.8%). Despite security and access challenges the first round of OCV campaign in four priority countries with active transmission of cholera has successfully concluded.</td>
<td>13-Aug-17</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>South Africa</td>
<td>Ungraded</td>
<td>16-Aug-17</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>25.0%</td>
<td>A total of four cases (three laboratory-confirmed cases and 1 probable), and a single asymptomatic carrier of toxin-producing Corynebacterium diphtheriae were reported from Asanda village in the Cape Town Metropolitan Area, Western Cape. All cases and carriers are linked epidemiologically: 3 are siblings, 1 is the mother of the children, and 1 is an adult neighbour of the family. Over 600 contacts were identified and provided with a booster dose of TD vaccine, and throat swabs were collected from 194 contacts. No new cases have been detected since the last case experience symptoms onset on 5 August.</td>
<td>30-Aug-17</td>
</tr>
<tr>
<td>Drought/food insecurity</td>
<td>Uganda</td>
<td>G1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>This event forms part of a larger food insecurity crisis in the Horn of Africa. The northern and eastern regions are predominantly affected.</td>
<td>24-Aug-17</td>
</tr>
<tr>
<td>Measles</td>
<td>Uganda</td>
<td>Ungraded</td>
<td>08-Aug-17</td>
<td>282</td>
<td>-</td>
<td>1</td>
<td>0.4%</td>
<td>As of 9 August 2017, a total 216 cases including one death (CFR: 0.4%) have been reported from Kampala and Wakis'o District reported 66 cases. All the five divisions of Kampala have been affected, namely Bugaba (66 cases), Central (58), Kasempa (56), Nakawa (27), and Makindye (21). 47% of the cases are in the age group 1-5 years and 40% never had any measles vaccination while 39% had unknown vaccination status.</td>
<td>10-Aug-17</td>
</tr>
<tr>
<td>Humanitarian crisis (refugee)</td>
<td>Uganda</td>
<td>Ungraded</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Detailed update given above.</td>
<td>24-Jul-17</td>
<td></td>
</tr>
<tr>
<td>Crimean-Congo haemorrhagic fever (CCHF)</td>
<td>Uganda</td>
<td>Ungraded</td>
<td>21-Aug-17</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>25.0%</td>
<td>Detailed update given above.</td>
<td>21-Aug-17</td>
</tr>
<tr>
<td>Cholera</td>
<td>United Republic of Tanzania (the)</td>
<td>Ungraded</td>
<td>Protracted 2</td>
<td>15-Aug-15</td>
<td>2 578*</td>
<td>-</td>
<td>40</td>
<td>1.7%</td>
<td>The outbreak is trending upward with 102 new cases (zero deaths) reported in week 34. Zanzibar has reported zero cases and deaths for the past 47 days (since 11 July 2017). The three regions that reported cases this week are Mbeya, Iringa, and Katavi.</td>
</tr>
</tbody>
</table>
### Aflatoxicosis

**Country:** United Republic of Tanzania (the)
**Date WHO notified:** 28-Jun-17
**Confirmed cases:** 8
**Deaths:** 4
**CFR %:** 50.0%

Between 15 June and 13 July 2017, two unrelated clusters of suspected acute aflatoxicosis, affecting two families in separate towns in Kiteto District, Manyara Region in the northern part of Tanzania. No further cases have been reported to date. 80 blood samples collected during community investigations have been submitted for aflatoxin testing, and 28 blood samples for pesticide poisoning; results pending.

**Date of last sitrep:** 06-Aug-17

### Nodding disease

**Country:** South Sudan
**Date WHO notified:** 30/06/2017
**Total cases:** 70
**Confirmed cases:** -
**Deaths:** -

Unconfirmed media reports of over 70 cases of nodding disease among children in Maridi, Jubek, Amadi and Gbudue state since mid-2016. WCO staff were unable to confirm the event due to an upsurge in insecurity in the country and affected provinces.

**Date of last sitrep:** 23-Jul-17

### Recently closed events

#### Eruptive fever

**Country:** Cameroon
**Date WHO notified:** 16-Feb-17
**Total cases:** 40
**Confirmed cases:** 22
**CFR %:** 55.0%

An outbreak of atypical paediatric eruptive fever of an unknown origin emerged in the northern regions of Cameroon during November-December 2015. Three investigations to identify a definitive cause were done. 60 suspected cases were found to fit the case definition by active-passive case research and review of register from January 2016 to July 2017. Of suspected cases, 60% were age of 12-35 months and 53% of are male sex. Most of suspected cases came from Mokolo (43%) and Mongol (33%) health districts. One third of the cases, who had their vaccination up-to-date, presented with mixed maculopapular lesions. A few concerning comorbidities were identified including acute malnutrition (90%), anaemia (73%) and HIV (40%). Among the risk factors identified, most (88%) cases suffered from frequently mosquito bites, and had pesticides and goats in the households. Seven cases were diagnosed as cutaneous leishmaniasis at histopathology analysis performed by Centre Pasteur du Cameroun and 3 cases by PECET laboratory. Only 1% of affected children recovered without any official treatment.

**Date of last sitrep:** 18-Aug-17

#### Crimean-Congo haemorrhagic fever (CCHF)

**Country:** Namibia
**Date WHO notified:** 09-Aug-17
**Total cases:** 1
**Confirmed cases:** 1
**Deaths:** 1
**CFR %:** 50.0%

A confirmed CCHF case died in Windhoek Central Hospital on 09 August 2017. The case-patient was reportedly bitten by a tick at his homestead in Uukwandongo Village, Okahao District, Otjiwarongo Region. 75 close contacts were identified, 74 were monitored daily until contract tracing activities concluded on 24 August 2017, without cases identified. One suspected case Otjiwarongo District tested negative. Of 5 suspected tested, 3 were tested negative, and the 2 others (not tested) have recovered. Environmental and vector control activities are continuing.

**Date of last sitrep:** 10-Aug-17

#### Dengue fever

**Country:** Senegal, ex Cote d’Ivoire
**Date WHO notified:** 21-Aug-17
**Total cases:** 1
**Confirmed cases:** 0
**Deaths:** -
**CFR %:** 0.0%

An isolated case of dengue fever was reported in a traveller. The case-patient experienced illness onset on 7 August while in Cote d’Ivoire from 27 July to 8 August. On 8 August, the case presented and was hospitalised. A blood sample collected 9 August confirmed the diagnosis (result received 14 August). On 15 August, the case-patient returned to Cote d’Ivoire. No other cases were identified.

**Date of last sitrep:** 21-Aug-17

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**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/](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.