WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 46: 11 - 17 November 2019
Data as reported by: 17:00; 17 November 2019

New event: 0
Ongoing events: 64
Outbreaks: 53
Humanitarian crises: 11

Legend:
- Measles
- Monkeypox
- Lassa fever
- Cholera
cVDPV2
- Malaria
- Cases
- Deaths
- Humanitarian crisis
- Hepatitis E
- Yellow fever
- Dengue fever
- Ebola virus disease
- Chikungunya
- Leishmaniasis
- Plague
- Countries reported in the document
- Non WHO African Region
- WHO Member States with no reported events

Graded events †

Grade 3 events: 3
Grade 2 events: 15
Grade 1 events: 2

Protracted 3 events: 2
Protracted 2 events: 2
Protracted 1 events: 2

Ungraded events: 38

Health Emergency Information and Risk Assessment
This Weekly Bulletin focuses on public health emergencies occurring in the WHO African Region. The WHO Health Emergencies Programme is currently monitoring 64 events in the region. This week’s main articles cover key new and ongoing events, including:

- **Yellow fever in Nigeria**
- **Cholera in Burundi**
- **Circulating vaccine-derived poliovirus type 2 in Côte d’Ivoire**
- **Ebola virus disease in 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 recent events that have largely been controlled and thus closed.

**Major issues and challenges include:**

- The yellow fever outbreak in Nigeria is still ongoing two years after its official notification in September 2017. Following an upsurge in the number of cases in late September 2019, the weekly case incidence has shown a steep decline over the past six weeks. However, suboptimal surveillance and low vaccination coverage in some areas need to be addressed in order to bring this outbreak under control.

- The Ebola virus disease outbreak in eastern Democratic Republic of the Congo, although showing a welcome decline in the number of new confirmed case weekly, continues to show transmission in Beni, Mabalako and Mandima Health Zones. Ongoing chains of transmission appear to be related to difficulty with contact follow up, shown by sub-optimal contact tracing percentages and continuing detection of new cases among community deaths. These issues need to be addressed urgently in order to finally bring the outbreak to a close.
The outbreak of yellow fever which started in Nigeria in September 2017 is ongoing. Since 1 August 2019, Nigeria has been experiencing an upsurge of yellow fever cases reported mainly from six states across the two northern zones namely: Bauchi, Benue, Borno, Gombe, Kano and Katsina states. Concurrently, suspected cases continue to be reported across all the 36 states and the Federal Capital Territory (FCT).

In October 2019, between weeks 40 and 44, a total of 839 suspected cases were reported from all the 36 states and the FCT including 35 presumptive positive samples (IgM positive). Of these, 72 cases were confirmed positive for yellow fever by RT-PCR at two laboratories including the WHO reference laboratory, Institut Pasteur Dakar (IPD), (41 cases) and the NCDC National Reference Laboratory (NRL) in Abuja (31 cases). During this month, two new states (Plateau and Taraba) recorded confirmed cases of yellow fever.

From 1 January to 31 October 2019 (epidemiological week 44), a total of 3 620 suspected yellow fever cases have been reported in 588 LGAs from 36 states and the FCT. Among the 135-presumptive positive and 42 inconclusive samples, 80 were confirmed positive at the IP Dakar. Additionally, 33 samples were confirmed at the NRL and 31 at Lagos University Teaching Hospital (LUTH), this brings the total to 144 confirmed cases. These cases are distributed across 18 states: Katsina (44), Bauchi (33), Edo (19), Ebonyi (15), Benue (6), Gombe (6), Ondo (6), Borno (4), Kebbi (2), Cross River (1), Anambra (1), Imo (1), Kano (1), Sokoto (1), Taraba (1), Oyo (1), Osun (1) and Plateau (1). One hundred and fifty deaths have been reported among all yellow fever cases and 11 deaths among confirmed cases from all yellow fever cases and 11 deaths among confirmed cases from Bauchi (7) and Ebonyi (4). This resulted in a case fatality ratio of 4.1% among suspected cases and 7.6% among confirmed cases.

Between weeks 1 and 35 of 2019, the weekly case incidence has fluctuated between 50 to 100 cases. A sharp increase in the number of cases was observed from week 35 (week ending 1 September 2019) until week 38 (week ending 22 September 2019) when the outbreak peaked with over 190 cases reported. Since then, a stepwise decrease in the trend has been observed with fewer than 10 cases reported in week 43 (week ending 27 October 2019).

**PUBLIC HEALTH ACTIONS**

- The Nigeria Centre for Disease Control (NCDC) activated a national Emergency Operations Centre (EOC) on the 5 November 2019 to ensure a well-coordinated response and quick control of the outbreak.
- Three rapid response teams (RRT) were deployed for immediate investigation of confirmed cases and to support response activities in the affected states including Katsina, Bauchi and Benue.
- Active surveillance has been enhanced across the country, including active case search and case investigation of alerts.
- Finalization of the new testing algorithm is underway, with ongoing operationalization of the new laboratories added to the national laboratory network in Abuja, Edo and Enugu. Furthermore, molecular testing for in-country confirmation of yellow fever is ongoing for samples that are collected and tested within the 10-day viraemic period.
- Case management for yellow fever cases is supported by Médecins Sans Frontières (MSF) in Ebonyi and Bauchi states.

**EVENT DESCRIPTION**

Yellow fever reactive mass vaccination campaigns (RMVC) have been implemented in LGAs in the following states: Edo (5), Ebonyi (3), Ondo (7), Delta (1), Benue (3), Cross River (1), Bauchi (1). The 2019 phase 3 preventive mass vaccination campaign in Katsina State has been completed.

Strengthening risk communication capacity through the involvement of relevant stakeholders. Public communication and awareness efforts on yellow fever (signs, symptoms and vaccinations) are on-going in social media, print media and other education and communication material (IEC). Key messages are being translated to Jarawa in Bauchi. A review and development of yellow fever frequently asked questions (FAQs), and a public health advisory and travel alert are ongoing.

**SITUATION INTERPRETATION**

The continuation of the yellow fever outbreak in Nigeria since 2017 with an upsurge of reported cases observed in September 2019 is concerning. The low index of suspicion for yellow fever among healthcare providers and the poor documentation of yellow fever surveillance in many health facilities and across states remains a challenge. Routine yellow fever vaccination was introduced to Nigeria’s Expanded Programme on Immunization (EPI) in 2004, but the overall population immunity in areas affected by the current outbreak remains below herd immunity thresholds. According to WHO-UNICEF, national yellow fever vaccination coverage estimate was 65% in 2018. Nigeria is among high priority countries for the Eliminate Yellow Fever Epidemic (EYE) strategy and phased preventive yellow fever vaccination campaigns are planned to cover 12 States by 2021.
EVENT DESCRIPTION

The cholera outbreak in western Burundi continues. Since our last report on 6 October 2019 (Weekly Bulletin 40), there have been 426 additional cases and two additional deaths, and the geographic distribution of cases has expanded to Bujumbura rural province.

From 1 June to 12 November 2019, a total of 1,074 suspected cases including seven deaths (case fatality ratio 0.7%) were notified. Since the beginning of the outbreak, 10 health districts have been affected in four provinces, namely, Bujumbura North, Bujumbura Centre and Bujumbura South health districts in Bujumbura Mairie province; Cibitoke, Mabayi and Bukinanyana health districts in Cibitoke province; Bubanza and Mpanda health districts in Bubanza province; Isale and Kabezi health districts in Bujumbura rural province. The majority (606; 56.4%) of cases have been reported from the three health districts of Bujumbura Mairie, followed by Cibitoke (194; 18.1%) and Isale (156; 14.5%) health districts in Cibitoke and Bujumbura rural provinces respectively.

This outbreak of cholera was detected on 1 June 2019, when seven cases were reported from Bujumbura Mairie (5) and Cibitoke (2) provinces. The National Public Health Laboratory confirmed the presence of *Vibrio cholerae* by culture in 32 stool samples, including samples from four initial cases.

PUBLIC HEALTH ACTIONS

- The Ministry of Health and the Fight Against AIDS of Burundi continues to lead a multisectoral national response committee with the support of WHO and partners.
- A request to conduct cholera vaccination in the affected health districts has been submitted by the Ministry of Health to the International Coordinating Group (ICG) on vaccine provision.
- Case management is ongoing in five cholera treatment centres (CTCs) established by the Ministry of Health with the support of MSF, namely, the Kamenge CTC in Bujumbura North health district, the Rugombo and Ndawa CTCs in Cibitoke health district, the Bubanza II CTC in Bubanza health district, and the Gihanga CTC in Mpanda health district.
- Active case search and referral of suspected cases to the nearest CTC is ongoing in the affected districts.
- WASH activities have been implemented at the hospital and community levels and have included sensitization on hygiene practices and waste management as well as distribution of water purification tablets in the affected areas.

SITUATION INTERPRETATION

Active transmission of cholera in Burundi continues due to limited access to safe water and adequate sanitation facilities. These underlying risk factors should be urgently addressed through the implementation of WASH and environmental health interventions in order to prevent future cases. Risk communication and community engagement activities, enhancement of surveillance and case management currently supported by national authorities, WHO and partners, should continue to be prioritized as well in order to control this outbreak.
EVENT DESCRIPTION

On 28 October 2019, WHO was notified of an environmental sample from Côte d’Ivoire that tested positive for circulating vaccine-derived poliovirus type 2 (cVDPV2). The virus was isolated from a wastewater sample collected as part of environmental surveillance on 24 September 2019, at Jacob Site, Boribana district, Abidjan. Tests conducted at the National Institute of Communicable Diseases (NICD) Laboratory in South Africa detected the virus, which has undergone 17 nucleotide changes and is linked to a virus detected in Magaria district, Niger in 2018 thus indicating circulation. The virus belongs to the Jigawa emergence group which has also been detected in Cameroon, Chad, Niger, Benin, Ghana, and Togo.

The last wild poliovirus was reported in 2011 and this is the first report of a positive cVDPV2 environmental sample from Côte d’Ivoire. Inactivated polio vaccine (IPV) immunization coverage across the country was 67% in 2018. The affected area had not previously participated in the monovalent oral poliovirus type 2 (mOPV2) campaign.

PUBLIC HEALTH ACTIONS

- The National Management Committee for Epidemic Response with technical advice from WHO and partners convened to review the situation and adapt strategies in response to the event.
- An investigation team has been deployed to the affected area and a high-level joint field mission to assess the situation in the area took place on 11 November 2019.
- Two rounds of reactive immunization campaigns using mOPV2 have been planned. However, implementation of the plan has been delayed in favour of strengthening surveillance for Acute Flaccid Paralysis (AFP) as well as environmental monitoring.
- Epidemiological surveillance for poliovirus is being strengthened through intensification of active case search for AFP cases, refresher training of health workers on case definitions, training of surveillance focal points on the use of open data kit (ODK) platforms to enhance early reporting of suspected cases, and expansion of AFP surveillance reporting sites to 12 additional private health facilities. A plan is also being developed for visiting priority sites.
- Routine immunization outreaches at market places and other settings continue and community-based surveillance activities have been integrated with these activities to identify potential AFP cases.

SITUATION INTERPRETATION

Circulating vaccine-derived virus type 2 continues to be reported across the African region with Côte d’Ivoire being among the latest countries to report a positive environmental sample. The country introduced IPV in 2015 but immunization coverage has been low with limited stock of the vaccine for a protracted period from 2017 to 2018. According to the WHO-UNICEF routine immunization coverage estimates, IPV coverage was estimated to be 67% in 2018. The quality of supplementary immunization activities has also been sub-optimal in some of the districts in the city of Abidjan. WHO continues to emphasize the need to strengthen surveillance for AFP cases in order to rapidly detect any new virus importation and to facilitate a rapid response as well as maintain high levels of routine immunization coverage across the country to minimize the consequences of any new introduction of the virus.
EVENT DESCRIPTION

The Ebola virus disease (EVD) outbreak in North Kivu, South Kivu and Ituri provinces in Democratic Republic of the Congo continues, with four health zones and 11 health areas reporting confirmed cases in the past 21 days (27 October to 16 November 2019). Since our last report on 10 November 2019 (Weekly Bulletin 45), there have been five new confirmed cases and two new deaths. The principle hot spots of the outbreak in the past 21 days are Mabalako (46%; n=13 cases), Beni (29%; n=8) and Mandima (21%; n=6 cases). Two health zones, Beni and Mabalako, have reported new confirmed cases in the past seven days.

As of 16 November 2019, a total of 3 292 EVD cases, including 3 174 confirmed and 118 probable cases have been reported. To date, confirmed cases have been reported from 29 health zones: Ariwara (1), Bunia (4), Komanda (56), Lohwa (6), Mambasa (78), Mandima (339), Nyakunde (2), Rwampara (8) and Tchomia (2) in Ituri Province; Alimbongo (5), Beni (687), Biema (18), Bumoko (285), Goma (1), Kalunguta (153), Katwa (631), Kayna (28), Kyondo (25), Mabalako (395), Mungurejijja (18), Musereka (50), Musienene (84), Mutwanga (32), Nyirongo (3), Oicha (62), Pinga (1) and Vuhovi (103) in North Kivu Province and Mwenga (6) in South Kivu Province.

As of 16 November 2019, a total of 2 195 deaths were recorded, including 2 077 among confirmed cases, resulting in a case fatality ratio among confirmed cases of 65% (2 077/3 174). The cumulative number of health workers remains 163, which is 5% of the confirmed and probable cases to date.

Contact tracing is ongoing in six health zones. A total of 4 857 contacts are under follow-up as of 16 November 2019, of which 4 375 (90%) have been seen in the past 24 hours. Alerts in the affected provinces continue to be raised and investigated. Of 3 663 alerts processed (of which 3 592 were new) in reporting health zones on 16 November 2019, 3 578 were investigated and 422 (12%) were validated as suspected cases.

PUBLIC HEALTH ACTIONS

- Surveillance activities continue, including case investigations, active case finding in health facilities and communities, and identification and listing of contacts around the latest confirmed cases. Cross-border collaboration continues, particularly with Uganda and Rwanda.
- As of 16 November 2019, a cumulative total of 253 234 people have been vaccinated since the start of the outbreak in August 2018.
- Vaccination with the Johnson & Johnson vaccine (Ad26.ZEBOV/MVA-BN-Filo) continued in the Krisimbi Health Zone, with 147 people vaccinated on 16 November 2019, bringing the cumulative total of people vaccinated with this vaccine to 240 since its introduction on 14 November 2019.
- Point of Entry/Point of Control (PoE/PoC) screening continues, with over 118 million screenings to date. A total of 106/110 (97%) PoE/PoC transmitted reports as of 16 November 2019.

SITUATION INTERPRETATION

There are continued community reintegration and psychosocial activities for patients discharged from ETCs, along with psychoeducation sessions to strengthen community engagement and collaboration in the response.

Water, sanitation and hygiene (WASH) activities continue, and in the Biakato area 35 households and 20 health facilities were briefed on IPC and WASH activities on 16 November 2019.

Community awareness and mobilization messages are being updated, revised and harmonized and have been pre-tested by the commission and will subsequently be shared in coordination and sub-coordination activities.

A press conference was held in Goma for local, national and international journalists on the new Johnson & Johnson vaccine.
Major issues and challenges

The yellow fever outbreak has been active in Nigeria since September 2017. Despite recent improvement in the evolution of the outbreak, challenges such as sub-optimal routine yellow fever vaccination coverage, low index of suspicion of yellow fever among healthcare providers and inadequate yellow fever surveillance in health facilities could result in delay case detection and ongoing local transmission of the outbreak in under-immunized areas.

While the overall number of new confirmed cases of Ebola virus disease is declining each week, local hotspots of transmission remain. Contact tracing remains sub-optimal as does case identification, shown by the new confirmed cases among community deaths.

Proposed actions

It is important to intensify yellow fever surveillance and active case finding in all affected and at-risk areas. WHO should continue to support the Ministry of Health in actively monitoring and responding to this outbreak, including investigating cases and supporting the implementation of reactive and preventive vaccination campaigns.

Contact tracing and case identification needs to be intensified in the areas where hotspots of Ebola virus disease transmission remain, in order to prevent spread into other areas. These issues need to be addressed urgently in order to finally bring this protracted outbreak to a close.
### Ongoing Events

<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Angola</strong></td>
<td>Measles</td>
<td>Ungraded</td>
<td>4-May-19</td>
<td>1-Jan-19</td>
<td>30-Jun-19</td>
<td>3 127</td>
<td>85</td>
<td>64</td>
<td>2.00%</td>
</tr>
<tr>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>8-May-19</td>
<td>5-Apr-19</td>
<td>13-Nov-19</td>
<td>41</td>
<td>41</td>
<td>0</td>
<td>0.00%</td>
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<tr>
<td><strong>Benin</strong></td>
<td>Dengue fever</td>
<td>Ungraded</td>
<td>13-May-19</td>
<td>10-May-19</td>
<td>17-Oct-19</td>
<td>19</td>
<td>11</td>
<td>2</td>
<td>10.50%</td>
</tr>
<tr>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>8-Aug-19</td>
<td>8-Aug-19</td>
<td>13-Nov-19</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td><strong>Burkina Faso</strong></td>
<td>Humanitarian crisis</td>
<td>Grade 2</td>
<td>1-Jan-19</td>
<td>1-Jan-19</td>
<td>9-Nov-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>Burundi</strong></td>
<td>Cholera</td>
<td>Ungraded</td>
<td>5-Jun-19</td>
<td>1-Jun-19</td>
<td>12-Nov-19</td>
<td>1 074</td>
<td>288</td>
<td>7</td>
<td>0.70%</td>
</tr>
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### Detailed update given above.

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<tr>
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<th>Deaths</th>
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<tr>
<td><strong>Burundi</strong></td>
<td>Malaria</td>
<td>Grade 2</td>
<td>1-Jan-19</td>
<td>1-Jan-19</td>
<td>27-Oct-19</td>
<td>7 392 429</td>
<td>2 823</td>
<td>-</td>
<td>0.00%</td>
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</tbody>
</table>

Since week 48 of 2018 (week ending 2 December 2018), there has been a progressive increase in the number of malaria cases reported across the 46 districts of Burundi, with the epidemic threshold surpassed in week 18 of 2019 (week ending 5 May 2019). In week 43 (week ending 27 October 2019), 150 083 cases including 66 deaths have been reported. There is a 54% increase in the number of cases reported in week 43 of 2019 compared to the same period in 2018.

| Cameroon | Humanitarian crisis (Far North, North, Adamawa & East) | Protracted 2 | 31-Dec-13 | 27-Jun-17 | 27-Sep-19 | - | - | - | - |

Cameroon continues to face a humanitarian crisis in the Far North Region linked to the terrorist attacks by Boko Haram group, with significant population displacement. Since the beginning of September 2019, there have been 23 attacks, including pure criminal activity, with 22 deaths and 17 injuries reported. Population displacement is ongoing, with spontaneous arrival of Nigerian refugees in the Minawao Camp, Mokolo Health District. As of 13 September 2019, the camp population was 59 456, mainly Nigerian refugees, with 356 new arrivals monthly, severely straining the camp infrastructure. Recently, the Nigerian government started repatriation of refugees, with around 400 people repatriated.

| Cameroon | Humanitarian crisis (NW & SW) | Grade 2 | 1-Oct-16 | 27-Jun-18 | 27-Sep-19 | - | - | - | - |

The humanitarian situation in the Northwest and Southwest (NW & SW) of Cameroon continues to deteriorate with serious protection incidents reported. Humanitarian access to persons in need continues to be a challenge with armed groups often blocking access as well as threatening humanitarian personnel. This unrest continues to affect access to basic services including healthcare, education, shelter, food security and WASH. As of 27 September 2019, the total number of internally displaced persons is estimated at 437 000 persons and the population in need of humanitarian assistance is estimated at 594 000 persons. An estimated 39 000 people have fled to the Littoral and Western regions, and 20 291 people (of which 80% women and children) have crossed into neighbouring Nigeria.

| Cameroon | Cholera | Ungraded | 1-Mar-19 | 1-Mar-19 | 10-Oct-19 | 667 | 98 | 32 | 4.80% |

The cholera outbreak in Cameroon is improving in the North and Far North region. As of 10 October 2019, 667 cases and 32 deaths were recorded (CFR 4.8%) in North and Far North region. To date, 9 out of 15 health districts are affected in the North (Bibemi, Figui, Garoua I, Garoua II, Gashiga, Golombe, N'gong, Pitoa, Tchollir) and 6 out of 30 health districts (Kaélé, Kar Hay, Moutourwa, Guiidiguìs, Maroua 1 et Maroua 2) in the Far North.

| Cameroon | Measles | Ungraded | 2-Apr-19 | 1-Jan-19 | 11-Aug-19 | 1 170 | 269 | 6 | 0% |

A measles outbreak is ongoing in Cameroon. Since the beginning of 2019, a total of 1 170 suspected cases have been reported. Of these, 269 were confirmed as IgM-positive. The outbreak is currently affecting 33 districts, namely, Kousseri, Mada, Goufey, Makary, Kolofata, Koza, Ngaoundéré rural, Banué, Guider, Figui, N'gong, Mora, Maroua 3, Vélé, Pitoa, Maroua 1, Bourha, Touboro, Mogodé, Bibemi, Garoua 1, Garoua 2, Lagdo, Tchollir, Guidiguìs, Moutourwa, Mokolo, Cité verte, Djourougo, Nkolindongo, Limbé, Garoua Boulai, Ngaoundéré Urbain.

### Health Emergency Information and Risk Assessment

- **Health Emergency Information and Risk Assessment**
- **Date notified**
- **Start of reporting period**
- **End of reporting period**
- **Total cases**
- **Cases Confirmed**
- **Deaths**
- **CFR**

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**Angola**

- **Poliomyelitis (cVDPV2)**
  - Grade 2
  - Date notified: 8-May-19
  - Start of reporting period: 5-Apr-19
  - End of reporting period: 13-Nov-19
  - Total cases: 41
  - Cases Confirmed: 41
  - Deaths: 0
  - CFR: 0.00%

**Benin**

- **Dengue fever**
  - Grade 2
  - Date notified: 13-May-19
  - Start of reporting period: 10-May-19
  - End of reporting period: 17-Oct-19
  - Total cases: 19
  - Cases Confirmed: 11
  - Deaths: 2
  - CFR: 10.50%

**Burkina Faso**

- **Humanitarian crisis**
  - Grade 2
  - Date notified: 1-Jan-19
  - Start of reporting period: 1-Jan-19
  - End of reporting period: 9-Nov-19
  - Total cases: -
  - Cases Confirmed: -
  - Deaths: -
  - CFR: -

**Burundi**

- **Cholera**
  - Grade 2
  - Date notified: 5-Jun-19
  - Start of reporting period: 1-Jun-19
  - End of reporting period: 12-Nov-19
  - Total cases: 1 074
  - Cases Confirmed: 288
  - Deaths: 7
  - CFR: 0.70%

** Cameroon**

- **Humanitarian crisis (Far North, North, Adamawa & East)**
  - Grade 2
  - Date notified: 31-Dec-13
  - Start of reporting period: 27-Jun-17
  - End of reporting period: 27-Sep-19
  - Total cases: -
  - Cases Confirmed: -
  - Deaths: -
  - CFR: -

- **Humanitarian crisis (NW & SW)**
  - Grade 2
  - Date notified: 1-Oct-16
  - Start of reporting period: 27-Jun-18
  - End of reporting period: 27-Sep-19
  - Total cases: -
  - Cases Confirmed: -
  - Deaths: -
  - CFR: -

**Cameroon**

- **Cholera**
  - Grade 2
  - Date notified: 1-Mar-19
  - Start of reporting period: 1-Mar-19
  - End of reporting period: 10-Oct-19
  - Total cases: 667
  - Cases Confirmed: 98
  - Deaths: 32
  - CFR: 4.80%

**Cameroon**

- **Measles**
  - Grade 2
  - Date notified: 2-Apr-19
  - Start of reporting period: 1-Jan-19
  - End of reporting period: 11-Aug-19
  - Total cases: 1 170
  - Cases Confirmed: 269
  - Deaths: 6
  - CFR: 0%
### Health Emergency Information and Risk Assessment

**Health Emergency Information and Risk Assessment**

**29-Sep-19**

**Grade**

**Date notified to WHO**

**Start of reporting period**

**End of reporting period**

**Total cases**

**Cases Confirmed**

**Deaths**

**CFR**

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<th>Deaths</th>
<th>CFR</th>
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<tbody>
<tr>
<td>Cameroon</td>
<td>Monkeypox</td>
<td>Ungraded</td>
<td>27-Sep-19</td>
<td>18-Sep-19</td>
<td>27-Sep-19</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Cameroon</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>23-May-19</td>
<td>23-May-19</td>
<td>13-Nov-19</td>
<td>-</td>
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<tr>
<td>Central African Republic</td>
<td>Humanitarian crisis</td>
<td>Protracted 2</td>
<td>11-Dec-13</td>
<td>11-Dec-13</td>
<td>12-Nov-19</td>
<td>-</td>
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A case of monkeypox was confirmed in Ekondo-Titi health district in the South West region of Cameroon on the 18 of September 2019. All supportive measures for case management were put in place and community based surveillance has been stepped up in this area.

No case of cVDPV2 was reported in the past week. On 23 May 2019, WHO received notification through the Global Polio Laboratory Network (GPLN) of the detection of circulating vaccine-derived poliovirus type 2 (cVDPV2) from an environmental sample collected on 29 April 2019 in the Northern Province of Cameroon which borders Borno State in Nigeria and Chad. There are no associated cases of paralysis detected so far.

Civil unrest and food insecurity in most parts of the country including major cities are continuing to cause a complex humanitarian situation. The city of Bira has been relatively calm after the last clashes between the armed groups on 14 September 2019. The latest assessment according to MINUSCA reported 38 killed and 17 wounded in this latest wave of violence, bringing the total of deaths to 62 and injuries to 36 since the beginning of the violence. OCHA estimates the total of 23 000 IDPs in Bira since the beginning of the crisis.

Central African Republic

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<tr>
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<tbody>
<tr>
<td>Hepatitis E</td>
<td>Ungraded</td>
<td>2-Oct-18</td>
<td>10-Sep-18</td>
<td>30-Sep-19</td>
<td>192</td>
<td>147</td>
<td>1</td>
<td>0.50%</td>
</tr>
<tr>
<td>Measles</td>
<td>Ungraded</td>
<td>15-Mar-19</td>
<td>11-Feb-19</td>
<td>14-Oct-19</td>
<td>1 638</td>
<td>98</td>
<td>40</td>
<td>2.40%</td>
</tr>
</tbody>
</table>

As of week 41 (week ending on 13 October 2019), a total of 1 638 measles cases including 98 confirmed cases and 40 deaths have been reported in five districts: Batafango, Bocaranga-Kouï, Nana-Gribizi, Paoua and Vakanga. The outbreaks have been controlled in Paoua and Vakanga.

Central African Republic

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>24-May-19</td>
<td>24-May-19</td>
<td>13-Nov-19</td>
<td>14</td>
<td>14</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

No case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week. There are 14 reported cases in 2019 from six different outbreaks of cVDPV2 in 2019.

Chad

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>Ungraded</td>
<td>24-May-18</td>
<td>1-Jan-19</td>
<td>13-Nov-19</td>
<td>25 464</td>
<td>203</td>
<td>243</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

In week 45 (week ending 10 November 2019), 127 suspected cases were reported. 19 districts were in the epidemic phase in week 45. Since the beginning of the year, a total of 25 464 suspected cases and 243 deaths (CFR 1.0%) have been reported with Am Timan, N'Djamena East, N'Djamena South, Bongor, Moundou, Bousso and N'Djamena Centre districts all exceeding 1 000 suspected cases. Among the 1 770 cases investigated, 203 were IgM-positive, 79% were not vaccinated, and 47% were aged between 1 and 4 years old.

Chad

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>18-Oct-19</td>
<td>9-Sep-19</td>
<td>13-Nov-19</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

No new case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week. One case has been reported so far this year from Mandela in Chari-Baguirmi province. The onset of paralysis was 9 September 2019. This is the first cVDPV2 case in the country and it is linked to the Jigawa outbreak in Nigeria.

Comoros

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>Ungraded</td>
<td>26-May-19</td>
<td>20-May-19</td>
<td>20-Oct-19</td>
<td>144</td>
<td>56</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

As of 20 October 2019, a total of 144 suspected cases with zero deaths have been reported from health facilities in Grande Comore Island. Of these, 58 cases have been confirmed (39 laboratory-confirmed and 19 by epidemiological link). IgM-positive cases were reported in five districts of Grande Comore, namely, Moroni (28), Mitsamiouli (6), Mbeni (3), Oïchili (1) and Mitsoudjé (1). The 19 epi-linked cases are from Moroni district.

Congo

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chikungunya</td>
<td>Grade 1</td>
<td>22-Jan-19</td>
<td>7-Jan-19</td>
<td>29-Sep-19</td>
<td>11 434</td>
<td>148</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

In week 39 (from 23 to 29 September), a total of 9 chikungunya new cases were reported across the country against 56 cases in week 38 and 15 cases in week 37. The hotspots are the departments of Plateaux and Bouenza, accounting for 64% and 14% of cases reported from week 37 to week 39, respectively. Since the beginning of the outbreak, a total of 11 434 cases have been confirmed (39 laboratory-confirmed and 19 by epidemiological link). IgM-positive cases were reported in five districts of Grande Comore, namely, Moroni (28), Mitsamiouli (6), Mbeni (3), Oïchili (1) and Mitsoudjé (1). The 19 epi-linked cases are from Moroni district.

Côte d’Ivoire

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue Fever</td>
<td>Ungraded</td>
<td>15-Feb-19</td>
<td>1-Jan-19</td>
<td>24-Sep-19</td>
<td>3 201</td>
<td>281</td>
<td>2</td>
<td>0.10%</td>
</tr>
</tbody>
</table>

Since the peak in week 25 (week ending on 23 June 2019), there has been a gradual decline in the weekly number of cases. As of 24 September 2019, a total of 3 201 suspected cases including two deaths attributed to dengue fever have been reported. Of these, 162 cases have been confirmed with DENV 1 (125 samples) and DENV 2 (38 samples) as the main circulating serotypes. Forty-five out of 86 districts across the 16 health regions have reported at least one case. Cocody Bingerville District in Abidjan remains the epi-centre of the outbreak.

Côte d’Ivoire

<table>
<thead>
<tr>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poliomyelitis (cVDPV2)</td>
<td>Ungraded</td>
<td>29-Oct-19</td>
<td>29-Oct-19</td>
<td>29-Oct-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Detailed update given above.
The Democratic Republic of the Congo continues to experience a complex humanitarian crisis involving armed conflicts and inter-community tension resulting in large number of people in need of humanitarian assistance. Population movement due to armed clashes continue to be reported in North-Kivu, Ituri and South-Kivu provinces. In Ituri, an estimated 227 000 internally displaced persons (IDPs) are living in 87 sites and 315 families have been repatriated from Uganda. In North-Kivu, more than 100 000 IDPs have been registered in Kamango health zone in Beni territory and Mvueso health zone in Masisi territory. In South Kivu, clashes between armed groups, led to population displacement with an estimated 263 252 IDPs in Itombwe, Fizi, Nundu and Minembwe. In Kassai central, at least 790 people who were expelled from Angola (including 129 women and 73 children) were registered in Kamako between 6 and 12 October.

During week 42 (week ending 20 October 2019), a total of 635 suspected cases of cholera and 18 deaths (CFR 2.8%) were notified from 55 health zones in 10 provinces. The endemic provinces of North-Kivu, South-Kivu, Haut-Lomami and Tanganika account for 88.8% of cases reported during week 42. Between week 1 and week 42 of 2019, a total of 23 815 cases including 430 deaths (CFR 1.8%) have been notified from 21 out of 26 provinces. Compared to the same period in 2018 (week 1-42), there is a 0.5% decrease in the number of reported cases and a 46% decrease in the number of deaths.

Since the beginning of 2019, a cumulative total of 374 monkeypox cases, including 87 deaths (CFR 2.8%) has been reported from 111 health zones in 16 provinces. In week 41 (week ending 13 October 2019), 144 cases and nine deaths were reported nationally.

Since the beginning of the year, a total of 31 cases of bubonic plague including eight deaths have been reported in the province of Ituri. The first five cases were reported during week 10 in the Aungba endemic health zone. Two other cases were reported during week 13 (Aru health zone) and 14 (Aungba health zone). The latest cluster of cases was reported between week 39 (7 cases and 3 deaths) and 40 (14 cases) were reported from Aru health zone in Ituri Province.

Ten new cases of cvDPV2 were reported this week from Haut Lomami (4), Kwilu (4), and Kwango (2) provinces. There are 52 cvDPV2 cases in 2019 reported from Sakuru (19), Haut Lomami (15), Kasai (6), Kwilu (6), Kwango (2), Haut Katanga (1), Tshuapa (1), and Kasai Oriental (1) provinces. There were 20 cases of cvDPV2 reported in 2018.

The complex and protracted humanitarian emergency in Ethiopia continues, complicated by incidents of inter-communal clashes and adverse climatic conditions. Flooding was reported in Dolo Awdor woreda of Liban zone, affecting 9 374 households in 12 kebeles, leading to acute displacement of persons in addition to destruction of livestock, crops and property. 1 683 suspected cases of cholera have been reported since April 2019. The outbreak is active in Oromia, Somali, SWNP Amhara and Afar regions.

In week 45 (week ending 10 November 2019), 126 new suspected cases were reported in Afar and Somali regions. As of 10 November 2019, a total of 1 894 suspected cases including 11 deaths have been reported from eight regions with Oromia (756 cases), Afar (295), Somali (293), Amhara (191 cases), and Addis Ababa city (157 cases) reporting the majority of cases. A total of 57 cases have been laboratory confirmed.

As of week 45 (week ending 10 November 2019), the measles outbreak is still ongoing with a total of 8 841 suspected measles cases reported from Oromia (5 192), Somali (2 340), Amhara (703) and Afar (548) regions. Children aged less than five years are the most affected accounting for 50.14% of the total cases followed by age group 15-44 years (25.43%). Seventy-two percent of the reported measles cases were not previously vaccinated.
<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Ungraded</td>
<td>24-Jun-19</td>
<td>20-May-19</td>
<td>13-Nov-19</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Ghana</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Ungraded</td>
<td>9-Jul-19</td>
<td>8-Jul-19</td>
<td>13-Nov-19</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Guinea</td>
<td>Measles</td>
<td>Ungraded</td>
<td>9-May-18</td>
<td>1-Jan-19</td>
<td>11-Aug-19</td>
<td>4 573</td>
<td>969</td>
<td>13</td>
<td>0.30%</td>
</tr>
<tr>
<td>Kenya</td>
<td>Leishmaniasis</td>
<td>Ungraded</td>
<td>31-Mar-19</td>
<td>1-Jan-19</td>
<td>10-Nov-19</td>
<td>2 776</td>
<td>1 174</td>
<td>34</td>
<td>1.20%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>Measles</td>
<td>Ungraded</td>
<td>26-Oct-19</td>
<td>25-Oct-19</td>
<td>16-Nov-19</td>
<td>59</td>
<td>4</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Liberia</td>
<td>Lassa fever</td>
<td>Ungraded</td>
<td>23-Jan-19</td>
<td>2-Jan-19</td>
<td>10-Nov-19</td>
<td>70</td>
<td>39</td>
<td>13</td>
<td>18.60%</td>
</tr>
<tr>
<td>Kenya</td>
<td>Cholera</td>
<td>Ungraded</td>
<td>21-Jan-19</td>
<td>2-Jan-19</td>
<td>10-Nov-19</td>
<td>4 708</td>
<td>221</td>
<td>37</td>
<td>0.80%</td>
</tr>
<tr>
<td>Kenya</td>
<td>Leishmaniasis</td>
<td>Ungraded</td>
<td>31-Mar-19</td>
<td>1-Jan-19</td>
<td>10-Nov-19</td>
<td>2 776</td>
<td>1 174</td>
<td>34</td>
<td>1.20%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>Measles</td>
<td>Ungraded</td>
<td>26-Oct-19</td>
<td>25-Oct-19</td>
<td>16-Nov-19</td>
<td>59</td>
<td>4</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Liberia</td>
<td>Measles</td>
<td>Ungraded</td>
<td>24-Sep-17</td>
<td>1-Jan-19</td>
<td>10-Nov-19</td>
<td>1 523</td>
<td>229</td>
<td>5</td>
<td>0.30%</td>
</tr>
<tr>
<td>Mali</td>
<td>Humanitarian crisis</td>
<td>Protracted 1</td>
<td>n/a</td>
<td>n/a</td>
<td>30-Oct-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>7-Dec-18</td>
<td>7-Dec-18</td>
<td>13-Nov-19</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Namibia</td>
<td>Hepatitis E</td>
<td>Grade 1</td>
<td>18-Dec-17</td>
<td>8-Sep-17</td>
<td>20-Oct-19</td>
<td>6 604</td>
<td>1 608</td>
<td>56</td>
<td>0.80%</td>
</tr>
<tr>
<td>Niger</td>
<td>Humanitarian crisis</td>
<td>Protracted 1</td>
<td>1-Feb-15</td>
<td>1-Feb-15</td>
<td>19-Sep-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

No case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week. There are three cVDPV2 cases reported in Ethiopia in 2019, all linked to the outbreak in neighbouring Somalia.

No case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week. There are five cVDPV2 cases in 2019 linked to the Jigawa outbreak in Nigeria.

During week 32 (week ending on 11 August 2019), 63 suspected cases of measles were reported. From week 1 to 32 (1 January – 11 August 2019), a total of 4 573 suspected cases including 13 deaths (CFR 0.3%) have been reported. Of the 4 573 suspected cases, 1 595 were sampled, of which 969 tested positive for measles by serology. Five localities in three health districts are in the epidemic phase, namely, Tombolia centre, Yimbayah école, and Matoto centre in Matoto Health District, Wannindara in Ratoma Health District and Mane in Coyo Health District.

The measles outbreak in Lesotho is ongoing in Qacha’s Nek district. As of 15 November, a total of 59 suspected cases have been reported, 4 of which are laboratory confirmed. No associated deaths have been reported. The coverage of measles vaccine in the affected area is 65%. The outbreak has affected more females with a M:F ratio of 1:2.

During week 45 (week ending 10 November 2019), seven new suspected cases were reported across the country, of which four tested positive. From 1 January - 10 November 2019, a total of 137 suspected cases have been reported across the country. Of samples tested from 107 of the suspected cases at the National Public Health Reference Laboratory of Liberia, 39 were confirmed by RT-PCR and 67 were discarded due to negative test results. The case fatality ratio among confirmed cases is 33.3% (13/39).

The security situation continues to worsen as violence spreads from the north to the more populated central regions of the country. A significant humanitarian funding gap continues to remain as only 49% of the required funding is available. As of 30 October 2019, the biggest threat is associated with food security where there is a US$ 79.7 million gap.

As of week 44 (week ending on 3 November 2019), 1 156 suspected cases of measles have been reported from 49 districts in the country. Of these, 336 were confirmed IgM-positive.

No case of circulating vaccine-derived poliovirus type 2 (cVDPV2) outbreak has been reported this week. There was one case reported in 2018.

In weeks 41 and 42 (week ending 20 October 2019), 70 cases were reported from 11 regions of Namibia with the majority (36 cases) from Khomas region. There was an increase in the number of cases reported in the last two weeks compared to weeks 39 and 40. As of 20 October 2019, a cumulative total of 1 608 laboratory-confirmed, 4 141 epidemiologically-linked, and 855 suspected have been reported countrywide. A cumulative number of 56 deaths have been reported nationally (CFR 0.8%), of which 24 (43%) occurred in pregnant or post-partum women. Cases have been reported from 12 out of 14 regions of Namibia, namely, Khomas, Omusati, Erongo, Oshana, Oshikoto, Kavango, Ohangwena, Omaheke, Hardap, Karas, Otjozondjupa, and Kunene regions.

The security situation continues to worsen in Nigeria following Boko Haram attacks in the region. A total of 70 000 people are displaced in Tillaberi, Maradi and Tahoua and more than 150 civilians were killed following the upsurge of armed attacks in 2019. As of 12 September 2019, the security and humanitarian situations remain worrying in areas bordering Burkina Faso, Mali and Nigeria, where Tillaberi, Tahoua, Diffa and Maradi regions are targets of armed groups operating on both sides of the border, as well as of reprisals by jihadists after G5 Sahel operations. In weeks 36 and 37 (week ending 14 September 2019) Tillaberi and Maradi have been particularly badly affected, with attacks on humanitarian vehicles near Tillaberi. In Maradi, more than 35 000 refugees from Sokoto, Zamfara and Katsina states have arrived, 70% of whom are under the age of 18 and more than 50% are women.

The security situation continues to worsen in Niger following Boko Haram attacks in the region. A total of 70 000 people is displaced in Tillaberi, Maradi and Tahoua and more than 150 civilians were killed following the upsurge of armed attacks in 2019. As of 12 September 2019, the security and humanitarian situations remain worrying in areas bordering Burkina Faso, Mali and Nigeria, where Tillaberi, Tahoua, Diffa and Maradi regions are targets of armed groups operating on both sides of the border, as well as of reprisals by jihadists after G5 Sahel operations. In weeks 36 and 37 (week ending 14 September 2019) Tillaberi and Maradi have been particularly badly affected, with attacks on humanitarian vehicles near Tillaberi. In Maradi, more than 35 000 refugees from Sokoto, Zamfara and Katsina states have arrived, 70% of whom are under the age of 18 and more than 50% are women.

The security situation continues to worsen in Niger following Boko Haram attacks in the region. A total of 70 000 people is displaced in Tillaberi, Maradi and Tahoua and more than 150 civilians were killed following the upsurge of armed attacks in 2019. As of 12 September 2019, the security and humanitarian situations remain worrying in areas bordering Burkina Faso, Mali and Nigeria, where Tillaberi, Tahoua, Diffa and Maradi regions are targets of armed groups operating on both sides of the border, as well as of reprisals by jihadists after G5 Sahel operations. In weeks 36 and 37 (week ending 14 September 2019) Tillaberi and Maradi have been particularly badly affected, with attacks on humanitarian vehicles near Tillaberi. In Maradi, more than 35 000 refugees from Sokoto, Zamfara and Katsina states have arrived, 70% of whom are under the age of 18 and more than 50% are women.
<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>Measles</td>
<td>Ungraded</td>
<td>10-May-19</td>
<td>1-Jan-19</td>
<td>18-Aug-19</td>
<td>9 741</td>
<td>53</td>
<td>0.05%</td>
<td></td>
</tr>
</tbody>
</table>

During week 33 (week ending 18 August 2019), 6 suspected measles cases have been reported from the country. Maradi (3 543 cases including 8 deaths) and Tahoua (1 845 including 24 deaths) region reported the most cases, followed by Zinder (1 360 including 10 deaths), Niamey (1 269 with 1 death), Tilaberi (633 including 3 deaths), Agadez (490 including 3 deaths), Diffa (298 with no deaths) and Dosso (298 cases including 4 deaths). Since the peak of the outbreak in week 12, the case incidence has been on a continuous decline.

| Niger                           | Poliomyelitis (cVDPV2) | Grade 2 | 8-Jul-18             | 8-Jul-18                  | 13-Nov-19               | 11          | 11              | 1      | 9.10%   |

No new cVDPV2 was reported in this week. Since the beginning of 2019 there has been one case reported from Bosso health district, Diffa region on 3 June 2019. A total of ten cVDPV2 cases were reported in 2018 in Niger, which were genetically linked to a cVDPV2 case in Jigawa and Katsina states, Nigeria.

| Nigeria                         | Humanitarian crisis    | Protracted 3 | 10-Oct-16 | n/a                      | 31-Oct-19               | -           | -               | -      | -       |

The humanitarian crisis in the North-eastern part of Nigeria persists with continued population displacement from security compromised areas characterized by overcrowded population in many camps in the region. Due to shrinking humanitarian space health partners are facing challenges in delivery of timely and urgent life-saving assistance as access challenges are impacting movement of mobile medical teams, ambulances, immunization staff and medical cargo in many locations across Borno state. The cholera outbreak in Adamawa state is ongoing, though the number of cases being reported is showing a downward trend.

| Nigeria                         | Lassa fever            | Ungraded | 24-Mar-15            | 1-Jan-19                  | 3-Nov-19                | 773         | 754              | 177    | 22.90%  |

During week 44 (week ending 3 November 2019), 11 new confirmed cases with one death were reported from Edo (5 cases with one death), and Ondo (6 cases) states. Eighty-six Local Government Areas (LGAs) across 23 states have reported at least one confirmed case since the beginning of 2019. Nineteen (19) health care workers across 10 states have been infected since the beginning of 2019. A total of 356 contacts are currently being followed.

| Nigeria                         | Measles                | Ungraded | 25-Sep-17            | 1-Jan-19                  | 30-Sep-19               | 55 476      | 2 150            | 275    | 0.50%   |

Between epi weeks 35 - 39 (week ending 30 September 2019), a total of 1 544 suspected cases of measles were reported from 36 states including 3 deaths (CFR 0.2%), Katsina (309), Borno (219), Kano (309), Yobe (91), Koki (85), Lagos (65) and Sokoto (65) account for 59% of all the cases reported in the time period. Between epi week 1 and 39, a total of 55 476 suspected cases have been recorded from 754 LGAs in 36 states and FCT with 257 deaths (CFR 0.5%). Of the 10 236 samples tested, 2 150 were IgM positive for measles.

| Nigeria                         | Poliomyelitis (cVDPV2) | Grade 2 | 1-Jan-18             | 1-Jan-18                  | 13-Nov-19               | 51          | 51              | 0      | 0.00%   |

One case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week from Olamaboro in Kogi province. The onset of paralysis was on 2 October 2019. There are 17 cVDPV2 cases reported in 2019. There were 34 cVDPV2 cases in 2018.

| Nigeria                         | Yellow fever           | Ungraded | 14-Sep-17            | 1-Jan-19                  | 31-Oct-19               | 3 620       | 86              | 150    | 4.10%   |

A case of dengue fever from Kaolack, in the centre of the country, with symptom onset on 15 August 2019 was confirmed by PCR at Institut Pasteur Dakar on 13 September 2019.

| South Sudan                    | Humanitarian crisis    | Protracted 3 | 15-Aug-16 | n/a                      | 30-Oct-19               | -           | -               | -      | -       |

The humanitarian situation has been largely calm but unpredictable in most of the states. The number of internally displaced people (IDPs) in South Sudan was estimated at 1.47 million. Malnutrition continues to be a problem in the country as more than 6.35 million people are reported to be severely food insecure in South Sudan. Communicable disease burden remains high with ten counties reporting malaria cases above their epidemic thresholds and measles cases being reported from 16 counties (Abyei, Mayom, Melut, Aweil South, Aweil East, Tonj North, Juba, Wau, Aweil West, Gogrial West, Gogrial East, Renk, Tonj South, Jun River, Pibor and Yambio) and four protections of civilian (PoC) sites (Juba, Bentiu, Malakal and Wau).

| South Sudan                    | Hepatitis E            | Ungraded | -                 | 3-Jan-18                  | 3-Nov-19               | 104         | 2               | 1      | 1.90%   |

The current outbreak in Bentiu PoC continues. In week 44 (week ending 03 November 2019), six new suspected cases of Hepatitis E were reported. As of reporting date, a total of 104 cases and two deaths have been reported from Bentiu PoC and a total of 12 suspected cases including 4 confirmed cases in Lankein. The last cases in Lankein were reported in week 25 (week ending 23 June 2019).

| South Sudan                    | Measles                | Ungraded | 24-Nov-18            | 1-Jan-19                  | 30-Sep-19               | 3 632       | 163             | 23     | 0.60%   |

Between week 1 to week 40 of 2019, a total of 3 477 suspected cases of measles which 163 laboratory-confirmed and 23 deaths (CFR 0.6%) have been reported. The outbreak has affected 16 counties and 4 PoCs (Juba, Bentiu, Malakal and Wau). Measles cases continue to rise to 2019 with an average of 75 cases reported per week compared to 12 cases reported at the same period in 2018.

| Tanzania, United Republic of   | Dengue fever           | Ungraded | 31-Jan-18            | 1-Aug-18                  | 20-Oct-19               | 6 917       | 6 917           | 13     | 0.20%   |

In week 42 (week ending on 20 October 2019), no new dengue cases were reported. The total number of confirmed cases reported since the beginning of the outbreak is 6 917 cases including 13 deaths. Since the beginning of the outbreak, 11 regions have been affected: Arusha, Dar es Salaam, Dodoma, Kagera, Kilimanjaro, Lindi, Morogoro, Pwani, Ruvuma, Singida and Tanga.
<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Togo</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>18-Oct-19</td>
<td>13-Sep-19</td>
<td>13-Nov-19</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

No new case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported this week. One case has been reported so far this year from East-Mono in Plateaux province. The onset of paralysis was 13 September 2019. This is the first cVDPV2 case in the country and is linked to Jigawa outbreak in Nigeria.

<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>Humanitarian crisis - refugee</td>
<td>Ungraded</td>
<td>20-Jul-17</td>
<td>n/a</td>
<td>31-Oct-19</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Between 1 and 31 October 2019, a total of 6,623 new refugee arrivals crossed into Uganda from the Democratic Republic of the Congo (4,016), South Sudan (2,167) and Burundi (440). Uganda hosted 1,362,269 asylum seekers as of 31 October 2019, with 95% living in settlements in 11 of Uganda’s 128 districts and in Kampala. The majority of refugees are from South Sudan (62.9%), the Democratic Republic of the Congo (28.5%) and Burundi (3.3%). Most are women within the age group 18 - 59 years.

<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>Measles</td>
<td>Ungraded</td>
<td>8-Aug-17</td>
<td>1-Jan-19</td>
<td>24-Sep-19</td>
<td>1,584</td>
<td>795</td>
<td>5</td>
<td>0.30%</td>
</tr>
</tbody>
</table>

Since the beginning of 2019, 1,584 cases have been reported across the country, of which 529 are laboratory-confirmed, 204 are epi-linked, and 62 are clinically confirmed.

<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zambia</td>
<td>Poliomyelitis (cVDPV2)</td>
<td>Grade 2</td>
<td>17-Oct-19</td>
<td>16-Jul-19</td>
<td>13-Nov-19</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

No new case of cVDPV2 was reported this week. One case of circulating vaccine-derived poliovirus type 2 (cVDPV2) has been reported so far this year from Chiengi in Luapula province. The onset of paralysis was 16 July 2019.

Closed Events

<table>
<thead>
<tr>
<th>Country</th>
<th>Event</th>
<th>Grade</th>
<th>Date notified to WHO</th>
<th>Start of reporting period</th>
<th>End of reporting period</th>
<th>Total cases</th>
<th>Cases Confirmed</th>
<th>Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Namibia</td>
<td>Crimean-Congo haemorrhagic fever (CCHF)</td>
<td>Ungraded</td>
<td>13-Sep-19</td>
<td>1-Sep-19</td>
<td>19-Sep-19</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

One confirmed case of CCHF was reported from Otapi District Hospital in Omusati region in Namibia on 13 September 2019. The case-patient is from the Cunene province in Angola and is under care at Otapi hospital in Omusati region, Namibia. She is in a stable condition. A total of 35 contacts including 23 healthcare workers have been identified and are being followed-up.

†Grading is an internal WHO process, based on the Emergency Response Framework. For further information, please see the Emergency Response Framework: http://www.who.int/hac/about/erf/en/.

Data are taken from the most recently available situation reports sent to WHO AFRO. Numbers are subject to change as the situations are dynamic.
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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

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Contributors
J. Ndaruhutse (Burundi)
G. Namara (Nigeria)
R. Nansseu (Democratic Republic of the Congo)
A. Ane (Cote d’Ivoire).

Graphic design
A. Moussonago

Editorial Team
B. Impouma
C. Okot
E. Hamblion
B. Farham
G. Williams
Z. Kassamali
P. Ndumbi
J. Kimenyi
E. Kibangou
O. Ogundiran
T. Lee

Production Team
A. Bukhari
T. Mlanda
R. Ngom
F. Moussana

Editorial Advisory Group
Z. Yoti, Regional Emergency Director ai
B. Impouma
Y. Ali Ahmed
M. Yao
M. Djingarey

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