The cholera outbreak in the WHO African Region continues to evolve, with 13 countries currently reporting cases. The concurrent climate-induced natural disasters such as cyclone and flooding in the southern African region (Malawi, Mozambique, and Zimbabwe) and drought in the Horn of Africa (Kenya) threatens to impede the progress made in controlling the ongoing outbreaks in the region. In week 11, there has been a modest increase of 1.1% in incidence, with 5022 new cases reported from eight countries compared to 4967 cases registered in week 10. The observed regional uptick was driven by upsurges in Ethiopia, Kenya, Mozambique, and Zimbabwe. Conversely, there was a 46% increase in deaths reported during the same period, with 89 deaths occurring in week 11 compared to 61 deaths in week 10 of 2023.

Cumulatively, 140,427 suspected cholera cases have been reported, including 3,193 deaths (case fatality ratio (CFR = 2.3%)) as of 21 March 2023 (Table 1). Malawi accounts for 39% (54,839) of the total cases and 53% (1,684) of all deaths reported, and together with Nigeria, Democratic Republic of the Congo, and Cameroon, contribute to 85% (119,240) of the overall caseload and for 92% (2,946) of cumulative deaths.

The cholera outbreak in Cameroon started in October 2021, while Malawi, Democratic Republic of the Congo and Nigeria reported cholera outbreaks in the first quarter of 2022. Kenya, Mozambique, and Ethiopia reported their outbreaks between August and October 2022, while Burundi, Zambia, United Republic of Tanzania, South Africa, Zimbabwe, and South Sudan reported cholera outbreaks between January and March 2023. No new country has reported a cholera outbreak in the past week.

The cholera outbreaks in the African Region are happening in the context of natural disasters such as cyclones (Mozambique, Malawi), flooding (Mozambique, Malawi), drought (Kenya and Ethiopia), conflict (Cameroon, Democratic Republic of the Congo, Nigeria, Ethiopia) and multiple disease.
outbreaks including mpox, wild polio, measles, COVID-19 pandemic, etc. Many countries have limited and strained resources, shortage of medical commodities, including cholera kits and Oral Cholera Vaccine (OCV). Poor sanitation and unreliable water supplies with increased cross-border movements also serve as driving factors for the outbreak across the region.

Tropical Cyclone Freddy made its second landfall in Mozambique on 11 March 2023 and moved inlands into southern Malawi, where a State of Disaster has been declared in the Southern Region, particularly in the districts of Blantyre, Chikwawa, Chiradzulu, Mulanje, Mwanza, Neno, Nsanje, Phalombe, Thyolo, and Zomba. The displacements, infrastructural damage, critical shortage of water, sanitation and hygiene (WASH) infrastructures and floods increase the risk of escalation of the cholera outbreak in these affected countries.

Figure 1: Distribution of cholera cases and deaths in WHO African Region, January 2022—March 2023
Table 1: Cholera Cases and Deaths in WHO AFRO Region, October 2021 to 12 March 2023

<table>
<thead>
<tr>
<th>Country</th>
<th>Cumulative Cases</th>
<th>Cumulative Deaths</th>
<th>CFR (%)</th>
<th>Data Start Date</th>
<th>Last update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>196</td>
<td>1</td>
<td>0.5</td>
<td>Jan 2023</td>
<td>20/3/2023</td>
</tr>
<tr>
<td>Cameroon</td>
<td>15,309</td>
<td>311</td>
<td>2.0</td>
<td>Oct 2021</td>
<td>12/3/2023</td>
</tr>
<tr>
<td>Democratic Republic of Congo</td>
<td>24,657</td>
<td>334</td>
<td>1.4</td>
<td>Jan 2022</td>
<td>21/3/2023</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2095</td>
<td>44</td>
<td>2.1</td>
<td>Aug 2022</td>
<td>20/3/2023</td>
</tr>
<tr>
<td>Kenya</td>
<td>7350</td>
<td>116</td>
<td>1.6</td>
<td>Oct 2022</td>
<td>21/3/2023</td>
</tr>
<tr>
<td>Malawi</td>
<td>54,839</td>
<td>1,684</td>
<td>3.1</td>
<td>Mar 2022</td>
<td>21/3/2023</td>
</tr>
<tr>
<td>Mozambique</td>
<td>10,854</td>
<td>75</td>
<td>0.7</td>
<td>Sep 2022</td>
<td>21/3/2023</td>
</tr>
<tr>
<td>Nigeria</td>
<td>24,435</td>
<td>617</td>
<td>2.5</td>
<td>Jan 2022</td>
<td>13/3/2023</td>
</tr>
<tr>
<td>Zambia</td>
<td>224</td>
<td>5</td>
<td>2.2</td>
<td>Jan 2023</td>
<td>8/3/2023</td>
</tr>
<tr>
<td>South Africa</td>
<td>6</td>
<td>1</td>
<td>16.7</td>
<td>Feb 2023</td>
<td>4/3/2023</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>72</td>
<td>3</td>
<td>4.2</td>
<td>Feb 2023</td>
<td>13/3/2023</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>121</td>
<td>1</td>
<td>0.8</td>
<td>Feb 2023</td>
<td>18/3/2023</td>
</tr>
<tr>
<td>South Sudan</td>
<td>269</td>
<td>1</td>
<td>0.4</td>
<td>Feb 2023</td>
<td>12/3/2023</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>140,427</strong></td>
<td><strong>3,193</strong></td>
<td><strong>2.3</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cases increasing in all regions in week 11 except West Africa
Cases increasing in Ethiopia, Kenya, Mozambique, and Zimbabwe
Country Specific updates

Malawi

The cholera outbreak in Malawi continues to decline as new cases decreased from 3979 in week 10 to 2649 in week 11 (a 33.4% decrease). Meanwhile, new deaths increased from 30 in week 10 to 47 in week 11, a 56.7% increase. As of 21 March 2023, a cumulative total of 54 839 cases have been reported since the onset of the outbreak and all 29 districts are affected. The cumulative number of deaths now stands at 1684, with a case fatality ratio of 3.1%. Malawi was hit by Tropical Cyclone Freddy on 11 March 2023, which caused loss of lives and property in the Southern Region of Malawi, threatening sustainable improvement in the cholera response. The cholera situation is likely to escalate in the coming days to weeks as the devastating impact of the Cyclone takes effect.

Figure 4: Map of Malawi showing geographical distribution of cases
Ongoing Public Health Actions

- Establishment of oral rehydration points (ORPs) in high-burden communities. A total of 71 ORPs have been established across the country with 75 more planned in the coming week.
- Conducted visit to Saint Gabriel hospital CTU in Lilongwe to investigate a recent facility cholera death and assessing the level of implementation of IPC measures, with engagement of the cholera survivors.
- Delivered oral rehydration salt (ORS) for patient care in Area 25 and Area 18 CTCs.

Challenges/Gaps

- Limited WASH infrastructure in highly-densely populated parts of the country which continue to facilitate spreading of infection
- Disruption of health services and WASH infrastructure due to torrential rains and floods from Cyclone Freddy
- Limited capacities for optimal clinical care in peripheral facilities
- Awaiting ICG approval on OCV request

The cholera outbreak in Nigeria has been ongoing since January 2022. Overall, the trend in cases is on the decline, with a decrease of 53.6% noted between cases reported in February (213) compared to January (459). Cumulative cases reported to WHO as of 13 March 2023 were 24 435 with 617 (CFR = 2.5%). A total of 33 states and the Federal Capital territory and 271 Local Government Areas (LGAs) have reported cases. Cross River State has reported the highest number of cases since January 2023, accounting for 68.3% of the cases (459) and 56% of deaths (14), followed by Ebonyi, accounting for 13% of cases (87) and 20% of deaths (5).
Figure 6: Weekly trend of cholera cases and deaths in Nigeria, week 1-9, 2023

Figure 7: Map of Nigeria showing cholera affected states in 2023
The cholera outbreak in the Democratic Republic of the Congo started in January 2022. As of 21 March 2023, the country had reported 24,657 cases cumulatively, with 334 deaths (CFR = 1.4%) across 12 provinces. The number of new cases and deaths during weeks 9 to 10 increased by 119% (612 to 1,342 cases) and 125% (4 to 9 deaths) respectively.

Table 2: Cholera cases and deaths in Democratic Republic of the Congo, for Epi weeks 9 and 10, 2023

<table>
<thead>
<tr>
<th>Province</th>
<th>Week 10, 2023</th>
<th>Week 9, 2023</th>
<th>CFR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>case</td>
<td>death</td>
<td>case</td>
</tr>
<tr>
<td>North-Kivu</td>
<td>1109</td>
<td>7</td>
<td>417</td>
</tr>
<tr>
<td>Tanganyika</td>
<td>98</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>Upper-Katanga</td>
<td>67</td>
<td>2</td>
<td>64</td>
</tr>
<tr>
<td>South-Kivu</td>
<td>41</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>Top-Lomami</td>
<td>27</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Tshopo</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Eastern Kasai</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lomami</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lualaba</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kasaï</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kwilu</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sankuru</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>1342</strong></td>
<td><strong>9</strong></td>
<td><strong>612</strong></td>
</tr>
</tbody>
</table>
Cameroon declared a cholera outbreak in October 2021. Cumulatively, as of 12 March 2023, Cameroon had reported 15,309 cases with 311 deaths (CFR = 2.0%). The outbreak has affected 55 health districts in eight regions. From 6 to 12 March, new cases were reported from Littoral region. Overall, the cholera trend in the country is decreasing as shown in figure 9.
Figure 9: Epicurve of cholera cases in Cameroon from October 2021 to 12 March 2023

Figure 10: Map of Cameroon showing districts affected by cholera, October 2021 – 12 March 2023
Kenya observed a surge in cholera cases in week 11 as 876 new cases were reported compared to 339 cases registered in week 10, reflecting a 158% increase. The number of deaths equally increased by 180% in the same period, from five in week 10 to 14 in week 11. Cumulatively, 7350 cases and 116 deaths (CFR 1.6%) have been reported as of 21 March 2023. Cholera cases have been reported in 17 of 47 counties, with 8 counties having active transmission. Garissa and Tana River Counties have the highest attack rates. Garissa hosts IDPs and refugee population in Dadaab camps. Three of the most affected counties share borders with Somalia, and one with Ethiopia. The cholera outbreak in Kenya is occurring in the context of severe drought, especially in the most affected counties. The first case of cholera was reported on 8 October 2022, following a wedding in Kiambu County.

Figure 11: Epicurve of Cholera outbreak in Kenya from 8 October 2022 to 21 March 2023
Figure 12: Spot map showing cholera cases and deaths by Sub County, Kenya as of 20 March 2023

Public Health Actions
- Management of cholera cases in established CTCs/CTUs
- WASH supplies shipped to affected counties for water quality testing

Challenges/Gaps
- Inadequate capacity for cholera case management in the 14 counties with gaps in prompt patient management
- Inadequate community-based surveillance capacities
- Poor health seeking behaviour

Mozambique

Grade 3

Cumulative Cases

10,854

Cumulative Deaths

75

CFR 0.7%

The number of new cholera cases in Mozambique increased by 132%, from 1023 cases reported in week 10 to 2374 cases in week 11. Cholera related deaths also increased by 140% during the same period, from 10 to 24. As of 21 March 2023, the country has reported a cumulative of 10,854 cases, with 75 deaths (CFR = 0.7%). The outbreak has been confirmed in 42 districts in eight of 11 provinces.

The first cholera case was reported in mid-September 2022. Since 2017, cholera outbreaks have occurred in Mozambique every year during the hot and rainy seasons (January to April and October to December), mainly from Nampula, Cabo Delgado, Sofala and Tete provinces. Severe tropical cyclone Freddy made landfall in Zambezia province in the night of 11 March 2023 with heavy rainfalls in
Zambezia, Sofala, Manica, Tete and Niassa provinces. This has resulted in damage to homes, schools, health facilities with massive displacement of people. Some of the provinces affected by the cyclone also happen to be the ones responding to cholera outbreak. Continued rains and flooding could further exacerbate cholera transmission in the country.

**Figure 13:** Epicurve of cholera outbreak in Mozambique, September 2022 to 19 March 2023

**Figure 14:** Districts reporting Cholera cases in Mozambique as of 19 March 2023
Public Health Actions

- Conducted in-service training in case management and IPC for 50 health professionals in Tete district
- Establishment of a CTC with a capacity for 61 bed in Manica

Challenges/Gaps

- Shortage of staff to carry out case management.
- Delay in obtaining visa for deployed response experts

Ethiopia registered a 58% increase in new cholera cases in week 11 (274) compared to week 10 (174). There were three deaths in each of the two weeks. As of 20 March 2023, Ethiopia has reported a cumulative case load of 2095, with 44 deaths (CFR = 2.1). There was an increase in affected woredas from 15 to 18 with Goro, Dola and Raitu newly affected.

The index case was reported from on 27 August 2022 from Harana Buluk. Current water supply coverage for the cholera outbreak-affected woredas in Oromia and Somali regions is low. Due to limited OVC doses, Ethiopia prioritized campaigns in IDP sites and Kebeles having the highest case load and limited WASH.

Figure 15: Epicurve of Cholera outbreak in Ethiopia from October 2022 to 19 March 2023
Zambia’s index case was confirmed in Vubwi district on 21 January 2023 and was linked to the Mozambique outbreak. Vubwi district continues to receive cases from Malawi and Mozambique seeking for care in Vubwi health facilities. Currently six districts are affected (Vubwi, Chipata, Chipangali, Lusangazi, Mwansabombwe and Nchelenge). Three of the four districts in Eastern province all share a border with Malawi, with Vubwi bordering Mozambique as well. Mwansabombwe and Nchelenge districts in Luapula province both border the Democratic Republic of the Congo, which has an active cholera outbreak. The fishing camps on Luapula river are characterized with poor WASH and are the epicenters for the current outbreak. Cumulatively, Zambia has reported 224 cases and 5 deaths (CFR = 2.2%) as of 8 March 2023.
Figure 17: Reported cholera cases in Zambia 21 January to 12 March 2023

Figure 18: Map of Zambia showing affected districts
Burundi has reported cholera cases since 8 December 2022, and the outbreak was officially declared on 1 January 2023. The country as of 20th March 2023 has reported 196 cumulative cases, and one death (CFR 0.5%) across seven health districts in three provinces, some of which border South Kivu in Democratic Republic of the Congo. There was a 22% decrease in new cases from week 10 to 11 but no new deaths.

**Figure 19:** Epicurve of Cholera outbreak in Burundi as of 20 March 2023
South Africa reported zero new cholera cases during week 9 (week ending 4 March 2023). Two cases of cholera were initially imported into South Africa (Gauteng province) by two travelers returning from Malawi on 30 January 2023. The third case was a close household contact of one of the returning travelers in same province (import related cholera case). Two additional cases were diagnosed in Gauteng province (one from the city of Johannesburg district, one in the city of Ekurhuleni district). These two cases are not linked the earlier cholera cases and had no information linking them to recent international travel to cholera affected countries. The sixth case is a Malawian national with no travel history. South Africa is therefore experiencing cholera from importation and possible local transmission, a situation that poses a risk of further spread within the country due to population movements, presence of unplanned human settlements and squatter camps, flooding in some parts of the country, areas with limited access to safe water and hygiene and sanitation facilities.
Tanzania has reported cumulatively, 72 cases and three deaths (CFR 4.2%) as of 13 March 2023. Tanganyika in Katavi region accounts for 45.6% (34) of all cases. All the deaths occurred from Nyasa in Ruvuma region. Kigoma (bordering DRC) and Katavi regions have also reported cases.

Cholera was first reported on 22 January 2023 in Nyasa District Council in Ruvuma Region. The index case had participated in the burial of person who died in Mozambique, whose body entered Tanzania on 13 January 2022.
Zimbabwe reported 121 suspected cholera cases with one death on 18 March 2023 occurring in seven provinces. The outbreak started on 12 February 2023 in Chegutu town, Mashonaland West Province. It is still unclear what the source of the infection is, but there is a suspicion of a borehole being the source. The borehole is two meters away from the sewage pipeline.
Figure 23: Evolution of cholera cases in Zimbabwe, 23 Feb to 10 Mar 2023

Public Health Actions
- Reviewed and updated cholera and typhoid guidelines for use in the country
- Cholera messages are being aired through local community radios

Challenges/Gaps
- Inadequate WASH infrastructure in communities

South Sudan

Grade 3

Cumulative Cases 269
Cumulative Deaths 1
CFR 0.4%

The Ministry of Health of South Sudan declared cholera outbreak in Malakal, Upper Nile State on 7 March 2023. The outbreak with an onset of 22 February 2023 as of 16 March 2023 has a cumulative number of 269 suspected cases with one death (CFR=0.4%).

Children below 5 years of age the most affected accounting for 90% of the total cases reported. Majority of 1-4 years cases were reported from Malakal town 53% (132) and in Malakal protection site POC 47% (108) cases. Oral Cholera vaccination campaign commenced on 16 March 2023 targeting 53,000 individuals aged 1 year and above in the POC and Malakal town. The current cholera outbreak is localized in Malakal Upper Nile State on the side boarding Sudan.
Figure 24: Epicurve of cholera outbreak in Malaka county as of 12 March 2023

Figure 25: Map of South Sudan showing cholera affected states in 2023
Public Health Actions
- Cleaning of 23 water storage tanks completed in Malakal POC with replacement of tanks in Sector 2 Bloc P (increasing from 15,000 litres to 20,000 litres)
- WHO submitted a new request of 200,000 doses of OCV to the International Coordination Group (ICG) for additional oral cholera vaccines

Challenges/Gaps
- Inadequate WASH infrastructure in communities
- Case management charts are in English making it difficult for healthcare workers who only understand Arabic

WHO ACTIVITIES

Readiness:
- 19 countries prioritized for cholera readiness under priority 1 and 2 countries (see table below).
- Ongoing bi-weekly meetings with priorities 1 and 2 countries to share updates on the ongoing readiness activities
- Ongoing support to countries on readiness

Response:
- Resource mobilisation for cholera strategic readiness and response ongoing.
- Ongoing weekly meetings with all countries in response
- Strengthening cross-border collaborations on cholera surveillance
- Ongoing deployments to countries as requested by countries
- Technical inputs on training in case management and establishment of CTCs/CTUs
- Strengthening surveillance activities including community-based surveillance
- Intensified risk communication and community engagement using all media types as well as community influencers
- Conduct of mortality audits in some countries
- Technical support to countries on vaccination strategies for reactive OCV campaigns

Table 2: Categorisation of countries at risk

<table>
<thead>
<tr>
<th>Category</th>
<th>Description of category</th>
<th>Member States</th>
<th>Key Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category One</td>
<td>Member States with • High number of districts at high risk of cholera • Unaffected provinces/districts in countries with an active cholera outbreak • Countries at high risk of cross-border transmission • Countries with limited capacity in the cholera checklist</td>
<td>• Niger and Togo • Unaffected provinces/districts in countries with an active cholera outbreak (<strong>Mozambique, Zambia, Kenya, Ethiopia, DRC and Burundi, Nigeria, South Africa, Cameroon, South Sudan, the United Republic of Tanzania and Zimbabwe</strong>) • Countries with limited capacity using the cholera checklist assessment tool (<strong>Madagascar</strong>)</td>
<td>Response actions if Outbreak is confirmed. Application of Minimum Operational Requirements +Recommended Readiness Interventions</td>
</tr>
<tr>
<td>Category</td>
<td>Description of category</td>
<td>Member States</td>
<td>Key Actions.</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Category Two</td>
<td>Member States with • moderate risk of importation of a cholera case from one or any of the above countries (category one) • few districts with a high risk of the cholera outbreak</td>
<td>Uganda, Benin, Rwanda and Burkina Faso</td>
<td>Response actions if Outbreak is confirmed. Application of Minimum Operational Requirements + Recommended Readiness Interventions</td>
</tr>
<tr>
<td>Category three</td>
<td>Member States with: • low risk of importation of a cholera case from one or any of the above countries (categories one and two)</td>
<td>All the other countries in the Region</td>
<td>Application of Minimum Operational Requirements + Recommended Readiness Interventions and Risk Monitoring</td>
</tr>
</tbody>
</table>
For additional information, please contact

Cholera Epi/Surveillance Team Lead:
Dr LUKOYA Okot Charles
e-mail: okotc@who.int

or the

Incident Manager Regional Cholera IMST:
Dr RAMADAN Otim Patrick: ramadano@who.int