Weekly Regional Cholera Bulletin: 29 March 2023

Data reported: as of 28 March 2023
Situation update

Overview

The cholera outbreak in the WHO African Region continues to evolve, with 13 countries currently affected. The concurrent climate-induced natural disasters such as cyclone and flooding in the southern African region and drought in the Horn of Africa threatens to impede the progress made in controlling the ongoing outbreaks. The cholera trends are being closely monitored as response and readiness measures are being ramped up.

In week 12, there was a modest increase of 17.4% in incidence cases, with 8807 cases recorded from nine countries compared with 7501 cases registered in week 11. This increase was mainly driven by an upsurge in cholera cases in Mozambique (while all the other countries observed reduction in new cases). On the other hand, there was a 51.5% decrease in deaths recorded during the same period, as 48 deaths occurred in week 12 compared with 99 in week 11 of 2023.

Cumulatively, 145,121 suspected cholera cases have been reported, including 3,249 deaths (case fatality ratio (CFR = 2.2%)) as of 29 March 2023 (Table 1). Malawi accounts for 39% (56,090) of the total cases and 53% (1,712) of all deaths reported, and together with Cameroon, Democratic Republic of the Congo, Mozambique, and Nigeria contribute to 97% (140,528) of the overall caseload and for 94% (3,068) of cumulative deaths.

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.
Figure 1: Distribution of cholera cases and deaths in WHO African Region, January 2021—March 2023

Legend
Percentage of cases
- 0.00% - 5.17%
- 5.18% - 11.70%
- 11.71% - 17.65%
- 17.66% - 36.93%
- Not affected
- Not applicable

Cases and deaths
- Malawi: 171,531
- Democratic Republic of Congo: 26,871
- Nigeria: 24,435
- Mozambique: 17,810
- Cameroon: 15,322
- Kenya: 12,672
- Ethiopia: 11,570
- South Sudan: 999
- Zambia: 295
- Zimbabwe: 237
- Burundi: 207
- United Republic of Tanzania: 132
- South Africa: 0

Data sources: MoH from various countries
Map production: 3/30/2023
Health Information and Risks Assessment
Emergency Preparedness and Response
Regional office for Africa
World Health Organization
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**Table 1: Cholera Cases and Deaths in WHO AFRO Region, October 2021 to 27 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>207</td>
<td>1</td>
<td>0.5</td>
<td>Jan 2023</td>
<td>29/3/2023</td>
</tr>
<tr>
<td>Cameroon</td>
<td>15 322</td>
<td>311</td>
<td>2.0</td>
<td>Oct 2021</td>
<td>30/3/2023</td>
</tr>
<tr>
<td>Democratic Republic of Congo</td>
<td>26 871</td>
<td>343</td>
<td>1.3</td>
<td>Jan 2022</td>
<td>27/3/2023</td>
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<tr>
<td>Ethiopia</td>
<td>2370</td>
<td>51</td>
<td>2.2</td>
<td>Aug 2022</td>
<td>27/3/2023</td>
</tr>
<tr>
<td>Kenya</td>
<td>7872</td>
<td>123</td>
<td>1.6</td>
<td>Oct 2022</td>
<td>29/3/2023</td>
</tr>
<tr>
<td>Malawi</td>
<td>56 090</td>
<td>1712</td>
<td>3.1</td>
<td>Mar 2022</td>
<td>28/3/2023</td>
</tr>
<tr>
<td>Mozambique</td>
<td>17 810</td>
<td>85</td>
<td>0.5</td>
<td>Sep 2022</td>
<td>28/3/2023</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>
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<tr>
<td>Zambia</td>
<td>291</td>
<td>7</td>
<td>2.4</td>
<td>Jan 2023</td>
<td>28/3/2023</td>
</tr>
<tr>
<td>South Africa</td>
<td>10</td>
<td>1</td>
<td>10.0</td>
<td>Feb 2023</td>
<td>27/3/2023</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>
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<tr>
<td>Zimbabwe</td>
<td>237</td>
<td>2</td>
<td>0.8</td>
<td>Feb 2023</td>
<td>27/3/2023</td>
</tr>
<tr>
<td>South Sudan</td>
<td>499</td>
<td>2</td>
<td>0.4</td>
<td>Feb 2023</td>
<td>27/3/2023</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>145 121</strong></td>
<td><strong>3249</strong></td>
<td><strong>2.2</strong></td>
<td></td>
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Country Specific updates

Malawi

<table>
<thead>
<tr>
<th>Grade 3</th>
<th>Cumulative Cases</th>
<th>Cumulative Deaths</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56 090</td>
<td>1 712</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

The cholera outbreak in Malawi continues to decline as new cases decreased from 1427 in week 11 to 1109 in week 12 (22.3% decrease). New deaths also decreased from 47 in week 11 to 23 in week 12, (51.1% decrease). As of 28 March 2023, a cumulative total of 56 090 cases have been reported since the onset of the outbreak and all 29 districts are affected (24 out of the 29 districts reported new cases in the last 7 days). The cumulative number of deaths now stands at 1712, 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, 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 3: Map of Malawi showing geographical distribution of cases

Figure 4: Epi Curve for cholera outbreak in Malawi, 3 March 2022 – 28 March 2023
Ongoing Public Health Actions

- Conducted water quality testing of 150 water sources and households and results shared with different stakeholders for targeted interventions as of 27 March 2023.
- Provision of mentorship to cholera treatment units on Infection Prevention and Control.
- Establishment of 30 new Oral Rehydration Points (ORPs) in Salima, Machinga and Balaka (10 in each district).
- Routine death review to identify bottlenecks in the response system.

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 of OCV request

The cholera outbreak in Nigeria has been ongoing since January 2022. While there have not been recent updates from country, the general trend is reported to be on the decline, with a 53.6% decrease seen in February (213) compared with 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 5: Weekly trend of cholera cases and deaths in Nigeria, week 1-9, 2023
The number of new cases and deaths from weeks 10 to 11 increased by 62.3% (1,342 to 2,218 cases). Nine deaths were reported in week 10 as well as week 11. As of 27 March 2023, the country had reported 26,871 cumulative cases, with 343 deaths (CFR = 1.3%) across 12 affected provinces. The cholera outbreak in the Democratic Republic of the Congo started in January 2022.

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

<table>
<thead>
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<th>Province</th>
<th>Week 11, 2023</th>
<th>Week 10, 2023</th>
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<tr>
<td></td>
<td>case</td>
<td>death</td>
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<tr>
<td>Nord-Kivu</td>
<td>2005</td>
<td>3</td>
</tr>
<tr>
<td>Tanganyika</td>
<td>79</td>
<td>3</td>
</tr>
<tr>
<td>Sud-Kivu</td>
<td>71</td>
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<tr>
<td>Haut-Lomami</td>
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<tr>
<td>Haut-Katanga</td>
<td>49</td>
<td>2</td>
</tr>
<tr>
<td>Lomami</td>
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<td>0</td>
</tr>
<tr>
<td>Kasai-Oriental</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Province</td>
<td>Week 11, 2023</td>
<td>Week 10, 2023</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td>case</td>
<td>death</td>
</tr>
<tr>
<td>Kasai Central</td>
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<td>0</td>
</tr>
<tr>
<td>Tshopo</td>
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<td>0</td>
</tr>
<tr>
<td>Equateur</td>
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<td>0</td>
</tr>
<tr>
<td>Lualaba</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maniema</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grand total</td>
<td>2214</td>
<td>9</td>
</tr>
</tbody>
</table>

Figure 7: Geographical distribution of cholera cases in the Democratic Republic of Congo, as of week 10 2023

Ongoing Public Health Actions

- Construction of CTU/CTC in epidemic areas to expand the capacity to receive patients.
- Dispatch of cholera kits for the care of patients.
- Capacity building of health actors and hygienists in the 3 DPS (South Kivu, Tanganyika and Sankuru) in cholera preparedness and response.

Challenges/Gaps

- Low water supply coverage
- Insufficient number of latrines
The cholera outbreak in Cameroon has greatly improved (see figure 8) though there are still sporadic cases being reported. There were four new cases registered in week 12 compared with eight cases in week 11. Meanwhile, there was no death reported during the week. Cumulatively, as of 23 March 2023, Cameroon had reported 15 322 cases with 311 deaths (CFR = 2.0%). The outbreak has affected 55 health districts in eight regions. Cameroon declared the cholera outbreak in October 2021.

Figure 8: Epicurve of cholera cases in Cameroon from October 2021 to 26 March 2023

Figure 9: Map of Cameroon showing districts affected by cholera, October 2021 – 12 March 2023
Public Health Actions
- Conducted intra action review for the cholera response in the country
- Evaluation workshop of the last cholera reactive vaccination campaign
- Meeting of the WASH sector in the Far North and preparations for World Water Day

Challenges/Gaps
- Access to safe water and toilet facilities a major challenge across communities

The cholera outbreak in Kenya remains precarious though some improvement was observed during the reporting week. There was a 56% reduction in new cases in week 12, with 389 cases reported compared with 875 cases in week 11. The number of deaths also decreased by 36%, from 14 in week 11 to 9 in week 12. Cumulatively, 7872 cases and 123 deaths (CFR 1.6%) have been reported as of 29 March 2023. Cholera cases have been reported in 17 of 47 counties, with seven 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 10:  Epicurve of Cholera outbreak in Kenya from 8 October 2022 to 25 March 2023

Figure 11: Spot map showing cholera cases and deaths by Sub County, Kenya as of 26 March 2023
The cholera outbreak in Mozambique has been deteriorating since the devastating impact of Tropical Cyclone Freddy. The number of new cases has sharply increased by 193% in week 12, from 2374 cases reported in week 11 to 6956 cases in week 12. Cholera related deaths also increased by 58.3% during the same period, from 10 to 24. As of 28 March 2023, the country has reported a cumulative of 17 810 cases, with 85 deaths (CFR = 0.5%). The outbreak has been confirmed in 42 districts in eight of 11 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.

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.

Figure 12: Epicurve of cholera outbreak in Mozambique, September 2022 to 26 March 2023
**Public Health Actions**

- Established 3 more CTC, one in Quelimane City (with intention to close the CTC in QGH) one in Inhassunge and Nicoadala.
- Water distribution by tankers continues in the most affected areas of Lichinga district.
- 1,358,682 doses of OCV arrived and distributed to Manica, Zambezia and Sofala to conduct a reactive vaccination campaign in Quelimane, Beira, Marromeu and Chimoio.

**Challenges/Gaps**

- Shortage of staff to carry out case management.
- Replace destroyed/damaged Cold chain in 14 health facilities
- Shortage of Ringer lactate and ORS
- Shortage of Certeza and chlorine
While cholera cases have been steadily increasing in Ethiopia in the past week, the country registered a 61% (132) decrease in new cases in week 12 compared with week 11 (336). There were three deaths in each of the two weeks. As of 27 March 2023, Ethiopia has reported a cumulative case load of 2370, with 51 deaths (CFR = 2.2). There are 17 out of 22 affected woredas reporting active outbreaks.

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 14: Epicurve of Cholera outbreak in Ethiopia from October 2022 to 26 March 2023**
There was a 23% (27 cases) reduction in the number of new cholera cases reported in week 12 in Zambia compared to 35 cases in week 11. Cumulatively, 291 cases and seven deaths (CFR = 2.4%) have reported as of 28 March 2023. There are seven districts in three provinces affected. Four districts declared the end of cholera outbreaks: Mwansabombwe (Luapula), Lusangazi (Eastern), Vubwi (Eastern), Chipangali (Eastern). However, the lifting of fish ban has started showing signs of cholera resurgence within the district. The fishing camps on Luapula river are characterized with poor WASH and are the epicenters for the current outbreak. Zambia’s index case was confirmed in Vubwi district on 21 January 2023 and was linked to the Mozambique outbreak.
Figure 16: Reported cholera cases in Zambia 21 January to 12 March 2023

Figure 17: Map of Zambia showing affected districts
Public Health Actions
- Request for 10,167,425 doses of OCV for reactive vaccination initiated. All affected districts, hotspot districts not vaccinated and districts experiencing flooding all included in request.
- WHO provided cholera laboratory kits to the country

Challenges/Gaps
- Inadequate WASH supplies especially liquid chlorine; only 20% of required quantities available
- Low risk perception among the public – people continue to get exposed through contacts to positive cases.

There was a 52% decrease in new cholera cases in Burundi from 21 cases in week 11 to 10 cases in week 12. There were no new deaths. As of 29 March 2023, a cumulative of 207 cases and one death (CFR 0.5%) have been reported across seven health districts in three provinces, some of which border South Kivu in Democratic Republic of the Congo. Burundi has reported cholera cases since 8 December 2022, and the outbreak was officially declared on 1 January 2023.

Figure 18: Epicurve of Cholera outbreak in Burundi as of 20 March 2023
South Africa reported four new cholera cases and one death over the last week, all from Gauteng province and have been classified as indigenous cases; none reported recent travel (international or local) and there was no evidence of a direct link to imported cases. Three of the new cases are adults from Johannesburg who participated in the same traditional healing ritual, while the fourth case is a 10-year-old child from Ekhurhuleni. No epidemiologic link has been established with the previous cases. 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 the 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 Ekhurhuleni district). These two cases are not linked to 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. The most recent cases were associated with separate baptismal events in rivers.
Figure 20: Epicurve of Cholera outbreak in South Africa, 28 Jan - 04 Mar 2023

Public Health Actions
- Trained outbreak response team
- Issued out cholera educational messages on various platforms
- Updated and disseminated case definitions, guidelines for specimen collection

Challenges/Gaps
- Inadequate trained human resources for the response
- Inadequate resources
- Finalisation of national contingency plan

While there are no recent official updates from Tanzania, the country is reported to have zero cases in the past days. There is a need to validate this information. Tanzania has reported a cumulative of 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.
Figure 21: Epicurve of cholera cases in United Republic of Tanzania, 15 January to 13 March 2023

Figure 22: Map of United Republic of Tanzania showing affected districts

Public Health Actions
- A total of 106,800 aqua tabs have been distributed to 534 households
- Deployment of regional and district Rapid Response Team

Challenges/Gaps
- Water quality testing
- Need to treat household water sources and conduct water monitoring
The cholera outbreak in Zimbabwe has been steadily declining since mid-March 2023 (see figure 22). There was a 27% decrease in new cases in week 12 when 68 cases were registered compared with 93 cases in week 11. There was one death reported in week 12, the same number as week 11. Zimbabwe reported 237 suspected cholera cases with two deaths as of 27 March 2023 occurring in eight 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 26 Mar 2023
Public Health Actions

- Reviewed and updated cholera and typhoid guidelines for use in the country
- Prepositioning of commodities in cholera hotspot districts
- Cholera messages are being aired through local community radios

Challenges/Gaps

- Inadequate WASH infrastructure in communities

South Sudan registered a modest 5% decrease in new cholera cases in week 12 as 112 cases were reported compared to 118 cases registered in week 11. There was one death reported in week 12 as opposed to zero deaths in week 11. The outbreak with an onset of 22 February 2023 as of 27 March 2023 has a cumulative number of 499 suspected cases with two deaths (CFR=0.4%). The Ministry of Health of South Sudan declared cholera outbreak in Malakal, Upper Nile State on 7 March 2023.

Children aged 1-4 years are the most affected accounting for about 60% of cases and this unique feature is being investigated further. 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 bordering Sudan.

Figure 25: Epicurve of cholera outbreak in Malaka county as of 12 March 2023

Figure 26: Map of South Sudan showing cholera affected states in 2023
Public Health Actions
- Oral cholera vaccination campaign is ongoing with about 75% coverage as of 26 March 2023
- Distributed 4,334 kits of WASH NFIs to 4,334 households
- Nine laboratory assistants were trained on sample collection, packaging and testing

Challenges/Gaps
- Inadequate WASH infrastructure in communities
- Inadequate RDT testing at the sub national level

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
- Combined response efforts to both cholera and cyclone aftermath in Malawi and Mozambique
- Technical inputs on training across all response pillars
- Strengthening surveillance activities including community-based surveillance
- Intensified risk communication and community engagement using all media types as well as community influencers
- 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 (Mozambique, Zambia, Kenya, Ethiopia, DRC and Burundi, Nigeria, South Africa, Cameroon, South Sudan, the United Republic of Tanzania and Zimbabwe) • Countries with limited capacity using the cholera checklist assessment tool (Madagascar)</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><strong>Category Two</strong></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>
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<tr>
<td><strong>Category three</strong></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