

# Multi-country outbreak of cholera

External Situation Report #2, published 11 May 2023

Risk assessment Global risk – Very high	Countries/areas/territories affected 24
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## Highlights

### Data as of 18 April 2023

- Since the last [situation report](#) on the multi-country outbreak of cholera was published on 28 March 2023, one new country reported a cholera outbreak: Eswatini reported a first case in April, related to cross-border transmission from Mozambique and a second case without travel history. In total, 24 countries have reported cases since the beginning of 2023.
- Since the beginning of 2023, outbreaks have spread further across African regions. In south-east Africa, an increasing number and geographic spread of cholera cases have been reported in Malawi, Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe. Tropical cyclone Freddy has made devastating damages in the region, leaving a large number of people – 800 000 in Malawi and Mozambique - internally displaced, disrupted health care and surveillance systems in the region. While this situation report covers the period until 18 April 2023, heavy rains and floods have continued to impact different countries in the region, heightening the risk of further spread of cholera.
- In the Horn of Africa, the epidemiological situations in Ethiopia, Kenya, and Somalia remain a growing concern with increasing number of reported cases and further spreads to new areas. The outbreak is especially concentrated in the Mander triangle, where borders of the three countries meet and population movement drives transmission across borders.
- The overall capacity to respond to the multiple and simultaneous outbreaks continues to be strained due to the global lack of resources, including shortages of the oral cholera vaccine, as well as overstretched public health and medical personnel, who are dealing with multiple disease outbreaks and other health emergencies at the same time.
- Based on the current situation, including the increasing number of outbreaks and their geographic expansion, as well as a lack of vaccines and other resources, WHO assesses the risk at the global level as very high.

## Epidemiological update

Since mid-2021, the world is facing an acute upsurge of the seventh cholera pandemic characterized by the number, size and concurrence of multiple outbreaks, the spread to areas free of cholera for decades and alarmingly high mortality rates.

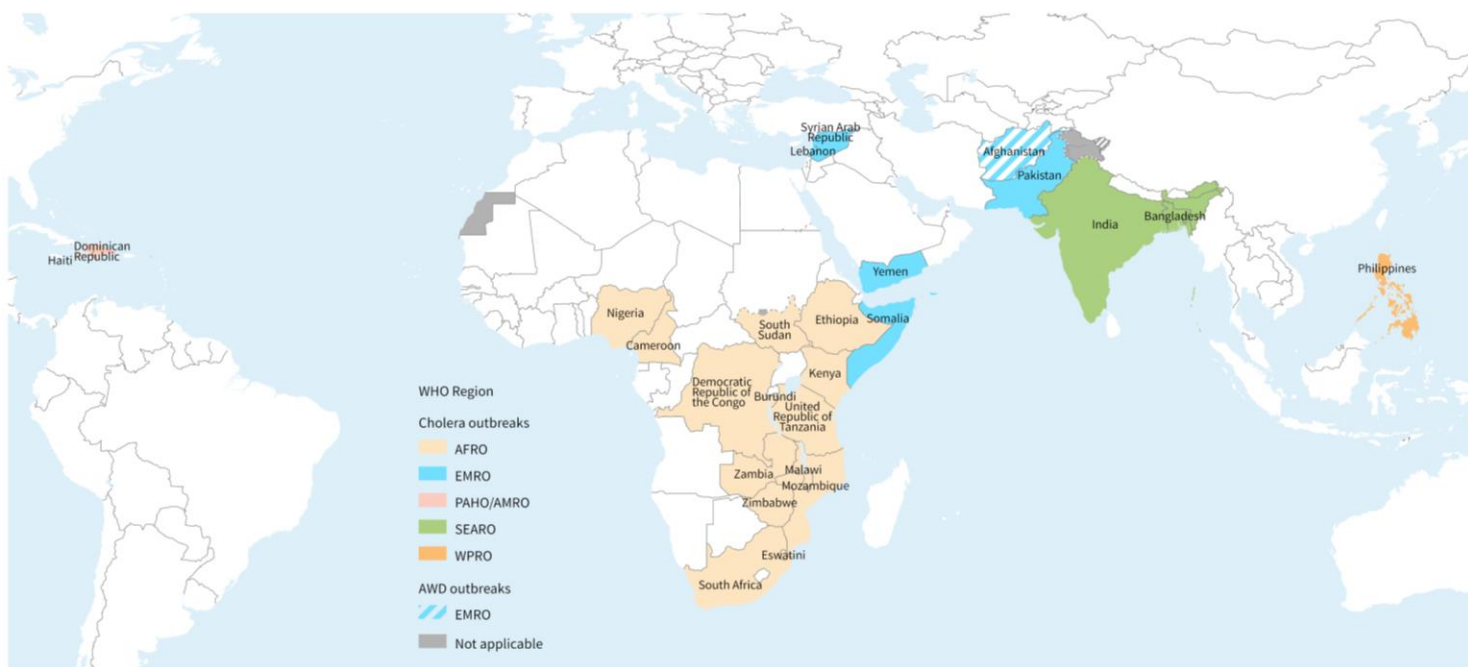
The simultaneous progression of several cholera outbreaks, compounded in countries facing complex humanitarian crises with fragile health systems and aggravated by climate change and natural disasters, poses challenges to outbreak response and risks further spread to other countries.

As of 18 April 2023, at least 24 countries have reported cholera cases since the beginning of the year (Table 1). With reference to historical transmission patterns and seasonality, it is important to note that large parts of the world are currently in low or interepidemic transmission periods, therefore this number could increase in the months to come. The focus in the coming months will be on West Africa where the rainy season between May and October can bring heavy rains and flooding.

The mortality associated with the outbreaks is of particular concern as many countries reported higher case fatality ratios (CFR) than in previous years. The average cholera CFR reported globally in 2021 was 1.9% (2.9% in Africa), a significant increase above the targeted rate (<1%) and the highest recorded in over a decade.

In light of the varying surveillance systems, case definitions and confirmatory capacities among countries reporting cholera, cases and deaths reported need to be interpreted with caution and cannot readily be compared between countries. In this document, cholera cases refer to the sum of suspected and confirmed cases, if not further specified in the country specific context.

**Figure-1: Global situation of epidemics of cholera and acute watery diarrhea reported in 2023, as of 18 April 2023**



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Data Source: World Health Organization  
Map Production: WHO Health Emergencies Programme  
Map Date: 1 May 2023

**Table 1. Cholera cases and deaths reported to WHO from WHO regions, as of 18 April 2023\*\***

Country, area, territory	Suspected /Confirmed cases	Total deaths	Cases per 100 000	CFR (%)	Reporting start	Reporting end
Burundi	281	1	2	< 1	8/12/2022	16/4/2023
Cameroon	15394	312	55	2	1/10/2021	16/4/2023
Democratic Republic of the Congo	16998	79	18	< 1	1/1/2023	16/4/2023
Eswatini	2	0	< 1	0	27/3/2023	18/4/2023
Ethiopia	3861	69	3	1.8	1/8/2022	15/4/2023
Kenya	8960	142	17	1.6	5/10/2022	16/4/2023
Malawi	56968	1727	285	3	28/2/2022	16/4/2023
Mozambique	26841	123	84	< 1	1/9/2022	17/4/2023
Nigeria	1336	79	1	5.9	1/1/2023	2/4/2023
South Africa	11	1	< 1	9.1	1/2/2023	30/3/2023
South Sudan	980	2	7	<1	22/2/2023	14/4/2023
United Republic of Tanzania	72	3	< 1	4.2	1/2/2023	18/4/2023
Zambia	334	8	2	2.4	21/1/2023	15/4/2023
Zimbabwe <sup>‡</sup>	475	9	3	1.9	12/2/2023	18/4/2023
Dominican Republic	99	0	1	0	17/10/2022	7/4/2023
Haiti	40678	650	351	1.6	2/10/2022	7/4/2023
Afghanistan*	38353	18	117	0	1/1/2023	15/4/2023
Lebanon	7384	23		< 1	5/10/2022	17/4/2023
Pakistan***	5909	0		0	1/1/2023	16/4/2023
Somalia	5529	17		< 1	1/1/2023	16/4/2023
Syrian Arab Republic	40862	6	185	< 1	1/1/2023	8/4/2023
Yemen	2335	3	8	<1	1/1/2023	9/4/2023
Northwest Syria	67907	23	1468	< 1	16/9/2022	15/4/2023
Bangladesh (Cox's Bazar)	97	0	11	0	1/1/2023	15/4/2023
Philippines	1140	9	1	< 1	1/1/2023	1/4/2023

\* Afghanistan reported Acute Watery Diarrhoea (AWD).

\*\* Case and death numbers presented are unreliable due to differences in case definitions, reporting systems, and underreporting overall. All data are subject to verification and change due to data availability and accessibility. Respective figures and numbers will be updated as more information becomes available. The data in Table 1 includes suspected, RDT positive and culture confirmed cholera cases. No cholera cases of local transmission have been reported in the European Region.

\*\*\* Refers to the number of tests conducted.

<sup>‡</sup> Note: The number of suspected/confirmed cases for Zimbabwe were changed from 579 to 475 on 15 May 2023.

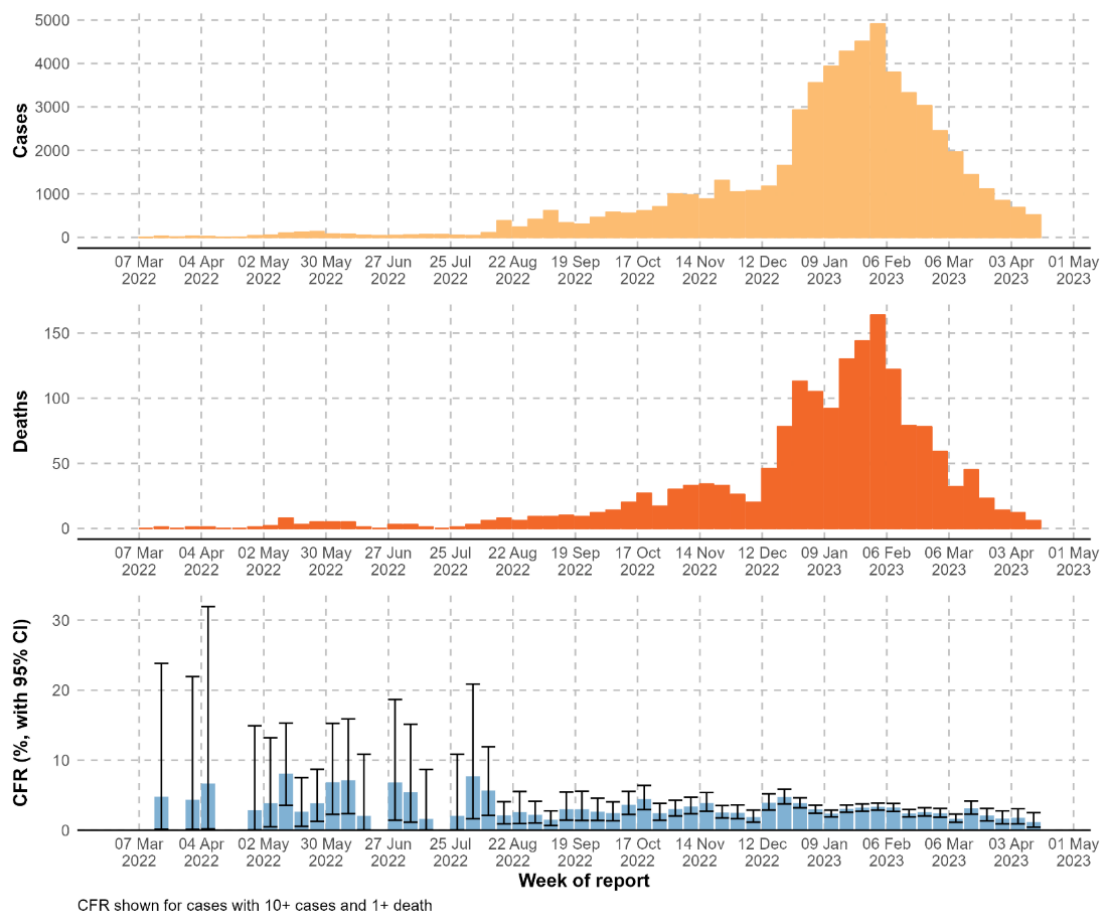
## Focus on selected countries

The epidemiological situation and additional analysis of selected provinces, countries and regions with active cholera outbreaks as of April 2023 are described below.

### Malawi

The cholera outbreak in Malawi has lasted for over a year. From 28 Feb 2022 to 16 April 2023, 56 968 cases and 1727 deaths (CFR 3.0%) have been reported from all 29 districts of the country, making it the biggest active cholera outbreak in Africa. Since the middle of March, both the numbers of cases and deaths continue to decline. In the last 28 days (20 March – 16 April 2023), 3156 new cases and 56 new deaths with CFR 1.8% were reported. This is a decrease of 64% and 74% in the incidence of cases and deaths respectively, compared to the preceding 28-day period (20 February - 19 March 2023). Some challenges in surveillance and response activities remain as the country recovers from Cyclone Freddy, especially in the Southern and Central regions.

**Figure-1. Malawi national cholera cases, deaths and CFR reported per epidemiological week as of 16 April 2023**



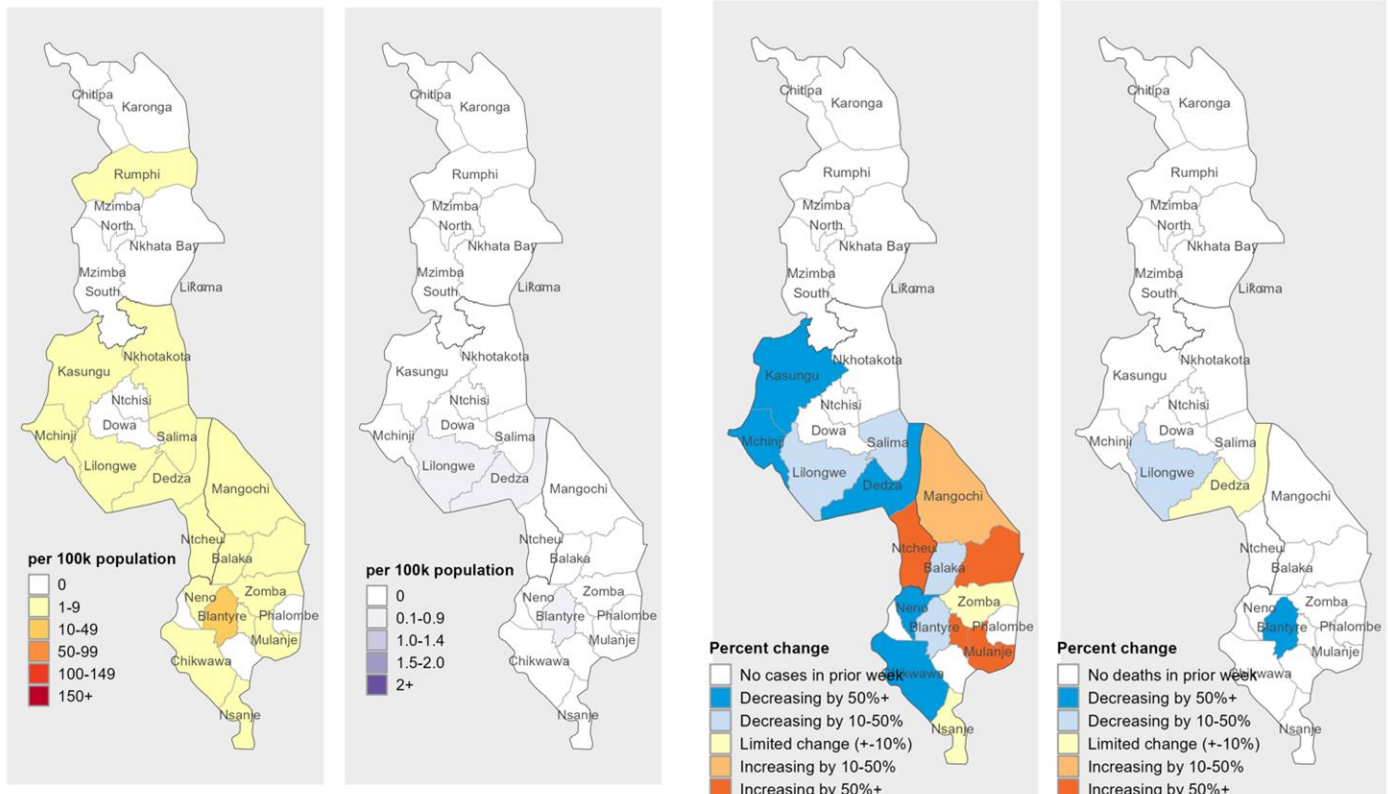
**Figure-2. Malawi trend in cholera cases reported in the past seven days per district as of 16 April 2023**

**Cases in last 7 days**

**Deaths in last 7 days**

**% change in cases**

**% change in deaths**



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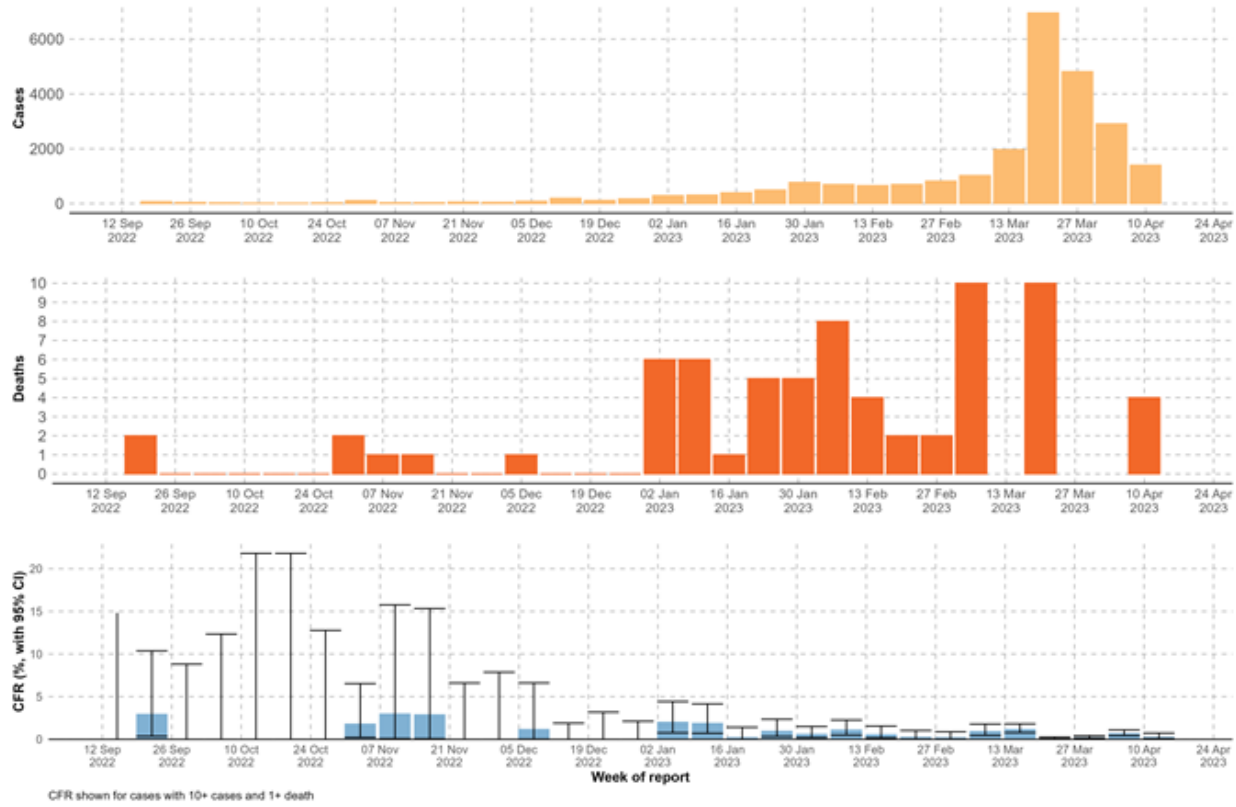
Data Source: World Health Organization, Ministry of Health of Malawi  
Map Production: WHO Health Emergencies Programme  
Map Date: 1 May 2023



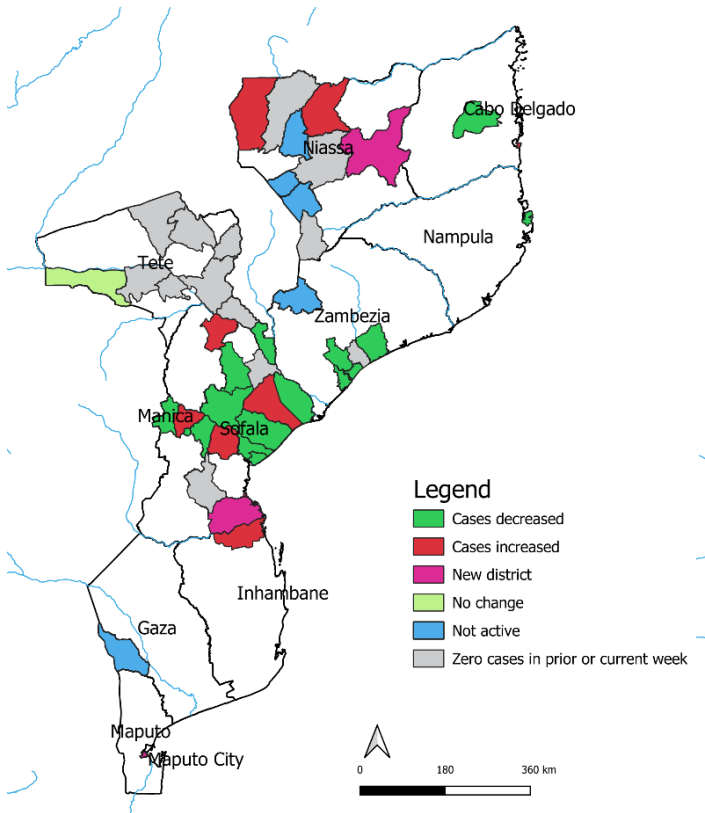
**Mozambique**

The current cholera outbreak in Mozambique started in September 2022, in Niassa province, bordering lake Malawi. Since then, the number of cases as well as the geographic scope have continued to increase. As of 16 April 2023, 26 841 cases and 123 deaths with CFR 0.5 % have been reported from 53 districts in ten out of eleven provinces. In epidemiological week 15, Maputo City province became the 10<sup>th</sup> province to report cholera in the current outbreak, with the district of Katembe reporting two confirmed cases and no death. The most affected provinces are Zambezia, with a large spike in cases after the impact of Cyclone Freddy, Sofala and Niassa. Since the peak in epidemiological week 12, the weekly number of cases has continued to decrease in the past weeks, as the rainy season is coming to an end.

Figure-3. Mozambique national cholera cases, deaths and CFR reported per epidemiological week as of 16 April 2023



**Figure-4. Mozambique trend in cholera cases reported in the past seven days per district as of 16 April 2023**



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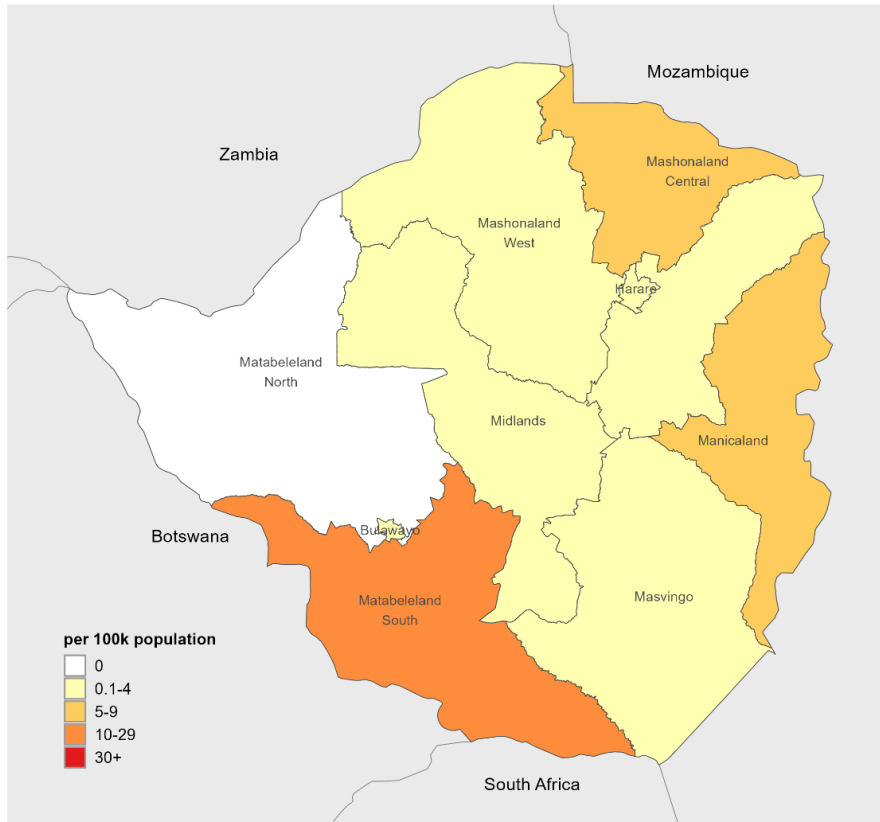
Data Source: World Health Organization, Ministry of Health of Mozambique  
 Map Production: Mozambique WHO Country Office  
 Map Date: 1 May 2023



**Zimbabwe**

The first cholera outbreak in the country in 2023 started on the 12 February 2023, in Chegutu town, Mashonaland West Province. As of the 18 April 2023, there have been 475 suspected cholera cases reported, of which 102 were culture confirmed, and 9 deaths (CFR 1.9%). Cases have been reported from eight provinces of the country, without epidemiological link to each other. There have been 168 RDTs conducted with 73/168 positive (42 % positivity) and 104/359 positive cultures (29 % positivity).

**Figure -5. Cumulative number of cholera cases per 100 000 population in Zimbabwe as of 18 April 2023**

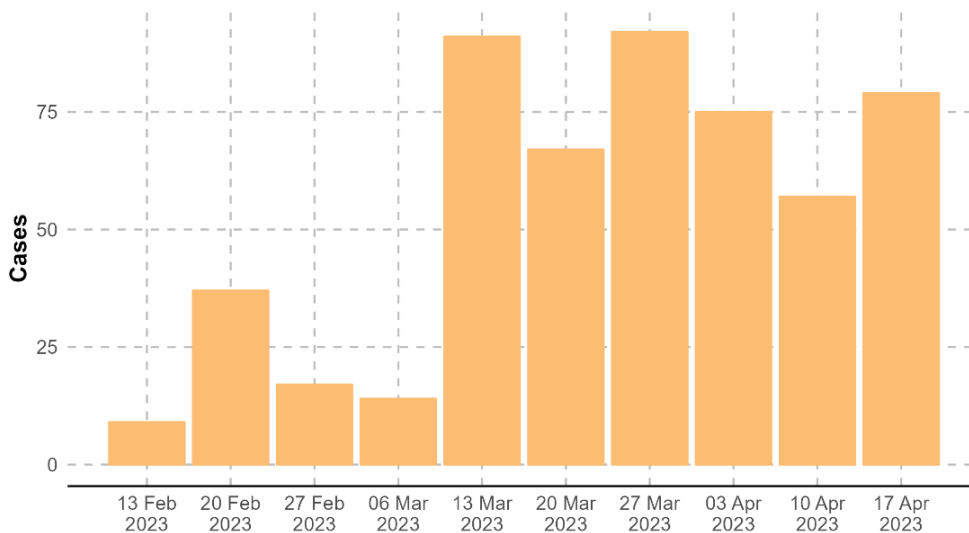


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Data Source: World Health Organization, Ministry of Health of Zimbabwe  
 Map Production: WHO Health Emergencies Programme  
 Map Date: 1 May 2023

World Health Organization  
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**Figure-6. Zimbabwe national suspected cholera cases reported per week of report as of 18 April 2023**





## Horn of Africa

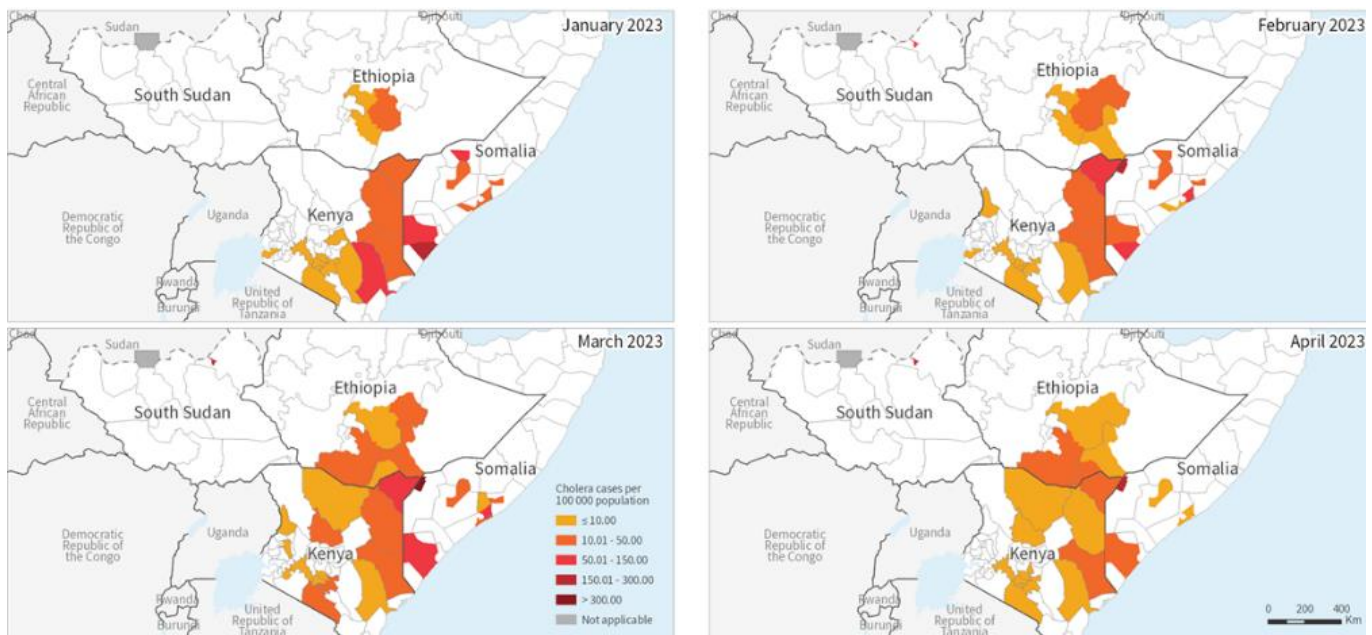
In the Horn of Africa region, Ethiopia, Kenya and Somalia continue to report active outbreaks of cholera. Catastrophic consequences of the multi-year drought will continue for the year, which poses a greater risk of overall public health concerns for the region.

In Kenya, since the beginning in October 2022, the outbreak reached a large geographic spread with 20 out of 47 counties affected. As of 16 April, 8960 cases and 142 deaths with CFR 1.6% were reported. In the last 28 days, 1650 new cases and 28 new deaths have been reported with CFR 1.7%, which indicates a decrease of 34% and 3% in cases and deaths respectively, compared to the preceding 28-day period. Currently, nine out of 47 counties are reporting an active outbreak including counties bordering with Ethiopia and Somalia.

In Ethiopia, since August 2022, a total of 3861 cases and 69 deaths have been reported. The country continues to report increasing number of cases and deaths in Oromia, Somali, and Southern Nations, Nationalities and Peoples (SNNP) regions located the southern part of the country. In the last 28 days, the number of cases and deaths have almost doubled compared to the previous 28-day period (from 880 to 1766 new cases and from 13 to 25 new deaths).

In Somalia since the beginning of the year 2023, a total of 5529 cases and 17 deaths with CFR 0.3% have been reported. Although the overall reported cases and deaths are decreasing in recent weeks, over 2000 cases were reported in the last 28 days alone. The majority of the new cases have been reported in the Jubaland and South-west regions near the borders with Kenya and Ethiopia, where population movement among the three countries is frequent including internally displaced populations.

**Figure-7. The greater Horn of Africa region cholera attack rate per 100 000 (suspected and confirmed cholera cases) between January to April 2023**



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Data Source: World Health Organization, Ministry of Health of Ethiopia, Kenya, Somalia, South Sudan  
Map Production: WHO Health Emergencies Programme  
Map Date: 1 May 2023

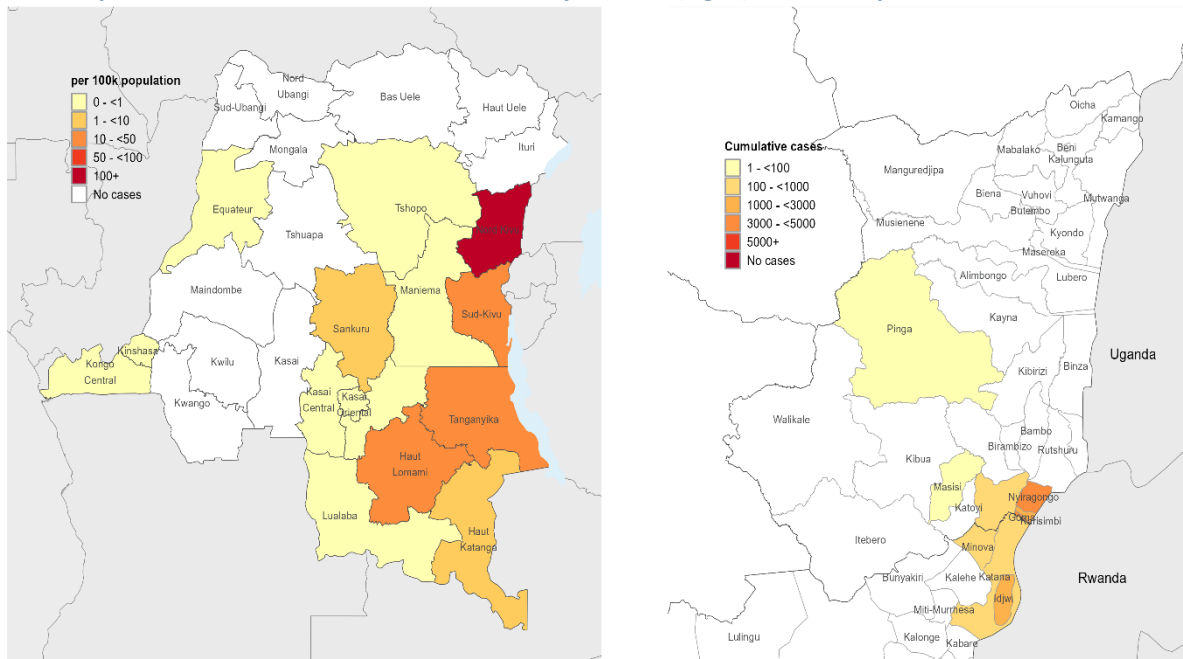


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## Democratic Republic of the Congo

Since the surge in the number of cases and deaths in the Democratic Republic of the Congo in mid-March 2023, the country continues to report a downward trend in the number of new cases. As of 16 April 2023, a total of 16 998 cases and 79 deaths were reported, with CFR of 0.5%. In the last 28 days, 6233 cases and 20 deaths with CFR 0.3% were reported, with an average of over 1500 cases each week. This represents a much higher weekly case incidence compared to the last two years around the same time, during which less than 500 cases per week were reported. Nord-Kivu province, which accounts for 76% of the cases reported in the country this year, remains to be the major hotspot of the outbreak. The current outbreak in the Nord-Kivu province has largely impacted the population residing in camps of internally displaced people, especially in Goma health zone. The conflict in the north of the Democratic Republic of the Congo remains ongoing and displacement in the country is continuing.

**Figure- 8. Cumulative number of cholera cases per 100 000 population in the Democratic Republic of the Congo (left) and the reported cholera cases in the Nord-Kivu province (right) as of 16 April 2023**



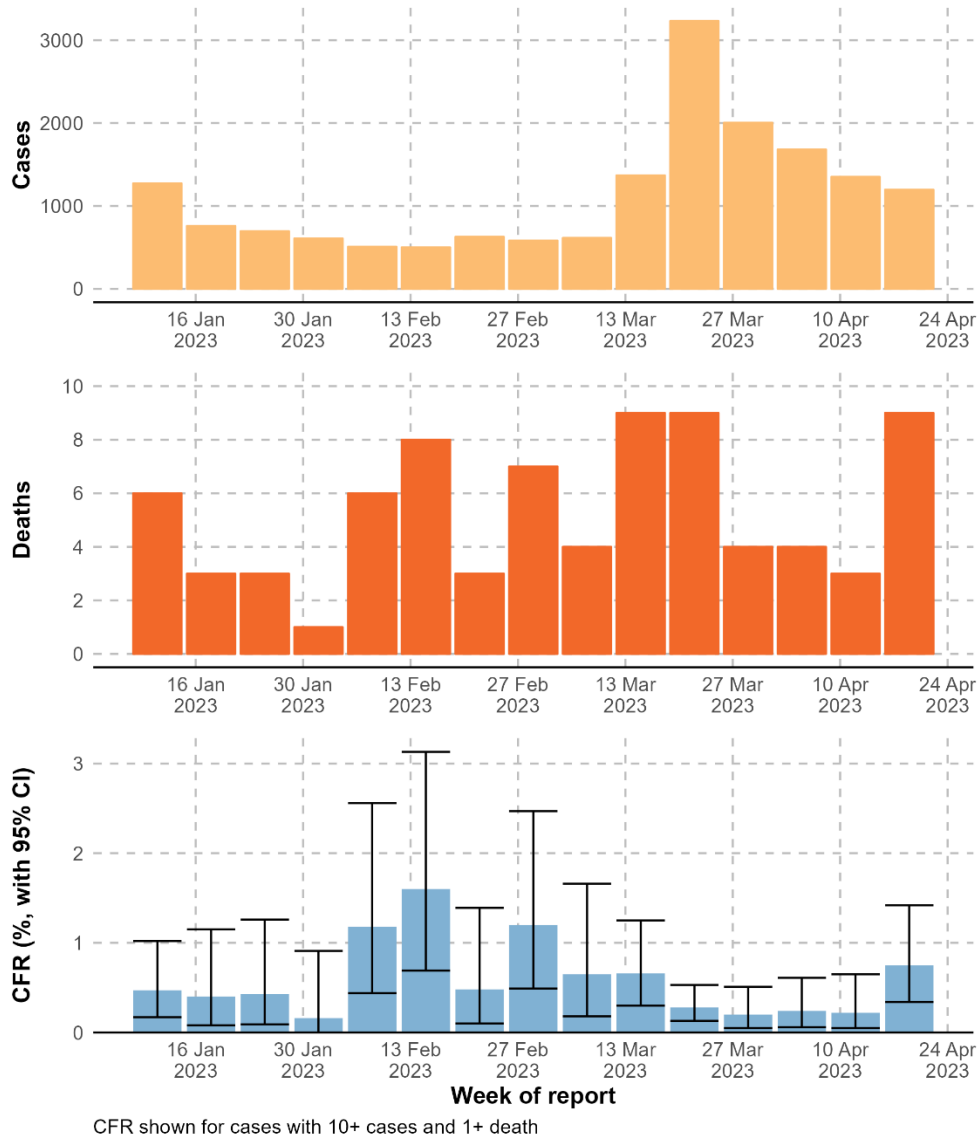
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Data Source: World Health Organization, Ministry of Health of Democratic Republic of the Congo  
Map Production: WHO Health Emergencies Programme  
Map Date: 1 May 2023



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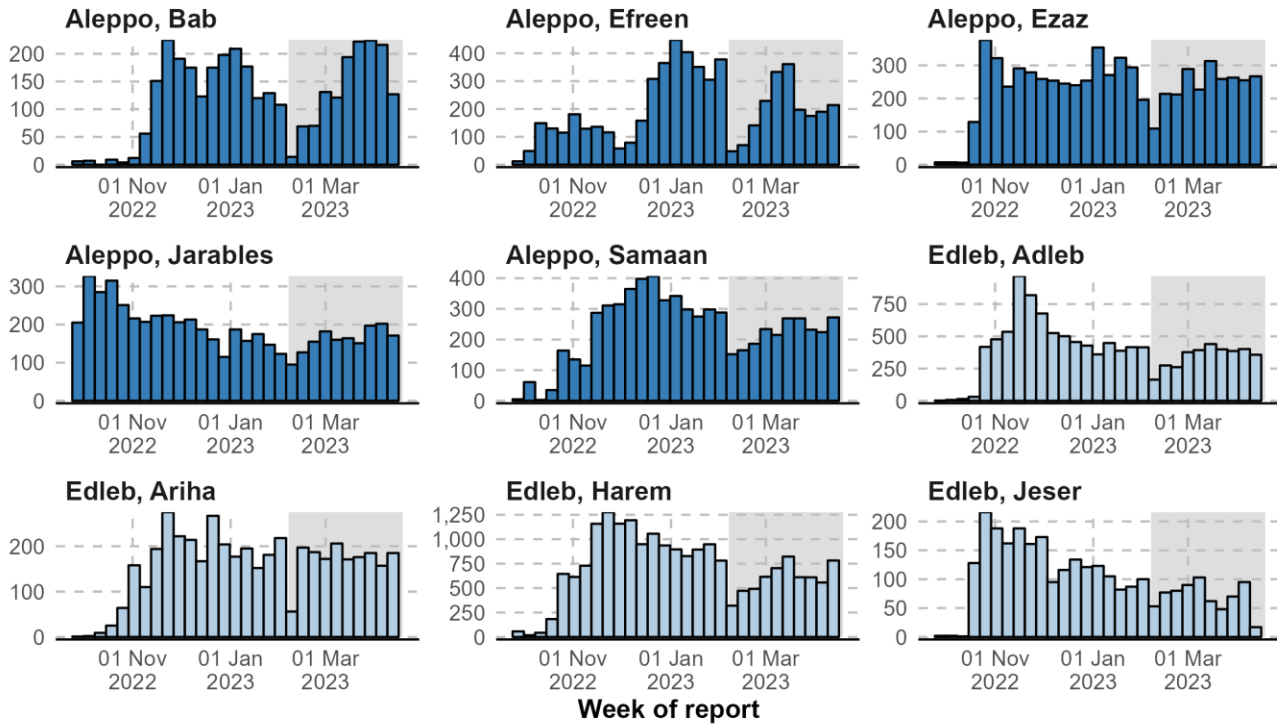
**Figure-9. Democratic Republic of the Congo: national cholera cases, deaths and CFR (%) reported per epidemiological week as of 16 April 2023**



**Northwest Syria**

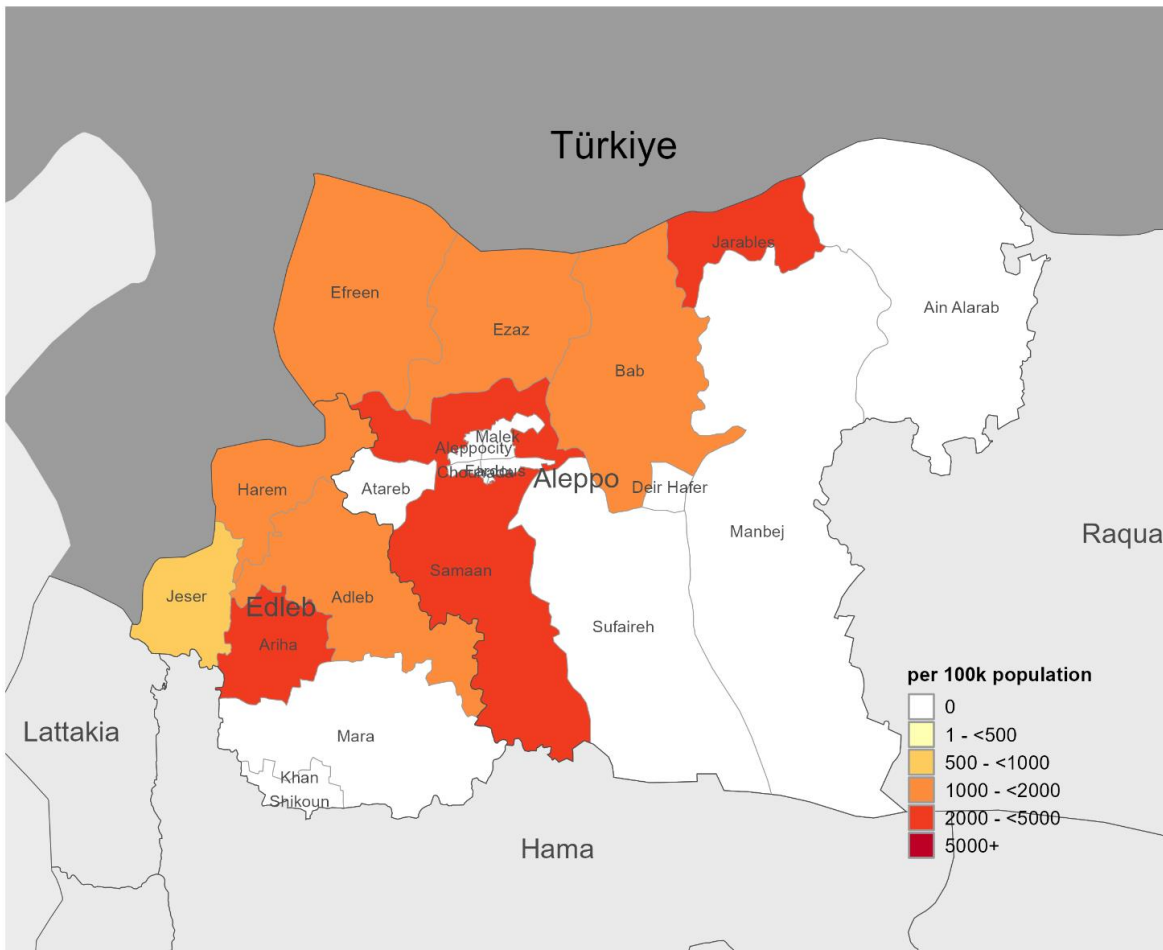
From 16 September 2022 to 15 April 2023, 67 310 suspected cholera cases, 597 confirmed cases, and 23 deaths with CFR <1% have been reported in Northwest Syria. Half (47%) of all suspected cases were reported from two districts in the Idlib governorate (Harim, Idlib). The number of suspect cases sharply decreased from week 5 (30 January – 4 February 2023) to week 6 (5 – 12 February 2023). This is likely the result of disruption to surveillance activities following the earthquake on 6 February 2023. The incidence of suspected cholera cases increased after the earthquake, but after peaking at week 11 (13 – 19 March) plateaued at similar pre-earthquake levels in the following weeks. Cumulatively, 45% of all suspected cases were less than 4 years of age. The positivity rate of stool culture week 15 (5%; 5/93) was lower than the cumulative positivity rate since the beginning of the outbreak (14%; 597/3636).

**Figure-10. Northwest Syria cholera cases and deaths reported per epidemiological week and district as of 15 April 2023**



Shaded area represents time post 06 Feb earthquake

Figure-11. Cumulative cholera cases per 100.000 population, Northwest Syria as of 15 April 2023.



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Data Source: World Health Organization, Assistance Coordination Unit (ACU), EWARN  
 Map Production: WHO Health Emergencies Programme  
 Map Date: 1 May 2023



## Operational updates

WHO is working with partners at global, regional & country level to support Member States in the following cholera outbreak response activities:

- **Coordination**
  - Leveraging resources and collaborating with partners to support global monitoring of the cholera pandemic, provide technical support to countries, enhance data collection and reporting, strengthen advocacy, optimize resource mobilization efforts and provide medical and non-medical items to countries in need.
  - Closely liaising with key partners (UNICEF, MSF and GAVI) to ensure a coordinated response for optimal support to countries in a constrained resource environment, namely as it relates to OCV, supplies, human resources, operational resources, etc.
  - In response to acute needs in countries, supporting the deployment of experts through the Global Outbreak Alert and Response Network (GOARN) and Standby Partners (SBP).
    - As of 3 May 2023, six experts have been deployed to Malawi and Mozambique through GOARN to support the cholera response, for the functions of case management, social anthropologist and epidemiology.
    - As of 3 May 2023, six experts have been deployed to four countries (Malawi, Mozambique, Cameroon, Haiti) through SBPs to support the cholera response for the functions of Information Management, Partner /Cluster Coordination, PRSEAH, IPC/WASH).
  - Ensuring that a robust mechanism on prevention and response of sexual misconduct is in place across operations. Collaborate with Inter-Agency Protection from Sexual Exploitation and Abuse (PSEA) mechanisms in the countries to ensure coherent prevention and response measures.
  - Providing a forum for technical expertise exchange through the Global Task Force on Cholera Control (GTFCC) platform, and cooperation with partners to strengthen countries' capacity to prevent and control cholera.
- **Surveillance**
  - **Public health surveillance**
    - Disseminating GTFCC revised guidance on public health surveillance for cholera [\[EN\]](#) [\[FR\]](#)
    - Disseminating GTFCC technical recommendations on [standard data and metadata sets](#) for cholera reporting to the regional and global level. The [template](#) is available for cholera reporting at the regional and global levels.
    - Fostering coordination with countries and partners for strengthening cholera surveillance [\[GTFCC event\]](#)
  - **Laboratory**
    - Providing technical support to countries as well as assistance in development of country laboratory strengthening plans on a case-by-case basis
    - Developing, disseminating and promoting revised laboratory guidance (revised guidance on public health surveillance including a testing strategy for cholera [\[EN\]](#) [\[FR\]](#)) and technical tools (job aids and fact sheets) [\[GTFCC event\]](#)
    - Working with regional laboratory focal points on rapid laboratory capacity assessments
    - Developing a GTFCC toolkit and associated guidance for detailed cholera laboratory capacity assessments

- Developing recommendations for minimum standards for laboratory capacity in cholera affected countries
- Planning a cholera diagnostics training of trainers for laboratory personnel

- **Vaccination**

- In 2023, 18.1 million doses of the oral cholera vaccine (OCV) have been requested by countries to respond to outbreaks, of which 8.2 million have been validated by the International Coordination Group (ICG). By the end of April, 9.8 million OCV doses have been shipped, of which 6.1 million are related to 2023 requests. By the end of April, 11 reactive vaccination campaigns (the Democratic Republic of the Congo, Somalia, Cameroon, Kenya, Ethiopia, Mozambique, North-west (NW) Syria, the Dominican Republic, Malawi) have been implemented (start date in 2023) of which five are related to 2023 requests.
- In the current outbreak context, only one-dose courses have been validated and implemented in these reactive campaigns. Doses for preventive campaigns cannot be supplied due to the low global stockpile.
- The second round of reactive campaign in NW Syria, initially planned after the Ramadan, has been postponed due to competing priorities with Measles and Rubella vaccination (MR) and polio campaigns.
- Coordination between WHO offices in Ethiopia, Kenya and Somalia to address the required strategy for a potential OCV campaign in the border regions of the three countries (Mandera Triangle)
- The anticipated production to the end of 2023 of OCV is 25.5 million doses.

- **Case management, Infection Prevention and Control (IPC) & Water, Sanitation and Hygiene (WASH)**

- Reinforcing strategies to decentralize treatment and improve access to treatment in the community (including Oral Rehydration Points (ORPs). This type of strategy should be developed with RCCE experts who ensure community engagement to identify sites for ORPs and ensure that community members know to seek treatment early in the clinical course and where to seek treatment. Decentralized treatment has been implemented months into response in a number of recent outbreaks.
- Countries are referred to the GTFCC Technical note on the organization of [case management](#) during a cholera outbreak
- Case management and IPCs sub-pillar to increase rational use of Personal Protective Equipment (PPE) in treatment structures based on exposure risk and adequate use of standard precautions when caring for patients with suspected and confirmed cholera. Teams working in treatment structures in multiple countries have been observed using more PPE than is required for cholera transmission (e.g. head coverings, double masking, coveralls). Countries are referred to the GTFCC Technical Note: [Water, Sanitation and Hygiene and Infection Prevention and Control in Cholera Treatment Structures](#).
- Working with selected countries on treatment structure scale down strategies as cases decrease. This includes decreasing Human Resources (HR) while ensuring adequate levels of clinical care and Infection Prevention and Control (IPC) are maintained.
- Collaboration with AFRO on continued development of standard operating procedures and assessment checklists used for training and monitoring of infection prevention and control and quality of care to mitigate concurrent risk of healthcare associated infections in cholera treatment centres and cholera treatment units.

- Ensuring information sharing and continuous monitoring of country response activities in the AFRO region with focus on quality of care during cholera response activities
  - Example of direct support to countries: In Malawi, implementation of IPC rapid assessment checklist in cholera treatment centres and cholera treatment units with Ministry of Health in nine districts using OCHA KoboTools digital form platform
- **Risk communication and community engagement (RCCE)**
    - Four webinars have been held in March and April to provide communities with the opportunity to share lessons learned, experiences, mistakes and best practices with one another on cholera outbreak readiness and response:
      - [Webinar 1: Working with communities to strengthen WASH in cholera outbreaks](#)
      - [Webinar 2: The role of communities in case management and surveillance for cholera outbreaks](#)
      - [Webinar 3: The role of communities in oral cholera vaccine campaigns](#)
      - [Webinar 4: The role of communities in readiness for cholera outbreaks](#)
    - The fifth in the series is planned for the 23 May focusing on the role of communities in staying healthy and preventing further spread when caring for people with cholera.
    - WHO is developing interim RCCE guidance for cholera outbreaks in collaboration with the partners of the Collective Service.
    - The Collective Service has developed a socio-behavioural question bank. This resource is a menu of qualitative and quantitative questions related to socio-behavioural factors and cholera. It seeks to facilitate the collection of quality data on community's capacity, behaviours, practices and perceptions in relation to cholera prevention and management. It can be used by field teams and / or local research teams working in communities with cholera transmission and those at risk adhering to safety and protection protocols. Countries are encouraged to conduct socio-behavioural research to inform outbreak readiness and response activities.
    - The Social Science in Humanitarian Action Platform (SSHAP) has developed a Guidance Note on Community Engagement for Cholera Outbreak Response in the East and Southern Africa Region, available [here](#).
    - [Key RCCE messages for cholera outbreaks](#) are available in Arabic, Chinese, English, French, Portuguese, Russian and Spanish. Social media tiles with key RCCE messages for cholera outbreaks are being developed.
  - **Operation Support and Logistic (OSL)**
    - Last shipments for the six-priority country (Tanzania, Zambia, Zimbabwe, Malawi, Mozambique and Eswatini) on going through difficulties to get authorizations and green lights in some specific countries (importation certificate of conformity, expiring dates etc.) Still high tension in the supply chain for the kits, bulk items including lab material remains available from HQ
    - Continued coordination with UNICEF on stock and pipeline sharing at global level in a global dashboard on supplies in line with priority countries defined by WHO/UNICEF group.



## Key Challenges

As noted above the geographical spread and global surge in cases is due to and has resulted in numerous challenges:

- Exacerbation of cholera outbreaks due to natural disasters and climatic effects
- Data quality and reporting, including insufficient disaggregation of data for vulnerable groups, especially for children aged under 5 years
- Constrained availability of critical cholera case management materials and kits
- OCV shortage leading to suspension of preventive campaigns and change from [a two dose to a one dose strategy](#)
- Exhausted national cholera responders and overstretched overall emergency response capacity due to numerous parallel large-scale and high-risk outbreaks and other public health emergencies
- Insufficient experienced cholera response staff for deployments to support national emergency response
- Inadequate financial resources to respond in a timely and effective manner at country level

## Next Steps

**To address the challenges identified above WHO, UNICEF and partners will continue to work together.**

- WHO and UNICEF will prepare and publish respectively a Strategic Response, Readiness and Preparedness Plan (SRPP) and Call to Action to raise awareness and resources for the following 12 months of emergency response activities whilst continuing to support the long-term goal of cholera control through cooperation with the GTFCC and national governments
- WHO and UNICEF will continue to work together and with partners to streamline the critical cholera material pipeline to maximize the availability based on prioritization of needs
- WHO and partners including the GTFCC will continue to support Ministries of Health and implementing partners with the latest available information and material to enable prevention and response activities in the current constrained environment

## Annex 1. Data, table, and figure notes

Caution must be taken when interpreting all data presented. Differences are to be expected between information products published by WHO, national public health authorities, and other sources using different inclusion criteria and different data cut-off times. While steps are taken to ensure accuracy and reliability, all data are subject to continuous verification and change. Case detection, definitions, testing strategies, reporting practice, and lag times differ between countries/territories/areas. These factors, amongst others, influence the counts presented, with variable underestimation of true case and death counts, and variable delays to reflecting these data at the global level.

'Countries' may refer to countries, territories, areas or other jurisdictions of similar status. The designations employed, and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. Countries, territories, and areas are arranged under the administering WHO region. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions except, the names of proprietary products are distinguished by initial capital letters.

## Technical guidance and other resources

- [Cholera fact sheet](#)
- [Ending Cholera, A Global Roadmap To 2030](#)
- [Disease outbreak news Cholera – Democratic Republic of the Congo](#)
- [Disease outbreak news Cholera – Haiti](#)
- [Disease outbreak news Cholera – Malawi](#)
- [Disease outbreak news Cholera - Mozambique](#)
- [Disease outbreak news Cholera-Global situation](#)
- [Global Task Force on Cholera Control \(GTFCC\)](#)
- [AFRO Weekly outbreaks and emergency bulletin](#)
- [WHO AFRO Cholera Dashboard](#)
- [Cholera outbreak in Hispaniola 2022 - Situation Report](#)
- [WHO Health Emergency Appeal 2023](#)
- [Cholera in Lebanon](#)
- [Multi-country outbreak of cholera, External situation report #1 - 28 March 2023](#)