

Multi-country outbreak of cholera

External Situation Report #5, published 4 August 2023

Risk assessment Global risk – Very high	Countries/areas/territories affected 25
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Highlights

Data as of 15 July 2023

- Since the last situation report on the multi-country outbreak of cholera was published on 6 July 2023 (covering data reported until 15 of June), and as of 15 July 2023, one new outbreak of cholera was reported from India on 15 May 2023. In total, 25 countries have reported cases since the beginning of 2023.
- 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 (OCV) and cholera supplies, as well as overstretched public health and medical personnel, who are dealing with multiple parallel disease outbreaks and other health emergencies.
- Based on the large number of outbreaks and their geographic expansion, as well as a lack of vaccines and other resources, WHO continues to assess the risk at global level as very high.
- The WHO African Region remains the most affected region with 14 countries reporting cholera cases since the beginning of the year. The outbreaks in many Southeast African countries, including Burundi, Malawi, Mozambique, and South Africa appear to have stabilized in recent weeks. In the Democratic Republic of the Congo, over 900 cases are reported each week with an upward trend observed in some provinces such as North-Kivu and Tanganyika.
- In the Horn of Africa, the major region of concern remains the so-called 'Mandera triangle', where the borders of Ethiopia, Kenya, and Somalia meet. While the overall epidemiological situation has been plateauing, around 1000 cases are reported each week across the three affected countries in the region with further spreads in new areas. Ongoing security concerns and forced displacement remain the major challenges in the response operations.
- WHO continues to work with partners at global, regional and country level to support Member States in outbreak response activities.

Epidemiological update

Since the beginning of the year and as of 15 July 2023, at least 25 countries have reported cholera cases (Table 1). During the same period in 2022, 16 countries reported cases. With reference to historical transmission patterns and seasonality, countries in West Africa have entered the high transmission period with the rainy season that spans from May to October. On the other hand, heavily affected countries such as Mozambique are in preparedness mode for the upcoming rainy season in September, while still managing ongoing outbreaks.

In July 2023, World Meteorological Organization (WMO) declared an onset of El Niño conditions in the tropical Pacific for the first time in seven years. WMO forecasts there is a 90% of probability of the El Niño event continuing during the second half of 2023 (WMO, July 2023).¹ The El Niño conditions are highly likely to alter the dynamics of cholera outbreaks as increased rainfall, flooding, hurricanes, cyclones, and drought can reduce access to clean water, sanitation facilities, and limited healthcare resources. Warmer water temperature associated with the El Niño conditions can also favour the growth and proliferation of *Vibrio cholerae* in aquatic environments, which can increase the likelihood of cholera outbreaks (Speelmon et al., 2000).² Therefore, strengthened preparedness will be required over coming months. The mortality associated with these outbreaks is of particular concern. Many countries continue to report 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. The global annual report for 2022 will be consolidated in the coming months.

Considering the varying surveillance systems, case definitions and laboratory 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 within the country-specific context.

¹ World Meteorological Organization declares onset of El Niño conditions: https://public.wmo.int/en/media/press-release/world-meteorologicalorganization-declares-onset-of-el-ni%C3%B1o-conditions

² Cholera incidence and El Niño-related higher ambient temperature: https://jamanetwork.com/journals/jama/fullarticle/1030818



Figure-1: Global situation of epidemics of cholera and acute watery diarrhea reported in 2023, as of 15 July 2023

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Data Source: World Health Organization Map Production: WHO Health Emergencies Programme Map Date: 26 July 2023



Table -1. Cholera cases and deaths reported to WHO by WHO Region, as of 15 July 2023^{*}

WHO Region	Country, area, territory	Suspected /Confirmed cases	Total deaths	Cases per 100 000	CFR (%)	Reporting start	Reporting end
Region of Africa	Burundi	581	9	4	1.5	08/12/2022	15/07/2023
	Cameroon	19 395	463	70	2.4	01/10/2021	09/07/2023
	Democratic Republic of the Congo	28 043	196	30	<1	01/01/2023	15/07/2023
	Eswatini ³	2	0	< 1	0	27/03/2023	18/04/2023
	Ethiopia	13 118	172	12	1.3	01/08/2022	12/07/2023
	Kenya	11 835	194	23	1.6	05/10/2022	13/07/2023
	Malawi	58 941	1 766	295	3	28/02/2022	15/07/2023
	Mozambique	33 344	141	104	<1	01/09/2022	15/07/2023
	Nigeria	2 052	55	1	2.7	01/01/2023	02/07/2023
	South Africa	1 274	44	2	3.5	29/01/2023	09/07/2023
	South Sudan ⁴	348	1	2	<1	22/02/2023	18/03/2023
	United Republic of Tanzania	284	1	< 1	<1	14/05/2023	15/07/2023
	Zambia	757	14	4	1.8	21/01/2023	06/07/2023
	Zimbabwe	3 567	79	20	2.2	12/02/2023	15/07/2023
Region of the	Dominican Republic	99	0	1	0	17/10/2022	15/07/2023
Americas	Haiti	54 826	793	473	1.4	02/10/2022	15/07/2023
Eastern	Afghanistan**	98 672	46	302	<1	01/01/2023	15/07/2023
Mediterranean	Lebanon	8 007	23	146	<1	05/10/2022	02/06/2023
Region	Pakistan***	10 998	0	< 1	0	01/01/2023	15/07/2023
	Somalia	10 933	30	89	<1	01/01/2023	09/07/2023
	Syrian Arab Republic	74 482	6	337	<1	01/01/2023	15/06/2023
	Yemen	3 878	4	13	<1	01/01/2023	11/06/2023
	Northwest Syria	109 816	849	2 374	<1	16/09/2022	15/07/2023
South-East Asia Region	Bangladesh (Cox's Bazar)	117	0	13	0	01/01/2023	08/07/2023
	India ⁵	132	0	<1	0	15/05/2023	26/05/2023
Western Pacific Region	Philippines	2 125	11	2	<1	01/01/2023	17/06/2023

* 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, rapid diagnostic test (RDT) positive and culture confirmed cholera cases. No cholera cases of local transmission have been reported in the European Region.

** Afghanistan reports Acute Watery Diarrhoea (AWD) through the sentinel site surveillance system.

*** Refers to the number of tests conducted.

³ There were no further cases reported since situation report #2, 15 May 2023

⁴ As of 18 March, confirmation of the outbreak by culture conducted on 13 samples, including three PCR positive samples, was unsuccessful. The reported case numbers in this situation report are updated to reflect those test results.

⁵ WEEKLY OUTBREAK REPORT- Disease Alerts/Outbreaks reported and responded to by States/UTs through Integrated Disease Surveillance Program (IDSP) (15 to 28 May 2023): https://idsp.nic.in/index4.php?lang=1&level=0&linkid=406&lid=3689

Focus on selected countries

Central and South-East Africa

Since mid-June, an overall epidemiological situation continues to improve in Malawi, Mozambique, and South Africa. While the situation is plateauing in the Democratic Republic of the Congo, an average of over 900 cases are reported each week with an upward trend observed in some provinces such as North-Kivu and Tanganyika. The ongoing security concerns and the displacement of population continue to be a challenge in the country.

Figure-2. Central and South-East Africa attack rate per 100 000 (suspected and confirmed cholera cases per month) between April to July 2023, as of 15 July 2023



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Ministries of Health and Statistics offices of Burundi, Democratic Republic of the Congo, Eswatini, Malawi, Mozambique, South Africa, United Republic of Tanzania, Zambia and Zimbabwe Map Production: WHO Health Emergencies Programme Map Date: 20 July 2023 Map Date: 20 July 2023

* The reporting period differ by country: Burundi: 15/7/2023 - Democratic Republic of the Congo: 15/07/2023 Eswatini: 8(6/2023 - Malavit 15/7/2023 - Mozambique: 15/7/2023 South Africa: 9/7/2023 - United Republic of Tanzania: 5/6/2023 Zambia: 23(6/2023 - Zimbawe: 15/7/2023 Data of Zimbabwe are displayed at Province level. ** Data for the latest month may be incomplete and are subject to any retrospective adjustments.



Malawi

In Malawi, a downward trend in both number of cases and deaths continues to be observed. As of 15 July 2023, a total of 58 941 cases and 1766 deaths with CFR 3% have been reported. In the last four weeks, 73 new cases and four deaths were reported. This is a decrease of 67% in cases and 20% in deaths compared to the preceding four-week period. However, the high CFR% reported during this period (5.5%) remains a concern. Most of the recent cases have been detected from Chikwawa district in the Southern region. Twenty-two districts reported no new cases in the last 14 days.







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Data Source: World Health Organization, Ministry of Health of Malawi Map Production: WHO Health Emergencies Programme Map Date: 15 July 2023



Mozambique

In Mozambique, as of 15 July 2023, 33 344 cases and 141 deaths have been reported with CFR 0.4% from all 11 provinces. While the epidemiological situation is beginning to show signs of stabilization in almost the entire country, the outbreak persists in remaining active districts with an average of over 150 cases reported each week, especially in Cabo Delgado, Nampula, Zambezia, Sofala and Tete provinces. Further geographical spread has been observed in these provinces. Active outbreaks of cholera have been reported in 13 out of 66 total districts.







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Data Source: World Health Organization, Ministry of Health of Mozambique Map Production: Mozambique WHO Country Office Map Date: 15 July 2023

South Africa

Since the report of two initial cases in February 2023 in Gauteng Province, in travellers from a cholera-affected country in the region, local transmission of cholera has been reported in the country. After an upsurge of cases in mid-May 2023, the epidemiological situation has significantly improved, with no further geographic spread reported in the last four weeks. As of 9 July 2023, a total of 1274 cases, including 198 confirmed cases and 44 deaths, with CFR 4.3% have been reported from five provinces: Gauteng, Free State, Limpopo, North-West and Mpumalanga.

Figure- 5. South Africa cumulative cholera cases reported nationally (left) and number of suspected and confirmed cholera cases reported nationally per symptom onset date (right) as of 15 July 2023



Democratic Republic of the Congo

Since the surge in the number of cases in the Democratic Republic of the Congo (DRC) in mid-March 2023, the country has seen a decrease in cases which has plateaued at an average of roughly 1000 cases per week. This represents a much higher weekly case incidence compared to the same time period over the last two years, where less than 500 cases per week were reported. As of 15 July 2023, a total of 28 043 cases and 196 deaths were reported with CFR 0.7%. From 13 June to 15 July 2023, 3749 cases and 40 deaths with CFR of 1.1% were reported. While the majority of cases in 2023 were reported from the North-Kivu province, a surge in cases in South-Kivu and Tanganyika was observed in June and early July. These increases were most prominent in health zones along the shores of Lake Tanganyika and Lake Kivu. Incidence is now low in South-Kivu compared to its June surge; however, cases may be plateauing in Tanganyika, where an average of 160 cases and 13 deaths have been reported per week between 13 June to 15 July 2023.

Figure-6. Cholera situation in DRC. Cumulative cholera cases reported in 2023 and weekly percentage change in North-Kivu, South-Kivu, and Tanganyika (left). National cholera cases in DRC, by province (right).



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Data Source: World Health Organization, Ministry of Health Democratic Republic of the Congo Map Production: World Health Organization Map Date: 15 July 2023

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Horn of Africa

In the Horn of Africa region, since mid-June, the total number of cases reported each week continues to decrease. However, further geographic spread has been reported in Ethiopia and Kenya. The major concentrations of the cases remain in areas where the borders of the three countries meet (Mandera triangle).

In Kenya, since October 2022 and as of 13 July 2023, 11 835 cases and 194 deaths with CFR 1.6% have been reported. In the last four weeks (15 June – 13 July 2023), 476 new cases and 10 new deaths have been reported with CFR 2.1%, which indicates a decrease of 51% in cases and 44% in deaths, compared to the preceding four weeks. On average, around 100 new cases are reported each week, including from newly affected areas.

In Ethiopia, since August 2022 and as of 12 July 2023, a total of 13 118 cases and 172 deaths with CFR 1.3% have been reported. In the last four weeks, around 500 new cases are reported each week from Oromia, Somali, Sidama and Southern Nations, Nationalities and Peoples (SNNP) regions located in the southern part of the country, bordering Kenya.

In Somalia, since the beginning of the year, and as of 9 July 2023, a total of 10 933 cases and 30 deaths with CFR 0.3% have been reported. In the last four weeks, 1165 new cases and two deaths have been reported with CFR 0.2%. While the epidemiological trends have been stabilizing, an average of about 300 new cases are reported each week. Jubaland and Southwest regions near the borders with Kenya and Ethiopia remain the most affected areas of the current outbreak.





^{**} Data for the latest month may be incomplete and are subject to any retrospective adjustments.

Northwest Syria

From 16 September 2022 to 15 July 2023, 109 816 suspected cholera cases and 23 deaths with CFR <1% have been reported in Northwest Syria. It is important to note that the drop in the number of reported suspect cases from week 5 (30 January – 4 February 2023) to week 6 (5 – 12 February 2023) is likely the result of disruption to surveillance activities following the severe earthquake on 6 February 2023. In the late April to early July, the incidence of suspected cholera cases increased to levels slightly beyond those observed prior to the earthquake. From 9– 15 July 2023, 4175 cases of cholera were reported. This represents the largest weekly incidence of cholera since the beginning of the reporting period.

Figure-8. Northwest Syria (left) Cumulative cases of suspected cholera, by district, 16 September 2022 – 15 July 2023 (right) Number of weekly cholera cases over time, as of 15 July 2023





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Data Source: World Health Organization, EWARN, Assistance Coordination Unit Map Production: World Health Organization Map Date: 15 July 2023



Operational updates

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

Coordination

- In response to acute needs in countries and with a support from key partners, experts were deployed through the Global Outbreak Alert and Response Network (GOARN), Standby Partners (SBP), Emergency Medical Teams (EMT) in addition to weekly information exchange on operational updates for cholera response through GOARN Weekly Ops call forum
- As of 3 August 2023, nine experts have been deployed to Malawi, Mozambique, Kenya and Haiti through GOARN to support the cholera response, for the functions of health operations, case management, social anthropology and epidemiology/surveillance.
- As of 27 July 2023, six experts have been deployed to four countries (Malawi, Mozambique, Cameroon, Haiti) through the Standby Partners to support the cholera response for the functions of Information Management, Partner/Cluster Coordination, Preventing and Responding to Sexual Exploitation, Abuse and Harassment (PRSEAH), Infection Prevention and Control (IPC)/ Water, Sanitation and Hygiene (WASH). An additional WASH specialist will be deployed to Haiti from August.
- WHO appreciates the support received from Standby Partners for this response so far: Norwegian Capacity (NORCAP) and CANADEM (deployment funded by United Kingdom Foreign, Commonwealth & Development Office (UK FCDO)).

Surveillance

- Public health surveillance
 - Disseminating and promoting Global Task Force on Cholera Control (GTFCC) revised guidance on public health surveillance for cholera [EN] [FR].
 - Disseminating and promoting GTFCC technical recommendations on standard data and metadata sets for cholera reporting to the regional and global levels. The template is available for cholera reporting to the regional and global levels.
 - Providing technical support to countries/regions as well as assistance in data management and analysis on a caseby-case basis.
 - Fostering coordination with countries, regions and partners for strengthening cholera surveillance.
 - Disseminating and promoting GTFCC revised guidance for the identification of Priority Areas for Multisectoral Interventions to maximize the use of surveillance data for cholera-affected countries to develop or revise a National Cholera Plan (NCP) for cholera control.
 - Developing updated GTFCC guidance on public health surveillance for cholera, including additional guidance and practical tools for data collection, reporting, and analysis

• Laboratory

- Disseminating and promoting GTFCC recommendations for testing for cholera [EN] [FR].
- Disseminating and promoting GTFCC laboratory resources (Job Aids, Fact Sheet, other guidance).
- Providing technical support to countries as well as assistance in development of country laboratory strengthening plans on a case-by-case basis.
- Developed a GTFCC toolkit and guidance for detailed cholera laboratory capacity assessments to highlight gaps and needs to target for support. Preparing for roll out in first four countries.
- Developing recommendations for minimum standards for laboratory capacity in cholera affected countries.
- Developing GTFCC tools and materials for cholera diagnostics training of trainers for laboratory personnel.

Vaccination

- Since the start of 2023 and as of 24 July 2023, a total of 49.9 million doses have been requested, of which 19.3 million (39%) have been approved for 11 countries. The available (not yet allocated) global OCV stockpile on 24 July was 2.7 million doses.
- Fifteen reactive vaccination campaigns (Cameroon, the Dominican Republic, DRC, Ethiopia (2), Haiti, Kenya, Malawi, Mozambique (3), Somalia, Northwest Syria (2), Zambia) have been implemented (with start date in 2023), and five new campaigns will start late July, early August (Cameroon, Ethiopia, Kenya (2), Somalia).
- Coordination between WHO offices in Ethiopia, Kenya, and Somalia to address the required strategy for the reactive campaign in the border regions of the three countries (Mandera Triangle)
- Zimbabwe, DRC, Ethiopia and Uganda are considering placing OCV request for reactive campaigns.
- 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.

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

• During recent outbreaks, the lack of decentralization of care has been identified as a potential contributing factor to high case fatality. To support countries to strengthen decentralization of treatment, WHO is currently working on guidance to establish and run Oral Rehydration Points.

Operations Support and Logistics (OSL)

- Ongoing fulfilment of supply orders for countries experiencing outbreaks and ongoing preparation for readiness classified countries
- Replenishment of WHO supply hubs in numerous regions to ensure availability of stock for rapid action, but limitation due to average delays for suppliers to manufacturers between 2 and 4 months; hence anticipation in orders is crucial.
- Bulk items for treatment of 50 000 patients are available in Dubai Hub ready to ship.
- Ongoing engagement with UNICEF to improve coordination on cholera supplies in an increasingly resourceconstrained environment.

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 issues in consistency of reporting and insufficient disaggregation of data for vulnerable groups, especially for children under 5 years of age
- Constrained availability of critical cholera supplies, including case management materials and kits
- Insufficient OCV stock to respond to all concurrent cholera outbreaks, with OCV shortage leading to suspension of preventive campaigns and change from a two dose to a one dose strategy
- Exhausted national cholera response capacities and overall overstretched emergency response capacity due to numerous parallel large-scale and high-risk outbreaks and other public health emergencies
- Insufficient experienced cholera response staff available for deployments to support national emergency response
- Inadequate financial resources to respond in a timely and effective manner across all levels
- A lack of resources (financial and material) for readiness and preparedness activities.

Next Steps

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

- Updated cholera scenario planning/prioritization for a potential severe El Niño event (global, regional and country level)
- WHO will continue to advocate for investment in cholera response, highlighting that long term investment is critical for a sustainable solution, and in interim investment is needed for rapid emergency response to the current surge in cases.
- WHO and UNICEF will continue to work together and with other 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
- WHO, UNICEF and partners will continue to work together to maintain focus on the cholera emergency, to mobilize resources and lobby for long term solutions to reduce the cholera burden.

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 cutoff 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.

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Technical guidance and other resources

- Cholera fact sheet
- Ending Cholera, A Global Roadmap To 2030
- Global cholera strategic preparedness, readiness, and response plan 2023/24
- WHO's Call for urgent and collective action to fight cholera
- 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)
- Public health surveillance for cholera- Interim guidance, February 2023 [EN] [FR]
- AFRO Weekly outbreaks and emergency bulletin
- WHO AFRO Cholera Dashboard
- Cholera outbreak in Hispaniola 2022 Situation Report
- Cholera upsurge (2021-present) web page