

### Epidemiological Overview

Between 25 August 2022 and 8 July 2023, 157,196 suspected cases have been reported from all 14 governorates, including 104 associated deaths to date at a case fatality rate of 0.07%. Since the last SITREP was issued on 20<sup>th</sup> June, 24,414 new suspected cases (most affected are Idleb - 12,084, Aleppo - 11,260, Ar-Raqqa - 511, and Al-Hasakeh - 371) have been reported. No new death cases were reported. For the second month in row, the number of newly reported suspected cases is almost 4 times that which was reported in March and February 2023.

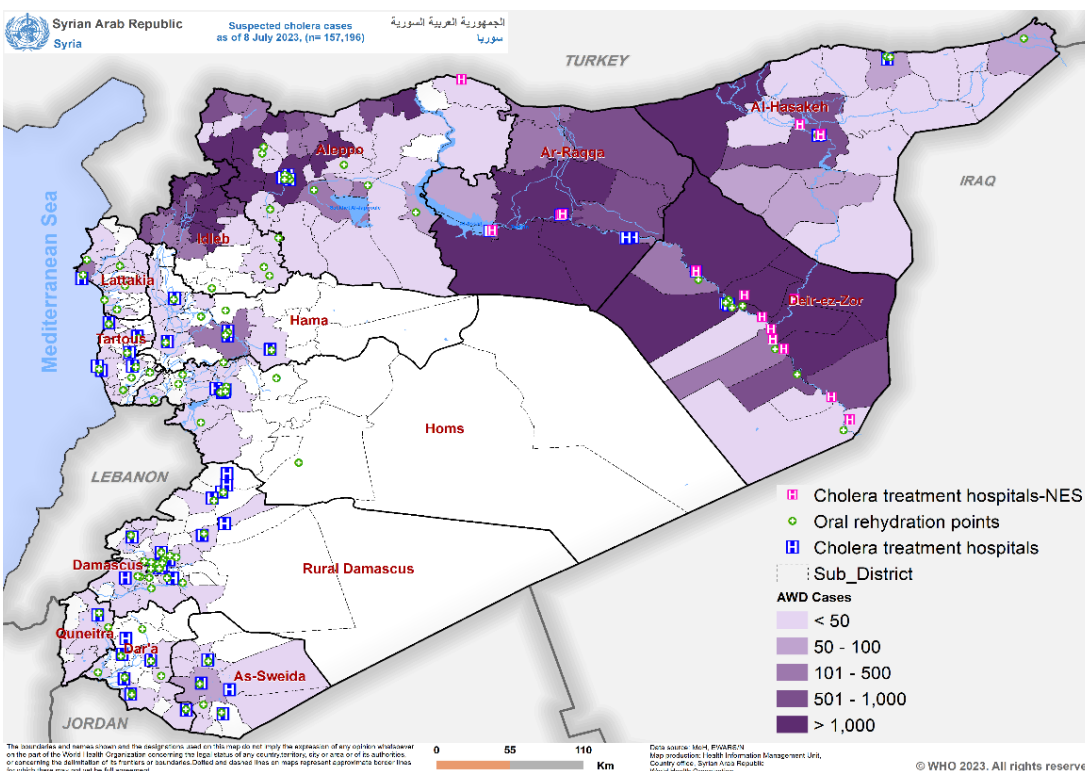
The most affected governorates to date are Idleb (58,713 suspected cases, 37.3%), Aleppo (50,015 suspected cases, 31.8%), Ar-Raqqa (22,049 suspected cases, 14%), and Deir Ez-Zor (20,787 suspected cases, 13.2%).

To date, a total of 6,730 samples were tested with rapid diagnostic tests (RDTs), with 2,011 of them testing positive. The overall proportion of RDT-positive cases is 30%. Additionally 1,216 have tested culture positive for Vibrio Cholera. The positivity rate is 16%.

The risk of an increase in waterborne diseases, including acute watery diarrhea (AWD)/cholera, remains extremely high due to the ongoing water crisis, displacement/overcrowded settings, and recent extensive damage to water and sanitation infrastructure due to recent earthquake. Additionally, the summer months and accompanying dry conditions have historically triggered seasonal increases in waterborne illness.

- Suspected Cases**  
157,196
- RDT Positive Cases**  
2,011
- Culture Positive Cases**  
1,216
- Cholera Sus. Deaths**  
104
- Case Fatality (CFR)**  
0.07%
- Overall Attack Rate**  
0.74%
- Affected Governorates**  
14
- Grade**  
2

Figure 1 Distribution of suspected cholera cases by date of onset as of July 8, 2023



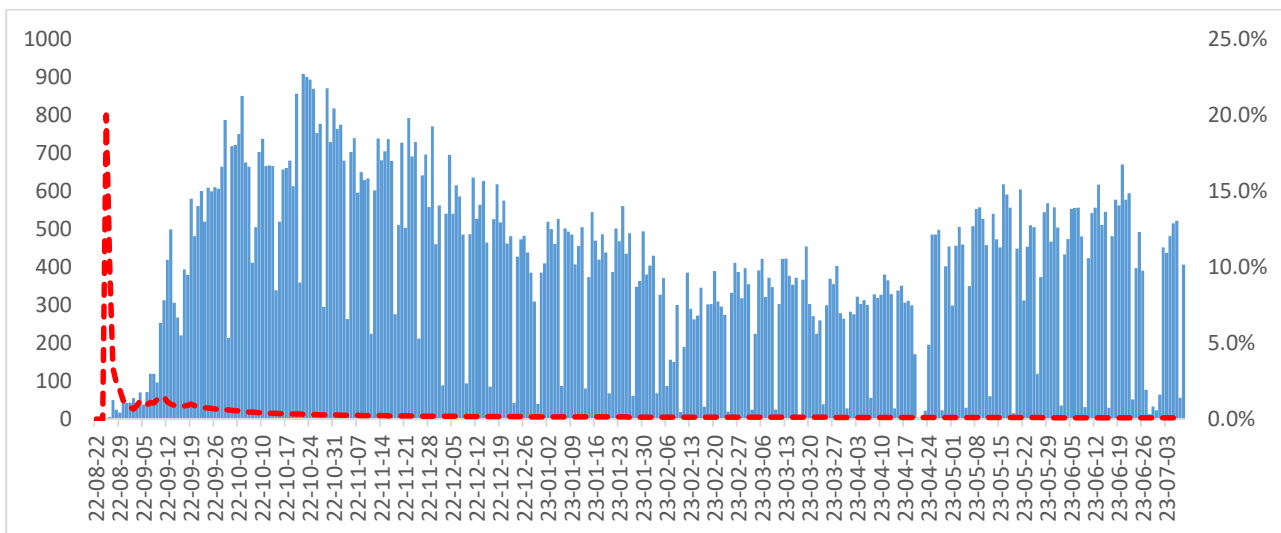
### Epidemiological Data

Table 1 provides a breakdown of reported suspected cholera cases and deaths, as well as the number and type of tests performed in Syria's governorates.

Table 1: Epidemiological data, as of 8<sup>th</sup> July 2023

Governorate	Suspected Cases (AWD)	Population	Attack Rate (%)	RDTs	Positive RDTs	Culture + Tests	Attributed Deaths	CFR%
Aleppo	50,015	4,170,826	1.20	2,672	1,082	449	59	0.1%
Al-Hasakeh	4,788	1,160,335	0.41	706	116	25	9	0.1%
Ar-Raqqa	22,049	767,956	2.87	355	74	101	10	0.0%
As-Sweida	81	380,118	0.02	81	26	2	0	0.0%
Damascus	43	1,829,796	0.00	40	20	10	1	0.0%
Dar'a	25	1,037,690	0.00	22	5	0	0	0.0%
Deir-ez-Zor	20,787	779,283	2.67	774	421	100	11	0.1%
Hama	260	1,344,853	0.02	188	52	55	1	0.4%
Homs	72	1,520,283	0.00	59	31	25	1	0.0%
Idleb	58,713	2,826,874	2.08	1,517	55	412	12	0.0%
Lattakia	184	1,274,118	0.01	161	98	31	0	0.0%
Quneitra	30	113,254	0.03	17	4	1	0	0.0%
Rural Damascus	114	3,032,345	0.00	111	17	3	0	0.0%
Tartous	35	943,399	0.00	27	10	2	0	0.0%
<b>Total</b>	<b>157,196</b>	<b>21,181,130</b>	<b>0.74</b>	<b>6,730</b>	<b>2,011</b>	<b>1,216</b>	<b>104</b>	<b>0.07%</b>

Figure 2 Distribution of suspected cholera cases by date of onset, as of 8<sup>th</sup> July 2023



## Cholera Outbreak Response

### Leadership and Coordination

- Joint WoS health and WASH coordination continues at the Whole of Syria (WoS) level. WHO, UNICEF, and OCHA are working together to coordinate response efforts.
- An updated version of the Whole of Syria (WoS) cholera response plan (July – December 2023) is being drafted jointly by WoS Health and WASH clusters and will be shared as soon as finalized.
- WoS Cholera Operational Review Report is now finalized and undergoing clearance by Cluster Lead Agencies for health and WASH –WHO and UNICEF respectively.
- In northwest Syria (NWS), a multi-sectoral coordination meeting involving health, WASH, nutrition, and RCCE was reactivated and held on June 13th at UNICEF. The coordination forum discussed ways to improve integrated coordination and cholera response, as well as the gaps and challenges of multi-sectoral coordination and response. The meeting will be held on a monthly and ad hoc basis in the future.

### Surveillance and Laboratory

- On 26 – 27 June 2023, 15 surveillance focal points from the Ministry of Health (MoH), Directorates of Health (DoH) in Damascus and Aleppo, Zahi Azrak Hospital in Aleppo, Damascus Hospital, as well as laboratory staff from Aleppo and the Central Public Health Laboratory (CPHL), received training on electronic reporting of AWD cases through the health information management system DHIS2 Platform.
- WHO Syria continues to provide support to rapid response teams (RRTs) for sample collection and transportation to designated laboratories.
- WHO facilitated transport of reference samples of cholera strains from an external laboratory (American University of Beirut -AUB) to Central Public Health Laboratory (CPHL) for RDT validation, the results of which confirmed reliability and validity of the RDTs.
- WHO facilitated two supervisory visits to microbiology laboratories in Tartous and Hama.
- The testing strategy of suspected cholera cases continues to be reinforced through official communication with Ministry of Health (MoH), training, and supervisory field visits.
- RRTs were supported with 10 cholera investigation kits, including the cholera RDTs.
- In northwest Syria (NWS), RDT tests are now being used by 28 new health facilities, and the results are being reported. A total of 35 health facilities are expected to be enrolled by the end of stage two of the RDT rollout plan which is scheduled to end on June 30th.

### Case Management

- With WHO Syria support, three capacity building workshops were held for 75 health care workers (HCWs) from MOH hospitals in Hama, Aleppo, and Latakia. The training focused on strengthening hospital preparedness and response capacity during outbreaks and emergencies, including infection prevention and control (IPC) measures.
- In May 2023, WHO Syria conducted a rapid assessment of the hospitals designated as CTCs/CTUs to determine their overall capacity and capabilities for cholera treatment and response. The assessment report is being drafted.
- As of the end of Epi Week 25 (June 22, 2023), 6,652 cholera cases had been admitted to CTCs/CTUs in NWS, with another 9,858 cases reported from ORPs.

- Two new cholera centers are functional now in NWS to cover population in Afrin and Al Bab: Afrin Cholera Treatment Center and Bazagha Cholera Treatment Unit. The total number of the functional CTC/CTUs in NWS now is nine.
- Health partners in NWS continue to support case management and referrals. Additional information on case management and referrals can be found in the cholera dashboard [Microsoft Power BI](#).
- Furthermore, WHO, UNICEF, and SIG in NWS, in collaboration with WHO and UNICEF regional offices, are in discussions with GAVI to plan the steps necessary to include rotavirus vaccine in the EPI schedule for NWS.

### Oral Cholera Vaccine (OCV)

- In northwest Syria (NWS), the second phase of the OCV campaign was carried out between 10 and 19 June, 2023, by the Syria Immunization Group (SIG), with the support of WHO and UNICEF, and in collaboration with the Cholera taskforce. With a target population of 1,119,799 people in eight sub-districts of Albab, Afrin, Jendairis, Alatareb, Salqin, Armanaz, Bdama, and Janudieh. With a 97% coverage rate, the total number of people vaccinated was 1,089,570.
- The Syria MOH is in discussion with GAVI regarding a preventive campaign for cholera provisionally planned to take place next year.

### Water Sanitation and Hygiene (WASH)

#### WASH Rapid Response

- In northeast Syria (NES), one day cholera workshop for all WASH partners has been organized on June 20, 2023.
- In NWS, a two days cholera workshop for response partners has been organized on 21- 22, June 2023 (main covered topics; response Scale up, NWS WASH Cholera response Plan revision, WoS WASH Cholera SoPs, Cholera Treatment Initiative-Community Outreach Response Team (CATI-CORT), etc.
- Field WASH facilitators were able to conduct surveillance activities in 496 communities and 946 camps throughout the NWS. During their visits, they were able to chlorinate 788 water storage tanks.
- In NWS, a planned cholera workshop (Health-WASH-RCCE) will take place in the last week of July 2023.
- Hygiene materials and total of 7,000 water purification tablets were distributed to shelters/schools in Homs and Hama and awareness sessions were conducted in the same areas
- More than 1800 earthquake IDPs in four shelters in Lattakia have received hygiene awareness sessions and cholera prevention and control awareness sessions.

#### Access to Safe Water

##### **Safe water and NFI provision**

- Water provision support from HCT WASH partners to the water establishment is ongoing.
- Water trucking continues to be provided by partners to rural communities in northern and eastern rural Deir Ez-Zor, Rural Damascus, Al-Hasakeh City, and IDP camps.
- Through partners, free residual chlorine (FRC) level has been tested at household level in Homs and Hama where the WASH cholera kits have been distributed to ensure the correct use of water purification tablets.

- In NWS, health and WASH partners prioritized earthquake (EQ)-affected areas for distribution of 25,000 hygiene kits; 2,200 WASH cholera kits; soap; and IEC materials.
- A daily test for drinking water to measure free residual chlorine is being conducted in collaboration with Homs and Hama Water Authorities who will also receive distributions of sodium hypochlorite for treatment of drinking water.
- To ensure the safety of drinking water, the HCT WASH implementing partners in coastal and accessible areas of southern Idlib are continuing to distribute water purification tablets (Aqua tabs). This intervention has reached over 1615 people in accessible areas in southern Idlib, 1060 people in the Tartous governorate, and 4375 people in the Latakia governorate.

### Water Quality Monitoring

- In coordination with the Ministry of Health (MOH) and Ministry of Local Administration and Environment (MOLAE) and Water Resources (MOWR), WHO supports water quality monitoring activities in six governorates of Aleppo, Latakia, Homs, Hama, Deir ez-Zor and Rural Damascus in addition to a WHO team operating in NES – both Al-Hasakeh and Ar-Raqqa.
- Overall, 8648 water samples from different locations were tested, and the results revealed that 6% (511 samples) were contaminated. 8 samples (27%) from 14 health facilities were biologically contaminated, and 148 samples (2%) out of 7300 samples tested from shelters and camps were biologically contaminated. In response, approximately, 554,150 water purification tablets were distributed throughout the governorates in host communities, IDP shelters, and scattered areas between Jan – June 2023 .
- In NWS, water surveillance activities have been conducted in 496 communities and 946 camps. In total 15,202 samples were collected, and the following are the key results:
  - In camps: 20% of the samples were tested at 0 FRC, 2% of the samples are identified with over-chlorination, and 5% declared that they are purchasing water from unidentified private vendors to cope with water shortage. The WASH cluster field facilitators were able to chlorinate 788 water storage tanks during their visits.
  - At the community level: 76% of the samples were tested at 0 FRC, and 32% declared that they are purchasing water from unidentified private vendors to cope with water shortage. The WASH cluster field facilitators were able to chlorinate 2,038 water storage tanks during their visits.
- General ongoing activities in NWS: water chlorination (in camps and water sources outside camps); water sampling investigation from drinking water resources (main stations, wells, water trucks, water taps.... etc); investigation of sewage networks and septic tanks' locations and other sanitation services; and cholera prevention for hygiene promotion activities (identify hygienic practices, distribute hygiene/cholera kits, etc)

### Sanitation

- The sanitation network is in major need of reconstruction/rehabilitation and is the leading cause of continued outbreaks of waterborne illness – including AWD and cholera cases. Rehabilitation/repair is currently planned in order to address a small percentage of the need.
- A few partners are working to restore sanitation systems in high-risk areas of the governorates of Al-Hasakeh and Aleppo. The earthquake exacerbated the damage to Aleppo's sanitation systems, resulting in the collapse of various points of the sewage network due to the network's old underground canals. In the context of the ongoing cholera outbreak, this poses significant health risks to the local population.

- In response to the ongoing outbreaks, the damaged sewage network in the AL Baseh area of Lattakia was repaired, and the sewage outfall was extended to connect to a planned sewage treatment plan and to transport sewage water away from the population. This will benefit more than 7,000 people.
- Sanitation facilities are being rehabilitated in Deir ez-Zor Hospital and are nearing completion (final stages).
- WHO has completed the rehabilitation of WASH facilities at Al Assad Hospital in Deir ez-Zor, which serves 700,000 people.

### **Risk Communication and Community Engagement (RCCE)**

- The Ministry of Health has endorsed a social behaviour change- community engagement (SBC-CE) Cholera Response Plan for the years 2023-2024. The plan addresses gaps, prioritizes key populations, and highlights strategies based on a thorough situational analysis and lessons learned from the outbreak response in 2022. Messages tailored to specific groups aim to promote positive behavioral changes and community engagement, thereby improving public health outcomes in the affected areas.
- SBC interventions reached 40,337 people and engaged 103,442 in June 2023 through various activities such as group sessions, household visits, and child-friendly edutainment. Furthermore, 17,456 information, education and communication (IEC) materials were distributed to communicate critical messages about cholera prevention and basic home remedies.
- The RCCE National Coordination Group, led by UNICEF and WHO, has been instrumental in fostering collaboration among partners. This is accomplished through continuously exchanging information, sharing lessons learned and seeking a collective response to plan the way forward. Also, at the subnational level, working groups have been established to ensure the active involvement of all stakeholders on the ground, especially in high-risk governorates.
- In NWS, more than ten RCCE partners continue to provide support to various RCCE activities, including providing cholera and other communicable disease awareness sessions, with a special focus on those affected by the earthquake, across 27 sub-districts through 837 community health workers and social mobilizers (CHWs/SMs). A total of 276,703 people were reached, with 1,127 suspected cholera cases and 3,421 other cases, including sexual and reproductive health, child health, internal medicine and nutrition, referred to appropriate facilities or services in the targeted communities.
- Furthermore, RCCE partners in NWS are aiming to conduct a KAP survey in July 2023 among the Syrian population affected by cholera to assess cholera knowledge and identify inappropriate practices eight months after the outbreak began.
- In the governorates of Damascus, Rural Damascus, Homs, Hama, and Aleppo, key messages on cholera prevention and protective practices were delivered to over 13,000 beneficiaries. In addition, over 20,000 flyers with key messages about how to protect against food and waterborne diseases were distributed, as well as 40,000 cholera prevention brochures.
- To support the RCCE cholera response, three capacity-building workshops were held in Homs and Hama for health and community workers, as well as outreach volunteers. More than 100 participants were taught how to treat mild cases at home, were given precautionary messages – including when to seek care at health facilities, and were informed about activities to promote positive behavior change.



### Challenges / Gaps

- In the summer season, the population's need for water increases and they tend to purchase water from unknown/unsafe sources. Furthermore, people buy ice cubes, which can be a source of contaminated water, with the fact that ice cube factories refuse to chlorinate the water used.
- Sewage water is also used to irrigate crops because it is readily available and can also be used as fertilizer. This further increases the chances of oral-fecal disease transmission.
- Multiple surveillance systems are in place across Syria, many of which face delays in data analysis and reporting.
- Reports on mishandling specimens (stored in unsuitable temperatures).
- Surveillance and lab capacities in NES still remain limited.
- Currently, there is no referral CTC/CTU available for moderate-to-severe cholera cases occurring in camps and communities in areas of NES outside of HCT partners' access.
- Across Syria, partners are facing a severe reduction in funding to continue supporting ongoing response operations.
- Safe disposal of wastewater is a major concern due to the absence of proper wastewater management systems.
- The Allouk Water Pumping station has been inoperable since August 2022, leaving 460,000 people without a safe source of water. Given the unique circumstances surrounding that specific water trucking operation, funding to maintain continuous water trucking is urgently required.
- Water supply coverage at the community level remains limited, forcing many communities to drink water from irrigation systems.
- Sanitation is a major concern due to the absence of proper waste-water management systems, including sludge management and drainage. This poses a high risk of water contamination, as wastewater and drainage waters are often used for irrigation within the community.

### Key Priorities

- Advocacy for continued vigilance, including active case-finding, reporting and investigation of cases matching the case definition.
- Training on specimen collection and handling to improve the quality of specimens from collection points to laboratories.
- Prepositioning and monitoring of medical supplies in hotspot areas where the risk is still high, complemented by continued dissemination of IEC materials and key messages.
- Distribution of water purification tablets and hygiene kits in areas with low water levels and/or contamination.
- Increased water quality monitoring in areas reporting lower water levels, as well as collaboration with health authorities to conduct active case searches.
- In NWS, the WHO and the cholera task force will review the line list in CTCs/CTUS to ensure that pregnancy, case contacts, history of infection, and malnutrition status are captured, recorded, and reported. WHO will ensure that the necessary supplies and training are available to ensure MUAC is performed for malnutrition screening in CTCs/CTUS.
- Increase response (water chlorination – investigation – case follow-up) and control at the community level, especially in public centers such as health facilities and schools, as well as during water trucking controlled at the community level.

- Prepare a new advocacy plan to attract new funds for cholera prevention and emergency response
- Continue scale-up of surveillance, lab capacities, and case management across the most affected areas.
- Finalize updating the new WoS joint health and WASH cholera response plan for July-December 2023.
- In NWS, continue the work on to establish CATI-CORT for community cholera response, including a 2nd cholera training with a focus on the CATI-CORT approach for RRTs (CORT Teams on the field).
- Provision of chlorine supplies to water stations with chlorine.
- In NWS, increase chlorination and FRC control/investigation at the community level, and scale-up community-level cholera response activities.

### For inquiries, please contact

Dr. Abdihamid I Ahmed  
Whole of Syria Health Sector Coordinator  
WHO EMRO– Amman  
Email: [abdihamidi@who.int](mailto:abdihamidi@who.int)

Giuliaserena Gagliardini  
Whole of Syria WASH Cluster Coordination  
UNICEF MENA – Amman  
Email: [ggagliardini@unicef.org](mailto:ggagliardini@unicef.org)