

Epidemiological Overview

Between 25 August 2022 and 2nd of September 2023 (epi-week 35), **189,374 suspected cases** have been reported from all 14 governorates of Syria, with 105 associated deaths at a case fatality rate of 0.06%. Since the last SITREP was issued on the 20th of September, reporting as of epiweek 31, **16,029 new suspected cases** were detected, **with no new deaths** reported.

The most affected governorates to date are **Idleb 40.1%** (75,959 suspected cases), **Aleppo 33.4%** (63,255 suspected cases), **Ar-Raqqa 12.2%** (23,032 suspected cases), and **Deir Ez-Zor 11 %** (20,797 suspected cases).

Since the beginning of the outbreak, 28,065 suspected cases and 10 AWD-related deaths were reported from internally displaced camps across Syria.

To date, 8,248 samples have been tested with rapid diagnostic tests (RDTs), with 2,110 testing positive; the overall proportion of RDT-positive cases is **25.4%**. Additionally, **8,655** cases have been tested by culture, out of which 1,386 tested positive for *Vibrio Cholera*; the cumulative positivity rate by culture is **16%**.

Suspected Cases

189,374

RDT Positive Cases

2,110

Culture Positive Cases

1,386

Cholera related Deaths

105

Case Fatality (CFR)

0.06%

Overall Attack Rate

0.89%

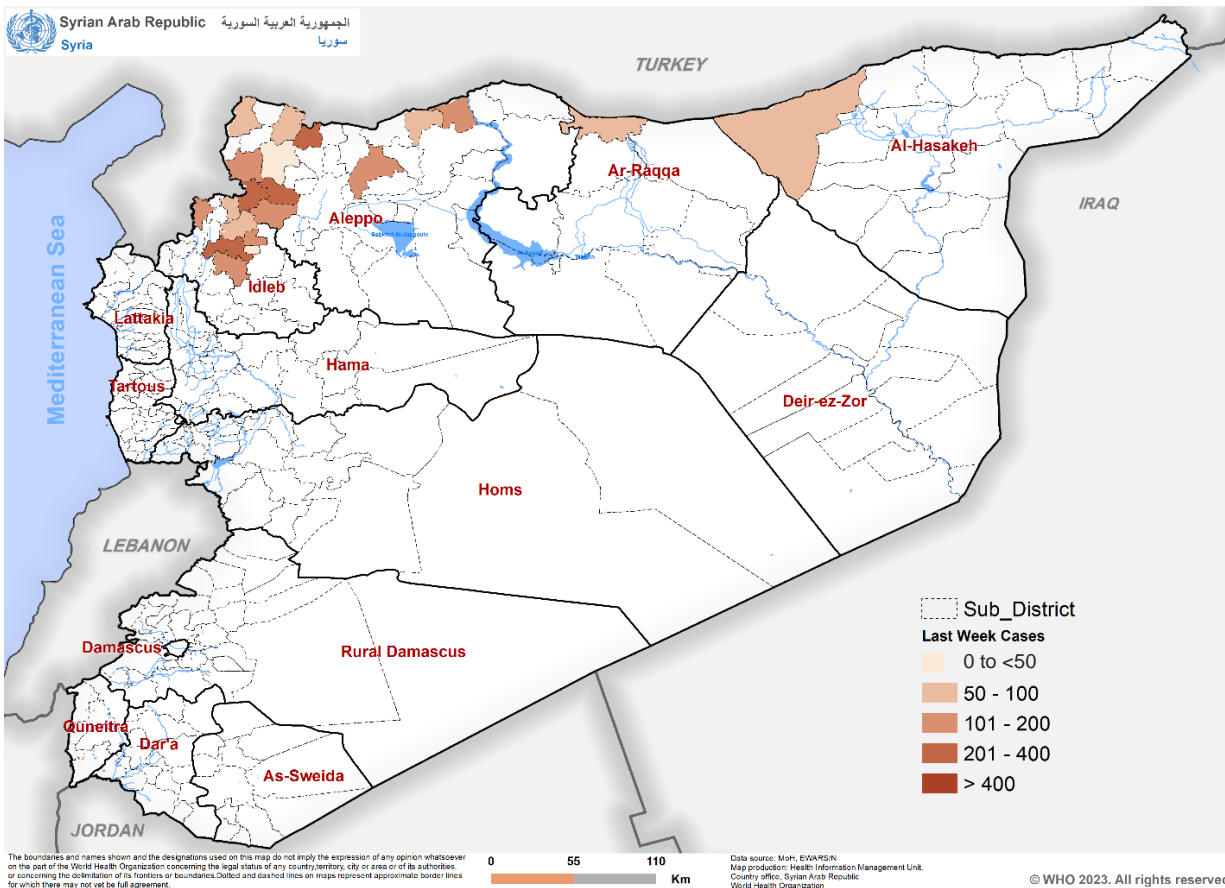
Affected Governorates

14

Grade

2

Figure 1: Subdistricts actively reporting suspected cholera cases on epiweek 35.



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Data source: MoH, EISA/RSN
Map producer: Health Information Management Unit
Country office: Syrian Arab Republic
World Health Organization

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. Governorates with highest attack rates (ARs) to date are Ar-Raqqa with an AR of 3%, Deir-ez-Zor - 2.67%, Idleb - 2.69%, Aleppo - 1.52%, and Al-Hasakeh - 0.47%.

Table 1: Epidemiological data, as of 2nd September 2023

Governorate	Suspected Cases (AWD)	Population	Attack Rate (%)	RDTs	Positive RDTs	Culture + Tests	Attributed Deaths	CFR%
Aleppo	63,255	4,170,826	1.52	3,308	1,131	552	49	0.08%
Al-Hasakeh	5,487	1,160,335	0.47	735	116	26	4	0.07%
Ar-Raqqa	23,032	767,956	3.00	355	74	101	10	0.04%
As-Sweida	81	380,118	0.02	81	26	2	0	0.00%
Damascus	43	1,829,796	0.00	40	20	10	1	2.33%
Dar'a	25	1,037,690	0.00	22	5	0	0	0.00%
Deir-ez-Zor	20,797	779,283	2.67	776	423	100	24	0.12%
Hama	260	1,344,853	0.02	188	52	55	1	0.38%
Homs	72	1,520,283	0.00	59	31	25	1	1.39%
Idleb	75,959	2,826,874	2.69	2,404	103	478	15	0.02%
Lattakia	184	1,274,118	0.01	161	98	31	0	0.00%
Quneitra	30	113,254	0.03	17	4	1	0	0.00%
Rural Damascus	114	3,032,345	0.00	111	17	3	0	0.00%
Tartous	35	943,399	0.00	27	10	2	0	0.00%
Total	189,374	21,181,130	0.89	8,284	2,110	1,386	105	0.06%

Figure 2: Suspected Acute Watery Diarrhea (AWD)/cholera cases epicurve, as of 2nd of September 2023

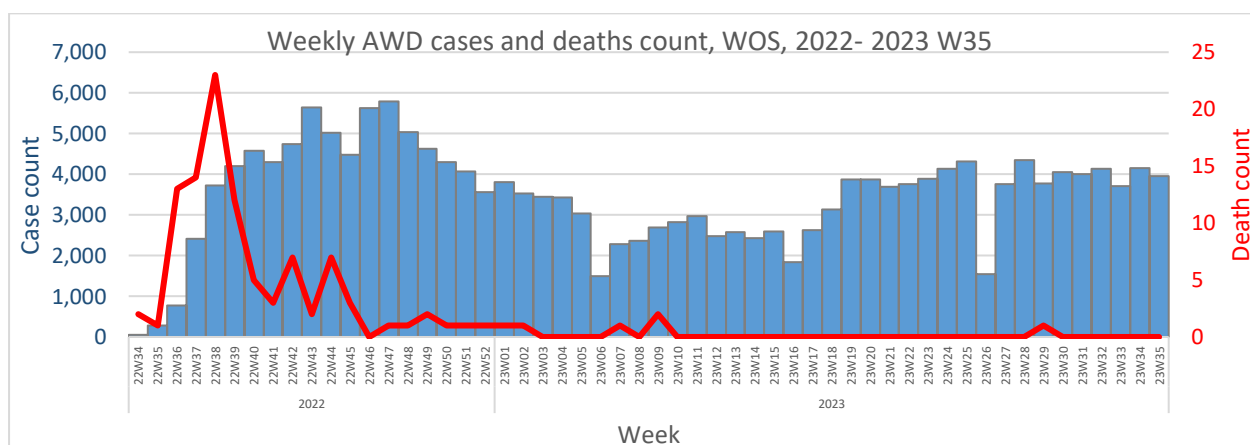
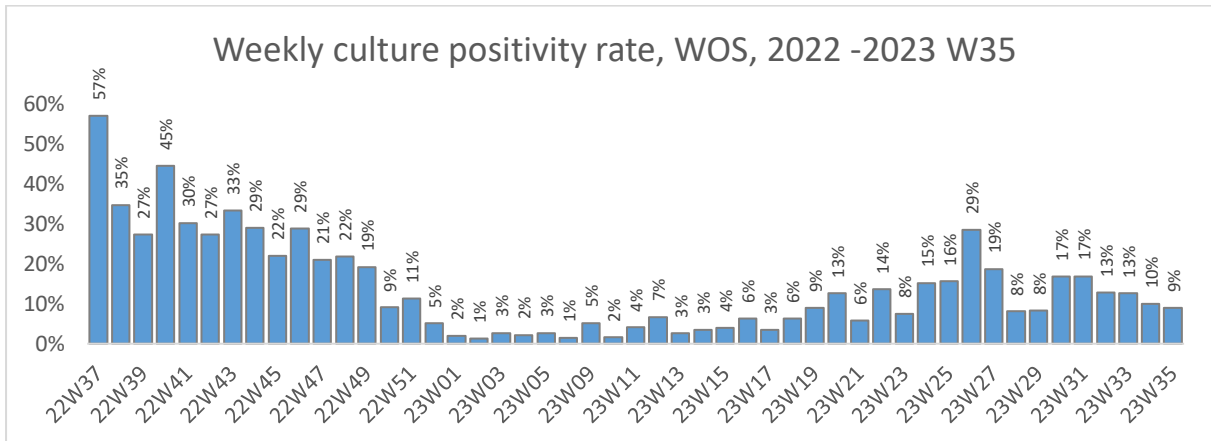


Figure 2 above shows the outbreak epicurve as of the last epiweek of August, epiweek 35, showing a plateauing phase of suspected AWD/Cholera cases; while figure 3 below shows WoS positivity rate by culture reflecting a decline in case positivity rates reaching 9% on epiweek 35 as compared to 17% recorded on the last epiweek of July.

Due to the ongoing water crisis, new displacements, and the recent damage to water and sanitation infrastructure caused by ongoing airstrikes and conflicts, as well as the recent earthquake, the risk of an increase in all waterborne diseases (WBDs), including AWD/cholera, remains high.

Figure 3: WoS Culture Positivity Rate as of epiweek 35, 2 September 2023.



Cholera Outbreak Response

Leadership and Coordination

- Joint WoS health and WASH coordination continues at the Whole of Syria (WoS) level while WHO and UNICEF continue to work together at field level to coordinate response efforts.
- A six-month WoS joint Health and WASH cholera response plan (September 2023 - February 2024) is being finalized and is in the process of the final approval from the two cluster lead agencies for Health and WASH.
- Syria WHO Country Office:
 - Global Task Force of Cholera Control (GTFCC) Priority Areas for Multisectoral Interventions (PAMI) exercise discussions began in Syria between Health and WASH clusters to identify AWD/cholera hotspot areas using GTFCC newly developed PAMI toolkit.
- Northwest Syria (NWS):
 - Health and WASH Clusters Joint Cholera Operational Review Workshop was held 24 - 25 August 2023, with wide participation from Health and WASH clusters and 38 participants representing active partners involved in the cholera outbreak response in NWS. The workshop discussed the ongoing cholera response efforts, the collaboration between health and WASH clusters and presented the technical experiences acquired by active teams during the outbreak. The workshop also identified preparedness and response actions (in line with the response pillars) that need to be prioritized to ensure better response during the upcoming period.
 - During the workshop, NWS updated cholera response plan has also been discussed, reviewed, and finalized and approved by pillars' leads.

Surveillance and Laboratory

- WHO Syria continues to provide support to 103 rapid response teams (RRTs) for sample collection and transportation to designated laboratories.
- WHO Syria facilitated two supervisory visits to microbiology laboratories in Deir-ez-Zor and Al-Hasakeh.
- The testing strategy of suspected cholera cases continues to be reinforced through official communication with Ministry of Health (MoH), training, and supervisory field visits.

Case Management

- With WHO Syria support,
 - The remaining three central ToT workshops on Infection Prevention and Control (IPC) standards were held in coordination with the hospital directorate and the Center for Strategic Studies and Health Training and were attended by 75 health workers from public hospitals of the Directorate of Health (DOH) in Rural Damascus, Tartous and Lattakia. The training focused on IPC, quality assurance and surveillance teams.
 - 12 public hospitals in earthquake-affected governorates of Hama, Tartous, Aleppo and Lattakia received IPC supplies, including sterilization indicators to enhance the capacity for IPC standards and prevention of healthcare-associated infections.
- In NWS,
 - Health partners in NWS continue to support case management and referrals. As of the end of Epi Week 34 (August 26, 2023), 9,027 suspected cholera cases had been admitted to cholera treatment centers/cholera treatment units (CTCs/CTUs) in NWS, and 19,413 cases were supported by oral rehydration points (ORPs).
 - Additional case management and referral information can be found in the cholera dashboard [Microsoft Power BI](#).
- In Northeast Syria (NES),
 - There are 13 CTUs/CTCs available in NES: 7 in Deir-Ez-Zor, 2 in Hasakeh, 3 in Ar-Raqqa, and 1 in Aleppo. Currently, just 7 are operational: 5 in Deir ez-Zor and 2 in Ar-Raqqa, with the rest suspended due to the decline in the number of cases and funding shortages.

Supplies and medicines,

- Approximately 23 cholera kits, 431 cholera RDTs, 5000 strips for glucometers, and 286 medical devices have been distributed to MOH central, children hospital Aleppo, DOH Homs, DOH Hama, Qamishli National hospital, Al-Hasakeh National Hospital and health partners in Hama, Homs, Tartous, Lattakia, IDP camps in Hasakeh, Raqqa & Deir-ez-Zor.
- 31,800 medical masks/respirators and 500 adult body bags were delivered to Al-Hasakeh health partners and health facilities, including those located in IDP camps (Al Hol, Roj, and Nerwoz camps).

Oral Cholera Vaccine (OCV)

- Discussions with GAVI regarding preventive campaigns for cholera provisionally planned to take place in 2024 are still on going.

Water Sanitation and Hygiene (WASH)

Safe water and NFI provision

- In Syria Humanitarian Country Team (HCT) areas,
 - To guarantee access to safe drinking water, UNICEF, through its partners, distributed water purification tablets (Aquatabs) in the coastal regions reaching over 5,200 families.
 - SARC continued to conduct awareness campaigns in Bsira, focusing on critical topics, such as effective cholera prevention and how to prepare rehydration solutions.
- WHO Syria supported,
 - The Ministries of Health (MOH), of Local Administration and Environment (MOLAE), and Water Resources (MOWR) to conduct water quality monitoring activities in three governorates

Lattakia, Homs, and Hama, in addition to a WHO team operating in NES – Al-Hasakeh, Deir-ez-Zor, and Ar-Raqqa. Overall, 1281 samples from different sources were tested, 7% (85 samples) were found to be contaminated as below:

- In Homs, 16 of 24 samples tested (66.7%) were bacteriologically contaminated, mainly in rural Homs.
 - In Hama, 26 of 92 sample 28% were contaminated.
 - In Lattakia, water quality monitoring was conducted in 5 earthquake IDP shelters and 100% were safe for drinking, while in resident areas 16 samples out of 50 (32%) were found to be contaminated.
 - In NES, during the month of August, WHO supported the testing of 1103 samples, of which 2.4% (27 samples) were bacteriologically contaminated. The contamination was mainly in private water trucking in Deir-ez-Zor (3 of 13). Bacterial contamination was also found in 12.5% of samples taken household water reservoirs in rural Deir ez-Zor (3 of 24).
- In NWS,
 - WASH cluster field facilitators conducted water quality monitoring in 540 communities and 1,399 camps. In total 29,173 samples were collected, and the following are the key results:
 - In camps:
 - 22% of the samples were tested at 0 FRC.
 - 8 % from the samples are identified with over chlorination.
 - 7% declared that they are purchasing water from unidentified private vendors to cope with water shortage.
 - 761 water storage tanks were chlorinated during the visits.
 - In communities:
 - 74% out of collected samples were tested at 0 FRC.
 - 33% declared that they are purchasing water from unidentified private vendors to cope with water shortage.
 - 2,040 water storage tanks were chlorinated during the visits.
 - Since the 12th of August, with WHO support, Assistance Coordination Unit (ACU) has shifted to the new approach of water quality monitoring and surveillance that focuses on the cholera hotspot communities and surrounding major IDP camps across NWS. The water quality monitoring is currently done as three rounds per week taking samples at different levels to measure the free residual chlorine (FRC) levels in the water supplied by different water suppliers.
 - Results collected are reported and shared with the WASH cluster, Cholera Task Force, UNICEF, and WHO, and are further disseminated with the water supply systems in the field to undertake actions to improve the water quality in the targeted areas.
 - WHO is planning to carry out a rapid assessment of the water quality monitoring capacities retained by the humanitarian WASH NGOs in NWS for the purpose of capacity building appraisal and promotion, and expansion of the water quality monitoring function in NWS.

Sanitation

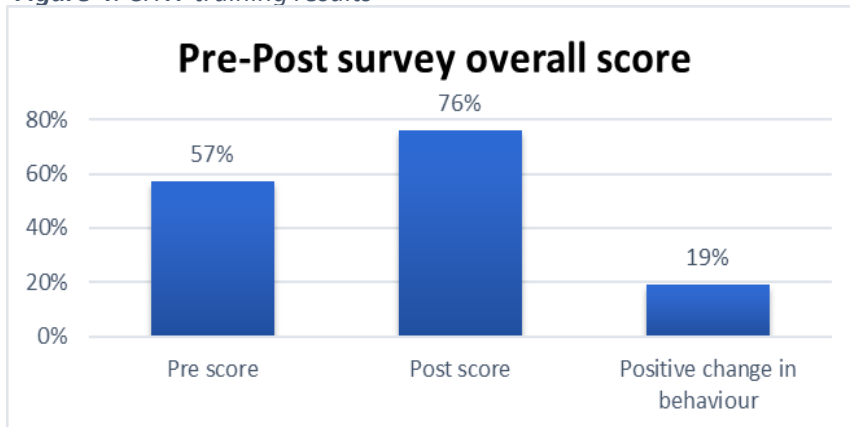
- WHO Syria initiated WASH rehabilitation for two health centers in Hama Governorate.
- In NWS,
 - Following the WASH cluster Strategic Advisory Group (SAG) analysis, the final draft version of the expected outputs of the technical working groups on wastewater treatment and chlorination is currently under review.

- Following the open sewer mapping, a draft Bill of Quantity was developed to inform WASH cluster partners on the financial needs to fix three sewer lines in Ariha - Kafr Nouran, Meles – Kwaru, and Ram Hamdan - Maarat Misrin.

Risk Communication and Community Engagement (RCCE)

- WHO Syria,
 - Conducted three capacity-building workshops in August for health, community workers, and outreach volunteers in Al-Hasakeh and Qamishli City to support the RCCE cholera response. More than 100 participants were guided on how to manage simple cases at home, conveyed precautionary messages, and informed on activities to attain positive behavior change.
 - Figure 4 reflects community health workers' increased knowledge on communicating risks with vulnerable populations as a result of training.

Figure 4: CHW training results



- In addition, 10,000 flyers and brochures with key messages on how to protect against food- and waterborne diseases have been distributed in Damascus, Rural Damascus, Hama, Homs, Dar'a, Latakia, and Tartous.
- At the coordination level: the Cholera Framework was presented during the National RCCE coordination meeting and followed up with a working session for partners to help identify potential areas of collaboration in order to identify key priority areas and avoid duplication.
- Developing AWD information, education and communication (IEC) materials, including radio and TV spots and social media tiles (8 messages have been developed in different formats).
- NWS,
 - As of the end of August, total number of beneficiaries reached by health cluster partners was 66,717 individuals, out of which 25,731 were new beneficiaries. 283 suspected cases were referred for treatment by community health workers (CHWs).
 - RCCE partners utilized various intervention methods categorized as follows:
 - Household visits: 22,080 households were visited, benefiting a total of 51,580 beneficiaries.
 - Individual awareness sessions: 9,170 sessions were conducted, reaching 9,210 beneficiaries.
 - Group awareness sessions: 896 beneficiaries were engaged and reached.
 - Mothers and caregivers: 4,861 were engaged and reached.
 - Community and religious leaders: 106 community leaders and 38 religious leaders were engaged and reached.
 - School awareness sessions: one awareness group session was conducted involving 6 teachers and 20 students.

- The final Knowledge Attitude and Practice Study looking at the impact of cholera RCCE in NW Syria is being finalized and will be shared by end of September.

Challenges / Gaps

- Across Syria, partners are facing a severe reduction in funding.
- Limited access to clean water sources: several areas are suffering from limited access to safe and clean water sources, especially in rural communities and communities along the Euphrates River; the limited power supply that affects the water pumping and supply creates a higher reliance on unreliable water sources hence increasing the risk of water borne diseases transmission.
- The absence of proper wastewater management systems and poor sanitation infrastructure, encompassing sludge handling and drainage, has raised substantial sanitation concerns; this deficiency significantly heightens the risk of water contamination, as both wastewater and drainage water are frequently employed for irrigation within the community.
- In NES,
 - Inadequate surveillance and unavailability of labs in NES remains a major challenge in early detection of communicable disease outbreaks.
 - Geographical constraints to reach remote and vulnerable populations.
 - Limited numbers and capacity of trained health workforce in some regions, affecting the capacity to manage and respond to cholera cases effectively.

Key Priorities

- General:
 - Mobilize necessary resources to maintain preventive and response activities for cholera.
 - Finalize updated WoS joint health and WASH cholera response plan for September 2023-February 2024, with focus on identification of hotspot areas across WoS.
 - Strengthen community-level wastewater management to prevent water contamination, particularly in irrigation usage.
 - Distribute water purification tablets and hygiene kits in areas with low water levels and/or contamination.
 - Advocate for the expansion/repair of sewage networks in both camps and community settings.
 - Preposition and monitor medical supplies in identified hotspot areas where the risk is still high, complemented by continued dissemination of IEC materials and key messages.

In addition to the overall priorities, the response areas have specific priorities that include:

- In NWS,
 - Enhance chlorination and water quality monitoring at community level.
 - Expand the scope of cholera response initiatives within communities.
 - Connecting cholera outreach response teams (CORT) with health partners who are managing health facilities in NWS.
- In NES,
 - Continue scale-up of surveillance, lab capacities, and case management across the most affected areas and hotspots.
 - Strengthen community engagement in order to increase public awareness.

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- Scaling up regular communication and information sharing among health partners, the HWG team, health authorities, and NGOs in NES are critical for harmonizing efforts, sharing best practices, and addressing regional challenges.

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