World Health Organization
Syrian Arab Republic

Syrian Arab Republic: WHO Syria Situation Report #11

Cholera Outbreak:

W43 (23-29 October 2022)

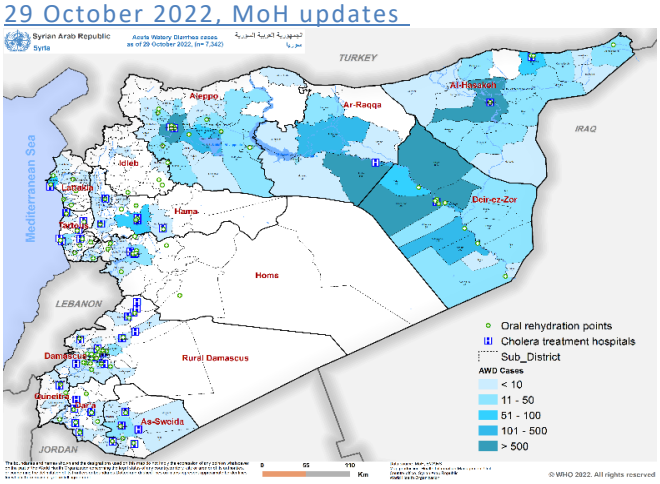
2 November 2022

Total AWD cases	Total positive cholera cases / RDTs	Total confirmed cholera cases /Culture	Total AWD Deaths	Case Fatality Rate	Attack Rate
7,342	1,260	54	46	0.63	0.03
New cases W43	**New positive RDTs**	**New confirmed culture**	**New deaths**	**% of change of AWD cases with previous week**	**New affected sub-districts**
573	179	7	2	– 8.8%	4

Background and Situation Overview

- The first case was detected on 22 August 2022 in Aleppo and confirmed on 25 August 2022.
- On 10 September 2022, the Syrian Ministry of Health declared 15 cholera laboratory-confirmed cases in the Aleppo governorate and one death.
- By the end of August, AWD was extended to other governorates; Ar-Raqqa, and Deir-ez-Zor. Later in September, AWD cases were reported from new governorates in Hassakeh, Lattakia, Damascus, Hama, Homs, and Rural Damascus. on 22 October 2022 cholera confirmed cases were reported by MoH in 13 governorates.
- As of 29 October 2022, a total of 7 342 AWD cases associated with 46 deaths (CFR=0.63) were reported by MoH and EWARS teams in 14 governorates, of which MoH reported 4 740 AWD cases and confirmed 1 097 cholera cases, while EWARS teams in NES reported 2 602 AWD cases; of which 163 were confirmed by the RDTs in Deir-ez-Zor, Ar-Raqqa, and Hassakeh.
- In week 43 AWD cases decreased by 8.8% compared to the previous week, and cases were reported from four new sub-districts in Hama (Kafr Zeita), Homs (Nasra and Tall Kalakh), and Rural Damascus (Markaz Darayya).

Figure 1:Map Distribution of AWD in Syria as of 29 October 2022, MoH updates



MoH Standard Case Definitions

Acute watery diarrhoea

- Acute watery diarrhoea is an illness characterized by three or more loose or watery (non-bloody) stools within 24 hours.

Suspected cholera case

- In areas where a cholera outbreak has not yet been declared, any person aged 2 years or older presenting acute watery diarrhoea and severe dehydration or dying from acute watery diarrhoea.
- In areas where a cholera outbreak has been declared, any person presenting or dying from acute watery diarrhoea.

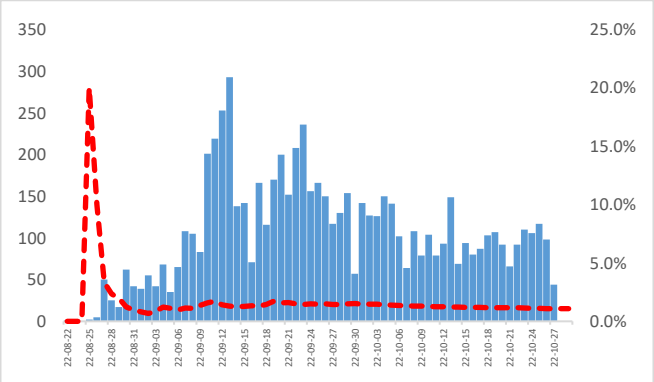
Confirmed cholera case:

- a suspected case with Vibrio Cholerae O1 or O139, confirmed by culture or PCR.

Description of the outbreak

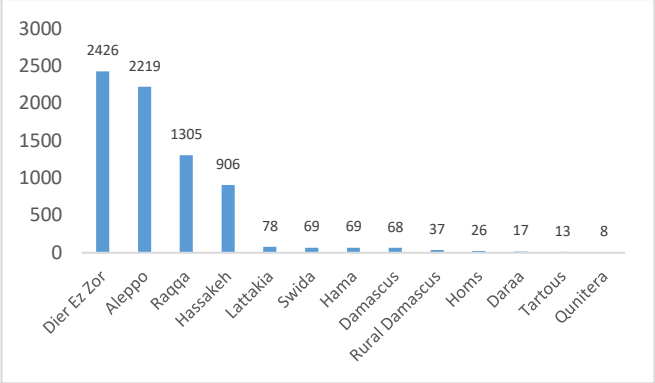
- AWD cases are still reported in (14 governorates), **Figure 2** shows the surge of AWD cases since 25 August 2022.

Figure 2: Epidemic curve of Acute watery Diarrhoea in Syria, as of 29 October 2022



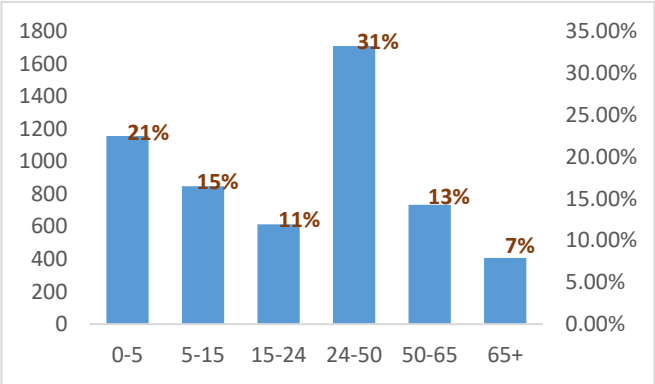
- In week 43, the number of reported AWD cases (573) decreased by 8.8% compared to cases reported in the previous week (628 in week 42). Despite this decline in weekly cases, delays in reporting and data entry should be considered when interpreting this decline. Most of the cases reported by MoH were for patients admitted to hospitals with moderate and severe dehydration, while reporting of mild and moderate cases is still limited to a few health centres.
- As of 29 October 2022, a total of 7,342 acute watery diarrhea cases, including 46 associated death cases (CFR=0.63) were reported in Syria by MoH and EWARS sites in northeast Syria (NES) cumulatively over the weeks.
- A total of 1 260 reported AWD cases tested positive by RDTs, of which 206 samples were tested by culture and the result was positive for 54 cases (positivity rate 26.2%).
- All 14 governorates in Syria reported AWD cases, while cholera was confirmed in 13 governates with Deir-ez-Zor having 33.2% of total AWD cases, Aleppo 31.1%, Ar-Raqqa 17.8%, Hassakeh 12.5%, Lattakia 1.2%, As-Sweida 0.9%, Damascus 0.9%, Hama 1.0%, Rural Damascus 0.5%, Homs 0.4%, Daraa 0.2%, Tartus 0.2%, and Qunitera 0.1% respectively please see **(Figure 3)**

Figure 3: Distribution of AWD by governorate as of 29 October 2022



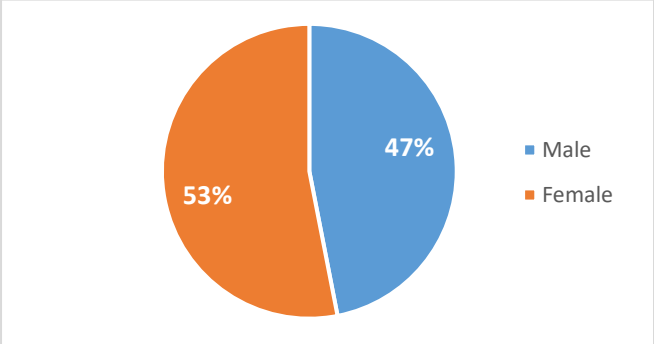
- 86 cases of AWD were detected in 10 IDP camps and settlements, of which only 2 tested positive by the RDT in Serykanie camp in Hassakeh governorate. Despite the high number of reported cases in Syria, IDP camps were not affected as expected due to the limited movement (reducing the exposure to imported cases) and focused WASH activities in the camps.
- The current reporting system only captures the moderate and severe cases admitted to the hospital. WHO is supporting reporting at the PHC level in the designated 98 oral rehydration points, in addition to the current reported cases at the hospital level.
- **Distribution of cases by age groups**: AWD cases range from 1 to 93 years (median 38), 62% of all cases are among adults, while 36% of cases are children under 15 years. The predominant age group is 24-50 (31% of the total number of AWD cases; n=1,709) **Figure 4.**

Figure 4: Distribution of AWD cases by age groups



- The AWD cases among females are higher than among males (53%, 47%), **Figure 5**. The graph might lead to conclude an increased exposure of females to the suspected source of the outbreak or simply because the female absolute number is higher than the males.

Figure 5: Distribution of cases by gender



- Forty-six associated deaths were reported (39 from Aleppo, 4 from Hassakeh, 2 from Deir-ez-Zor, and 1 from Damascus). The majority of deaths are over 30 years (CFR 0.63 %). Aleppo reported the highest (CFR of 1.7%) which is considered high compared to the recommended CFR during cholera outbreaks (below 1%). This might be explained as MOH reports only severe cases that are admitted to the hospitals.
- The source of infection, in Deir-ez-Zor and Ar-Raqqa governorates, could be linked to people drinking water from untreated sources or the Euphrates River. While in other governorates, it could be linked to food contamination due to irrigating plants with contaminated water.

Laboratory confirmation

- Currently there are 5 functional laboratories in 5 governorates; 2 labs (in Damascus and Hama) have the full capacity for the final confirmation of cholera testing and 3 labs (in Tartous, Lattakia and Homs) have the capacity for culture test only and they send the positive samples to the CPHL to be confirmed by the antiserum antibodies.
- The number of tests conducted in these functional labs until 31 October 2022:
  - **Damascus**: 516 culture tests with 76 cases positive by antiserum antibody testing.
  - **Hama**: 609 culture tests with 11 cases positive by antiserum antibody testing.
  - **Latakia**: 39 culture tests (19 cases-10 water-10 sewage), none confirmed by antiserum antibody testing so far.
  - **Tartous**: 47 culture tests (22 vegetables-3 sewage-10 water-12 cases) with 2 positive cases by antiserum antibody testing.
  - **Homs**: 22 culture tests with 5 positives by antiserum antibody testing.

Table2; Acute watery diarrhoea cases and deaths, confirmed cholera cases by RDTs and culture

Governorate	AWD	RDTs	RDT +	culture +	deaths	Source of reporting
Aleppo	2,281	750	658	28	39	**MoH**
Deir Ez-Zor	664	330	194	6	2	**MoH**
Raqqa	1,078	183	48	0	0	**MoH**
Hassakeh	317	314	75	0	4	**MoH**
Lattakia	89	68	46	3	0	**MoH**
Damascus	68	65	14	7	1	**MoH**
Homs	27	27	11	5	0	**MoH**
Rural Damascus	37	37	6	1	0	**MoH**
Daraa	18	18	5	0	0	**MoH**
Hama	71	71	11	2	0	**MoH**
Qunitera	8	8	1	0	0	**MoH**
Tartous	13	13	4	0	0	**MoH**
Sweida	69	69	24	2	0	**MoH**
Total	4,740	1,953	1,097	54	46	**MoH**
EWARS Focal Points						
Deir Ez-Zor	1,772	260	139	0	0	**EWARS Sites in NES**
Hassakeh	601	34	18	0	0	**EWARS Sites in NES**
Raqqa	229	14	6	0	0	**EWARS Sites in NES**
Total	2,602	308	163	0	0	**EWARS Sites in NES**
Total AWD						
Total	7,342	2,261	1,260	54	46	

WHO Response

WHO is working to respond to the outbreak by scaling up surveillance and testing capacity, training healthcare workers, and delivering IV fluids and ORS, in addition to adopting a multisectoral approach to control the outbreak.

Pillar 1: Coordination and Leadership

- NES: on 27 October, WHO Syria, jointly with UNICEF, successfully conducted a crossline mission to Ras Al-Ayn to assess the health situation, identify gaps and plan for interventions as needed. The mission handed over 3.5 tonnes of supplies containing Cholera kits. In addition to assessing the AWD/Cholera response activities in RAA.
- Health sector regular meetings to brief UNHCT.
- A media briefing to advocate for cholera support was conducted involving three levels.
- Weekly inter-agency (WHO, UNICEF) AWD/Cholera Task Force meetings took place.
- Conduct weekly AWD/Cholera sub-national task force meetings with the participation of the respective hubs (Aleppo/NWS, Qamishli/NES, Deir-ez-Zor/NES, Homs/Hama/Idleb, Lattakia/Tartous) and shared operational updates.
- Camp-based AWD/Cholera preparedness and response draft plan is being developed for NES for further inputs.
- Coordination meetings took place with SARC team.
- WHO/EMRO held a virtual press conference (VPC) on 2 November 2022 to provide an update on the cholera outbreak in the Eastern Mediterranean Region with a focus on the situation in Syria and Lebanon. Panel members: Dr Ahmed Al-Mandhari, WHO Regional Director for the Eastern Mediterranean; Dr Richard Brennan, WHO Regional Emergency Director; Dr Iman Shankiti, WHO Representative in Syria; Dr Abdinasir Abubakar, WHO Representative in Lebanon.
- Provided a regular update on the situation across the country to HCT Syria.
- Addressed the outbreak update at a regular 3L call (HQ, Regional Office, and the Country Office).
- Daily IM meetings are conducted in Damascus.
- WHO and UNICEF Regional Directors discussed the current cholera situation in Syria and Lebanon. A number of follow-up points were agreed upon for country-level actions.
- Shared integrated AWD/Cholera case distribution (3 sources) at the community level, on 29 October 2022
- Provided comprehensive feedback to technical questions received from FCDO/OFDA teams.

Pillar 2: Disease Surveillance

- Initiated an assessment for the Rapid Response Teams capacity and operations, starting with 4 governorates (Rural Damascus, Daraa, Tartous, and Lattakia).
- Intensified surveillance activities and conducted active case finding especially in the high-risk areas in Aleppo, Deir-ez-Zor, Ar-Raqqa, and Hassakeh.
- Support the operational costs of 101 rapid response teams at central and governorate levels (transportation, samples shipping, and communications).
- Supported transporting the samples collected from patients, and different sources of water (drinking water, tanks, and sewage) to the reference lab in Damascus.
- Data analysis of AWD cases at the community level is updated weekly to direct the response teams based on the identified risk (any locality with AR > 0.5% is to be considered as a priority for intervention, especially with WASH and RCCE.

Pillar 3: Laboratory Diagnostics

- Sent 15 laboratory-positive samples to the reference lab for genetic sequencing for Vibrio Cholera, of which seven were confirmed to be Vibrio Cholerae O1.
- On 30 October, the first training on cholera diagnostic protocols was conducted in the CPHL for technicians from 3 governorates; Aleppo, Qunitera and Damascus.

Pillar 4: Case Management

- 20 training courses were conducted in 12 governorates (Hassakeh, Ar-Raqqa, Lattakia, Tartous, Hama, Aleppo, Deir-ez-Zor, As-Sweida, Daraa, Qunitera, Damascus and Rural Damascus); 500 health professionals working in MOH health facilities were trained on Cholera case management, standard case definition and IPC measures.
- The HIS focal points have confirmed that the 51 hospitals designated for the treatment of cholera cases with a bed capacity of 1096 and the 96 health centres designated for oral rehydration are all functional including NES.
- Evaluation form to assess the capacity of CTC/CTUs in terms of infrastructure, IPC, waste management standards, staffing, WASH, stocks, data management, community services, IEC materials, and dead body management is under translation to be adopted by MOH.

- For the RAATA convoy in Hassakeh, allocated 2 Cholera kits, 10 000 ORS, 76 000 surgical masks, 65 000 examination gloves, and 1 140 Alcohol hand rub.
- In addition to allocating 5 cholera kits to DOH Deir-ez-Zor and 2 cholera kits to SARC Damascus, 127 500 gloves and 10 000 surgical masks to Aleppo university hospital and Al Tawleed Hospital designated as CTU.

Pillar 6: Water Sanitation and Hygiene (WASH)

- Delivered 3.5 million water aqua tabs to the directorate of health to be distributed to the governorates.
- Water quality monitoring is ongoing in 11 IDP camps in NES, 38 collective shelters, 37 drinking water stations in the Eastern rural of Deir-ez-Zor, and 60 Tanks households in the Eastern rural of DZ.
- 2 760 samples were tested, of which 114 (4.13 %) samples turned out to be contaminated.
- Aqua tab distribution: joint door-to-door WHO/ UNICEF visits are ongoing to monitor the water quality, in addition to the distribution of aqua tabs, and awareness raising in Hassakeh and Ar-Raqqa.

Pillar 7: RCCE

- WHO social media platforms continued to share messages on cholera preventive measures. The messages were shared with health partners for further dissemination.
- Capacity building for community health workers and volunteers continued across Syrian governorates. In addition, vulnerable communities were reached, and IEC material was printed and distributed during interventions.

RCCE Interventions	#Workshops conducted	#CW trained	#IEC material printed & distributed	#People reached through		#CW engaged
				Focus Group Discussion	Community group sessions	
Qamishli/NES	6	127	2,208	380	80	31
Deir-ez-Zor			18,518	10,590	27,237	244
Lattakia	3	129	5,200		7,625	100
Homs, Hama and Idleb			1,200		7,690	69
TOTAL	**9**	**256**	**27,126**	**10,970**	**42,632**	**444**

Challenges

- Unavailability of microbiology labs in some governorates for the culture tests.
- A poor WASH situation is due to high-priced safe water (availability, accessibility, and affordability); which led people to get drinking water directly from the Euphrates River in Deir-ez-Zor and Ar-Raqqa.
- A fragile health system affects health services and reporting quality.
- Limited access to some areas due to conflict and/or insecurity, including in camps.
- Delays in implementing WASH interventions in the highest affected localities (village level).
- Delays in the reporting of daily cases lead to an unclear EPI picture and impact timely, local response.