CHOLERA OUTBREAK SITUATION REPORT NO.2

Issued 08 October 2022

Epidemiological Overview:

Since the situation report issued on 26 September 2022, the number of confirmed and suspected cases continues to rise. A total of 13 of 14 governorates are now affected, compared with 10 during the last reporting period.

Between 25 August and 4 October, 13,059 suspected cases have been reported, including 60 deaths (case fatality rate of 0.46%).

Of the 1,412 samples tested with rapid diagnostic tests, 708 have tested positive. To date, 364 stool samples have been cultured, of which 181 have tested positive for Vibrio Cholera. The overall proportion of cases testing positive is 50%.

The most affected governorates to date are:

- Deir-ez-Zor (7,450 cases, 36.3 %)
- Ar-Ragga (2,560 cases, 19.6%)
- Aleppo (2,055 cases, 15.7%)
- Al-Hasakeh (716 cases, 5.4%)

Approximately 34 suspected cases have been reported from IDP camps and sites to date.

Females are slightly more affected than males (52% versus 48%). Of the suspect and confirmed cases reported, 65.2% are adults and 34.8% are under the age of 15.

Suspected Cholera Cases 13.059

Positive Cases 708

Cholera Deaths

Case Fatality (CFR)
0.46

Overall Attack Rate 0.06%

Affected Governorates

Grade 2

Surveillance and laboratory highlights:

- WHO and Partners are working to enhance and scale-up surveillance activities across
 all response locations, including coordinated efforts to develop joint approaches to data
 collection and sharing, and improving data quality. Timely access to data for all response
 partners is critical for rapid investigation and implementation of response measures.
- 6,800 rapid diagnostic tests have been distributed by WHO to rapid response teams in all governorates to support investigation activities.
- WHO continued to support the operational costs of 101 rapid response teams at central and governorate levels with transport, shipment of samples, and communication.
- Six IDP camps in Northeast Syria and 1 in Deir-ez-Zor are closely monitored by WHO teams.
- WHO is providing technical support to the central public health laboratory (CPHL) in Damascus to improve capacity for confirmation of cholera cases and the use of antibiotic sensitivity tests. Supplies have also been provided to the CPHL for 3,000 culture tests.

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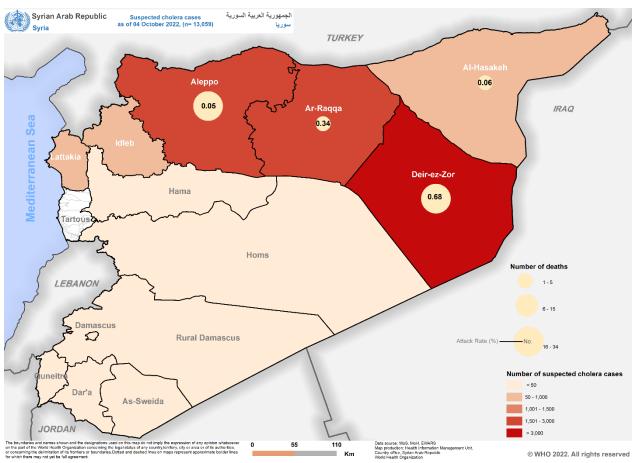
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Epidemiological data:

Table 1: Epidemiological data by governorate, as of 04 October 2022

Governorate	Suspected Cases (AWD)	Population	Attack Rate (%)	RDTs	Positive RDTs	Culture + Tests	Attributed Deaths	CFR%
Dier-ez-Zor	7,450	1,096,528	0.68	405	167	90	18	0.24
Aleppo	2,055	4,226,203	0.05	427	388	35	34	1.65
Ar-Raqqa	2,560	754,295	0.34	217	51	47	5	0.2
Al-Hasakeh	716	1,206,229	0.06	153	49	0	3	0.42
Idleb	67	3,100,000	0	22	0	3	0	0
Latakia	52	1,295,334	0	31	21	0	0	0
Damascus	43	1,818,517	0	41	6	3	0	0
Rural Damascus	21	3,325,680	0	21	0	0	0	0
Homs	18	1,502,706	0	18	6	1	0	0
Sweida	29	379,223	0.01	29	9	0	0	0
Daraa	8	1,023,833	0	8	3	0	0	0
Hama	36	1,485,590	0	36	7	2	0	0
Quneitra	4	105,443	0	4	1	0	0	0
Total	13,059	21,214,138	0.06	1,412	708	181	60	0.46

Figure 1 Distribution of suspected and confirmed cholera cases as of 04 October 2022



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900 60 800 50 600 40 500 400 300 200 100

09/09/2022 13/09/2022 15/09/2022 15/09/2022 21/09/2022 23/09/2022 25/09/2022 25/09/2022 25/09/2022 25/09/2022 25/09/2022 23/10/2022

07/09/2022

Cases

03/09/2022

Figure 2 Distribution of suspected cholera cases by date of onset, as of 04 October 2022

Cholera Outbreak Response

30/08/2022

28/08/2022

Health

0

22/08/2022

24/08/2022 26/08/2022

 WHO and other Health sector partners in all response locations are working to map and scale-up cholera treatment capacity. Treatment capacity is currently available in 28 facilities (+600 beds at newly established centres or existing health facilities) across Aleppo, Al-Hasakeh, Ar-Raqqa, Damascus, Rural Damascus, Deir-ez-Zor, Hama, Homs, Idleb, Latakia, and Tartous governorates.

Deaths

- Additional cholera treatment centres (CTCs) are in process or planned in Aleppo
 (5) Al-Hasakeh (1), Deir-ez-Zor (2), and Idleb (5), and 3 are on stand-by in Aleppo.
- Health and WASH partners are working closely to ensure that WASH infrastructure at CTC locations (completed and planned) is appropriate.
- Health partners continue to train healthcare workers on case definitions, case management, and infection prevention and control (IPC). Activities conducted to date include:
 - WHO supported training to 75 health workers in Aleppo, 60 health workers in Al-Hasakeh, 50 physicians from NGOs in Damascus, 60 community health workers and educators from the Syrian Arab Red Crescent (SARC), and a training of trainers in Gaziantep.
 - NES NGOs have trained 405 health workers throughout NGO-supported facilities in Northeast Syria.
- Health partners in all response location are working to map treatment capacity to better understand referral capacities and ensure that systems are in place for the transfer of severe acute watery diarrhea (AWD)/cholera cases to higher levels of care.

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- Support is also being provided to health facilities currently managing or referring AWD cases.
 - NES NGOs support a total of 175 health facilities throughout the Northeast. Medical supplies have been provided to Kirsa Hospital and Madina Hospital in Deir-ez-Zor, and additional supplies and medicines are under emergency procurement. Securing the supply chain of critical supplies is dependent on access to funding and approval of waivers to locally procure pharmaceuticals.
 - Through UNICEF support, 214 AWD drug kits were released to Ministry of Health (MoH), Department of Health (DoH), and local partners in Aleppo, Damascus, and Homs. Thirteen drug kits are available in Aleppo and a further 120 kits have been ordered from UNICEF's Supply Division.
 - WHO is providing support to 27 MoH designated hospitals for the treatment of AWD/cholera cases and completed the distribution of 60 tons worth of cholera kits and supplies (20 central cholera kits, 20 community kits, 100 periphery cholera kits, and over 1.3 million oral rehydration salt sachets). WHO also distributed 105,000 doxycycline tablets, 2,400 bottles of azithromycin, 2,400 bottles of sodium chloride and glucose intravenous infusion, and 90,000 paracetamol tablets.

Water sanitation and hygiene (WASH)

- Quick action taken by WASH rapid response teams in communities with suspected and confirmed cases remains a critical component of collective efforts to control and prevent further spread of the AWD/cholera outbreak.
 - NES NGOs have deployed mobile teams based to conduct case investigation, and implementation of adequate WASH measures. To date, these teams have investigated a total of 630 cases in 74 communities. Further resourcing of this rapid response mechanism is required to continue scaling-up efforts to prevent further spread of the outbreak.
 - NGOs in Northwest Syria have deployed 38 mobile teams to conduct case investigation, awareness raising, water testing, distribution of aqua tabs, and to provide guidance for existing referral systems.
 - UNICEF WASH and Social Behaviour Change (SBC) teams reached 5,016 households in Al-Hasakeh (2,834) and Ar-Raqqa (2,182) governorates to conduct water quality testing at home-based water storage tanks and distribute supplies (aqua tabs, hygiene supplies) and information, education, and communication (IEC) materials.
- Measures to ensure access to safe, chlorinated drinking water are being reinforced across all response locations to reduce the risk of transmission.
 - NES NGOs have set up a mechanism to ensure chlorination and water quality control for all tankers entering Al-Hasakeh City, with a total of 850 trucks evaluated and treated daily. NES NGOs have also identified a total of 78 critical filling points that are directly connected to the Euphrates River, with 7 NGOs actively working to establish chlorination at more than 60 of the identified points. Chlorination at 30 critical filling points is already underway in affected areas and communities dependent on water trucking in Ar-Raqqa and Deir-ez-Zor governorates. Additional funding is needed to mobilize water quality control teams, mobile laboratories, and procure required consumables.
 - In Northwest Syria, WASH cluster facilitators continue to check levels of free residual chlorine (FRC) at the household level and communal water storage

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- tanks. To date, 1,924 tests have been conducted and tanks with no FRC are chlorinated by field teams. NGOs operating in these areas are notified of these activities to help facilitate daily monitoring.
- WHO is collecting samples for testing at the CPHL from various water sources (main network, wells, tanks, ice factories) and environmental samples from the sewage system and Euphrates River to help guide response actions taken by local authorities. A total of 922 samples have been collected, including from 11 IDP camps, 38 shelters in Al-Hasakeh, 23 shelters in Tabqa. Nineteen boreholes and 41 drinking stations in Eastern Deir-ez-Zor are also monitored.
- o In Northwest Syria a full evaluation of the water system was conducted to identify operational and non-operational systems, as well as those that currently run without chlorination. A gap analysis has been developed and shared with key donors to help address the gaps identified. The mapping exercise has been extended by WASH teams to also identify areas in need of latrine construction and/or maintenance.
- Ensuring access to safe water and preventing further transmission of AWD/cholera requires a continuous pipeline of critical supplies to enable the work of partners in all response locations.
 - UNICEF has provided over 430 metric tons of sodium hydrochloride to all governorates to support water disinfection at smaller water treatment plants. In Northwest Syria, UNICEF has provided aqua tabs to over 96,000 displaced persons in high-risk locations and is in the process of procuring hygiene supplies (aqua tabs, hygiene kits, and chlorin solution) to support over 500,000 people.
 - WASH partners continue to provide emergency water trucking within neighbourhoods in Al-Hasakeh and Aleppo, delivering an average of 2,000 cubic meters of water daily.
 - NES NGOs have secured the delivery of 52.2 tons of chlorine powder for priority water stations, tanker filling points, and treatment plans in Ar-Raqqa, Tabqa, Menbij, and Kobani sub-districts, as well as several sub-districts in Deir-ez-Zor and Al-Hasakeh governorates in coordination with local authorities. NES WASH NGOs coordinate closely with UNICEF to complement activities and address identified gaps.
 - o WHO has delivered 1 million chlorine aqua tabs to partners in Northeast Syria, including 700,000 tabs in Al-Hasakeh and 300,000 tabs in Ar-Raqqa (Tabqa city).
 - UNICEF has supported cleaning and disinfection of approximately 100 water tanks in more than 43 schools, covering an estimated 10,000 students in East Ghouta.
- Reducing the risk of infection and preventing further spread of the outbreak is also enabled through the adoption of protective hygiene practices in communities.
 - UNICEF SBC facilitators and local partners (SARC, GOPA, Al Cham Association) have conducted hygiene promotion sessions in Rural Damascus, Aleppo, Qamishli, Deir-ez-Zor, and Tartous, reaching more than 20,000 individuals and 280 schools.
 - In Northwest Syria, UNICEF has intensified risk communication and community engagement (RCCE) activities around hygiene promotion and safe water practices, reaching 175,000 displaced persons. UNICEF is also organizing RCCE training in phases, with the first targeting participants from 20 NGOs.
- Preventive measures are also being implemented in all IDP sites in Northeast Syria through the support of NES NGOs. The NES WASH working group has developed standard operating procedures (SoPs) to respond to suspected cases in IDP sites, which will require additional financial resources to implement and address critical gaps already

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identified in several locations, particularly in Abu Khashab, Washokani and Areesha camps.

Risk communications and community engagement (RCCE)

- Reducing the risk of transmission and preventing further spread of the outbreak through Health and WASH activities is underpinned by strong engagement with affected and atrisk communities and raising awareness of preventive measures.
 - Awareness-raising activities conducted by UNICEF, WHO and partners have reached the following groups to date:
 - Ongoing support to UN agencies, INGOs, and NGOs, as well as health sector partners with MOH-approved flyers, brochures, key messages on cholera, and social media cards.
 - 222,850 individuals were reached through 300 WhatsApp groups in Damascus.
 - WHO provided technical training and RCCE materials to more than 250 volunteers from UN agencies, INGOS, and NGOs in Deir-ez-Zor to support awareness raising campaigns.
 - 186,863 individuals engaged in discussions with influential leaders at mosques and within communities (supported by Ministry of Awqaf in Aleppo, Deir-ez-Zor, Al-Hasakeh, and Ar-Raqqa).
 - 63,460 people/15,802 households (HH) have been reached by NGO partners through door-to-door visits in the most affected governorates (Aleppo 1,020 HH, Deir-ez-Zor 3,821 HH and 26,654 individuals, Al-Hasakeh and Ar-Raqqa 11,981 HH and 35,668 individuals, and Damascus City 128 HH)
 - 405 healthcare workers, volunteers, and NGO staff equipped with knowledge and skills on cholera prevention at national and sub-national levels, as well as over 700 community health workers supported by WHO on communicating key messages on AWD/cholera prevention to vulnerable communities.
 - WHO volunteers and community health workers reached over 70,000 individuals with cholera key messages to help prevent further spread of the outbreak.
 - Engagement with 235 volunteers from SARC, UNHCR and other outreach volunteers in Aleppo, targeting difficult to access areas and communities with high rates of infection.
 - RCCE session conducted in Latakia with 73 community health workers from 11 NGOs to support communication and messaging on sources of infection and prevention measures.
 - Coordination with UNHCR to conduct in-person RCCE sessions in Al-Qamishli for 10 healthcare workers and 15 community health workers. Daily community awareness activities are conducted in Al-Qamishli by 147 volunteers through the support of NGOs.
 - Four online RCCE sessions were held from 3-5 October to cover 121 UNHCR community workers across several governorates.
 - In Aleppo, WHO engaged with 170 UNHCR community workers, outreach volunteers as well as community leaders to target hardto-reach areas with high rates of infection.
 - Approximately 50 trainers of trainers (TOT) were provided training on the RCCE cholera response in Gaziantep and Syria, together with members of WASH, Education, and Nutrition clusters. Following the TOT training,

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- cascade training will be implemented in communities in the Northwest, targeting 1,500 hygiene promoters, community mobilizers, community health workers, and camp managers.
- 36,578 individuals in 7 IDP camps in Northeast Syria engaged in awareness sessions on cholera prevention.
- A school health programme has been launched to train 97 school health education officers to reach schools in Damascus City, Aleppo, Deir-ez-Zor, and Al-Hasakeh.
- 27,500 print materials developed by UNICEF partners on cholera have been distributed in Al-Hasakeh. More than 100,000 IEC materials (flyers, posters, and brochures) have been distributed across several governorates by partners. A further 600,000 IEC materials are in the process of being printed and distributed to MoH, DoH, NGOs, and other partners across Syria.
- In Aleppo, WHO engaged with 170 community workers from UNHCR, outreach volunteers as well as community leaders targeting hard-to-reach areas with high levels of infected cases.
- In Lattakia & Tartous, an online RCCE session was conducted targeting 73 community health workers from 11 NGOs who will assist in conveying key messages on cholera sources of infection and prevention measures.
- In Damascus, WHO technically supported 55 SARC health promoters to strengthen their knowledge of cholera epidemiology, simple case management, as well as key messages and community engagement interventions to reach vulnerable communities.
- In Deir-ez-Zor, WHO supported more than 250 volunteers from different UN agencies, INGOs and NGOs, providing them with the technical knowledge as well as WHO-developed RCCE material to support their awareness-raising campaigns.

Coordination and Partnership:

- A multi-sector response plan for the AWD/cholera outbreak in Syria was released on 29 September 2022. The plan focuses on the Health, WASH, and RCCE responses for an initial period of 90 days, with an overall funding requirement of USD 35.2 million. Under the response plan, Health partners aim to assist up to 137,000 of the 162,000 people estimated to be at risk of AWD/cholera, while WASH partners will aim to assist up to 5 million of the 8 million people estimated to be in need of WASH assistance to control and prevent further spread of the outbreak.
- Daily contacts are maintained by WHO with the MoH and DoH on operational and technical issues of the response. WOS Health sector situation updates are produced and shared weekly. WHO Syria AWD/cholera situation report is produced weekly. The draft of the Emergency Allocations under SHF is under final review. USD 7 million will be allocated for the integrated Health and WASH emergency response in Damascus.

Logistics, equipment, and supplies:

 All partners are continuing efforts to procure and distribute critical medicines and supplies in support of the response activities outlined above. WHO and UNICEF are also working to develop a consolidated overview of the supply pipeline (upstream and downstream) to facilitate improved coordination among partners on priority procurements and operational decision-making.

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Challenges / Gaps

Challenges and gaps in the following areas are expected to have an impact on the overall response to the AWD/cholera outbreak:

- Fragmented surveillance system, including the use of different reporting systems and approaches to information sharing across and within response areas, and limited capacity to engage in active case finding to quickly identify and respond to suspect cases.
- Severe funding gaps in the health sector that have led to reduced availability of basic life-saving health services. Funding challenges extend to the AWD/cholera response and limits the ability of health and WASH partners to scale-up activities and ensure adequate pipelines of critical medicines and supplies.
- Limited existing capacity within the health system to care for and treat AWD/cholera cases with low knowledge and skill levels among health workers and only 54% of primary healthcare centres and 58% of hospitals functional as of June 2022.
- Limited availability of laboratory capacity to culture tests.
- Limited global supply of oral cholera vaccines due to multiple ongoing outbreaks, potentially limiting the number of doses and supplies available to Syria.
- Access to safe water remains challenging, leading to the use of infected (untreated) drinking water from the Euphrates River¹. In the Northeast, the pumping from Alouk water station has been interrupted since 11 August contributing to critical shortages in Al-Hasakeh governorate and surrounding areas, affecting over 460,000 people including people in IDP camps. In Northwest Syria, water pumping from Ein Al Beyda has not been available since 2017, forcing 185,000 people to rely on unsafe water sources.
- Limited availability of electricity, creating bottlenecks for water production and distribution.
- Limited resources, including human resources, to investigate, respond to, and raise awareness of different sources of infection (including contaminated food vegetables, fruit, and ice).
- Decreased access to improved sanitation facilities at household levels due to damaged sanitation infrastructure in both urban and rural areas.
- Funding gaps for WASH activities, and in particular for sanitation.
- Lack of expertise and knowledge within the WASH sector on cholera preparedness, prevention, and response.
- Low community awareness of cholera prevention measures.
- Shortages in cholera supplies, including medicines and WASH supplies, as well as challenges with the importation, local procurement, and rapid dispatch.

Key Priorities:

- Following release of the AWD/Cholera Response Plan, continue review of gaps and needs across partners in response to the outbreak
- Increase resource mobilization efforts to fund the response plan
- Continue to enhance support for surveillance activities, particularly active case finding, across all response locations
- Continue to improve information sharing across response locations, including relevant information on newly suspect and confirmed cases, to accelerate response activities
- Accelerate discussions and planning on possible use of oral cholera vaccination (OCV) in targeted settings
- Ensure efficient and effective multi-sectoral coordination across all areas of response

¹ Wastewater from communities located along the Euphrates River bank is released directly and untreated into the Euphrates, which is the sole source of fresh water for Deir ez Zor and Raqqa.

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• Continue scaling up cholera treatment capacity across all response locations

Funding:

• All response partners require urgent financing to implement and scale up the critical Health, WASH, and RCCE activities outlined in the AWD/Cholera Response Plan.

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