Lebanon

Cholera Outbreak Situation Report No 3

5 November 2022

Epidemiological Overview

All cases (suspected and confirmed)		Confirmed Cases past 24 hours		Deaths (confirmed)	
New	Cumulative	New	Cumulative	New	Cumulative
103	2524	3	416	0	18

Cholera Surveillance Update - 4 November 2022

The outbreak is spreading rapidly across the 8 governorates and across 18 out of 26 districts. As of 4 November, a total of 2,524 suspected cholera cases (out of which 416 are laboratory-confirmed) have been reported along with a total of 18 associated deaths, resulting in a case fatality ratio of less than 0.8%. About 45% of suspected and confirmed cases are less than 15 years of age, 15% are between 15 and 24 years of age, 21% are between 25 to 44 years of age with the rest distributed across remaining age groups.

Overall, 88% of suspected and confirmed cases who presented to a health facility have exhibited symptoms. Up to 18% of suspected and confirmed cases have required hospitalization. Across the country, 94 beds are currently occupied for cholera treatment. The majority of cases continue to be predominantly reported from Akkar and the North, and to a lesser extent from Mount Lebanon, Bekaa, and Baalbek-Hermel. As of 31st October, 57.9% of stool samples, and 33.5% of water samples tested at AUB – WHO collaborating center turned out positive for cholera.

Serotype Vibrio Cholerae O1 El-Tor Ogawa was identified as the currently circulating Cholera strain in Lebanon, similar to the one circulating in the region.

WHO has graded the overall risk of the Cholera outbreak in Lebanon to be very high at the National level and high at the regional level.

Cholera Outbreak Response

Multi-Sectoral Coordination and Leadership

The MoPH has developed the Lebanon Cholera Preparedness and Response Strategic Plan and Operational Plan with the support of the aid community under the overall coordinating and advising role of the WHO as lead in Health Emergency response. The overall response to the cholera outbreak is led by the MoPH on behalf of the Government of Lebanon. A national Task Force, chaired by the Minister of Public Health, convenes twice a week and gathers representatives from the different Ministries involved in the response, as well as the LCR, ICRC, and representatives from the UN agencies, NGO, and Health, WaSH and RCCE sector coordination teams. A cross-ministerial group is also meeting on an *ad hoc* basis under the chairmanship of the Prime Minister, with the secretarial support of the Disaster Risk Management (DRM) unit in the office of the Prime Minister.

On 31st October, WHO published a press release warning of the deadly cholera outbreak in Lebanon. Dr. Abdinasir Abubakar, WHO Representative in Lebanon stated that "cholera is deadly, but it's also preventable through vaccines and access to safe water and sanitation. It can be easily treated with timely oral rehydration or antibiotics for more severe cases. There is still an opportunity to limit the spread and impact of the outbreak by intensifying response interventions, including improving water and sanitation quality. We also need to raise awareness on how to prevent cholera infection so that we can lift the pressure off hospitals. The best way to prevent a cholera outbreak is to ensure people have access to clean water and appropriate sanitation and hygiene."

Health

Coordination:

In addition to the National Cholera Task Force, MoPH has established three technical committees for cholera response: one focusing on clinical case management, one on oral cholera vaccine rollout and a third on laboratories and testing. Their members comprise relevant MoPH departments, technical experts, UN agencies and NGOs.

The Health sector has created a cholera resource folder to share all relevant response materials. within its national health sector online drive. The sector will also conduct dedicated cholera meetings on the second Friday of each month with the first one scheduled for 11 November.

Surveillance:

Early warning surveillance across the country is being enhanced to detect, investigate and respond to cholera cases through the MoPH Epidemiological Surveillance Unit (ESU) network of surveillance officers, including additional surge capacity. A regional WHO expert in cholera surveillance is already providing technical support to the MoPH team for the next three weeks. Additional technical surge capacity is requested by WHO through the Global Outbreak Alert and

Response Network (GOARN). WHO has supported 14 training sessions for cholera surveillance and digital health information system (DHIS2) use during the past week. The trained teams were from South, Nabatieh, North, Bekaa, Baalbek, Hermel, Beirut, and Mount Lebanon.

IOCC and Relief International (RI) continue to support MoPH ESU in collecting stool and water samples in North/Akkar and Bekaa/Baalbek respectively. In the Bekaa area, six acute watery diarrhea (AWD) cases were referred to PHCs by CHWs. Throughout normal operations at PHCCs and community level, IMC, IRC, PUI, and RI are ensuring they report suspected AWD/cholera cases to the ESU.

The C-RRT model is embedded in a comprehensive alert-response strategy that includes multiple layers of engagement with households, communities, and referral to healthcare facilities, providing a wide range of complementary actions to support the control and prevention of cholera transmission. C-RRTs will support all population groups and nationalities, under the national cholera response plan. UNHCR field teams have completed a mapping of existing RRTs in Akkar/North, Bekaa, Beirut/Mount Lebanon Lebanon and South/Nabatieh that are currently supported by IOCC, Amel and RI. With new financial resources from upcoming LHF allocation, additional teams are expected to be mobilized in North/Akkar, Bekaa and possibly Baalbek-Hermel.

Laboratory

Two referral laboratories are currently operational: AUB-WHO collaborating center and RHUH reference microbiology laboratory, with support from WHO in terms of reagents and supplies. So far, over 700 stool and water samples were collected and sent to WHO Collaborating Centre and Reference Laboratory for confirmatory culture of Vibrio Cholera while samples are processed for verification at Pasteur and Center for Disease Control (CDC) for culture and antibiogram. WHO is coordinating with the cholera laboratory testing committee to finalize the testing strategy and SOPs

Case Management, and Infection, Prevention and Control (IPC)

As mentioned above, a technical working group has been established by the MoPH with the aim of training, coaching and monitoring cholera case management practices at referral hospitals.The teams will be supported by WHO experts, and will include IPC practices as well as patient

WHO completed the rapid assessment of all 12 of the Governmental hospitals designated as cholera treatment centers (CTCs), assessing mainly the IPC measures and their capacity to safely treat and manage cholera patients. Most of these hospitals need waste management capacity-building and IPC support, case management and supply kits, as well as training on case management and adequate care for severe cases. Under the leadership of the MoPH and its Emergency Operations Center, WHO is currently supporting medical teams to provide advanced training and coaching on case management and IPC practices to frontline health workers at referral hospitals.

On 25 October, the MoPH launched a field hospital at Al-Iman Medical Center in Akkar with supplies provided by UNICEF. A Health assessment of Bebnine field hospital was carried out by UNICEF, UNHCR, MSF, IMC & MoPH-Akkar. Results of the assessment revealed the need to strengthen infection prevention, administrative functions and clinical case management. Based on the results of these assessments, an immediate plan of action was implemented in coordination with the MOPH quality of care committee. The aforementioned case management committee will conduct ongoing site visits to all designated CTCs to ensure quality of care.

Upgrades to Halba Governmental Hospital to enable expanded cholera treatment capacity have been completed with UNHCR support. A team from the MoPH, supported by WHO, has initiated a training over five days for the Halba hospital teams.

MoPH has also finalized its strategy for case management at primary health care (PHC) level and has shared the full strategy along with triage and referral tools.

IMC, RI, MdM, IOM trained 148 staff at PHCs staff on cholera response topics including case identification, sending alerts and iIPC. An additional three Community Mental Health Centers CMHs in Duris, Tripoli and Beirut were trained. IOM has supported Points of Entry (PoEs) with personal protective equipment (PPE)/hygiene material and is currently procuring further IPC materials for supported PHCs and CMHs.

Oral Cholera Vaccines (OCV)

On 1st November, the MoPH announced the arrival of a donation of 13,440 doses of oral cholera vaccine donated by Sanofi Company and Foundation, supported by France. Roll out and administration of this donation began on 4 November and will mainly target health care workers across the country, in addition to prisoners and ISF guards in the three main prisons (Roumieh, Qobbe, and Zahle). On the first day of roll out, 751 doses were administered in Tripoli and 387 doses in Zahle with information still being reported from Mount Lebanon.

Due to the global vaccine shortage, OCV will be made available as one dose in countries that have outbreaks. With the support of WHO and UNICEF, the MoPH requested the International Coordinating Group for Vaccine Provision (ICG) 600,000 doses of cholera vaccine for the most vulnerable population groups, and the stock availability has been confirmed for use in Lebanon and expected to arrive within 7-10 days. The OCV task force is meeting at least twice per week to discuss target populations, microplanning needs, implementing partners, trainings, logistics, data reporting, and pharmacovigilance. WHO, UNICEF and UNHCR will work collaboratively to mobilize resources to procure and roll out the vaccine. WHO is also supporting the MoPH to seek a further 1.5 million OCV doses given the challenging WASH situation in the country and the need to bolster the response and quickly combat the outbreak to prevent cholera from becoming endemic in Lebanon.

Logistics, Kits and Supplies

MoPH has shared a detailed list of needed medicines, supplies and equipment which can be found here. Health partners have been requested to indicate available support.

UNICEF has dispatched peripheral cholera kits to 9 (CTCs in addition to community cholera kits including needed supplies and medication for the management of patients. Considering the urgency, UNHCR has fast-tracked 1,000 rapid diagnostic tests (RDTs). The remaining 14,000 tests will be arriving in two weeks' time. Some delays are observed due to high demand and global shortage.

Water Sanitation and Hygiene (WaSH)

Integrated cholera response is centered on the Case Area Targeted Intervention (CATI) approach, which targets households that fall within a 50-100m radius from a suspected case. Households residing in this catchment area are supported targeted interventions that typically include Cholera Family Hygiene Kits or Disinfection Kits, water testing and ensuring safe water supply or disinfection of water tanks, pits and unsanitary outdoor areas including garbage.

Support to Communities

Partners have enhanced water safety monitoring with the Free Residual Chlorine level of 0.5 mg/l at the point of delivery and 0.8 mg/l in areas with suspected or confirmed cases and desludging in line with the cholera protocol with wastewater disinfection and close monitoring of the level of the wastewater cesspools/pits.

UNICEF with its partners AAH, DPNA, LebRelief, LOST, SAWA, SCI, SI, and WVI has continued the full-scale cholera WaSH response in almost 90 informal settlements and a few collective shelters with suspected or confirmed cases (including water testing, water tanks cleaning, hygiene kits distribution and awareness raising, disinfection spraying, increasing the safety of water and wastewater disposal). UNICEF has supplied WaSH partners with a total of 7,934 cholera family hygiene kits, while ICRC provided LRC with 700 kits, which will support around 50,000 people (each kit supports on average five to six people). To date, 1,026 cholera disinfection kits and 2,391 cholera family hygiene kits have been distributed by UNICEF partners, LRC and IRC. In addition, 5,000 packs of chlorine tablets (TCAA) have been distributed through four partners in Bebnine and Arsal, while a further 24,000 (NaDCC) tablets are procured and due to be delivered this week. In Halba Hospital in Akkar, which has received the majority of cholera patients in the area, UNICEF in partnership with SI replaced essential pumps, repaired the holding tank, and conducted daily desludging activities. New latrines have also been constructed in the hospital.

Support to Water and Wastewater Systems

Since the start of the outbreak, 142,700 liters of fuel have been distributed to water establishments and wastewater treatment plants across Lebanon by UNICEF and ICRC, including 98,000 liters to the North Lebanon Water Establishment (NLWE), 17,703 liters to the Bekaa Water Establishment (BWE), and 27,000 liters to the Tripoli Wastewater Treatment Plant (TWWTP). Through this distribution, UNICEF reached approximately 841,500 people living across the affected areas. A breakdown of the fuel by location and amount is :

Water Station Name	Type of Water Station	Water Establishment	Fuel Distribution (Liters)
Al Ouyoun	Water Pumping Station	NLWE	33,000
Ain Yaaqoub	Water Pumping Station	NLWE	20,000
Beddawi	Wastewater Lifting Station	NLWE	10,000
Qobayat	Water Pumping Station	NLWE	10,000
Tripoli	Water Pumping Station	NLWE	10,000
Bourj Arab	Water Pumping Station	NLWE	1,000
Kabb Elias	Water Pumping Station	BWE	3,000
Temnine el Tahta	Water Pumping Station	BWE	2,350
Nassrieh	Water Pumping Station	BWE	2,350
Minieh	Wastewater Lifting Station	TWWTP	11,000
Tripoli	Wastewater Treatment Plant	TWWTP	9,000
Nahr el Bared	Wastewater Lifting Station	TWWTP	7,000

Ain Ali	Water Pumping Station	BWE	24,000

Additional activities include the following:

- 17.6 tons of chlorine have been distributed thus far by UNICEF: 2 tons of chlorine powder to BWE; 14.35 tons of chlorine gas to South Lebanon Water Establishment (SLWE), NLWE, and Beirut Mount Lebanon Water Establishment (EBML); and 1.25 tons of chlorine liquid to EBML.
- Lifting station has been repaired by UNICEF to allow for the safe disposal of wastewater to Tripoli WWTP. Lifting stations and Tripoli wastewater treatment plant serves also desludging trucks from the North and Akkar.
- ICRC rehabilitated the solar system of Wadi Sweid Pumping Station (Arsal) by replacing missing PV panels.
- ICRC is conducting the rehabilitation of Wadi Matlab Pumping Station (Arsal), and assessing chlorination units in three Pumping Stations in Arsal (Ain Chaab, Wadi Matlab and Wadi Sweid) for rehabilitation and four chlorination systems in Mount Lebanon (Ain Cheikh borehole, Nabaa al Qaah, Batloun and Al Raayan pumping station) for solarization.
- ICRC has donated water monitoring and testing consumables and chemicals to the three laboratories of North Lebanon Water Establishment, while donation of materials to the Beirut and Mount Lebanon WE and the South WE is upcoming..
- In 12 Palestinian camps, UNRWA continued bacteriological water testing of main water tanks (24 samples collected up to date). Cleaning and maintenance of all UNRWA schools water tanks and installation of covers.

Places of Detentions

ICRC provided chlorine, water testing kits and consumables to all prisons and places of detention and training for prison operators on chlorination and testing in cooperation with the Lebanese Red Cross. Emergency works on the water supply system is ongoing at Roumieh Central Prison.

Risk Communication and Community Engagement (RCCE)

The integrated RCCE response aims to increase the public's knowledge on Cholera prevention, chlorination, use of ORS, and promote positive behaviors. As the RCCE Lebanon Task Force lead, UNICEF, as RCCE Task Force coordinator, is leading coordination efforts with other sectors and actors on the ground to ensure an integrated response and intervention.

RCCE partners have been mobilized and are conducting awareness raising and community engagement activities in all governorates. UNICEF and Balamand University have delivered 4 cholera awareness sessions with 285 participants in public and private schools in collaboration with the Ministry of Education and Higher Education (MEHE).

So far, 80,000 households that are part of UNICEF's Haddi program, received SMS messages on cholera prevention and awareness, as well as an animated video. In addition, through the

UNHCR led platform, over 300,000 families of refugees have been reached with cholera prevention messages (WhatsApp, texts and audio messages). More than 600 outreach volunteers are currently mainstreaming awareness raising and information sharing on acute watery diarrhea/cholera through UNHCR and partners' regular outreach activities.

Consultations and workshops took place across South Lebanon, Mount Lebanon, North Lebanon, Akkar, Bekaa, and Baalbek-Hermel during which UNICEF shared information about the outbreak with key local stakeholders, including religious and community leaders.

Coordination on the cholera response with organizations of persons with disabilities (OPDs) is ongoing. Cholera awareness and prevention IEC material produced aims to ensure that OPDs and people with disabilities receive Cholera sensitization trainings and that the sensitization package itself is inclusive. UNICEF will continue working with OPDs to ensure trainings are inclusive including dedicated sessions to OPDs and people with disabilities and make accommodations where needed.

Challenges/Gaps

- Due to the ongoing economic crisis in Lebanon and related migration of professionals out of the country, there is an insufficient number of health care workers operating across the country while at the same time there is a shortage of health partners to support at the secondary level. Similarly, there is a significant 'brain drain' of technical and managerial staff of Water Establishments, disabling proper functionality of the water and sanitation systems.
- The crisis also has impacted health and surveillance systems which have very limited capacity.
- Ongoing electricity blackouts and heavy reliance on generators in Lebanon have a devastating impact on the ability of water and wastewater systems to properly function, as well as operational impact across all actors and partners involved in the response. The current water tariffs are inadequate to the context. Collection and subscription rates are chronically insufficient, contributing to a huge gap between expenses and revenues, resulting in the inability of Water Establishments to cover operation and maintenance costs.
- Prevention requires substantial investment in systems – particularly water supply, wastewater treatment and their connections to functioning electrical service lines.
- Failure to mobilize a rapid, comprehensive response could result in cholera becoming endemic in Lebanon.

Key Priorities

- The outbreak is rapidly spreading and Government leadership, as well as the involvement and coordination of all relevant Government institutions and partners is critical.
- Both prevention/preparedness and response activities, including fuel to operate water supply and wastewater treatment systems, are priority to ensure swift and efficient curbing

of the outbreak. Ensuring sustained electricity supply over the longer term remains critical to avoid a long-lasting and wide outbreak.

- OCVs are not a standalone solution, but rather they contribute to other preventive measures such as water and sanitation, health education, surveillance and clinical management. Response activities should aim to prioritize the needs of high-risk and vulnerable groups and settings, including securing adequate WaSH service provision in informal settlements and ensuring a focus on individuals living in overcrowded conditions such as in collective shelters and institutions.
- Response activities for cholera are mostly repurposing of planned activities within existing response plans - with the addition of some cholera specific response activities. Swift disbursing of extra funding is required to ensure that critical and time sensitive new and previously planned activities can be implemented in a timeline manner.
- Further, donors should:
    - Prioritize funding for activities identified as critical and in line with the coordinated response strategies developed by the WASH, Health and RCCE sectors and task force.
    - Continuing flexible funding for the UN agencies, in particular UNICEF, WHO and UNHCR as sector lead agencies, to allow for greater responsiveness to rapidly evolving priorities across the whole country.
    - Allow flexibility in on-going grants and continue direct funding to international and national NGOs, noting that NGOs coordinate via the sectors and are often the closest entities to communities and affected people, especially those with special needs.
    - Fund the Lebanon Humanitarian Fund: LHF is particularly efficient and effective to support NGOs to respond.

Funding

Priority Funding Needs Health, WASH & RCCE

The Lebanon Humanitarian Fund (LHF) has launched an emergency reserve allocation for up to $4.5 million to support NGO-led lifesaving multi-sectoral cholera prevention and control activities at community and household level in high risk areas of the North, Akkar and Beqaa. All activities are aligned with the Ministry of Public Health-led cholera response plan. Activities will be implemented collaboratively by experienced Health and WASH NGO partners to a) reduce avoidable morbidity and mortality, b) reduce transmission of the disease in affected areas and c) minimize the risk of introduction of the outbreak to other high-risk areas. Risk Communication and Community Engagement (RCCE) activities will be integrated into all projects.

A total of USD 43.1 million is required under the Cholera Response Plan for an initial period of 3 months.

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