

## Northwest of Syria Cholera Outbreak

### Situation Report No.1

### Epidemiological Week 39 (25 Sep - 1 Oct 2022)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

#### Background

Since June 2022, when the Cholera outbreak was declared in Iraq, monitoring the water-borne disease in general and Acute Diarrhea trends in specific revealed an increment in trends compared to the previous years, in parallel with the deterioration of WASH services because of lack of funding, thus, enhancing the awareness about unusual reporting of diarrheal diseases became a priority. This issue was raised in the periodic meetings of the Surveillance, Outbreak preparedness and response Taskforce (SOPR), which was activated last April and led by WHO, followed by WHO activation of the Cholera task force at the start of September after the Cholera outbreak confirmation in the northeast of Syria.

EWARN team added the needed inputs the Cholera preparedness and response plan, which included 4 urgent action points as a priority:

1. **Defining and focusing on the “hot spots”**, which are defined as a geographically limited areas where environmental, cultural, and/or socioeconomic conditions facilitate the transmission of Cholera and where Cholera is more predictable to appear. Hotspots play a central role in the spread of the disease to other areas. In the Syrian context, the communities located on the borderlines between the northeast – where is an ongoing Cholera outbreak – and the northwest area are also considered hot spots as the smuggling of merchandise and individual is continuous.
2. **Rapid Response Team formulation** for each sub-district, to be activated once an alert comes. Those teams include the health directorate focal point, the district level officer, the field level officers, the WASH field officer, and focal points from the NGOs who are working in the targeted sub-district.
3. **Receiving 1000 RDTs and 5 Cholera kits (drug module) from WHO:** distributing the RDTs to the laboratories, whereas 2 Cholera kits were delivered to IDA organization and another 1 to MSF Belgium.
4. **Raising up the readiness in EWAN labs in Idleb, Afrin, and Jarablus:** quick refreshment was provided for the lab physicians and lab technicians about handling specimens of Cholera suspected cases (collection, shipment, and waste management), stool culture techniques, and its sensitivity, specificity in detecting the Vibrio Cholera. The

Suspected Cases: 297

Confirmed Cases: 24

Cholera Death : 0

Case Fatality Rate: 0

needed supplied for Vibrio Cholera laboratory diagnosis was assessed as well (Culture media, Chemical tests Petri dishes, and antibiotic sensitivity discs). It is worth mentioning that those three laboratories are classified as Bio Safety Level 2.

Figures and statistics vary in the number of population and displaced people in this area according to data sources. According to the UN-OCHA, the estimated population of northwest Syria is more than 4.2 million including 2.4 million displaced; and 1.7 million of these displaced people live in camps. According to the [Population Movement](#) in North Syria of the ACU/IMU | Information Management Unit, the numbers reach up to 5.3 million.

Since EWARN lab confirmed the first case in Jarablus, Marma Al-Hajar village on 19<sup>th</sup> September, EWARN field teams of NWS became more alerted for any notification or rumor, as the Acute Watery Diarrhea alert (suspected Cholera) is a **Type A alert** which needs to be investigated within 24 hours.

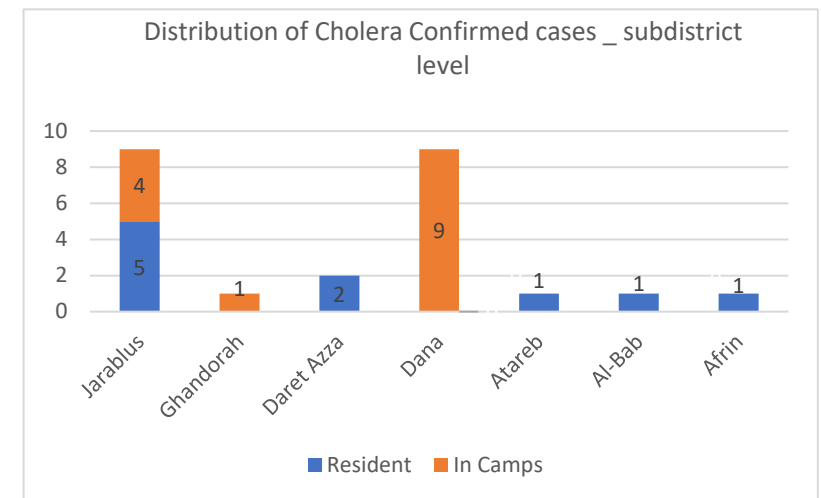
In a few days, new suspected cases began to be notified successively, till 24<sup>th</sup> September EWARN labs announced 1 positive case in Al-Bab, 1 positive case in Afrin, and 2 additional positive cases in Jarablus. It did not take long to confirm Cholera in Idleb governorate, where 3 cases were confirmed on 26<sup>th</sup> September in Atma camps, which is one of the most significant hot spots.

Since the start of the Cholera outbreak and up to date, the Rapid response teams keep investigating each suspected Cholera notification, filling the investigation form or/and the line list, assessing the household drinking water and sewage, and surveying the neighboring households to look for other similar cases might be existing.

## Highlights

### 1. Epidemiology

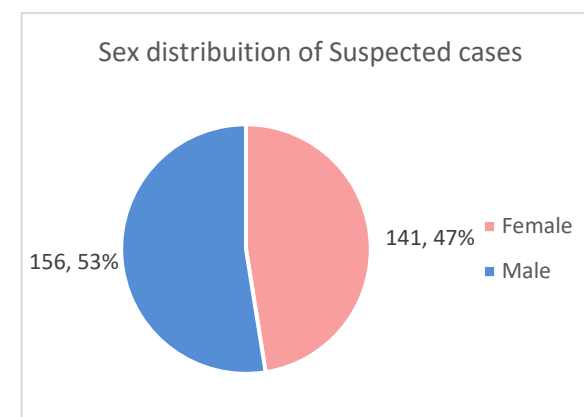
Up to Epi week 39, **297 suspected cases of cholera were reported, with no associated deaths so far**. The affected governorates are Aleppo (235 suspected and 15 confirmed), and Idleb (62 suspected and 9 confirmed). The investigated cases are located in **9 districts** so far as shown in the map bellow.



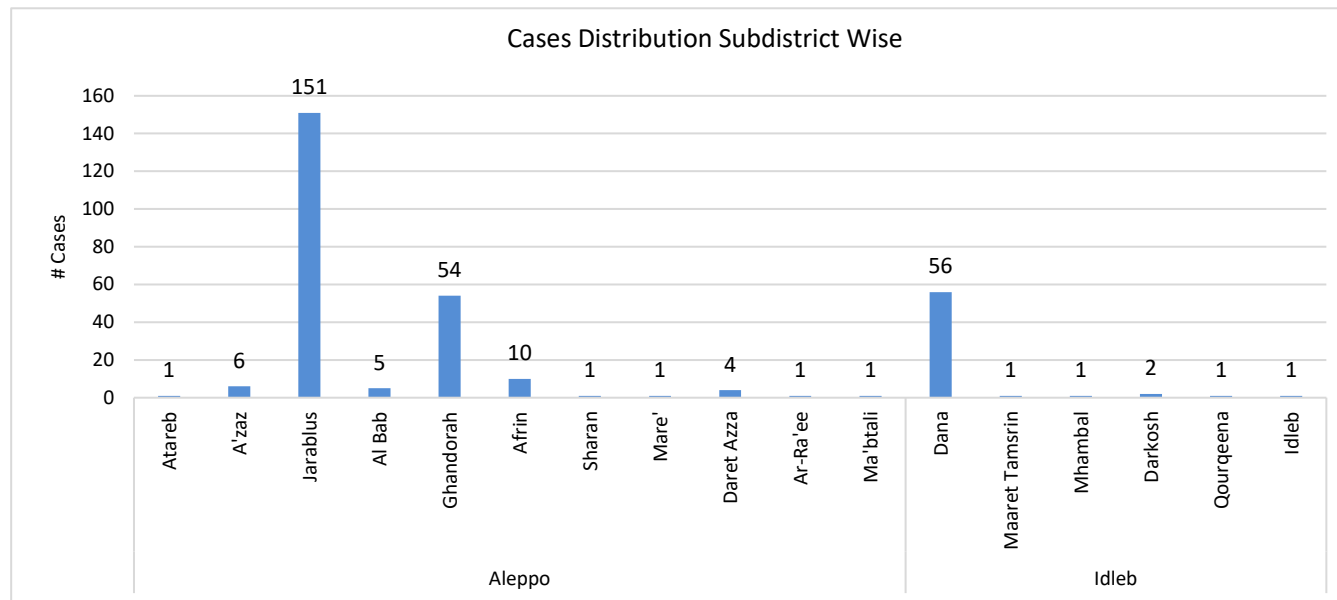
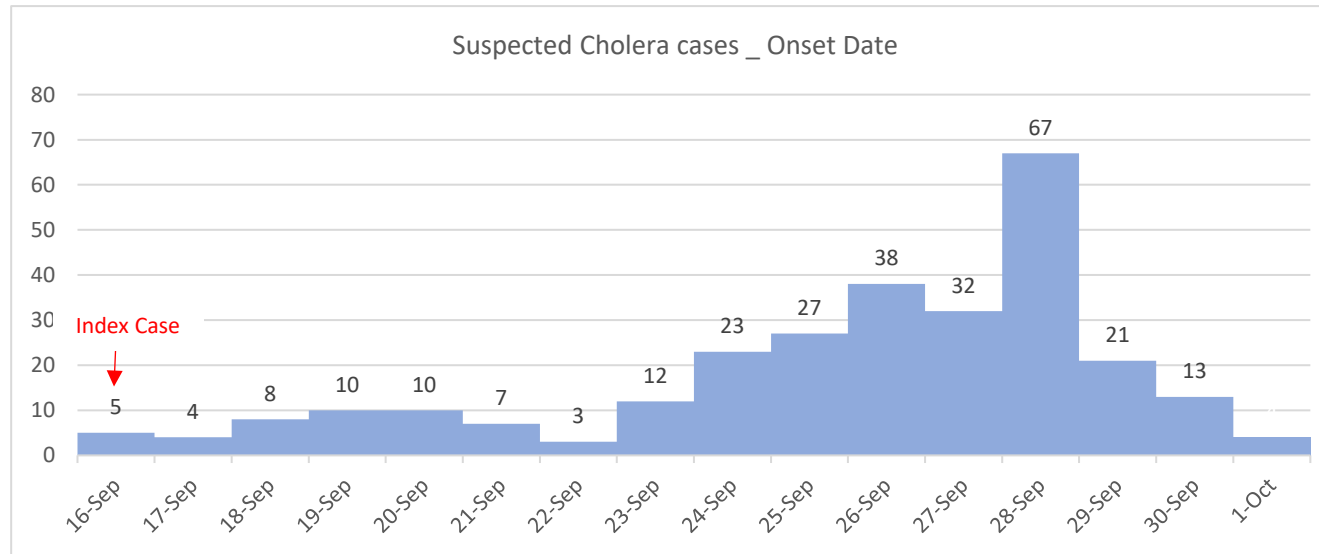
The sex distribution of the suspected cases is 53% Male, and 47% Female, whereas sex distribution of the confirmed cases is 38% Male, 62% Female.

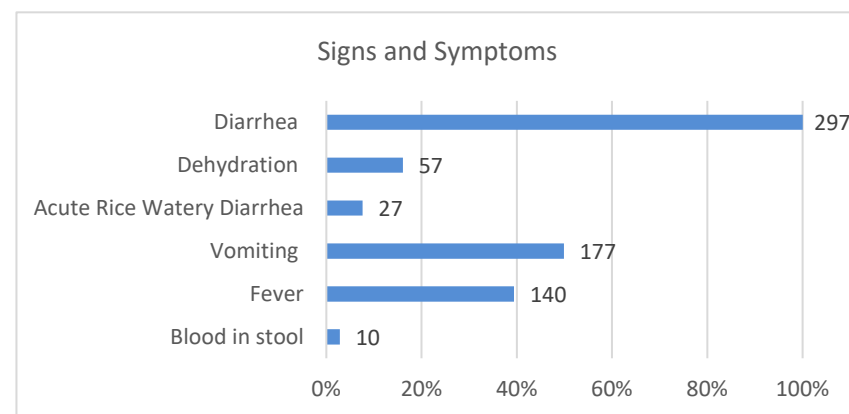
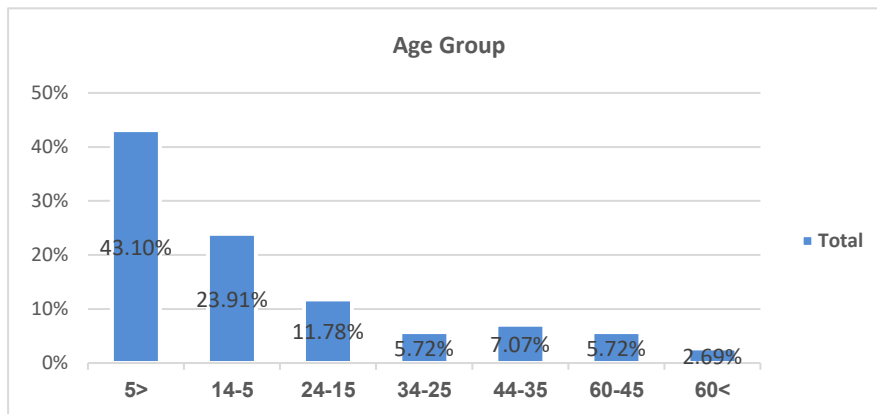
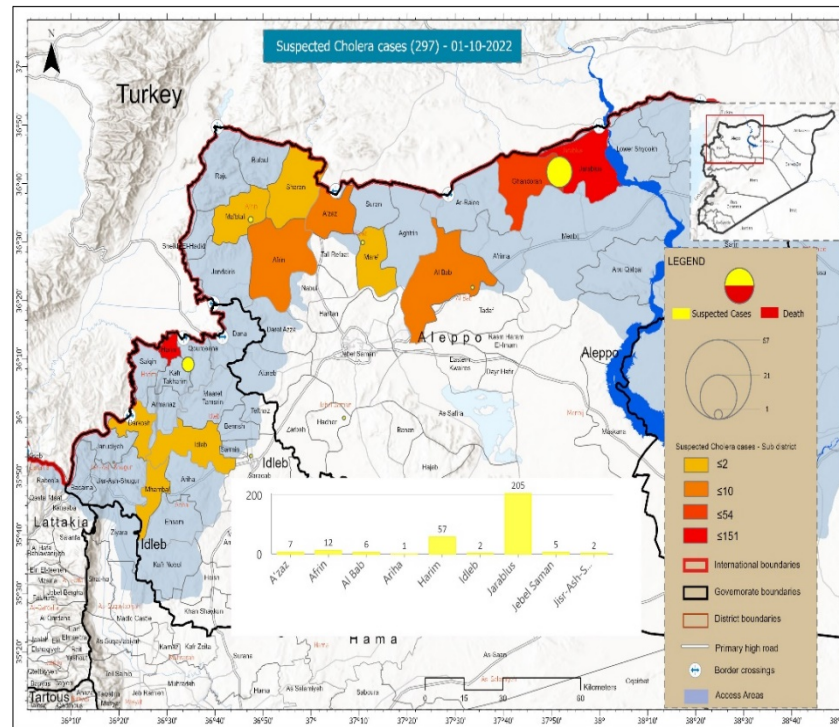
About 43 % of the line listed cases were among the age groups < 5 years.

100% of the line listed cases were presented as Acute Diarrhea, including 8% as rice watery diarrhea, and 18% were dehydrated, the remaining 47% is for patients who were not dehydrated, they were detected during the field investigation around the confirmed cases and presented as diarrhea only. It became justified when **14 (58%) out of 24 confirmed cases were not dehydrated** upon investigation. Thus, the field team enhanced the surveillance to increase the sensitivity, especially in camps settings (Harim & Jarablus).



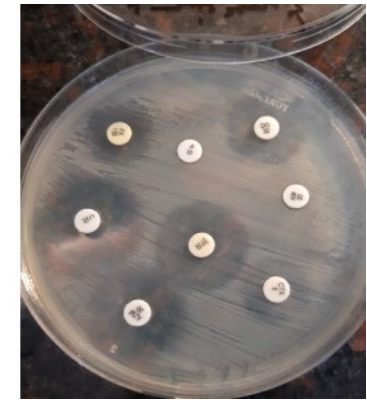
Epi Week	Governorate	District	Date of Onset	Population	New Suspected cases	Cumulative Suspected Cases	New Death	Cumulative Deaths	Case Fatality Rate	Weekly Incidence Rate (per 100.000)
W39	Idleb	Ariha	20-Sep	185,668	0	1	0	0	0.00%	0
		Harim	6-Sep	1,586,820	57	57	0	0	0.00%	3.59
		Idleb	14-Sep	713,933	2	2	0	0	0.00%	0.28
		Jisr-Ash-Shugur	25-Sep	310,973	2	2	0	0	0.00%	0.64
	Aleppo	A'zaz	9-Sep	648,600	6	7	0	0	0.00%	0.92
		Afrin	21-Sep	467,090	11	12	0	0	0.00%	2.35
		Al Bab	17-Sep	339,812	4	6	0	0	0.00%	1.17
		Jarablus	12-Sep	121,938	191	205	0	0	0.00%	156.63
		Jebel Saman	10-Sep	251,785	5	5	0	0	0.00%	1.98
	<b>Total</b>				<b>4,626,619</b>	<b>278</b>	<b>297</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>





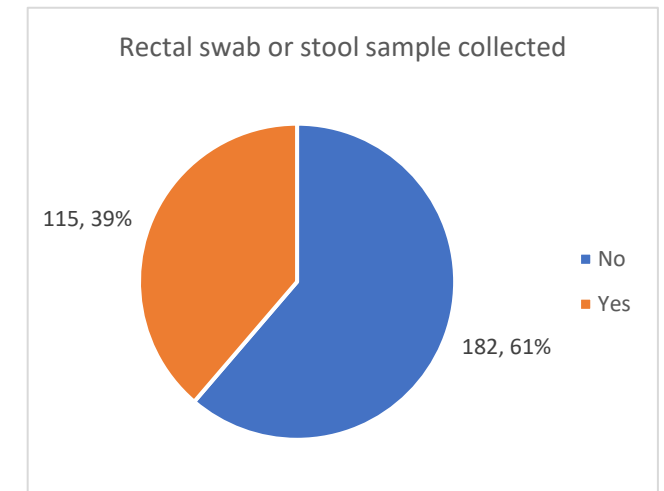
## 2. Laboratory

- Total number of the specimens collected: 115 (39% of the investigated cases).
- **Total number of the positive cases: 24**
- Total number of the negative cases: 74, the rest are still pending.
- All samples are being cultured on selective media like TCBS and Oxidase test, sometimes Gram stain and sensibility test.
- The culture sensitivity results came **sensitive** for Azithromycin, Ciprofloxacin, Doxycycline, Tetracycline, and Chloramphenicol, and **resistant** to Cefotaxime, and Ampicillin. The Lab's teams keep monitoring the stool culture sensitivity, and resistance for antibiotics.
- The laboratory team are handling the specimens and waste management according to infection control standards.



Antibiotic Sensitivity result \_Jarablus

Epi Week	Governorate	District	Samples Collected on current week	Stool Culture Positive	Stool Culture Negative
W39	Idleb	Ariha	1	0	1
		Harim	14	9	5
		Idleb	2	0	1
		Jisr-Ash-Shugur	2	0	1
	Aleppo	A'zaz	7	0	7
		Afrin	11	1	10
		Al Bab	3	1	2
		Jarablus	70	10	45
		Jebel Saman	5	3	2
	<b>Total</b>			<b>115</b>	<b>24</b>



### 3. WASH

- **Jarablus District:**

- Marma Alhajar community; the WASH team investigated drinking water and the results showed the following: the testing of water samples taken from patient's house and surrounding houses showed that water was contaminated bacteriologically. As noticed, the wells are closed to septic tank (collecting point of wastewater).
- On 18<sup>th</sup> of Sep, AWD cases were reported in Zoghara camp. The preliminary investigation showed that the water resources are safe.
- In Mazaalah community, first case in the community, the water resources at most are private wells. WASH officer took some sample from patient's house and from another point. The water quality tests results at all points is contaminated and not safe to drink.
- Again, very recently, new cases reported in Zoghara camp, WASH team re-tested the water resources, and they were safe and not contaminated.

- **Azaz District:**

- Suspected cases in Dhahiat Sejjo camp and in Salama community; the investigation showed that one of the water resources was contaminated and not safe to drink.

- **Al Bab District:** Al-Haydariya camp is in Al Bab community, where the first confirmed case was recorded. The camp is supplied with water trucking by local organization working there (chlorinated and safe to drink). However, they were also supplied with water from a private tanker. The private tanker filled the water from private wells. The initial investigation shows that the water has odor and color in addition to close to septic tank, less than two meters. The test result showed that the water is contaminated.

- **Afrin District:** The case was traveling and dropped by many restaurants. The investigation extended to cover all water resources he passed by and at his household. The water quality tests results at all points is safe and drinkable.

- **Harim District:** for 3 confirmed cases from two different camps; the water resources were safe to drink.

- **Jebel Saman:** The first case in the area, in Daret Azza, the investigation extended to cover the supplying points from the resource endpoint (user point). The result showed that the water got contaminated at the water collecting tank, located in the patient's house.

The confirmed/suspected cases, that drinks from safe water resources are highly excepted they eat polluted vegetables, since the investigation also showed that the agriculture markets in some locations are supplied from other location and mostly the irrigation system depends on untreated wastewater.

All WASH activities are implemented in coordination with the WASH cluster and Cholera taskforce.

## Challenges

- Limited resources to sustain a sufficient response in both health and WASH since gaps have already been identified and quantified.
- Sub-optimal community engagement in affected and high-risk populations on cholera prevention and control.
- Continues movements of population.
- Serious shortage in terms of procurement, transport of medicines, and supplies (Aqua tabs, PPE, ORS, Ringer Lactate...etc).
- The fragile health system will affect the reporting quality.
- Lack of coordination is reflected in the low impact of actions taken.
- No Vibrio Cholera O139, O1 Antisera so far to identify the vibrio serotype.
- Lack of practical experience in the field to confront this outbreak as it is the first time a Cholera outbreak to be confirmed.
- Some patients rejected to give stool specimens because of stigma.

## Recommendations

- Strengthening Surveillance and initiate active case search.
- Laboratory support with consumables and supplies.
- Daily updates, and weekly situation report.
- Training for RRT and laboratories team.
- Enhancement coordination mechanisms with WHO and Taskforce members.