

## Northwest of Syria Cholera Outbreak

### Situation Report No.2

### Epidemiological Week 40 (2- 8 Oct 2022)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

#### Key Highlights

- Cumulatively, a total of 777 suspected cases including 59 confirmed have been reported by EWARN team since 16 September.
- **One death** case in Jisr Ash-Shugur was classified as Cholera death.
- Emergence of new confirmed cases in A'zaz, Maaret Tamsrin, and Jisr-Ash-Shugur.
- Jarablus and Dana sub-districts are on the top reporting areas.
- 286 suspected cases including (27 confirmed cases) were reported from camps.
- 45% Of the suspected cases are in age group <5 years, versus 61% of the confirmed cases are in age group <15 years.
- Since the outbreak started, surveillance and reporting from facilities are being supported and strengthened. For better understanding of the background and context, [please read the Sitrep No.1.](#)
- Suspected cholera cases are being investigated by Rapid Response Team, either in areas of outbreak or in areas where new cases have been reported.
- Line list is shared with WHO and WASH team to aid Targeted response at household level being conducted for identified cases.
- Active case search is ongoing especially in the camps.

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Suspected Cases: 777

Confirmed Cases: 59

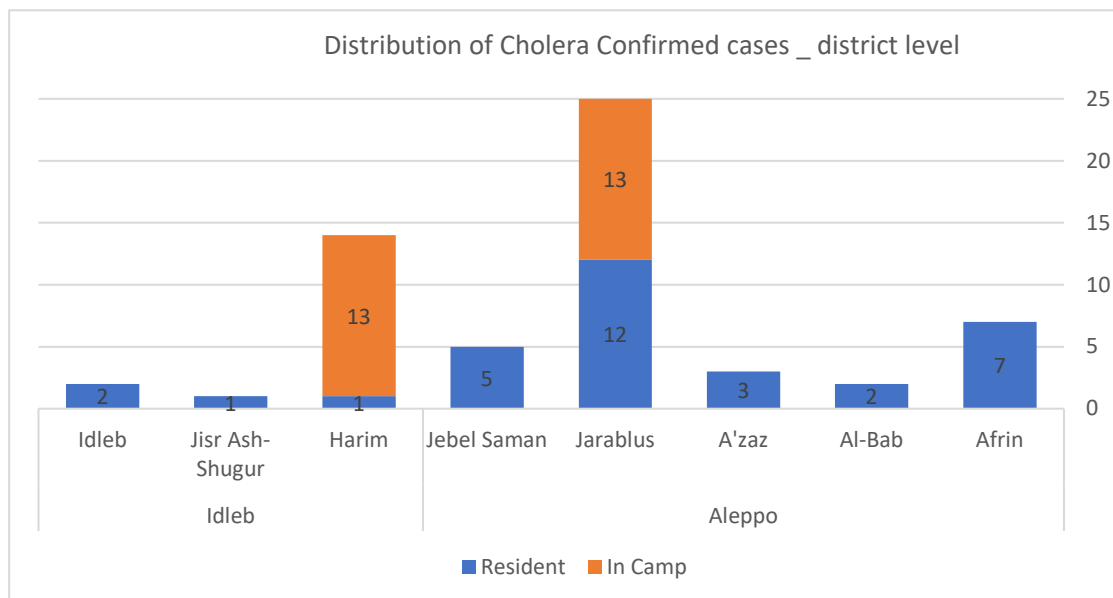
Cholera Death : 1

Case Fatality Rate: 0.1%

NWS Attack Rate: 10.3%



Rice watery diarrhea \_ Idleb



## Situation Updates

### 1. Epidemiology

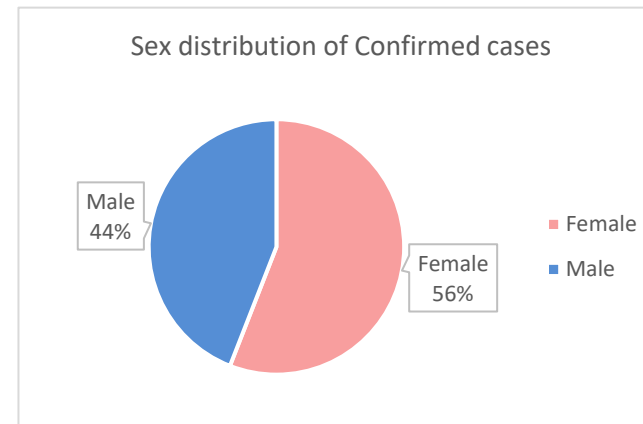
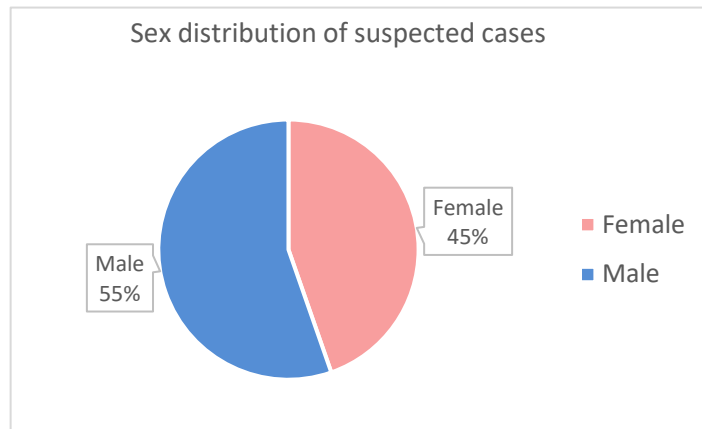
In Epi week 40, **480 suspected cases of cholera were reported, with one associated death so far**. The affected governorates are Aleppo (451 suspected and 21 confirmed), and Idleb (29 suspected and 6 confirmed). The death case is a 28 years old male from Mishmishan village, Jisr-Ash-Shugur, Idleb governorate. For more details, please read [the flash report](#).

The overall sex distribution of the suspected cases is 55% Male, and 45% Female, whereas sex distribution of the confirmed cases is 44% Male, and 56% Female.

About 45 % of the line listed cases were among the age group < 5 years. Children under 2 years of age can be affected by cholera and need to be treated immediately. When a cholera outbreak has been confirmed, children under 2 years of age who meet the cholera case definition should be recorded in the register, reported to the surveillance unit and considered in the epidemiological analysis.<sup>1</sup>

100% of the line listed cases were presented as Acute Diarrhea, including 5% as rice watery diarrhea, and 15% were dehydrated. **4 Cholera confirmed cases were diagnosed when investigated as Acute Flaccid Paralysis cases and the stool was cultured for Cholera before dispatching them to Ankara lab.**

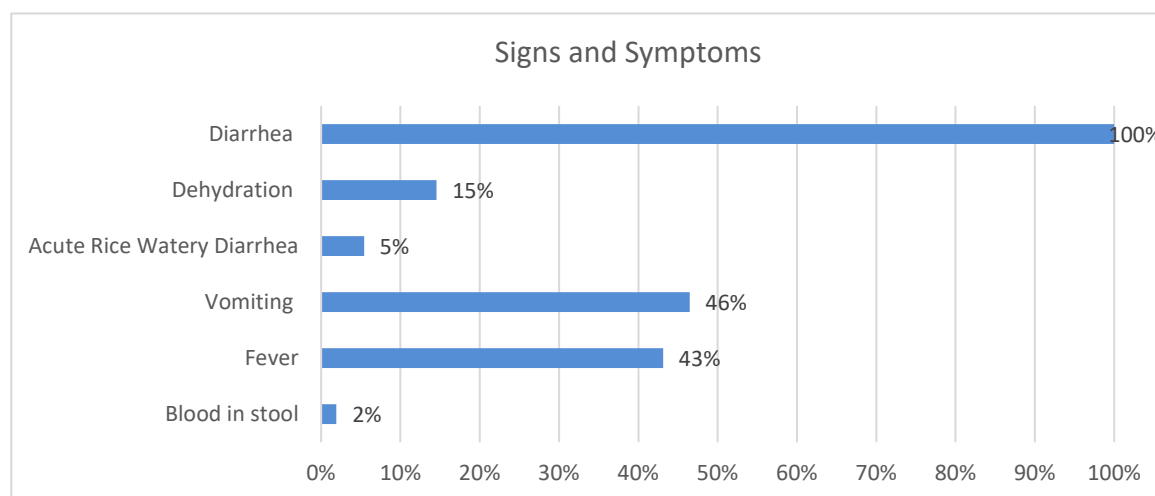
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild / moderate symptoms groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea considered as a suspected cholera case.<sup>2</sup>

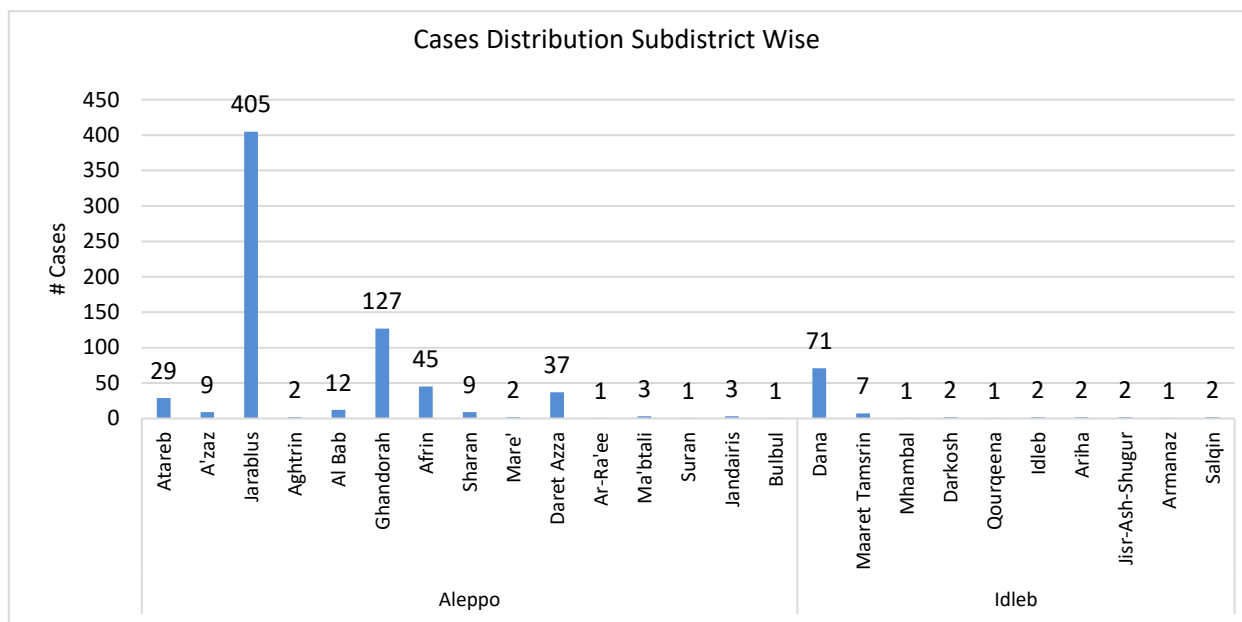
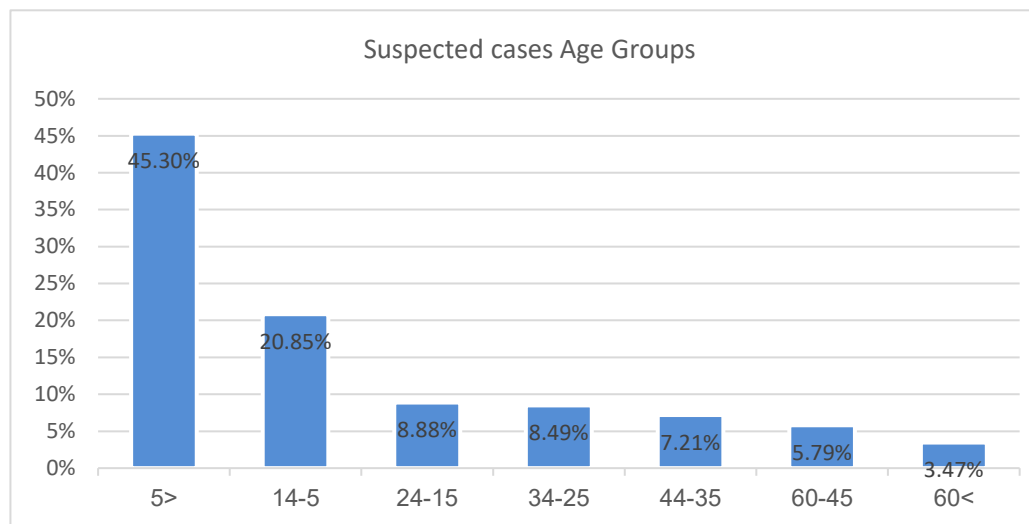


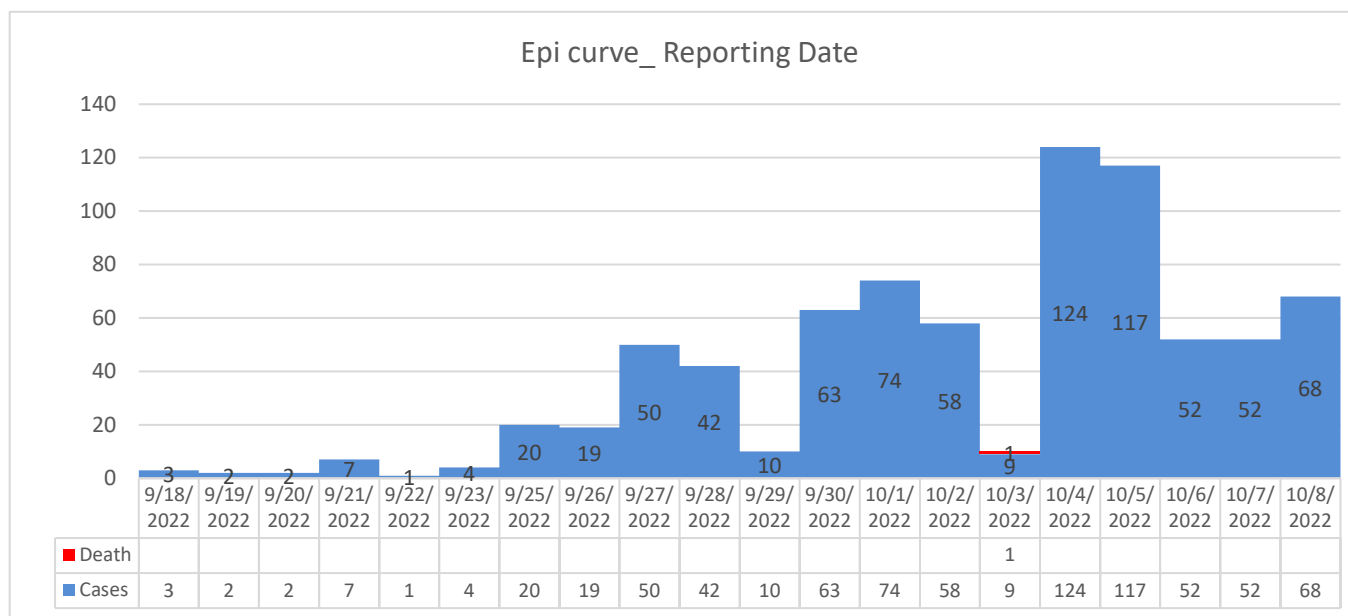
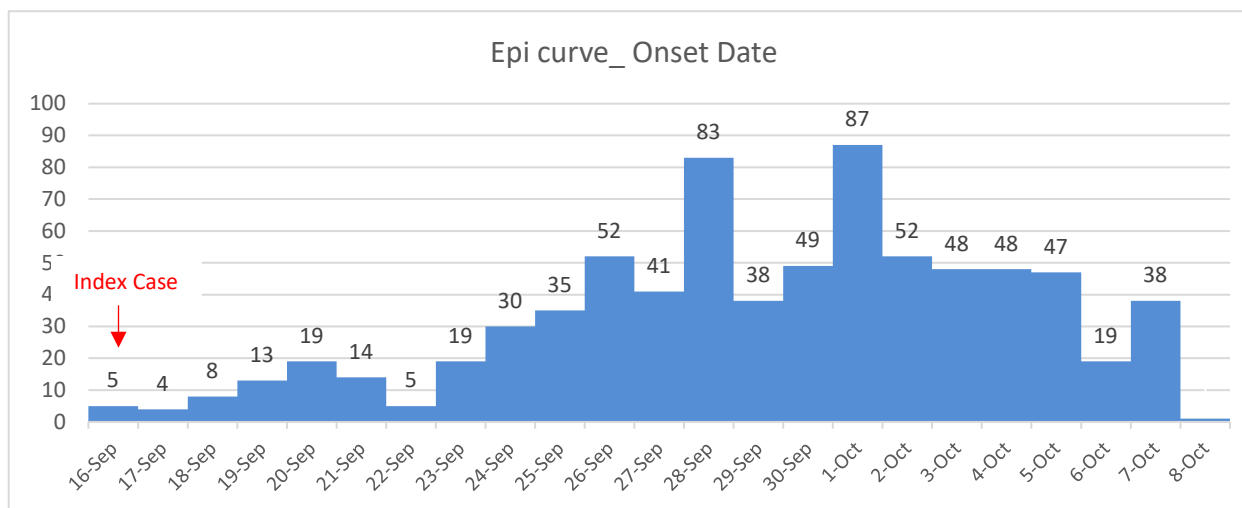
<sup>1</sup> [gtfcc-cholera-outbreak-response-field-manual](#)

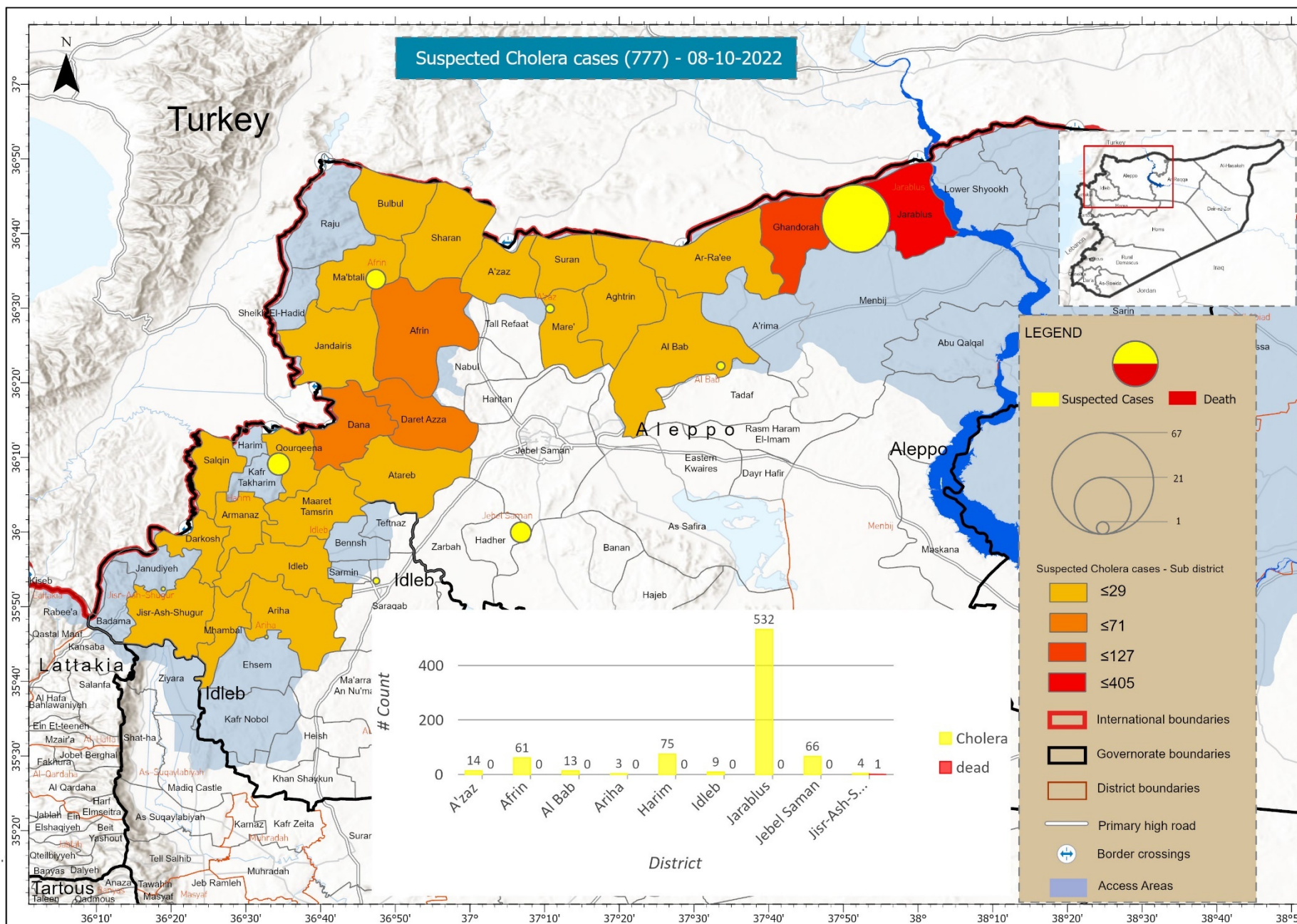
<sup>2</sup> [who-surveillancevaccinepreventable-02-cholera](#)

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)
W40	Idleb	Ariha	20-Sep	185,668	2	3	0	0	0.00%	1.07
		Harim	6-Sep	1,586,820	18	75	0	0	0.00%	1.13
		Idleb	14-Sep	713,933	7	9	0	0	0.00%	0.98
		Jisr-Ash-Shugur	25-Sep	310,973	2	4	1	1	25.00%	0.64
	Aleppo	A'zaz	9-Sep	648,600	7	14	0	0	0.00%	1.07
		Afrin	21-Sep	467,090	49	61	0	0	0.00%	10.49
		Al Bab	17-Sep	339,812	7	13	0	0	0.00%	2.05
		Jarablus	12-Sep	121,938	327	532	0	0	0.00%	268.19
		Jebel Saman	10-Sep	251,785	61	66	0	0	0.00%	24.22
		Total		4,626,619	480	777	1	1	0.13%	10.37





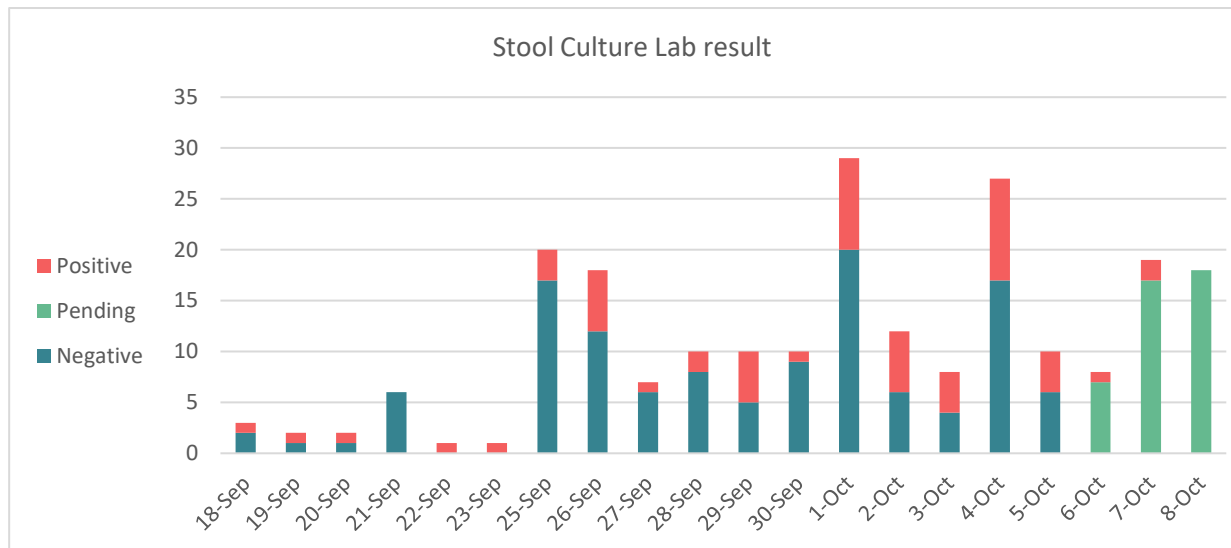
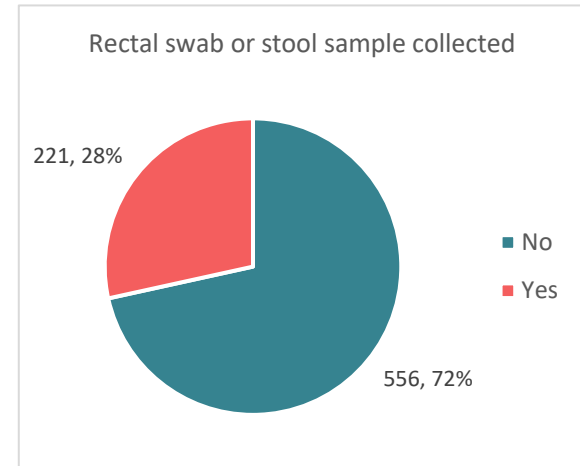






## 2. Laboratory

- In Epi week 40, the total number of collected stool specimens or rectal swabs is 102, of which 27 have tested positive for Vibrio Cholera.
- A cumulative of 221 samples were collected since the start of the outbreak (28.5% of overall line listed cases), of which 59 have tested positive by stool culture.
- The Total number of negative cases by stool culture is 120, and the remaining 42 are still pending.
- Once the outbreak is declared, there is no need to confirm all suspected cases. The clinical case definition is sufficient to monitor epidemiologic trends<sup>3</sup>.
- 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 the following antibiotics: Azithromycin, Ciprofloxacin, Doxycycline, Chloramphenicol, and Sulfamethoxazole \_Trimethoprim. **The resistance** is to Tetracycline and Imipenem. The Lab's teams keep monitoring the stool culture sensitivity, and resistance to antibiotics.
- The laboratory team is handling the specimens and waste management according to infection control standards.



<sup>3</sup> [gtfcc-cholera-outbreak-response-field-manual](http://gtfcc-cholera-outbreak-response-field-manual)



Epi Week	Governorate	District	Samples Collected on current week	Stool Culture Positive	Stool Culture Negative
W39	Idleb	Ariha	3	0	2
		Harim	35	14	12
		Idleb	9	2	2
		Jisr-Ash-Shugur	4	1	2
	Aleppo	A'zaz	14	3	10
		Afrin	29	7	13
		Al Bab	4	2	2
		Jarablus	114	25	75
		Jebel Saman	9	5	2
	Total		221	59	120

### 3. WASH:

Targeted response including water quality testing at household level being conducted for identified cases.  
All WASH activities are being implemented in close coordination with WASH cluster & Cholera taskforce.

#### Jarablus District:

- Al-Jabal camp: Jarablus CP000017:  
Water is pumped to the camp through the water network (sterile and potable water) connected to a water station. The network covers 90% of the houses, as the station is supervised by an organization that sterilizes and chlorinates the network's water. As for 10% of the houses, they are fed from other sources (a local council and a local organization).  
Several samples were collected from different sources (the cases' houses, samples from houses fed from other sources) and the results showed that all the main water sources are safe to drink, but for the patient's house, the drinking water was unsafe for drinking and contaminated.
- Note: regarding the new cases in Zughara camp, they were investigated several times, and the results showed that the water sources are safe.

#### Azaz District:

- Azaz City: about 70% of the city of Azaz is fed by Maidanki water station, which is sterile and treated. As for the patient's house, it is supplied through tanks that take water from private wells.  
The investigation was conducted at several points, including the patient's school tank, the house tank, and a special well that feeds the school through tanks. The results showed that the water in the house is polluted and unsafe for drinking. The rest of the samples are intact. Aqua tabs were distributed with use instructions.
- Kafra village\_ Suran sub-district: The first investigation was conducted on water and sanitation services, where the patient's house is fed through a water network connected to Kafra station, with a well that is used for purposes other than drinking. Samples were collected from the patient's tank, the well, and the station for analysis (the results will be shared in the next Sitrep).
- Mald village: The patient's house and the neighboring houses are fed by drinking water from a private well. Samples were taken from the patient's tank and the private well for analysis (the results will be shared in the next Sitrep).

#### Afrin District:

Afrin city is completely fed by the Matina purification plant, and the Water Corporation sterilizes the water and reaches the houses chlorinated and safe for drinking. Random samples were taken from the water networks. It was found that the percentage of free residual chlorine in it ranges from 0.1 to 0.2, and this confirms its validity for drinking.

- A confirmed case in Teranda neighborhood: The patient's house is fed through a water network, which is sterile and safe to drink, where the residual free chlorine was measured and was within the acceptable range (PPM 0.2-0.5). It is worth mentioning that the patient hosted guests who came from Suran camp, and they had vomiting complaints before the visit.

Another 2 cases in Afrin: The first one ate frozen ice cream from a street vendor, after that the symptoms appeared. The second case was in contact with the first case.

- Kurtec camp, Al-Mashala village \_ Sharan, camp code C1520: The camp is fed by tanks collect water from Sinkerli well. Where a local organization is supervising the process of sterilization and water supply, the residual free chlorine was measured at several points and the values were within the acceptable range and the water was safe to drink.
- Ain Al-Hajar village: The analysis of a well that fed the patient's house showed that the water is safe and drinkable, but during the past two days he ate vegetables from a street vendor without washing, and then the signs appeared.
- Muhammadiyah camp, in the village of Mahmudiya in Jindires: The first confirmed case and there are 4 suspected cases (contacts). The camp is located on the banks of the Afrin River, and all sewage outfalls from the city of Afrin and the surrounding villages drain into the river. There is a water station within the camp (tests were carried out several times previously, and showed that the water is safe for drinking)

The camp is supplied with drinking water through tankers from a local organization (the residual free chlorine was measured, and the water was safe to drink and not contaminated), but due to the great need for water, some people start drink water from the station. Aqua tabs were distributed with use instructions.

Note: A previous investigation was done by ACU (where many diarrhea cases appeared in last June), and the immediate response was the distribution of aqua tab (28 cartons) with strong recommendation provided not to use water from this station for drinking purposes.

- Qastal Kishk village\_ Sharan: The village is fed from tanks and from wells in houses (most houses have private wells), same scenario for the patient. A sample was collected from the house well and the results are still pending.

Note: two days before the onset date, the family traveled to Sheikh Al-Hadid, the investigation in Sheikh Al-Hadid is in process.

#### Jebel Saman:

- Kafr Karmin: The quality of the water sources was investigated, water samples were collected (including the main water source in the village, which is the Al-Bayyad station, the patient's house, and other random houses) and tests were carried out (bacterial/physical/chemical). The results showed that the water is safe for drinking. During the investigation, the numbers of residual free chlorine values were not within the acceptable range.
- Darat Azza: The area is fed by several artesian wells, including Al-Darab well. Where an investigation was conducted about the quality of the water sources feeding the patient's house and water samples were taken (from the patient's house tank, in addition to the tanks that transport water to the houses from the Al-Darab well, and the results showed that the water of the patient's tank was contaminated, in addition to the one of the tanks' water was contaminated and unsafe for drinking (on the day of the investigation). Aqua tabs were distributed with use instructions.



*Aqua Tabs distribution \_ Afrin*



*High Reservoir Water Sampling \_ Deir Ballout Camp*

### Harim District:

- Abu Haba camp\_ Kafredrian, CP001402 : The camp is fed through tanks supervised by a local organization, where all tanks are sterilized (chlorinated) and the remaining free chlorine was measured at several points within the camp, and the values were within the acceptable range. Therefore, the water that fed the camp was safe for drinking.
- Al-Rahma Camp and Kafr Nabudah Camp\_ Qah (Rahma Camp-CP000171, Kafr Nabuda Al-Hurra-CP000321):  
The water situation in the camp is good. Drinking water is supplied through the network (connected to a station) by an organization that chlorinates and sterilizes the water periodically. However, when measuring the free chlorine in Al-Rahma camp, the values were less than the acceptable range (although the water was pumped the night before the investigation day). Samples were taken for bacterial analysis and to ensure the complete safety of the water. (Results will be shared later).

### Idleb District:

- Maarrat Tamsrin: The village is fed from a water network connected to two stations, in addition to the presence of a water outlet located next to the affected house. Several samples were taken (from the network and from the fountain) and the results showed all the sources of water are safe to drink.

### Jisr Ash-Shugur District:

- Mazula village: The village is supplied from by the main water station (Al-Bala'a station). Because of the topographical reasons of the area, some people resort to buying water from a private source, and samples were taken (from the private source and from the network. The results showed that the water is safe to drink and not contaminated, and the situation of water and sanitation services in the area is good.

## Challenges

- Many patients are self-discharged from the hospital, especially women, because of the embarrassment of their frequent need to go to the toilet.
- People are afraid to go to the hospital for other complaints because of their fear of getting Cholera infection, where there is still a lack of correct information about the disease and its transmission ways.
- Detecting and reporting the cases in more than one place may cause duplication in the data.
- Many patients refuse to give samples and some of them escape from the hospitals.
- Continuous random use of antibiotics will increase bacterial resistance.

- Some doctors refuse to manage dehydrated children, which is still a challenge due to their believe that managing children requires a pediatrician, who may not be available in the health facility.
- Continues movements of population.
- No Vibrio Cholera O139, O1 Antisera so far to identify the vibrio serotype.

### Recommendations

- Strengthening Surveillance and initiate active case search.
- Laboratory support with consumables and supplies.
- Daily updates, and weekly situation report.
- Enhancement coordination mechanisms with WHO and Taskforce members.
- Defining the potential sources of Cholera death reporting.