

## Northwest of Syria Cholera Outbreak

### Situation Report No.18

#### Epidemiological Week - 4 (22 Jan – 28 Jan 2023)

Suspected Cases: 43303

Confirmed Cases: 562

Cholera Deaths : 20

Case Fatality Rate: 0.05%

NWS Attack Rate: 0.94%

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 **43303 suspected** cases (**17551** in Aleppo governorate, **25752** in Idleb governorate) including **562 confirmed** have been reported by EWARN team since 16 September, including **20 deaths** case.

- The highest number of cases were reported in Harim district (13582) and Idleb district (7469) in Idleb governorate, then Azaz district (4148), Jebel Saman district (4142), and Jarablus district (3801) in Aleppo governorate.
- 7503 total suspected cases (including 427 new cases in Epi week 04 - 2023) were reported from camps.
- 44.15 % Of the suspected cases are in the age group <5 years. Males are 52% of the total and females are 48%.
- Since the outbreak started, surveillance and reporting from facilities are being supported and strengthened. For better understanding of the background and context, [please read pervious sitreps.](#)
- Line list is shared with WHO and WASH team to aid Targeted response at a household level being conducted for identified cases.
- Active case search is ongoing, especially in the camps.

## Situation Updates

### 1. Epidemiology

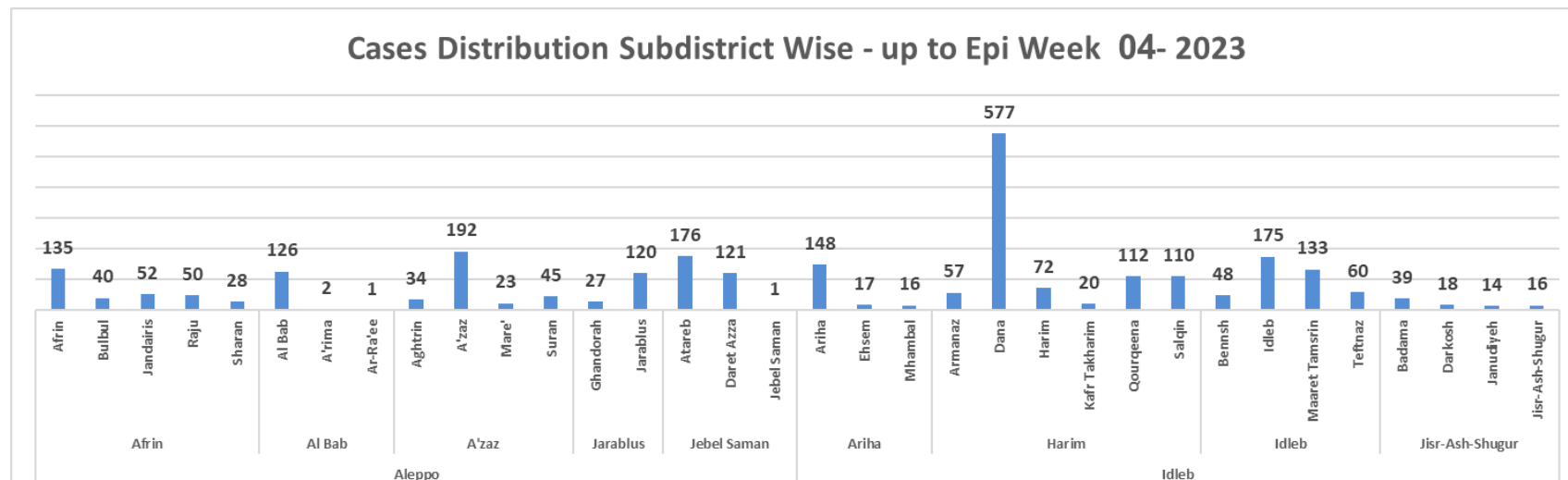
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 04 - 2023, **2805 suspected cases of cholera were reported, including 3 positive cases**. The affected governorates are Aleppo (1173 suspected, 3 confirmed), and Idleb (1632 suspected, 0 confirmed).

The age group less than 5 reported 42.8 %, while the age group more than 60 reported 26.6 % of the total

No deaths were reported in epi week 4. (a total of 20 deaths).

Dana subdistrict in Idled governorate reported the highest number of cases (577), then Azaz subdistrict (192) in Aleppo governorate.

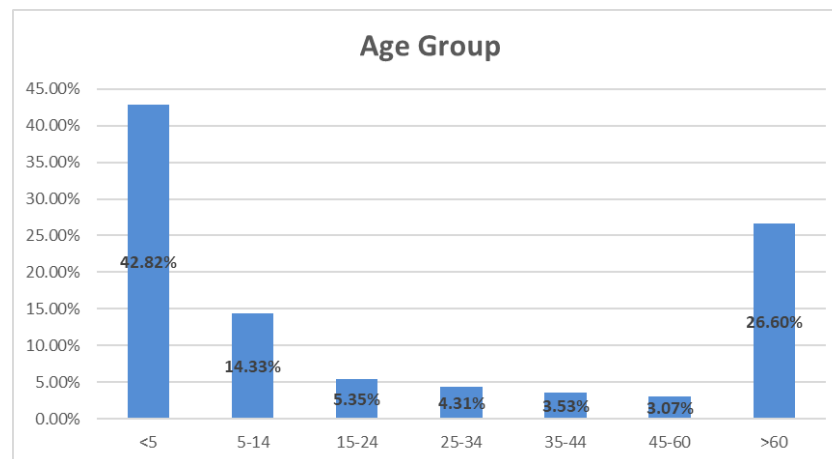
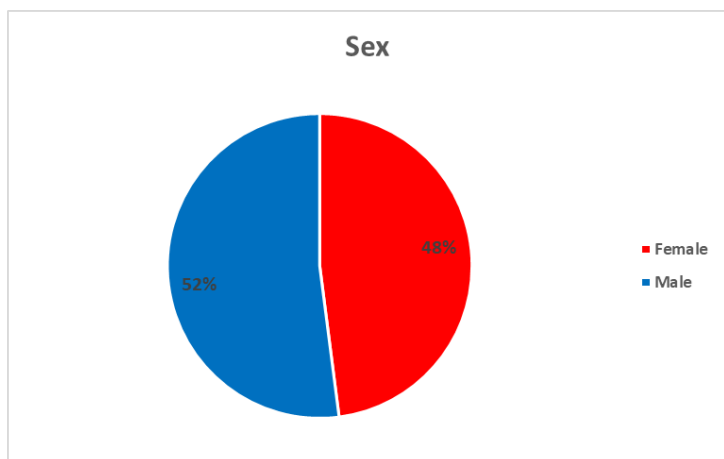


The overall sex distribution of the suspected\_cases is 52% Male, and 48% Female.

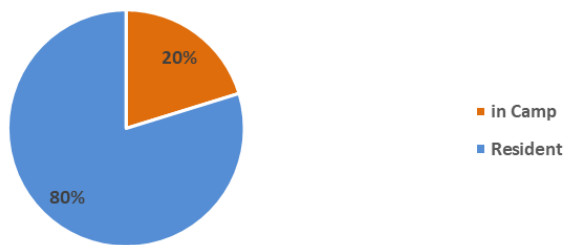
100% of the line listed cases were presented as Acute Diarrhea, 21% with vomiting, 5% as rice watery diarrhea, and 6% were dehydrated.

21% of the total cases live in camps (7076), and 79% out of camps (27312). (6110 of the total line listed cases are unknown)

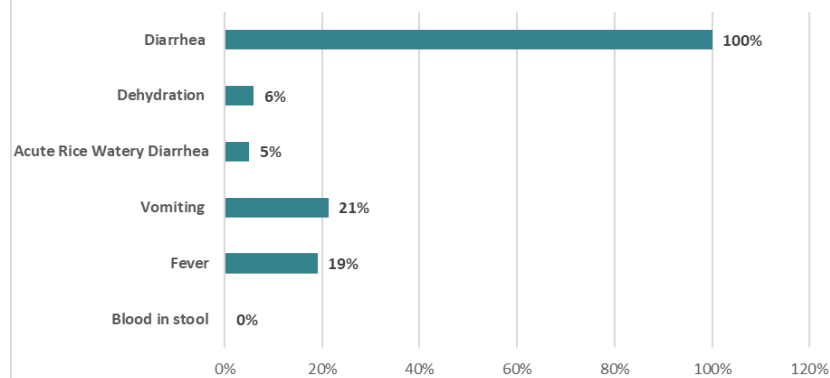
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 44.2%.



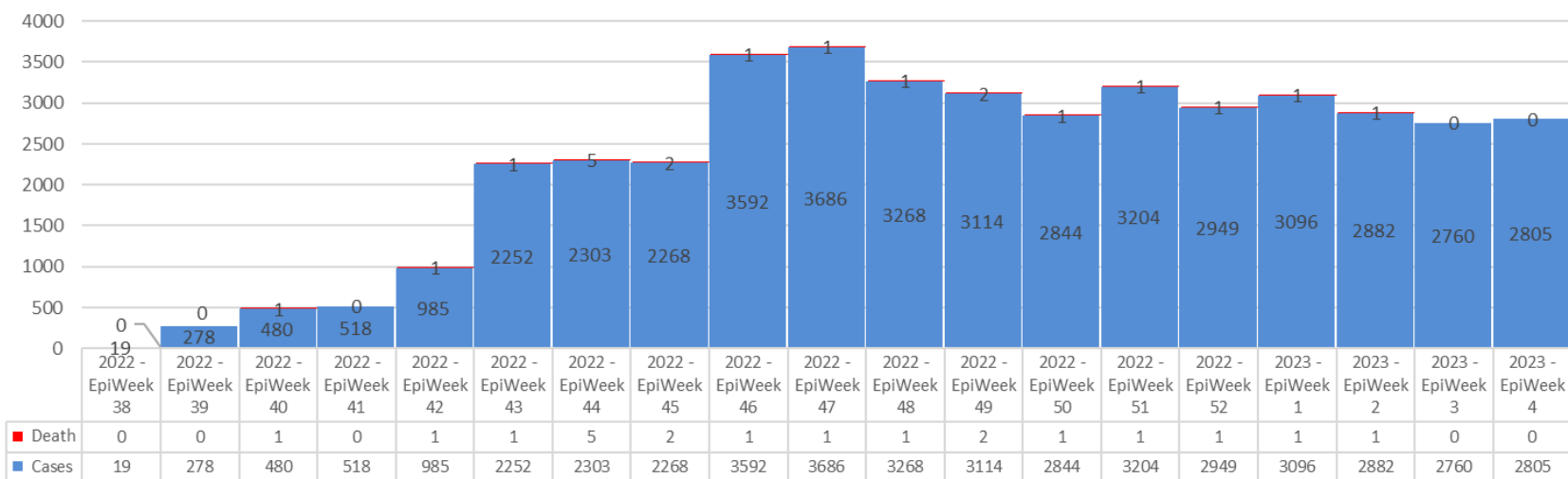
### Cholera Cases Residency Distribution



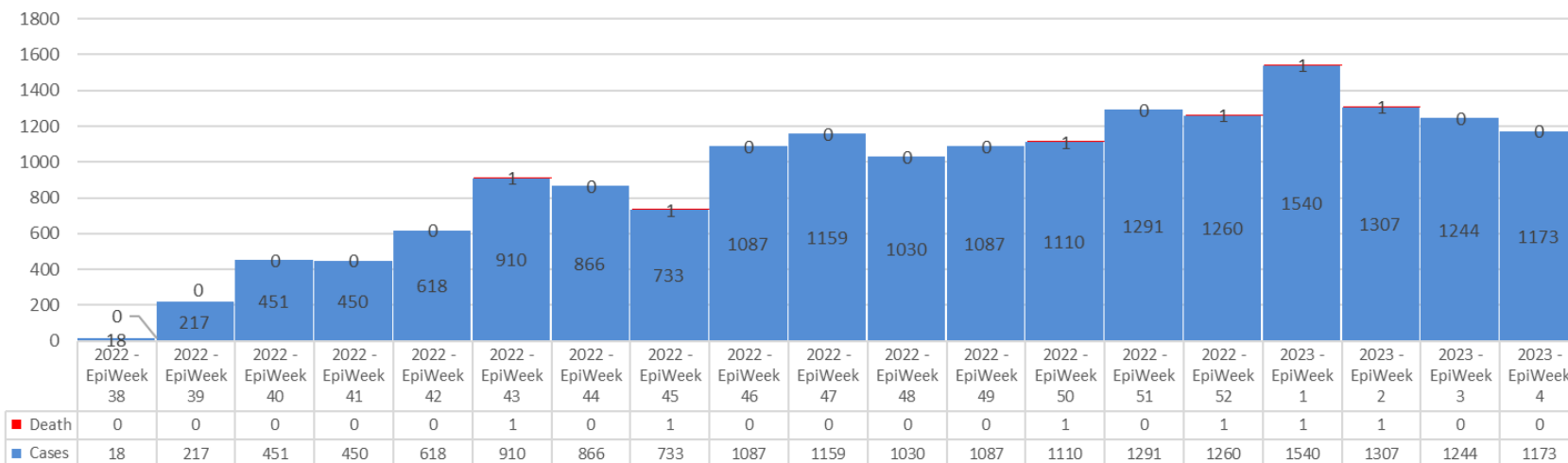
### Signs and Symptoms



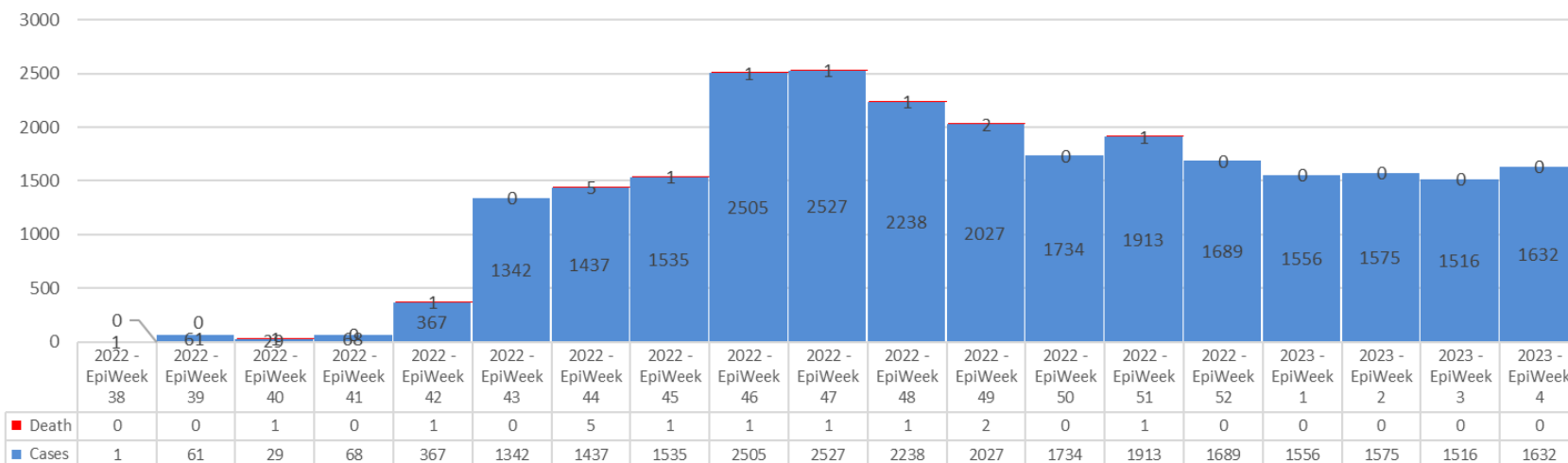
### EPI Curve - Reporting Date - NWS



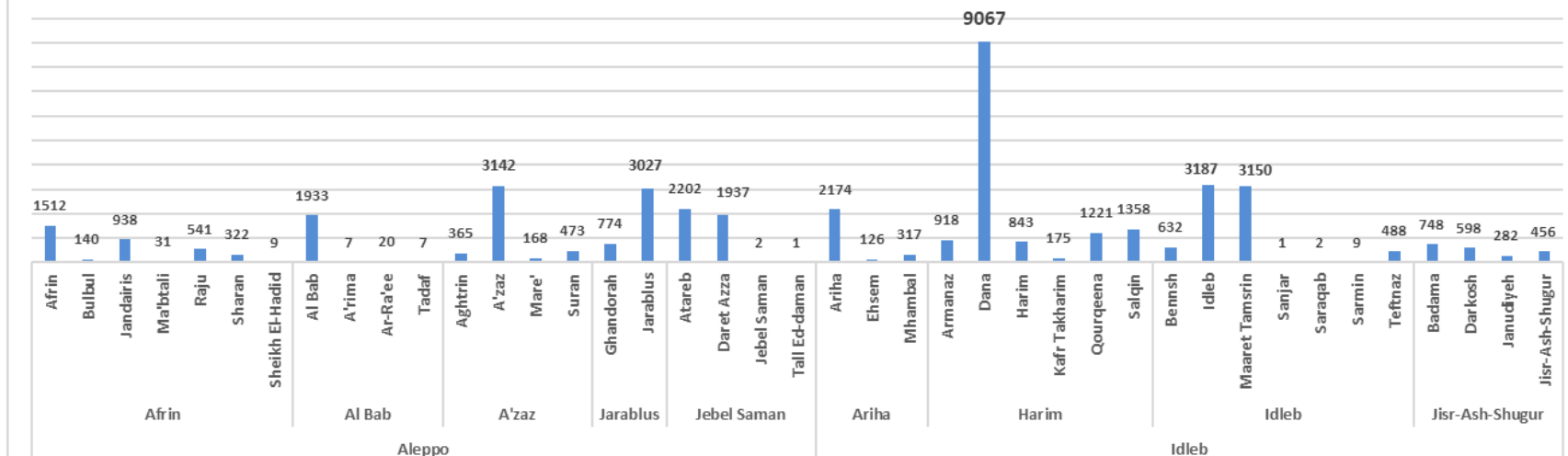
**EPI Curve - Reporting Date - Aleppo**



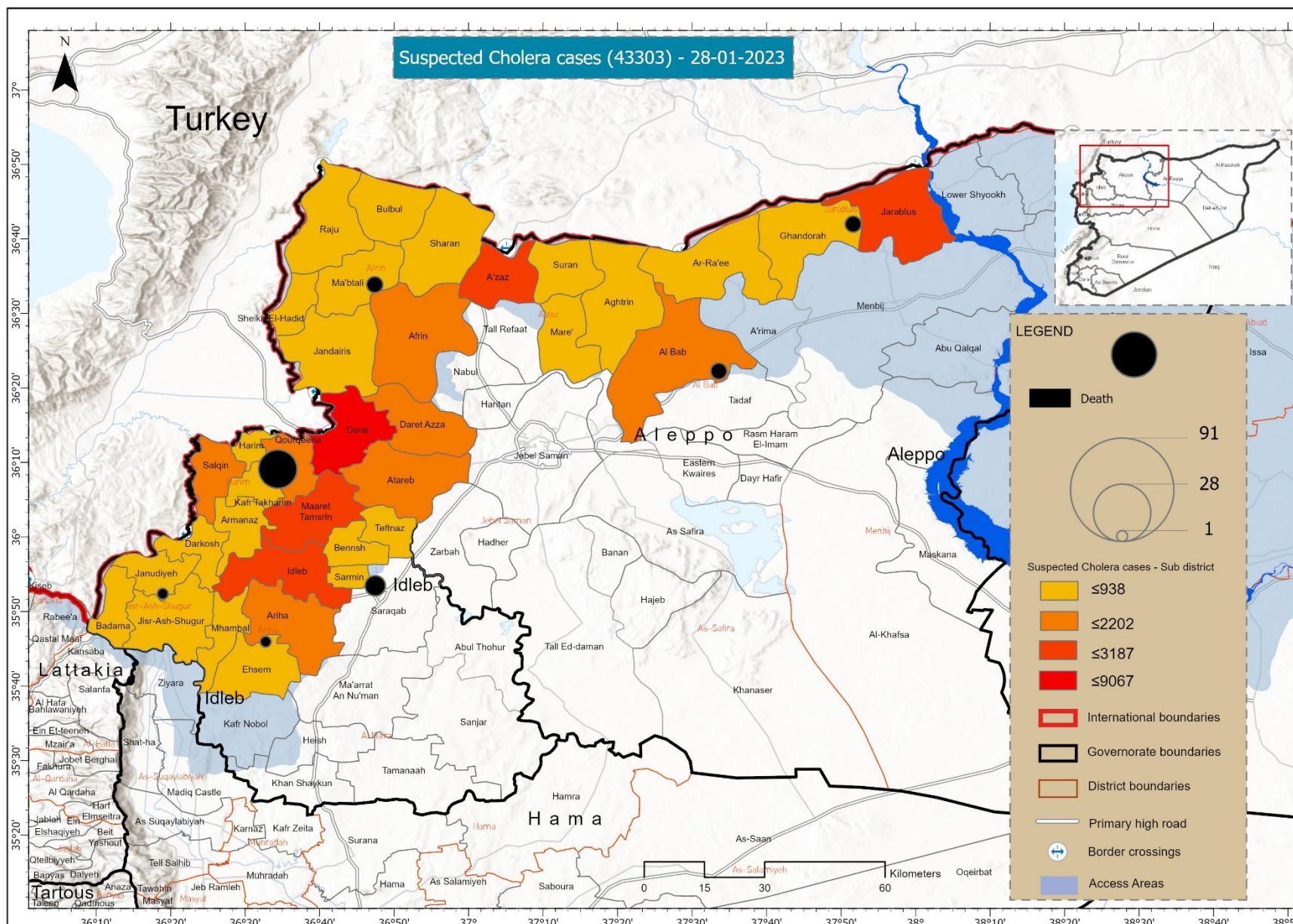
**EPI Curve - Reporting Date - Idleb**



### Cases Distribution Subdistrict Wise



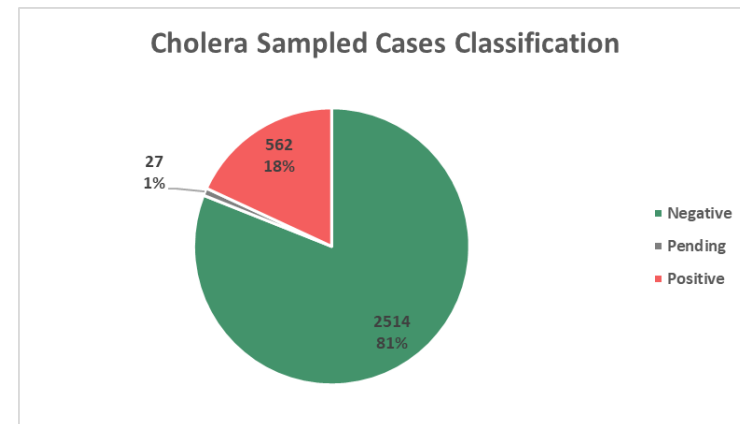
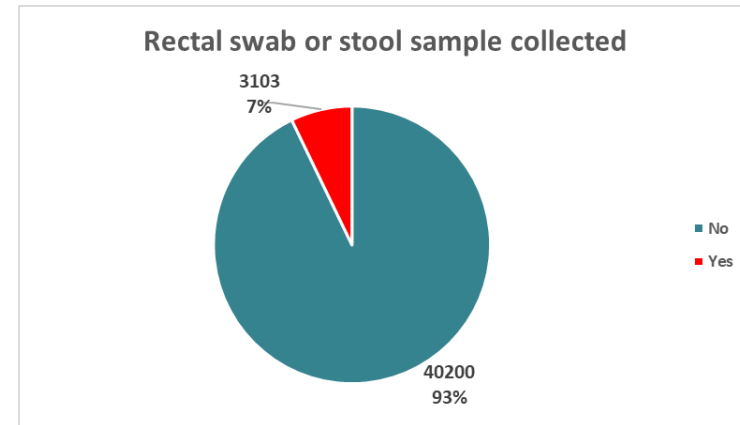
Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W04 - 2023	Idleb	Ariha	20-Sep	185,668	181	2617	0	1	0.04%	97.5	1.41%
		Harim	6-Sep	1,586,820	948	13582	0	9	0.07%	59.7	0.86%
		Idleb	14-Sep	713,933	416	7469	0	3	0.04%	58.3	1.05%
		Jisr-Ash-Shugur	25-Sep	310,973	87	2084	0	1	0.05%	28.0	0.67%
	Aleppo	A'zaz	9-Sep	648,600	294	4148	0	0	0.00%	45.3	0.64%
		Afrin	21-Sep	467,090	305	3493	0	2	0.06%	65.3	0.75%
		Al Bab	17-Sep	339,812	129	1967	0	2	0.10%	38.0	0.58%
		Jarablus	12-Sep	121,938	147	3801	0	2	0.05%	120.6	3.12%
	Jebel Saman	10-Sep	251,785	298	4142	0	0	0.00%	118.4	1.65%	
	<b>Total</b>				4,626,619	2805	43303	0	20	<b>0.05%</b>	<b>60.6</b>





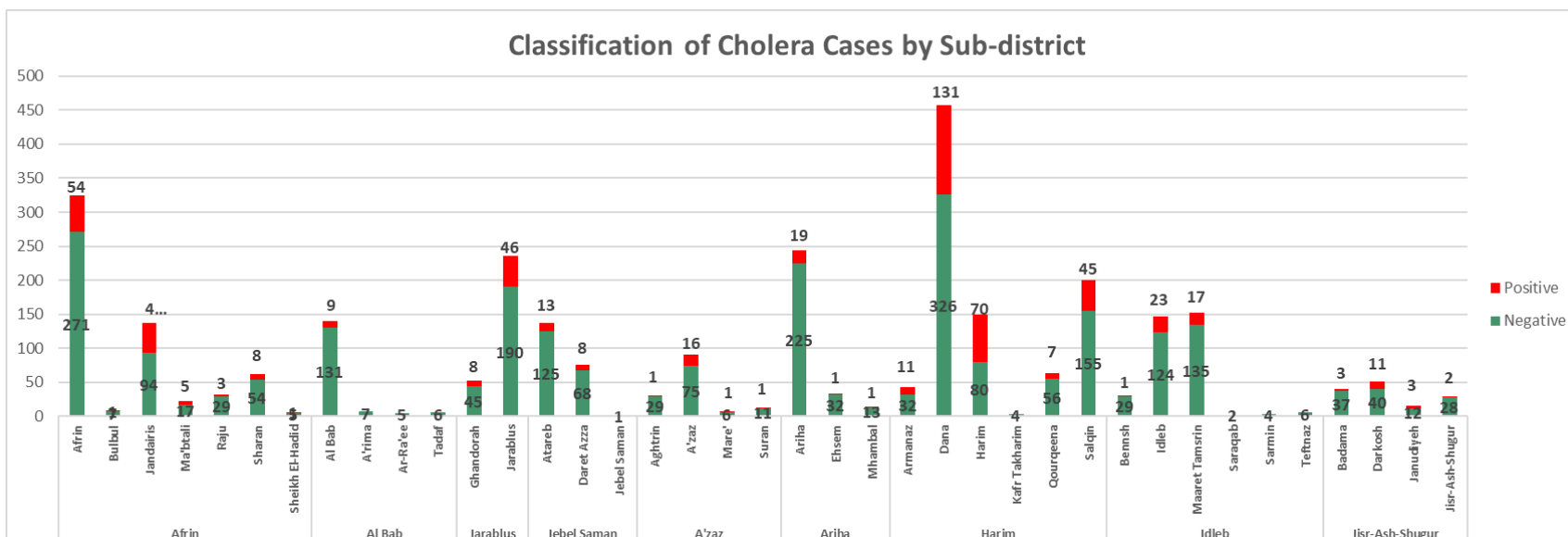
### Laboratory:

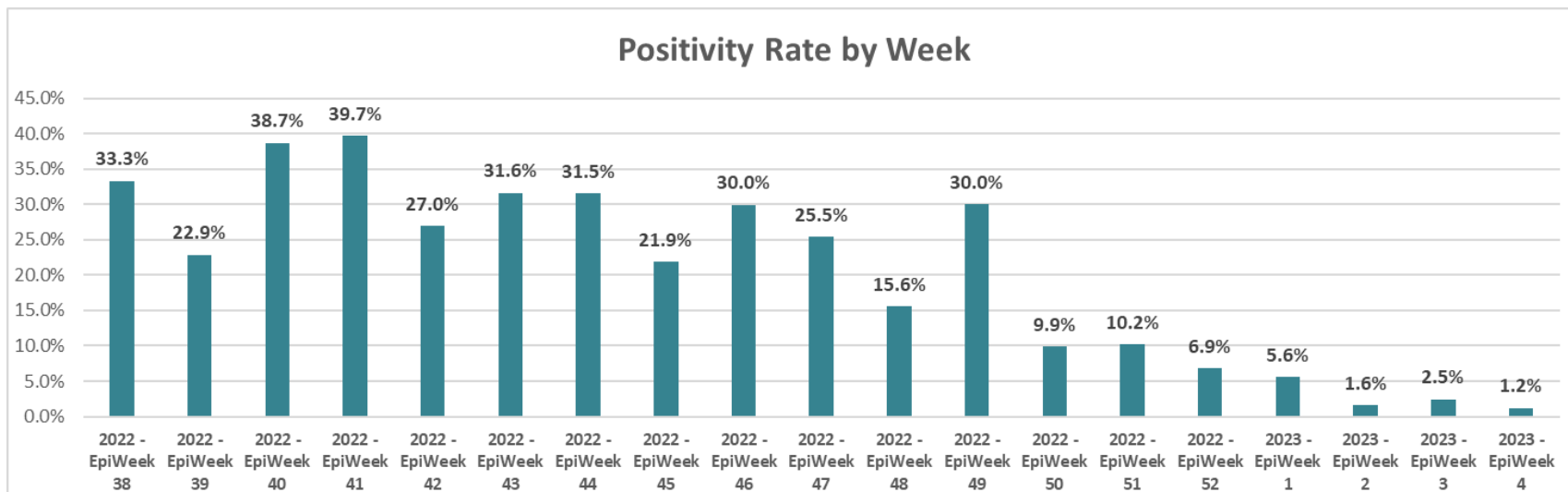
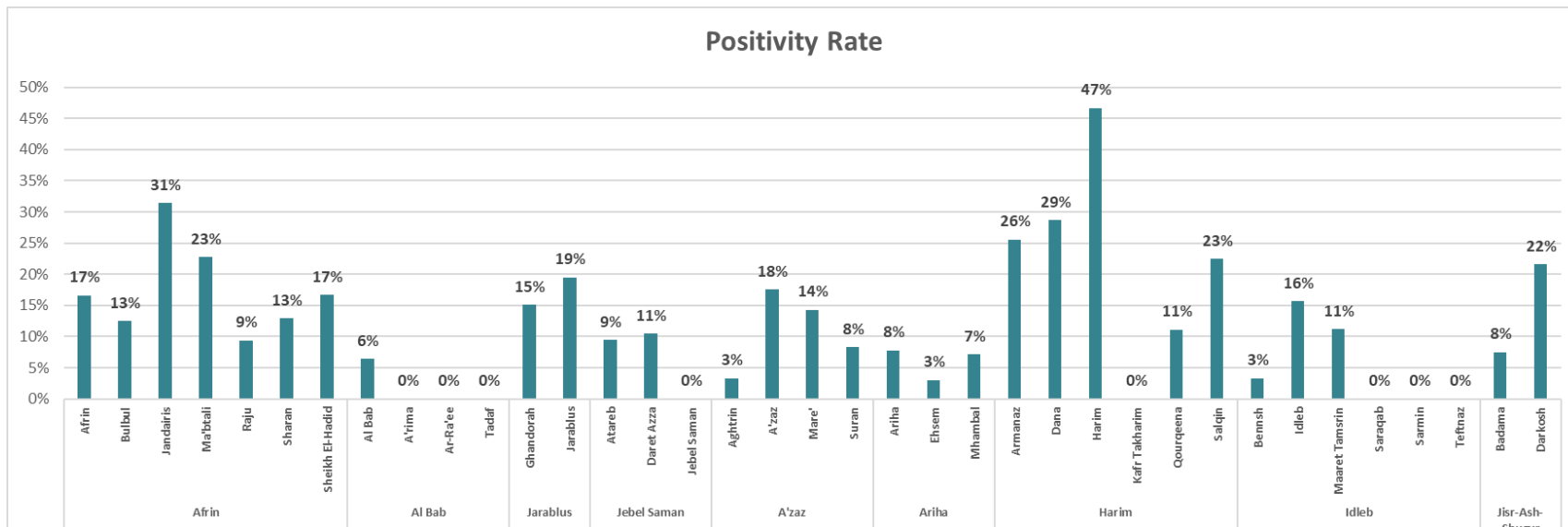
- In Epi week 04- 2023, the total number of stool specimens or rectal swabs is 227, of which 3 have tested positive for *Vibrio Cholera*.
- A cumulative of 3103 samples were collected since the start of the outbreak (7 % of overall line listed cases), of which 562 have tested positive by stool culture. The total positivity rate in NWS is 18 %. But the positivity rate in epi week 4 – 2023 was 1.2 %.
- The Total number of negative cases by stool culture is 2514, and the remaining 27 are still pending.
- Diagnostic delays may result in higher case numbers and case fatality rates, without quick and effective diagnosis and treatment, case fatality may be 50%.
- Isolation and identification of *V. cholera* serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, Raqqa, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, including Nutrient agar and TCBS agar, for detection of *V. cholera* O1.
- Suspicious, oxidase-positive isolates are serotyped in polyvalent antisera raised against the O1 Antigen.
- Antimicrobial-sensitivity testing is performed to detect resistance.
- The culture sensitivity results came sensitive for the following antibiotics: Azithromycin, Imipenem, Chloramphenicol, Ciprofloxacin, and Norfloxacin.
- The resistance is to Tetracycline, Doxycycline, and Sulfamethoxazole Trimethoprim.
- The laboratory team handles the specimens and waste management according to infection control standards.
- The sample collection protocol is to collect stool samples in 7% of the total suspected cholera cases per subdistrict and 5 samples from the admitted cholera suspected cases in the CTC /CTU per week.





Epi Week	Governorate	District	Samples Collected on current week	Stool Culture Positive	Stool Culture Negative	Positivity Rate
Up to W04 - 2023	Idleb	Ariha	22	21	268	7%
		Harim	47	264	653	29%
		Idleb	13	40	300	12%
		Jisr-Ash-Shugur	15	19	117	14%
	Aleppo	Al Bab	25	9	149	6%
		Jarablus	12	54	235	19%
		Jebel Saman	43	21	194	10%
		A'zaz	10	19	121	14%
	Afrin	62	115	477	19%	
	<b>Total</b>			249	<b>562</b>	<b>2514</b>





## 2. WASH:

The WASH team works closely and in high coordination with RRT (Rapid Response Team), formed from EWARN staff.

The team, after receiving any alert, focuses on the investigation of WASH services in the hotspot areas.

The investigation includes:

1. Taking samples from drinking water resources (main stations, wells, water trucks, water taps.... etc.).
2. Investigate sewage networks and septic tanks' locations and other sanitation services.
3. Identify Hygienic practices.... etc.
4. Assessing agriculture markets (Identify irrigation water and resource of agricultural products if applicable).

**Total number of investigations: 6**, distributed as follows:

1. **Harim district / Dana subdistrict / Atma community:** All water samples, taken from water resources, were safe to drink.
2. **Harim district / Dana subdistrict / Aqrabat community (Ahl Al'athar, Al Sabah, Sanabel Al-ghadfa camps):** All water samples, taken from water resources, were safe to drink.
3. **Harim district / Salqin subdistrict / Salqin community:** All water samples, taken from water resources, were safe to drink; however, the water of the tank located in one of the houses was contaminated and not safe to drink.
4. **A'zaz district / A'zaz subdistrict / Azaz community:** All water samples, taken from water resources, were safe to drink; however, the water supplied to Al Amal hospital requires disinfection as the water is contaminated (the water is utilized for cleaning purposes).
5. **A'zaz district / A'zaz subdistrict / Bab Al-Salameh community:** All water samples, taken from water resources, were safe to drink. However, one of the private wells located in Yazibag camp is not safe to drink.
6. **Jarablus district / Jarablus subdistrict / Zoghrah community:** All water samples, taken from water resources, were safe to drink.

[Full Investigation Reports](#)

## Actions taken

- The Assistance Coordination Unit successfully completed the health awareness sessions (40 sessions) about cholera, methods of infection, and its prevention. The sessions were via the Zoom application (online). The number of beneficiaries reached 473 in 16 communities. [For more details click here](#)
- The EWARN team is currently conducting active surveillance in the most important health facilities in northwest Syria (25 HFs). In Epi week 4- 2023, 21 field visits were completed. During the visit, the team reviews with the health facility staff the records to ensure the reported cases, also discusses the challenges, and recommendations, and collaborates to treat the problems.
- The EWARN team received 200 cholera RDT kits in the Idleb lab provided by WHO and prepare to receive 800 kits in the next period for distribution them in the field in collaboration with SAMS.
- To determine the causes of acute watery diarrhea in children under 5 years (the children have a negative cholera result), the EWARN lab is planning to provide rotavirus and adenovirus rapid diagnostic tests (RDTs).
- The response teams conducted an expanded investigation of the deaths that occurred since the beginning of the outbreak (20 deaths), where some possible causes were identified, and the teams made appropriate recommendations.
- Strengthening surveillance to collect cases from all HFs.
- ACU teams conduct regular awareness sessions about Cholera, prevention, and control measures for local authorities and affected people during the investigation. Besides, the result of investigations is shared with the WASH cluster and acting organization in the area to take immediate action.

## Challenges

- Continuing movements of population.
- Difficulty of samples collection.
- The number of WASH officers is low and needs to be increased, particularly in Harim district, where the number of cases surges, and the number of camps and population is higher than in other locations.

## Recommendations

- enhance reporting from functioning treatment centers (CTCs, CTUs, and ORPs).
- Support the laboratory with more consumables and supplies, especially for O139 and O1 Antisera.
- Enhancement coordination mechanisms with WHO and Taskforce members.
- Strengthening the community's role in reporting cases
- Enhancing the potential sources of Cholera death reporting.
- Increase efforts to educate the population about cholera and encourage them to go to medical centers to receive medical services.
- Emphasis on health centers to immediately notify any suspected case of cholera.
- Training CTC and CTU personnel to prepare the different types of chlorine solutions and where to use them properly. Moreover, providing them with a pool tester to measure the FRC of the water supplied to these centers.
- Provide the cholera treatment center with free resident chlorine (FRC) testers.
- Periodic testing of drinking water in schools, with the implementation of general hygiene campaigns