

Northwest of Syria Cholera Outbreak

Situation Report No.23

Epidemiological Week - 09 (26 Feb – 4 Mar 2023)

Suspected Cases: 52689

Confirmed Cases: 574

Cholera Deaths : 23

Case Fatality Rate: 0.04%

NWS Attack Rate: 1.14%

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 **52689 suspected** cases (**21536** in Aleppo governorate, **31153** in Idleb governorate) including **574 confirmed** have been reported by EWARN team since 16 September, including **23 deaths** case.

- The highest number of cases were reported in Harim district (16262) and Idleb district (8960) in Idleb governorate, then Azaz district (5168), Jebel Saman district (5167), and Jarablus district (4483) in Aleppo governorate.
- 9136 total suspected cases (including 354 new cases in Epi week 9 - 2023) were reported from camps.
- 44.58 % 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

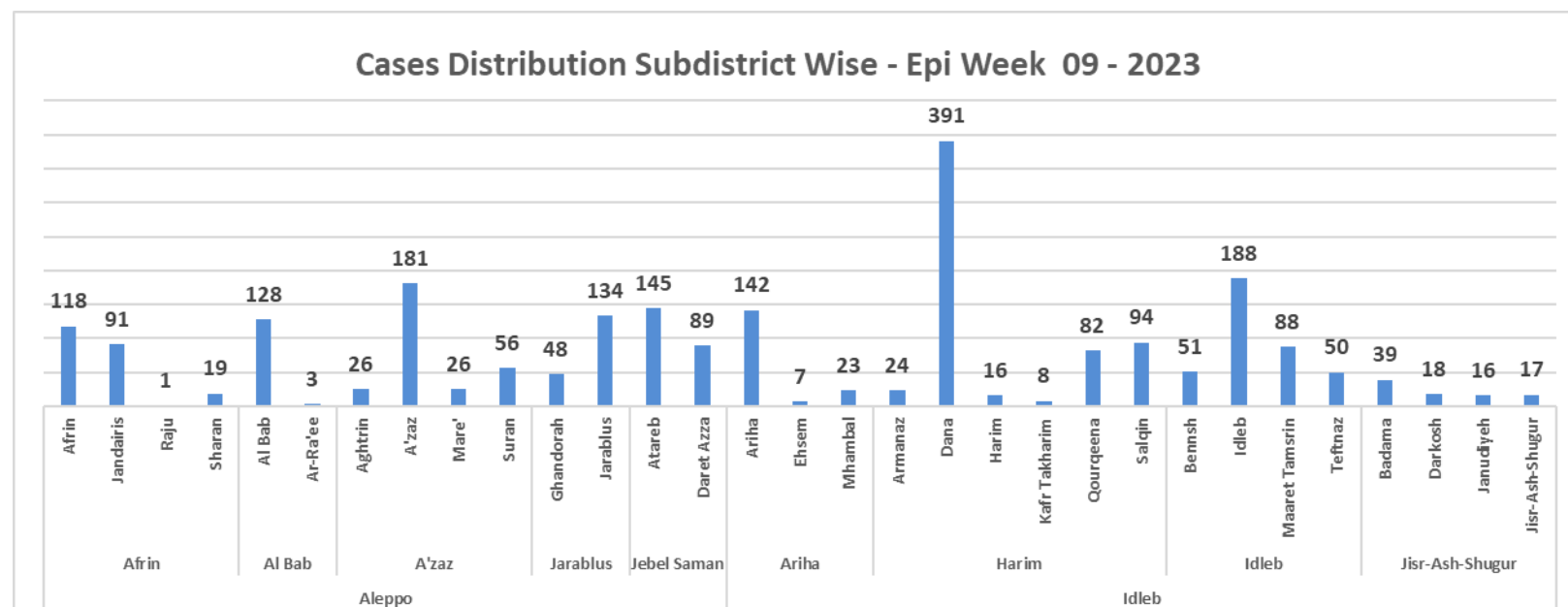
1. Epidemiology

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

In Epi week 09 - 2023, **2319 suspected cases of cholera were reported**. The affected governorates are Aleppo (1065 suspected cases, 4 confirmed), and Idlib (1254 suspected cases, 1 confirmed).

The age group less than 5 reported 45.97 %, while the age group more than 60 reported 17.3 % of the total.

Dana subdistrict in Idlib governorate reported the highest number of cases (391), and Idlib subdistrict (188), then Azaz subdistrict in Aleppo governorate (181).



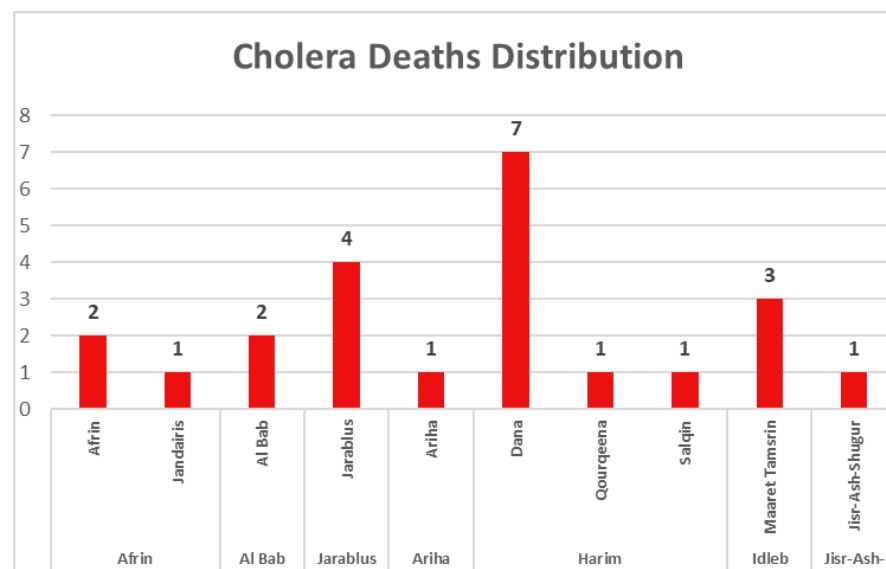
In epi week 09 - 2023, one new death was reported (a total of 23 deaths)

95-years-old man

Jarablus subdistrict, Jarablus district, Aleppo governorate.

- Date of onset: 25-Feb-2023
- Date of death: 2-Mar-2023
- A stool sample was collected on 26 Feb, the result came **negative**

[For more details click here](#)

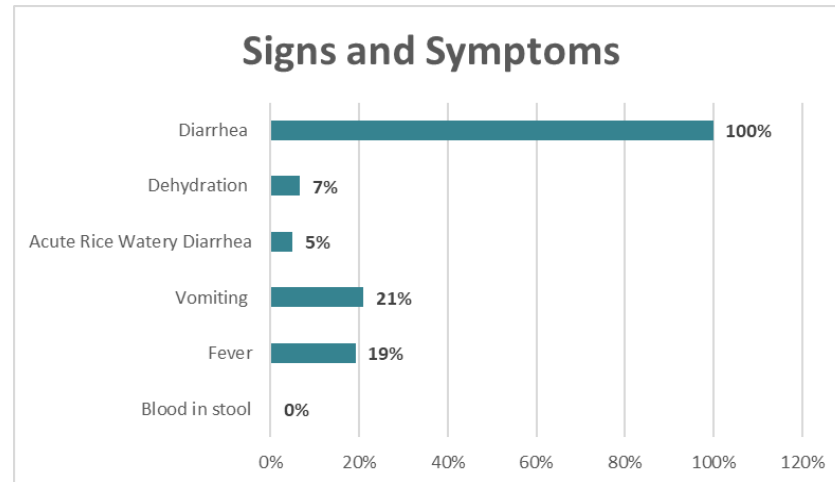
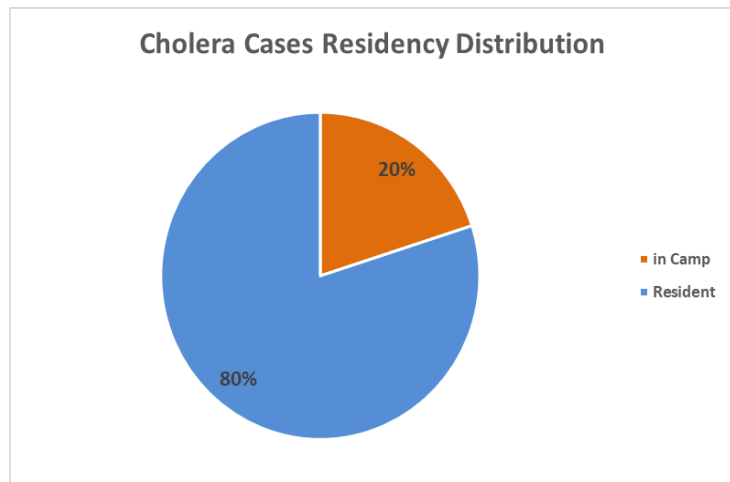
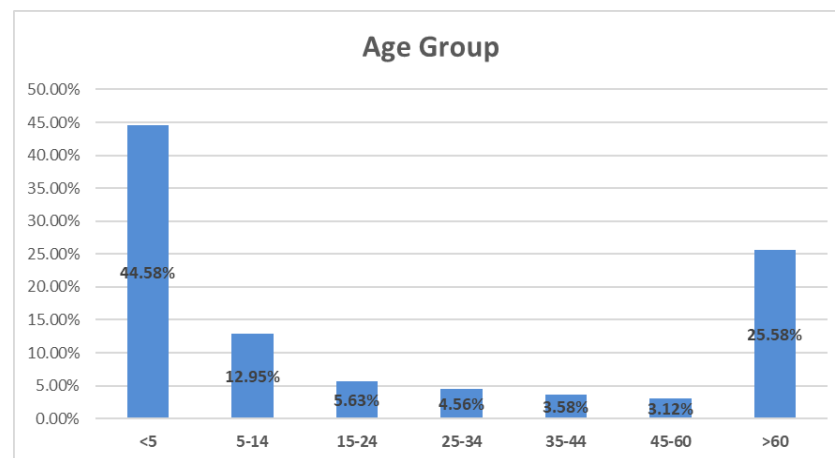
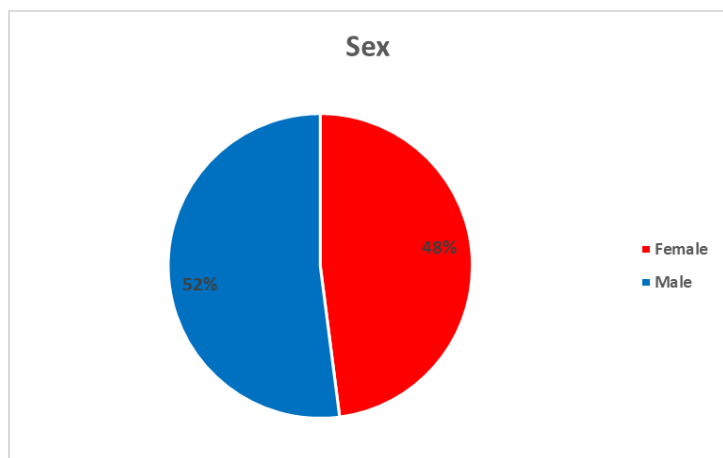


The overall sex distribution of the suspected_cases is 52% Male, and 48% Female.

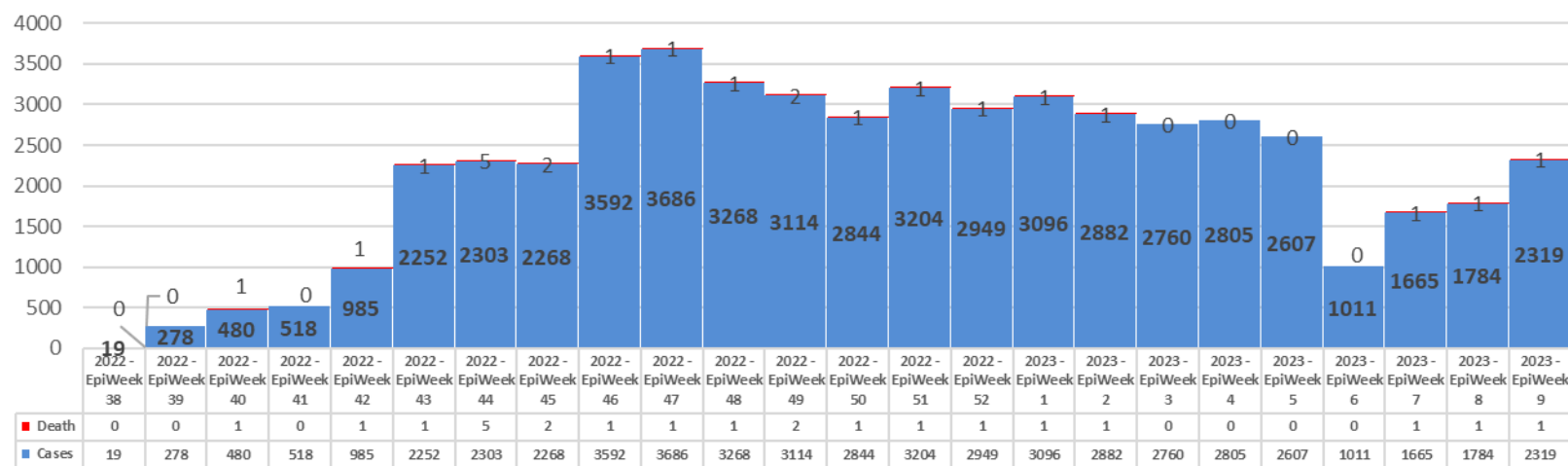
100% of the line listed cases were presented as Acute Diarrhea, 21% with vomiting, 5% as rice watery diarrhea, and 7% were dehydrated.

20% of the total cases live in camps (9136), and 80% out of camps (37139). (6325 of the total line listed cases are unknown)

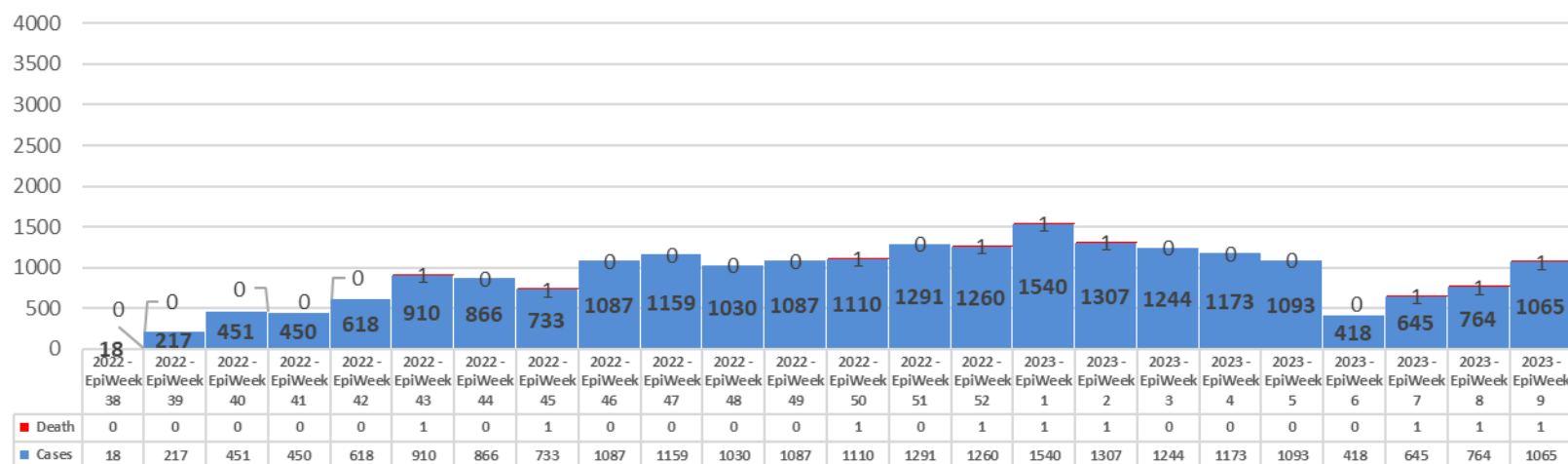
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 44.52%.



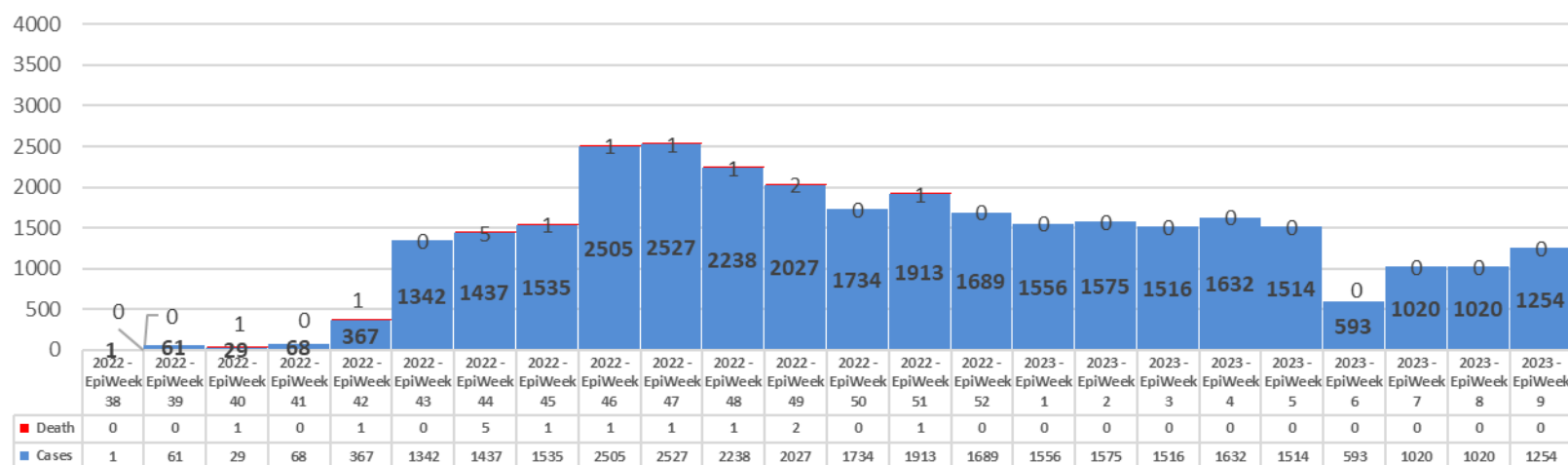
EPI Curve - Reporting Date - NWS



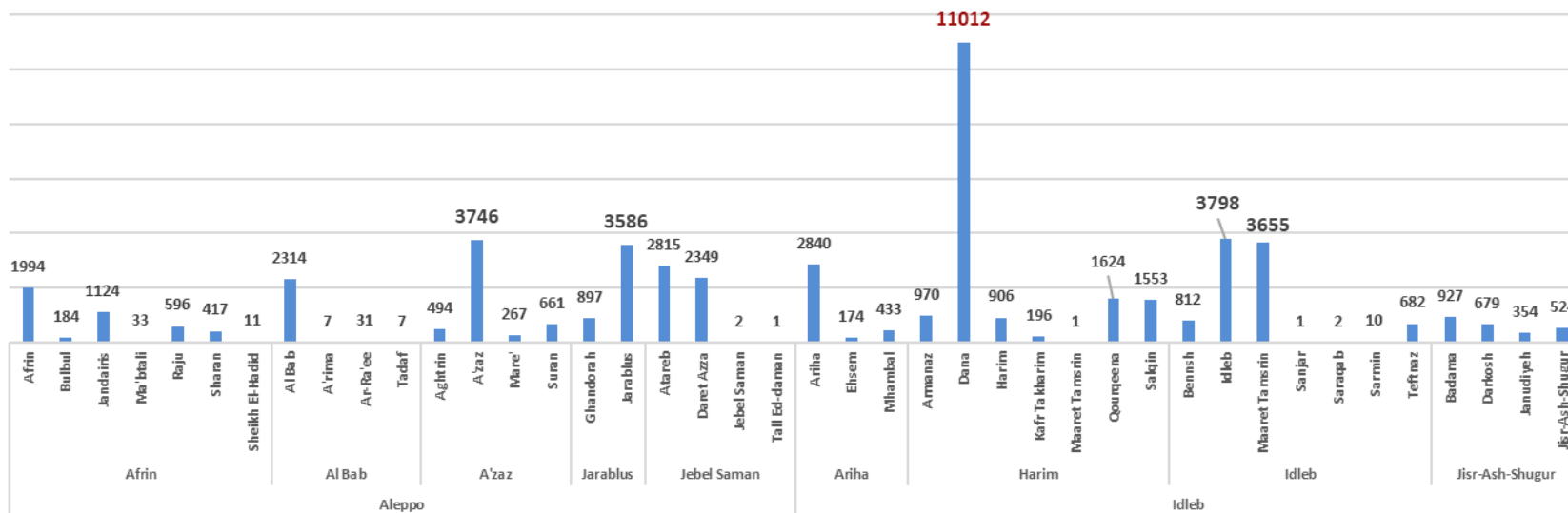
EPI Curve - Reporting Date - Aleppo Governorate



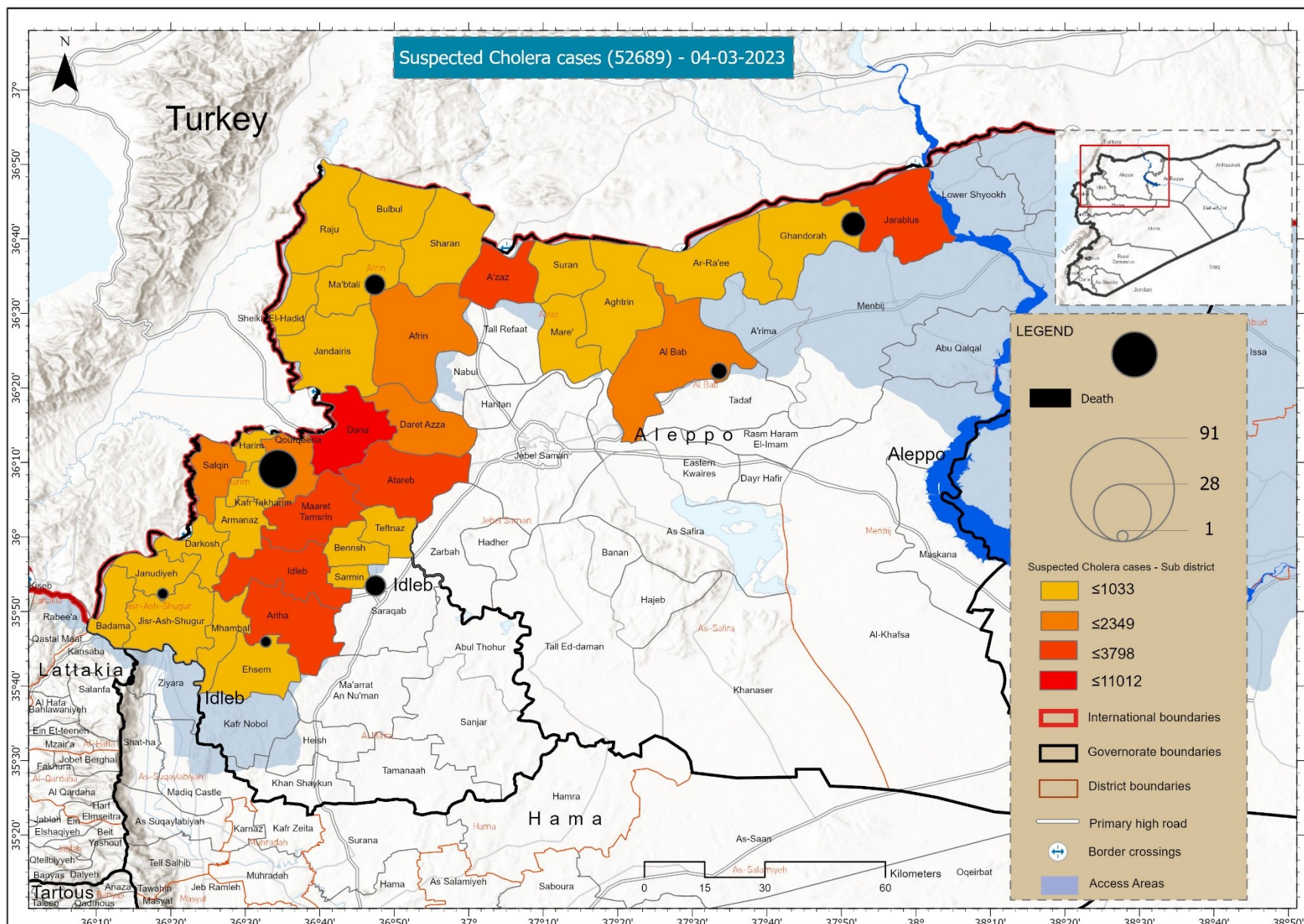
EPI Curve - Reporting Date - Idleb Governorate



Cases Distribution Subdistrict Wise



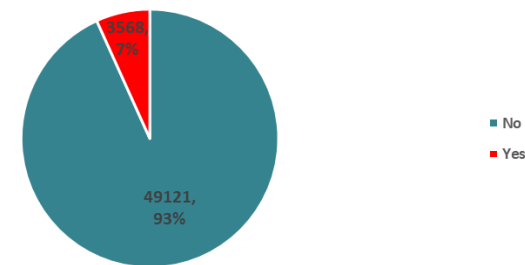
Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W09 - 2023	Idlib	Ariha	20-Sep	185,668	172	3447	0	1	0.03%	92.6	1.86%
		Harim	6-Sep	1,586,820	615	16262	0	9	0.06%	38.8	1.02%
		Idlib	14-Sep	713,933	377	8960	0	3	0.03%	52.8	1.26%
		Jisr-Ash-Shugur	25-Sep	310,973	90	2484	0	1	0.04%	28.9	0.80%
	Aleppo	A'zaz	9-Sep	648,600	289	5168	0	0	0.00%	44.6	0.80%
		Afrin	21-Sep	467,090	229	4359	0	3	0.07%	49.0	0.93%
		Al Bab	17-Sep	339,812	131	2359	0	2	0.08%	38.6	0.69%
		Jarablus	12-Sep	121,938	182	4483	1	4	0.09%	149.3	3.68%
		Jebel Saman	10-Sep	251,785	234	5167	0	0	0.00%	92.9	2.05%
	Total			4,626,619	2319	52689	1	23	0.04%	50.1	1.14%



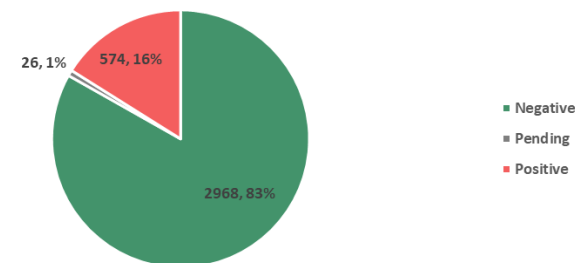
Laboratory:

- In Epi week 09- 2023, the total number of stool specimens or rectal swabs is **116** (66 in Aleppo – 50 in Idleb), **5 of them were positive for Vibrio Cholera by stool culture (4 in Aleppo – 1 in Idleb).**
- A **cumulative of 3568 samples were collected** since the start of the outbreak (7 % of overall line listed cases), **of which 574 have tested positive by stool culture. The total positivity rate in NWS is 16 %.**
- The Total number of negative cases by stool culture is 2875, and the remaining 26 are still pending.
- 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.

Rectal swab or stool sample collected



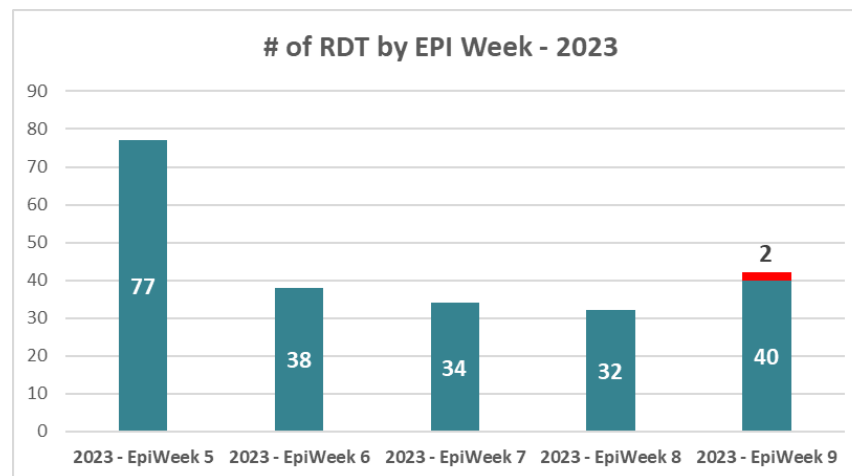
Cholera Sampled Cases Classification



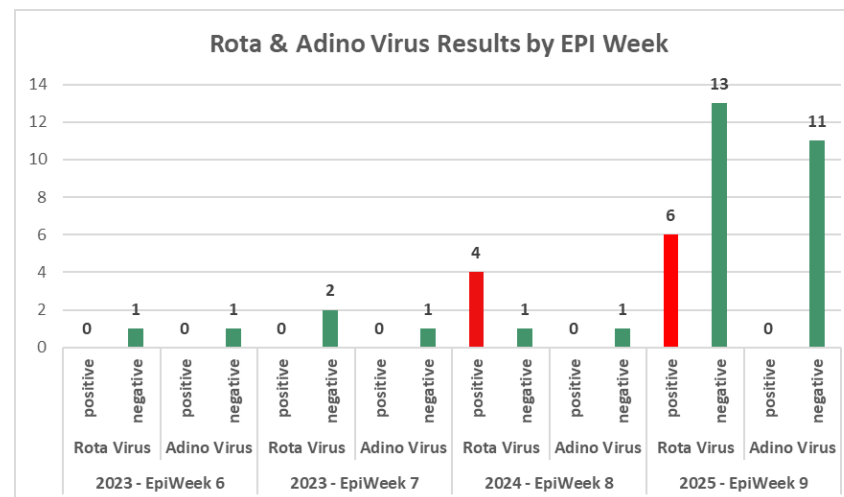
During epi week 9, EWARN received 42 RDT results from the EWARN lab and the CTC/CTUs, 2 of them were positive for Cholera O139.

The two positive RDT cases were negative for Vibrio Cholera by stool culture.

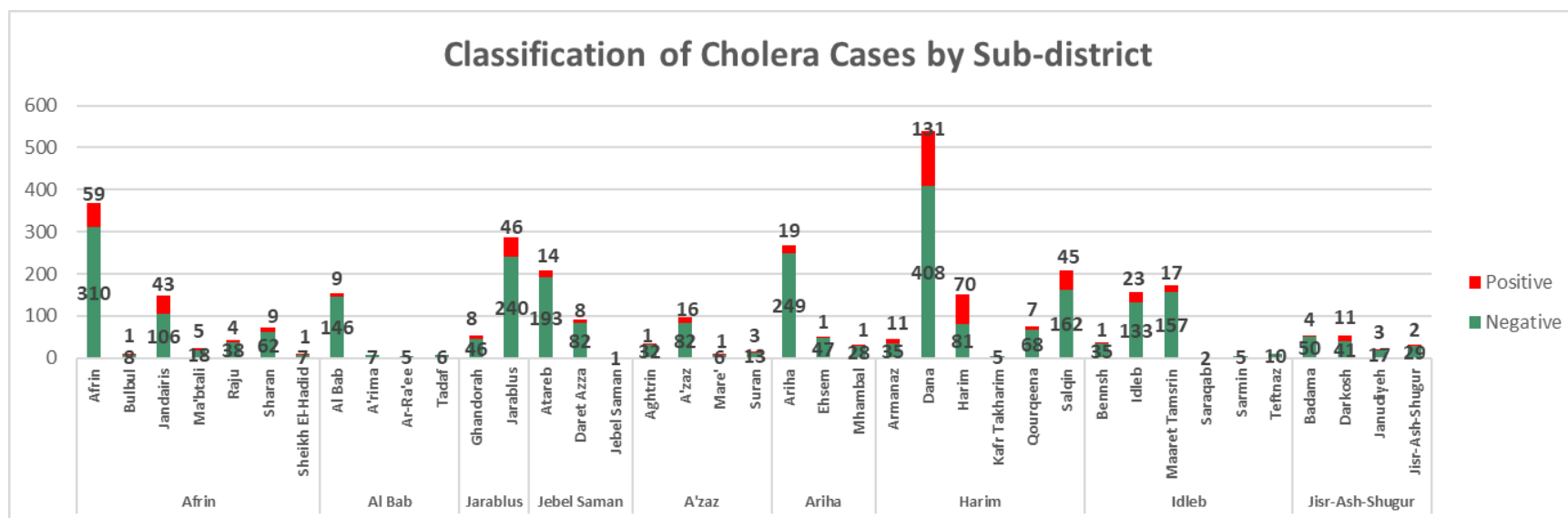
The total of RDT tests starting from epi week 5 reached 223, and the total positive is 2.



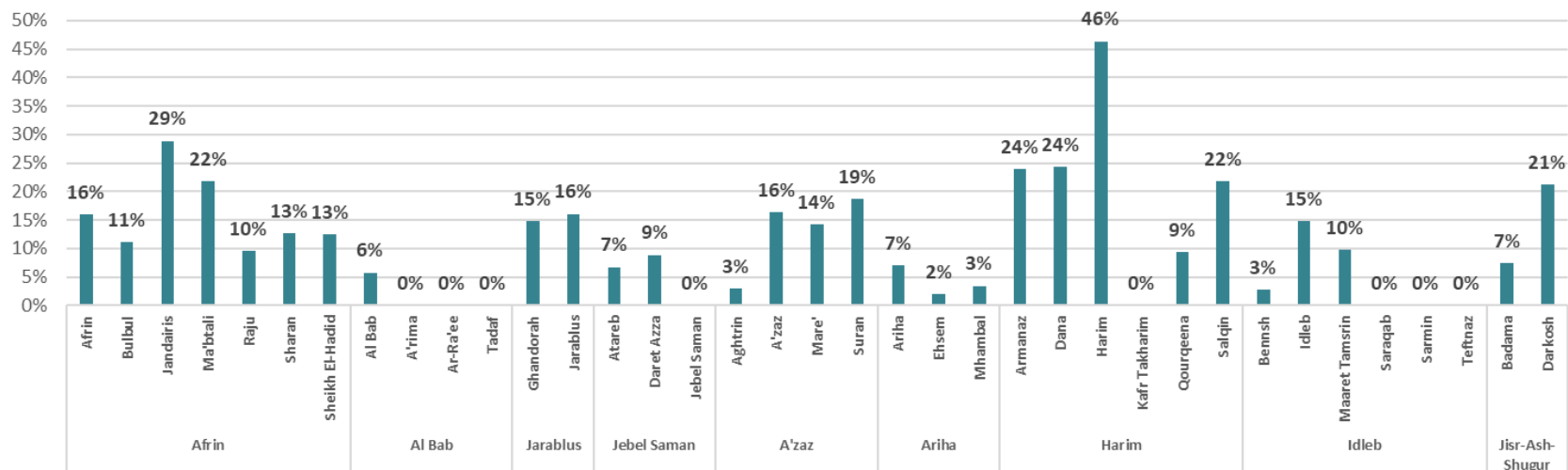
- For children under 5 years of age with a stool culture negative for cholera, 19 tests were carried out to detect Rotavirus and 11 tests to detect Adenovirus in epi week 9 (6 of them were positive for Rotavirus).
- The total number of collected samples for Rotavirus reached 27, 10 of them were positive, while all of the collected samples for Adenovirus (14) were negative



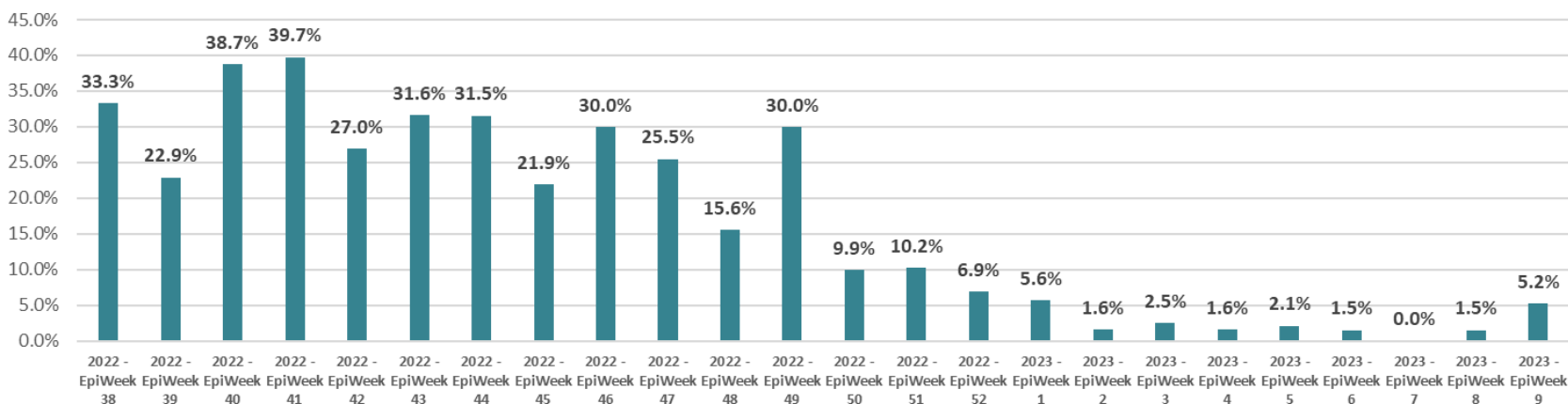
Epi Week	Governorate	District	RDT Positive	RDT Negative	Positivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Positivity Rate for Culture
Up to W09 - 2023	Idlib	Ariha	0	63	0%	21	322	6%
		Harim	9	176	5%	264	759	26%
		Idlib	0	50	0%	41	342	11%
		Jisr-Ash-Shugur	0	28	0%	20	137	13%
	Aleppo	Al Bab	0	6	0%	9	164	5%
		Jarablus	2	41	5%	54	286	16%
		Jebel Saman	3	69	4%	22	276	7%
		A'zaz	0	15	0%	21	133	14%
		Afrin	24	60	29%	122	549	18%
	Total		38	508	7%	574	2968	16%



Positivity Rate (Culture) by subdistrict



Positivity Rate (Culture) by Week



2. WASH:

The WASH team works closely and in high coordination with RRT (Rapid Response Team), formed from staff working in EWARN (DLOs, FLOs...). The team, after receiving any alert, focuses on the investigation of WASH services in the hotspot areas.

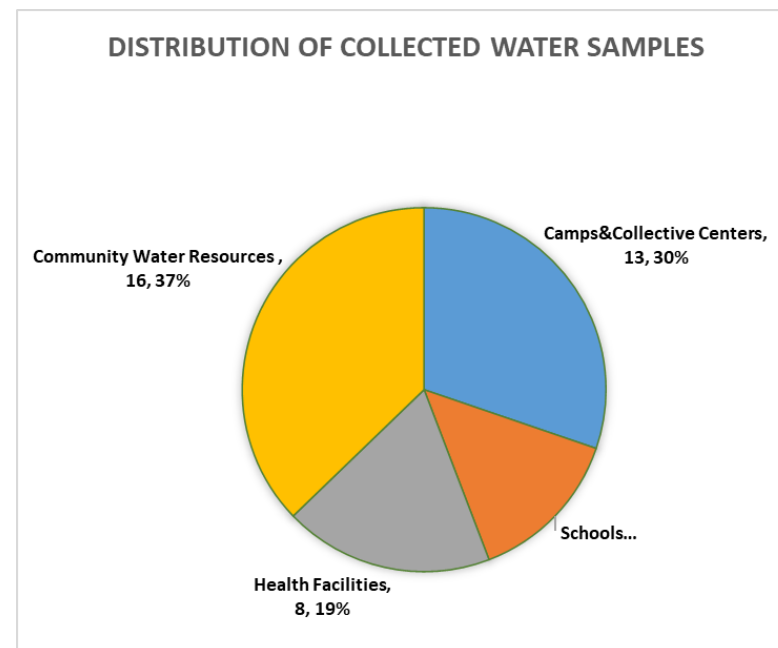
The investigation includes:

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).

ACU team conducted 4 investigations included taking 43 samples from different points:

- Ariha community /Ariha subdistrict /Ariha district / Idleb governorate:
8 samples were taken; all samples were safe to drink.
- Jandairis community / Jandairis subdistrict / Afrin district / Aleppo:
13 samples were taken; all samples were safe to drink.
- Afrin community / Afrin subdistrict / Afrin district / Aleppo governorate:
11 samples were taken; all samples were safe to drink.
- A'zaz community / A'zaz subdistrict / Azaz district / Aleppo governorate:
11 samples were taken; all samples were safe to drink.

[Full Investigation Reports](#)



Actions taken

- The EWARN team is currently conducting active surveillance in the most important health facilities in northwest Syria (25 HFs). In Epi week 9- 2023, **17** 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 is currently training the CTC/CTUs staff in RDTs and sharing data in the line list.
- To determine the causes of acute watery diarrhea in children under 5 years (the children have a negative cholera result), the EWARN lab started conducting 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 (23 deaths), where some possible causes were identified, and the teams made appropriate recommendations.
- 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

- Due to the devastating earthquake in northern Syria, there was a significant decrease in the number of reported cholera cases and collected samples, because a large number of health centers went out of service and others were responding to earthquake victims.
- Continuing movements of population.