

Northwest of Syria Cholera Outbreak

Situation Report No.26

Epidemiological Week - 12 (19 March – 25 March 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 60279

Confirmed Cases: 583

Cholera Deaths : 23

Case Fatality Rate: 0.04%

NWS Attack Rate: 1.3%

Key Highlights

Cumulatively, a total of **60279 suspected** cases (**24991** in Aleppo governorate, **35288** in Idleb governorate) including **583 confirmed** have been reported by EWARN team since 16 September, including **23 deaths** case.

- The highest number of cases were reported in Harim district (18399) and Idleb district (10192) in Idleb governorate, then Azaz district (5967), Jebel Saman district (5920), and Afrin district (5250) in Aleppo governorate.
- 10271 total suspected cases (including 295 new cases in Epi week 12 - 2023) were reported from camps.
- 44.64 % 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

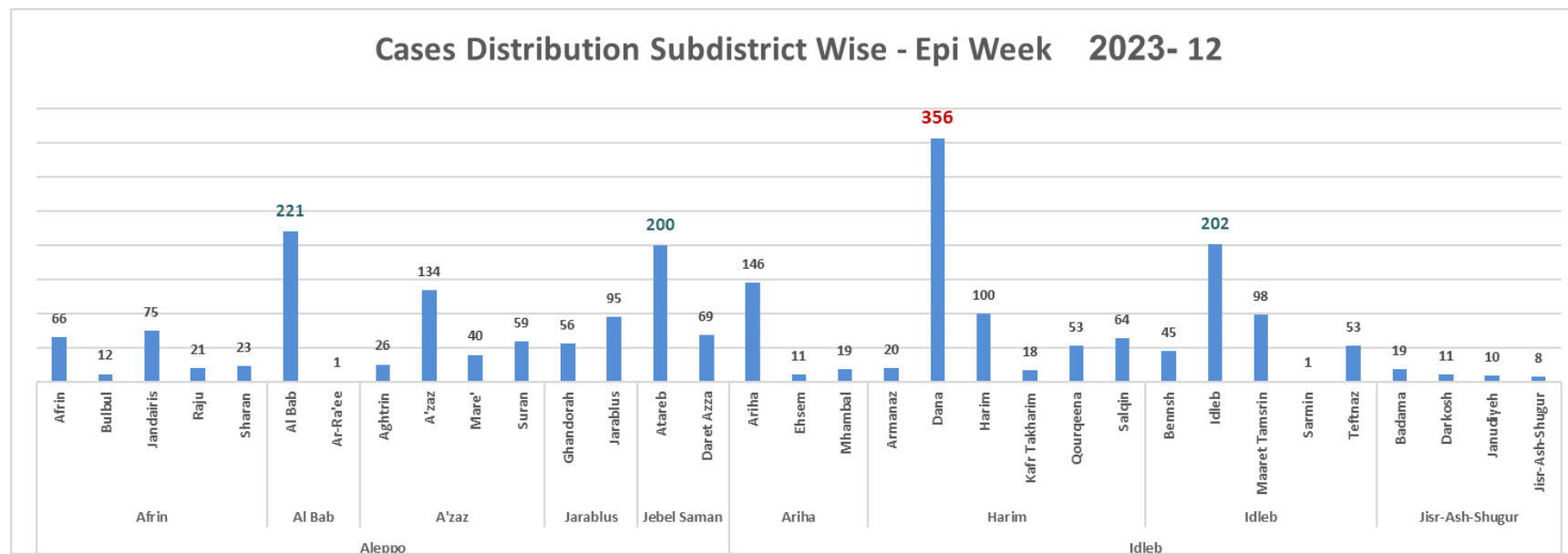
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 12 - 2023, **2332 suspected cases of cholera were reported**. The affected governorates are Aleppo (1098 suspected cases, 3 confirmed), and Idlib (1234 suspected cases, 2 confirmed).

The age group less than 5 reported 43.7 %, while the age group more than 60 reported 23.4 % of the total.

There were no death cases in the epi week 12

Dana subdistrict in Idlib governorate reported the highest number of cases (356), Idlib subdistrict (202), whilst Al-Bab subdistrict reported the highest number in Aleppo governorate (221), then Atareb (200).

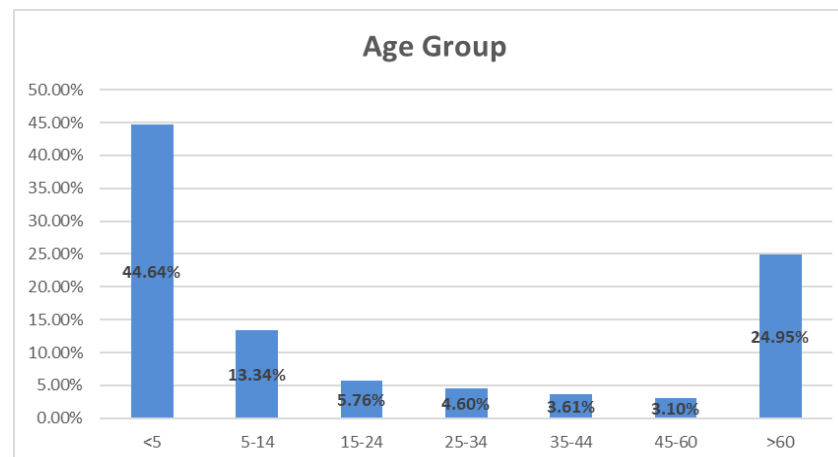
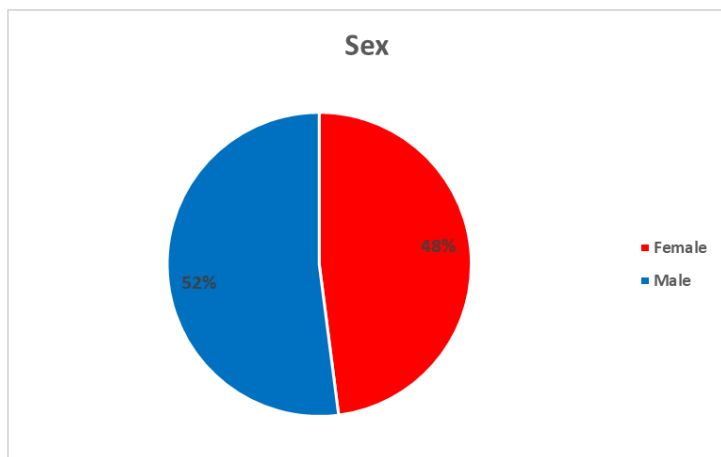


The overall sex distribution of the suspected_cases is 52% Male, and 48% Female.

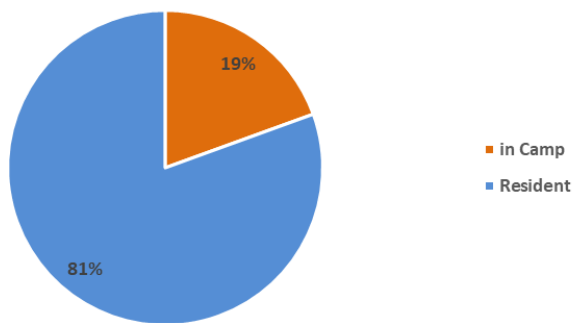
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 5% as rice watery diarrhea, and 7% were dehydrated.

19 % of the total cases live in camps (10271), and 81% out of camps (43180). (6823 of the total line listed cases are unknown)

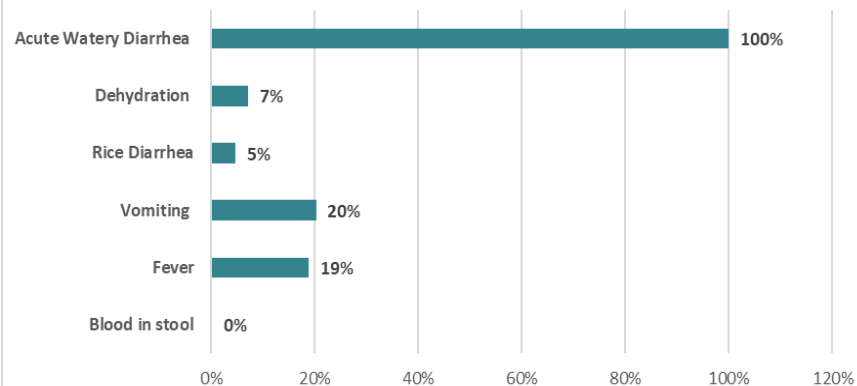
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 44.64%.



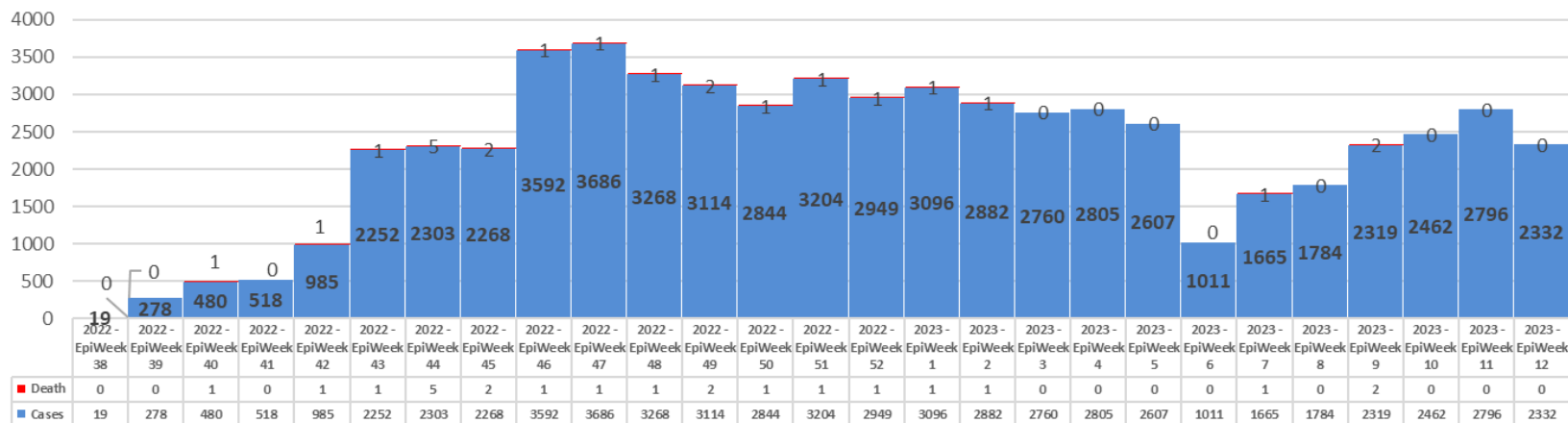
Cholera Cases Residency Distribution



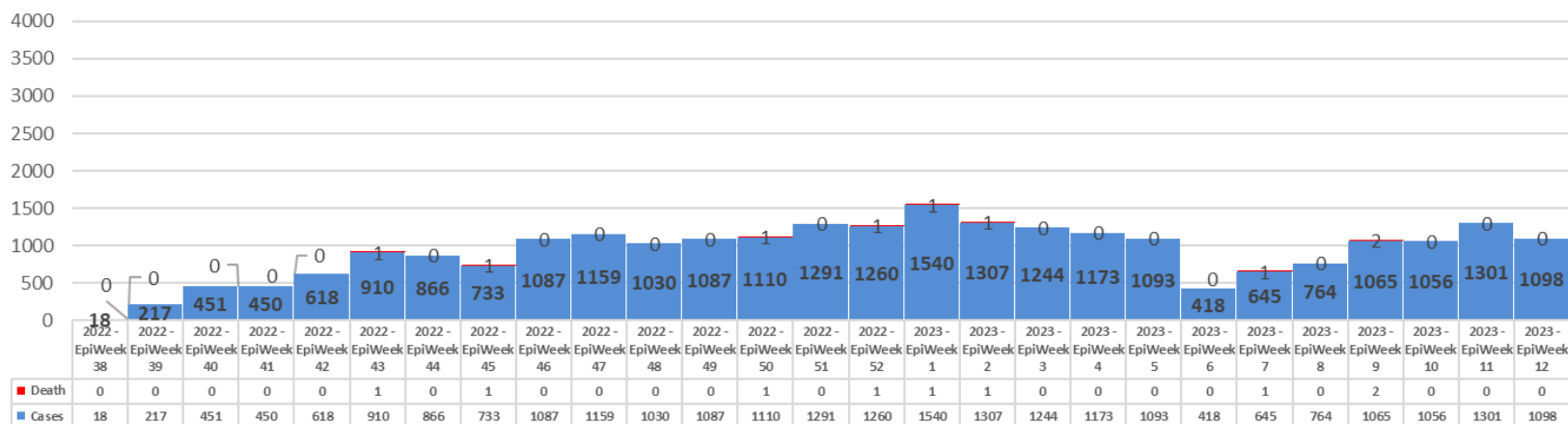
Signs and Symptoms



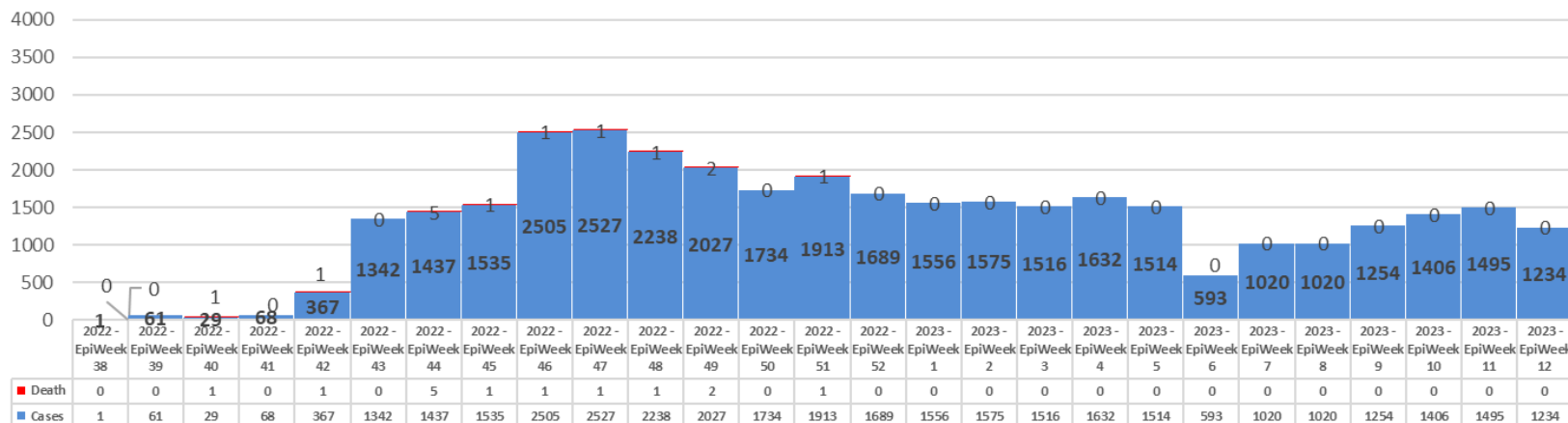
EPI Curve - Reporting Date - NWS



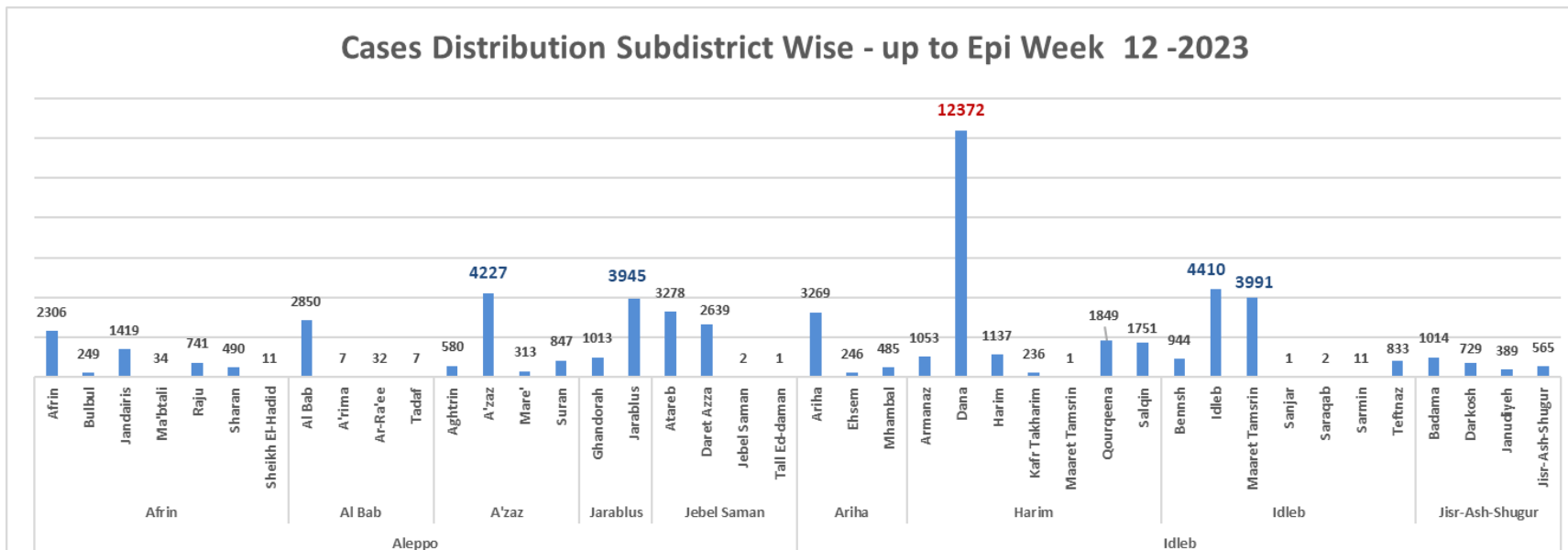
EPI Curve - Reporting Date - Aleppo Governorate



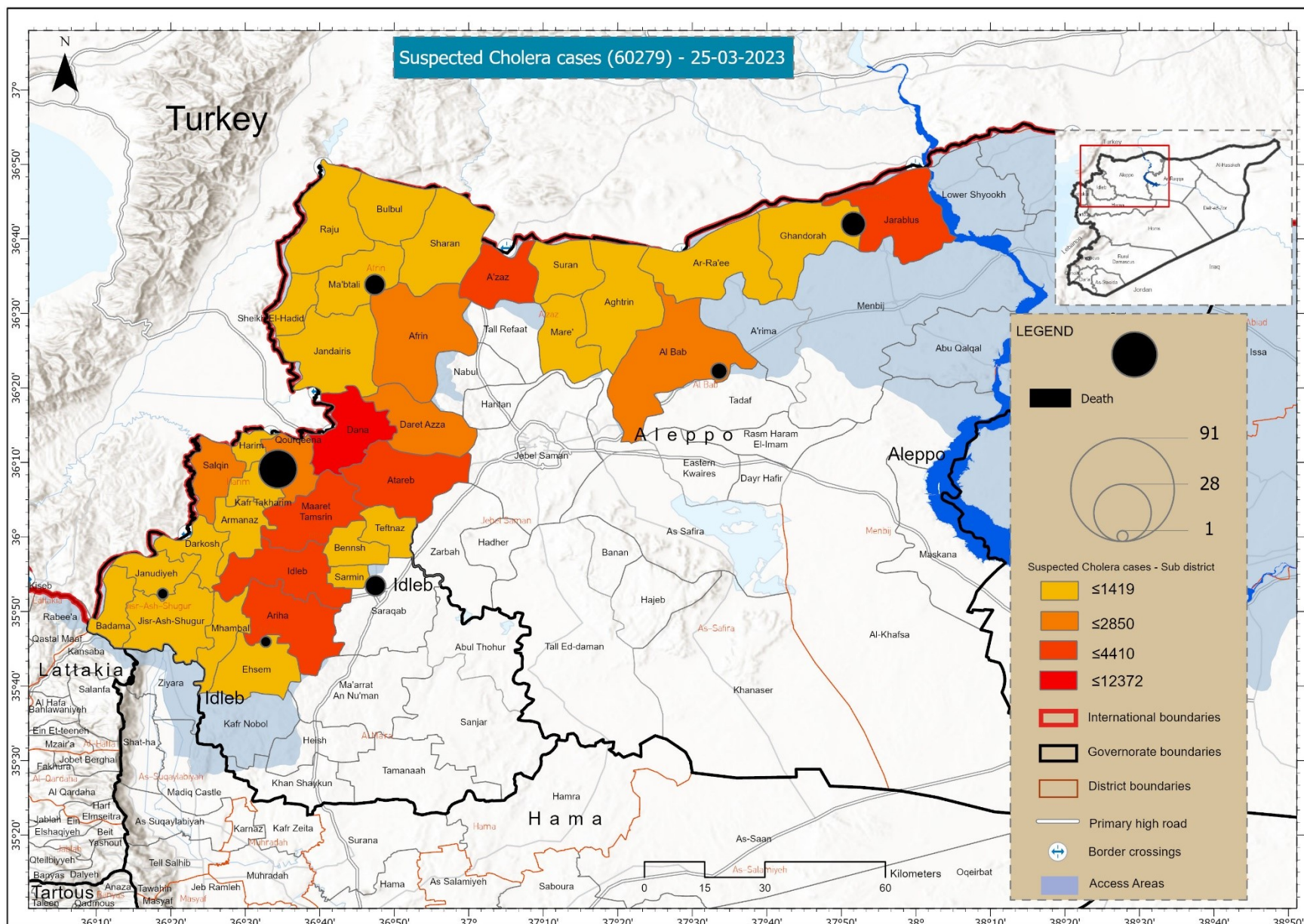
EPI Curve - Reporting Date - Idleb Governorate



Cases Distribution Subdistrict Wise - up to Epi Week 12 -2023

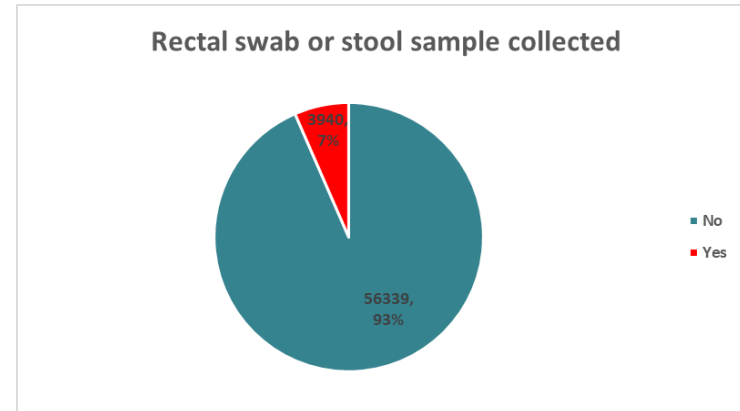


Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W11 - 2023	Idleb	Ariha	20-Sep	185,668	176	4000	0	1	0.03%	94.8	2.15%
		Harim	6-Sep	1,586,820	611	18399	0	9	0.05%	38.5	1.16%
		Idleb	14-Sep	713,933	399	10192	0	3	0.03%	55.9	1.43%
		Jisr-Ash-Shugur	25-Sep	310,973	48	2697	0	1	0.04%	15.4	0.87%
	Aleppo	A'zaz	9-Sep	648,600	259	5967	0	0	0.00%	39.9	0.92%
		Afrin	21-Sep	467,090	197	5250	0	3	0.06%	42.2	1.12%
		Al Bab	17-Sep	339,812	222	2896	0	2	0.07%	65.3	0.85%
		Jarablus	12-Sep	121,938	151	4958	0	4	0.08%	123.8	4.07%
	Jebel Saman	10-Sep	251,785	269	5920	0	0	0.00%	106.8	2.35%	
	Total				4,626,619	2332	60279	0	23	0.04%	50.4

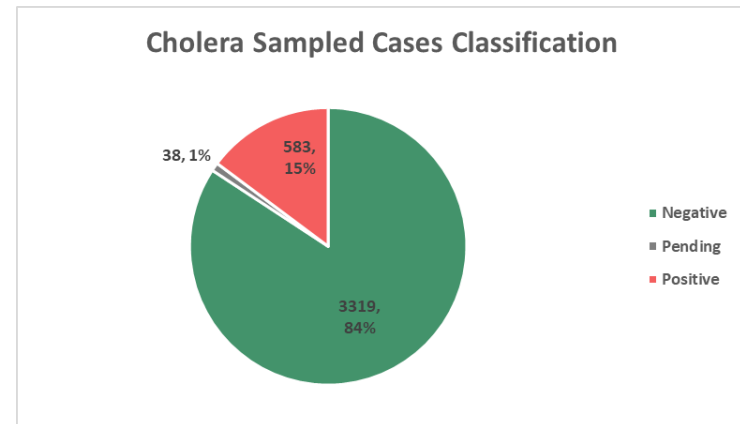


Laboratory:

- In Epi week 12- 2023, the total number of stool specimens or rectal swabs is 116, (60 in Aleppo – 3 confirmed), (56 in Idleb – 2 confirmed).
- A cumulative of 3940 samples were collected since the start of the outbreak (7 % of overall line listed cases), of which 583 have tested positive by stool culture. The total positivity rate in NWS is 14.9 %.
- The Total number of negative cases by stool culture is 3319, and the remaining 38 are still pending.



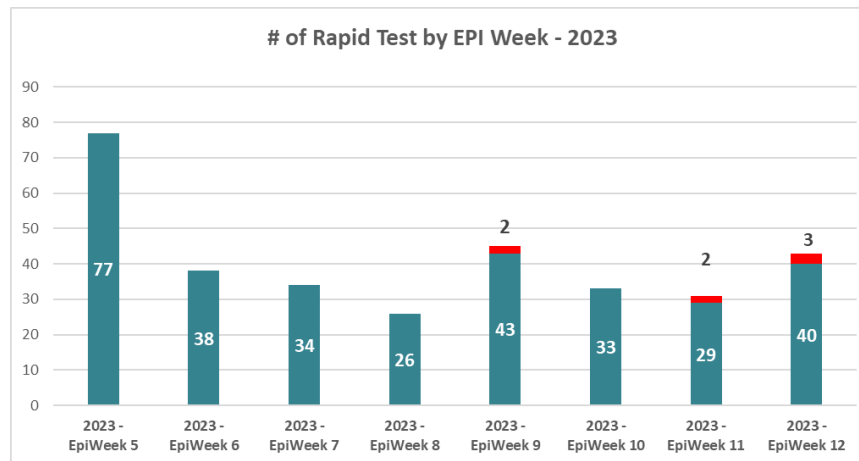
- Isolation and identification of V. cholera serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, Raqqa, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, 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.



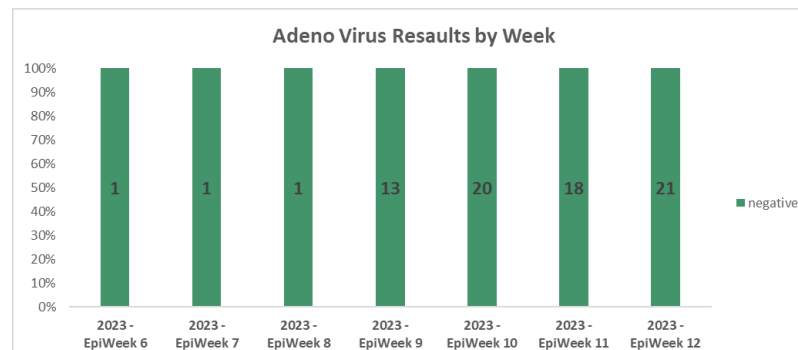
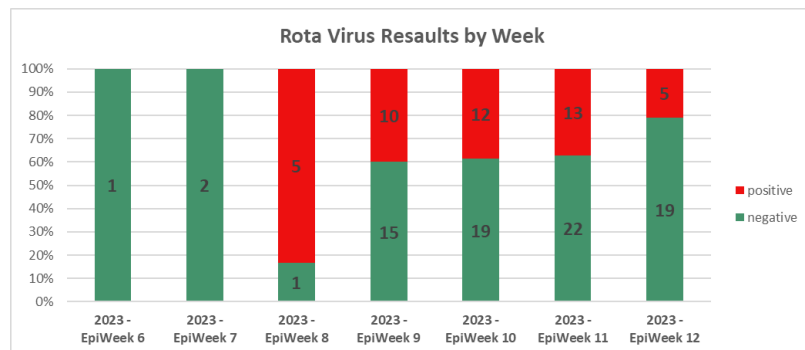
During epi week 12, EWARN received 43 RDT results from the EWARN lab and the CTC/CTUs, 3 of them were positive for Cholera. (the 3 positive cases were negative in culture)

The total of RDT tests starting from epi week 5 reached 284, and the total positive is 7.

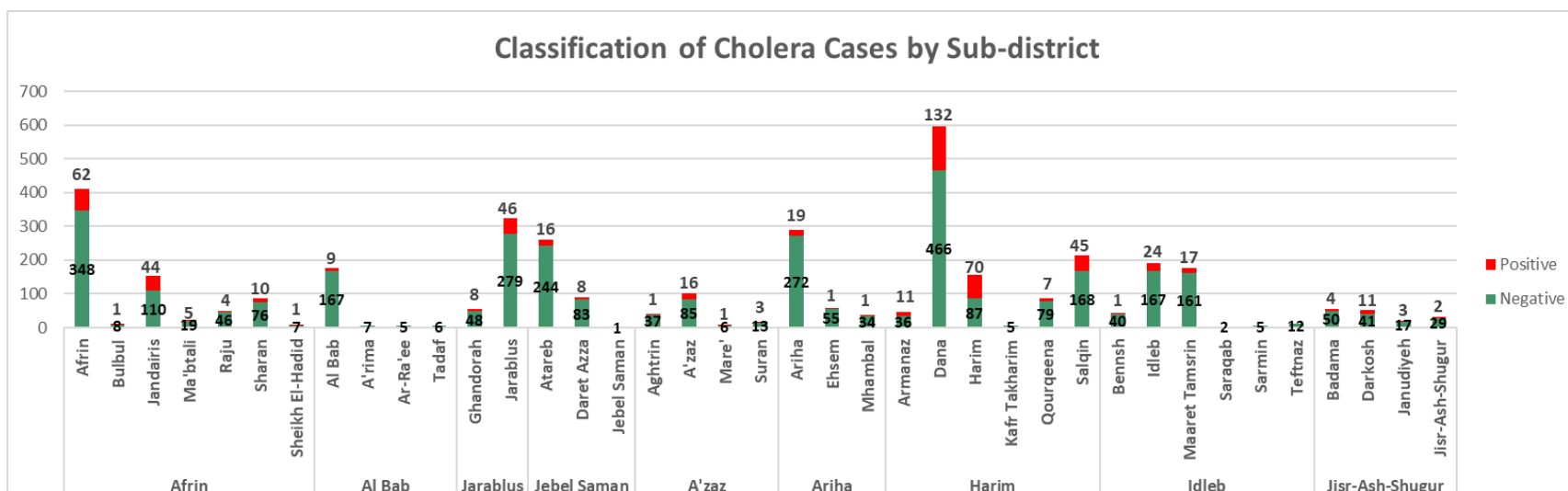
The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 12 – 2023 is 2.1 %. But the positivity rate from the beginning of cholera outbreak up to epi week 12 – 2023 is 5.6 %.

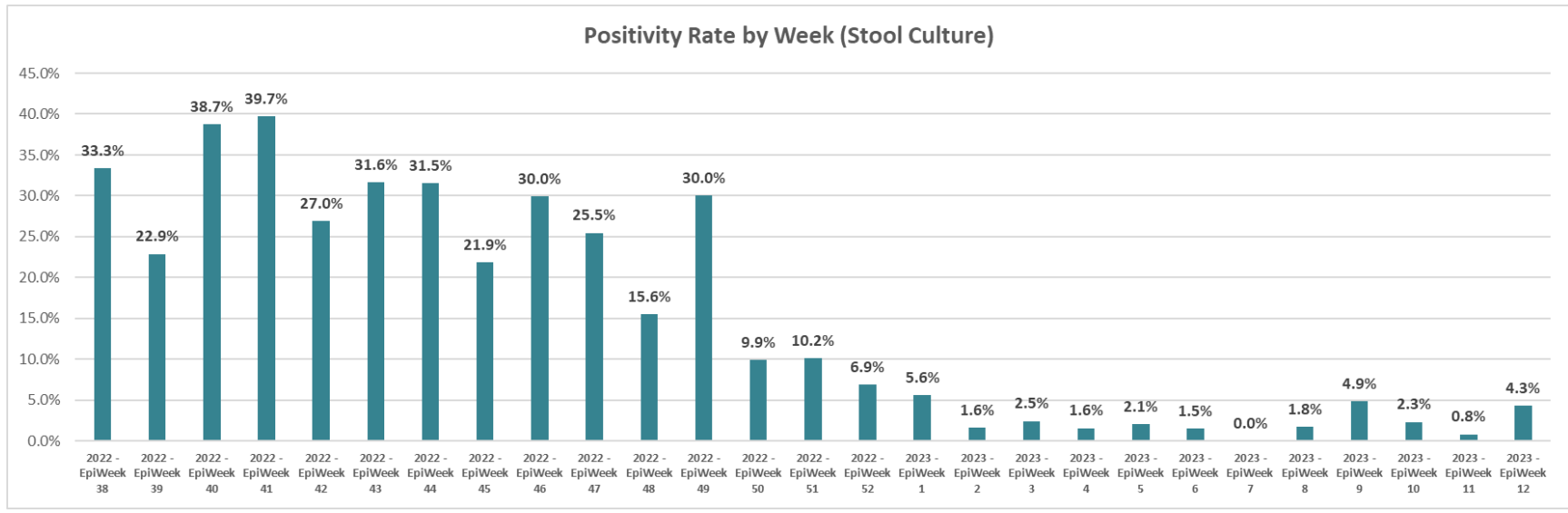
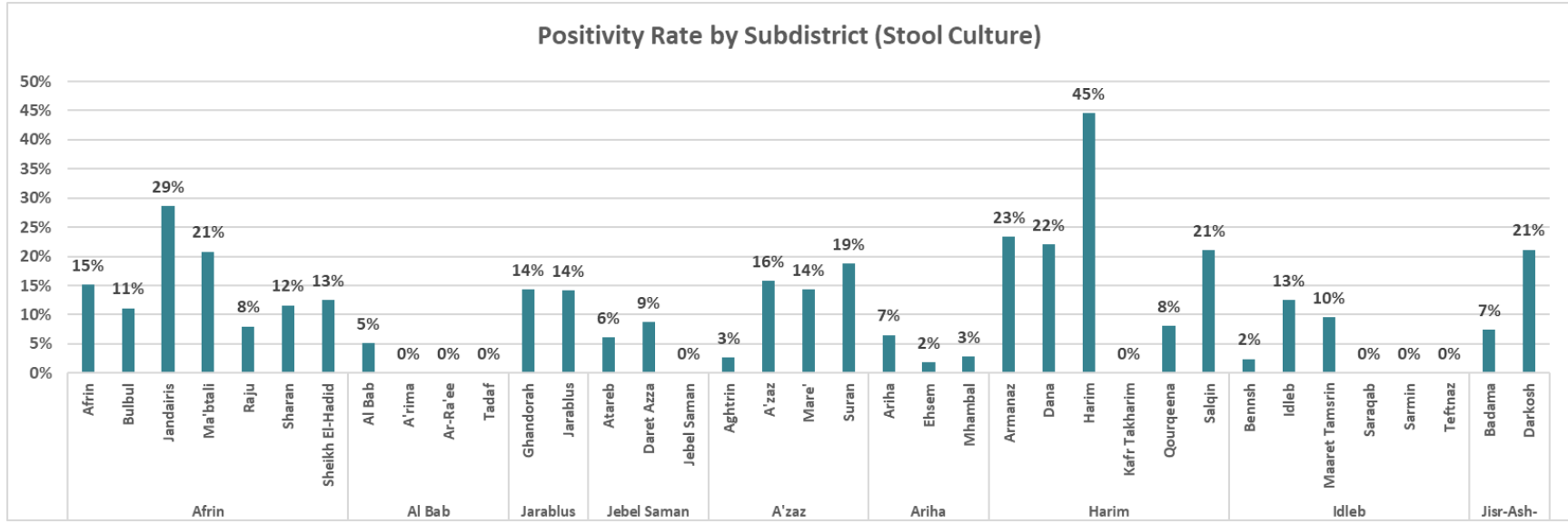


- For children under 5 years of age with a stool culture negative for cholera: In epi week 12, 24 tests were carried out to detect Rotavirus (5 of them were positive), and 21 tests to detect Adenovirus (all of them were negative).
- The total number of collected samples for Rotavirus reached 124 (45 of them were positive), while all of the collected samples for Adenovirus (75) were negative



Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture	
Up to W12 - 2023	Idleb	Ariha	25	67	27.2%	127	614	17.1%	
		Harim	0	6	0.0%	9	185	4.6%	
		Idleb	0	15	0.0%	21	141	13.0%	
		Jisr-Ash-Shugur	2	41	4.7%	54	327	14.2%	
	Aleppo	A'zaz	3	99	2.9%	24	328	6.8%	
		Afrin	0	65	0.0%	21	361	5.5%	
		Al Bab	11	311	3.4%	265	841	24.0%	
		Jarablus	2	88	2.2%	42	387	9.8%	
		Jebel Saman	0	28	0.0%	20	137	12.7%	
	Total			43	720	5.6%	583	3319	14.9%





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.

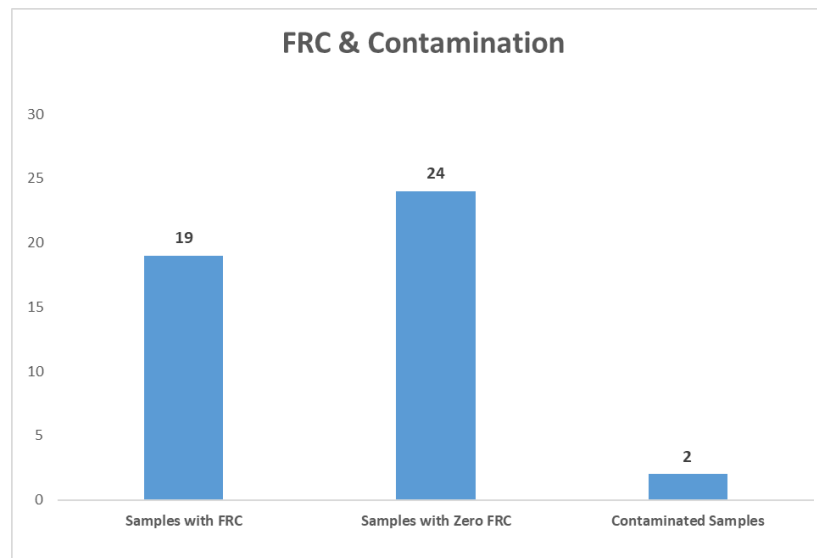
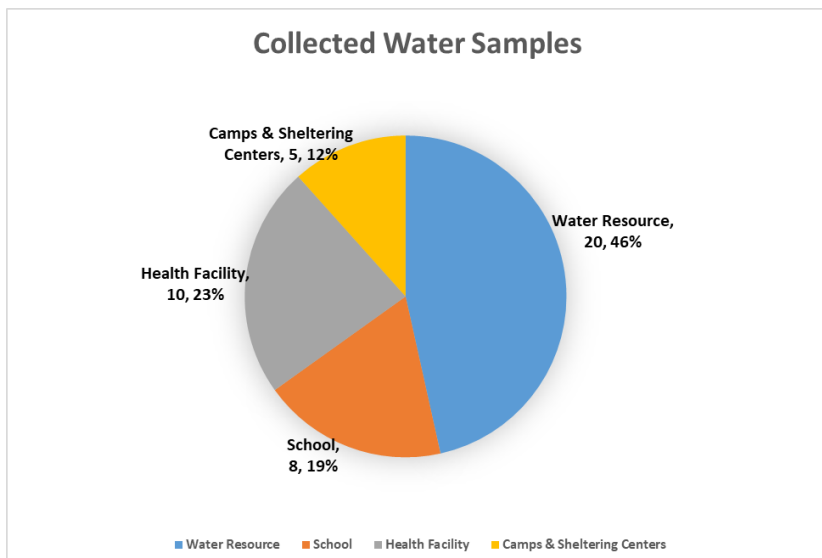
The investigation includes:

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 5 investigations included taking 43 samples from different points:

- **Corin community** / Ariha subdistrict / Ariha district / Idleb governorate:
6 samples were taken, the results showed that water isn't contaminated.
- **Harim community** / Harim subdistrict / Harim district / Idleb governorate:
12 samples were taken, the results showed that the water isn't contaminated, expect the sample of Harim's spring is contaminated.
- **Bazagha community** /AlBab subdistrict /AlBab district/ Aleppo governorate:
5 samples were taken, the results showed that the water isn't contaminated, expect a sample taken from a school tank which was contaminated.
- **AlBab community** /AlBab subdistrict / AlBab district / Aleppo governorate:
11 samples were taken, all samples were not contaminated.
- **Daret Azza community** / Daret Azza subdistrict / Jebel Saman district / Aleppo governorate:
9 samples were taken, all samples were not contaminated

[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 11- 2023, **19** 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 receiving the RDT results from CTC/CTUs, and sharing them
- 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.