

Northwest of Syria Cholera Outbreak

Situation Report No.40

Epidemiological Week - 27 (2 July – 8 July 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 105641

Confirmed Cases: 832

Cholera Deaths : 23

Case Fatality Rate: 0.02%

NWS Attack Rate: 2.28 %

Key Highlights

Cumulatively, a total of **105641 suspected** cases (**46932** in Aleppo governorate, **58709** in Idleb governorate) including **832 confirmed** have been reported by EWARN team since 16 September, including **23 deaths** case.

- The highest number of cases were reported in Harim district (30376) and Idleb district (18229) in Idleb governorate, then Azaz district (12851), Jebel Saman district (10672) in Aleppo governorate.
- 19590 total suspected cases (including 811 new cases in Epi week 27 - 2023) were reported from camps.
- 57.72 % Of the suspected cases are in the age group <5 years. Males are 51% of the total and females are 49%.
- 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

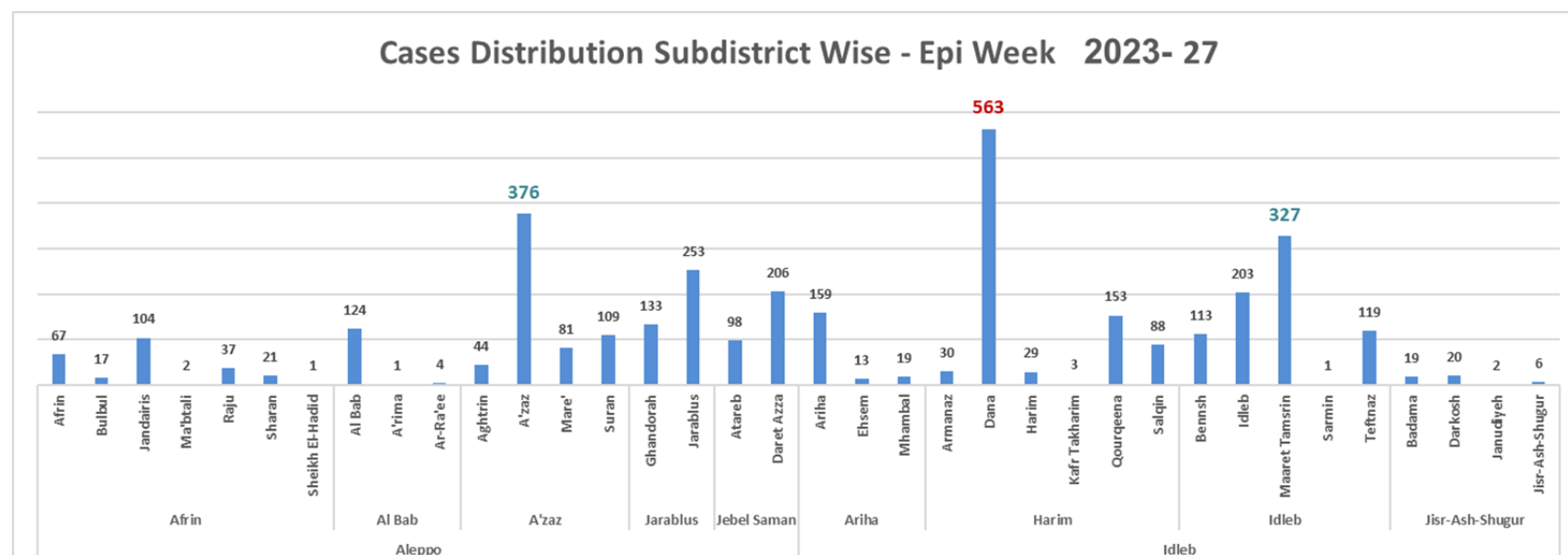
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 27 - 2023, **3545 suspected cases of cholera were reported**. The affected governorates are Aleppo (1678 suspected cases, 7 confirmed), and Idlib (1867 suspected cases, 13 confirmed). 23% of the total were in the camps

The age group less than 5 reported 51.81 %. Sex distribution of the suspected_cases is 49% Male, and 51% Female

There were no death cases in the epi week 27

Dana subdistrict in Idlib governorate reported the highest number of cases (563), in contract Azaz subdistrict reported the highest number in Aleppo governorate (376).

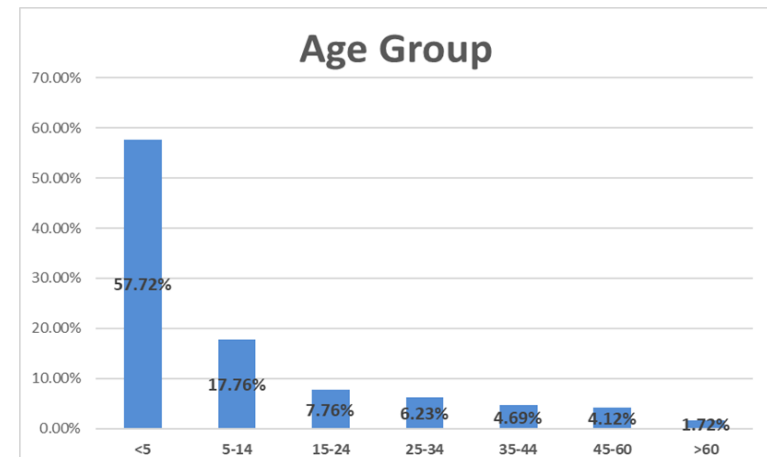
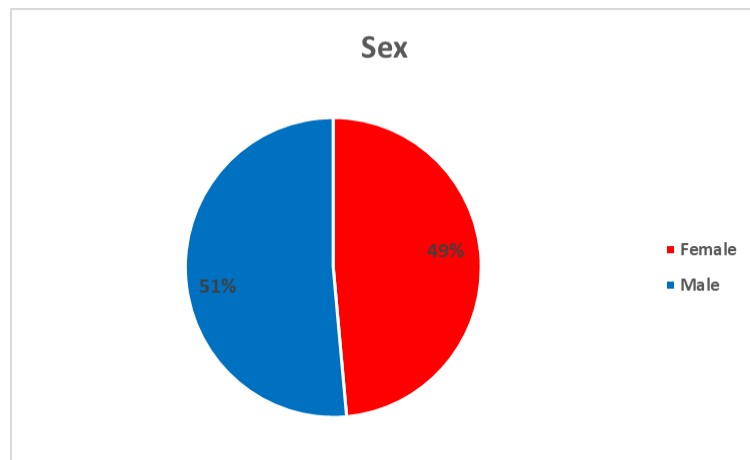


The overall sex distribution of the suspected cases is 51% Male, and 49% Female.

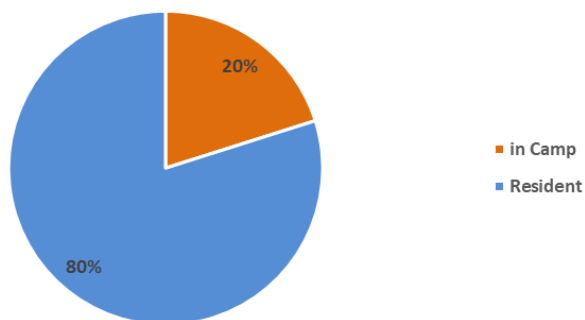
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 4% as rice watery diarrhea, and 8% were dehydrated.

20% of the total cases live in camps (18779), and 80% out of camps (74563). (8752 of the total line listed cases are unknown)

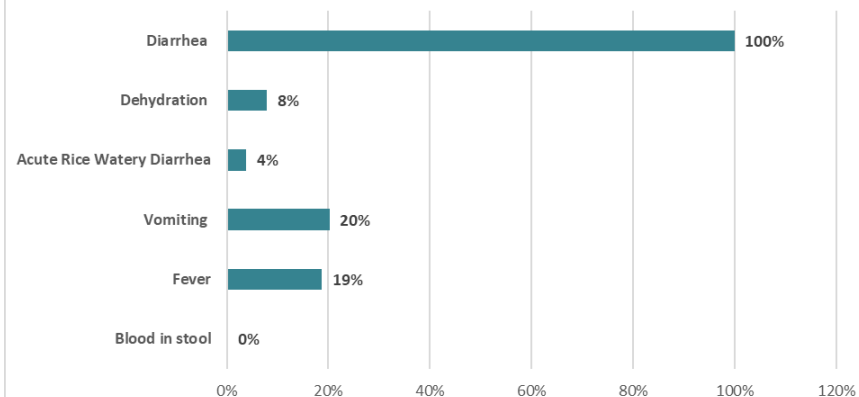
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 57.84%.



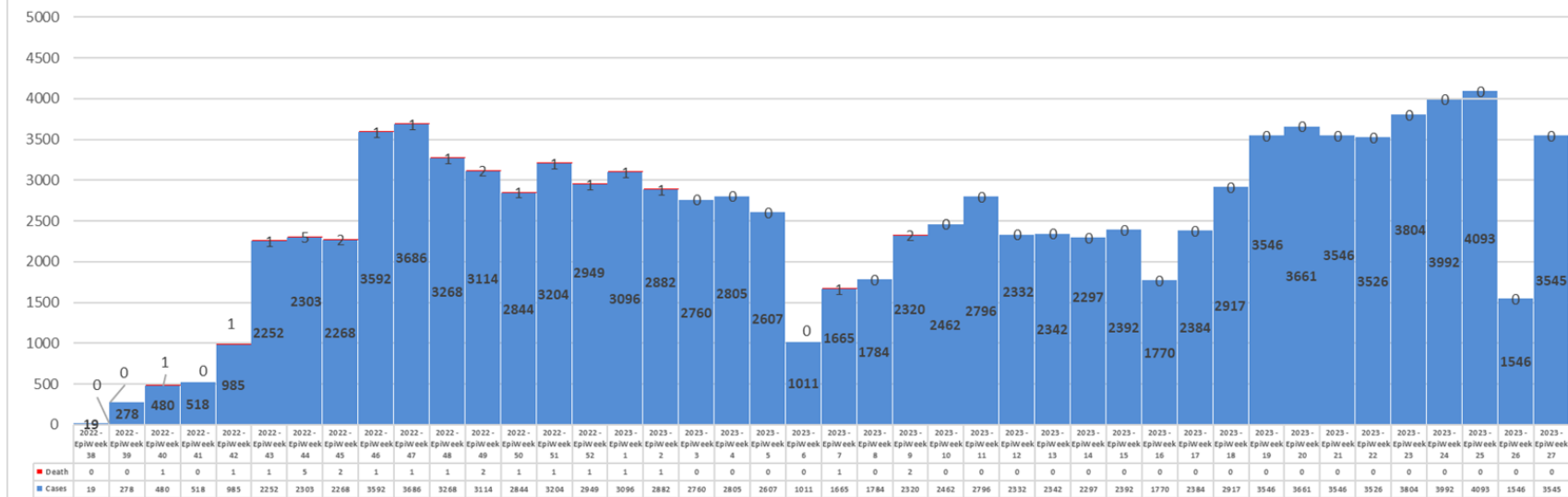
Cholera Cases Residency Distribution



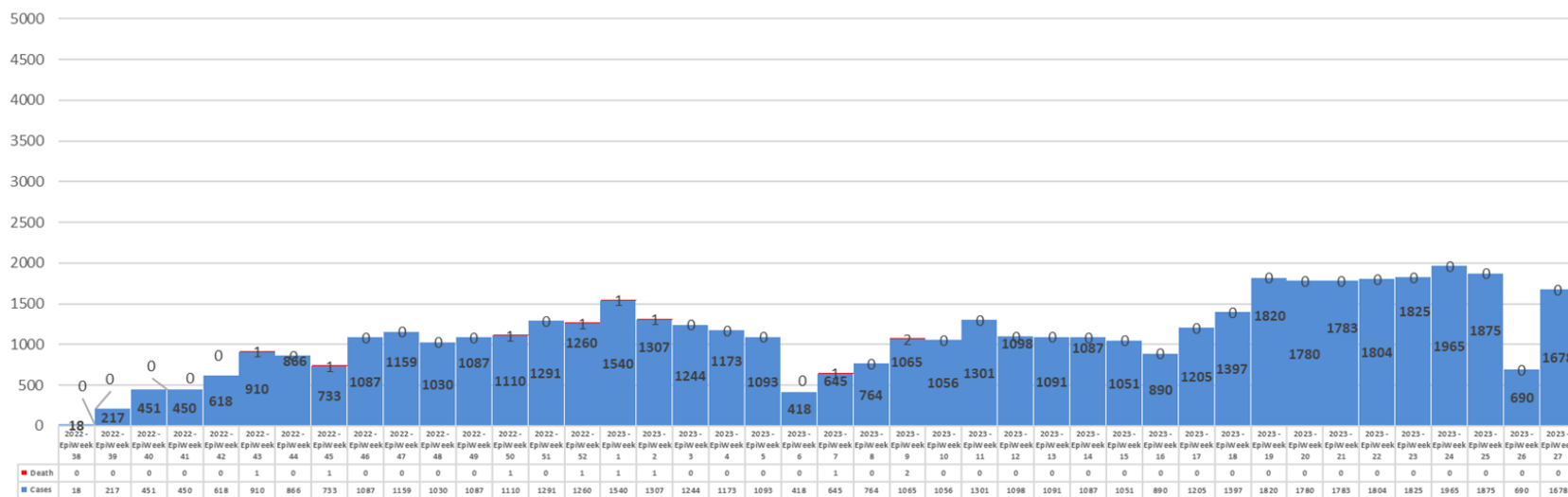
Signs and Symptoms



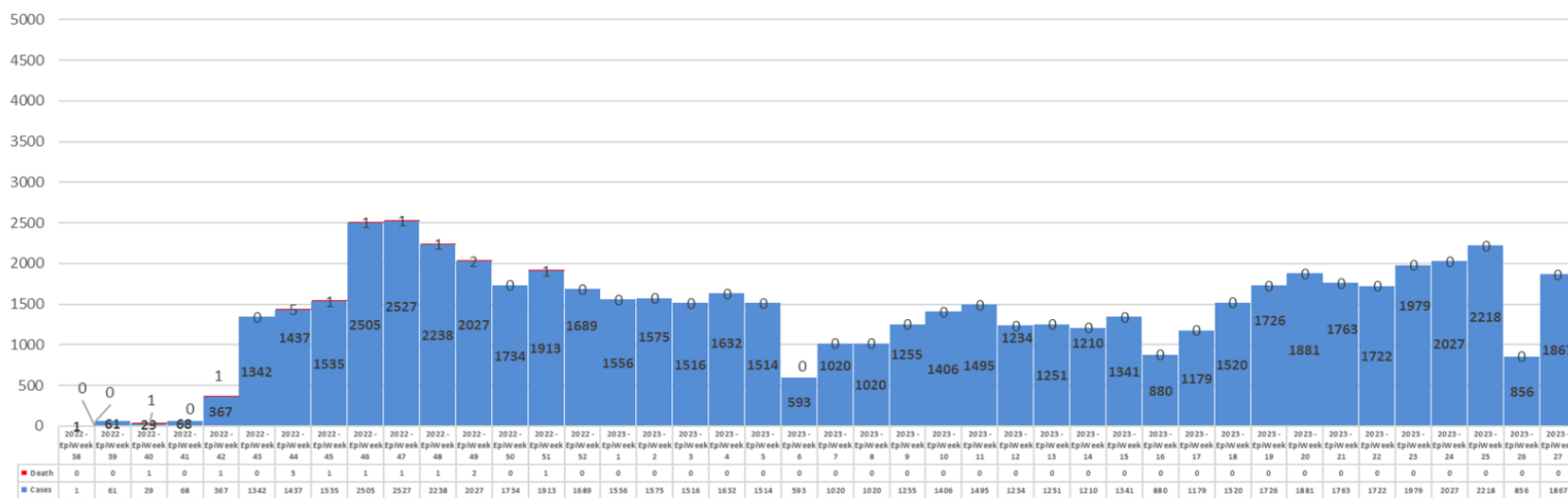
EPI Curve - Reporting Date - NWS



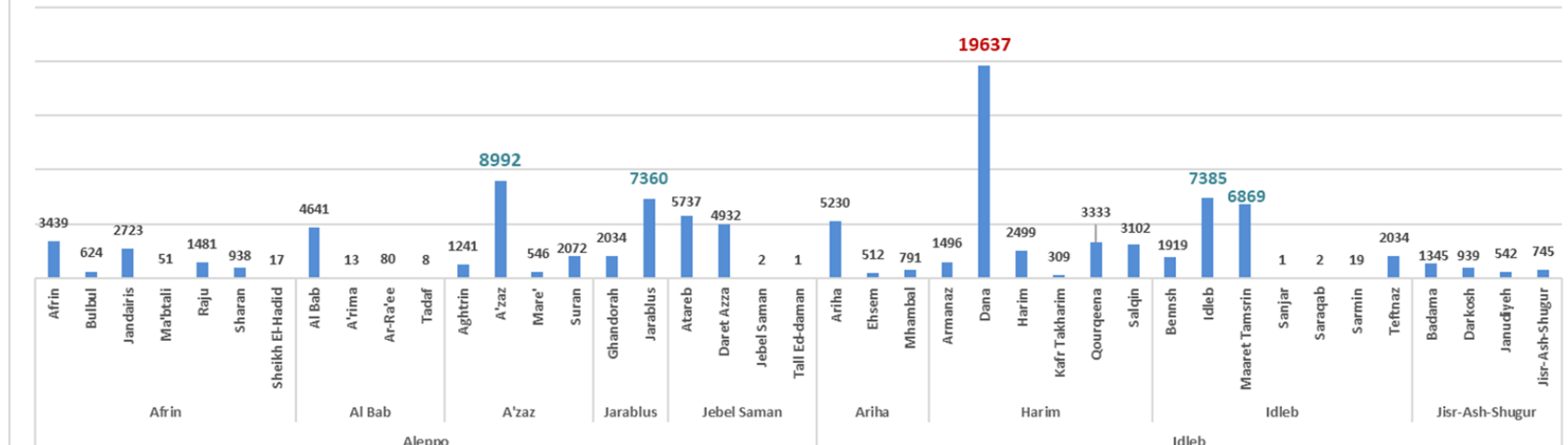
EPI Curve - Reporting Date - Aleppo Governorate



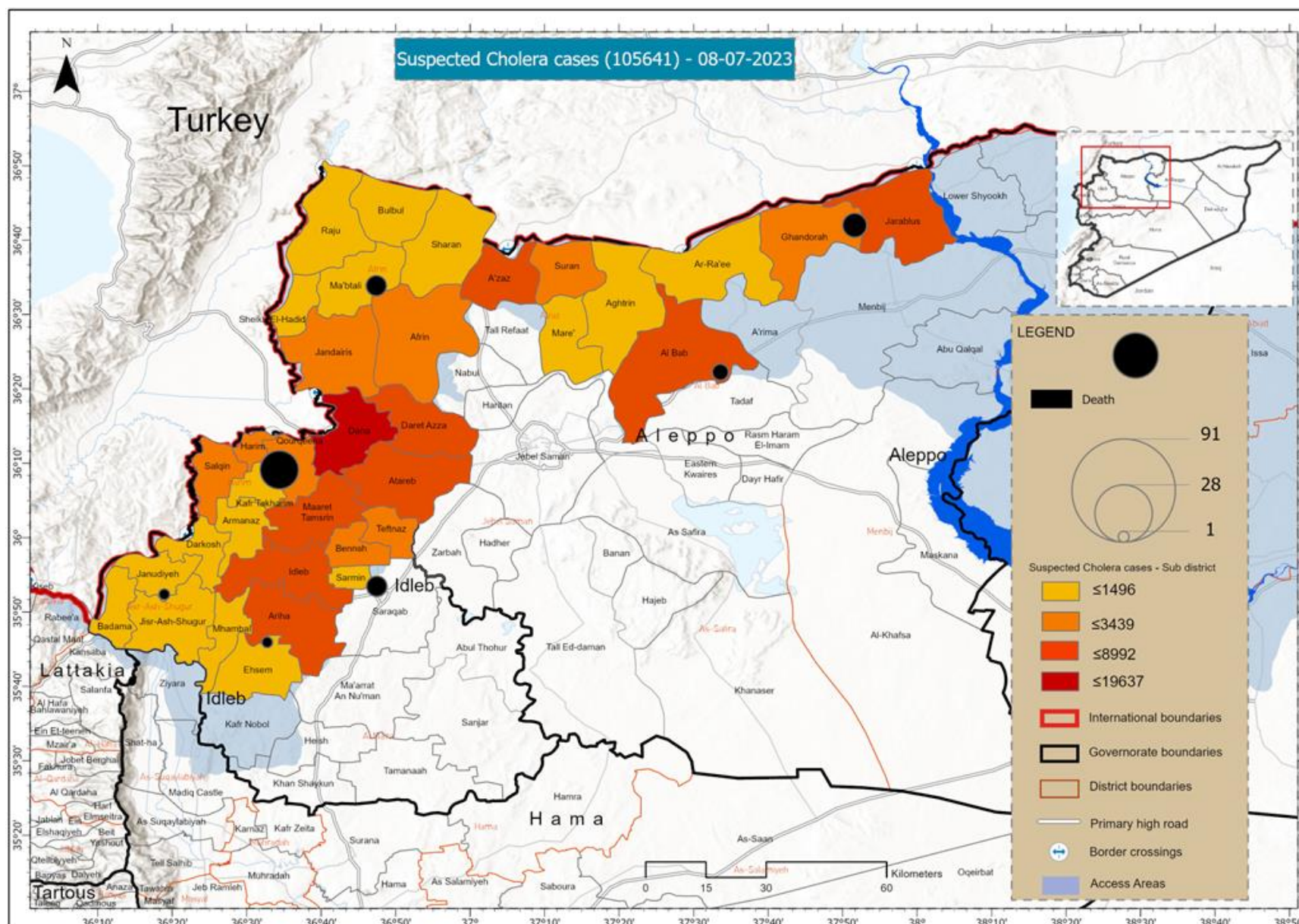
EPI Curve - Reporting Date - Idleb Governorate



Cases Distribution Subdistrict Wise

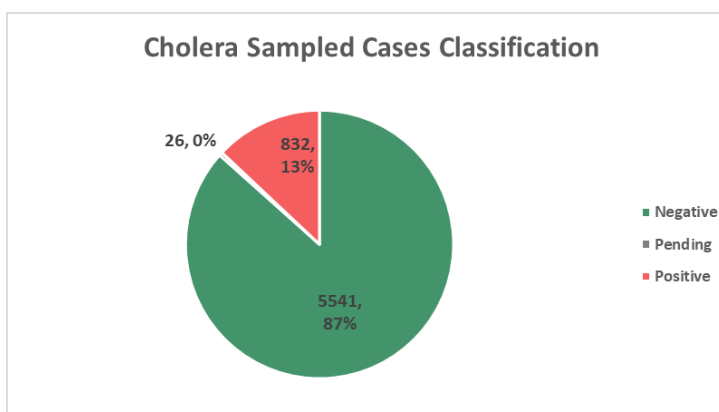
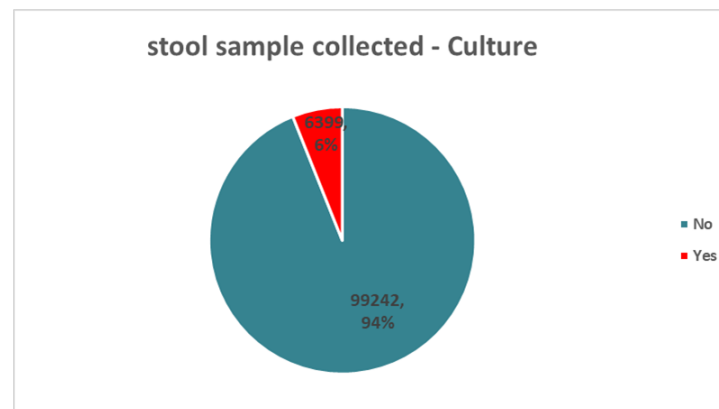


Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W27 - 2023	Idleb	Ariha	20-Sep	185,668	191	6533	0	1	0.02%	102.9	3.52%
		Harim	6-Sep	1,586,820	866	30376	0	9	0.03%	54.6	1.91%
		Idleb	14-Sep	713,933	763	18229	0	3	0.02%	106.9	2.55%
		Jisr-Ash-Shugur	25-Sep	310,973	47	3571	0	1	0.03%	15.1	1.15%
	Aleppo	A'zaz	9-Sep	648,600	610	12851	0	0	0.00%	94.0	1.98%
		Afrin	21-Sep	467,090	249	9273	0	3	0.03%	53.3	1.99%
		Al Bab	17-Sep	339,812	129	4742	0	2	0.04%	38.0	1.40%
		Jarablus	12-Sep	121,938	386	9394	0	4	0.04%	316.6	7.70%
		Jebel Saman	10-Sep	251,785	304	10672	0	0	0.00%	120.7	4.24%
	Total			4,626,619	3545	105641	0	23	0.02%	76.6	2.28%



Laboratory:

- In Epi week 27- 2023, the total number of stool specimens or rectal swabs is **118**, (65 in Aleppo –13 confirmed), (53 in Idleb – 7 confirmed).
- A **cumulative of 6399 samples were collected** since the start of the outbreak (6 % of overall line listed cases), **of which 832 have tested positive by stool culture. The total positivity rate in NWS is 13 %.**
- The Total number of negative cases by stool culture is 5541, and the remaining 26 are still pending.

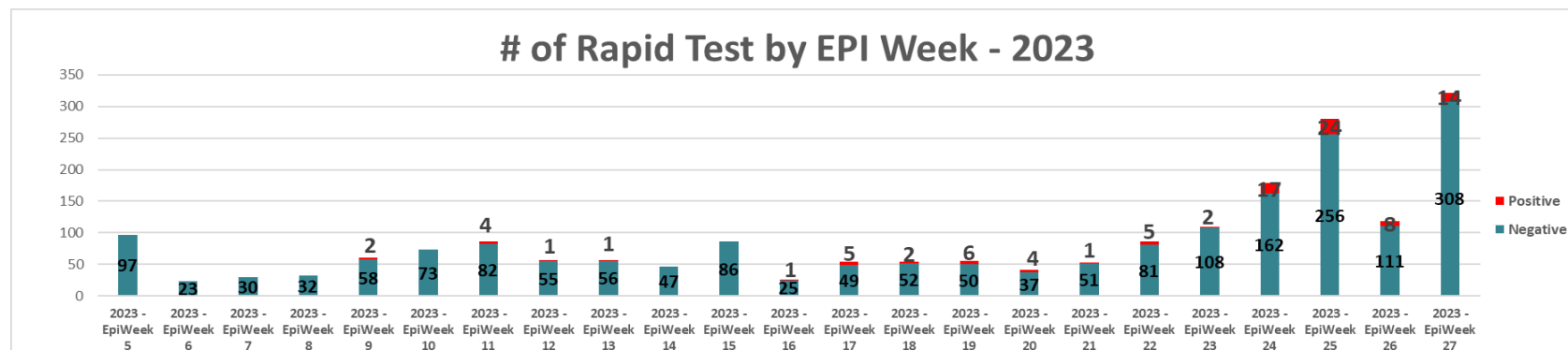


- Isolation and identification of V. cholera serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, including 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 5-6 % of the total suspected cholera cases per subdistrict and 5 samples from the admitted cholera suspected cases in the CTC /CTU per week.

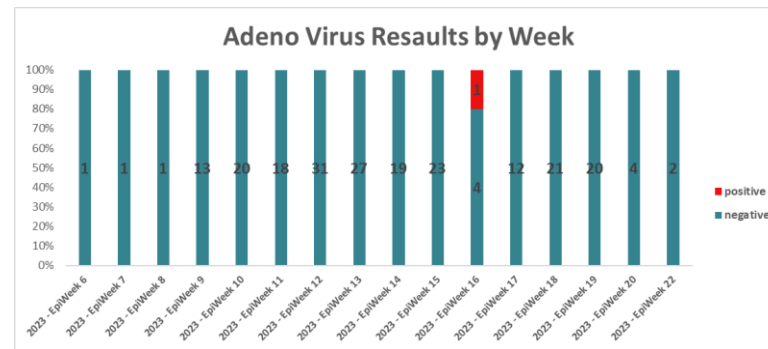
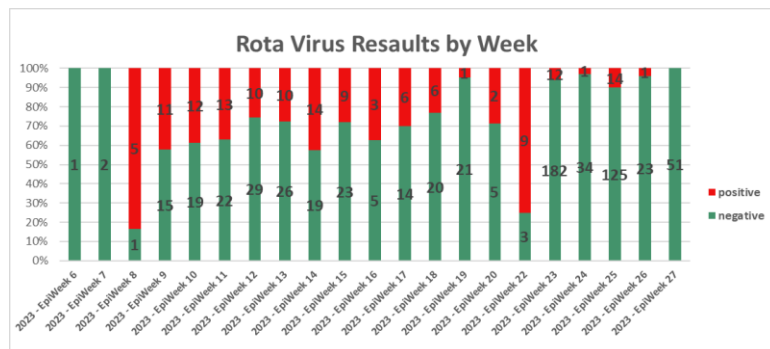
During epi week 27, EWARN received 322 RDT results from the CTC/CTUs and some HFs, 14 of them were positive for Cholera.

The total of RDT tests starting from epi week 5 reached 2026, and the total positive is 97.

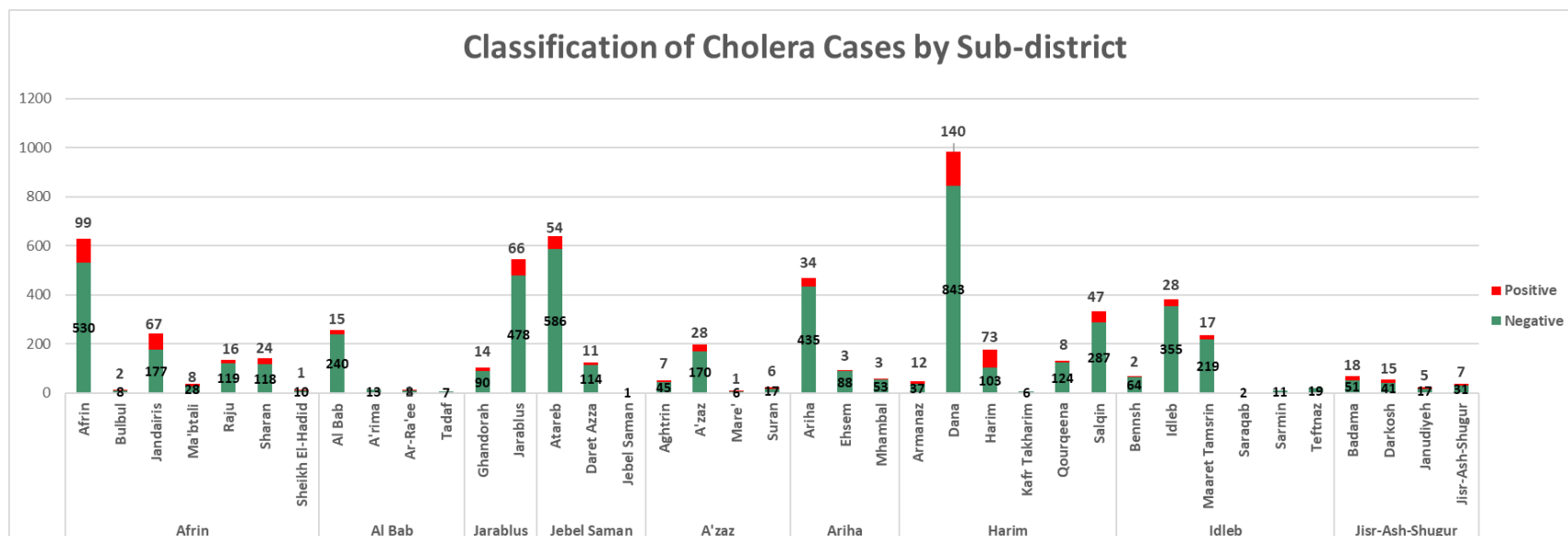
The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 27 – 2023 is 4.78 %. But the positivity rate from the beginning of cholera outbreak up to epi week 27 – 2023 is 5.7 %.



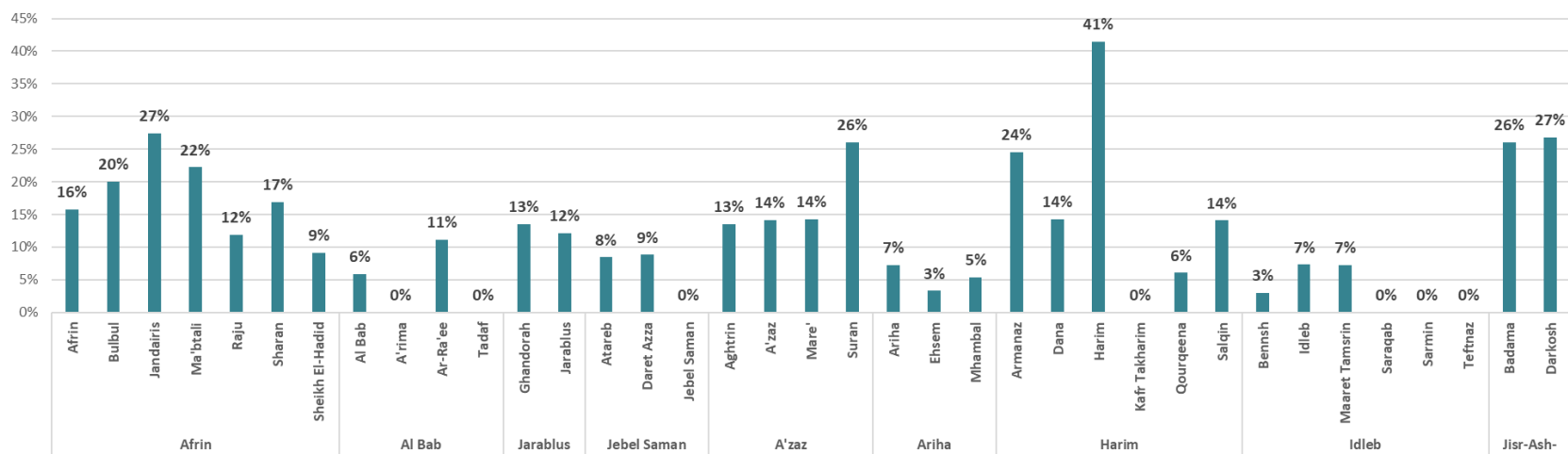
- For children under 5 years of age with a stool culture negative for cholera:
In epi week 27, the lab tested 3 samples to detect Rotavirus, one of them was positive
- The total samples collected for Rotavirus reached 707 (139 were positive), while the total samples for Adenovirus were 218 (one positive)



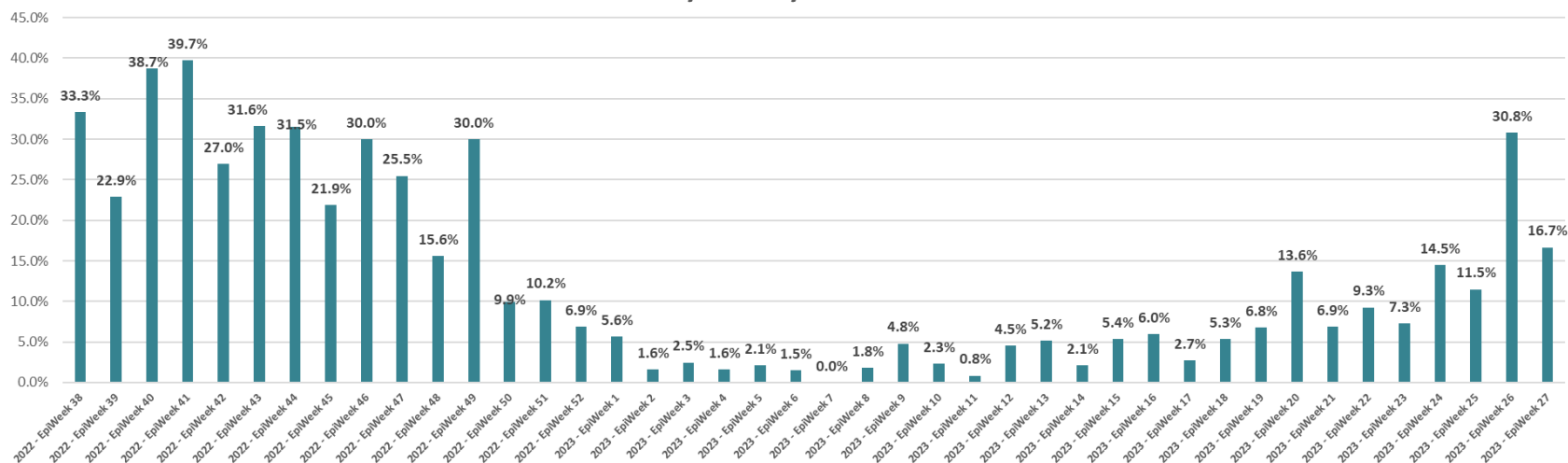
Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture
Up to W26 - 2023	Aleppo	Afrin	44	237	15.7%	217	990	18.0%
		Al Bab	2	49	3.9%	16	268	5.6%
		A'zaz	14	106	11.7%	42	238	15.0%
		Jarablus	7	152	4.4%	80	568	12.3%
		Jebel Saman	11	194	5.4%	65	701	8.5%
	Idleb	Ariha	3	110	2.7%	40	576	6.5%
		Harim	40	847	4.5%	280	1400	16.7%
		Idleb	9	359	2.4%	47	670	6.6%
		Jisr-Ash-Shugur	3	145	2.0%	45	140	24.3%
	Total		133	2199	5.7%	832	5551	13.0%



Positivity Rate by Subdistrict



Positivity Rate by Week - Culture



2. WASH:

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

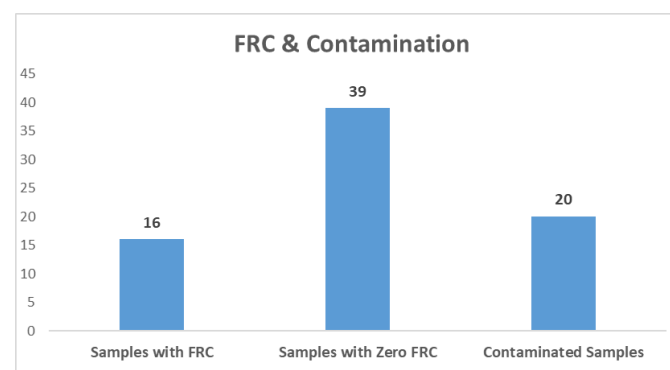
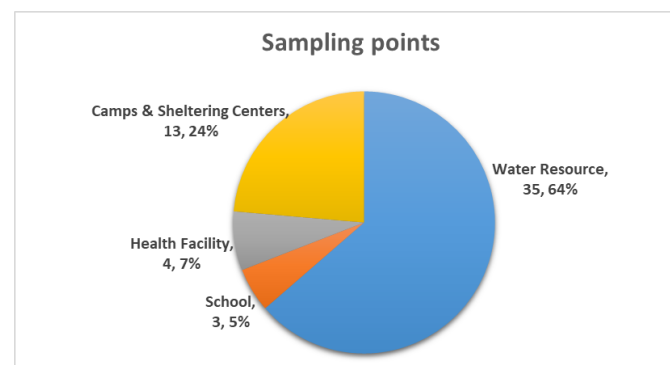
The team, after receiving any alert, focuses on the investigation of WASH services in the hotspot areas.

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 **55** samples from different points:

- **Jisr-Ash-Shugur community** / Jisr-Ash-Shugur sub-district / Jisr-Ash-Shugur District / Idlib governorate:
20 samples were taken; 15 out of 20 were contaminated (Mostly taken from private/public wells and water trucks)
- **Sharan community** / Sharan sub-district / Afrin district / Aleppo governorate:
12 samples were taken; one of the samples was contaminated (taken from well).
- **Sarmada Community** / Dana sub-district / Harim district / Idlib governorate:
5 samples were taken; no sample was contaminated.
- **Bazagha community** / Al Bab sub-district / Al Bab district / Aleppo governorate:
8 samples were taken; 4 of which were contaminated (Mostly taken from private/public wells).
- **Ghandorah (Al Kanawi & Taflai Camps) community** / Ghandorah sub-district / Jarablus district / Aleppo governorate:
10 samples were taken; no sample was 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). 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 receiving the RDT results from CTC/CTUs and sharing them.
- EWARN received RDT kits from WHO, and the EWARN team distributed them to health centers (35 HFs including CTC/CTUs) and trained the health centers' staff to conduct the test and share the data. We are now receiving and sharing the results.
- To determine the causes of acute watery diarrhea in children under 5 years (the children have a negative cholera result), the EWARN lab is 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.