

Northwest of Syria Cholera Outbreak

Situation Report No.50

Epidemiological Week - 37 (10 - 16 / Sep / 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 144112

Confirmed Cases: 1070

Cholera Deaths : 24

Case Fatality Rate: 0.02%

NWS Attack Rate: 3.11%

Key Highlights

Cumulatively, a total of **144112 suspected** cases (**63511** in Aleppo governorate, **80601** in Idlib governorate) including **1070 confirmed** have been reported by EWARN team since 16 September, including **24 deaths** case.

The highest number of cases were reported in Harim district (**39539**) and Idlib district (**28827**) in Idlib governorate, then Azaz district (**17799**), and Jebel Saman district (**13677**) in Aleppo governorate.

- **27244** total suspected cases (including **769** new cases in Epi week 37 - 2023) were reported from camps.
- **56.46 %** Of the suspected cases are in the age group <5 years. Males are 50% of the total and females are 50%.
- 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

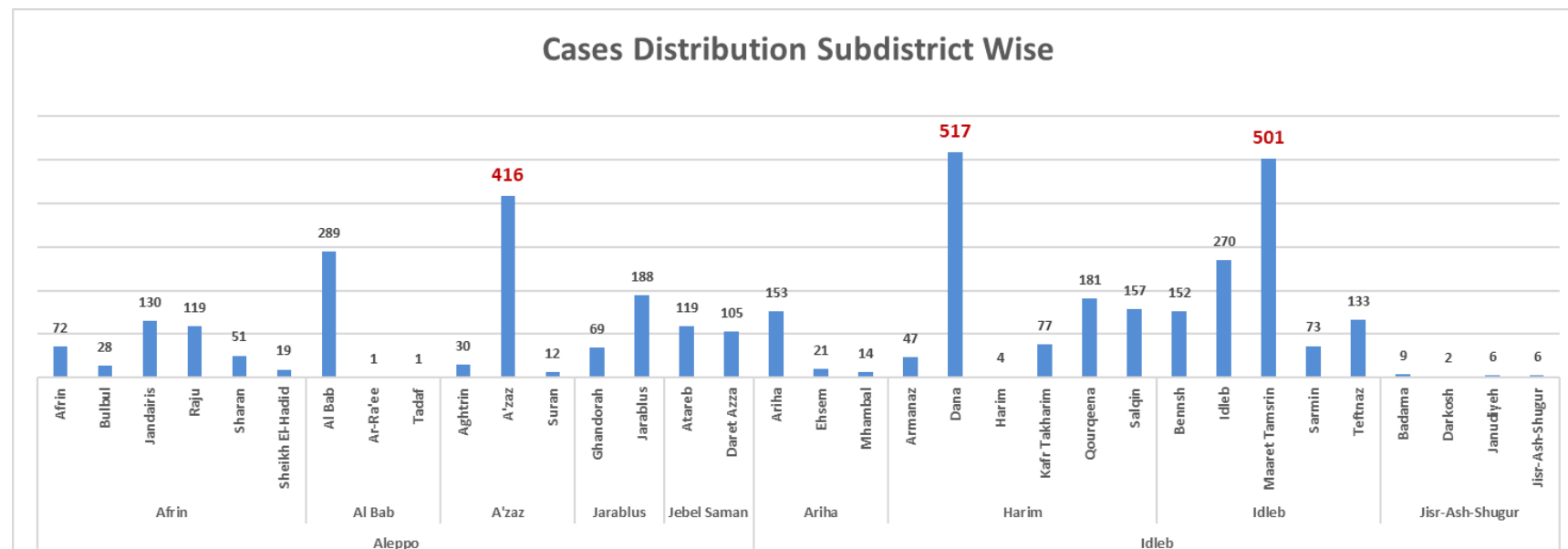
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 37 - 2023, **3972 suspected cases of cholera were reported**. The affected governorates are Aleppo (1649 suspected cases, 18 confirmed), and Idleb (2323 suspected cases, 18 confirmed). 20% of the total were in the camps

The age group less than 5 reported 56.02 %. Sex distribution of the suspected_cases is 47% Male, and 53% Female

There is no death in epi week 37

Dana subdistrict in Idled governorate reported the highest number of cases (517), then Maaret Tamsrin subdistrict (501) in contract Azaz subdistrict reported the highest number in Aleppo governorate (416).

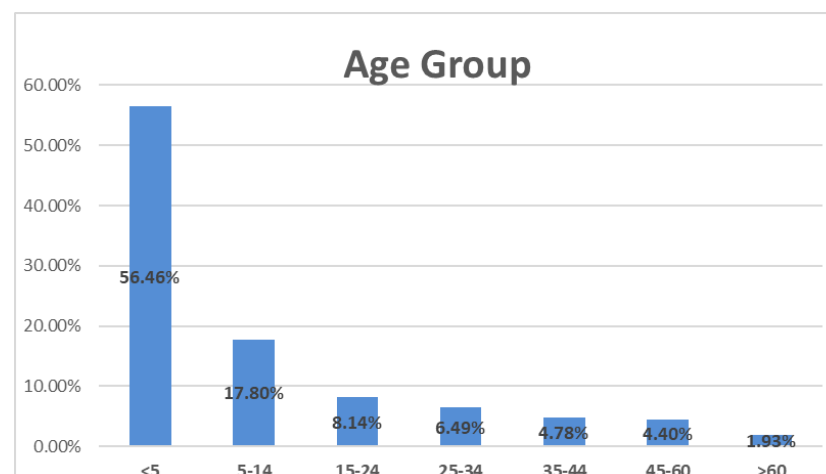
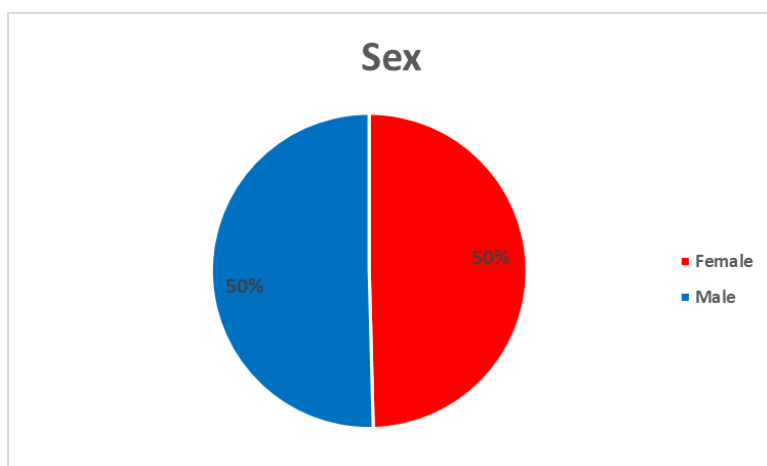


The overall sex distribution of the suspected cases is 51% Male, and 49% Female.

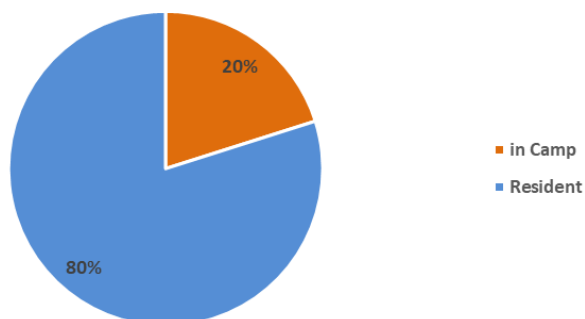
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 5% as rice watery diarrhea, and 9% were dehydrated.

20% of the total cases live in camps (26475), and 80% out of camps (104183). (9433 of the total line listed cases are unknown)

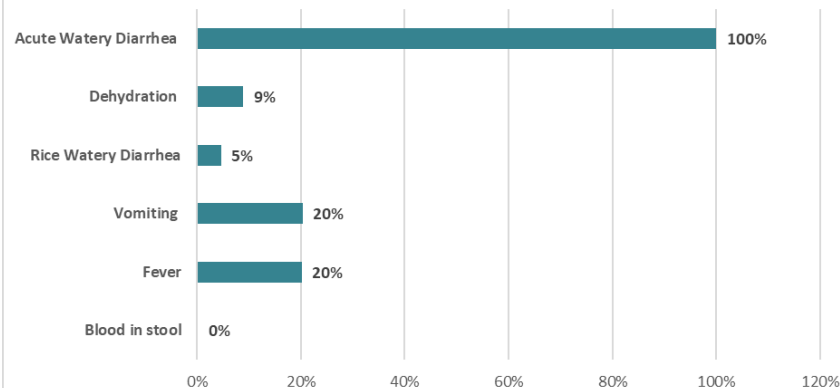
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 56.47%.



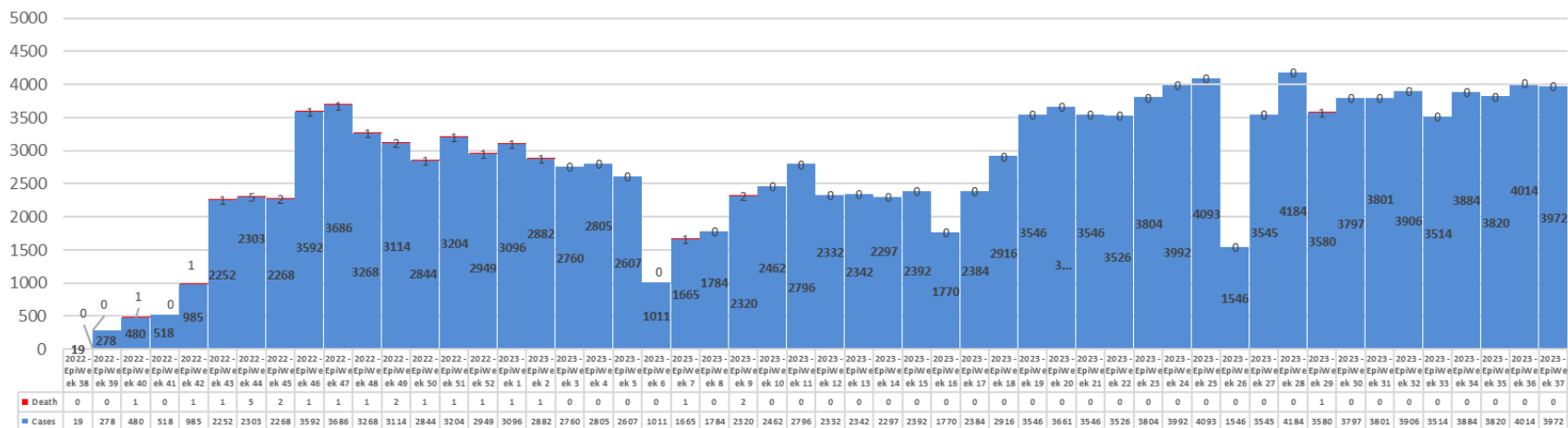
Cholera Cases Residency Distribution



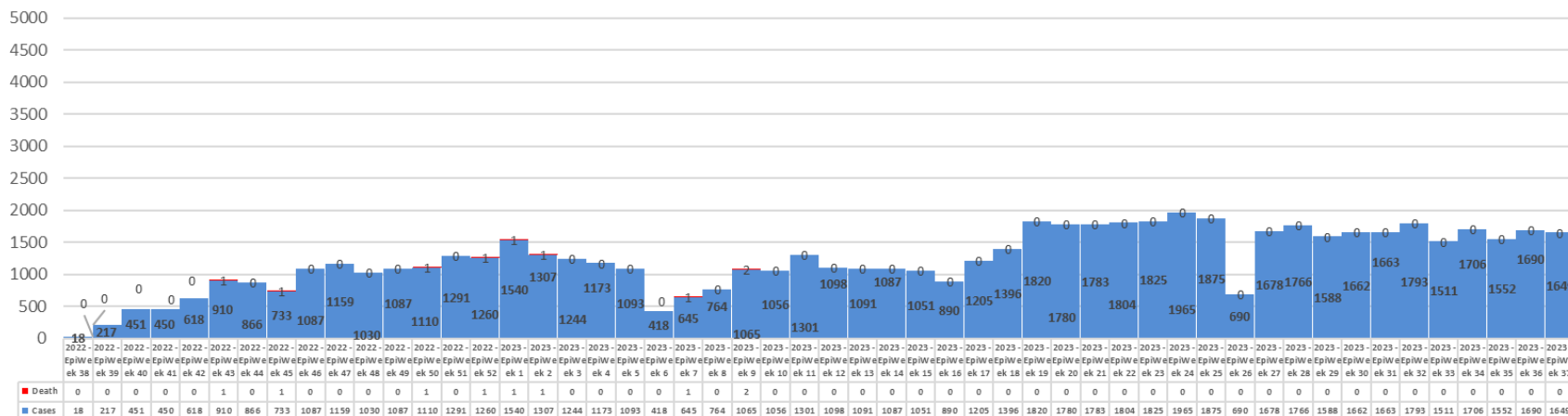
Signs and Symptoms



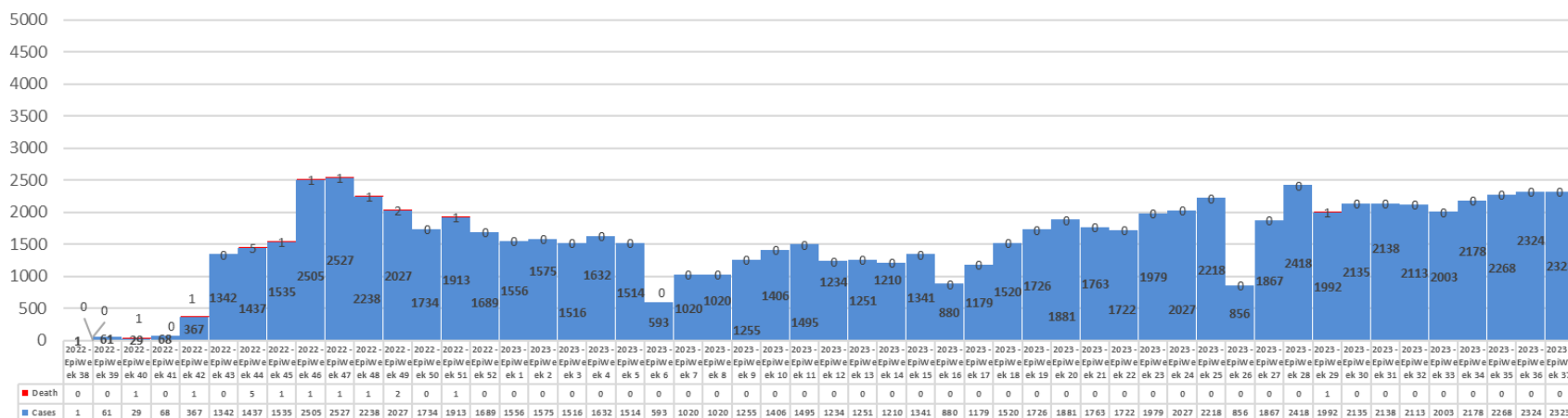
EPI Curve - Reporting Date - NWS



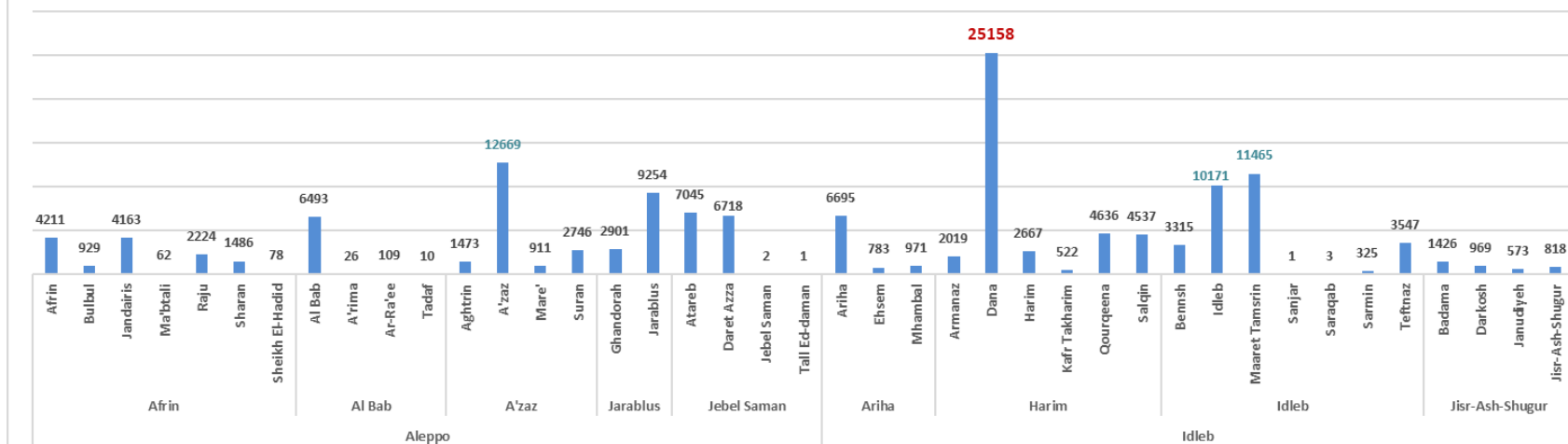
EPI Curve - Reporting Date - Aleppo Governorate



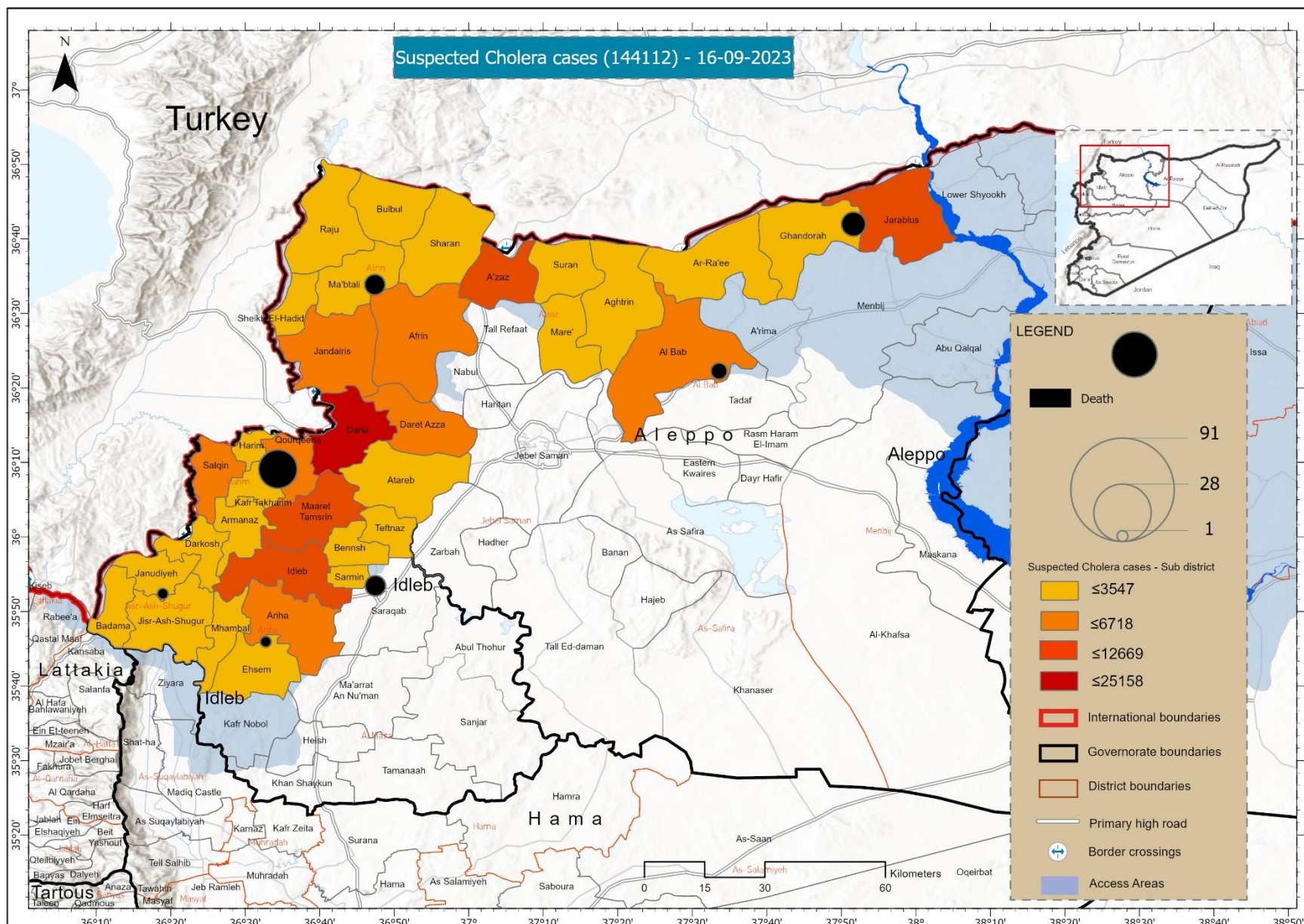
EPI Curve - Reporting Date - Idlib Governorate



Cases Distribution Subdistrict Wise



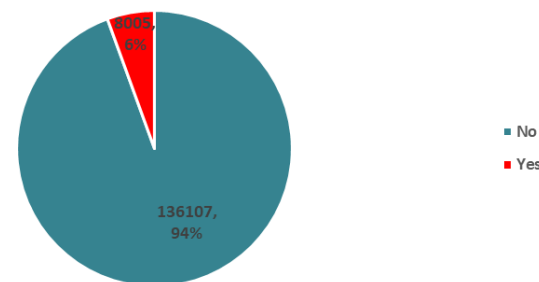
Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W37 - 2023	Idleb	Ariha	20-Sep	185,668	188	8449	0	1	0.01%	101.3	4.55%
		Harim	6-Sep	1,586,820	983	39539	0	10	0.03%	61.9	2.49%
		Idleb	14-Sep	713,933	1129	28827	0	3	0.01%	158.1	4.04%
		Jisr-Ash-Shugur	25-Sep	310,973	23	3786	0	1	0.03%	7.4	1.22%
	Aleppo	A'zaz	9-Sep	648,600	458	17799	0	0	0.00%	70.6	2.74%
		Afrin	21-Sep	467,090	419	13153	0	3	0.02%	89.7	2.82%
		Al Bab	17-Sep	339,812	291	6638	0	2	0.03%	85.6	1.95%
		Jarablus	12-Sep	121,938	257	12155	0	4	0.03%	210.8	9.97%
		Jebel Saman	10-Sep	251,785	224	13766	0	0	0.00%	89.0	5.47%
	Total			4,626,619	3972	144112	0	24	0.02%	85.9	3.11%



Laboratory:

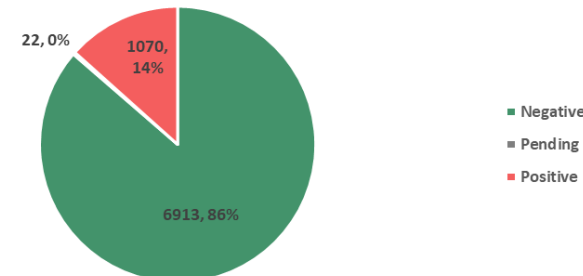
- In Epi week 37- 2023, the total number of stool specimens or rectal swabs is 165, (80 in Aleppo –18 confirmed), (85 in Idleb – 18 confirmed).
- A cumulative of 8005 samples were collected since the start of the outbreak (6 % of overall line listed cases), of which 1070 have tested positive by stool culture. The total positivity rate in NWS is 13.4 %
- The Total number of negative cases by stool culture is 6913, and the remaining 22 are still pending.

Stool sample collected - Culture



- 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, Ciprofloxacin, and Norfloxacin.
- The resistance is to Tetracycline, Doxycycline, Chloramphenicol, 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.

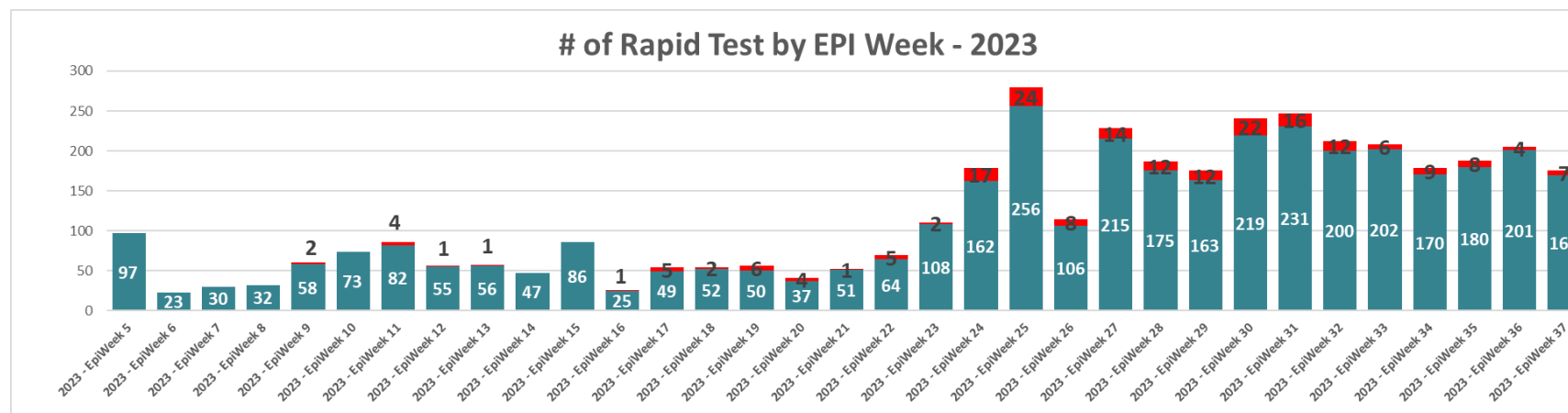
Cholera Sampled Cases Classification



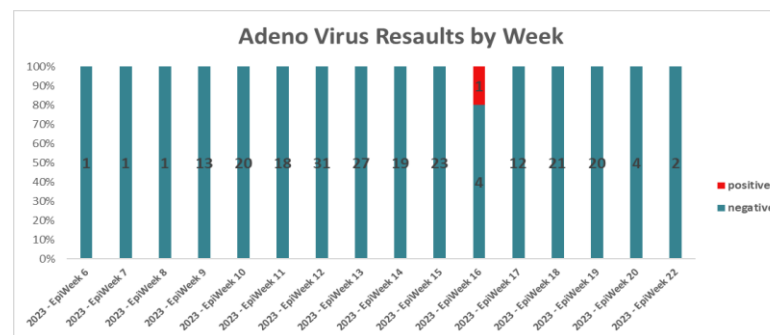
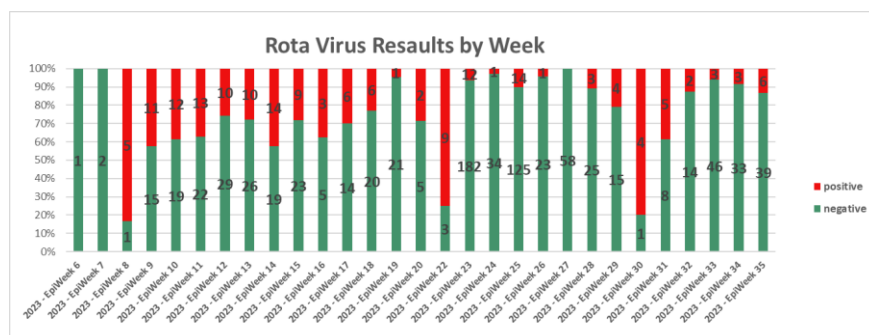
During epi week 37, EWARN received 176 RDT results from the CTC/CTUs and some HFs, 7 of them were positive for Cholera.

The total of RDT tests between epi weeks (5 - 37) reached 3929, and the total positive is 205.

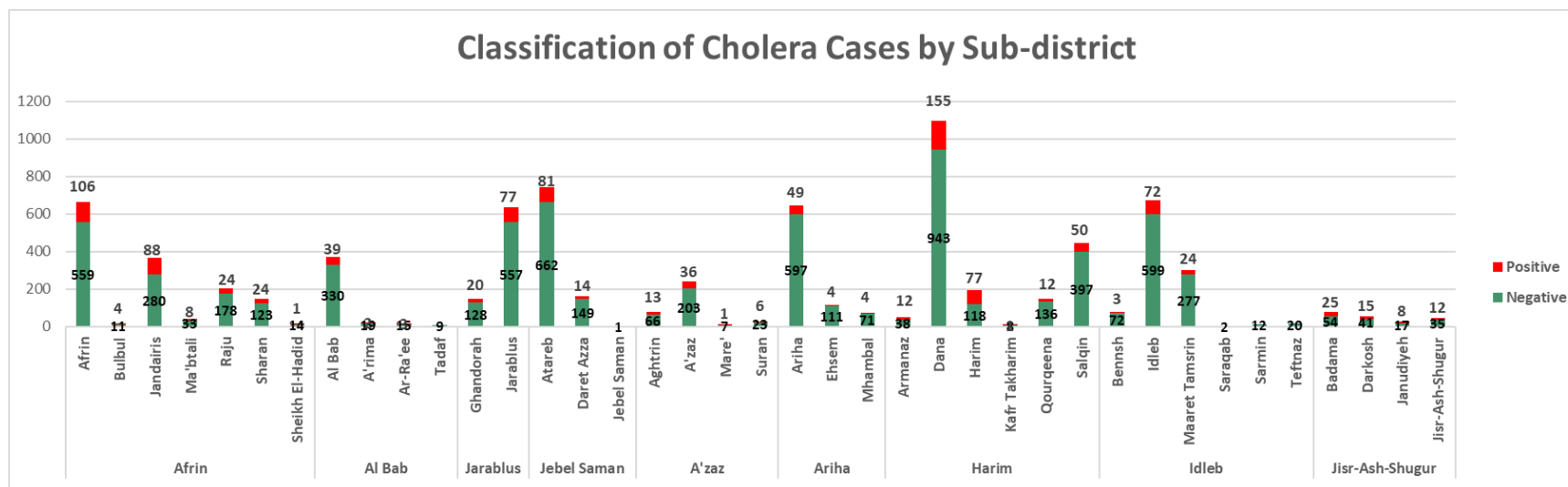
The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 37 – 2023 is 5.21 %. But the positivity rate since the beginning of cholera outbreak up to epi week 37 – 2023 is 5.7 %.



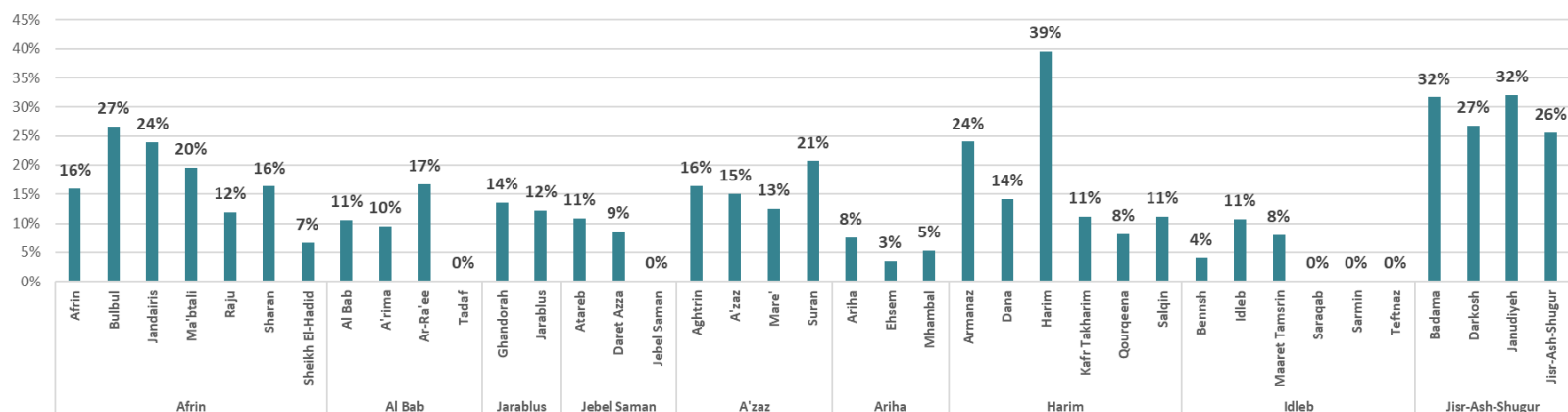
- For children under 5 years of age with a stool culture negative for cholera:
The total samples collected between (epi week 6 and epi week 35) for Rotavirus reached 997 (169 were positive), while the total samples for Adenovirus were 218 (one positive)
The EWARN labs ran out of Rotavirus tests in epi week 36.



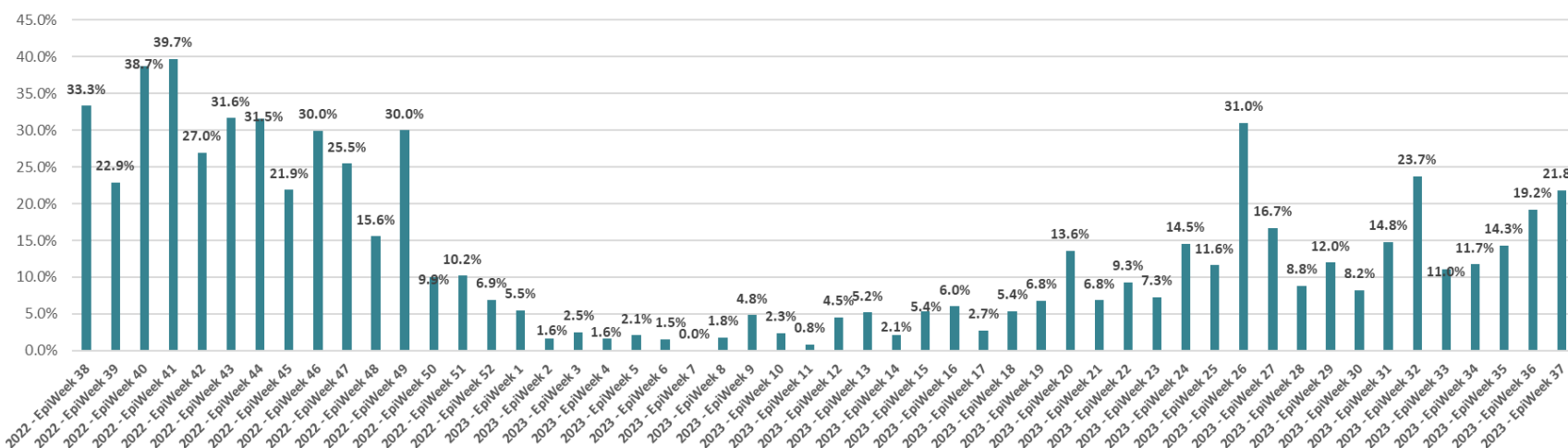
Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture
Up to W31 - 2023	Aleppo	Afrin	66	590	10.1%	255	1198	17.5%
		Al Bab	12	147	7.5%	44	373	10.6%
		A'zaz	28	205	12.0%	56	299	15.8%
		Jarablus	14	225	5.9%	97	685	12.4%
		Jebel Saman	14	270	4.9%	95	812	10.5%
	Idleb	Ariha	4	229	1.7%	57	779	6.8%
		Harim	81	1177	6.4%	307	1640	15.8%
		Idleb	18	793	2.2%	99	982	9.2%
		Jisr-Ash-Shugur	4	358	1.1%	60	147	29.0%
	Total		241	3994	5.7%	1070	6915	13.4%



Positivity Rate by Subdistrict - Culture



Positivity Rate by Week - Culture



Reporting period: (9 -15) - September

Since 12 of August, ACU in consultation with WHO team has shifted the regular approach of WASH investigation to a new approach focused on water quality monitoring in hotspot communities across NWS.

The monitoring of the quality includes taking samples at different levels to test FRC values, as follows:

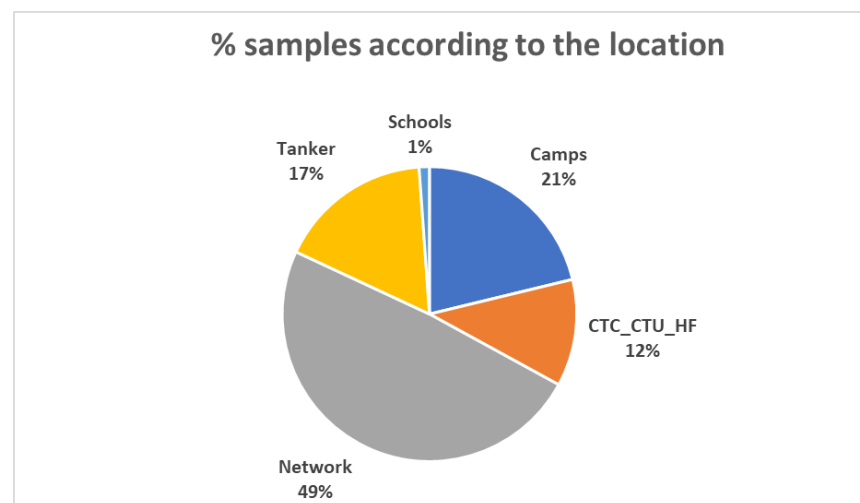
1. Samples at HH level from water taps connected to network (water pumped through water stations).
2. Camps exist inside or near the hotspot communities.
3. Schools.
4. Tankers.
5. HFs (including CTUs and CTCs)

This new approach aims at tracking whether the water supplied at different levels in these areas is safe to drink or not according to standard, through collection samples 3 times or more a week.

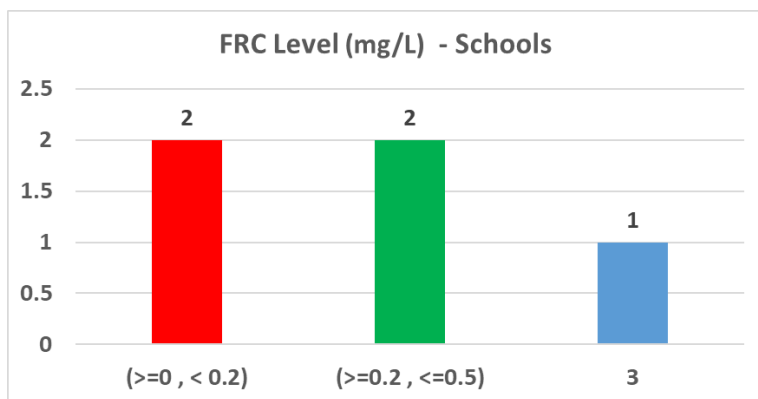
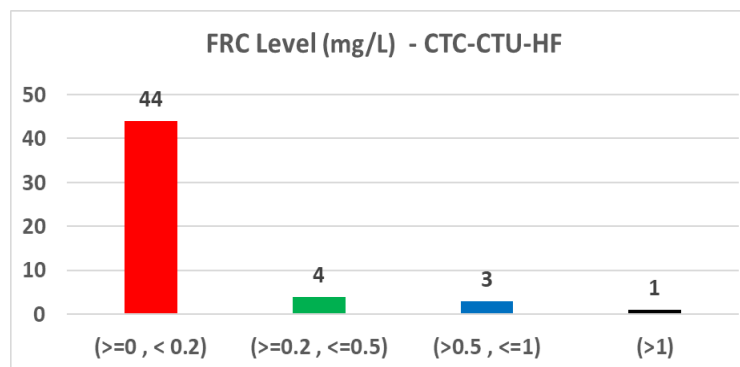
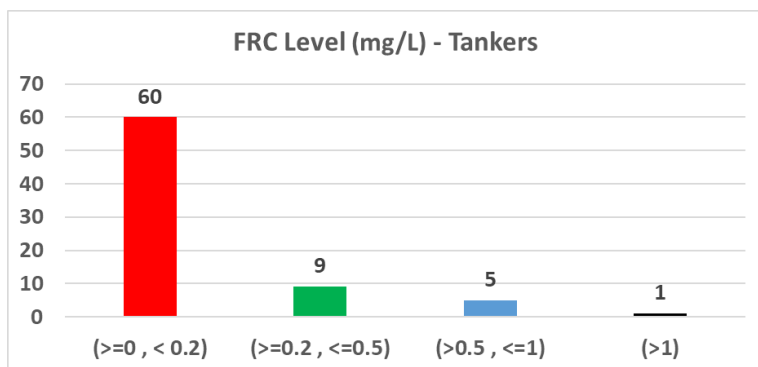
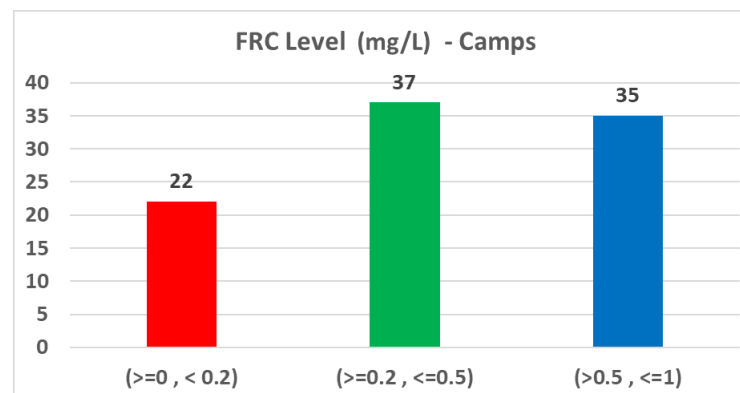
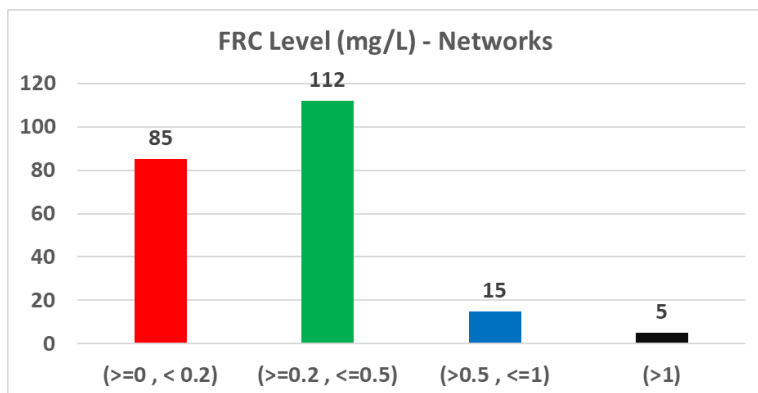
This facilitates the intervention that might be made by organizations to ensure that the drinking water is potable and decrease the WBDs particularly AWD/Cholera.

Monitoring Results:

Number of samples collected was 443 ones, as follows:



FRC values at different level of sampling:



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 health facilities and 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 is conducting Rotavirus rapid diagnostic tests (RDTs).
- The response teams conducted an expanded investigation of the deaths that occurred since the beginning of the outbreak (24 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

- The stock of Rotavirus tests in EWARN labs ran out in week 36.