

Northwest of Syria Cholera Outbreak

Situation Report No.55

Epidemiological Week - 42 (15 - 21 / Oct / 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 163013

Confirmed Cases: 1111

Cholera Deaths : 24

Case Fatality Rate: 0.02%

NWS Attack Rate: 3.52%

Key Highlights

Cumulatively, a total of **163013 suspected** cases (**72249** in Aleppo governorate, **90764** in Idlib governorate) including **1111 confirmed** have been reported by EWARN team since 16 September, including **24 deaths** case.

The highest number of cases were reported in Harim district (**44118**) and Idlib district (**33361**) in Idlib governorate, then Azaz district (**20192**), and Afrin district (**15970**) in Aleppo governorate.

30884 total suspected cases (including **716** new cases in Epi week 42 - 2023) were reported from camps. **56.72 %** 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.

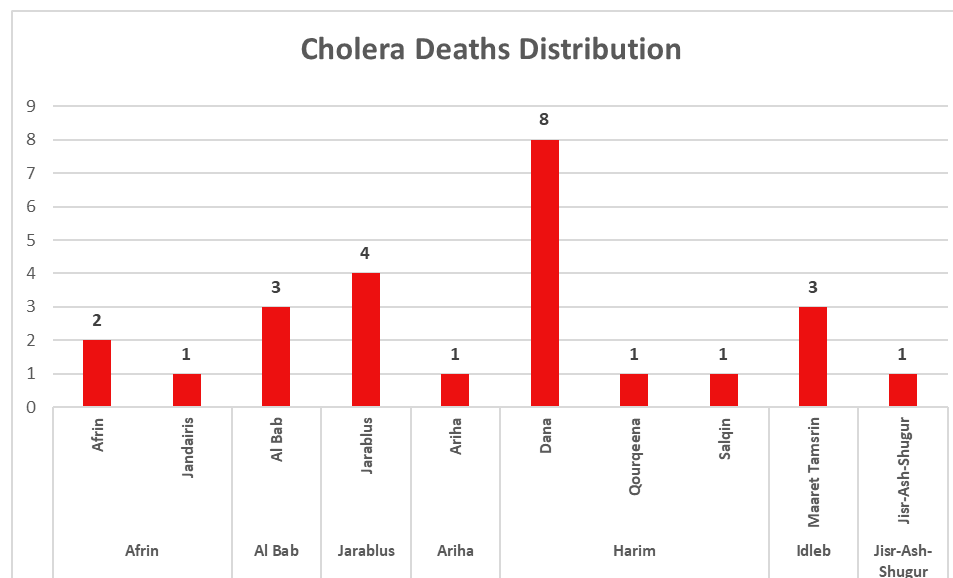
In Epi week 42 - 2023, **3382 suspected cases of cholera were reported**. The affected governorates are Aleppo (1648 suspected cases, 3 confirmed), and Idlib (1934 suspected cases, 9 confirmed). 20% of the total were in the camps

The age group less than 5 reported 59 %.

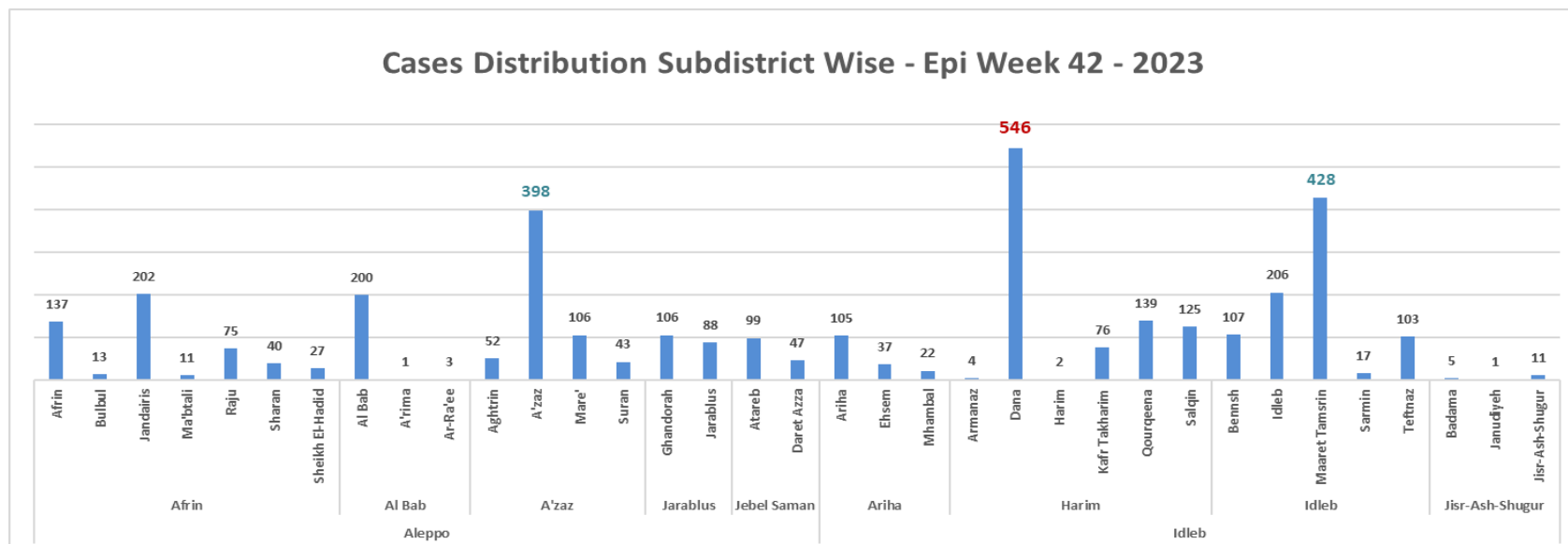
Sex distribution of the suspected_cases is 52% Male, and 48% Female

There is new death in epi week 42

- A 7-year-old child female
- Qabasin community - AlBab district - Aleppo
- date of death 17-10-2024
- RDT result is positive, and stool culture is negative



Dana subdistrict in Idled governorate reported the highest number of cases (546), in contract Azaz subdistrict reported the highest number in Aleppo governorate (398).



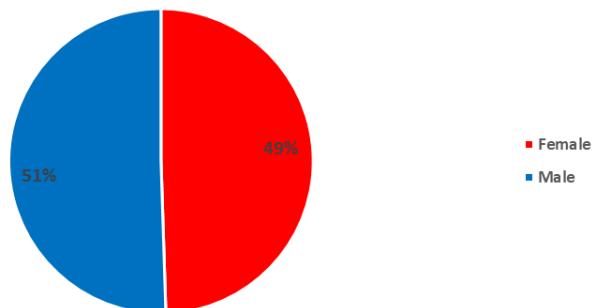
The overall sex distribution of the suspected_cases is 51% Male, and 49% Female.

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

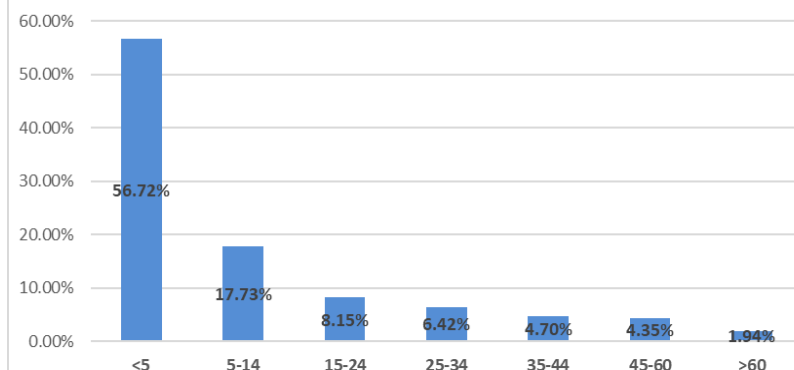
20% of the total cases live in camps (30884), and 80% out of camps (122070).

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 56.72%.

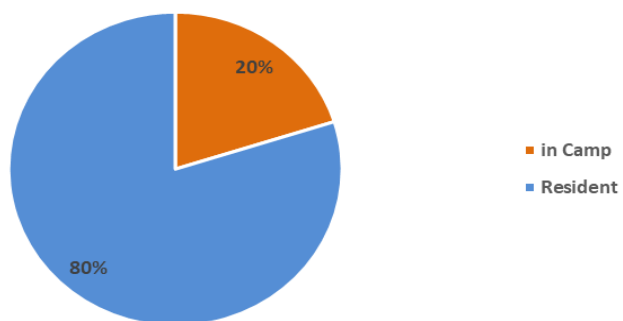
Sex



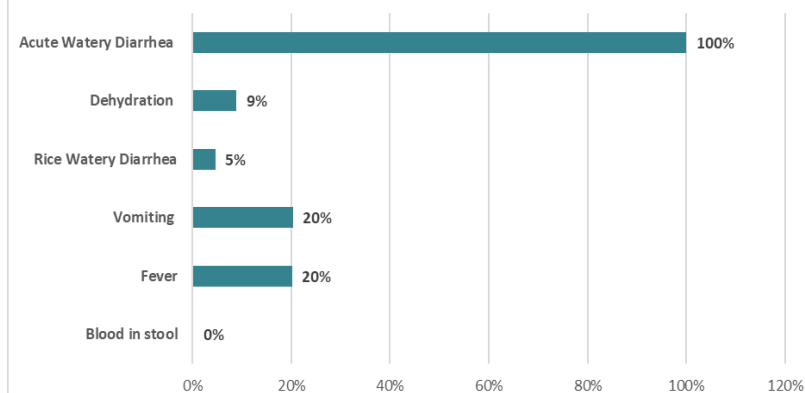
Age Group



Cholera Cases Residency Distribution



Signs and Symptoms



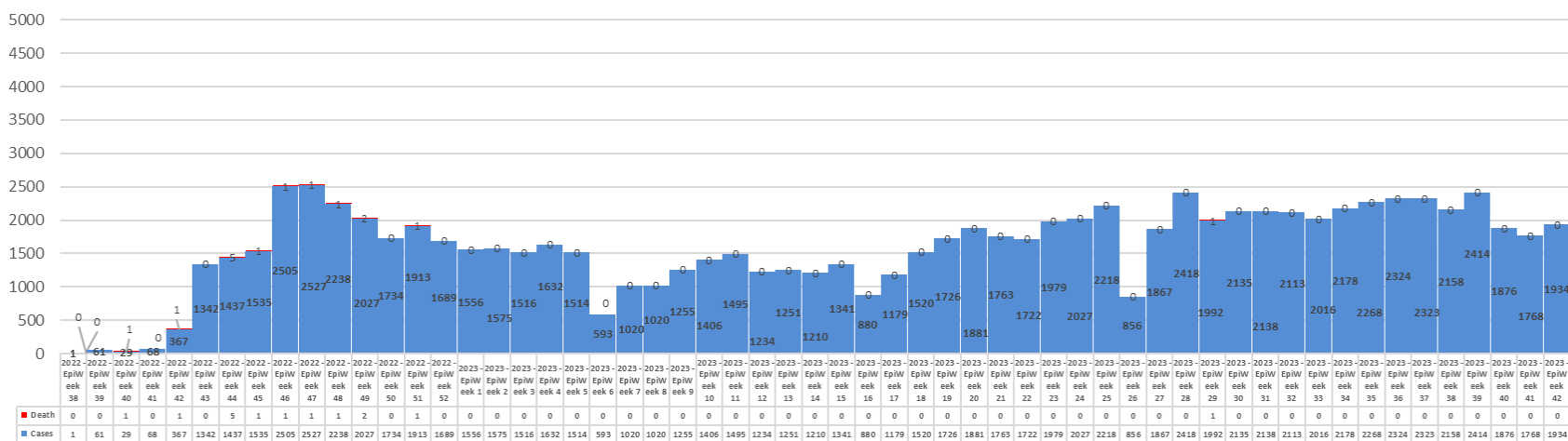
■ Death
■ Cases

Date	Cases	Deaths
2020-01-19	19	0
2020-02-05	278	0
2020-02-19	480	1
2020-03-05	518	0
2020-03-19	985	1
2020-04-02	2252	5
2020-04-16	2303	5
2020-04-30	2268	2
2020-05-14	3592	1
2020-05-28	3686	1
2020-06-11	3268	1
2020-06-25	3114	2
2020-07-09	2844	0
2020-07-23	3204	1
2020-08-06	2949	1
2020-08-20	3096	1
2020-09-03	2882	1
2020-09-17	2760	0
2020-10-01	2805	0
2020-10-15	2607	0
2020-10-29	1011	0
2020-11-12	1665	1
2020-11-26	1784	0
2020-12-10	2320	2
2020-12-24	2462	0
2021-01-07	2796	0
2021-01-21	2332	0
2021-02-04	2342	0
2021-02-18	2297	0
2021-03-04	2392	0
2021-03-18	1770	0
2021-04-01	2384	0
2021-04-15	2916	0
2021-04-29	3546	0
2021-05-13	3661	0
2021-05-27	3546	0
2021-06-10	3526	0
2021-06-24	3804	0
2021-07-08	3992	0
2021-07-22	4093	0
2021-08-05	1546	0
2021-08-19	3545	0
2021-09-02	4184	1
2021-09-16	3580	0
2021-09-30	3797	0
2021-10-14	3801	0
2021-10-28	3906	0
2021-11-11	3527	0
2021-11-25	3884	0
2021-12-09	3820	0
2021-12-23	4014	0
2022-01-06	4056	0
2022-01-20	3828	0
2022-02-03	4393	0
2022-02-17	3693	0
2022-03-03	3308	0
2022-03-17	3546	1

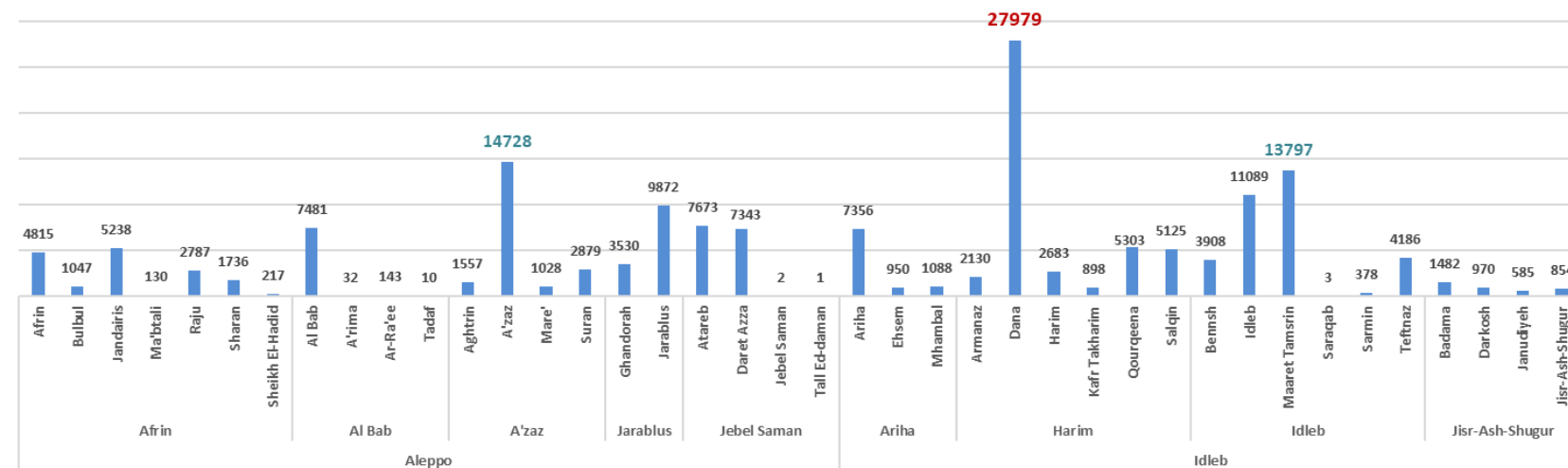
The chart displays the weekly number of COVID-19 cases and deaths in the Netherlands from January 2020 to January 2023. The top section is a bar chart where blue bars represent cases and red bars represent deaths. Each bar has its numerical value displayed on top. The bottom section is a line chart showing the 7-day moving average for both cases (blue line) and deaths (red line). The y-axis represents the number of cases or deaths, ranging from 0 to 5000. The x-axis represents time, with labels for specific dates from 2020-01-18 to 2023-01-18. The data shows a significant increase in cases starting in early 2023, peaking at nearly 2000 cases per week in late 2022/early 2023, followed by a decline and then a slight uptick again in early 2023. Deaths remain consistently low, mostly below 100 per week, with a few small peaks.

Date	Cases	Deaths
2020-01-18	18	0
2020-01-25	217	0
2020-02-01	451	0
2020-02-08	450	0
2020-02-15	618	0
2020-02-22	910	1
2020-02-29	866	0
2020-03-06	733	1
2020-03-13	1087	0
2020-03-20	1159	0
2020-03-27	1030	0
2020-04-03	1087	0
2020-04-10	1110	1
2020-04-17	1291	0
2020-04-24	1260	1
2020-05-01	1540	1
2020-05-08	1307	1
2020-05-15	1244	0
2020-05-22	1173	0
2020-05-29	1093	0
2020-06-05	418	1
2020-06-12	645	0
2020-06-19	764	0
2020-06-26	1065	2
2020-07-03	1056	0
2020-07-10	1301	0
2020-07-17	1098	0
2020-07-24	1091	0
2020-07-31	1087	0
2020-08-07	1051	0
2020-08-14	890	0
2020-08-21	1205	0
2020-08-28	1396	0
2020-09-04	1820	0
2020-09-11	1780	0
2020-09-18	1783	0
2020-09-25	1804	0
2020-10-02	1825	0
2020-10-09	1965	0
2020-10-16	1875	0
2020-10-23	690	0
2020-10-30	1678	0
2020-11-06	1766	0
2020-11-13	1588	0
2020-11-20	1662	0
2020-11-27	1663	0
2020-12-04	1793	0
2020-12-11	1511	0
2020-12-18	1706	0
2020-12-25	1552	0
2021-01-01	1690	0
2021-01-08	1733	0
2021-01-15	1670	0
2021-01-22	1979	0
2021-01-29	1817	0
2021-02-05	1540	0
2021-02-12	1670	16

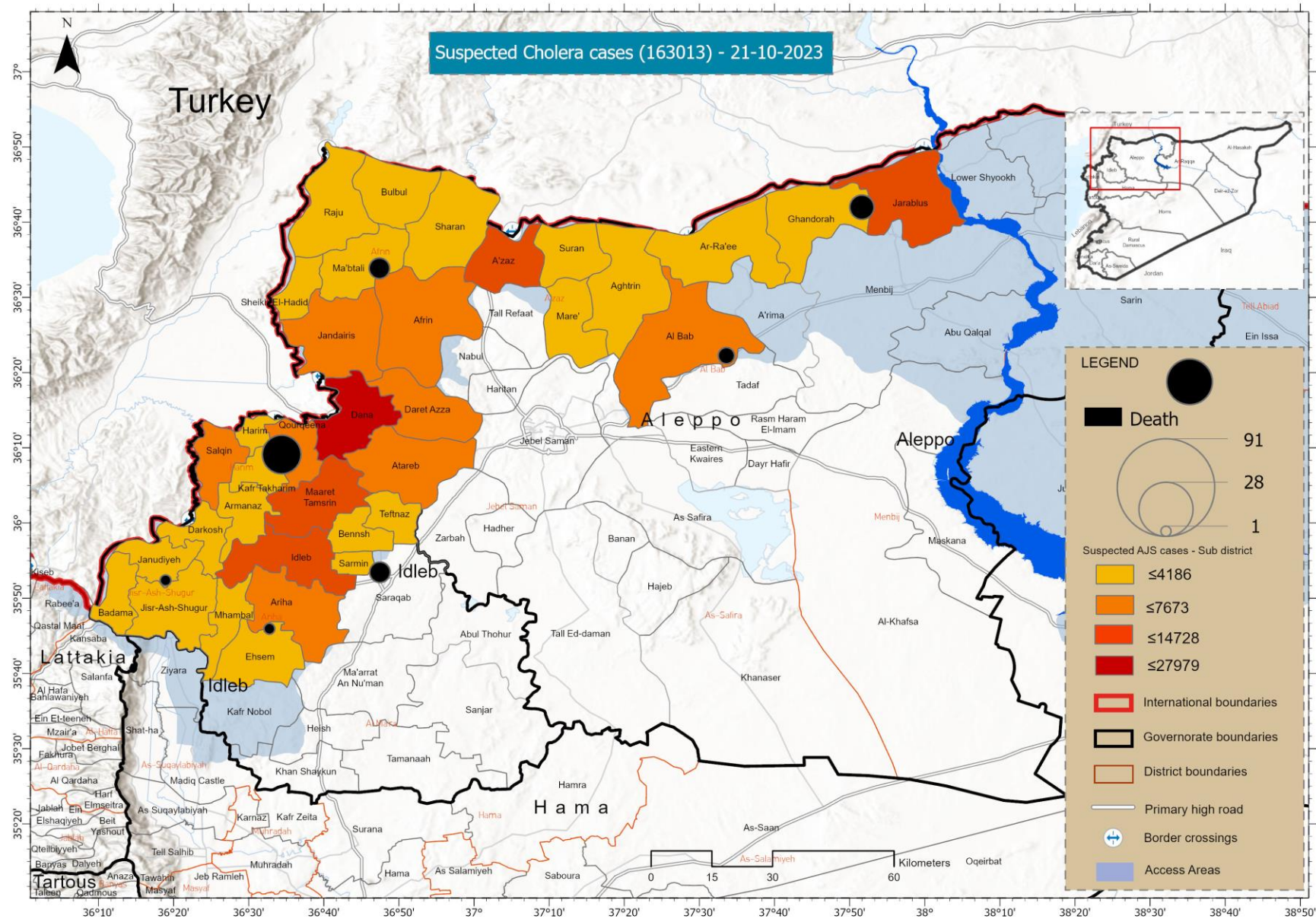
EPI Curve - Reporting Date - Idleb Governorate



Cases Distribution Subdistrict Wise - up to Epi Week 42 - 2023



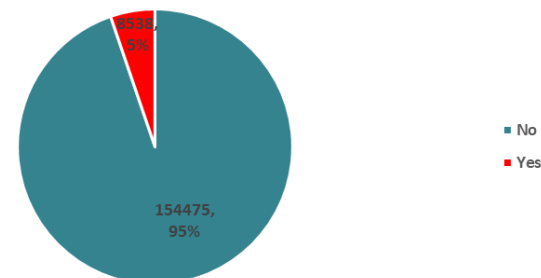
Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W42 - 2023	Idleb	Ariha	20-Sep	185,668	164	9394	0	1	0.01%	88.3	5.06%
		Harim	6-Sep	1,586,820	892	44118	0	10	0.02%	56.2	2.78%
		Idleb	14-Sep	713,933	861	33361	0	3	0.01%	120.6	4.67%
		Jisr-Ash-Shugur	25-Sep	310,973	17	3891	0	1	0.03%	5.5	1.25%
	Aleppo	A'zaz	9-Sep	648,600	599	20192	0	0	0.00%	92.4	3.11%
		Afrin	21-Sep	467,090	505	15970	0	3	0.02%	108.1	3.42%
		Al Bab	17-Sep	339,812	204	7666	1	3	0.04%	60.0	2.26%
		Jarablus	12-Sep	121,938	194	13402	0	4	0.03%	159.1	10.99%
		Jebel Saman	10-Sep	251,785	146	15019	0	0	0.00%	58.0	5.97%
	Total			4,626,619	3582	163013	1	25	0.02%	77.4	3.52%



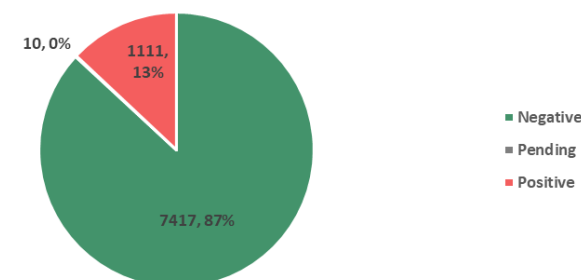
Laboratory:

- In Epi week 42- 2023, the total number of stool specimens or rectal swabs is 90, (38 in Aleppo –3 confirmed), (52 in Idleb – 0 confirmed).
- A cumulative of 8538 samples were collected since the start of the outbreak (5 % of overall line listed cases), of which 1111 have tested positive by stool culture. The total positivity rate in NWS is 13 %
- The Total number of negative cases by stool culture is 7417, and the remaining 10 are still pending.

Stool sample collected - Culture



Cholera Sampled Cases Classification

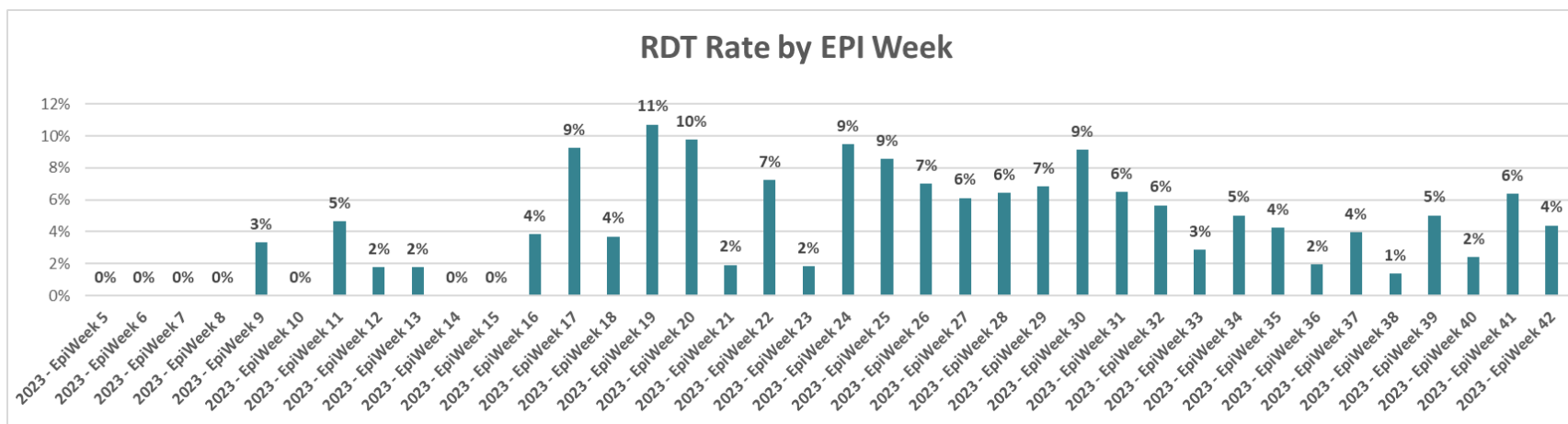
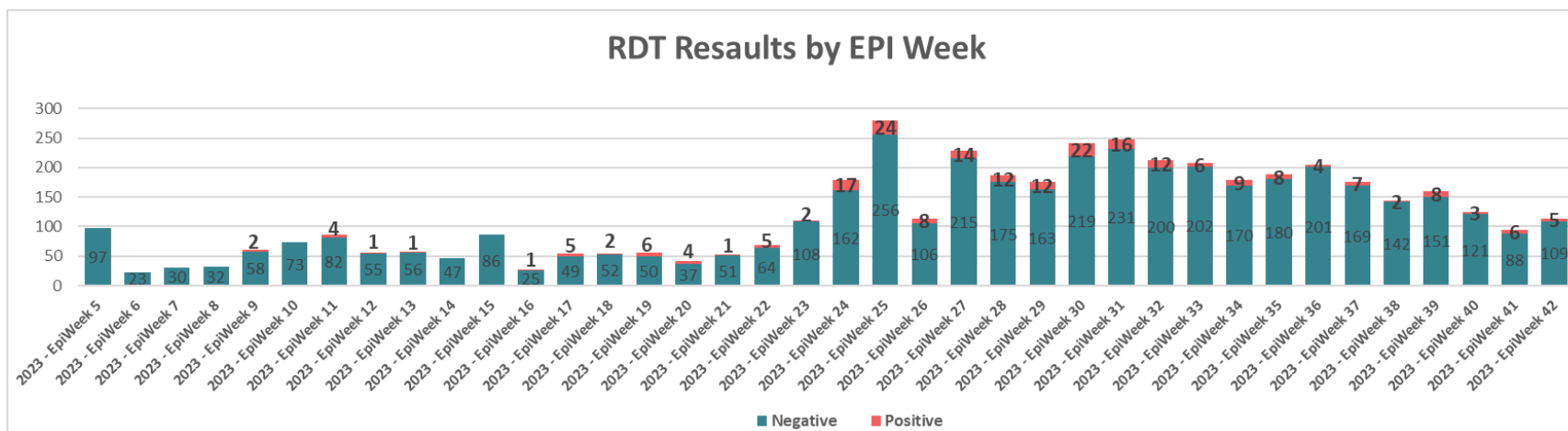


- Isolation and identification of V. cholera serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, including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

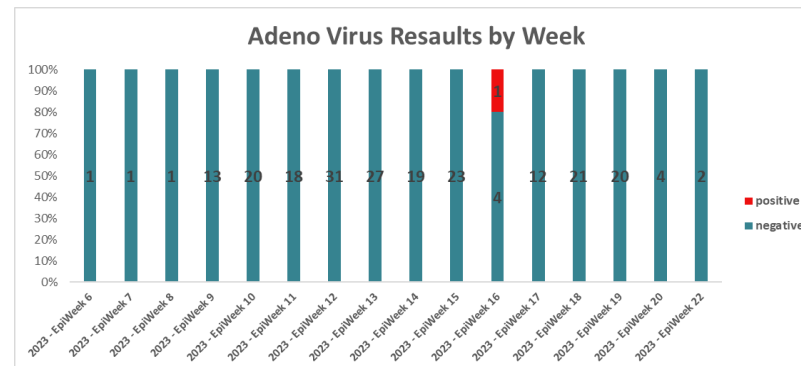
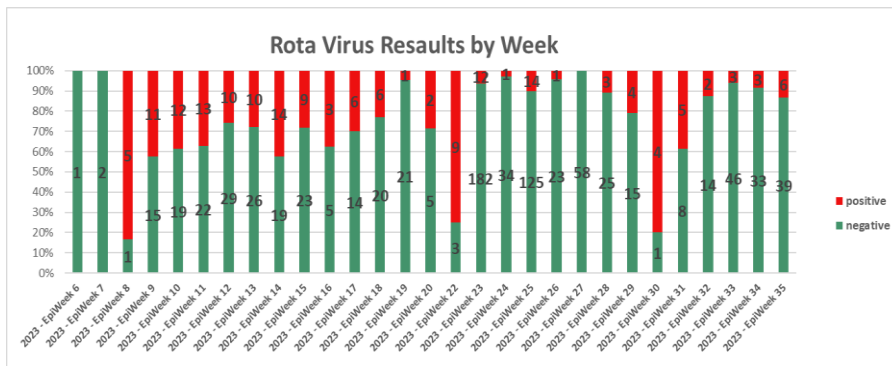
During epi week 42, EWARN received 114 RDT results from the CTC/CTUs and some HF, 5 of them were positive for Cholera.

The total of RDT tests between epi weeks (5 - 42) reached 4564, and the total positive is 229.

The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 42 – 2023 is 5 %. But the positivity rate since the beginning of cholera outbreak up to epi week 42 – 2023 is 5.4 %.

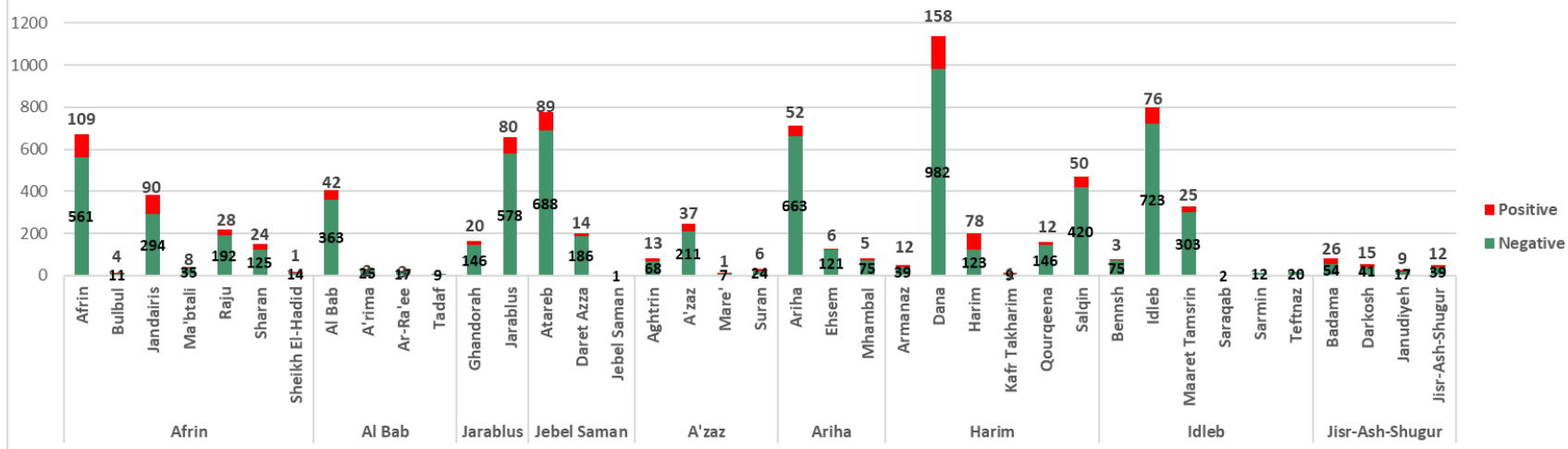


- For children under 5 years of age with a stool culture negative for cholera:
The total samples collected between (epi week 6 and epi week 35) for Rotavirus reached 997 (169 were positive), while the total samples for Adenovirus were 218 (one positive)
The EWARN labs ran out of Rotavirus tests in epi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

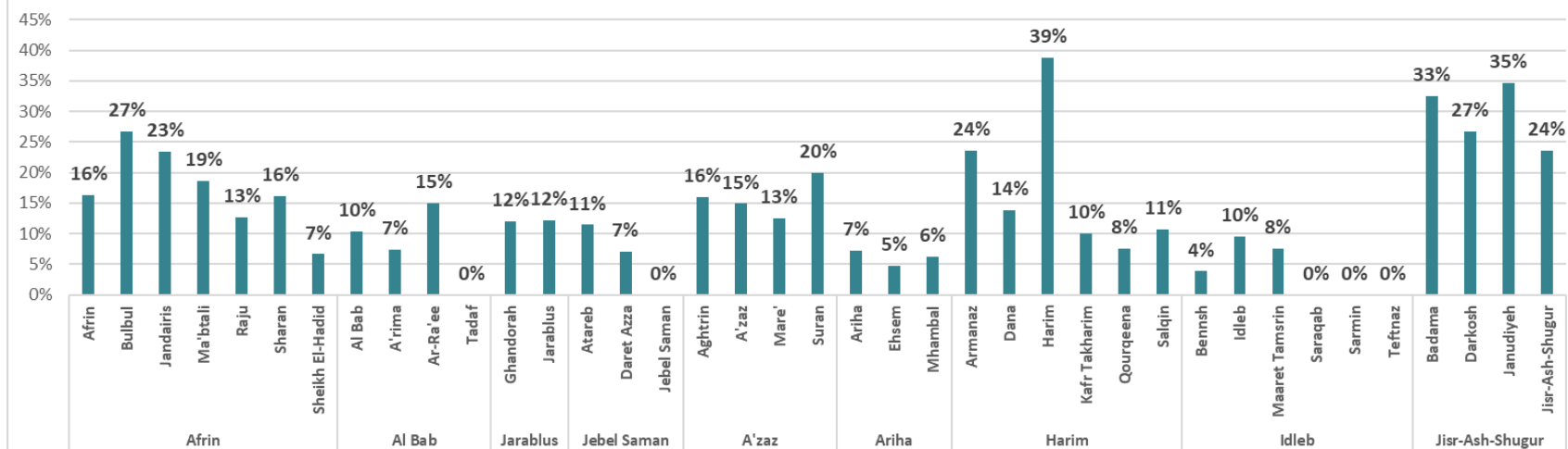


Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture
Up to W42 - 2023	Aleppo	Afrin	78	662	10.5%	264	1232	17.6%
		Al Bab	17	182	8.5%	47	414	10.2%
		A'zaz	28	207	11.9%	57	310	15.5%
		Jarablus	14	262	5.1%	100	724	12.1%
		Jebel Saman	14	290	4.6%	103	875	10.5%
	Idleb	Ariha	4	274	1.4%	63	859	6.8%
		Harim	85	1256	6.3%	311	1719	15.3%
		Idleb	21	1009	2.0%	104	1135	8.4%
		Jisr-Ash-Shugur	4	463	0.9%	62	151	29.1%
	Total		265	4605	5.4%	1111	7419	13.0%

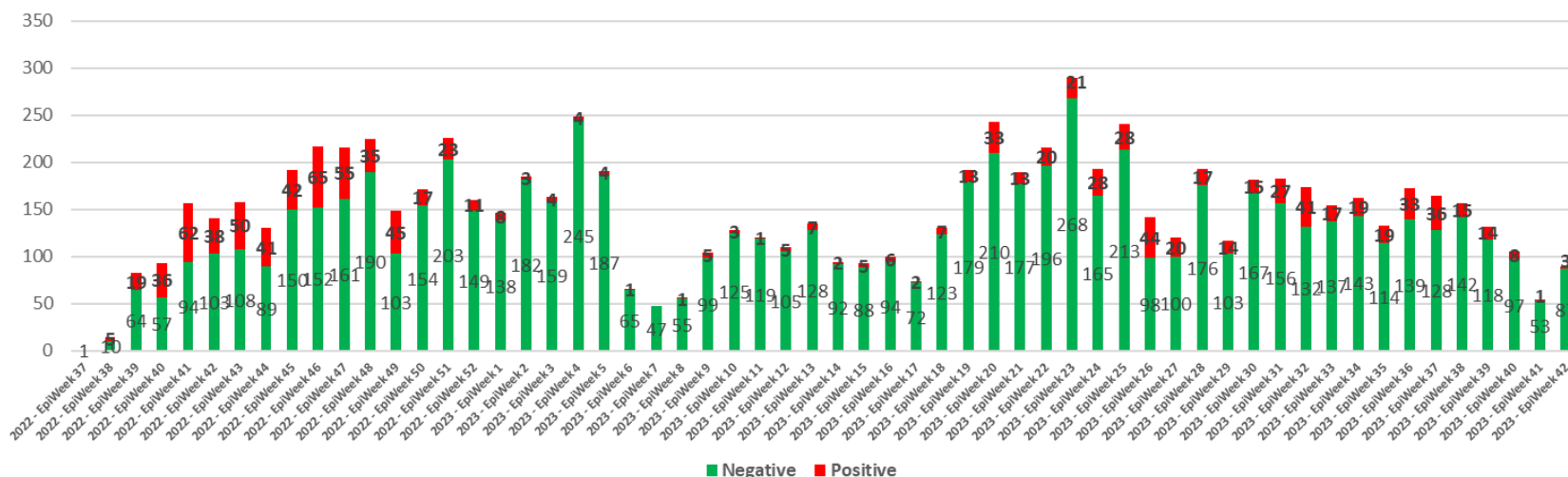
Classification of Cholera Cases by Sub-district



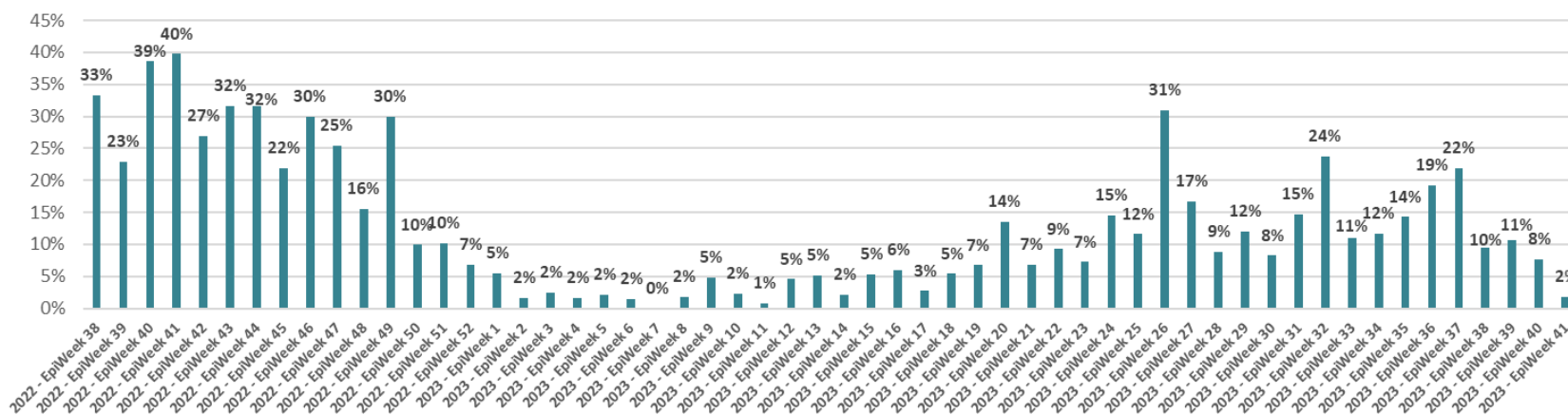
Positivity Rate by Subdistrict



Sample Collected by Epi Week - Culture



Positivity Rate by Week - Culture



2. WASH:

Reporting period: (30 Sep – 6 Oct)

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:

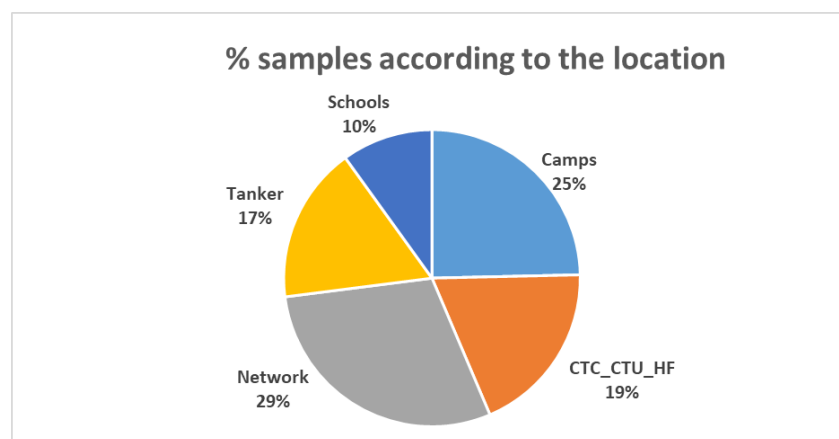
1. Samples at HH level from water taps connected to network (water pumped through water stations).
2. Camps exist inside or near the hotspot communities.
3. Schools.
4. Tankers.
5. HFs (including CTUs and CTCs)

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 1 time a week, reducing the frequency due to the lack of funds.

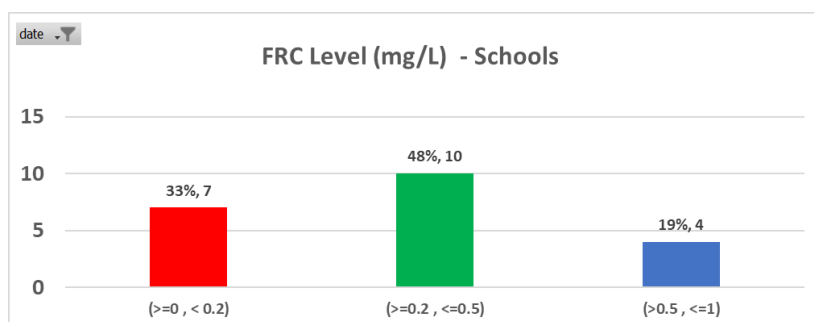
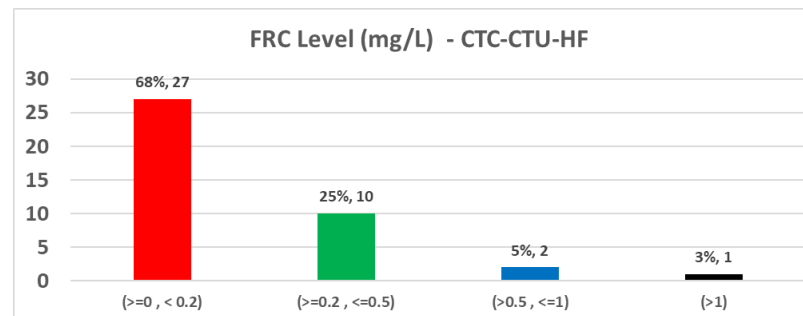
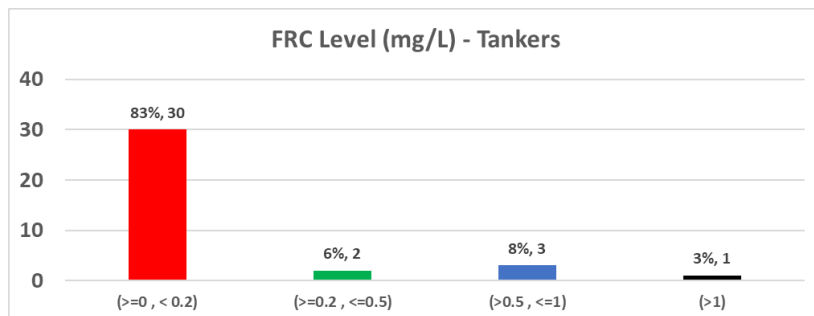
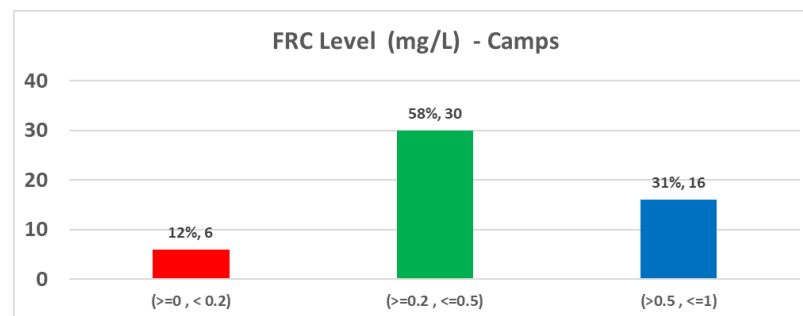
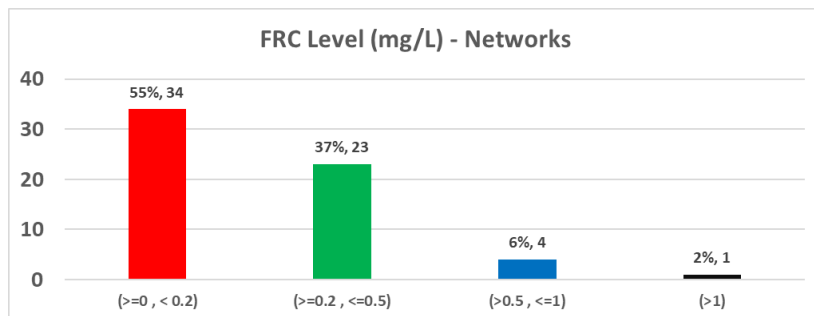
This facilitates the intervention that might be made by organizations to ensure that the drinking water is potable and decrease the WBDs particularly AWD/Cholera.

Monitoring Results:

Number of samples collected, during reporting period-Week 42, was 211 samples, 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.
- 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.