

Northwest of Syria Cholera Outbreak

Situation Report No.49

Epidemiological Week - 36 (3 - 9 / Sep / 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 140095

Confirmed Cases: 1034

Cholera Deaths : 24

Case Fatality Rate: 0.02%

NWS Attack Rate: 3.03%

Key Highlights

Cumulatively, a total of **140095 suspected** cases (**61862** in Aleppo governorate, **78233** in Idlib governorate) including **1034 confirmed** have been reported by EWARN team since 16 September, including **24 deaths** case.

The highest number of cases were reported in Harim district (**38511**) and Idlib district (**27698**) in Idlib governorate, then Azaz district (**17341**), Jebel Saman district (**13542**) in Aleppo governorate.

- **26475** total suspected cases (including **768** new cases in Epi week 36 - 2023) were reported from camps.
- **56.47 %** 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

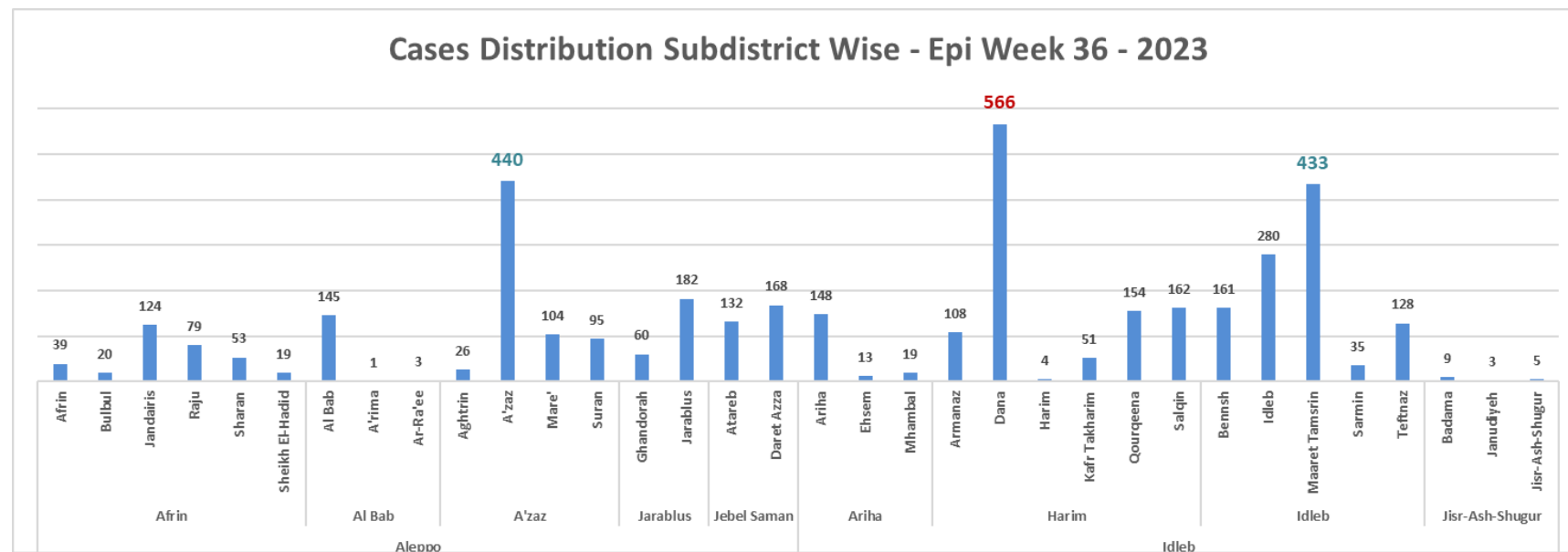
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 36 - 2023, **3969 suspected cases of cholera were reported**. The affected governorates are Aleppo (1690 suspected cases, 6 confirmed), and Idleb (2279 suspected cases, 27 confirmed). 20% of the total were in the camps

The age group less than 5 reported 52.56 %. Sex distribution of the suspected_cases is 48% Male, and 52% Female

There is no death in epi week 36

Dana subdistrict in Idleb governorate reported the highest number of cases (566), then Maaret Tamsrin subdistrict (433) in contract Azaz subdistrict reported the highest number in Aleppo governorate (440).

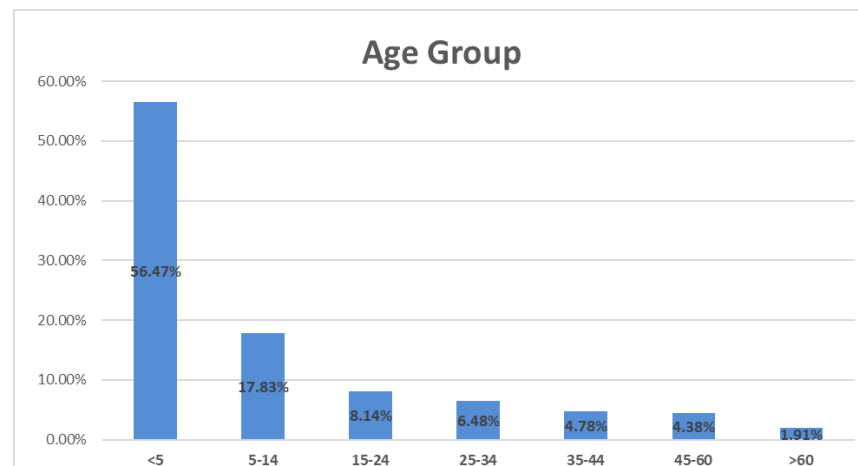
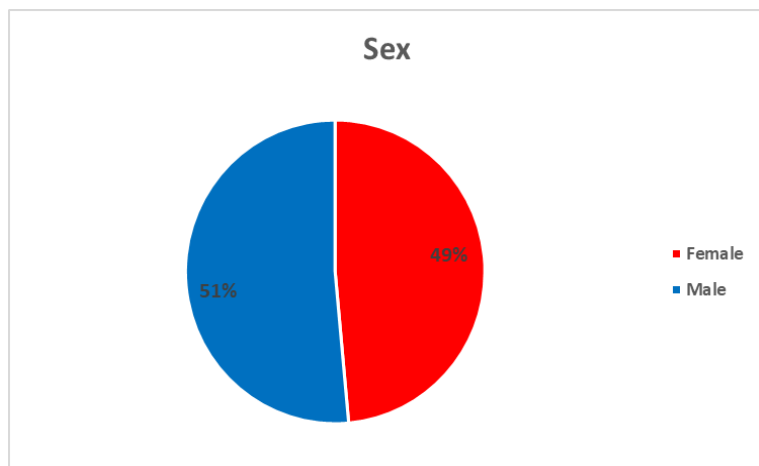


The overall sex distribution of the suspected cases is 51% Male, and 49% Female.

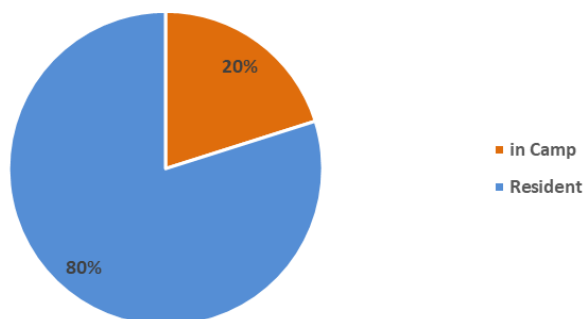
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 5% as rice watery diarrhea, and 9% were dehydrated.

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

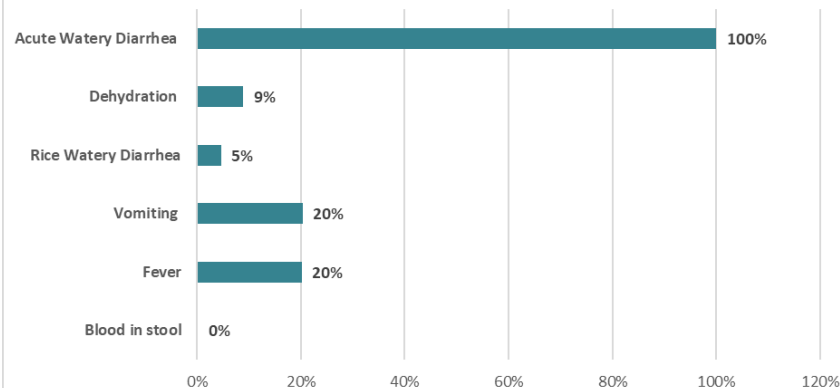
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea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



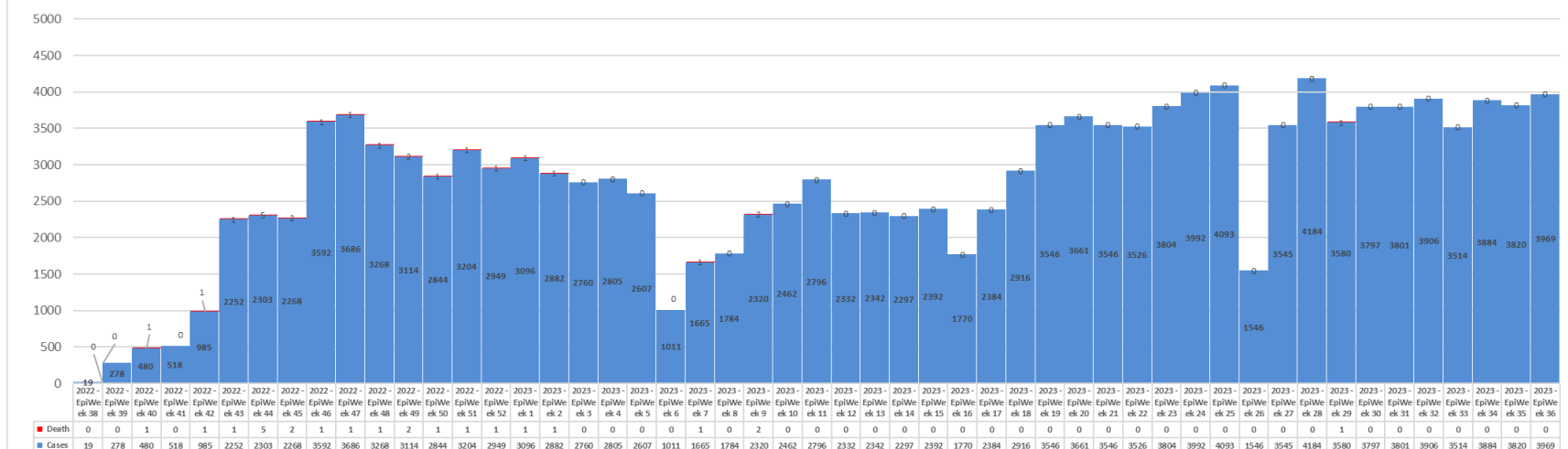
Cholera Cases Residency Distribution



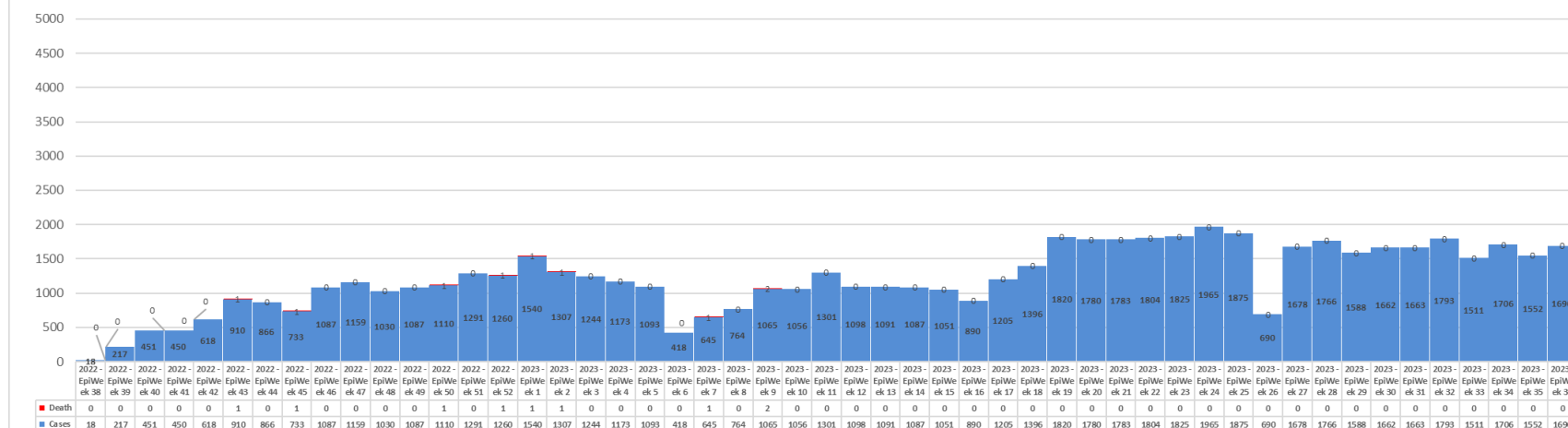
Signs and Symptoms



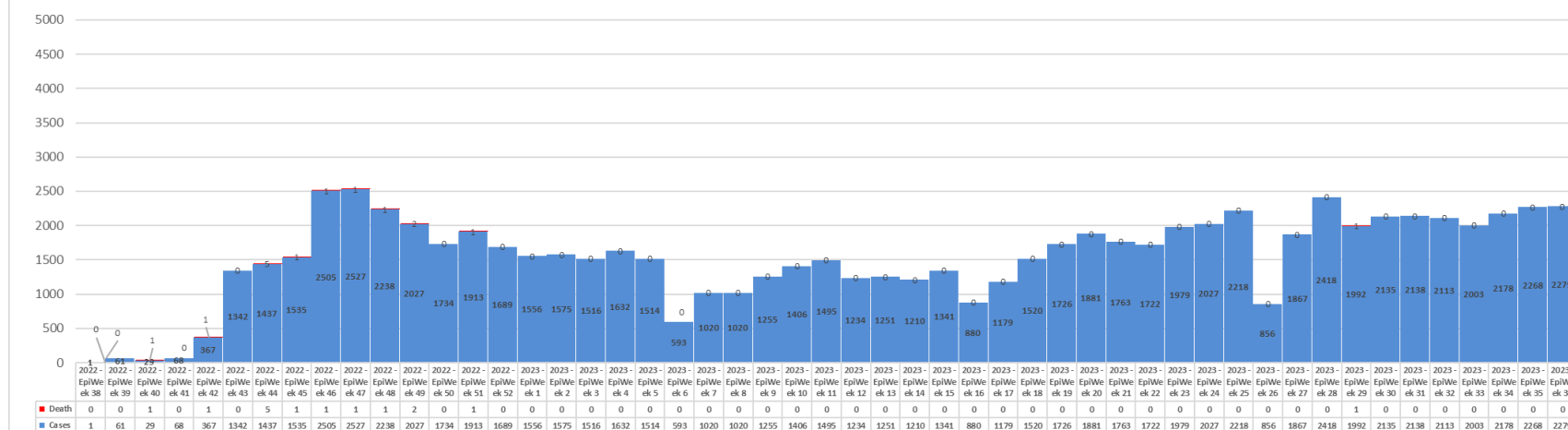
EPI Curve - Reporting Date - NWS



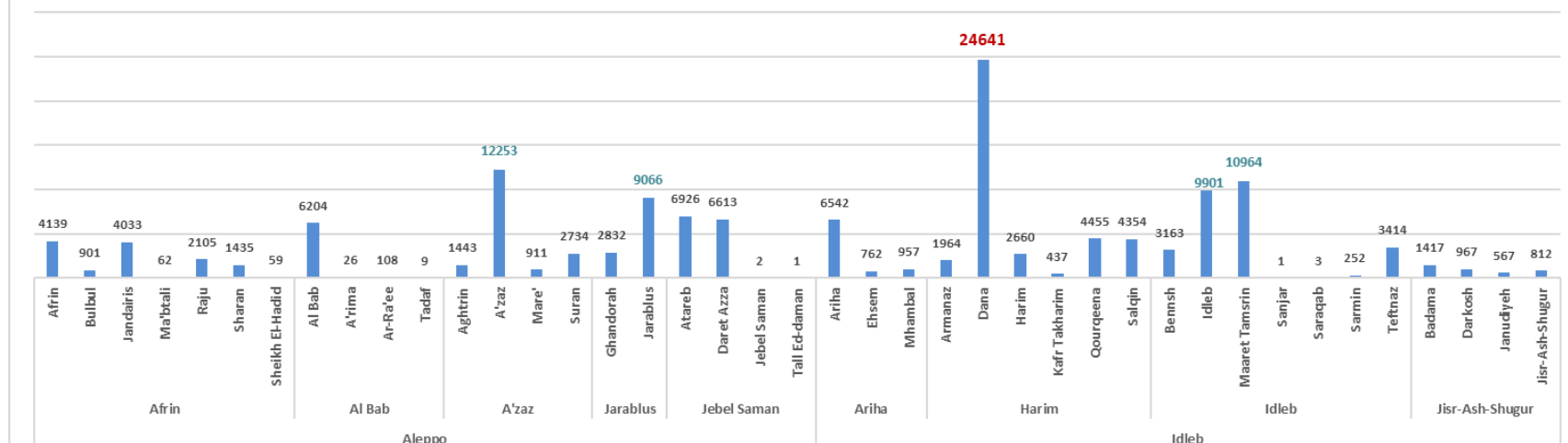
EPI Curve - Reporting Date - Aleppo Governorate



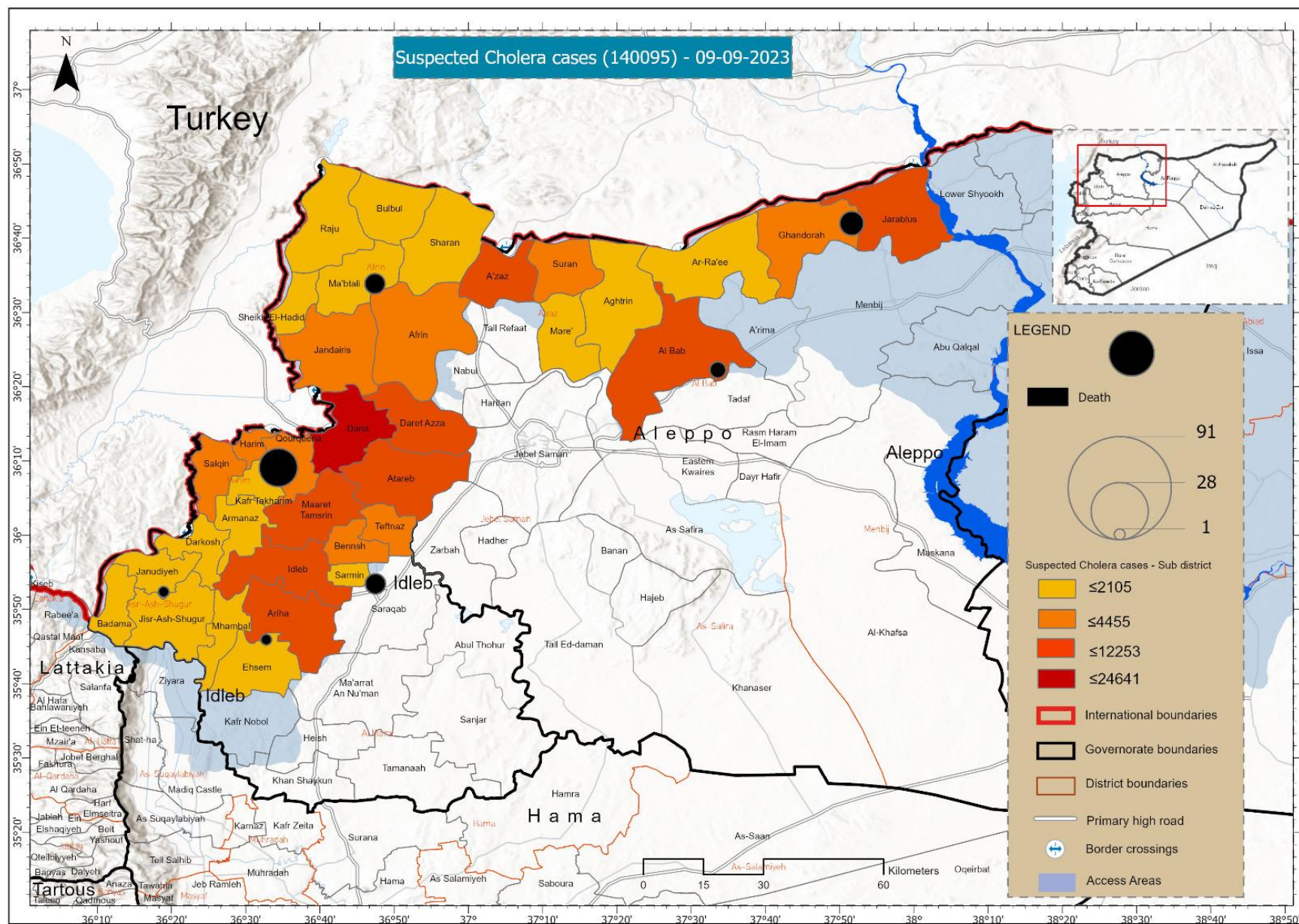
EPI Curve - Reporting Date - Idleb Governorate



Cases Distribution Subdistrict Wise

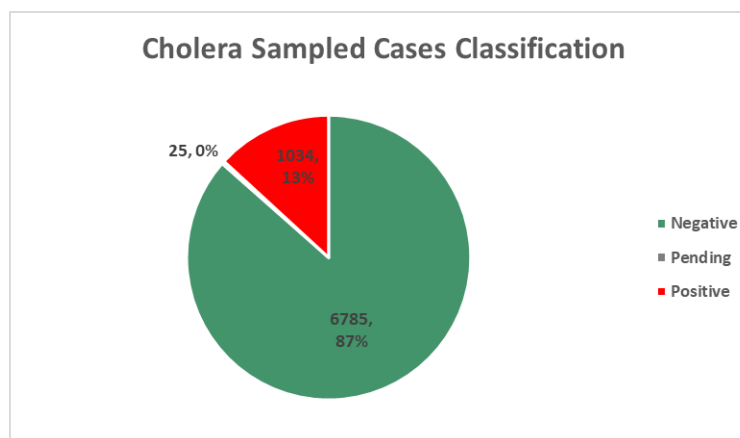
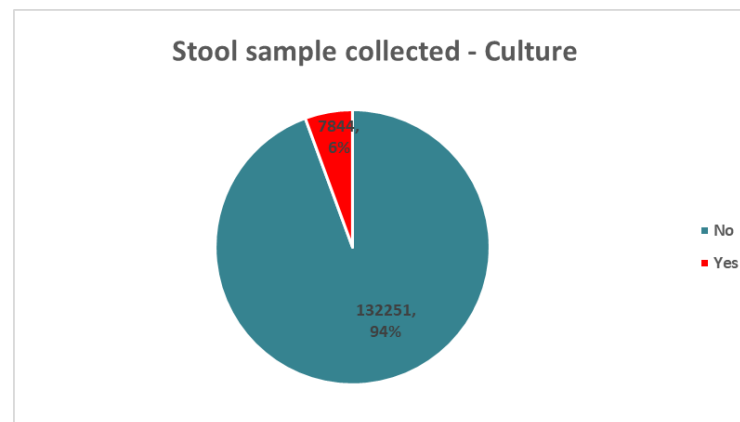


| Epi Week | Governorate | District | Date of Onset | Population | New cases | Cumulative Cases | New Death | Cumulative Deaths | Case Fatality Rate | Incidence Rate | Attack Rate |
|------------------|-------------|-----------------|---------------|------------|-----------|------------------|-----------|-------------------|--------------------|----------------|-------------|
| Up to W35 - 2023 | Idleb | Ariha | 20-Sep | 185,668 | 180 | 8261 | 0 | 1 | 0.01% | 96.9 | 4.45% |
| | | Harim | 6-Sep | 1,586,820 | 1045 | 38511 | 0 | 10 | 0.03% | 65.9 | 2.43% |
| | | Idleb | 14-Sep | 713,933 | 1037 | 27698 | 0 | 3 | 0.01% | 145.3 | 3.88% |
| | | Jisr-Ash-Shugur | 25-Sep | 310,973 | 17 | 3763 | 0 | 1 | 0.03% | 5.5 | 1.21% |
| | Aleppo | A'zaz | 9-Sep | 648,600 | 665 | 17341 | 0 | 0 | 0.00% | 102.5 | 2.67% |
| | | Afrin | 21-Sep | 467,090 | 334 | 12734 | 0 | 3 | 0.02% | 71.5 | 2.73% |
| | | Al Bab | 17-Sep | 339,812 | 149 | 6347 | 0 | 2 | 0.03% | 43.8 | 1.87% |
| | | Jarablus | 12-Sep | 121,938 | 242 | 11898 | 0 | 4 | 0.03% | 198.5 | 9.76% |
| | | Jebel Saman | 10-Sep | 251,785 | 300 | 13542 | 0 | 0 | 0.00% | 119.1 | 5.38% |
| | Total | | | 4,626,619 | 3969 | 140095 | 0 | 24 | 0.02% | 85.8 | 3.03% |



Laboratory:

- In Epi week 36- 2023, the total number of stool specimens or rectal swabs is 173, (55 in Aleppo –6 confirmed), (118 in Idleb – 27 confirmed).
- A cumulative of 7844 samples were collected since the start of the outbreak (6 % of overall line listed cases), of which 1034 have tested positive by stool culture. The total positivity rate in NWS is 13.2 %
- The Total number of negative cases by stool culture is 6785, and the remaining 25 are still pending.

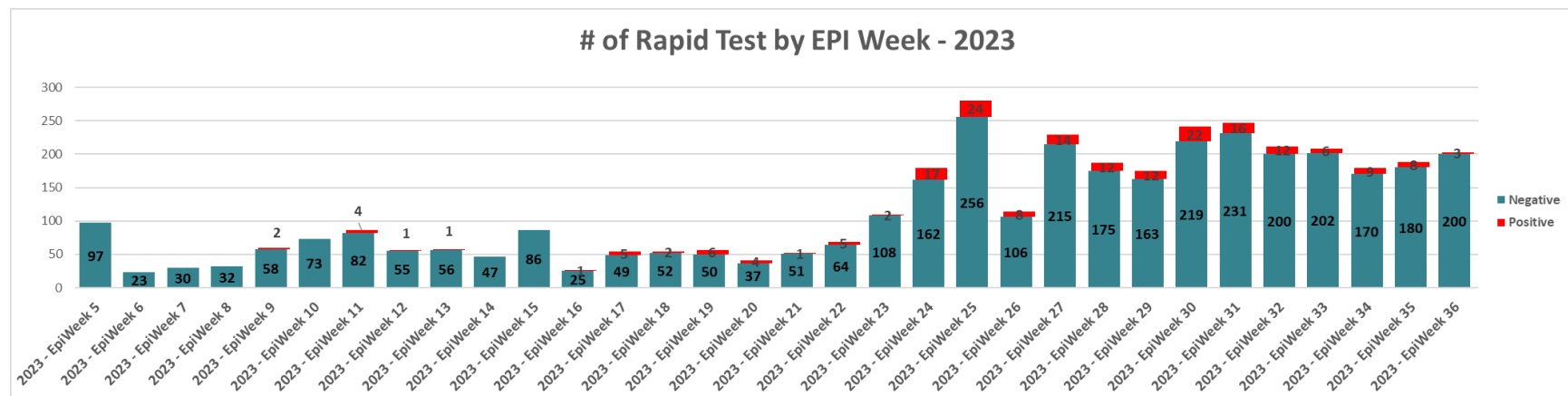


- Isolation and identification of V. cholera serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, including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

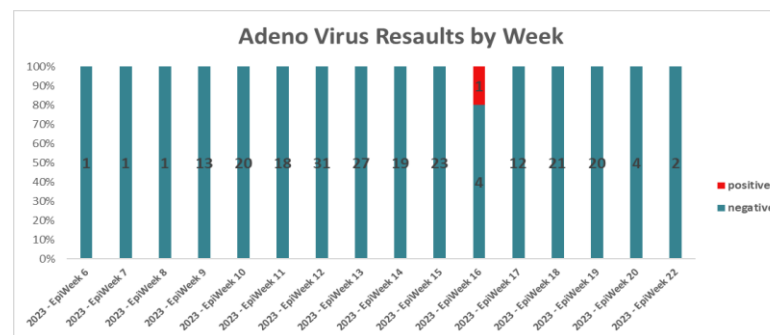
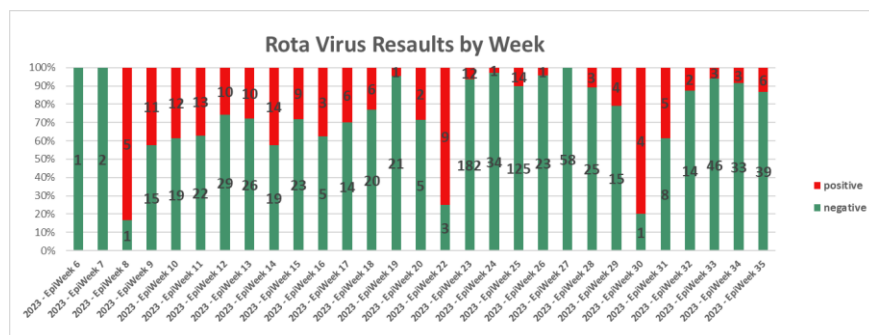
During epi week 36, EWARN received 203 RDT results from the CTC/CTUs and some HFs, 3 of them were positive for Cholera.

The total of RDT tests between epi weeks (5 - 36) reached 3751, and the total positive is 197.

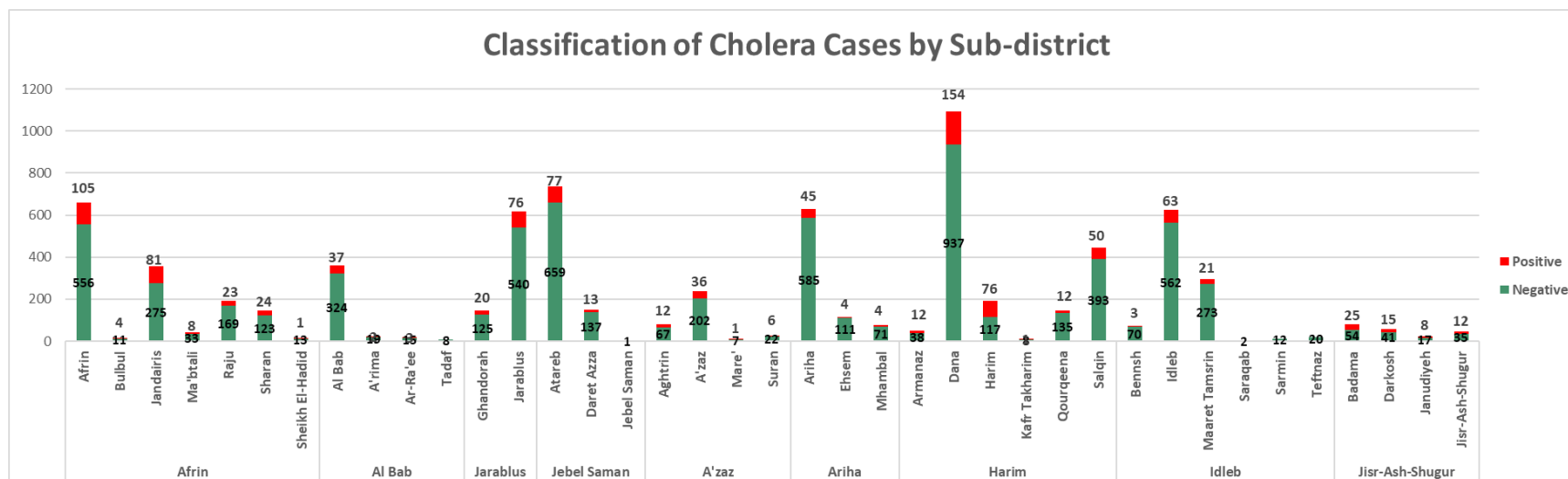
The positivity rate of RDTs, from epi week 6 – 2023 up to epi week 36 – 2023 is 5.25 %. But the positivity rate since the beginning of cholera outbreak up to epi week 36 – 2023 is 5.7 %.



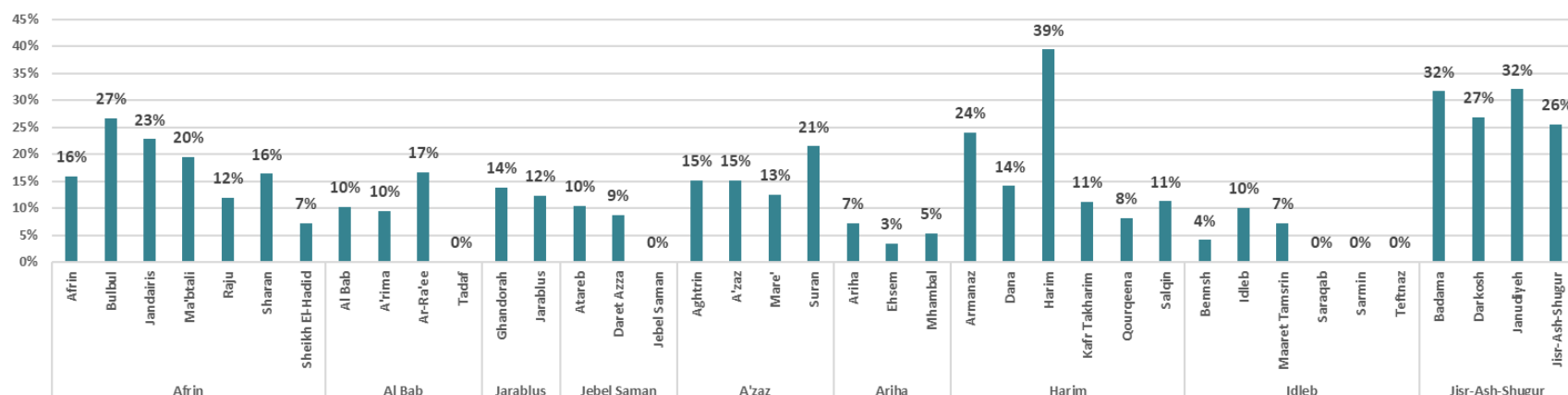
- For children under 5 years of age with a stool culture negative for cholera:
The EWARN labs ran out of Rotavirus tests in epi week 36.
- The total samples collected for Rotavirus reached 997 (169 were positive), while the total samples for Adenovirus were 218 (one positive)



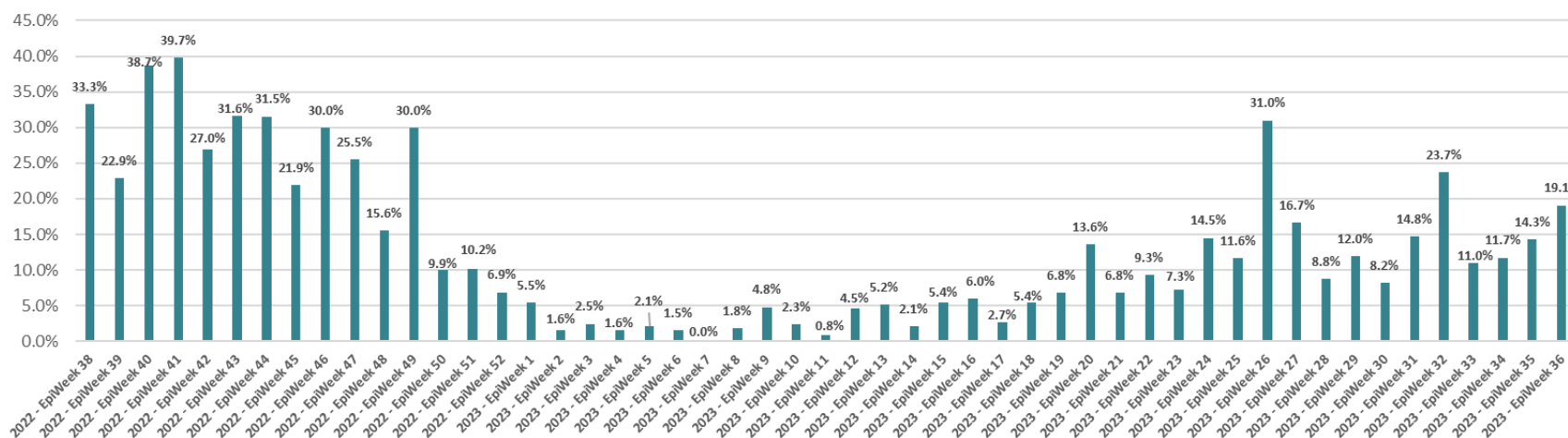
| Epi Week | Governorate | District | RDT+ | RDT- | Postivity Rate for RDT | Stool Culture Positive | Stool Culture Negative | Postivity Rate for Culture |
|------------------|-------------|-----------------|------|------|------------------------|------------------------|------------------------|----------------------------|
| Up to W31 - 2023 | Aleppo | Afrin | 63 | 548 | 10.3% | 246 | 1180 | 17.3% |
| | | Al Bab | 12 | 137 | 8.1% | 42 | 366 | 10.3% |
| | | A'zaz | 28 | 204 | 12.1% | 55 | 298 | 15.6% |
| | | Jarablus | 10 | 217 | 4.4% | 96 | 665 | 12.6% |
| | | Jebel Saman | 14 | 264 | 5.0% | 90 | 797 | 10.1% |
| | Idleb | Ariha | 4 | 224 | 1.8% | 53 | 767 | 6.5% |
| | | Harim | 80 | 1159 | 6.5% | 305 | 1628 | 15.8% |
| | | Idleb | 18 | 736 | 2.4% | 87 | 939 | 8.5% |
| | | Jisr-Ash-Shugur | 4 | 335 | 1.2% | 60 | 147 | 29.0% |
| | Total | | 233 | 3824 | 5.7% | 1034 | 6787 | 13.2% |



Positivity Rate by Subdistrict



Positivity Rate by Week - Culture



2. WASH:

Reporting period: (1 -9) - 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:

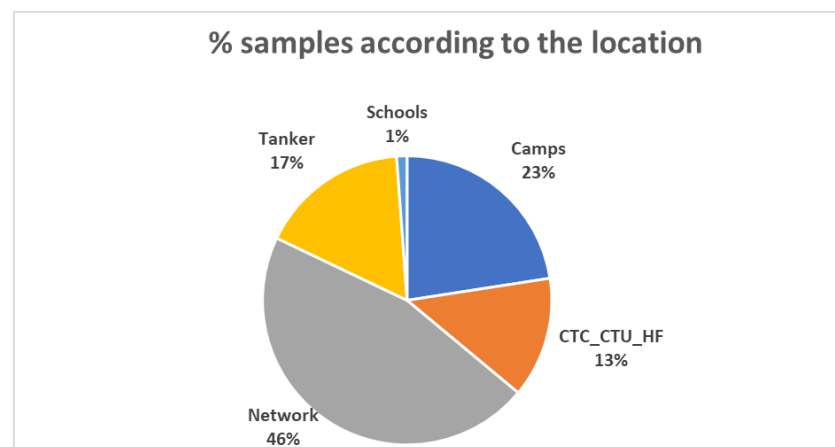
1. Samples at HH level from water taps connected to network (water pumped through water stations).
2. Camps exist inside or near the hotspot communities.
3. Schools.
4. Tankers.
5. HFs (including CTUs and CTCs)

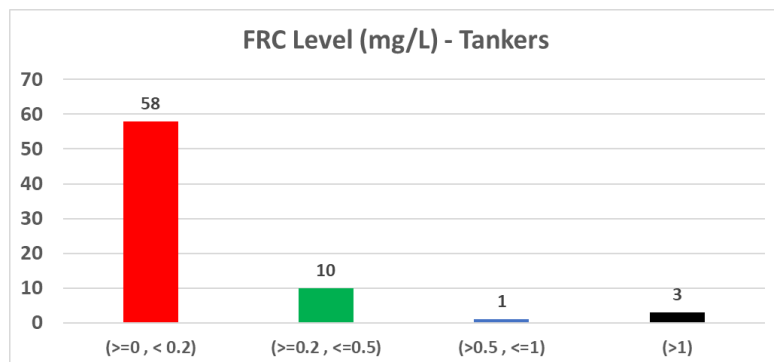
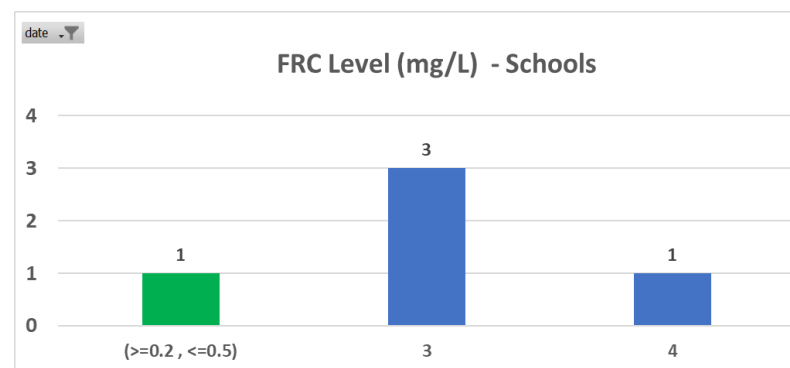
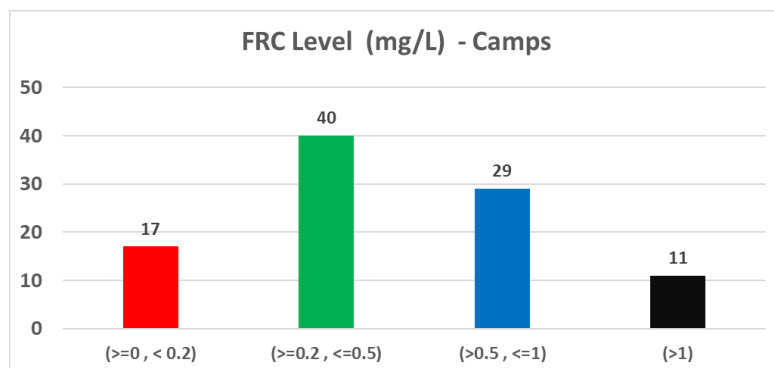
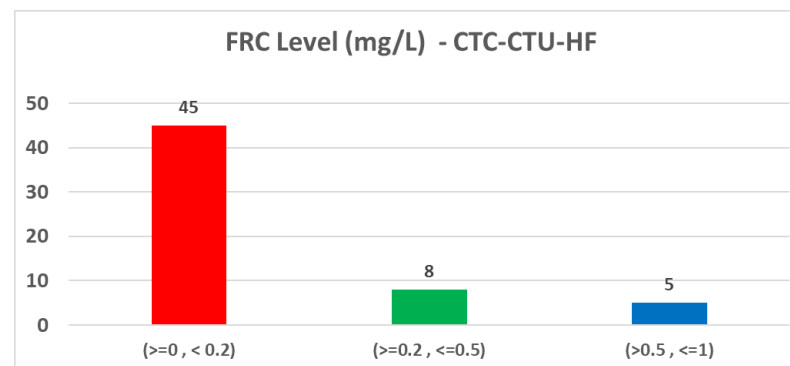
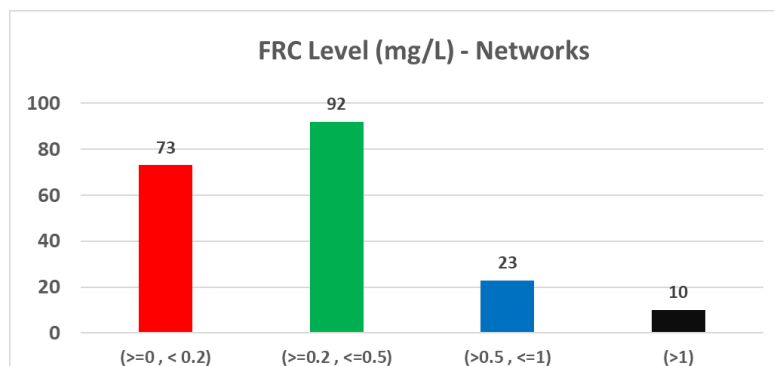
This new approach aims at tracking whether the water supplied at different levels in these areas is safe to drink or not according to standard, through collection samples 3 times or more a week.

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 430 ones, as follows:





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.