

## Northwest of Syria Cholera Outbreak

### Situation Report No.39

#### Epidemiological Week - 26 (25 June – 1 July 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

**Suspected Cases: 102095**

**Confirmed Cases: 812**

**Cholera Deaths : 23**

**Case Fatality Rate: 0.02%**

**NWS Attack Rate: 2.21 %**

#### Key Highlights

Cumulatively, a total of **102095 suspected** cases (**45254** in Aleppo governorate, **56841** in Idleb governorate) including **812 confirmed** have been reported by EWARN team since 16 September, including **23 deaths** case.

- The highest number of cases were reported in Harim district (29509) and Idleb district (17466) in Idleb governorate, then Azaz district (12241), Jebel Saman district (10368) in Aleppo governorate.
- 18779 total suspected cases (including 217 new cases in Epi week 26 - 2023) were reported from camps.
- 57.87 % 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

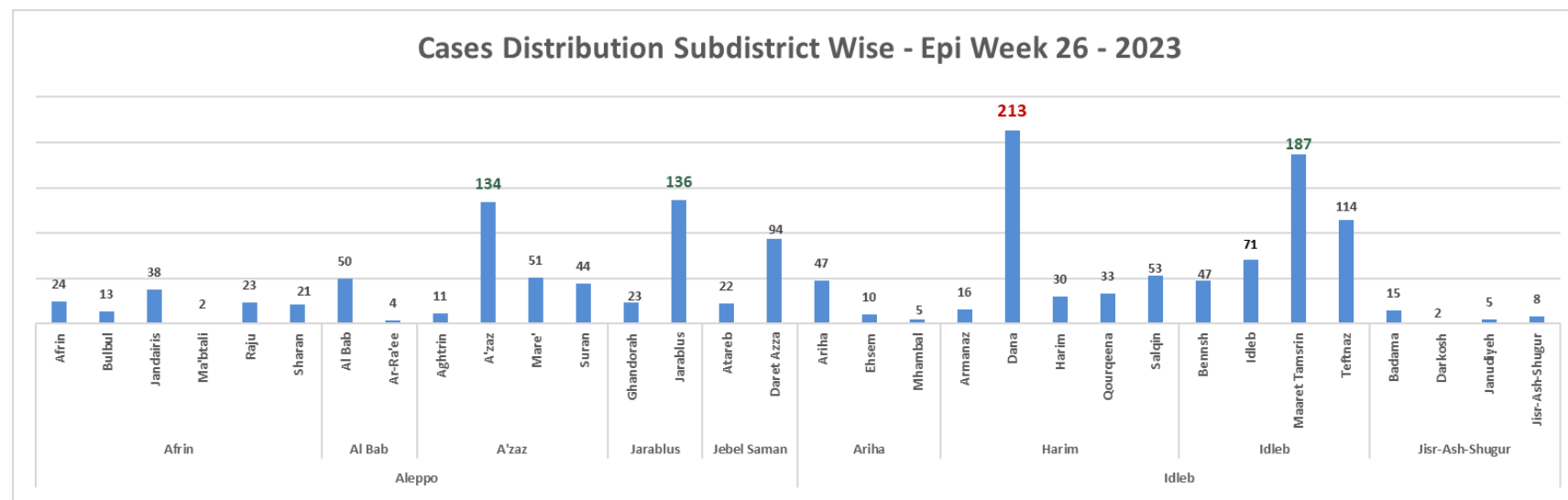
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 26 - 2023, **1546 suspected cases of cholera were reported**. The affected governorates are Aleppo (690 suspected cases, 10 confirmed), and Idleb (856 suspected cases, 34 confirmed). 14% of the total were in the camps

The age group less than 5 reported 52.18 %. Sex distribution of the suspected\_cases is 47% Male, and 53% Female

There were no death cases in the epi week 24

Dana subdistrict in Idled governorate reported the highest number of cases (213), in contract Jarablus subdistrict reported the highest number in Aleppo governorate (136).

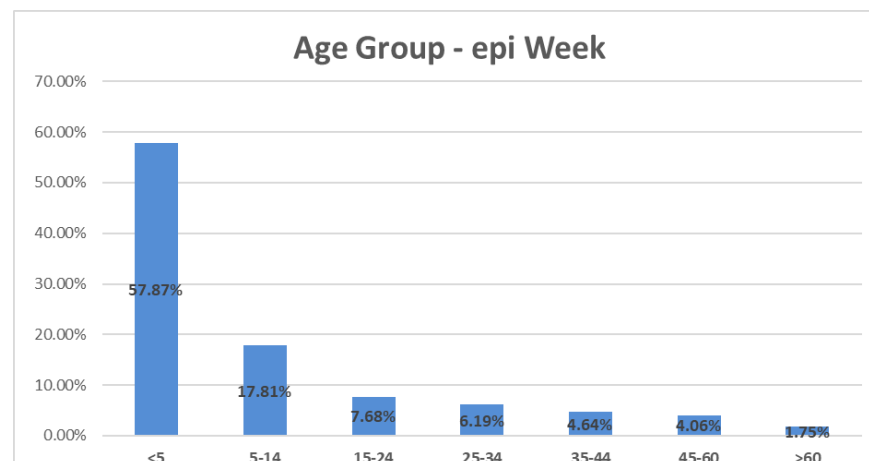
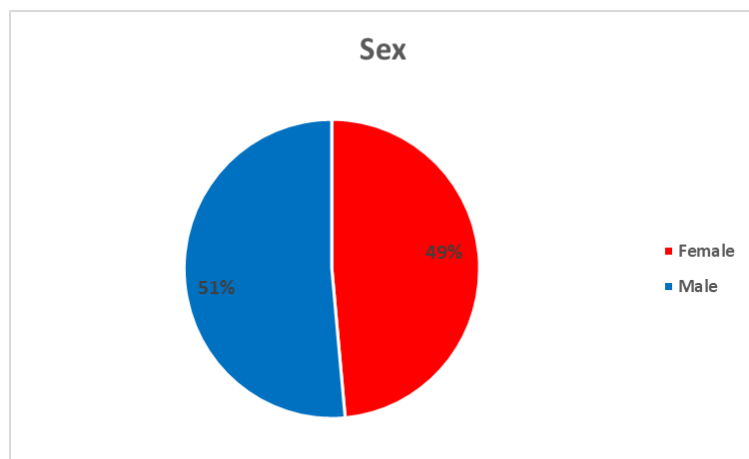


The overall sex distribution of the suspected cases is 51% Male, and 49% Female.

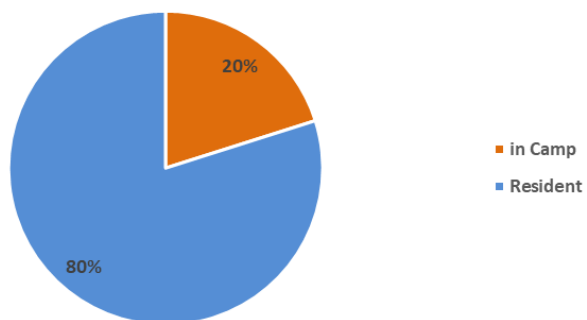
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 4% as rice watery diarrhea, and 8% were dehydrated.

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

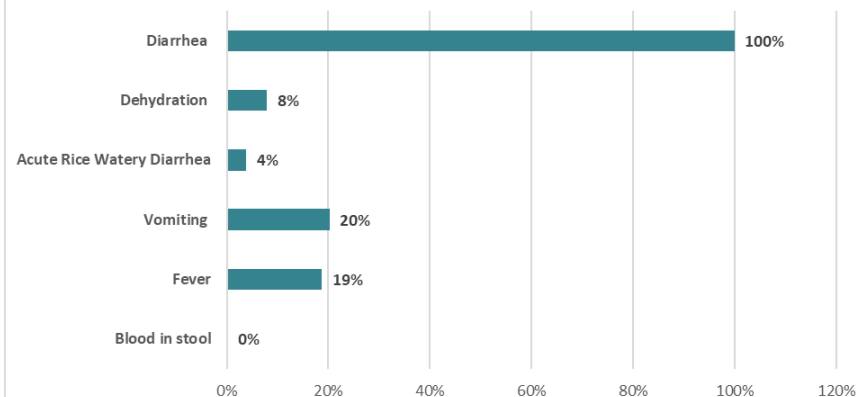
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea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



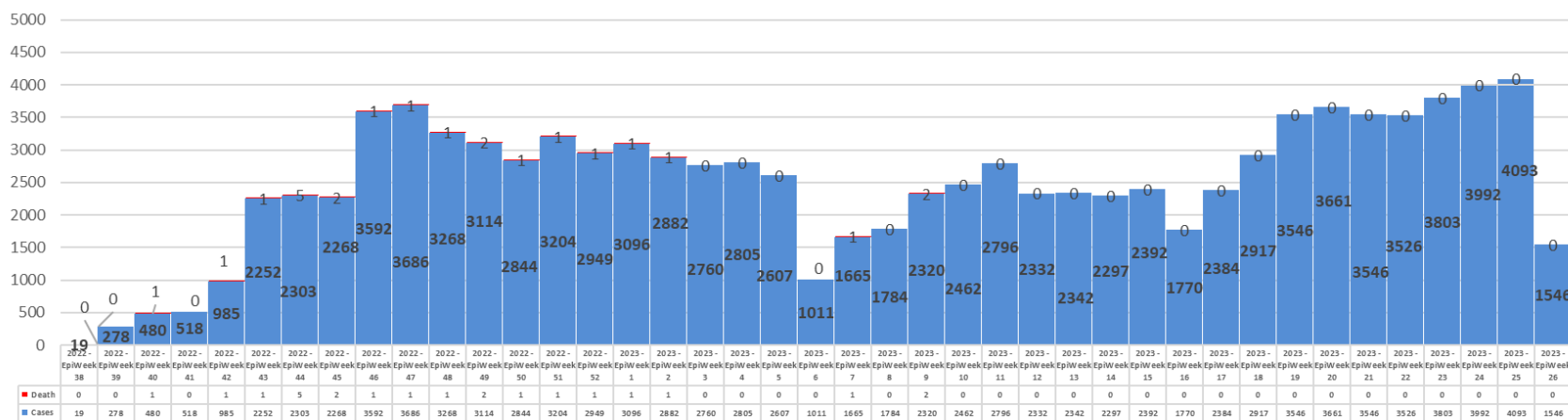
## Cholera Cases Residency Distribution



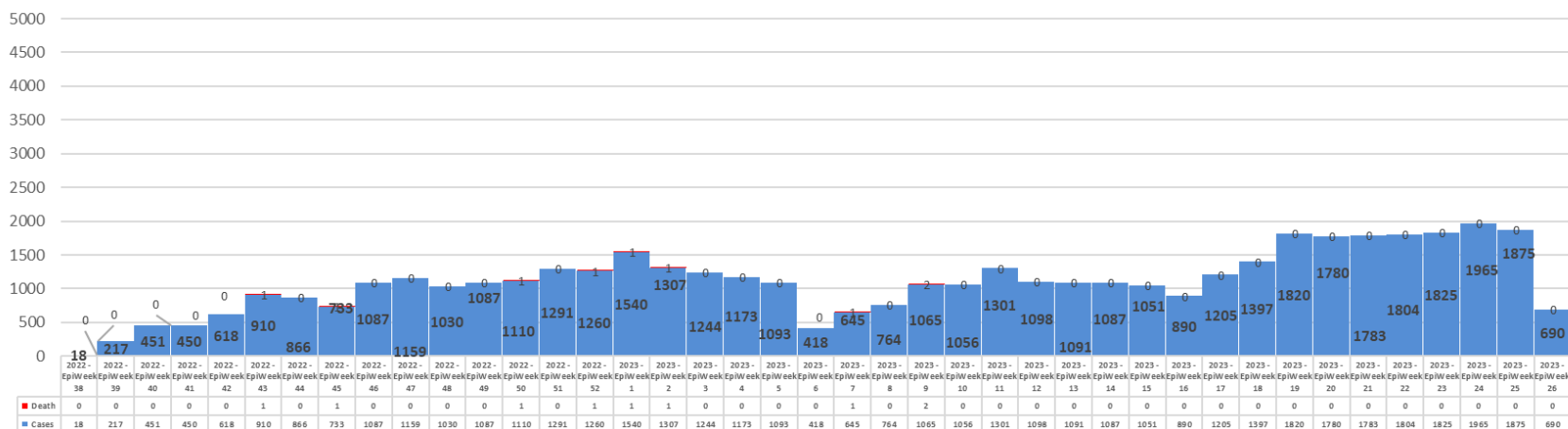
## Signs and Symptoms



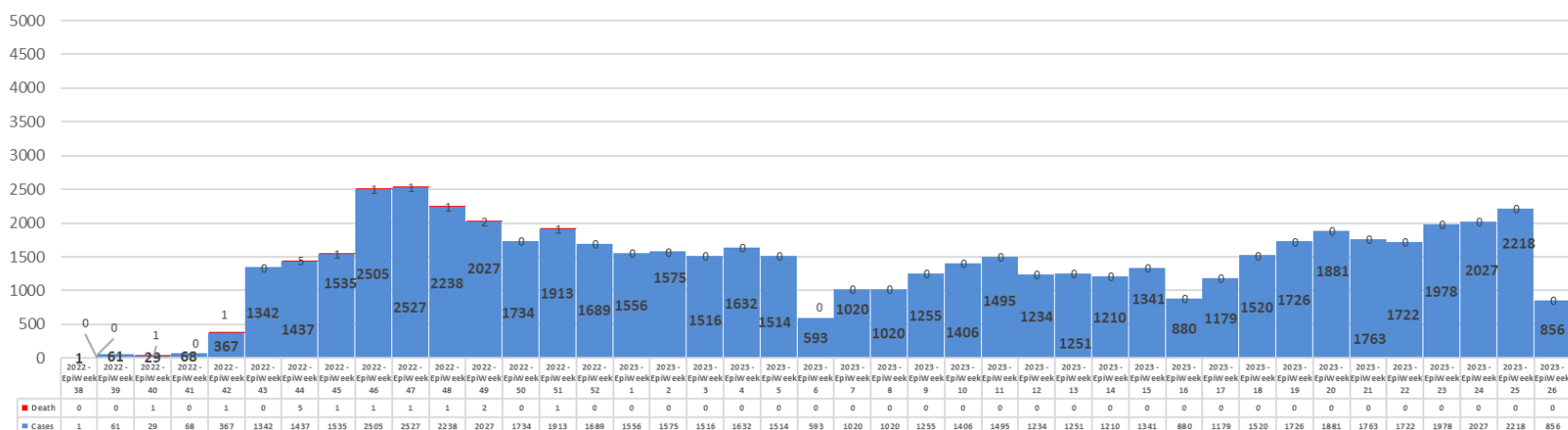
## EPI Curve - Reporting Date - NWS



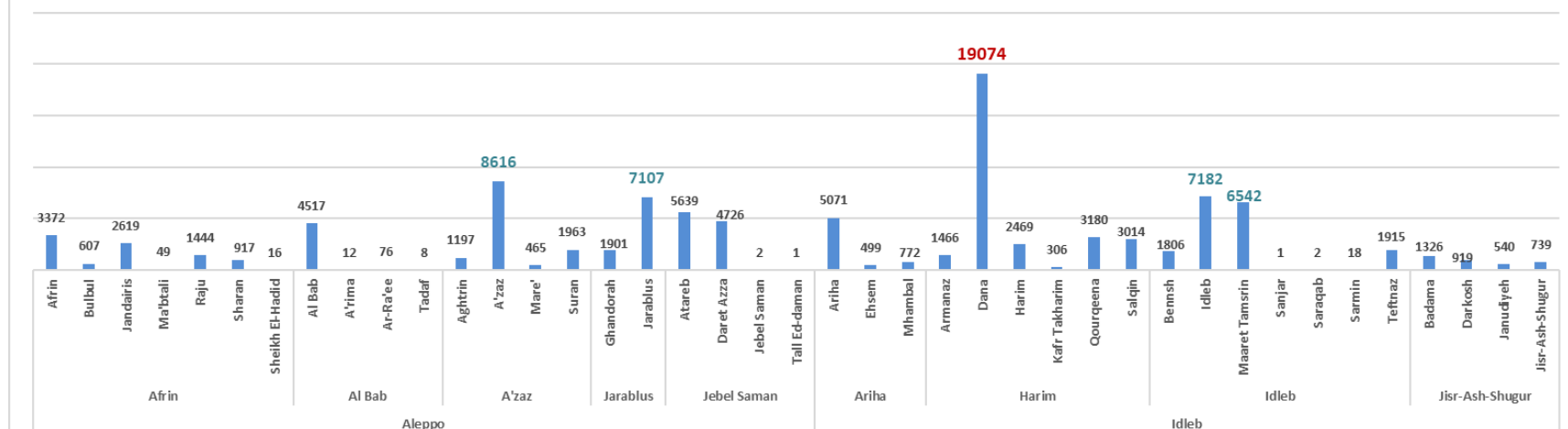
## EPI Curve - Reporting Date - Aleppo Governorate



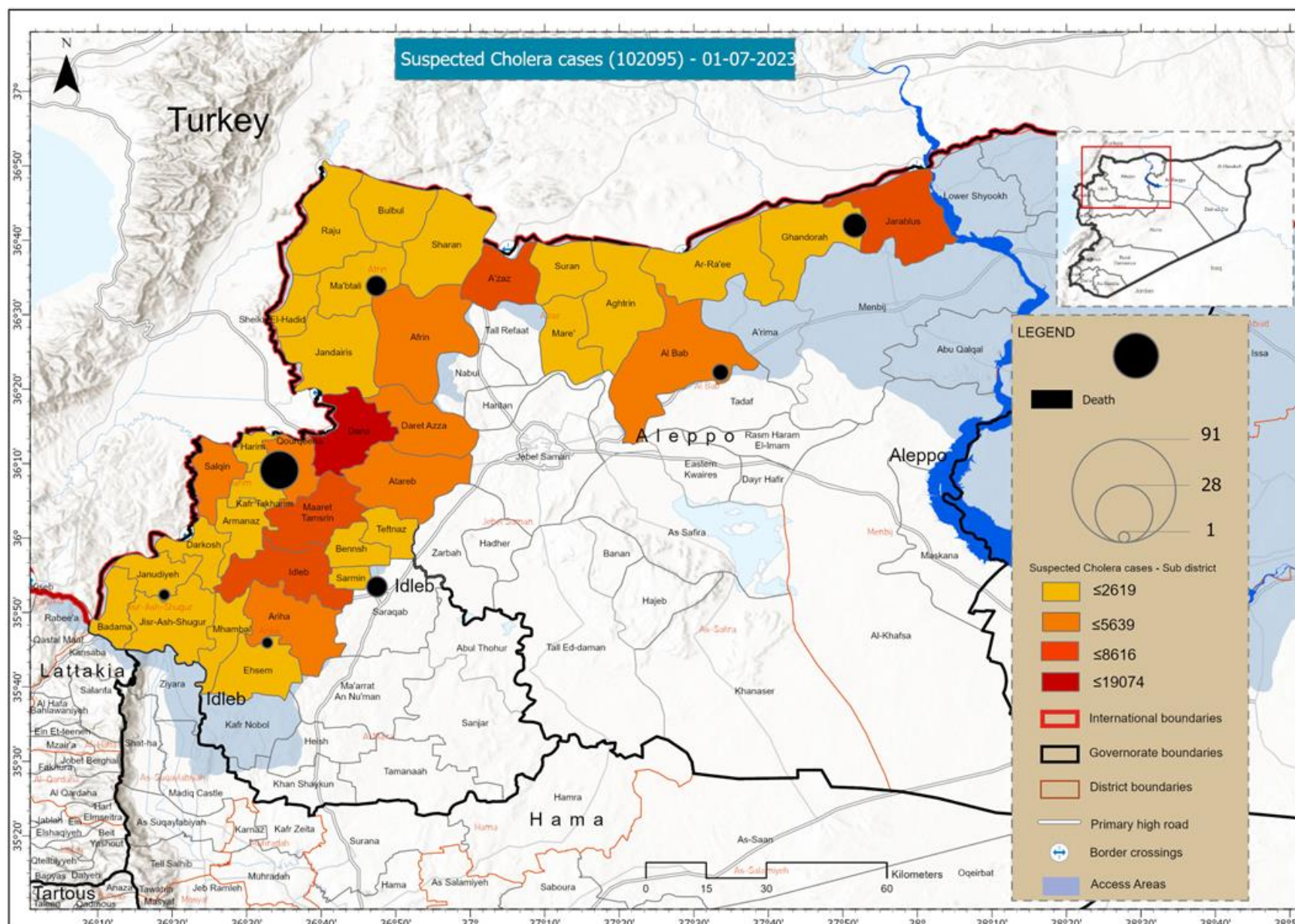
## EPI Curve - Reporting Date - Idleb Governorate



### Cases Distribution Subdistrict Wise



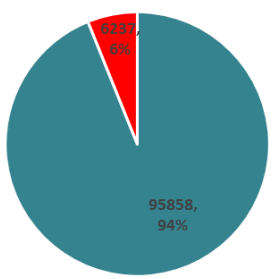
Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W26 - 2023	Idlib	Ariha	20-Sep	185,668	62	6342	0	1	0.02%	33.4	3.42%
		Harim	6-Sep	1,586,820	345	29509	0	9	0.03%	21.7	1.86%
		Idlib	14-Sep	713,933	419	17466	0	3	0.02%	58.7	2.45%
		Jisr-Ash-Shugur	25-Sep	310,973	30	3524	0	1	0.03%	9.6	1.13%
	Aleppo	A'zaz	9-Sep	648,600	240	12241	0	0	0.00%	37.0	1.89%
		Afrin	21-Sep	467,090	121	9024	0	3	0.03%	25.9	1.93%
		Al Bab	17-Sep	339,812	54	4613	0	2	0.04%	15.9	1.36%
		Jarablus	12-Sep	121,938	159	9008	0	4	0.04%	130.4	7.39%
		Jebel Saman	10-Sep	251,785	116	10368	0	0	0.00%	46.1	4.12%
	Total			4,626,619	1546	102095	0	23	0.02%	33.4	2.21%



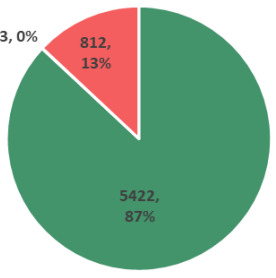


### Laboratory:

- In Epi week 26- 2023, the total number of stool specimens or rectal swabs is **143**, (70 in Aleppo –10 confirmed), (73 in Idleb – 34 confirmed).
  - A **cumulative of 6237 samples were collected** since the start of the outbreak (6 % of overall line listed cases), **of which 812 have tested positive by stool culture. The total positivity rate in NWS is 13 %.**
  - The Total number of negative cases by stool culture is 5422, and the remaining 3 are still pending.
- Stool Sample collected- Culture**



Category	Count	Percentage
No	95858	94%
Yes	6237	6%
- 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.
- Cholera Sampled Cases Classification**



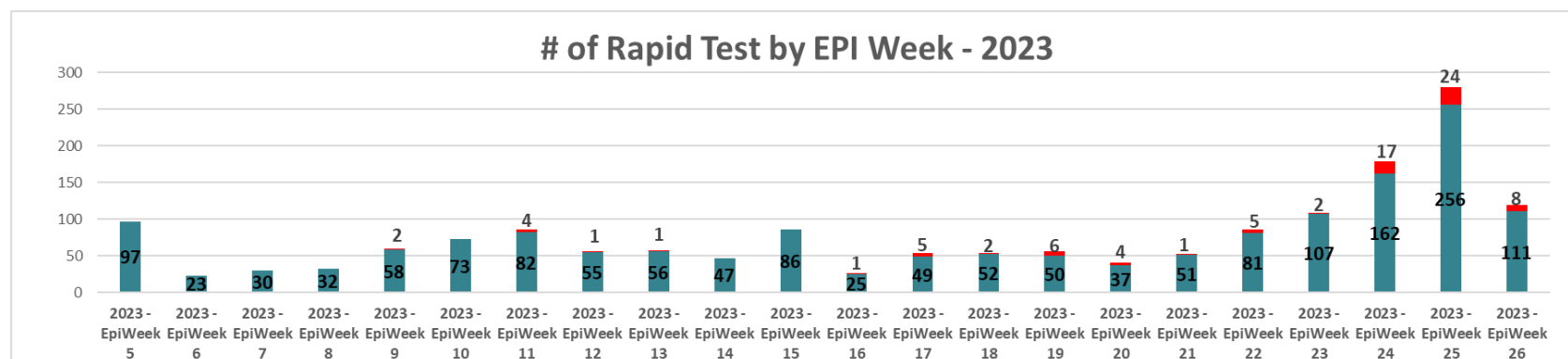
Category	Count	Percentage
Negative	5422	87%
Positive	812	13%
Pending	3	0%



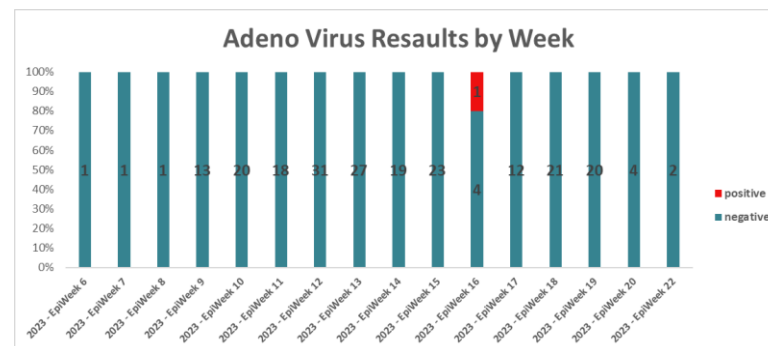
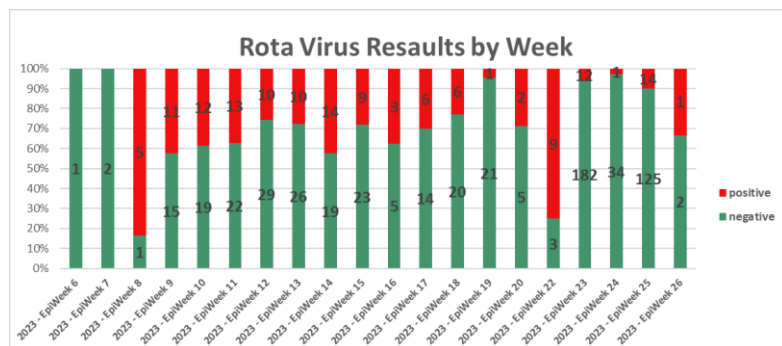
During epi week 26, EWARN received 119 RDT results from the CTC/CTUs and some HFs, 8 of them were positive for Cholera.

The total of RDT tests starting from epi week 5 reached 1703, and the total positive is 83.

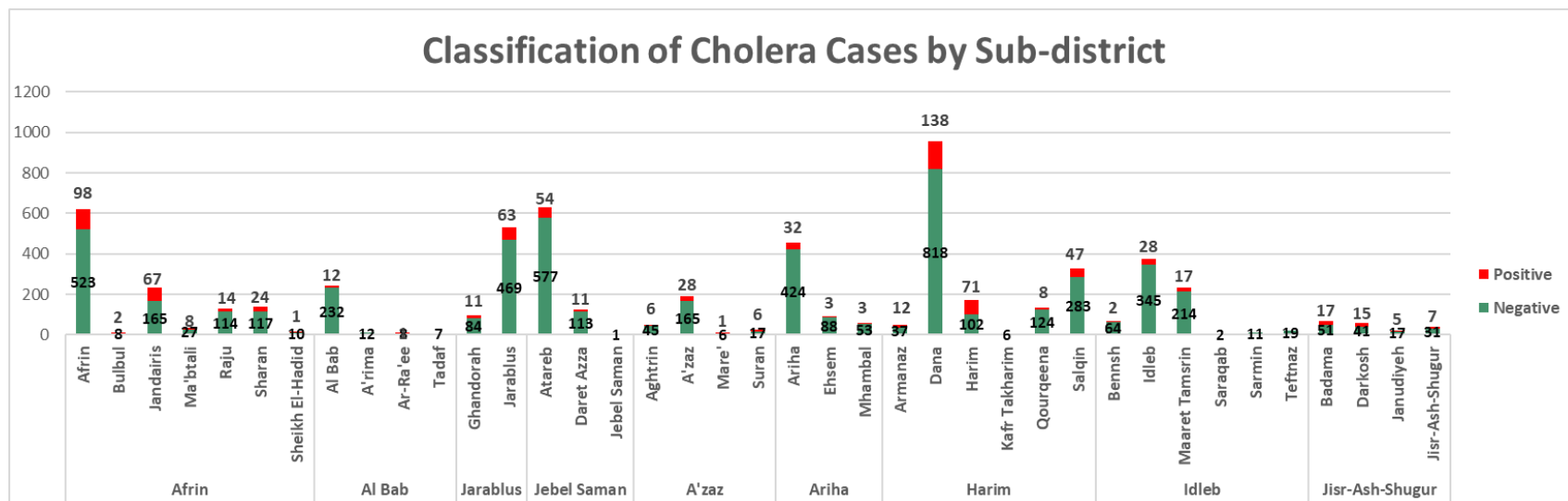
The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 26 – 2023 is 4.87 %. But the positivity rate from the beginning of cholera outbreak up to epi week 26 – 2023 is 5.9 %.



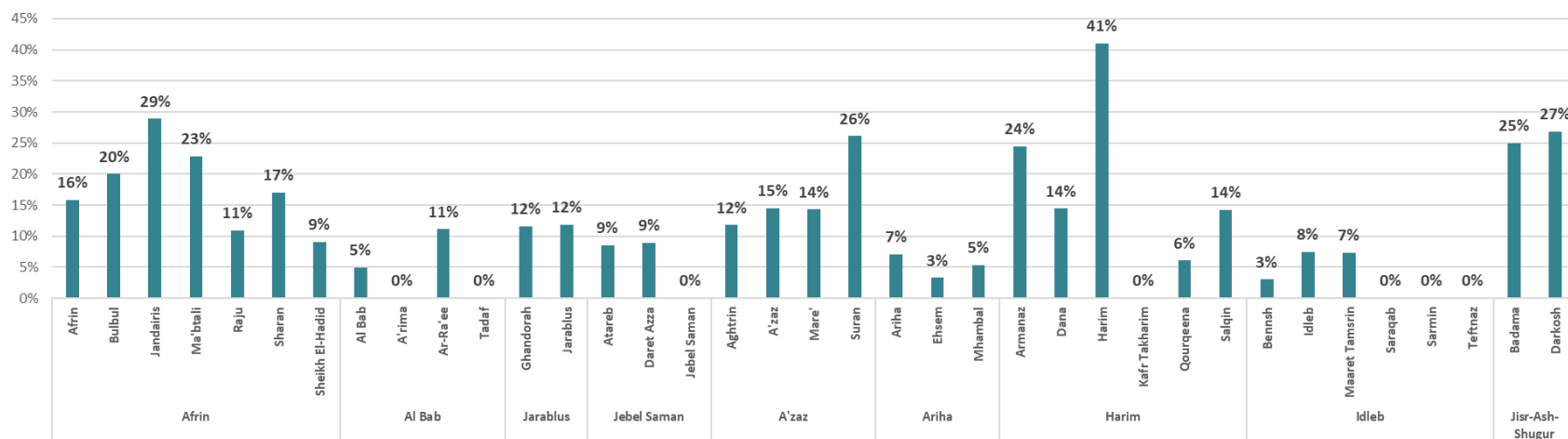
- For children under 5 years of age with a stool culture negative for cholera:  
In epi week 26, the lab tested 3 samples to detect Rotavirus, one of them was positive
- The total samples collected for Rotavirus reached 707 (139 were positive), while the total samples for Adenovirus were 218 (one positive)



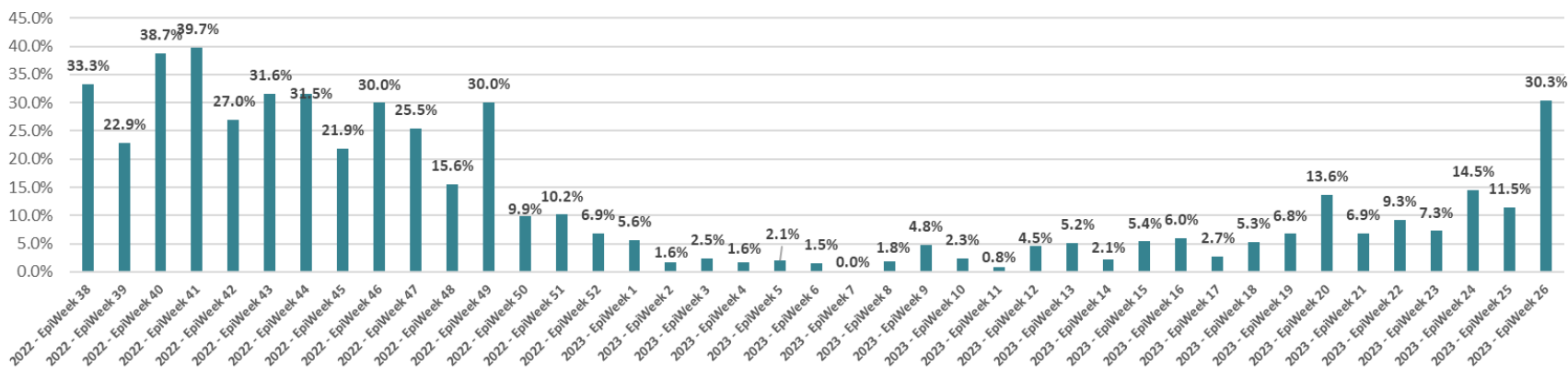
Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture
Up to W26 - 2023	Aleppo	Afrin	41	208	16.5%	214	964	18.2%
		Al Bab	0	41	0.0%	13	259	4.8%
		A'zaz	9	92	8.9%	41	233	15.0%
		Jarablus	7	136	4.9%	74	553	11.8%
		Jebel Saman	9	185	4.6%	65	691	8.6%
	Idleb	Ariha	3	96	3.0%	38	565	6.3%
		Harim	39	768	4.8%	276	1370	16.8%
		Idleb	8	266	2.9%	47	655	6.7%
		Jisr-Ash-Shugur	3	98	3.0%	44	140	23.9%
	Total		119	1890	5.9%	812	5430	13.0%



## Positivity Rate by Subdistrict - Culture



## Positivity Rate by Week - Culture



## 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.