



# Epidemiological Highlights

Week 12 (19-25 March) 2023



World Health  
Organization

# EWARS Reporting Updates

Currently, a total of **159 health facilities** are registered in EWARS

- Of those 138 weekly reports were received on time in week 12 in 2023
- Timeliness and completeness of weekly reporting were 87% which is more than the 80% weekly threshold
- Sixty-nine (69) alerts were triggered
- All alerts were reviewed and verified by the WHO EWARS team; this is a 53% increase from the previous week (45 alerts in week 11, 2023)

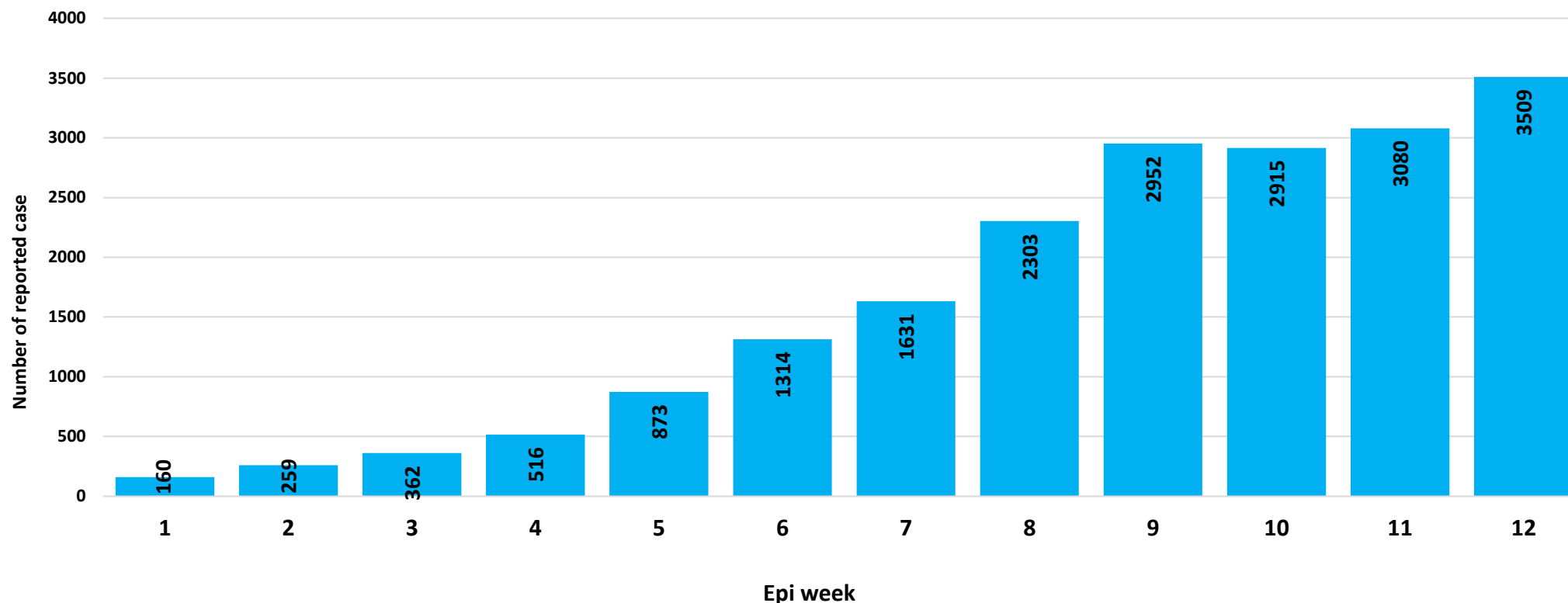
# Highlights: Morbidities and Mortalities

- Acute Respiratory Infections (19.7%), Suspected Varicella (3.8%) and Acute Watery Diarrheal Diseases (2.2%) were the diseases and health conditions with the highest proportional morbidity this week.
- Monitoring of suspected SARI death under enhanced Community-based mortality surveillance has been continued since week 28, 2020. So far, 21 cases of which none is probable COVID-19 Death, have been reported in 2023
- This Epi week, no new SARI deaths, and upon investigation, none was reported as probable COVID-19 death as highlighted below:

Year	Suspected SARI death reported (current week)	Reclassified as death due to probable COVID-19
2023	21 (0)	0
2022	136	8
2021	96	15
2020	49	2

# Varicella Update

Number of varicella case reported in EWARS from week 1-12, 2023



In 2023, a total of 16,922 cases have so far been reported and an exponential trend had been observed from the earliest weeks which is a bit higher in comparison with the same time period in the previous and currently, Varicella contributes 3.8% proportional morbidity among total consultations. No fatalities have been recorded yet.

# Highlights: COVID-19 Surveillance Updates

## FDMN: Transmission is under control

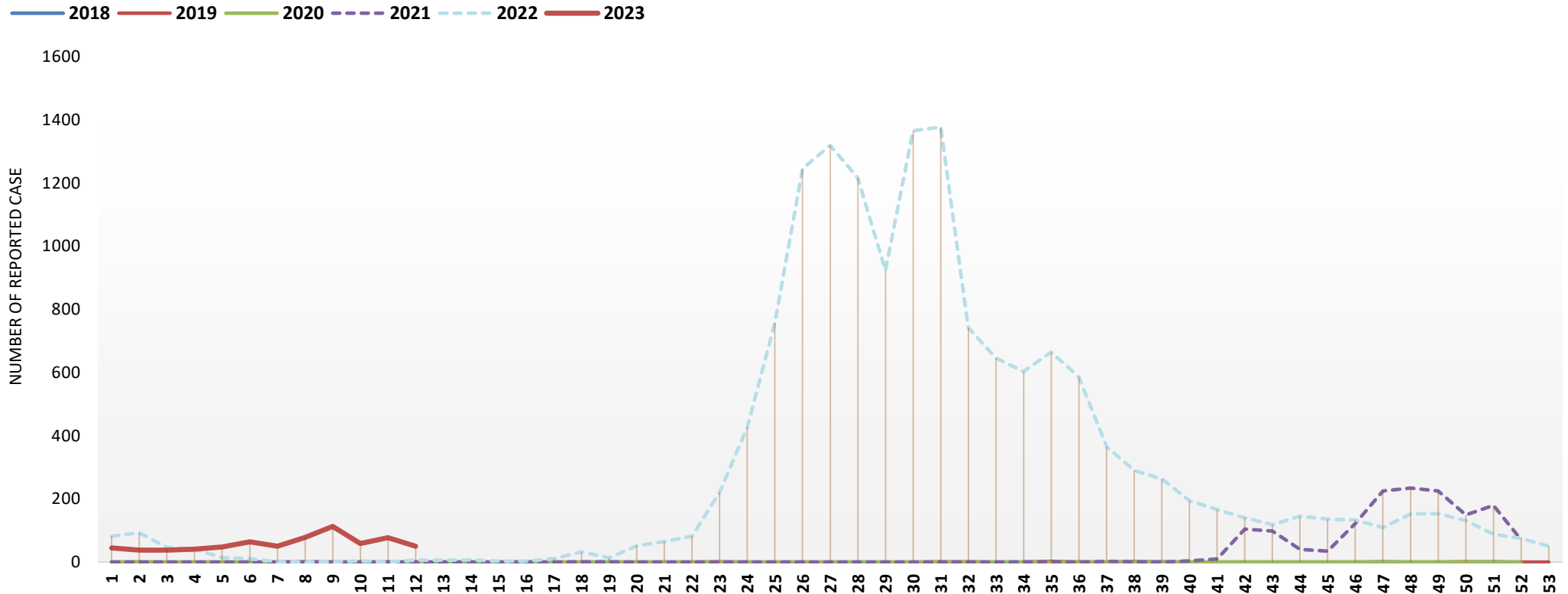
- No (0) new confirmed cases were reported this week
- Weekly TPR and incidence/new infections are zero
- No new death reported, and total deaths stabilized at **45** (CFR- 0.7%) while cumulative cases were steady at **6,597**
- Level of recovery continues to steady at 99%

## Host Population: Transmission under control

- No (0) new confirmed cases were reported this week like **last twelve weeks**, the total caseload is **24,643**
- Weekly TPR steady at zero this week, similar to the previous week
- Weekly case incidence stabilized at 0.0 cases/1m population/week last week
- Recovery level continues to remain steady at 99%, no new death, and total deaths stand at **269** (CFR- 1.1%)

# Dengue Surveillance Updates

Yearly Trends of Dengue case trend from 2018 – 2023 week 12



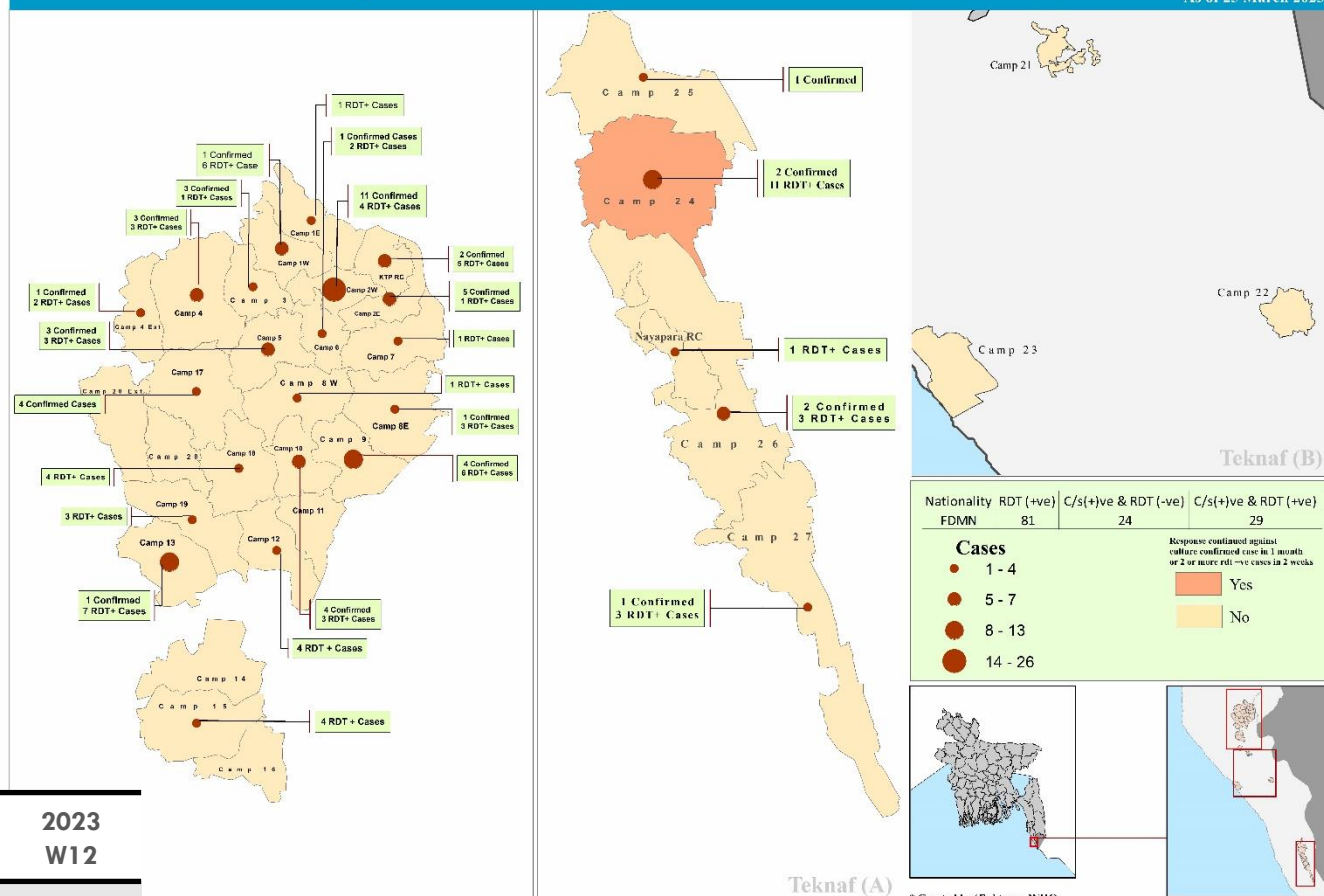
- ❑ Cumulative of 703 confirmed dengue cases and 2 death with a CFR 0.2% have been reported so far in 2023
- ❑ The current transmission is a continuation of that for 2021 and 2022 (possible endemic transmission established )
- ❑ Camp 3 and the surrounding camps continue to bear the greatest burden of the cases so far reported in 2023 similar to 2022

# Cholera/AWD Surveillance Updates

- In this week, there is 2 RDT positive AWD/Cholera suspects and 3 Culture confirmed Cholera cases were reported from samples sent for testing.
- A total of 24 cases of which fifteen (15) RDT-positive AWD/cholera suspected cases and nine (9) culture-confirmed Cholera cases have so far been reported in (Epi week 1-12) 2023.
- Cumulatively there are 885 RDT AWD cases/Cholera suspects have been reported while 411 cases were culture-confirmed since transmission in 2018.

Distribution of RDT positive and culture confirmed for Cholera cases in FDMN 2022 - 2023

As of 25 March 2023



	2018	2019	2020	2021	2022	2023 W12
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RDT positive AWD cases & culture confirmed for Cholera cases

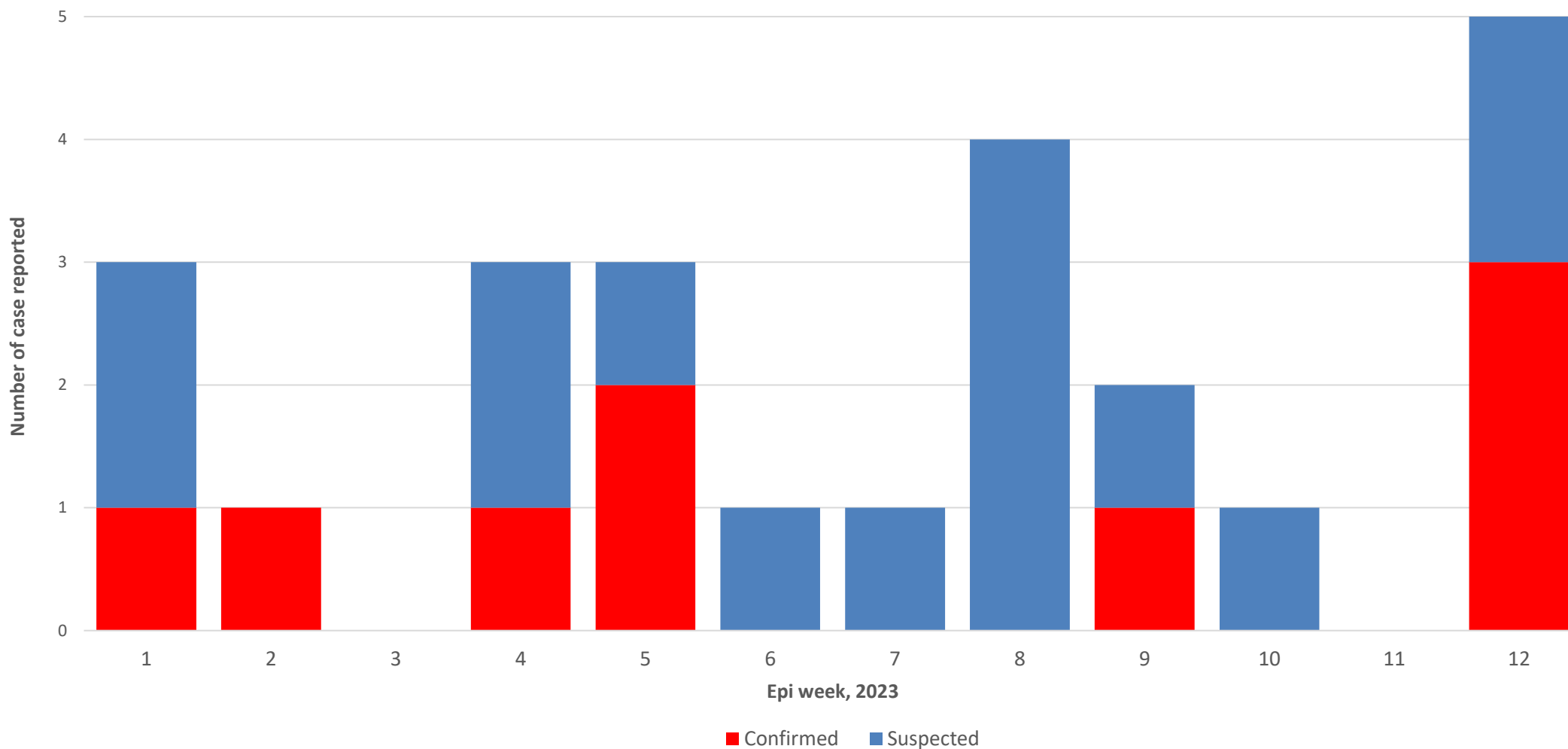
	49	258	28	357	170	24
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Culture confirmed for Cholera

	7	184	5	136	70	9
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# Cholera/AWD Surveillance Updates

Epi curved of the cholera from week 1-12, 2023 (n=59)



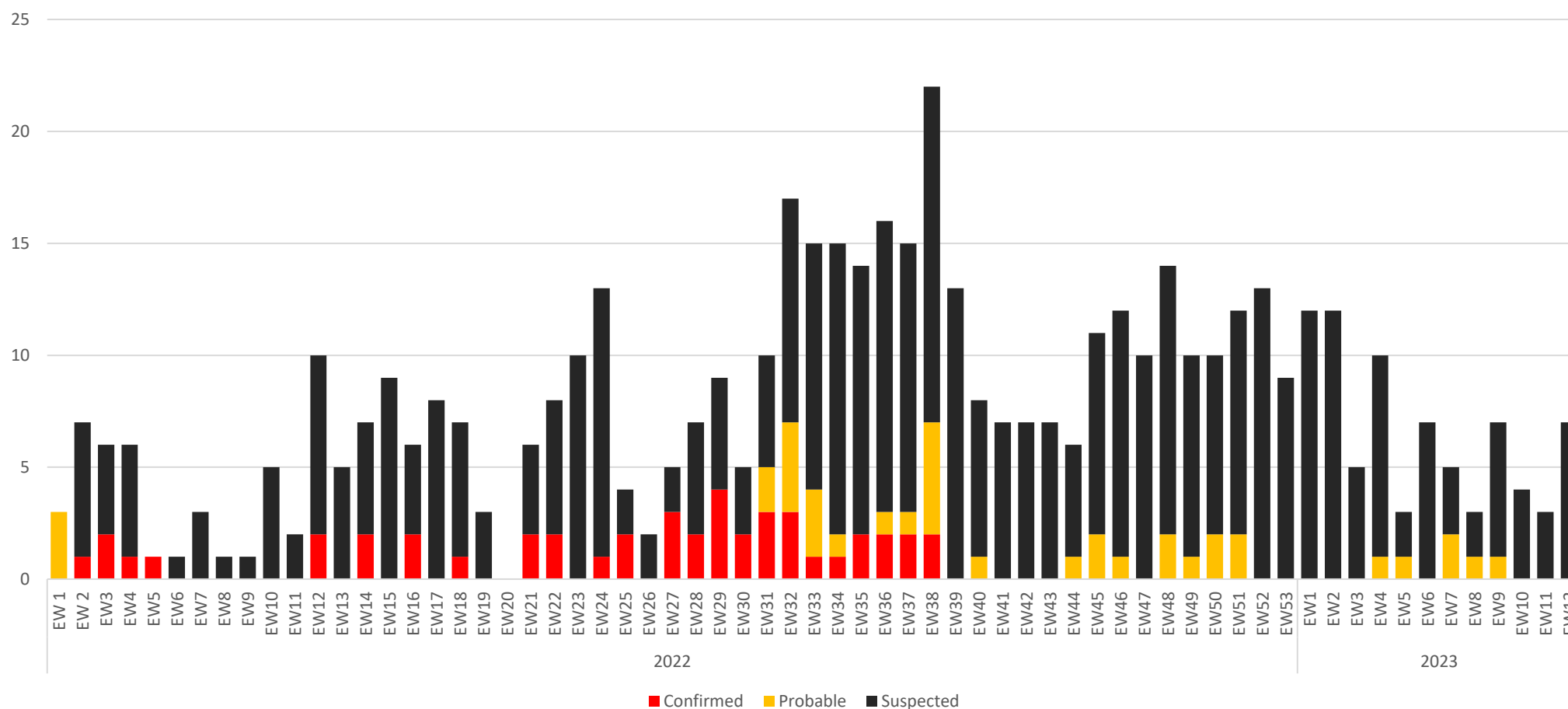
# Diphtheria Surveillance Updates

- Seven (7) suspected diphtheria cases were reported in go.data in this Epi week
- The last confirmed case was reported on 14 September 2022 due to a shortage of PCR Test kits
- In total 54 deaths have so far been reported since 2017, with the last death reported on 18 October 2022

Classification	2017	2018	2019	2020	2021	2022	2023
Confirmed	66	226	31	19	30	46	0
Probable	1154	1555	60	9	29	32	6
Suspected	1796	3549	523	198	118	355	72
Death	30	14	3	0	5	2	0

# Trends of Diphtheria cases

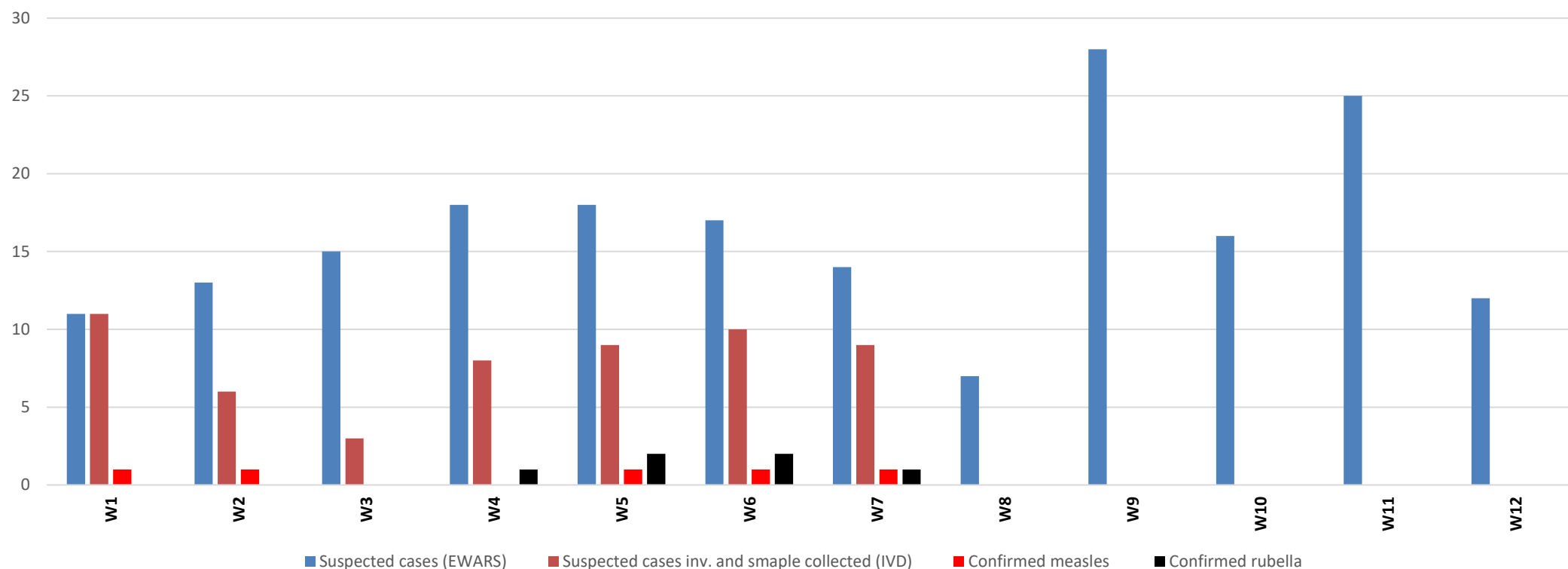
Total number of diphtheria case reported in EWARS from 2022 -week 12, 2023



- Persistent transmission continues to be reported, Diphtheria vaccination campaign concluded in all 33 camps with 92% coverage
- **Seven (7) suspected cases** were reported this Epi week; **New RT-PCR Rapid Test kits received by IEDCR from US CDC**
- There are 78 diphtheria cases (6 probable and 72 suspected cases) and zero fatalities so far reported in 2023
- In 2022 total of 431 cases (46 confirmed including 2 deaths, 32 probable, and 353 suspected cases) have so far been reported 2022

# Epi Curve of Suspected Measles Cases

Weekly suspected measles cases reported through EWARS, IVD and Lab, 2023 (W1-12)



- Total of 194 cases were reported through EWARS, 58 cases were reported through IVD case-based surveillance of which 11 were confirmed through the lab (IgM positive)
- Three (03) lab-confirmed cases were reported from camps 5, 02 from camps 3 and 8W, 1 each from camps 7, 4, 15, and 26 though there is a temporal distribution of cases due to delay by lab confirmation and turn-around time for results (week 8 and onward still awaiting lab results)
- Out of the 11 confirmed cases, 08 were 0-11 months and 03 were 1-4 years of age
- Eight (08) confirmed cases were males
- Epidemiology and IVD units undertaking investigations

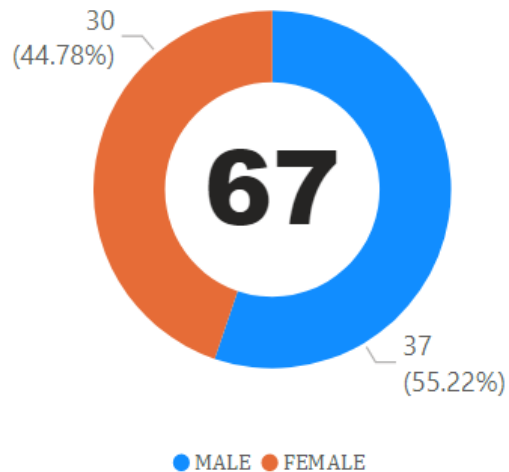
# Community-based Mortality surveillance updates Epi week 12 2023

Probable causes of death	Epi week 12	In 2023
Still Birth	8 (12%)	84 (11%)
Neonatal Death (<28 days old)	9 (13%)	69 (9%)
Infectious Disease	4 (6%)	20 (3%)
Severe Acute Respiratory Infection (SARI)	--	14 (2%)
Injury	3 (4%)	16 (2%)
Maternal Death	--	15 (2%)
Acute Malnutrition	--	2 (0%)
Other	43 (64%)	521 (70%)
<b>Total</b>	<b>67 (100%)</b>	<b>741 (100%)</b>

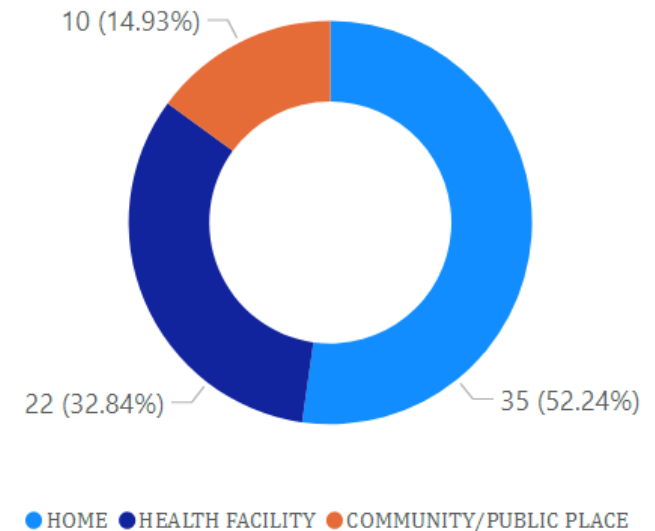
Partners to report all mortalities into the EWARS platform using both case and event-based reporting as applicable

# Community-based Mortality surveillance updates Epi week 12 2023

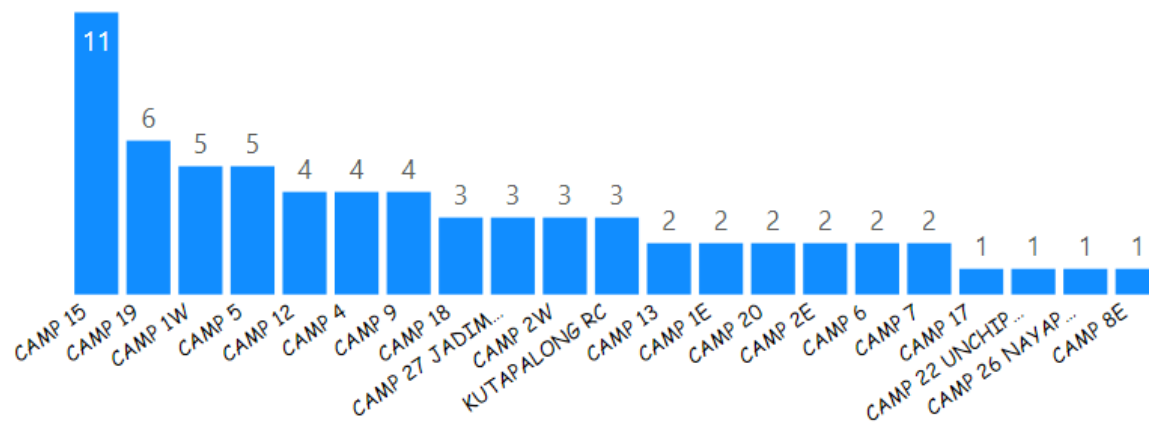
**Gender distribution**



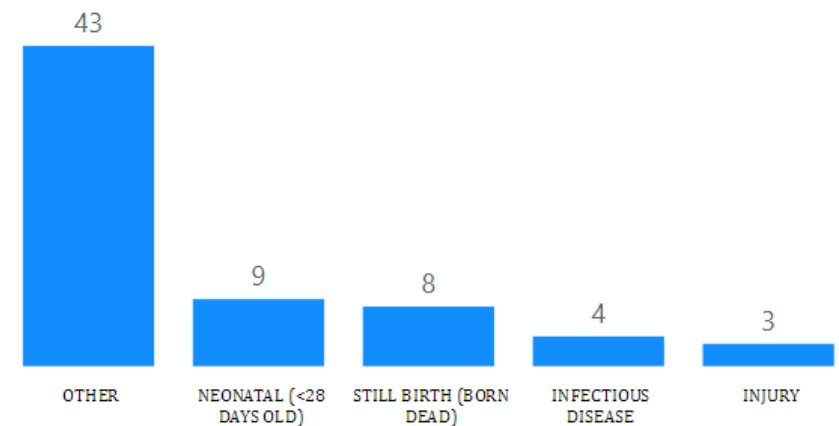
**Place of death**



**Distribution of deceased Camp**



**Distribution of Probable cause of death**



# Bangladesh

Rohingya Emergency Response

Early Warning, Alert and  
Response System (EWARS)

Epidemiological Bulletin W12 2023



Ministry of Health and Family  
Welfare Bangladesh



World Health  
Organization



HEALTH SECTOR  
COX'S BAZAR



Printed: 06:50 Monday, 03 April 2023 UTC

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## Sources of data

1. Weekly EWARS Reporting Form
2. Mortality Case Report Form
3. Event-based Surveillance Form

# Highlights W12 2023

Table 1 | Coverage

#	%	
952,309	-	Estimated total Rohingya population <sup>1</sup>
923,358	97%	Total population under surveillance
165	-	Total number of health facilities
159	96%	Number of EWARS reporting sites

Table 2 | Early warning performance indicators

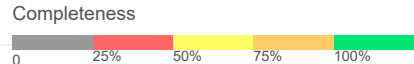
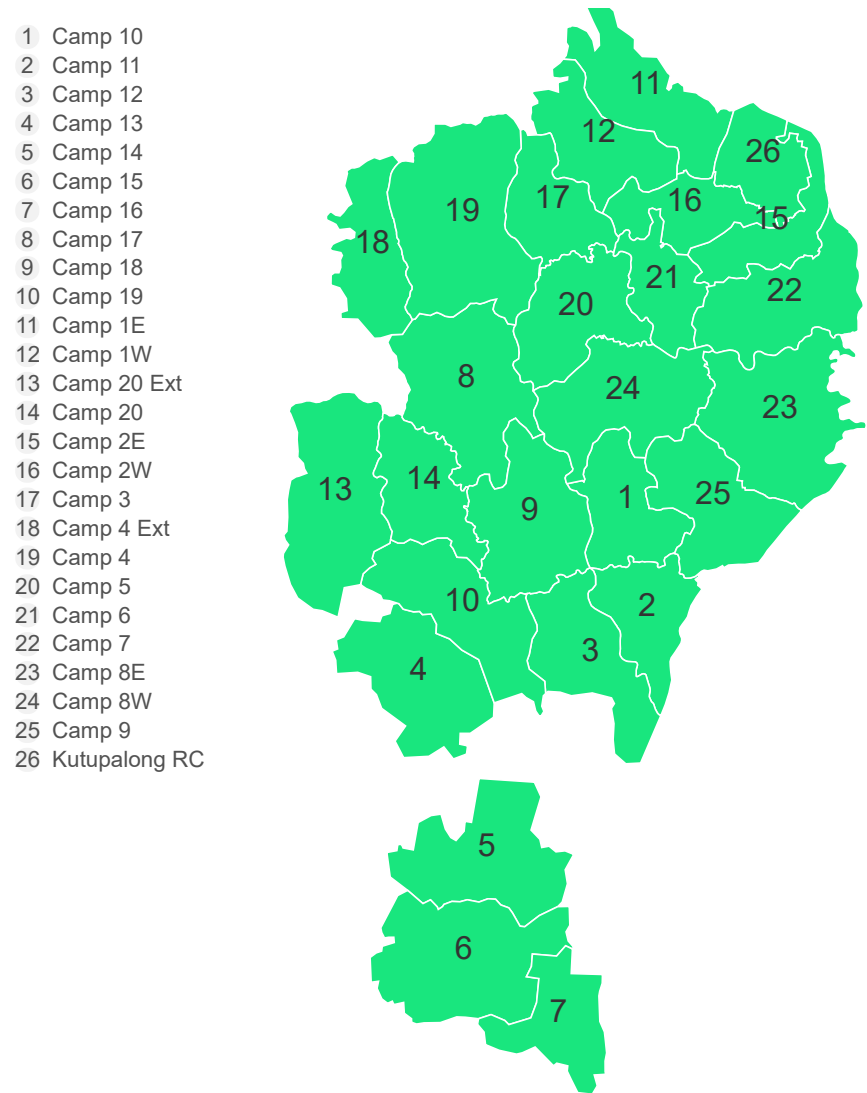
W12	Cumulative (2023)	
138	1989	Number of weekly reports received
87%	91%	Completeness
87%	90%	Timeliness

Table 3 Alert performance indicators

W12	Cumulative (2023)	
69	1,104	Total alerts raised
100%	100%	% verified
0%	0%	% auto-discarded
0%	0%	% undergoing risk assessment
0%	0%	% completed risk assessment

<sup>1</sup> Source: UNHCR. Bangladesh: Joint Government of Bangladesh- UNHCR Population Factsheet. 31 December 2021.

Map 1a | Ukhia completeness by camp



Map 1b | Teknaf completeness by camp

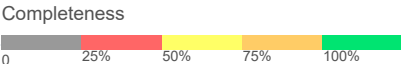
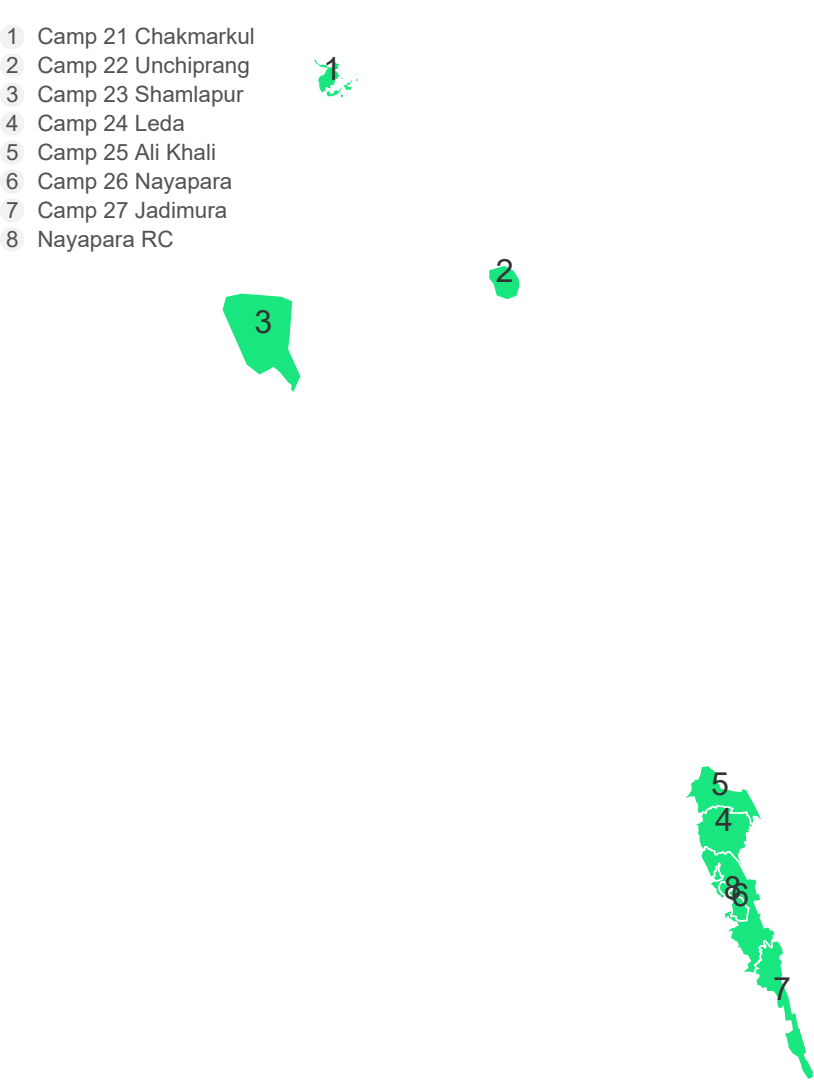
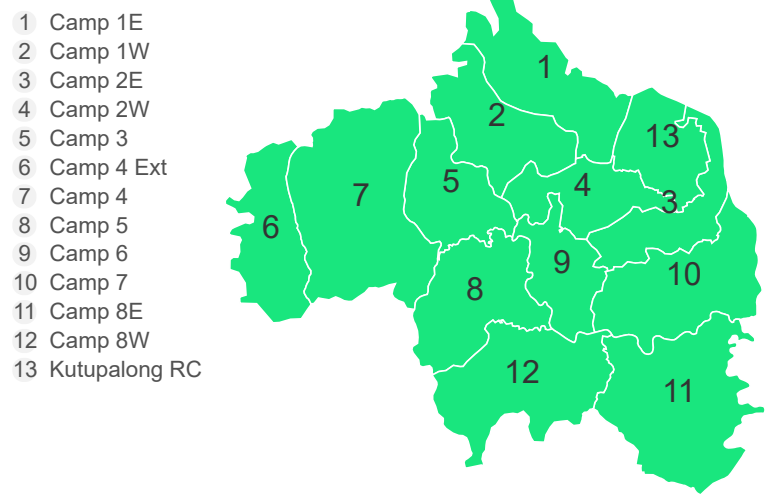


Table 4 | Performance by camp (W12 2023)

Northern group	Reporting		Performance	
	# health facilities	# reports received	Completeness	Timeliness
Ukhia Northern Group				
Camp 1E	4	4	100%	0%
Camp 1W	5	4	80%	0%
Camp 2E	3	2	100%	0%
Camp 2W	4	4	100%	0%
Camp 3	5	3	75%	0%
Camp 4	5	5	100%	0%
Camp 4 Ext	1	1	100%	0%
Camp 5	5	4	80%	0%
Camp 6	2	2	100%	0%
Camp 7	5	4	80%	0%
Camp 8E	9	9	100%	0%
Camp 8W	4	3	75%	0%
Kutupalong RC	2	2	100%	0%

Map 2 | Completeness by camp



Completeness

0

25%

50%

75%

100%

Table 5 | Performance by camp (W12 2023)

Southern group	Reporting		Performance	
	# health facilities	# reports received	Completeness	Timeliness
Ukhia Southern Group				
Camp 10	4	5	100%	0%
Camp 11	6	4	50%	0%
Camp 12	6	6	100%	0%
Camp 13	8	8	100%	0%
Camp 14	6	6	100%	0%
Camp 15	8	8	100%	0%
Camp 16	7	6	100%	0%
Camp 17	5	3	60%	0%
Camp 18	4	4	100%	0%
Camp 19	4	4	100%	0%
Camp 20	4	3	100%	0%
Camp 20 Ext	3	3	100%	0%
Camp 9	6	4	83%	0%

Map 3 | Completeness by camp

- 1 Camp 10
- 2 Camp 11
- 3 Camp 12
- 4 Camp 13
- 5 Camp 14
- 6 Camp 15
- 7 Camp 16
- 8 Camp 17
- 9 Camp 18
- 10 Camp 19
- 11 Camp 20 Ext
- 12 Camp 20
- 13 Camp 9

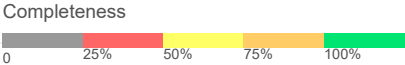
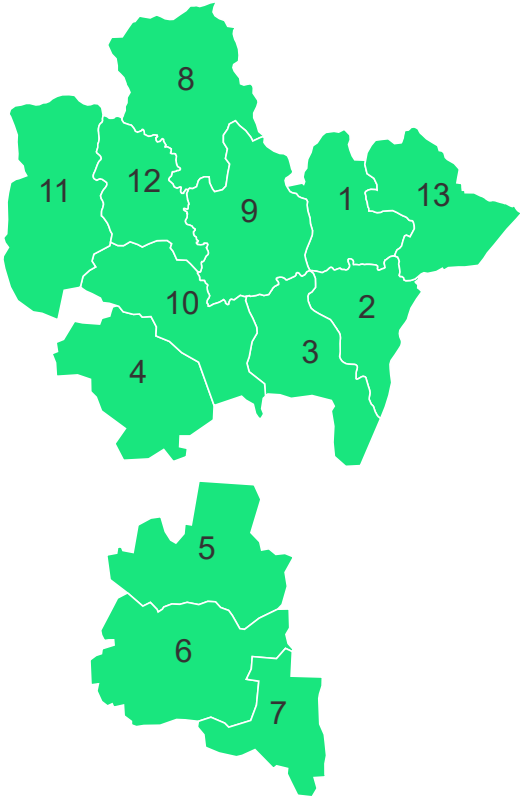
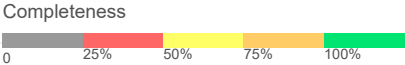
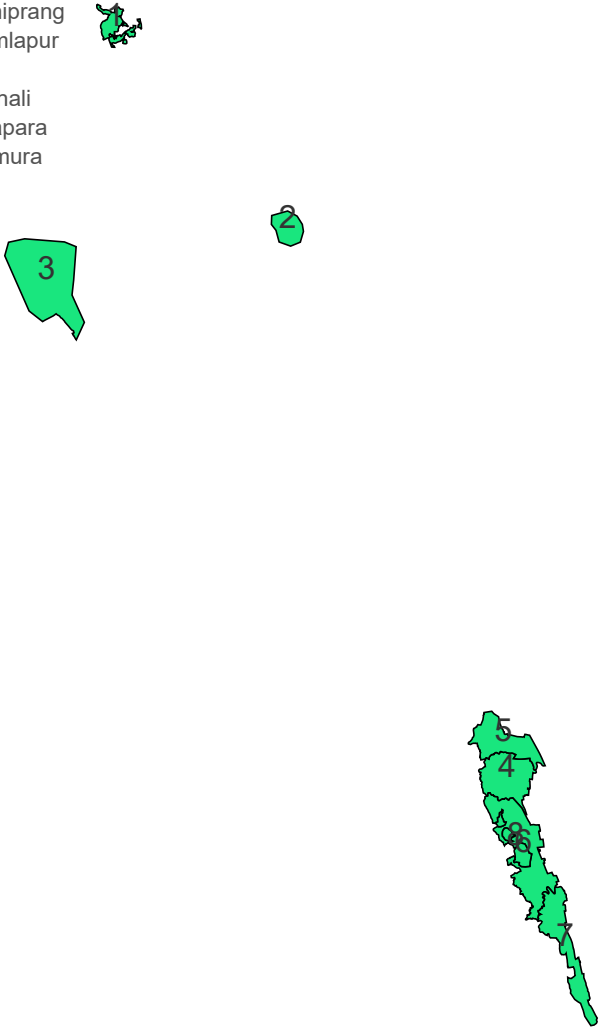


Table 6 | Performance by camp (W12 2023)

Teknaf	Reporting		Performance	
	# health facilities	# reports received	Completeness	Timeliness
Ukhia Teknaf				
Camp 21 Chakmarkul	3	3	100%	0%
Camp 22 Unchiprang	5	3	75%	0%
Camp 23 Shamlapur	3	2	67%	0%
Camp 24 Leda	2	1	100%	0%
Camp 25 Ali Khali	3	3	100%	0%
Camp 26 Nayapara	5	3	100%	0%
Camp 27 Jadimura	2	2	100%	0%
Nayapara RC	2	2	100%	0%

Map 4 | Completeness by camp

- 1 Camp 21 Chakmarkul
- 2 Camp 22 Unchiprang
- 3 Camp 23 Shamlapur
- 4 Camp 24 Leda
- 5 Camp 25 Ali Khali
- 6 Camp 26 Nayapara
- 7 Camp 27 Jadimura
- 8 Nayapara RC



**Table 7** | Performance by partner (W12 2023)

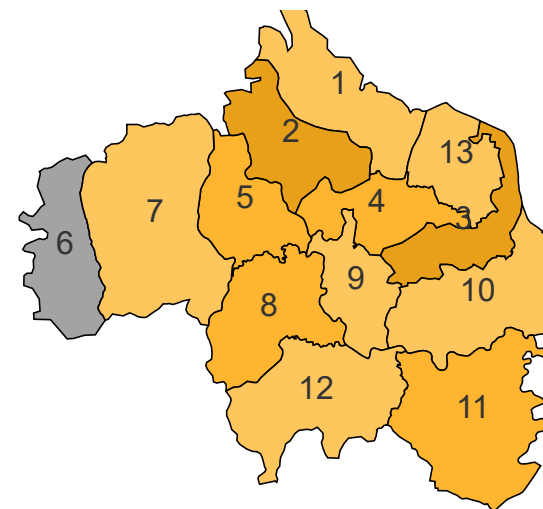
Partner	Performance		Reporting		Partner	Performance		Reporting	
	# sites	# reports received	Completeness	Timeliness		# sites	# reports received	Completeness	Timeliness
AKF	1	1	100%	100%	IRC	4	3	0%	0%
AWARD	6	6	100%	100%	MSF	9	7	0%	0%
BASHMAH	1	1	100%	100%	MoH	12	10	0%	0%
BDRCS	10	9	90%	90%	MHI	1	2	0%	0%
BRAC	0	10	91%	91%	Medair	0	0		
CARE	4	4	100%	100%	FH/MTI	4	4	0%	0%
GH/CPI	1	1	100%	100%	PRANTIC	1	1	100%	100%
DBC	1	1	100%	100%	PULSE	1	1	100%	100%
DSK	1	1	0%	0%	QC	1	1	100%	100%
DCHT-PWJ	1	1	100%	100%	PHD	10	10	0%	0%
FRNDS	5	4	0%	0%	RPN	2	2	100%	100%
GK	10	9	0%	0%	RHU	3	3	100%	0%
Global One	1	0	0%	0%	RI	3	1	0%	0%
GUSS	1	1	100%	100%	RTMI	9	7	0%	0%
HAEFA	2	2	100%	100%	SALT	1	1	100%	100%
HAIB	0	0			SCI	6	6	0%	0%
HMBDF	2	2	0%	0%	DCHT-MM	1	1	100%	100%
HOPE	1	1	100%	100%	Turkish Government	1	1	100%	100%
ICRC	1	0	0%	0%	TdH	2	2	0%	0%
IOM	23	22	0%	0%					

Table 8 | Performance by camp

Northern group	W12		Cumulative (2023)	
	# alerts	% verif.	# alerts	% verif.
Alerts Northern group				
Camp 1E	2	100%	38	100%
Camp 1W	6	100%	55	98%
Camp 2E	8	100%	95	97%
Camp 2W	5	100%	55	93%
Camp 3	3	100%	63	100%
Camp 4	1	100%	56	100%
Camp 4 Ext	0	0%	7	100%
Camp 5	4	100%	28	100%
Camp 6	2	100%	24	100%
Camp 7	1	0%	27	89%
Camp 8E	5	100%	54	98%
Camp 8W	1	100%	59	100%
Kutupalong RC	2	100%	17	100%

Map 5 | Number of alerts by camp

- 1 Camp 1E
- 2 Camp 1W
- 3 Camp 2E
- 4 Camp 2W
- 5 Camp 3
- 6 Camp 4 Ext
- 7 Camp 4
- 8 Camp 5
- 9 Camp 6
- 10 Camp 7
- 11 Camp 8E
- 12 Camp 8W
- 13 Kutupalong RC



# of alerts



Table 9 | Performance by camp

Southern group	W12		Cumulative (2023)	
	# alerts	% verif.	# alerts	% verif.
Alerts Northern group				
Camp 10	1	100%	19	95%
Camp 11	0	0%	12	100%
Camp 12	3	100%	36	100%
Camp 13	2	100%	46	100%
Camp 14	1	100%	41	100%
Camp 15	4	100%	36	100%
Camp 16	1	100%	38	100%
Camp 17	1	100%	18	100%
Camp 18	3	100%	40	100%
Camp 19	1	100%	6	100%
Camp 20	3	100%	20	100%
Camp 20 Ext	0	0%	9	100%
Camp 9	3	100%	46	100%

Map 6 | Number of alerts by camp

- 1 Camp 10
- 2 Camp 11
- 3 Camp 12
- 4 Camp 13
- 5 Camp 14
- 6 Camp 15
- 7 Camp 16
- 8 Camp 17
- 9 Camp 18
- 10 Camp 19
- 11 Camp 20 Ext
- 12 Camp 20
- 13 Camp 9

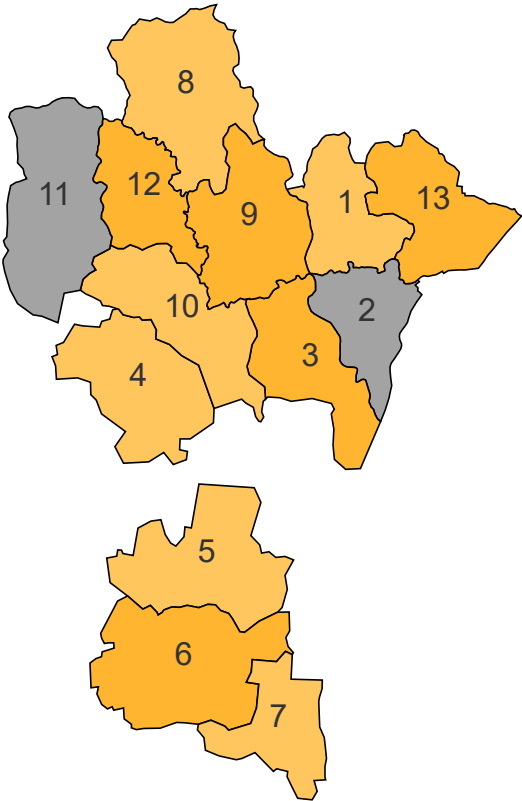


Table 10 | Performance by camp

Teknaf	W12		Cumulative (2023)	
	# alerts	% verif.	# alerts	% verif.
Alerts Northern group				
Camp 21 Chakmarkul	3	100%	19	100%
Camp 22 Unchiprang	1	100%	24	100%
Camp 23 Shamlapur	0	0%	3	100%
Camp 24 Leda	2	100%	59	98%
Camp 25 Ali Khali	0	0%	9	100%
Camp 26 Nayapara	0	0%	15	100%
Camp 27 Jadimura	0	0%	4	100%
Nayapara RC	0	0%	15	100%

Map 7 | Number of alerts by camp

- 1

Camp 21 Chakmarkul
- 2

Camp 22 Unchiprang
- 3

Camp 23 Shamlapur
- 4

Camp 24 Leda
- 5

Camp 25 Ali Khali
- 6

Camp 26 Nayapara
- 7

Camp 27 Jadimura
- 8

Nayapara RC

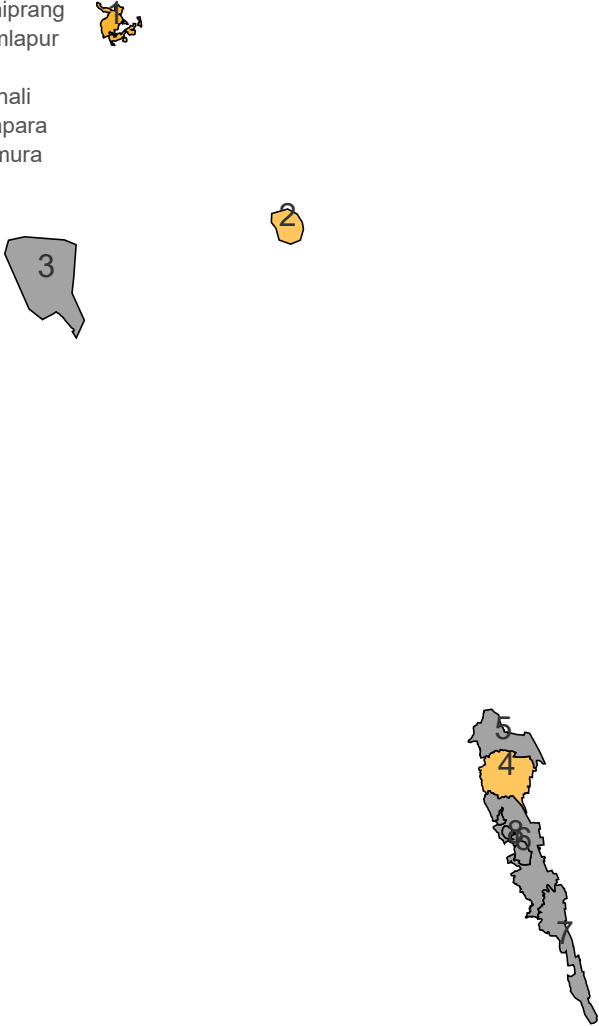


Table 11 | Performance by type of alert

Event	W12		Cumulative (2023)	
	# alerts	% verif.	# alerts	% verif.
Indicator-based surveillance				
Malaria	0	0%	0	0%
Measles	2	100%	49	100%
Bloody Diarr.	0	0%	0	0%
AFP	0	0%	8	100%
Meningitis	1	100%	6	100%
Haem. fever (susp.)	0	0%	5	100%
NNT	0	100%	1	100%
Unexp. fever	0	100%	24	100%
AWD	0	100%	17	88%
ARI	0	100%	18	100%
AJS	0	100%	14	100%
Varicella (Susp.)	0	100%	90	100%
Suspected COVID-19	0	0%	0	0%
Event-based surveillance				
EBS total	5	100%	68	99%

Table 12 | Risk assessment

W12	Cumulative (2023)	
0	0	Low risk
0	0	Moderate risk
0	0	High risk
0	0	Very high risk

## For more help and support, please contact:

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## Notes

WHO and the Ministry of Health and Family Welfare gratefully acknowledge all partners who have reported the data used in this bulletin.

The data been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind, and built to work in difficult and remote operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at <http://ewars-project.org>

Sign up for an account with EWARS Bangladesh at <http://bd.ewars.ws>



Ministry of  
Health and  
Family  
Welfare  
Bangladesh



World Health  
Organization



HEALTH SECTOR  
COX'S BAZAR



Global  
**EWARS**

# Bangladesh

## Rohingya Emergency Response

## Early Warning, Alert and Response System (EWARS)

Annex W12 2023



Ministry of Health and Family  
Welfare Bangladesh



World Health  
Organization



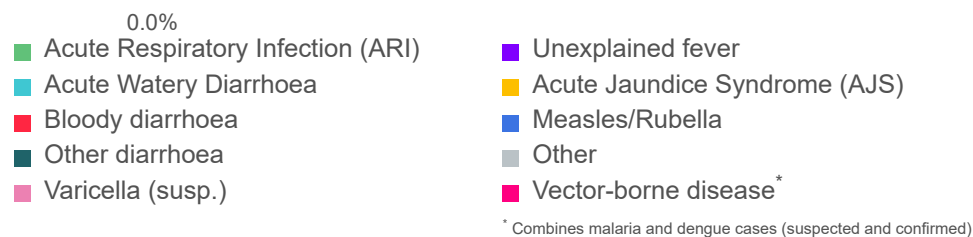
HEALTH SECTOR  
COX'S BAZAR



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# Proportional morbidity

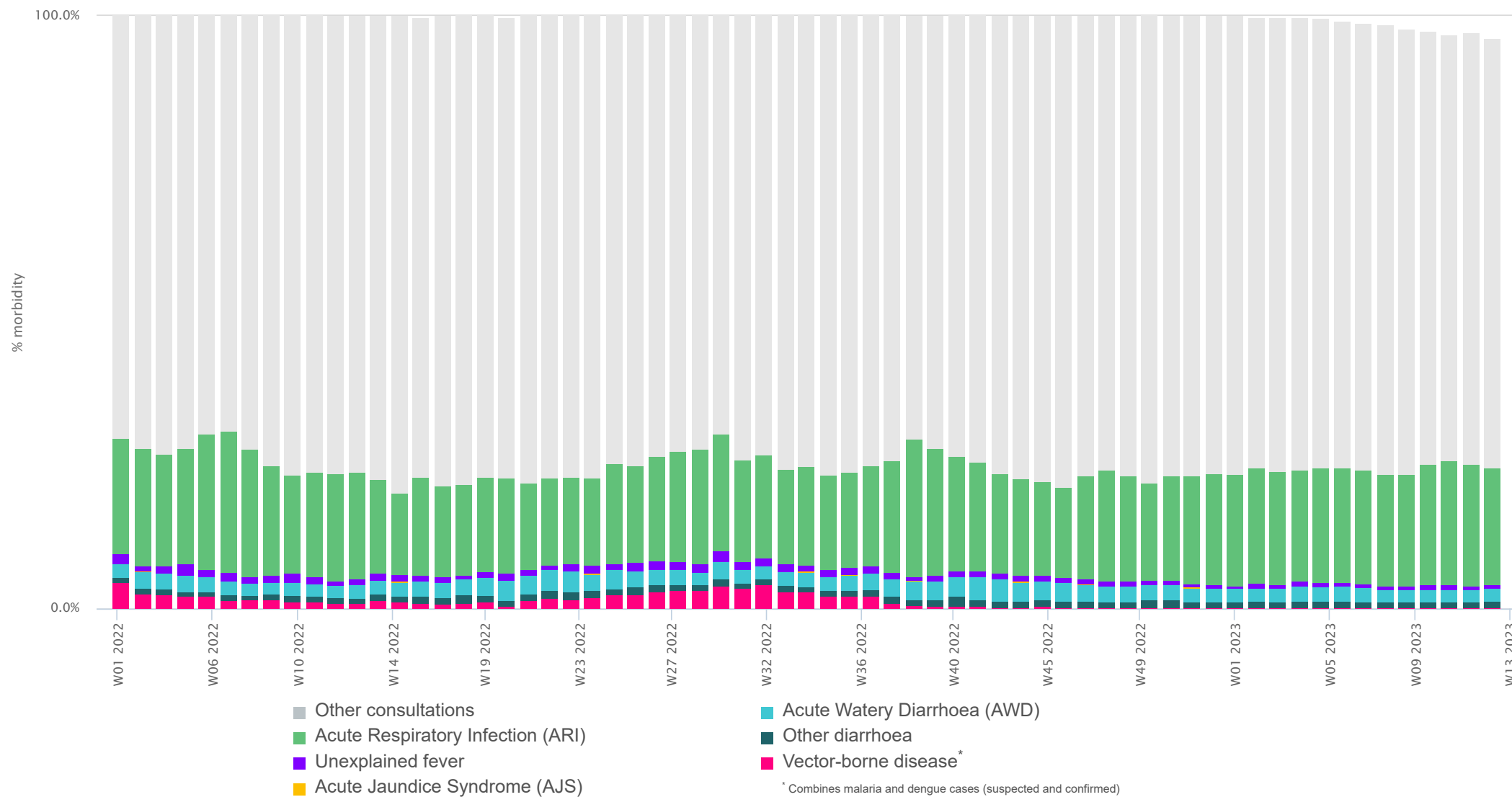
**Figure 1 | Proportional morbidity (W12 2023)**



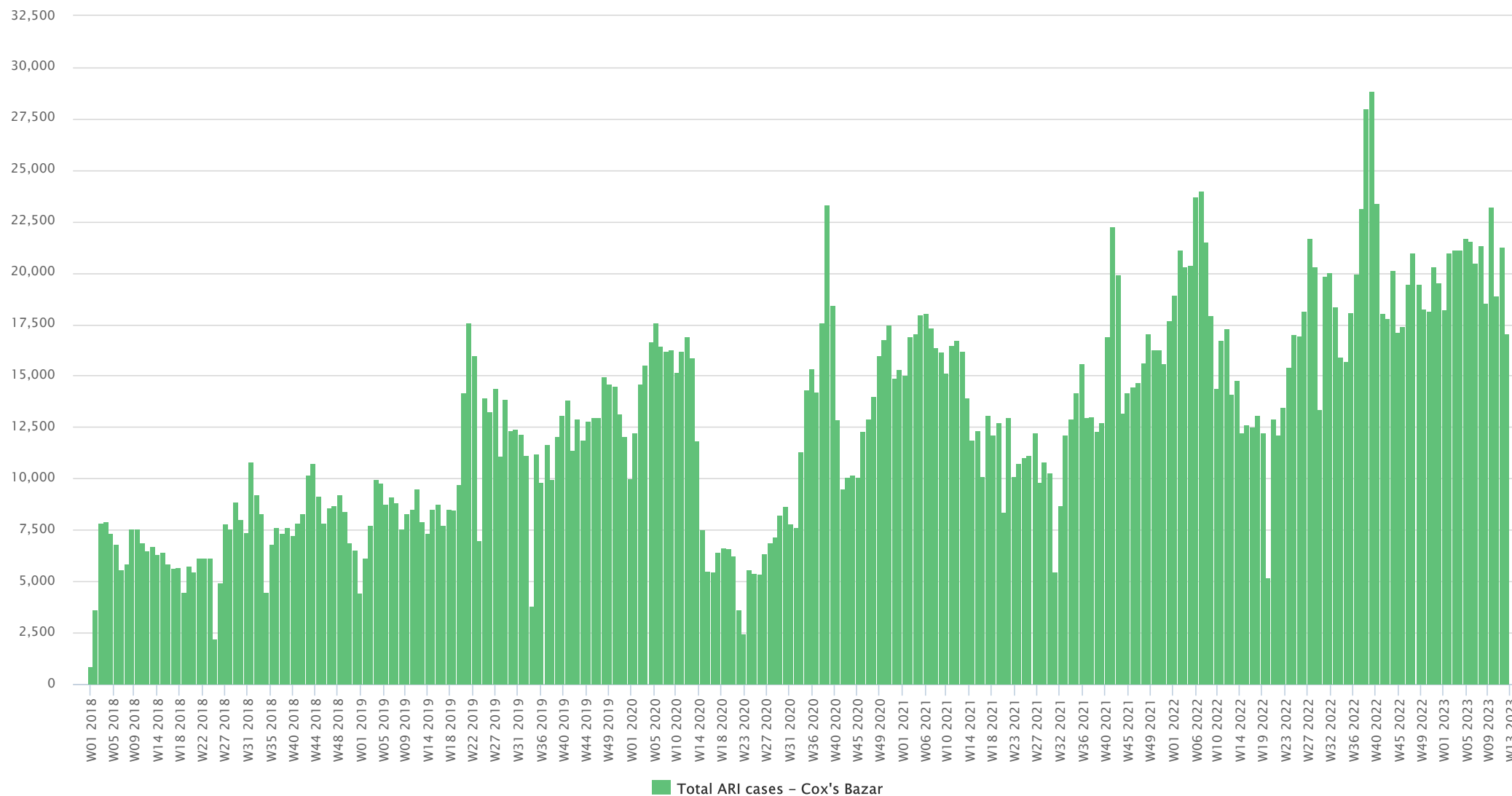
Disease	W12		2023	
	# cases	% morbidity	# cases	% morbidity
AWD	2,007	2.2%	29,750	2.2%
Bloody diarr.	200	0.2%	3,268	0.2%
Other diarr.	1,009	1.1%	14,639	1.1%
Susp. Varicella	3,439	3.8%	20,360	1.5%
ARI	17,727	19.7%	258,585	19.5%
Measles/Rub.	12	0.0%	198	0.0%
AFP	0	0.0%	13	0.0%
Susp. menin.	3	0.0%	46	0.0%
AJS	17	0.0%	239	0.0%
Susp. HF	3	0.0%	52	0.0%
Neo. tetanus	0	0.0%	1	0.0%
Adult tetanus	0	0.0%	3	0.0%
Malaria (conf.)	1	0.0%	20	0.0%
Malaria (susp.)	57	0.1%	563	0.0%
Dengue (conf.)	60	0.1%	1,015	0.1%
Dengue (susp.)	20	0.0%	309	0.0%
Unexpl. fever	537	0.6%	9,059	0.7%
Sev. Malnut.	56	0.1%	526	0.0%
Inj./Wounds	2,047	2.3%	29,046	2.2%
Other	62,886	69.7%	954,044	72.1%
<b>Total</b>	<b>89,644</b>	<b>100%</b>	<b>1,323,082</b>	<b>100%</b>

## Trend in consultations and key diseases

**Figure 2** | Trend in proportional morbidity for key diseases (W12)

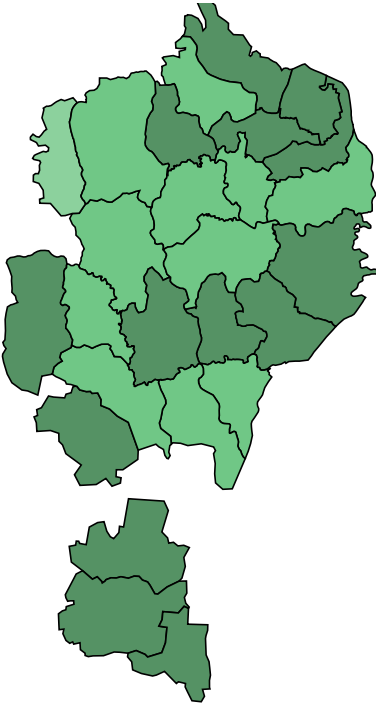


**Figure 3** | Trend in number of cases over time (W38 2017 - W12 2023)



Map 1 | Map of cases by camp (W12 2023)

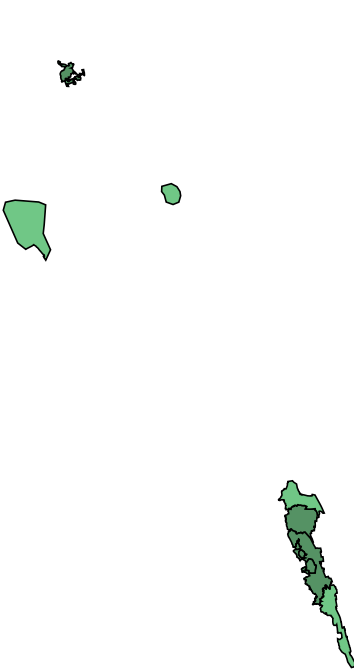
a. Ukhia | Number of cases



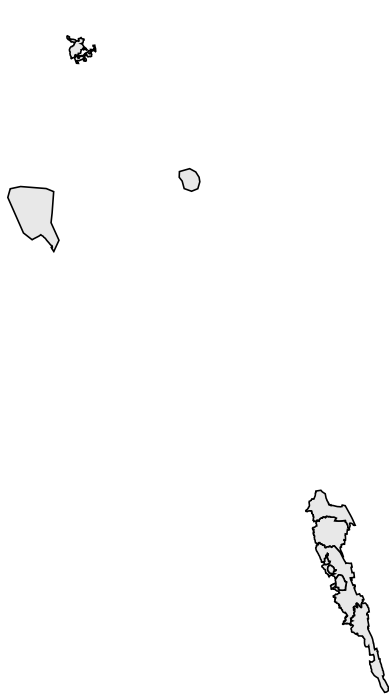
b. Ukhia | Number of alerts



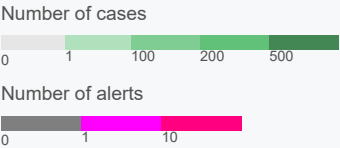
c. Teknaf | Number of cases



d. Teknaf | Number of alerts



Map legend



Alert threshold

Twice the average number of cases over the past 3 weeks. *Source: IEDCR*

Alert management (W12 2023)

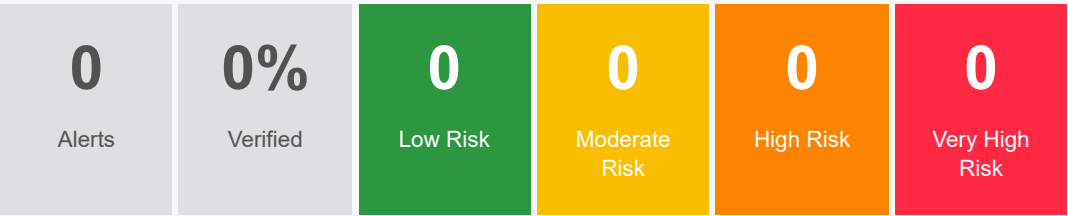


Figure | % sex

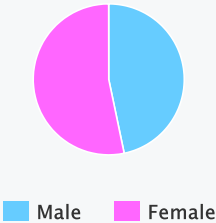
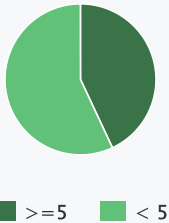
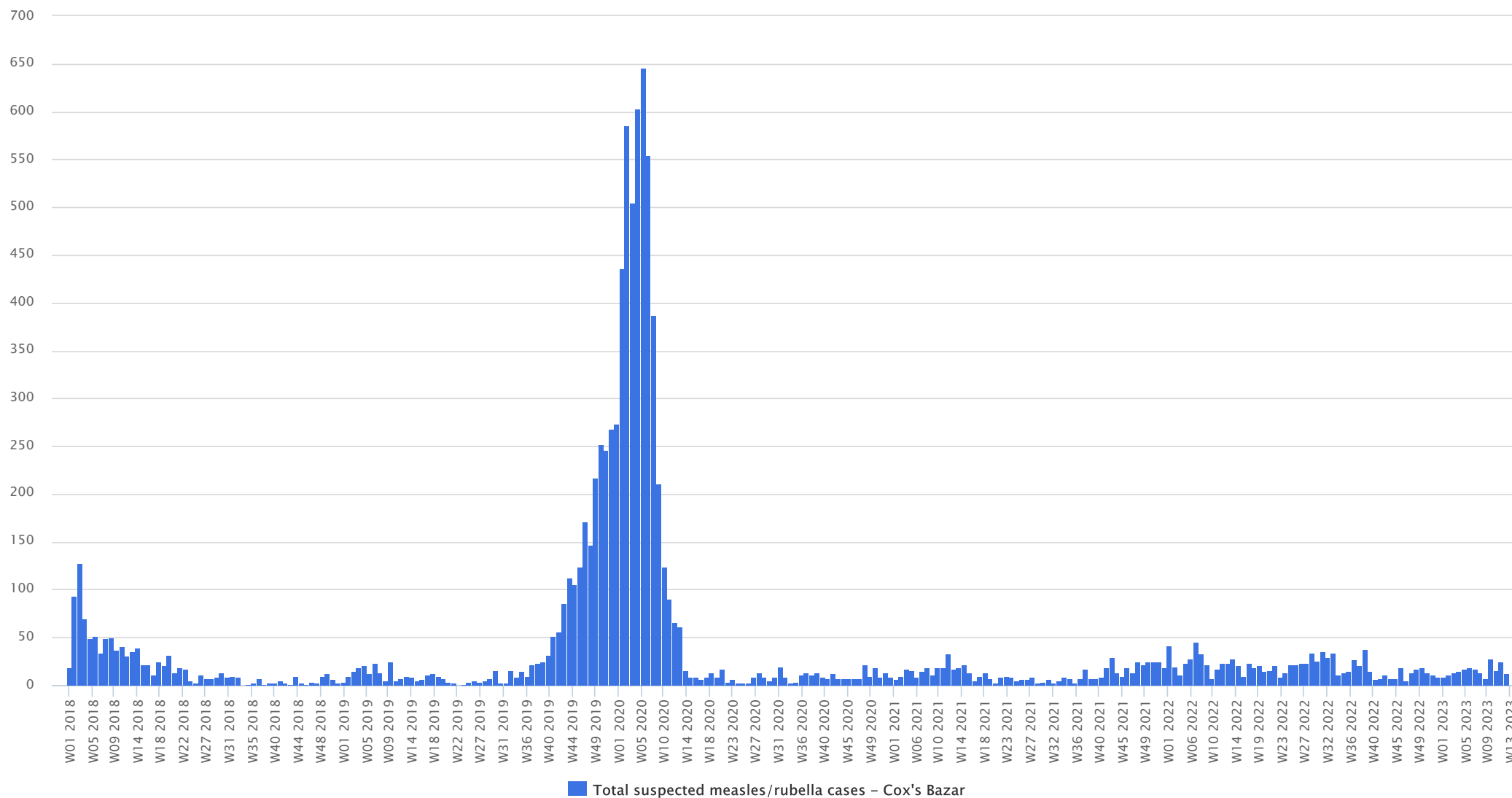


Figure | % age

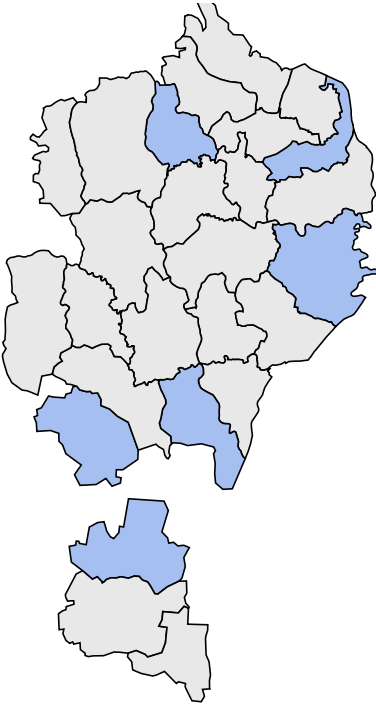


**Figure 4** | Trend in number of suspected cases over time (W38 2017 - W12 2023)



Map 2 | Map of cases by camp (W12 2023)

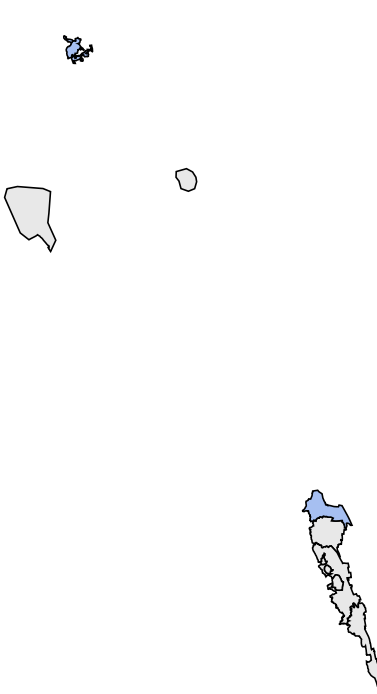
a. Ukhia | Number of cases



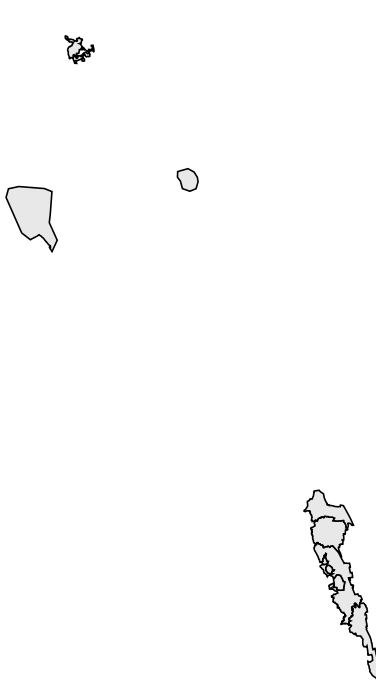
b. Ukhia | Number of alerts



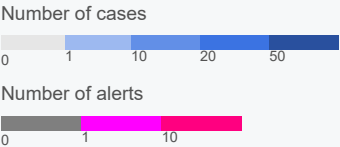
c. Teknaf | Number of cases



d. Teknaf | Number of alerts



Map legend



Alert threshold  
1 case. Source: IEDCR

Alert management (W12 2023)

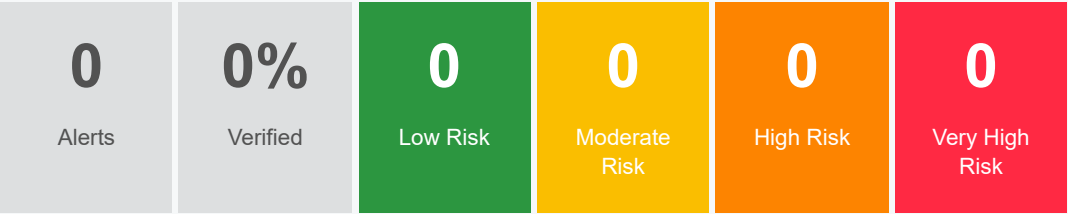


Figure | % sex

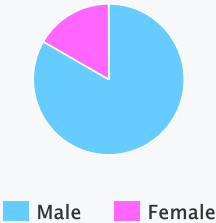
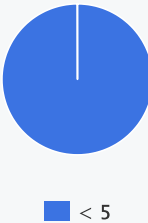
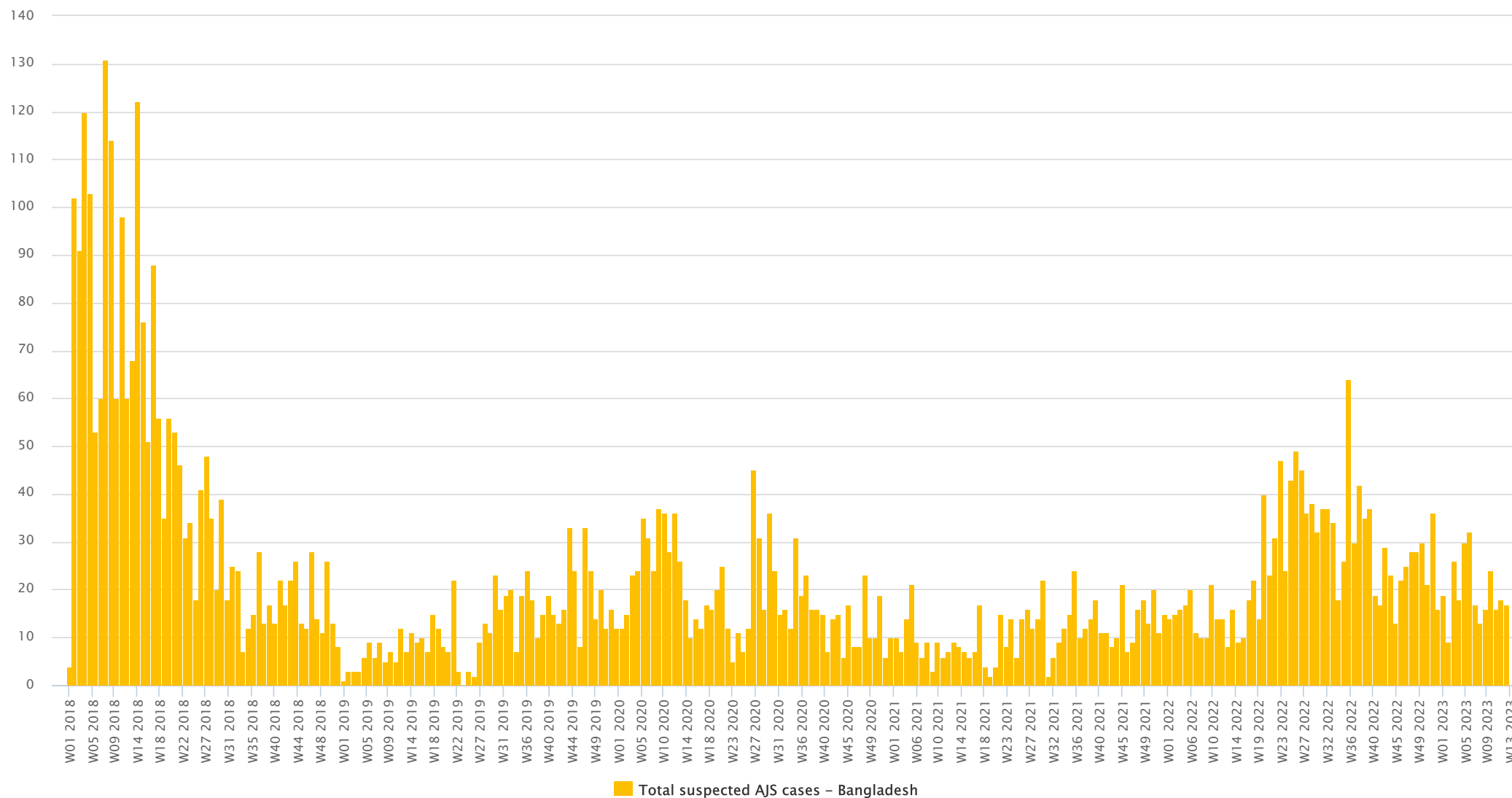


Figure | % age

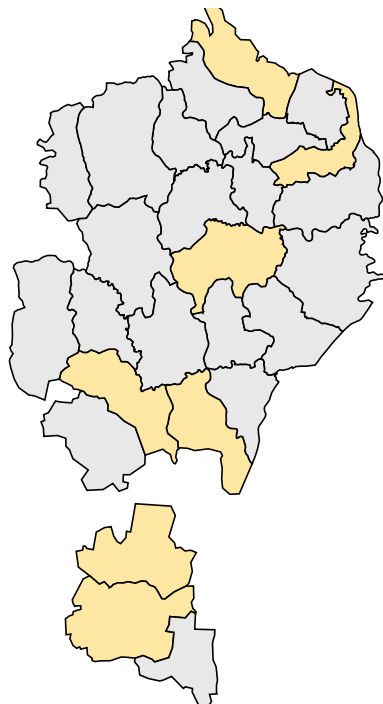


**Figure 5** | Trend in number of cases over time (W38 2017 - W12 2023)

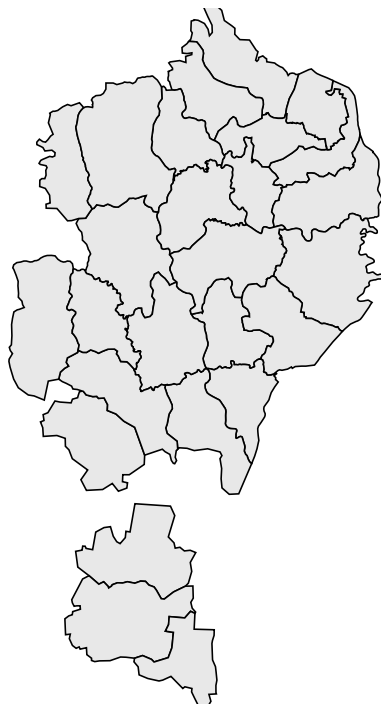


**Map 3 | Map of cases by camp (W37 2017 - W12 2023)**

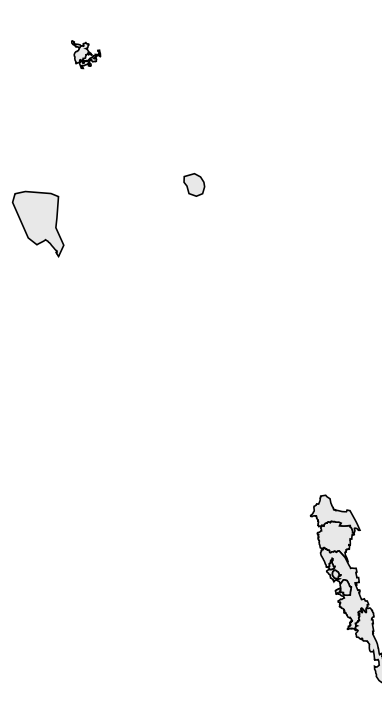
**a. Ukhia | Number of cases**



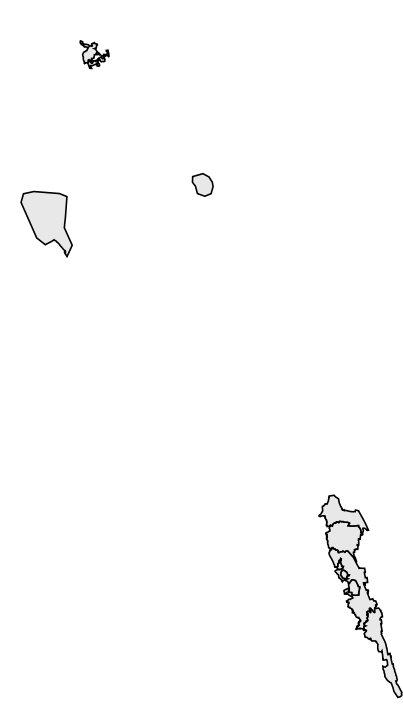
**b. Ukhia | Number of alerts**



**c. Teknaf | Number of cases**

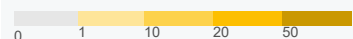


**d. Teknaf | Number of alerts**



## Map legend

Number of cases



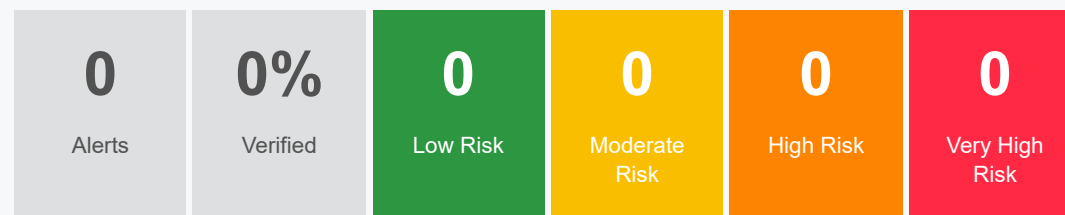
Number of alerts



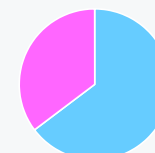
## Alert threshold

A cluster of 3 or more cases seen in a health facility. *Source: IEDCR*

## Alert management (W12 2023)

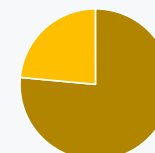


## Figure | % sex



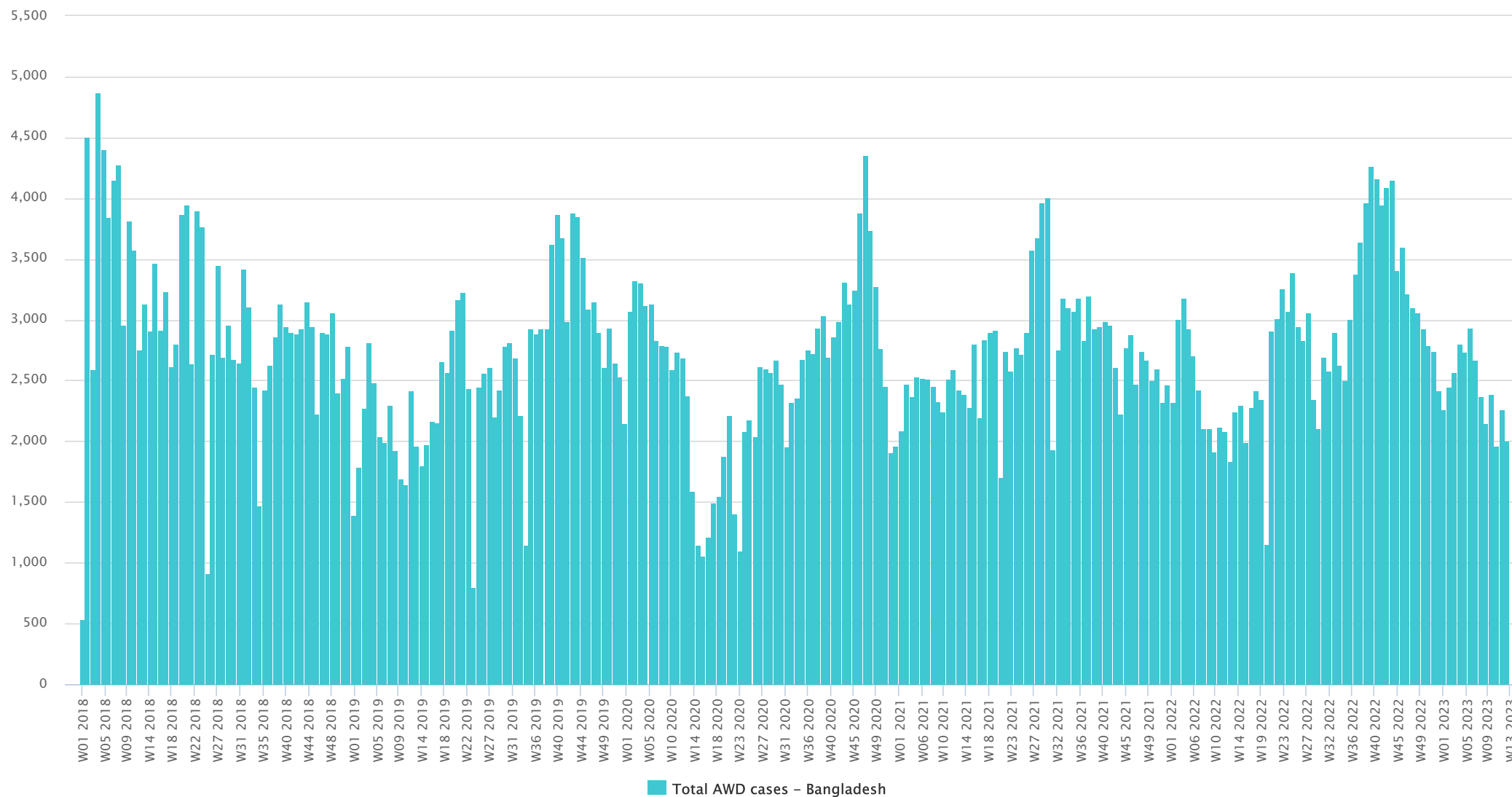
Male Female

## Figure | % age

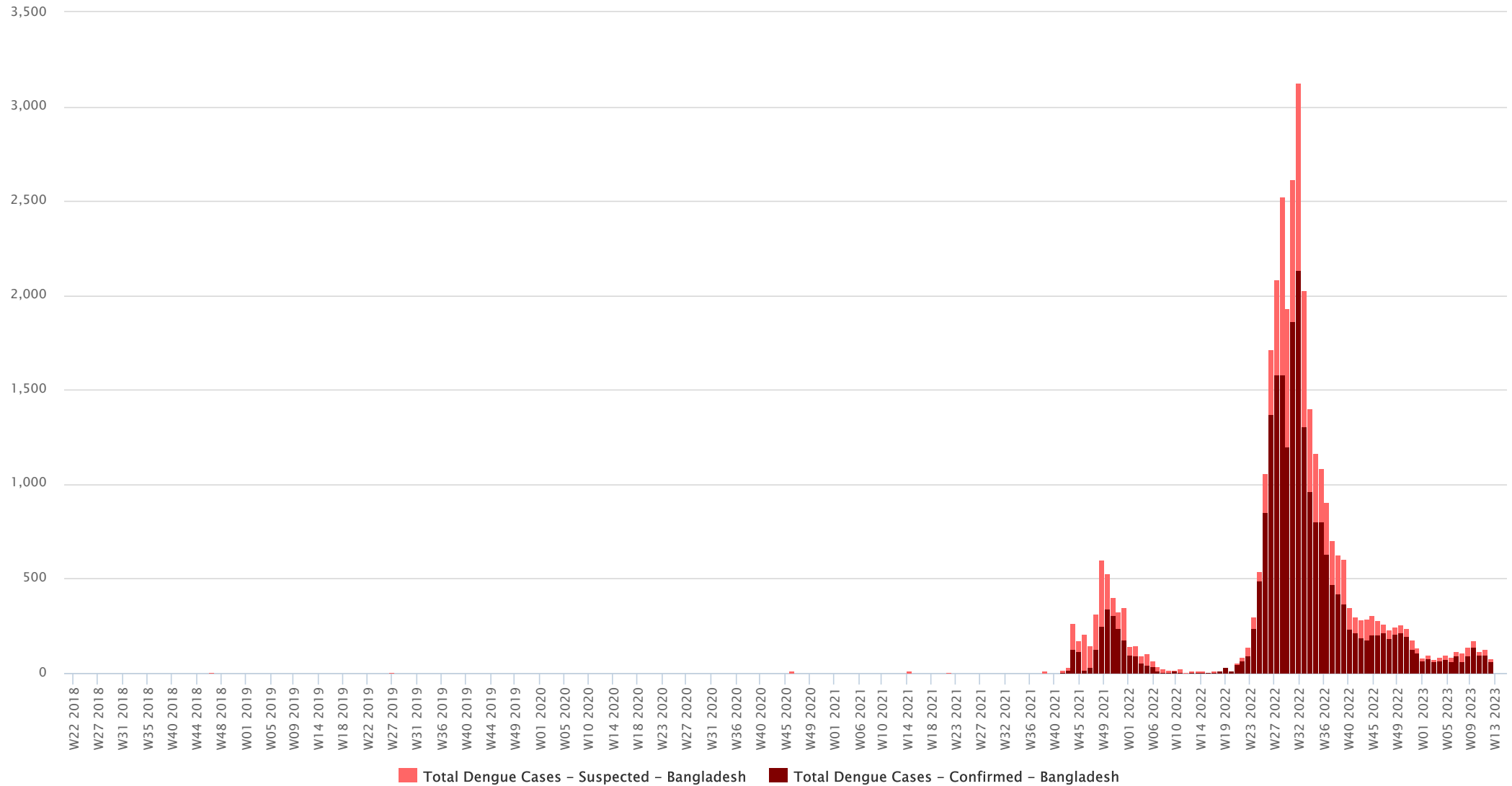


>= 5 < 5

**Figure 6** | Trend in number of cases over time (W38 2017 - W12 2023)

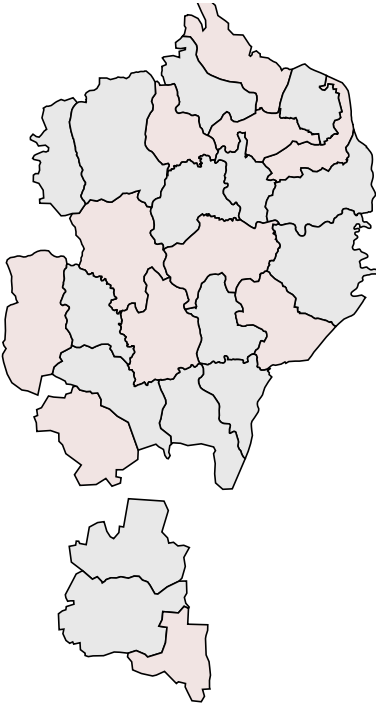


**Figure 7** | Trend in number of cases over time (W38 2017 - W12 2023)



Map 4 | Map of cases by camp (W37 2017 - W12 2023)

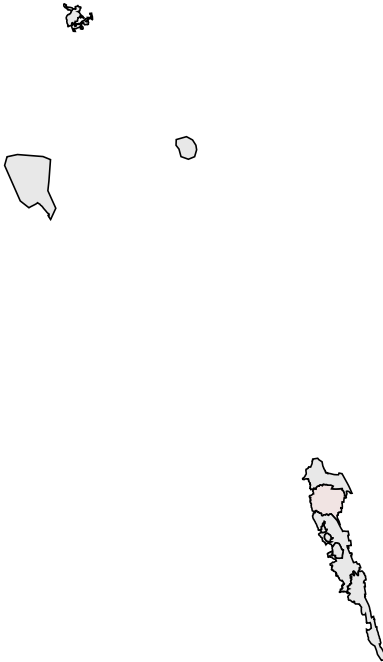
a. Ukhia | Number of cases



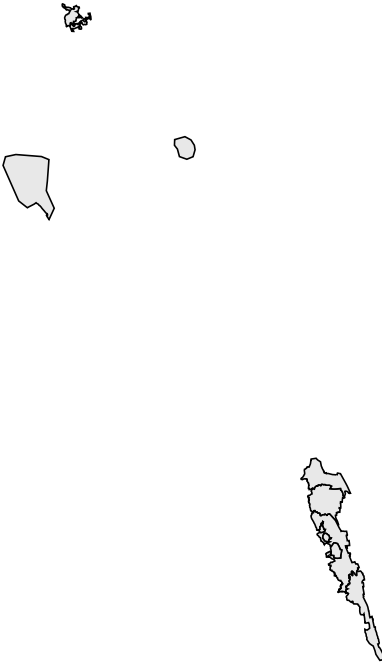
b. Ukhia | Number of alerts



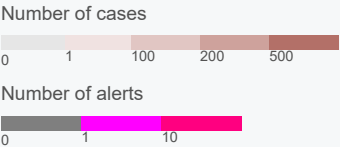
c. Teknaf | Number of cases



d. Teknaf | Number of alerts



Map legend



Alert threshold

Twice the average number of cases over the past 3 weeks. Source: IEDCR

Alert management (W12 2023)

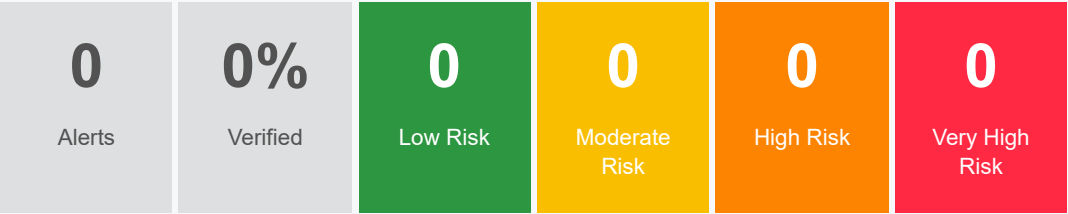


Figure | % sex

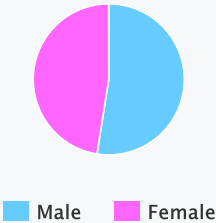


Figure | % age

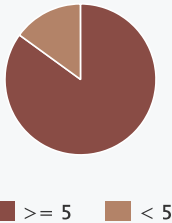
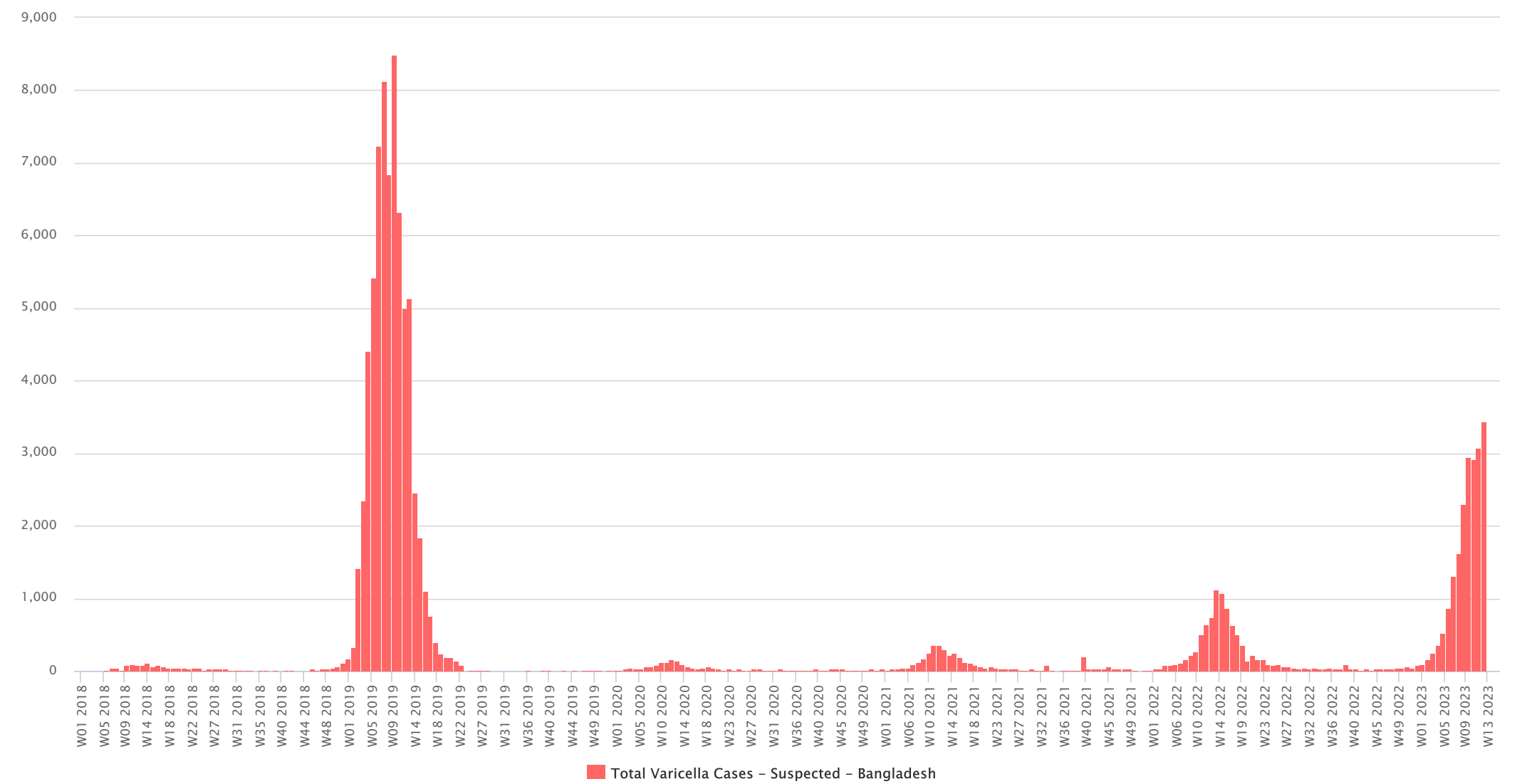
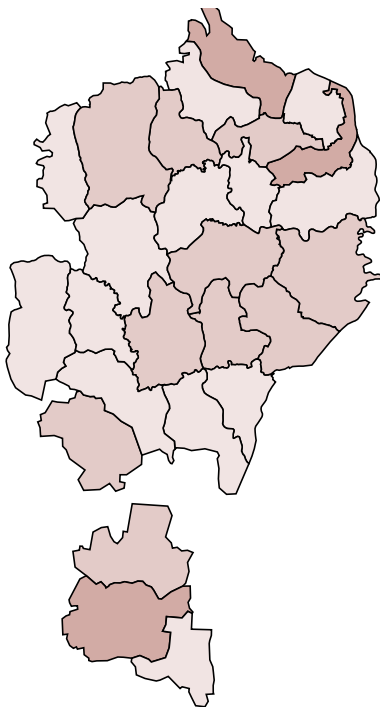


Figure 7 | Trend in number of cases over time (W38 2017 - W12 2023)

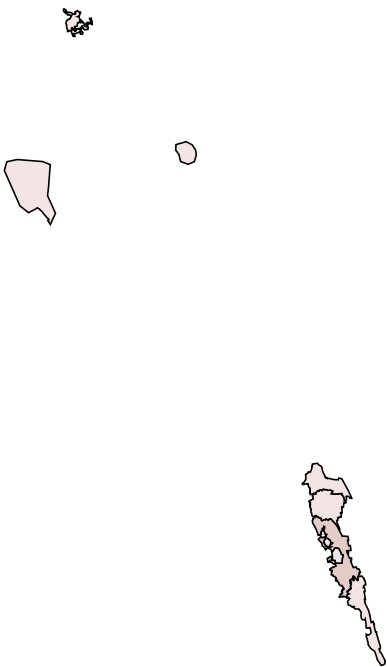


Map 4 | Map of cases by camp (W37 2017 - W12 2023)

a. Ukhia | Number of cases



c. Teknaf | Number of cases



Map legend

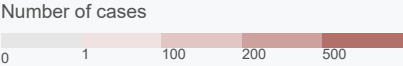


Figure | % sex

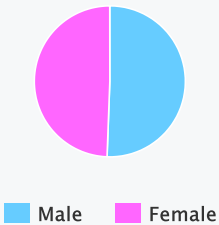
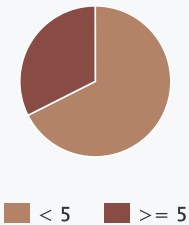


Figure | % age



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## Notes

WHO and the Ministry of Health and Family Welfare gratefully acknowledge all partners who have reported the data used in this bulletin.

The data been collected with support from the EWARS project. This is an initiative to strengthen early warning, alert and response in emergencies. It includes an online, desktop and mobile application that can be rapidly configured and deployed in the field. It is designed with frontline users in mind, and built to work in difficult and remote operating environments. This bulletin has been automatically published from the EWARS application.

More information can be found at <http://ewars-project.org>

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