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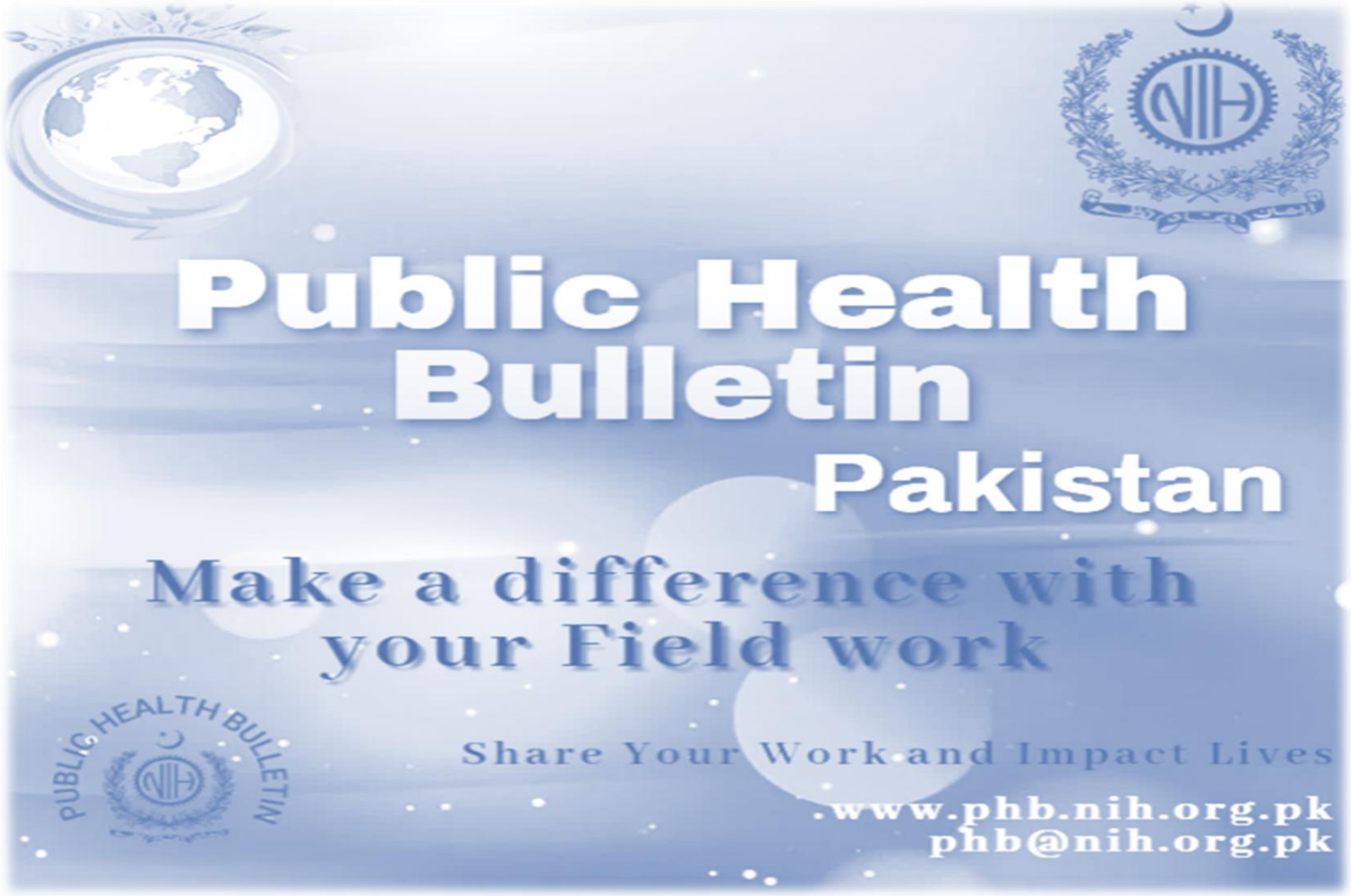
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

http:/www.phb.nih.org.pk/

Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin is your go-to resource for disease trends, outbreak alerts, and crucial public health information. By reading and sharing this bulletin, you can help increase awareness and promote preventive measures within your community.



Public Health Bulletin - Pakistan, Week 39, 2025

The Public Health Bulletin (PHB) provides timely, reliable, and actionable health information to the public and professionals. It disseminates key IDSR data, outbreak reports, and seasonal trends, along with actionable public health recommendations. Its content is carefully curated for relevance to Pakistan's priorities, excluding misinformation. The PHB also proactively addresses health misinformation on social media and aims to be a trusted resource for informed public health decision-making.

This Weeks Highlights include;

- *Dengue Outbreak Investigation Report – UC Rajjar-1, VC Amir Abad, District Charsadda (July–August 2025)*
- *Knowledge hub on Understanding HIV/AIDS: A Public Health Priority*

By transforming complex health data into actionable intelligence, the Public Health Bulletin continues to be an indispensable tool in our collective journey toward a healthier Pakistan.

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Stay informed. Stay prepared. Stay healthy.

Sincerely,
The Chief Editor

Overview

- *During Week 39, the most frequently reported cases were of Malaria, followed by Acute Diarrhea (Non-Cholera), ILI, ALRI <5 years, TB, B. Diarrhea, Dog Bite, VH (B, C & D), Typhoid, and SARI.*
- *Twenty-nine cases of AFP were reported from KP, eight from Sindh, and two from GB.*
- *Fourteen suspected cases of HIV/ AIDS were reported from Sindh, four from KP, and one from GB.*
- *One suspected case of Brucellosis reported from AJK.*
- *Among VPDs, there is an increase in the number of cases of Measles, Mumps, Chickenpox, and Pertussis this week.*
- *Among Respiratory diseases, there is a decrease in the number of cases of ILI, ALRI <5 years, TB, and SARI this week.*
- *Among Water/food-borne diseases, there is a decrease in the number of cases of Acute Diarrhea (Non-Cholera), B. Diarrhea, Typhoid, AVH (A & E), and AWD (S. Cholera) this week.*
- *Among Vector-borne diseases, there is an increase in the number of cases of Dengue and CL this week.*
- *Among STDs, there is a decrease in the number of cases of HIV/AIDs this week.*
- *Among Zoonotic/Other diseases, there is a decrease in the number of cases of Dog Bite and VH (B, C & D) this week.*
- *Field investigation is required for verification of the alerts and for prevention and control of the outbreaks*

IDSR compliance attributes

- *The national compliance rate for IDSR reporting in 158 implemented districts is 77%*
- *Sindh is the top reporting region with a compliance rate of 98%, followed by GB 91%, ICT 79% and AJK 76%.*
- *The lowest compliance rate was observed at KP 67% and Balochistan 61%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2704	1802	67
Azad Jammu Kashmir	469	357	76
Islamabad Capital Territory	38	30	79
Balochistan	1308	795	61
Gilgit Baltistan	417	380	91
Sindh	2111	2061	98
National	7047	5425	77

Public Health Actions

Federal, Provincial, Regional Health Departments and relevant programs may consider following public health actions to prevent and control diseases.

Typhoid

- **Enhance Case Detection and Reporting:** Strengthen typhoid surveillance within the Integrated Disease Surveillance and Response (IDSR) system by training healthcare providers on standard case definitions, timely notification, and outbreak detection, particularly in high-burden and underserved areas.
- **Improve Laboratory Diagnosis:** Expand laboratory diagnostic capacity for typhoid by supporting culture and sensitivity testing for MDR and XDR detection at district and provincial levels to confirm cases and guide antimicrobial stewardship.
- **Promote Water, Sanitation, and Hygiene (WASH):** Collaborate with relevant sectors to ensure access to safe drinking water, improve sanitation infrastructure, and promote hygiene practices, especially handwashing with soap.
- **Implement Vaccination Strategies:** Support the scale-up of Typhoid Conjugate Vaccine (TCV) through routine immunization and targeted campaigns in high-risk populations.
- **Raise Community Awareness:** Develop culturally appropriate health education campaigns to inform communities about transmission routes, preventive behaviors (e.g., safe food handling and hygiene), and the importance of early care-seeking.

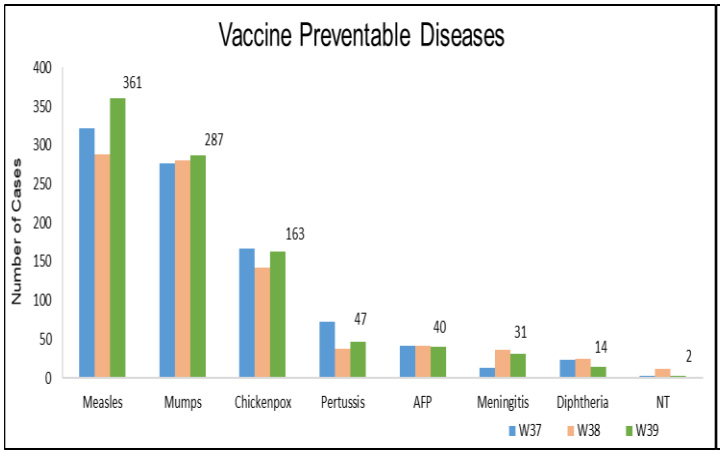
Acute Viral Hepatitis (A & E)

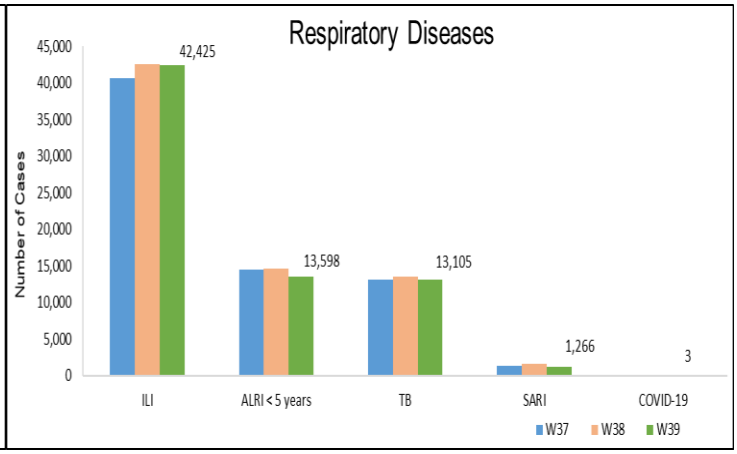
- **Enhance Case Detection and Reporting:** Strengthen AHV (A & E) surveillance in the IDSR system by training health personnel to recognize symptoms and ensure timely reporting, especially during seasonal peaks or in outbreak-prone areas.
- **Strengthen Laboratory Confirmation:** Improve diagnostic capacity by ensuring availability of rapid and confirmatory tests (e.g., IgM for HAV/HEV) at regional laboratories to facilitate timely outbreak response.
- **Improve WASH Infrastructure:** Coordinate with municipal and rural development authorities to upgrade water supply systems, prevent sewage contamination, and promote latrine use to interrupt fecal-oral transmission.
- **Engage in Risk Communication:** Design and disseminate targeted messages through community channels to raise awareness about safe drinking water, personal hygiene, food safety, and the risks of consuming contaminated water or raw produce.

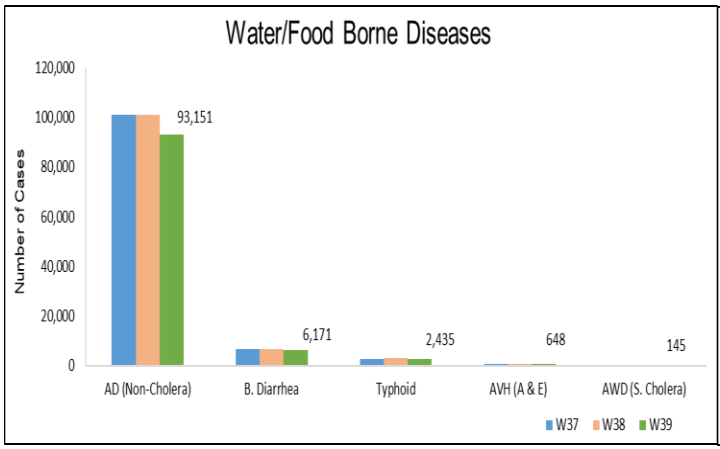
Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 39, Pakistan.

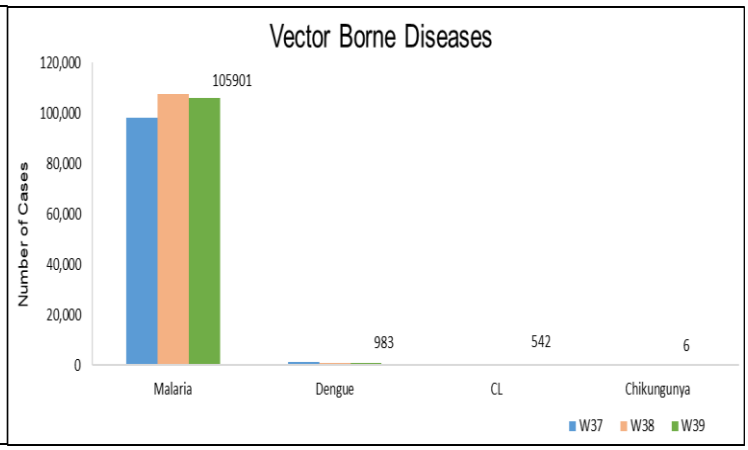
Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
Malaria	10	4643	1	3	11673	NR	89571	105901
AD (Non-Cholera)	920	7738	1693	476	37583	NR	44741	93151
ILI	967	6404	423	1902	5950	NR	26779	42425
ALRI < 5 years	466	1786	623	6	1179	NR	9538	13598
TB	73	99	130	11	262	NR	12530	13105
B. Diarrhea	12	1382	93	5	1122	NR	3557	6171
Dog Bite	98	294	9	0	938	NR	2891	4230
VH (B, C & D)	32	70	3	0	102	NR	3491	3698
Typhoid	13	536	140	2	711	NR	1033	2435
SARI	44	599	142	0	399	NR	82	1266
Dengue	35	23	7	1	735	NR	182	983
AVH (A & E)	16	24	4	0	251	NR	353	648
CL	0	141	0	0	392	NR	9	542
Measles	1	67	24	0	231	NR	38	361
Mumps	0	58	6	0	194	NR	29	287
Chickenpox/ Varicella	0	6	17	2	117	NR	21	163
AWD (S.Cholera)	4	89	8	0	42	NR	2	145
Pertussis	0	37	2	0	7	NR	1	47
AFP	1	0	2	0	29	NR	8	40
Meningitis	6	10	3	0	5	NR	7	31
Gonorrhea	0	22	0	0	2	NR	7	31
HIV/AIDS	0	0	1	0	4	NR	14	19
Syphilis	0	0	0	0	0	NR	17	17
Diphtheria (Probable)	0	0	0	0	9	NR	5	14
Chikungunya	0	0	0	0	0	NR	6	6
COVID-19	0	0	0	0	3	NR	0	3
NT	0	0	0	0	2	NR	0	2
Brucellosis	1	0	0	0	0	NR	0	1

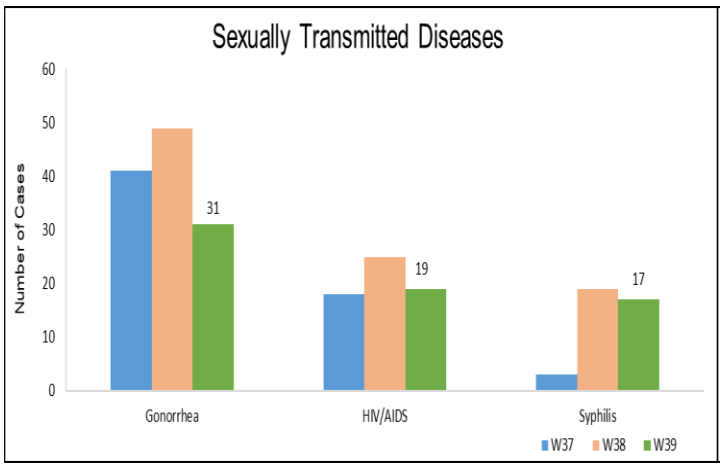
Figure 1: Most frequently reported suspected cases during Week 39, Pakistan.

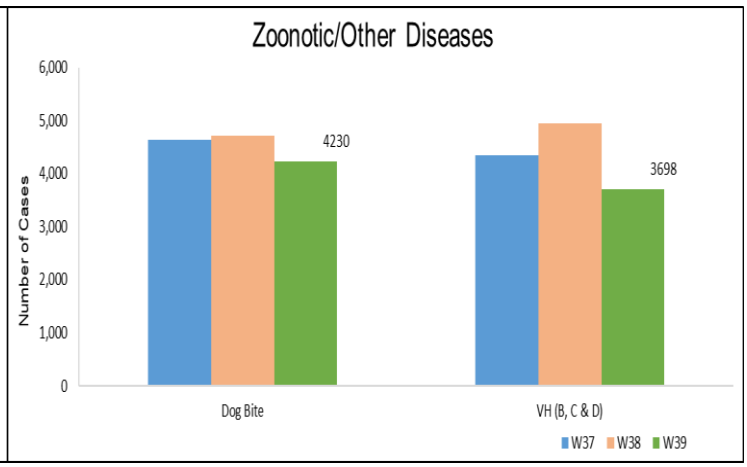












Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, TB, ALRI<5 Years, B. Diarrhea, VH (B, C, D), Dog Bite, Typhoid and AVH (A & E).
- Malaria cases are mostly from Sanghar, Khairpur and Larkana whereas AD (Non-Cholera) cases are from Khairpur, Mirpurkhas and Badin.
- Eight cases of AFP reported from Sindh. They are suspected cases and need field verification.
- There is a decline in number of cases of Malaria, AD (Non-Cholera), ILI, TB, ALRI<5 Years, B. Diarrhea, VH (B, C, D), Dog Bite, Typhoid, AVH (A & E), SARI, Mumps, AFP, Meningitis, Chikungunya, Diphtheria, AWD (S. Cholera) and Pertussis while an increase in number of cases of Dengue, Measles and Chickenpox this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 39, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	B. Diarrhea	VH (B, C & D)	Dog Bite	Typhoid	AVH (A & E)
Badin	5586	2727	1580	810	625	243	213	119	42	0
Dadu	3719	2535	232	673	798	406	163	402	90	126
Ghotki	5271	1262	52	552	547	146	377	211	0	0
Hyderabad	1509	1942	1985	352	228	82	31	40	5	4
Jacobabad	1571	820	917	220	499	90	191	140	44	0
Jamshoro	3334	1915	92	686	319	92	148	83	53	11
Kamber	4124	1780	0	860	346	115	38	185	15	0
Karachi Central	54	1211	1147	195	69	10	15	29	150	8
Karachi East	44	328	3	32	9	1	1	2	13	9
Karachi Keamari	16	714	334	7	14	4	0	2	1	1
Karachi Korangi	109	397	54	28	0	7	0	0	1	0
Karachi Malir	187	1660	3103	162	348	44	8	42	22	11
Karachi South	6	100	0	0	0	0	0	0	0	0
Karachi West	387	799	1114	66	297	14	24	71	22	2
Kashmore	1976	362	437	220	146	46	11	27	0	1
Khairpur	7173	3035	6194	1189	1014	392	179	335	344	12
Larkana	6906	1765	0	852	249	347	18	22	7	0
Matiari	4089	1515	1	636	255	59	276	62	1	7
Mirpurkhas	6566	2999	3317	742	246	100	32	114	13	3
Naushero Feroze	1773	1431	1031	300	379	184	39	184	17	0
Sanghar	7532	2121	68	990	421	81	1060	135	27	5
Shaheed Benazirabad	2746	1783	2	352	171	105	47	143	87	0
Shikarpur	1718	907	3	201	130	143	96	163	1	0
Sujawal	2595	1745	10	178	512	169	0	63	5	0
Sukkur	3164	1381	2050	384	209	198	67	100	3	0
Tando Allahyar	5058	1085	418	403	164	103	288	31	6	0
Tando Muhammad Khan	2831	1375	120	613	179	124	72	104	0	0
Tharparkar	4282	2203	1398	489	710	91	19	0	23	32
Thatta	1883	1056	1117	30	273	49	28	82	15	116
Umerkot	3362	1788	0	308	381	112	50	0	26	5
Total	89571	44741	26779	12530	9538	3557	3491	2891	1033	353

Figure 2: Most frequently reported suspected cases during Week 39 Sindh

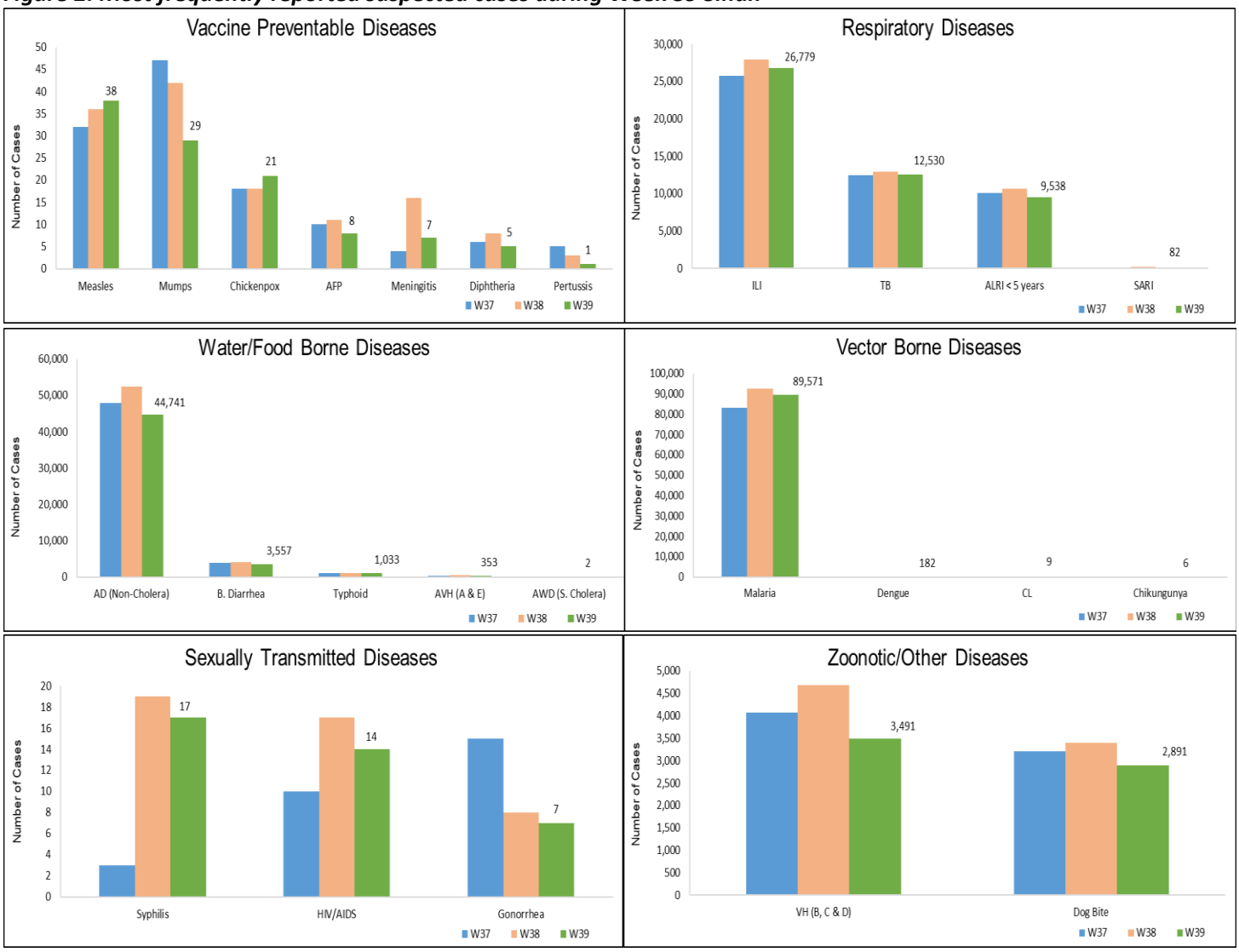
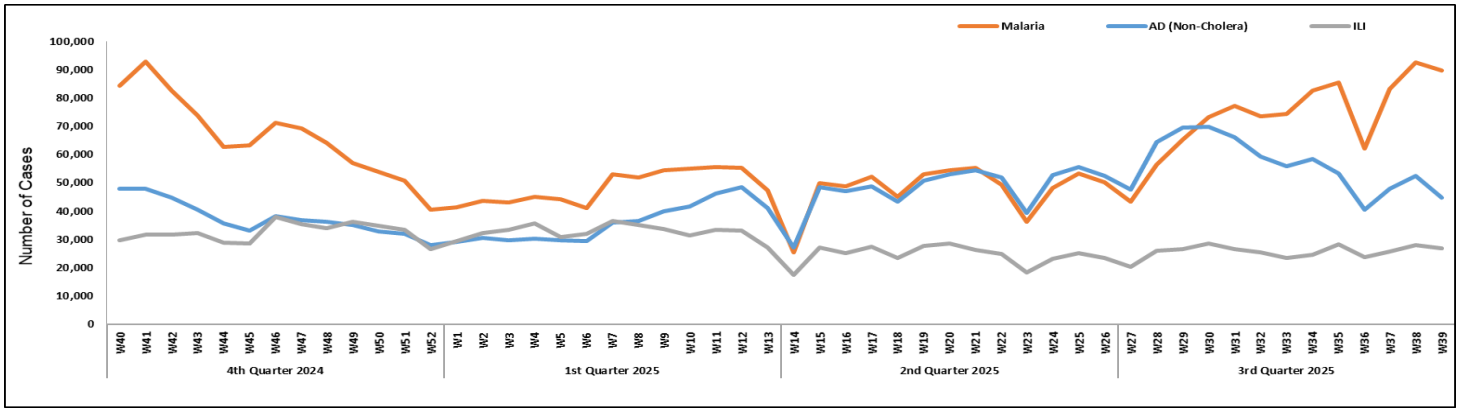


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



Balochistan

- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, Dog Bite, CL, and TB cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Jaffarabad, and Kech (Turbat) while ILI cases are mostly reported from Kech (Turbat), Quetta, and Kharan.
- No case of HIV/AIDs is reported from Balochistan in Week 39.
- AD (Non-Cholera), ILI, B. Diarrhea, Typhoid, Dog Bite, CL, TB, AWD (S. Cholera), Measles, Pertussis, AVH (A & E), Dengue, and Meningitis showed an increase in the number of cases. At the same time, a decrease has been observed in the number of cases of Malaria, ALRI <5 years, SARI, VH (B, C & D), Mumps, and Chickenpox this week.

Table 3: District wise distribution of most frequently reported suspected cases during Week 39, Balochistan

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	Dog Bite	CL	TB
Awaran	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barkhan	65	60	147	13	2	0	22	25	1	0
Chagai	152	252	57	0	45	0	15	0	0	0
Chaman	0	156	24	0	26	0	29	7	0	0
Dera Bugti	81	0	68	1	8	0	2	0	0	0
Duki	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Gwadar	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Harnai	246	5	100	186	69	0	0	3	0	0
Hub	247	101	140	13	16	0	2	2	1	0
Jaffarabad	602	192	845	57	84	24	13	59	22	64
Jhal Magsi	350	461	375	16	0	13	5	10	0	2
Kachhi (Bolan)	82	153	33	32	28	30	48	29	37	1
Kalat	2	0	5	5	0	0	2	0	1	0
Kech (Turbat)	601	904	573	50	94	3	2		1	
Kharan	214	558	44	0	89	13	11	0	0	0
Khuzdar	185	216	82	15	26	12	38	0	0	0
Killa Abdullah	250	196	23	7	82	52	78	13	14	0
Killa Saifullah	267	0	264	182	94	17	45	10	18	4
Kohlu	164	318	90	13	58	8	26	3		1
Lasbella	514	62	460	185	36	0	6	7	11	5
Loralai	262	405	56	53	38	61	7	0	0	0
Mastung	177	144	86	26	25	105	15	2	0	1
MusaKhel	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naseerabad	334	15	154	44	17	24	52	60	7	10
Nushki	164	0	10	0	63	0	0	0	0	0
Panjgur	102	67	257	35	39	10	0	0	0	0
Pishin	460	486	47	139	163	46	27	8	5	1
Quetta	540	642	26	178	60	63	21	0	3	0
Sherani	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sibi	542	494	228	94	32	85	15	2	8	3
Sohbat pur	240	13	97	142	62	7	17	14	4	1
Surab	14	42	1	0	0	0	0	0	0	0
Usta Muhammad	707	156	192	229	73	0	7	31	6	2
Washuk	62	143	63	7	32	15	12	2	2	1
Zhob	51	44	43	63	0	6	6	0	0	3
Ziarat	61	119	53	1	21	5	13	7	0	0
Total	7738	6404	4643	1786	1382	599	536	294	141	99

Figure 4: Most frequently reported suspected cases during Week 39, Balochistan

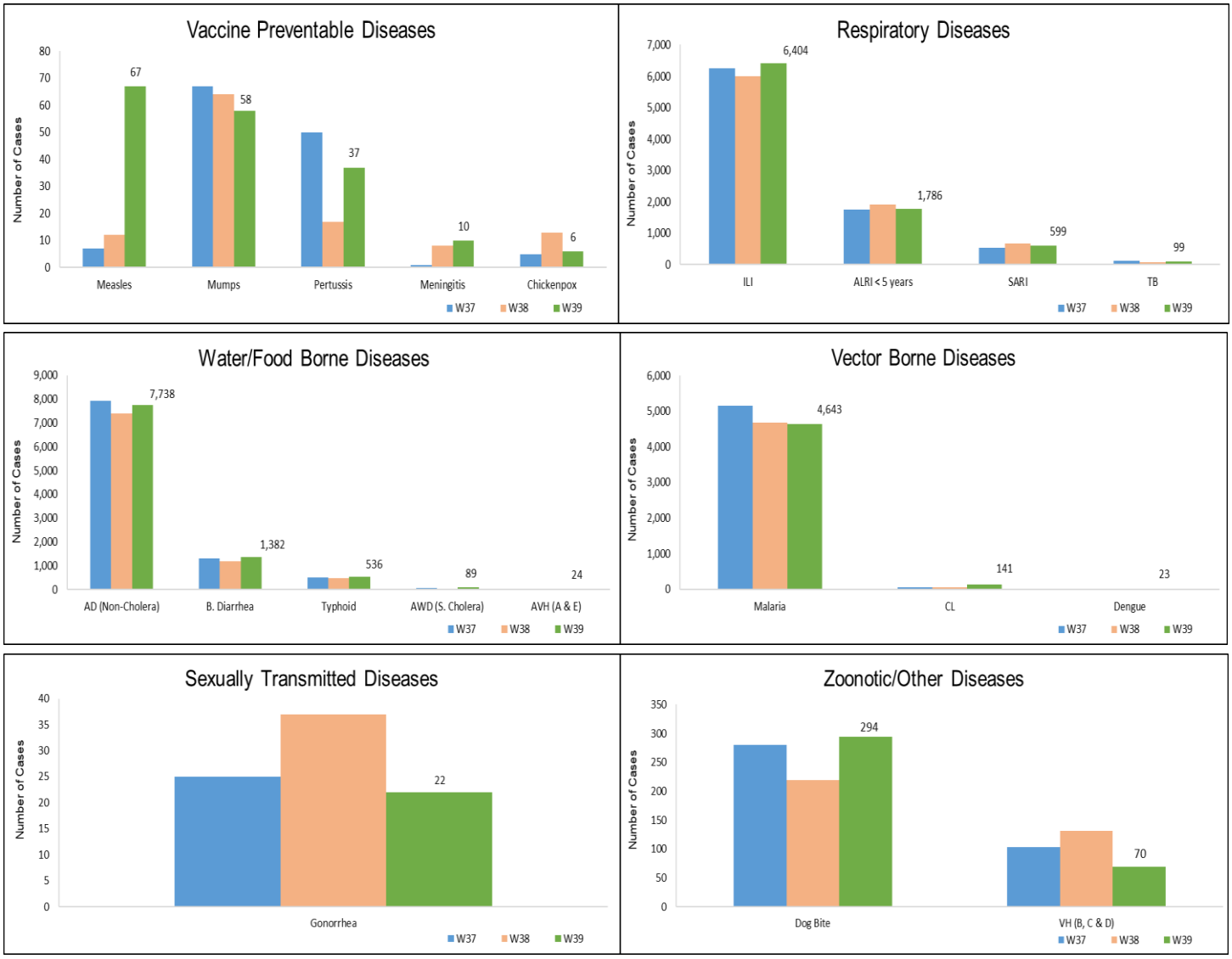
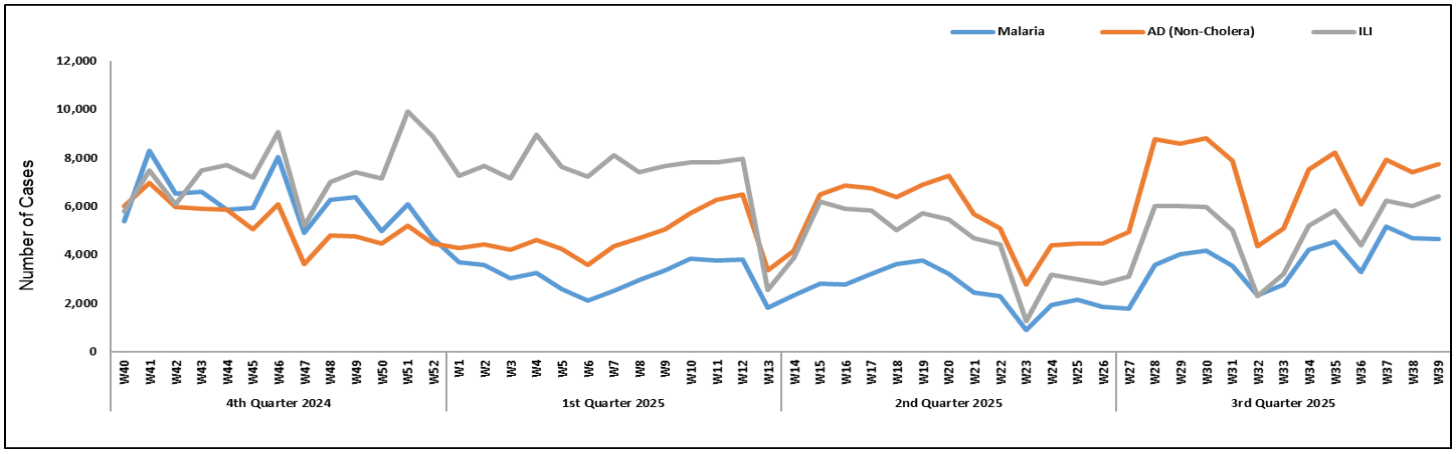


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, ALRI<5 Years, B. Diarrhea, Dog Bite, Dengue, Typhoid, SARI and CL.
- AD (Non-Cholera), Malaria, ILI, ALRI<5 Years, Dengue, CL, AVH (A & E), Measles, Mumps, Chickenpox, VH (B, C & D) and AFP cases showed an increase in number while B. Diarrhea, Dog Bite, Typhoid, SARI, TB, AWD (S. Cholera), Diphtheria, Pertussis, Meningitis and NT showed a decline in number this week.
- Twenty-nine cases of AFP reported from KP. All are suspected cases and need field verification.
- Four cases of HIV/AIDs reported from KP. A field investigation is required.

Table 4: District wise distribution of most frequently reported suspected cases during Week 39, KP

Districts	AD (Non-Cholera)	Malaria	ILI	ALRI < 5 years	B. Diarrhea	Dog Bite	Dengue	Typhoid	SARI	CL
Abbottabad	1286	1	122	16	11	109	77	21	4	1
Bajaur	620	482	79	7	74	118	13	1	61	13
Bannu	1038	1717	0	5	10	0	6	69	0	0
Battagram	472	197	629	6	1	8	25	0	0	3
Buner	354	212	0	0	0	9	0	8	0	0
Charsadda	2234	571	1867	648	110	8	179	37	3	0
Chitral Lower	694	38	21	10	12	18	2	7	9	8
Chitral Upper	203	11	36	4	5	1	0	14	10	1
D.I. Khan	2251	1466	0	11	39	16	1	0	0	3
Dir Lower	1827	202	1	8	69	28	22	6	0	1
Dir Upper	1595	21	23	64	33	24	0	11	1	2
Hangu	382	156	227	0	3	7	5	12	0	45
Haripur	1316	2	382	16	0	20	36	10	4	0
Karak	679	373	111	26	29	20	3	7	0	145
Khyber	836	774	79	37	259	44	10	84	6	43
Kohat	865	428	0	11	19	31	0	18	0	13
Kohistan Lower	120	1	0	0	3	0	16	0	0	0
Kohistan Upper	395	78	0	1	29	0	0	7	5	0
Kolai Palas	116	12	0	0	8	0	20	4	3	0
L & C Kurram	37	15	6	0	10	0	0	0	2	0
Lakki Marwat	965	1184	3	0	19	78	8	14	0	0
Malakand	1532	101	62	0	0	0	0	6	0	5
Mansehra	1142	16	428	17	9	0	54	31	0	0
Mardan	1452	432	9	41	53	8	11	19	1	0
Mohmand	132	391	44	1	17	13	2	5	63	56
North Waziristan	35	80	0	23	15	1	15	19	26	5
Nowshera	2762	861	9	8	14	4	8	18	12	20
Orakzai	109	21	0	0	1	0	0	0	0	0
Peshawar	5047	81	476	26	76	8	80	125	5	0
Shangla	1230	839	0	0	10	22	2	65	0	0
South Waziristan (Lower)	78	66	169	15	1	18	0	16	49	15
South Waziristan (Upper)	55	95	31	7	4	1	0	0	15	12
Swabi	1467	175	536	63	19	168	58	32	44	0
Swat	3271	111	407	97	89	130	80	34	1	0
Tank	665	334	54	5	12	1	0	1	0	0
Tor Ghar	109	102	0	3	24	19	2	0	27	1
Upper Kurram	212	27	139	3	35	6	0	10	48	0
Total	37583	11673	5950	1179	1122	938	735	711	399	392

Figure 6: Most frequently reported suspected cases during Week 39, KP

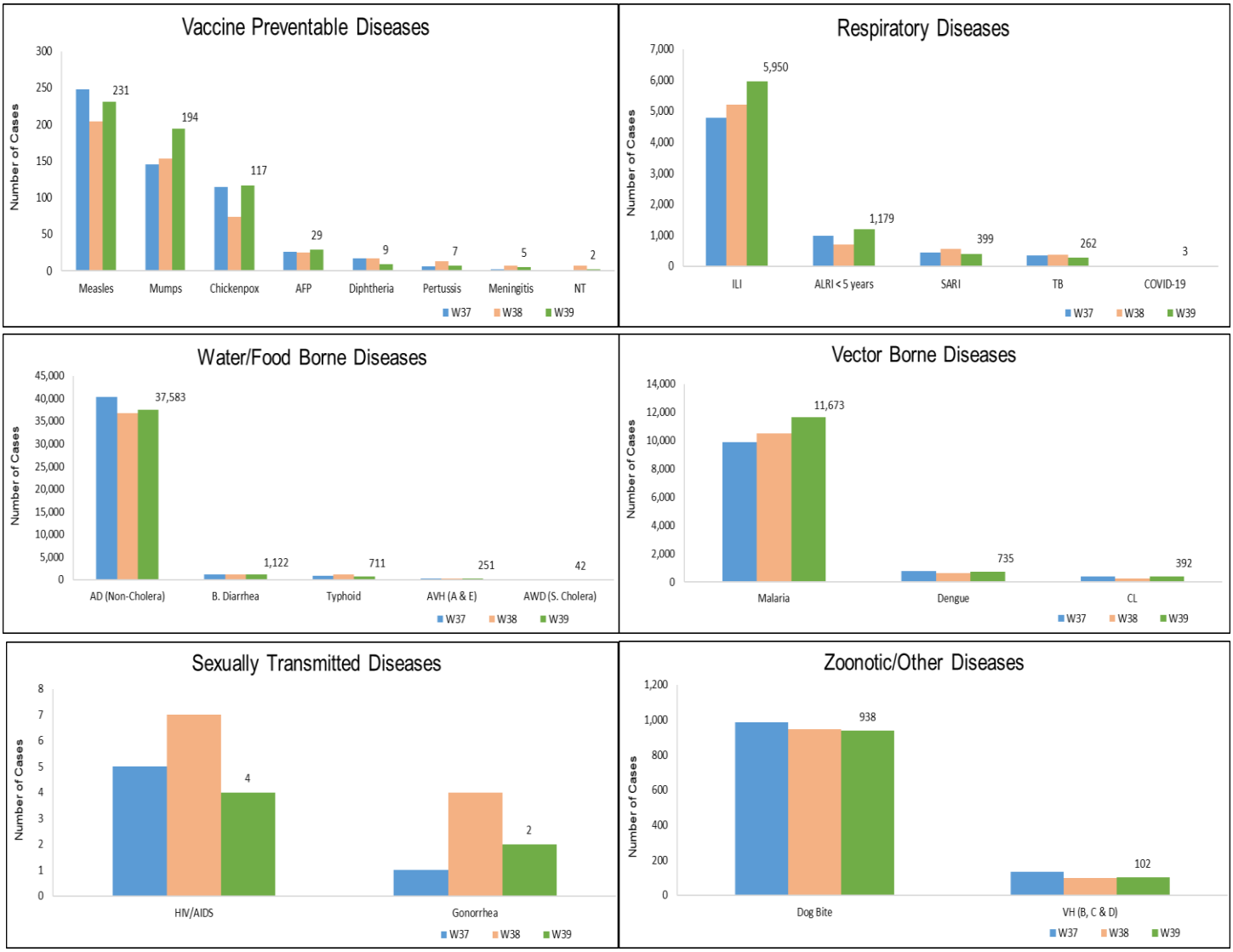
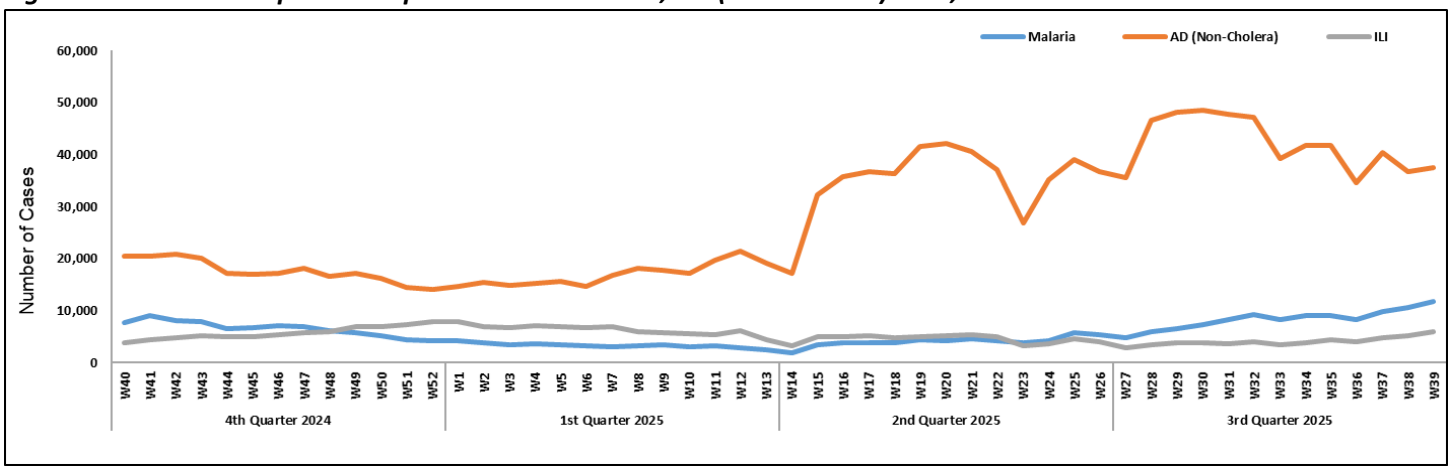


Figure 7: Week wise reported suspected cases Malaria, AD (Non-Cholera) & ILI, KP



UK Health Security Agency

World Health Organization

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION

ICT, AJK & GB

ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera), TB, ALRI < 5years, B. Diarrhea, Malaria, Typhoid, Chickenpox and Dengue. ILI and AD (Non-Cholera), TB, B. Diarrhea, Malaria, Typhoid and Chickenpox cases showed an increase in number while a decline was observed in number of cases of ALRI < 5years and Dengue this week.

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI < 5years, Dog Bite, TB, SARI, Dengue, VH (B, C & D), AVH (A & E), Typhoid, B. Diarrhea, and Malaria cases. An increase in number of suspected cases was observed for Dengue, VH (B, C & D), Malaria and Meningitis while a decline in cases observed for ILI, AD (Non-Cholera), ALRI < 5years, Dog Bite, TB, SARI, AVH (A & E), Typhoid, B. Diarrhea AWD (S. Cholera), Measles and AFP this week.

GB: AD (Non-Cholera) cases were the most frequently reported diseases, followed by ALRI <5 Years, ILI, SARI, Typhoid, TB, B. Diarrhea, Measles, Chickenpox, and Dog Bite cases. An increase in cases observed for ILI, SARI, Typhoid, TB, Dog Bite, Dengue, and Meningitis, while a decrease in the number observed for AD (Non-Cholera), ALRI <5 Years, B. Diarrhea, Measles, Chickenpox, AWD (S. Cholera), Mumps, AVH (A & E), and Pertussis this week.

Figure 8: Most frequently reported suspected cases during Week 39, AJK

Figure 9: Week wise reported suspected cases of ILI and AD (Non-Cholera), AJK

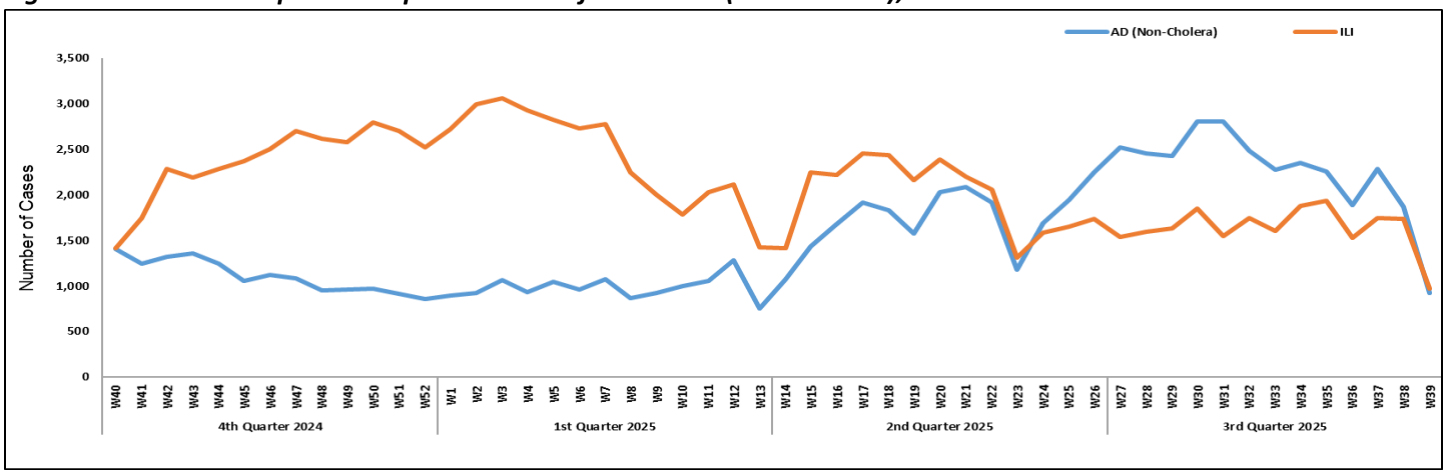


Figure 10: Most frequently reported suspected cases during Week 39, ICT

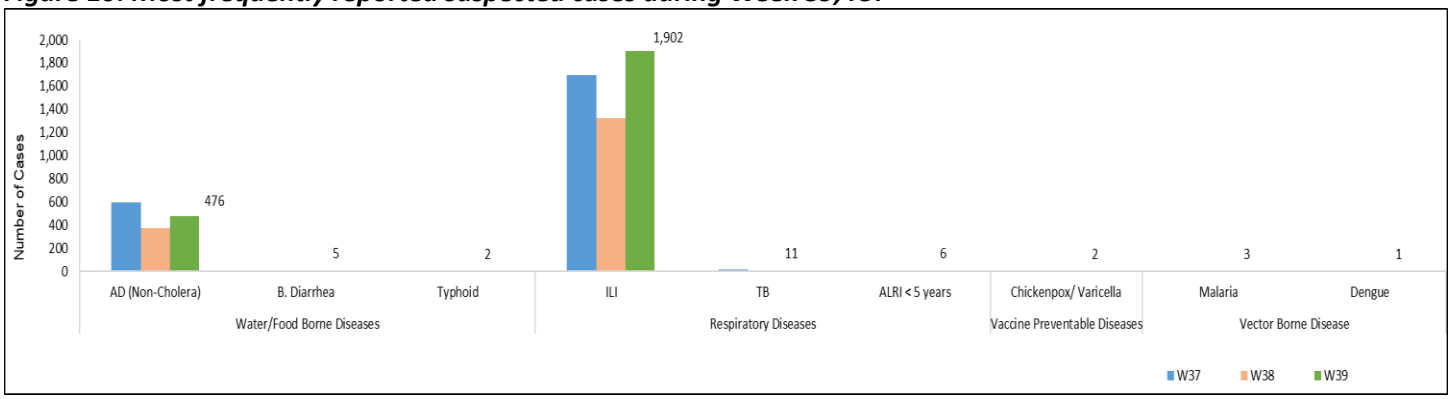


Figure 11: Week wise reported suspected cases of ILI, ICT

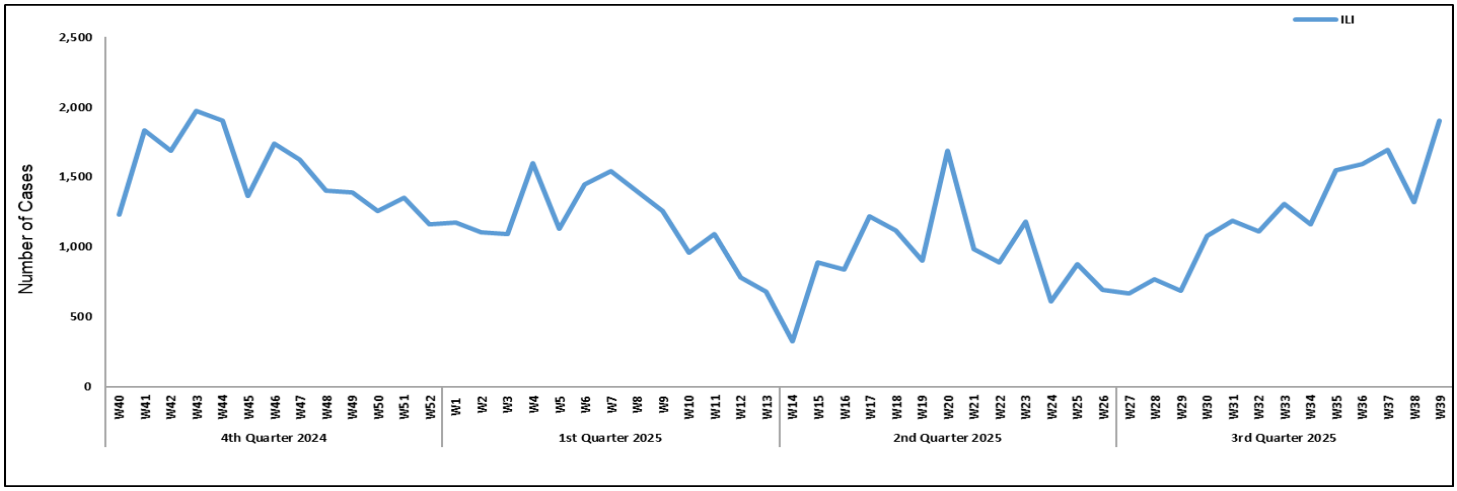


Figure 12: Most frequently reported suspected cases during Week 39, GB

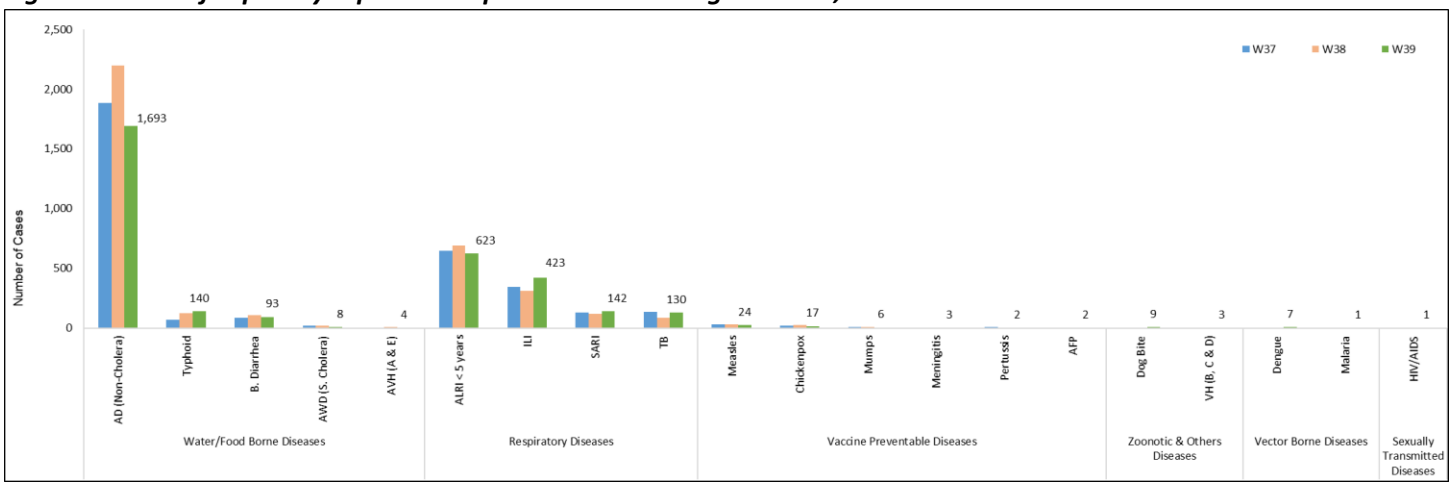


Figure 13: Week wise reported suspected cases of AD (Non-Cholera), GB

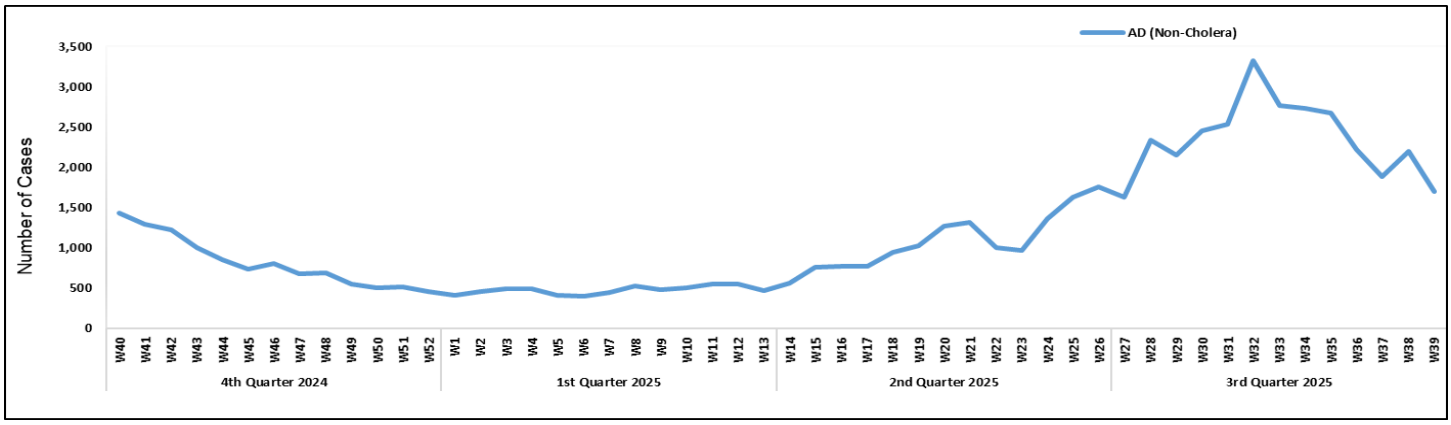


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi Week 39

Diseases	Sindh		Balochistan		KPK		ISL		GB		Punjab		AJK	
	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos
AWD (S. Cholera)	173	2	-	-	-	-	-	-	9	3	-	-	-	-
Stool culture & Sensitivity	314	3	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	12,764	1,181	-	-	9,106	76	-	-	151	2	-	-	58	0
CCHF	1	0	8	3	1	0	-	-			-	-	-	-
Dengue	8,029	1,419	-	-	10,978	102	-	-			-	-	426	77
VH (B)	12,769	390	-	-	66	12	-	-	832	19	-	-	494	6
VH (C)	13,364	1,061	33	16	112	13	-	-	919	2	-	-	494	18
VH (D)	408	116	-	-	-	-	-	-			-	-	-	-
VH (A)	259	58	-	-	-	-	-	-	4	0	-	-	-	-
VH (E)	158	7	-	-	-	-	-	-			-	-	-	-
Covid-19	33	0	4	1	15	0					-	-	-	-
TB	535	45	-	-	-	-	-	-	43	1	-	-	-	-
HIV/ AIDS	3,532	25	-	-	330	1	-	-	197	0	-	-	445	0
Syphilis	1,566	24	-	-	5	0	-	-	103	1	-	-	-	-
Typhoid	2,352	62	-	-	-	-	-	-	172	7	-	-	-	-
Diphtheria	11	7	1	0	19	12	1	0	1	1	5	3	-	-
ILI	17	3	-	-	15	0	-	-	-	-	-	-	-	-
Pneumonia (ALRI)	440	80	-	-	-	-	-	-	-	-	-	-	-	-
Meningitis	41	0	-	-	-	-	-	-	-	-	-	-	-	-
Measles	80	36	14	10	175	85	15	7	9	8	288	66	15	5
Rubella (CRS)	5	2	-	-	-	-	-	-	-	-	-	-	-	-
Leishmaniasis (cutaneous)	22	2	-	-	11	2	-	-	-	-	-	-	-	-
Chikungunya	13	2	-	-	-	-	-	-	-	-	-	-	-	-
Gonorrhea	124	0	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis	1	0	-	-	-	-	-	-	-	-	-	-	-	-

Table 6: IDSR reporting districts Week 39, 2025

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	103	93%
	Bannu	238	133	56%
	Battagram	59	37	63%
	Buner	34	22	65%
	Bajaur	44	38	86%
	Charsadda	59	57	97%
	Chitral Upper	34	30	88%
	Chitral Lower	35	35	100%
	D.I. Khan	114	113	99%
	Dir Lower	74	61	82%
	Dir Upper	37	36	97%
	Hangu	22	19	86%
	Haripur	72	69	96%
	Karak	36	36	100%
	Khyber	53	47	89%
	Kohat	61	61	100%
	Kohistan Lower	11	8	73%
	Kohistan Upper	20	16	80%
	Kolai Palas	10	9	90%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	5	12%
	Upper Kurram	41	29	71%
	Malakand	42	30	71%
	Mansehra	133	103	77%
	Mardan	80	63	79%
	Nowshera	56	53	95%
	North Waziristan	13	8	62%
	Peshawar	156	132	85%
	Shangla	37	36	97%
	Swabi	64	63	98%
	Swat	77	74	96%
	South Waziristan (Upper)	93	92	99%
	South Waziristan (Lower)	42	28	67%
	Tank	34	31	91%
	Torghar	14	14	100%
	Mohmand	68	34	50%
	Orakzai	69	8	12%
Azad Jammu Kashmir	Mirpur	37	37	100%
	Bhimber	92	89	97%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%
	Haveli	39	0	0%
	Bagh	54	53	98%

	Neelum	39	0	0%
	Jhelum Velley	29	0	0%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	23	23	100%
	CDA	15	14	93%
Balochistan	Gwadar	26	0	0%
	Kech	44	37	84%
	Khuzdar	74	18	24%
	Killa Abdullah	26	25	96%
	Lasbella	55	55	100%
	Pishin	69	34	49%
	Quetta	55	28	51%
	Sibi	36	35	97%
	Zhob	39	12	31%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	0	0%
	Kohlu	75	35	47%
	Chagi	36	24	67%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	4	11%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	7	22%
	Mastung	45	45	100%
	Loralai	33	29	88%
	Killa Saifullah	28	21	75%
	Ziarat	29	10	34%
	Duki	31	0	0%
	Nushki	32	28	88%
	Dera Bugti	45	36	80%
	Washuk	46	8	17%
	Panjgur	38	13	34%
	Awaran	23	0	0%
	Chaman	24	24	100%
	Barkhan	20	19	95%
	Hub	33	27	82%
	Musakhel	41	0	0%
	Usta Muhammad	34	33	97%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	38	38	100%
	Gilgit	44	44	100%
	Diamer	62	60	97%
	Astore	55	55	100%
	Shigar	27	25	93%
	Skardu	53	52	98%
	Ganche	29	29	100%

	Kharmang	46	25	54%
Sindh	Hyderabad	72	72	100%
	Ghotki	64	64	100%
	Umerkot	62	62	100%
	Naushahro Feroze	107	102	95%
	Tharparkar	276	262	95%
	Shikarpur	60	59	98%
	Thatta	52	52	100%
	Larkana	67	65	97%
	Kamber Shadadkot	71	71	100%
	Karachi-East	21	14	67%
	Karachi-West	20	20	100%
	Karachi-Malir	35	28	80%
	Karachi-Kemari	22	22	100%
	Karachi-Central	12	10	83%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	4	67%
	Sujawal	55	55	100%
	Mirpur Khas	106	105	99%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	90	100%
	Sanghar	100	98	98%
	Jacobabad	44	44	100%
	Khairpur	170	166	98%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	75	74	99%
	Tando Allahyar	54	53	98%
	Tando Muhammad Khan	41	41	100%
	Shaheed Benazirabad	122	122	100%

Table 7: IDSR reporting Tertiary care hospital Week 39, 2025

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
AJK	Mirpur	2	2	100%
	Bhimber	1	1	100%
	Kotli	1	1	100%
	Muzaffarabad	2	2	100%
	Poonch	2	2	100%
	Haveli	1	0	0%
	Bagh	1	1	100%
	Neelum	1	0	0%
	Jhelum Vellay	1	0	0%

	Sudhnooti	1	1	100%
Sindh	Karachi-South	3	1	33%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	0	0%
	Karachi-East	1	1	100%
	Karachi-Central	1	0	0%
KP	Peshawar	3	0	0%
	Swabi	1	0	0%
	Nowshera	1	1	100%
	Mardan	1	1	100%
	Abbottabad	1	1	100%
	Swat	1	1	100%

Notes from the field:

Dengue Outbreak Investigation Report – UC Rajjar-1, VC Amir Abad, District Charsadda (July–August 2025)

Introduction

Dengue fever is a mosquito-borne viral infection caused by four distinct serotypes of the dengue virus (DENV 1–4) and transmitted by Aedes aegypti and Aedes albopictus. Globally, dengue affects more than 100 countries, with an estimated 390 million infections annually, and about 96 million presents clinically (WHO, 2024). The disease burden is greatest in tropical and subtropical regions, including South and Southeast Asia. In Pakistan, dengue has become endemic with frequent post-monsoon outbreaks, major ones reported in 2010, 2019, and 2022. Khyber Pakhtunkhwa (KP) remains among the most affected provinces, with repeated outbreaks due to climatic conditions and poor vector control. This investigation aimed to determine the magnitude and extent of the dengue outbreak in UC Rajjar-1, identify affected populations and associated risk factors, and recommend preventive and control measures to avert future outbreaks.

Objectives

- To determine the magnitude and extent of the dengue outbreak in UC Rajjar-1, District Charsadda.
- To identify the most affected areas, age groups, and gender.
- To identify key risk factors contributing to the outbreak.
- To recommend evidence-based measures to prevent and control future dengue outbreaks.

Methods

A case-control study was conducted among residents of Union Council Rajjar-1 (catchment population: 49,985), District Charsadda, from 15 July to 29 August 2025.

Study population included laboratory-confirmed dengue cases (for cases) while age and gender matched residents of the same area without dengue infection (for controls). Suspected case was defined as any person having fever of 2–10 days with two or more of the following: headache, retro-orbital pain, myalgia, arthralgia, rash, bleeding manifestations, abdominal pain, or irritability in infants. Probable case was defined as any suspected case with laboratory evidence such as thrombocytopenia (<100,000/mm³) or leukopenia (<4,000/mm³). While Confirmed case was any probable case confirmed by NS1 antigen, IgM antibody, PCR, or a fourfold rise in IgG titer. Data were collected via active case finding , record review, structured questionnaires and line lists from health facilities.

Blood samples were tested for NS1 antigen and dengue IgM antibodies to confirm infection. Data were analyzed in Microsoft Excel. Frequencies, proportions, and attack rates were calculated by age, gender, and area. Odds ratios were used to assess associations between risk factors and disease status.

Results

A total of 409 confirmed dengue cases were reported between 13 July and 29 August 2025. The mean age of patients was 32 years. The male-to-female ratio was 3:2 (189 females and 221 males), indicating higher infection among males (60%).

The overall attack rate was 2.27%, with gender-specific attack rates of 2.36% in males and 2.18% in females. Age-specific attack rates were highest among individuals aged ≥70 years (9.4%),

followed by 60–69 years (7.6%) and 40–49 years (4.4%).

The most affected areas within UC Rajjar-1 included Amir Abad and surrounding villages. Clinical symptoms included fever (100%), headache (90%), arthralgia (80%), myalgia (75%), vomiting (45%), skin rash (30%), and nasal bleeding (12%).

Risk factor analysis showed that non-use of long-lasting insecticidal nets (LLINs)

significantly increased the risk of dengue (OR = 1.97; 95% CI: 1.06–3.66; p = 0.039). Other contributing factors included the presence of stagnant water around homes, uncovered water containers, inadequate insecticide spraying, and failure to conduct pre-monsoon larvicidal activities.

Laboratory testing confirmed that all cases were NS1-positive, consistent with active transmission of dengue virus during the study period.

Discussion

This investigation confirmed a dengue outbreak in UC Rajjar-1, District Charsadda, during July–August 2025. The outbreak coincided with monsoon rains, which favor breeding of Aedes mosquitoes. The observed male predominance and clustering in older age groups are consistent with occupational exposure and mobility patterns. The high attack rates in older adults may be linked to lower immunity and increased outdoor activity.

Risk factor analysis indicated that households without LLINs or recent insecticide spraying were more likely to experience dengue infection, aligning with global findings that vector control lapses contribute to outbreak amplification. Poor sanitation, uncovered water containers, and inadequate community engagement also played a significant role.

These findings are comparable with previous dengue outbreaks reported in Pakistan and South Asia, where weak surveillance, inadequate vector management, and delayed response were recurring challenges (Khan et al., 2023; WHO EMRO, 2022). Strengthening surveillance and community-level vector control remains critical to sustaining control gains and preventing resurgence.

Conclusion

The dengue outbreak in UC Rajjar-1, District Charsadda, was confirmed and primarily attributed to Aedes aegypti proliferation following monsoon rains, poor waste management, and weak vector control measures. Males aged 20–49 years and residents of Amir Abad were most affected. Effective vector control, larval source reduction, and improved community awareness are essential to prevent recurrence.

Recommendations

Strengthen dengue surveillance at the UC and district levels for timely case detection and response.

Implement integrated vector management, including pre-monsoon larval source reduction, fogging, and IRS in high-risk areas.

Promote community awareness through schools, mosques, and local media on eliminating standing water and personal protection.

Enhance laboratory capacity for timely diagnosis and confirmation of dengue cases.

Encourage the use of protective clothing and insect repellents to minimize mosquito bites.

Improve coordination among public health, sanitation, and municipal departments for effective outbreak preparedness.

Ensure regular monitoring and evaluation of vector control and public education interventions.

References

World Health Organization. Dengue and Severe Dengue: Fact Sheet, 2024. Geneva: WHO; 2024.

WHO Regional Office for the Eastern Mediterranean. Dengue Situation Update – Pakistan 2022. Cairo: WHO EMRO; 2022.

Khan J, Hussain S, Rehman A. Epidemiological trends and control strategies for dengue in Pakistan: A review. East Mediterr Health J. 2023;29(2):165–172.

Knowledge Hub

Mumps: What You Need to Know

Mumps is a contagious disease caused by a **virus**. It is best known for causing painful swelling of the salivary glands (parotid glands) located near the ears. While often a mild childhood illness, mumps can lead to serious complications.

What is Mumps?

Mumps is caused by the **mumps virus**, which belongs to the paramyxovirus family. It is a **vaccine-preventable disease**. The widespread use of the **MMR (Measles, Mumps, Rubella) vaccine** has made mumps rare in many countries. However, outbreaks can still occur, especially in groups with low vaccination rates.

How Mumps Spreads

Mumps is spread through **respiratory droplets** from an infected person's nose or throat. It can spread when an infected person:

- Coughs, sneezes, or talks.
- Shares drinks, food, or eating utensils.
- Is in close contact with others for a long period of time (e.g., in classrooms, dormitories).

A person with mumps is most **contagious** from a few days before their salivary glands swell until about **five days after** the swelling begins.

Signs & Symptoms

Symptoms usually appear **16 to 18 days after exposure** to the virus, but can range from 12 to 25 days. About one-third of people infected with mumps have very mild symptoms or no symptoms at all.

Common symptoms, when they appear, include:

- **Swollen, tender salivary glands** (parotitis) under the ears on one or both sides of the face. This makes the cheeks and jaw look puffy.
- Fever.
- Headache.
- Muscle aches.
- Tiredness.
- Loss of appetite.
- Pain while chewing or swallowing.

Complications

Most people recover fully from mumps, but complications can occur, especially in adults. Complications are rare but include:

- **Orchitis:** Inflammation and swelling of one or both testicles in males who have reached puberty. This is the most common serious complication in males and can, in rare cases, lead to reduced fertility.
- **Meningitis:** Inflammation of the lining of the brain and spinal cord.
- **Encephalitis:** Inflammation of the brain (very rare).
- **Oophoritis/Mastitis:** Inflammation of the ovaries or breasts in females who have reached puberty.
- **Hearing loss:** Temporary or, rarely, permanent hearing loss in one or both ears.

Prevention

The best way to prevent mumps is through **vaccination** with the **MMR** vaccine.

- **Children:** Two doses are recommended: the first dose at **12–15 months** of age and the second dose at **4–6 years** of age.
- **Adults:** Adults who were born after 1957 and do not have evidence of immunity should speak to their doctor about getting one or two doses.

Diagnosis and Treatment

- **Diagnosis:** Mumps is diagnosed by a healthcare provider based on symptoms and confirmed with a **blood**

test or by testing a swab from the inside of the cheek.

- **Treatment:** There is **no specific treatment** to cure mumps once you have it. Treatment focuses on managing symptoms:
    - **Rest:** Get plenty of rest.
    - **Pain Relief:** Use over-the-counter pain relievers (like acetaminophen or ibuprofen) for fever and aches.
    - **Isolation:** Stay home from work, school, or public places for at least **five days** after the swelling begins to avoid spreading the virus.

More Information

For additional authoritative information on mumps, please visit:

- **Centers for Disease Control and Prevention (CDC):** https://www.cdc.gov/mumps/index.html
- **World Health Organization (WHO):** https://www.who.int/news-room/fact-sheets/detail/mumps
- **Public Health Agency of Canada (PHAC):** https://www.canada.ca/en/public-health/services/diseases/mumps.html
- **UK Health Security Agency (UKHSA) / National Health Service (NHS - UK):** https://www.nhs.uk/conditions/mumps/

PROTECT YOURSELF AGAINST MUMPS

MMR VACCINATION IS THE BEST WAY TO PREVENT MUMPS!

THERE IS NO TREATMENT FOR MUMPS IF YOU GET IT

KEEP FROM SPREADING MUMPS

Don't share things that have saliva on them

Cover your coughs and sneezes

Stay home when you are sick

Wash your hands often with soap and water

Clean and disinfect surfaces

SIGNS AND SYMPTOMS OF MUMPS

Mumps is best known for the puffy cheeks and swollen jaw that it causes.

Fever

Headache

Loss of appetite

Muscle aches

Tiredness

VACCINATION ALSO HELPS PREVENT MUMPS COMPLICATIONS

Complications can include swelling of the:

- testicles
- ovaries
- breasts
- pancreas
- brain
- spinal cord tissue

IF YOU HAVE SYMPTOMS, STAY HOME AND AWAY FROM OTHERS. CONTACT YOUR DOCTOR OR HEALTH SERVICES AT YOUR INSTITUTION.

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CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION