PUBLIC HEALTH BULLETIN-PAKISTAN

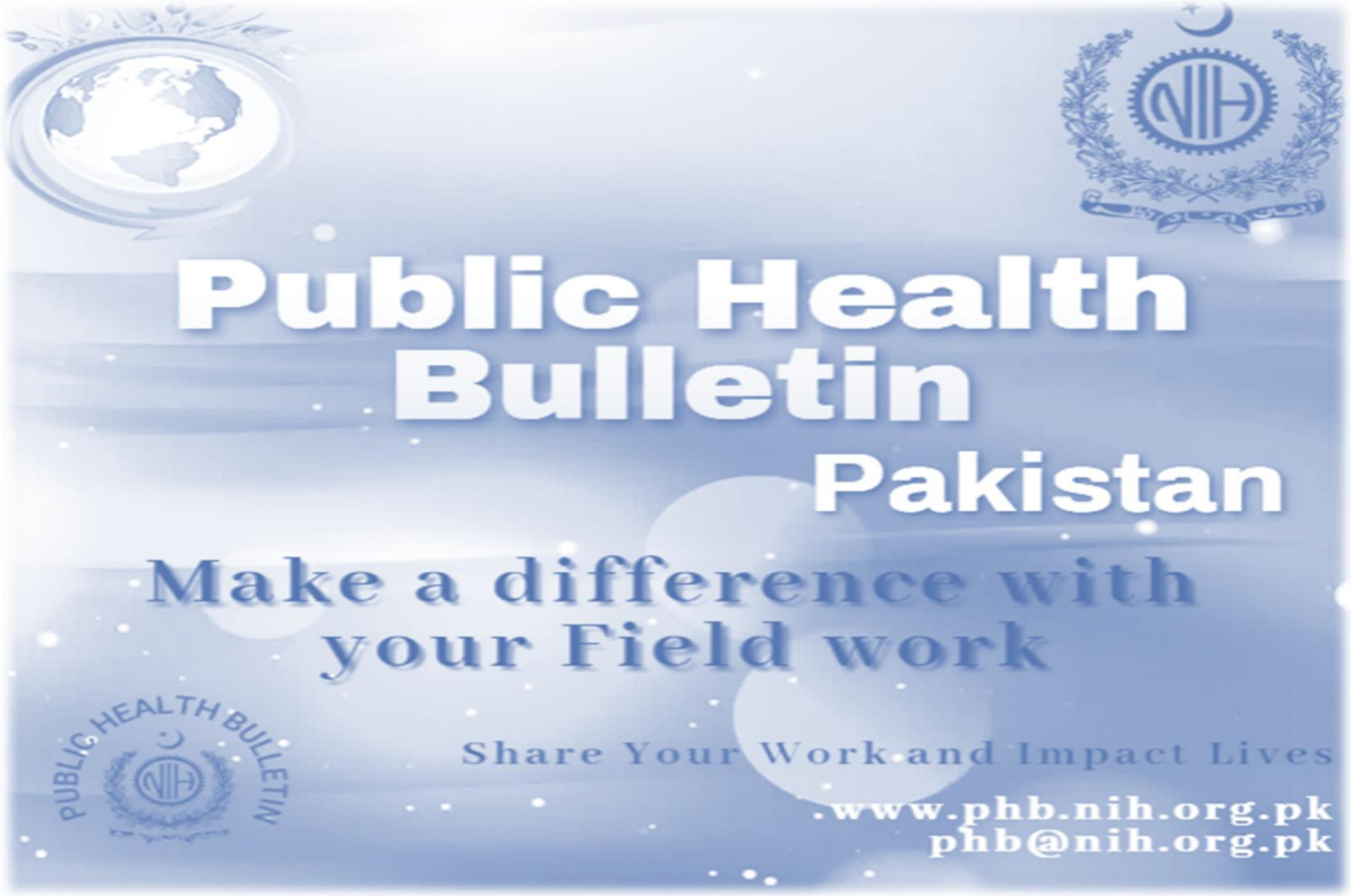
Vol. 5 | Week 25
16th JUNE – 22nd JUNE
01st JULY, 2025

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 25, 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;

- *Letter to Editor: Prioritizing Clean Water, Hygiene, and Sanitation in Pakistan – A foundation for Diarrheal disease prevention*
- *Knowledge hub on Understanding Typhoid: What you need to know*

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.

Subscribe to the Weekly Bulletin today!

Stay informed. Stay prepared. Stay healthy.

Sincerely,
The Chief Editor

Note: All reported cases in this report are suspected cases

- *During Week 25 the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, B. Diarrhea, VH (B, C & D), dog bite, Typhoid and SARI.*
- *Thirty cases of AFP reported from KP, ten from Sindh, three from AJK & 1 from GB.*
- *Twenty-one suspected cases of HIV/ AIDS reported from Sindh, seven from KP and three from Balochistan.*
- *Sixteen suspected cases of Brucellosis reported from KP.*
- *Among VPDs, there is an increase in number of cases of Measles, Mumps, Chicken pox, Meningitis, NT and Diphtheria this week.*
- *Among Respiratory diseases, there is an increase in number of cases of ILI, ALRI<5 years and TB this week.*
- *Among Water/food-borne diseases, there is an increase in number of cases of Acute Diarrhea (Non-Cholera) and B. diarrhea this week.*
- *Among Vector-borne diseases, there is an increase in number of cases of Malaria this week.*
- *Among STDs, there is an increase in number of cases of HIV/AIDs this week.*
- *Among Zoonotic/Other diseases, there is an increase in number of cases of VH (B, C&D) this week.*

IDSR compliance attributes

- *The national compliance rate for IDSR reporting in 158 implemented districts is 73%*
- *Sindh is the top reporting regions with a compliance rate of 96%, followed by AJK 94% and GB 92%.*
- *The lowest compliance rate was observed in KP 64% and Balochistan 42%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2704	1724	64
Azad Jammu Kashmir	404	381	94
Islamabad Capital Territory	38	29	76
Balochistan	1308	555	42
Gilgit Baltistan	410	377	92
Sindh	2111	2028	96
National	6975	5094	73

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.

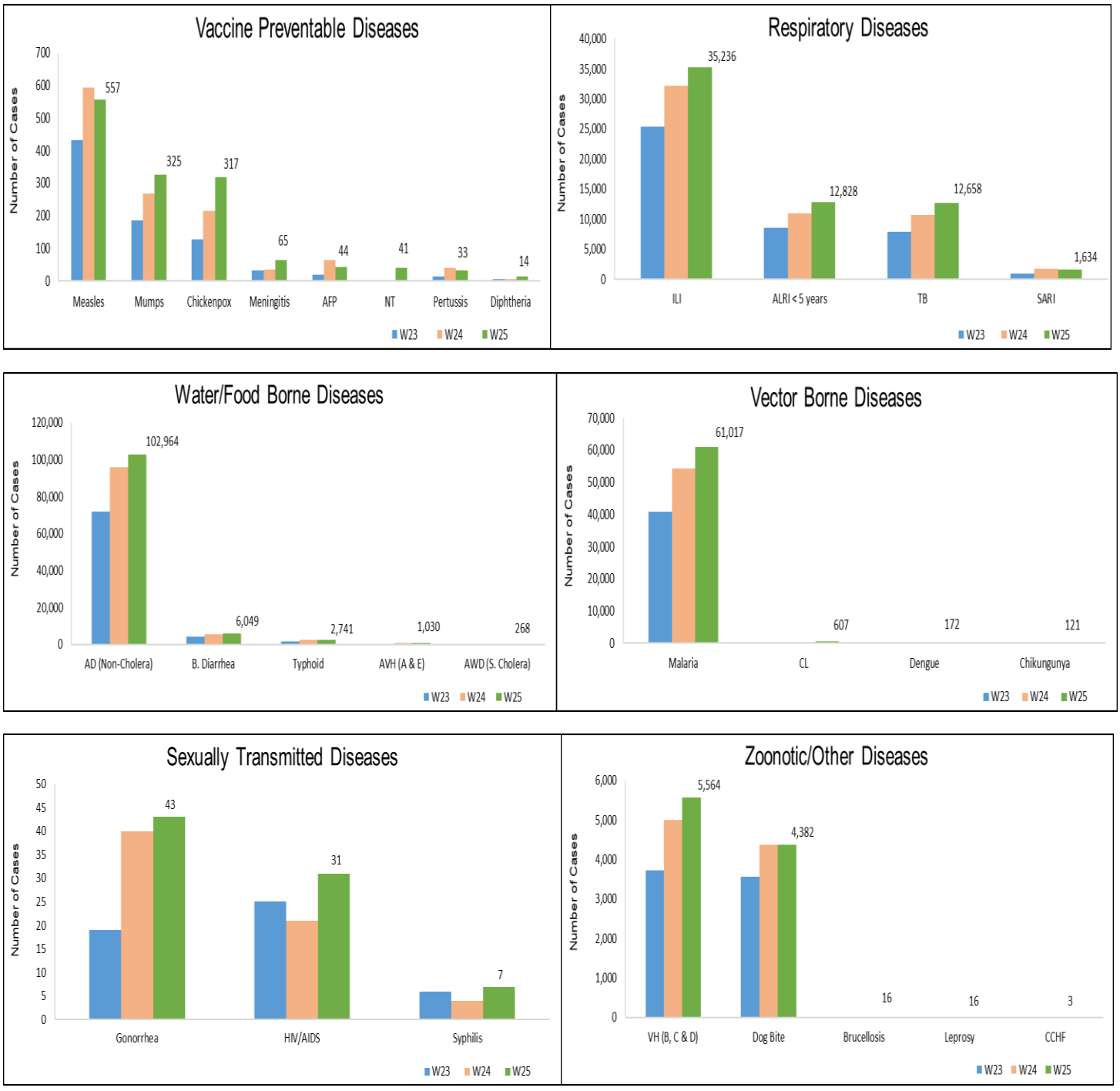
Acute Watery Diarrhea (AWD) - Non-Cholera

- **Strengthen Surveillance and Early Detection:** Integrate acute watery diarrhea surveillance into IDSR by training healthcare workers on syndromic case definitions, improving timely reporting, and monitoring seasonal trends and outbreak signals.
- **Improve Laboratory Diagnosis:** Enhance diagnostic capacity at district and provincial levels to identify common etiologies (e.g., rotavirus, E. coli, Shigella, norovirus) and detect antimicrobial resistance patterns in bacterial pathogens.
- **Ensure Access to Case Management and Rehydration:** Ensure availability of Oral Rehydration Salts (ORS), zinc supplementation, and IV fluids at all levels of care; train healthcare providers in Integrated Management of Childhood Illness (IMCI) protocols.
- **Promote Water, Sanitation, and Hygiene (WASH):** Collaborate with WASH sectors to ensure safe drinking water, improve sanitation facilities, and promote hygiene behaviors especially handwashing with soap at critical times.
- **Conduct Health Education and Risk Communication:** Disseminate community-focused messages on safe food and water practices, early recognition of dehydration signs, use of ORS at home, and timely healthcare-seeking, especially for children under 5.

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 25, Pakistan

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (non-cholera)	1,944	4,433	1,624	397	38,869	NR	55,697	102,964
Malaria	9	2,119	0	0	5,746	NR	53,143	61,017
ILI	1,648	2,938	339	880	4,379	NR	25,052	35,236
ALRI < 5 years	760	1,293	633	1	1,156	NR	8,985	12,828
TB	53	15	164	4	486	NR	11,936	12,658
B. Diarrhea	62	735	102	2	1,217	NR	3,931	6,049
VH (B, C & D)	15	95	0	1	100	NR	5,353	5,564
Dog Bite	136	62	6	0	904	NR	3,274	4,382
Typhoid	21	268	101	0	909	NR	1,442	2,741
SARI	178	507	123	0	586	NR	240	1,634
AVH (A & E)	29	27	3	0	217	NR	754	1,030
CL	1	45	0	0	558	NR	3	607
Measles	30	13	53	1	348	NR	112	557
Mumps	8	17	6	1	227	NR	66	325
Chickenpox/ Varicella	19	1	7	9	212	NR	69	317
AWD (S. Cholera)	13	74	71	0	81	NR	29	268
Dengue	1	8	0	0	48	NR	115	172
Chikungunya	0	0	0	0	0	NR	121	121
Meningitis	5	0	19	0	12	NR	29	65
AFP	3	0	1	0	30	NR	10	44
Gonorrhea	0	12	0	0	16	NR	15	43
NT	0	1	1	0	39	NR	0	41
Pertussis	0	8	3	0	14	NR	8	33
HIV/AIDS	0	3	0	0	7	NR	21	31
Leprosy	0	15	1	0	0	NR	0	16
Brucellosis	0	0	0	0	16	NR	0	16
Diphtheria (Probable)	0	1	0	0	1	NR	12	14
Syphilis	0	0	0	0	0	NR	7	7
CCHF	0	0	0	0	2	NR	1	3

Figure 1: Most frequently reported suspected cases during Week 25, Pakistan.



Sindh

- AD (non-cholera) cases were maximum followed by Malaria, ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and AVH (A & E).
- AD (non-cholera) cases are mostly from Karachi south, Mirpur Khas and Badin whereas Malaria cases are from Khairpur, Sanghar and Larkana.
- Ten cases of AFP reported from Sindh. They are suspected cases and need field verification.
- There is a decline in number of cases of Measles, mumps, AFP while an increase in number of cases of Chickenpox, Meningitis, Diphtheria, ILI, TB, ALRI< 5 years, Malaria, HIV/AIDS, Gonorrhea, Syphilis, VH (B, C & D) and dog bite this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 25, Sindh

Districts	AD (non-cholera)	Malaria	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A & E)
Badin	3,470	3,617	2,058	761	467	176	235	83	96	2
Dadu	3,032	3,045	603	472	794	66	545	475	115	55
Ghotki	1,558	2,742	62	442	338	568	98	272	0	0
Hyderabad	2,513	883	1,272	296	109	127	39	46	10	6
Jacobabad	736	553	545	162	670	136	118	189	23	0
Jamshoro	1,698	1,475	48	556	252	234	123	90	17	7
Kamber	2,112	3,401	0	842	271	99	103	154	23	0
Karachi Central	1,235	27	1,068	38	38	14	24	0	101	18
Karachi East	292	44	122	11	13	2	3	4	17	5
Karachi Keamari	724	6	380	18	24	1	4	0	6	2
Karachi Korangi	346	80	5	7	3	1	5	0	4	2
Karachi Malir	1,773	225	2,475	177	350	38	88	50	33	2
Karachi South	6,046	181	15	400	164	365	256	302	381	278
Karachi West	790	337	1,140	80	227	30	19	85	26	0
Kashmore	516	2,019	398	351	175	23	65	113	20	0
Khairpur	3,150	4,653	6,963	1,089	1,133	139	353	248	241	32
Larkana	2,102	4,606	0	971	228	117	354	38	6	11
Matiari	1,852	2,524	0	460	150	356	63	39	4	2
Mirpurkhas	3,500	2,546	1,796	710	254	178	92	96	13	11
Naushero Feroze	1,103	1,224	589	299	257	46	172	231	116	2
Sanghar	1,973	4,460	85	1,114	401	1,138	95	189	47	6
Shaheed Benazirabad	1,824	2,063	1	315	169	110	79	120	91	0
Shikarpur	1,270	1,770	5	218	175	398	177	126	6	0
Sindh Labs	171	19	0	0	0	0	0	4	0	0
Sujawal	2,619	1,033	0	161	147	56	189	31	5	12
Sukkur	1,379	1,742	1,849	393	410	142	110	112	4	0
Tando Allahyar	1,907	1,903	640	435	124	283	97	54	5	0
Tando Muhammad Khan	1,255	943	36	502	169	121	86	22	0	0
Tharparkar	1,728	2,272	1,012	347	439	84	85	2	19	40
Thatta	1,528	1,333	1,885	24	674	222	168	99	2	261
Umerkot	1,495	1,417	0	285	360	83	86	0	11	0
Total	55,697	53,143	25,052	11,936	8,985	5,353	3,931	3,274	1,442	754

Figure 2: Most frequently reported suspected cases during Week 25 Sindh

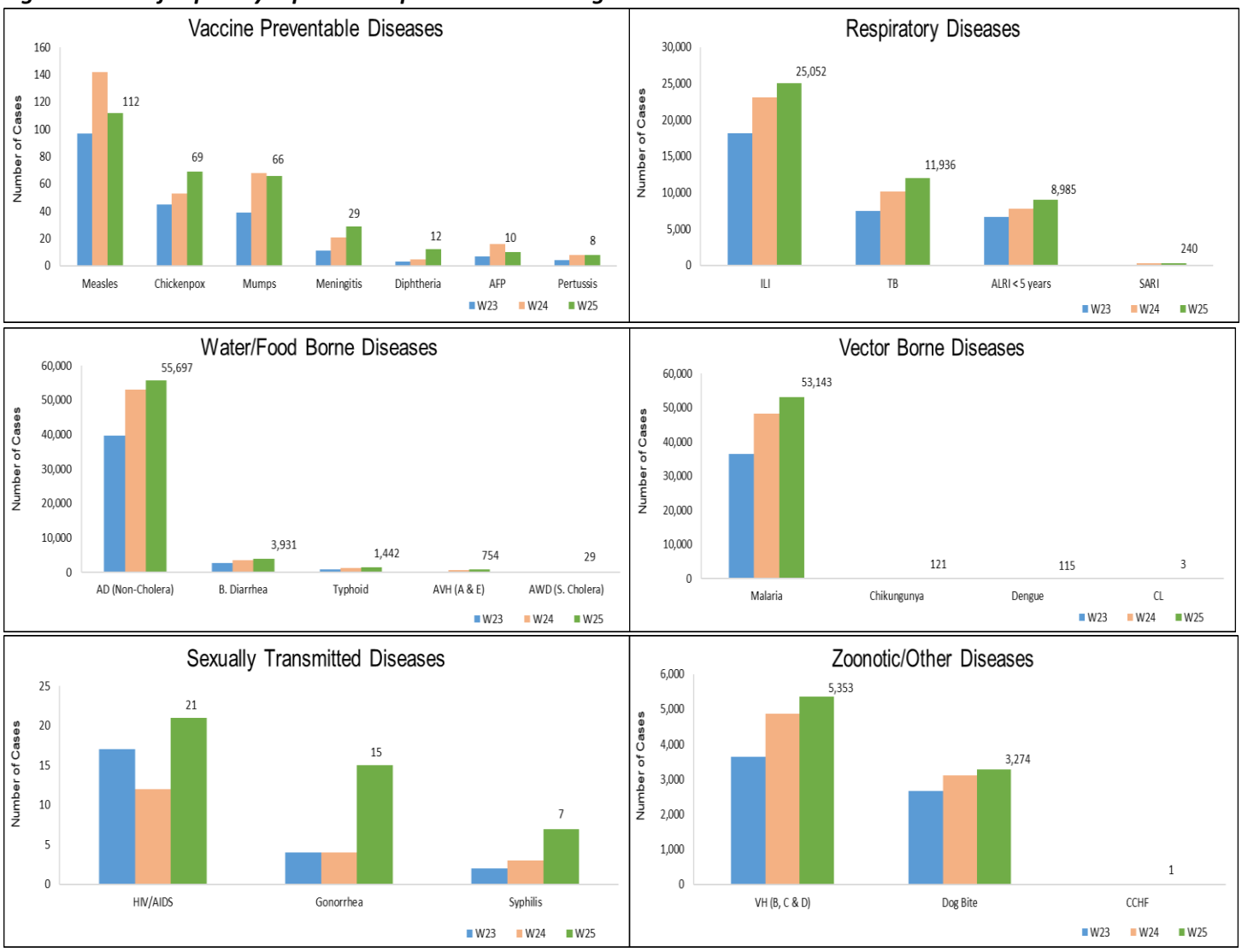
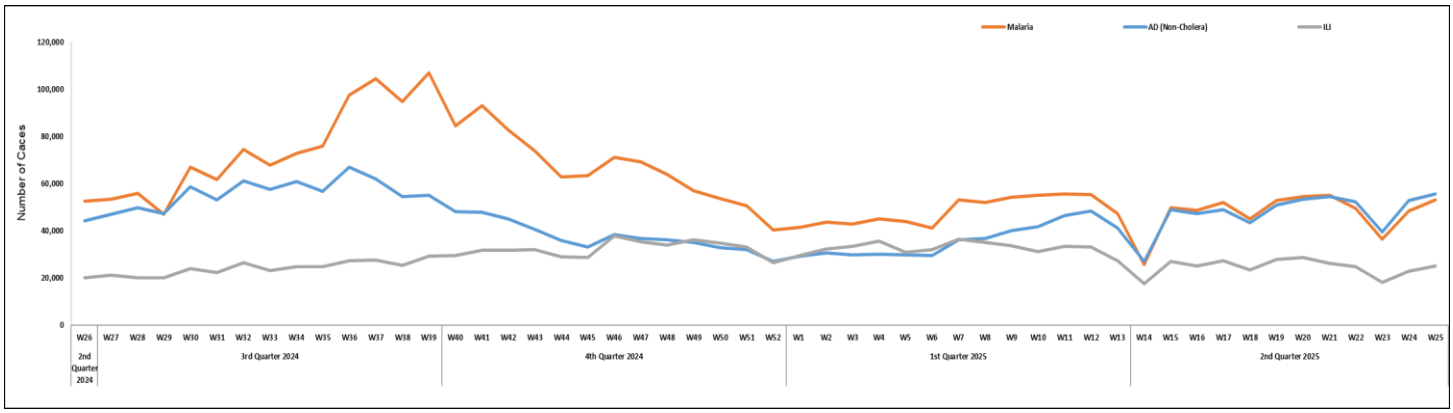


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



Balochistan

- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid (B, C & D), AWD (S. Cholera) and dog bite were the most frequently reported diseases from Balochistan province.
- AD (non-cholera) cases are mostly reported from Usta Muhammad, Lasbella and Naseerabad while ILI cases are mostly reported from Gwadar, Kharan and Loralai.
- Three cases of HIV/AIDs reported from Balochistan. Field investigation is required to confirm the cases.
- Mumps, AD (Non-Cholera), NT, AIDS, VH (B, C &D), Malaria, Leprosy and ALRI <5 years, showed an increase in number of cases this week.

Table 3: District wise distribution of most frequently reported suspected cases during Week 25, Balochistan

Districts	AD (non-cholera)	ILI	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	VH (B, C & D)	AWD (S. Cholera)	Dog Bite
Barkhan	108	52	66	15	8	0	26	0	4	9
Chagai	107	148	44	0	28	0	14	0	0	0
Dera Bugti	58	0	32	0	12	0	0	0	0	0
Gwadar	308	652	129	2	38	0	7	0	5	3
Hub	183	32	94	3	14	0	3	0	0	3
Jhal Magsi	222	315	232	0	1	0	3	0	0	9
Kachhi (Bolan)	136	38	61	6	43	154	16	0	16	0
Kalat	77	18	74	8	21	3	17	44	0	0
Kharan	209	507	48	16	75	0	8	0	0	0
Khuzdar	35	31	19	0	4	9	3	0	1	0
Killa Abdullah	97	50	8	5	40	46	11	0	27	0
Killa Saifullah	195	0	226	129	64	20	9	0	4	0
Kohlu	47	56	42	4	33	9	13	NR	NR	NR
Lasbella	442	42	211	210	33	3	10	0	0	9
Loralai	267	334	48	27	37	115	9	0	6	2
Mastung	165	117	88	20	56	32	6	0	0	1
MusaKhel	52	19	123	12	8	0	3	0	3	0
Naseerabad	356	25	137	8	6	20	61	10	0	7
Quetta	104	48	9	87	13	9	2	0	5	1
Sibi	174	186	37	18	4	19	2	0	2	0
Sohbat pur	274	0	128	127	52	15	18	6	1	4
Surab	7	9	6	0	0	0	0	0	0	0
Usta Muhammad	531	108	172	157	98	0	11	35	0	14
Zhob	279	151	85	439	47	53	16	0	0	0
Total	4,433	2,938	2,119	1,293	735	507	268	95	74	62

Figure 4: Most frequently reported suspected cases during Week 25, Balochistan

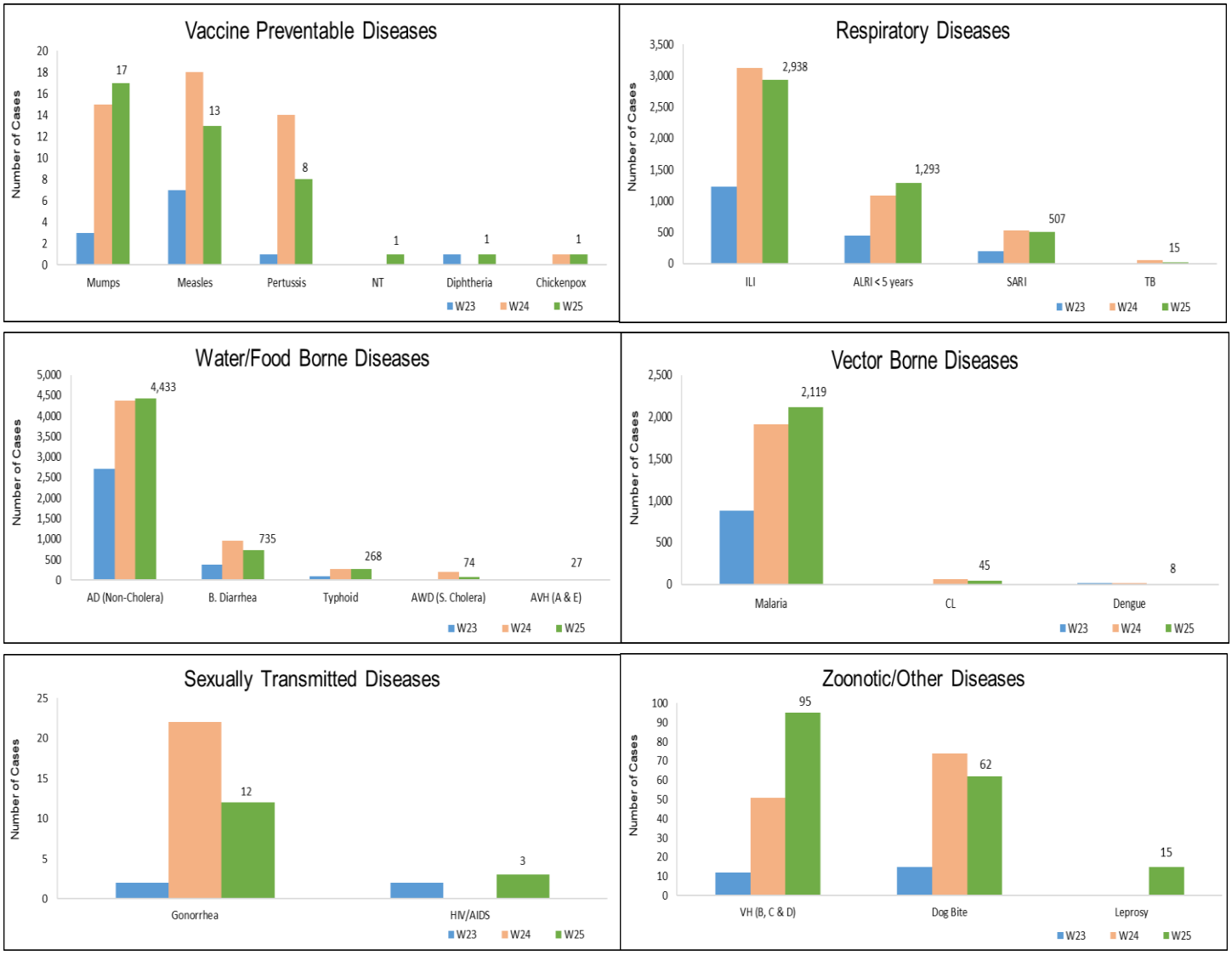
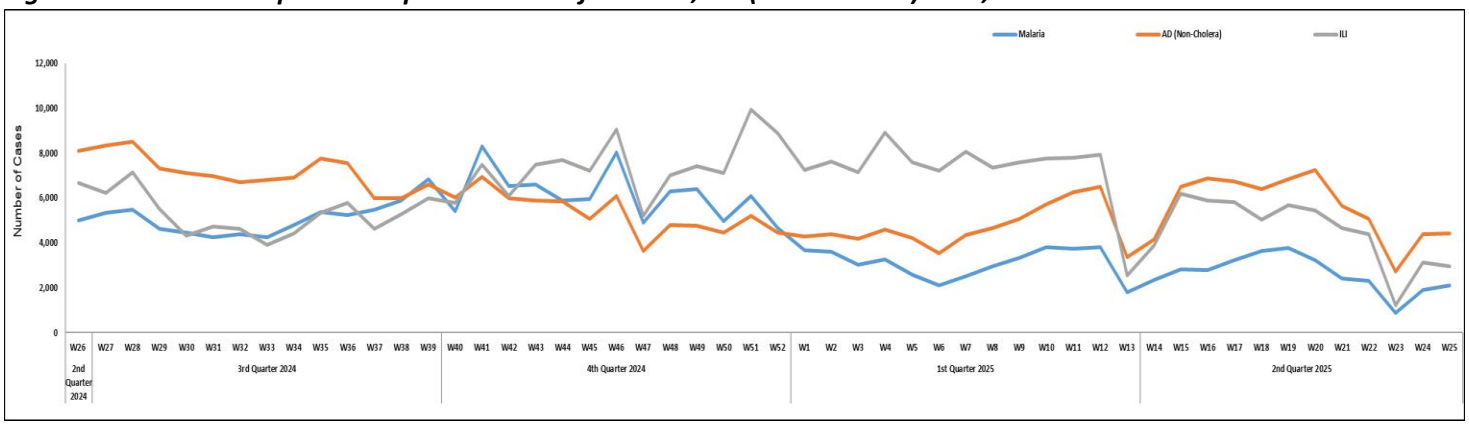


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, B. Diarrhea, ALRI<5 Years, Typhoid. Dog bite, SARI, CL & TB.
- Measles, AFP, HIV/AIDS & dog bite cases showed a decline in number while ILI, SARI, ALRI,5 years & TB, Malaria, CL, Mumps, Chicken pox, NT, AD (Non cholera), Gonorrhea, Malaria and VH (B, C &D) showed an increase in number this week.
- Thirty cases of AFP reported from KP. All are suspected cases and need field verification.
- Seven cases of HIV/AIDs reported from KP. Field investigation is required.
- Sixteen suspected cases of Brucellosis reported from KP. They require field verification.

Table 4: District wise distribution of most frequently reported suspected cases during Week 25, KP

Districts	AD (non-cholera)	Malaria	ILI	B. Diarrhea	ALRI < 5 years	Typhoid	Dog Bite	SARI	CL	TB
Abbottabad	1,375	0	49	13	1	19	9	0	0	16
Bajaur	772	256	69	66	21	19	82	76	29	17
Bannu	852	1,407	2	13	43	79	3	11	0	17
Battagram	458	58	526	7	11	3	11	4	7	41
Buner	495	487	0	0	0	4	13	0	0	1
Charsadda	2,540	327	1,209	94	302	91	20	6	0	14
Chitral Lower	1,136	21	167	30	15	8	16	11	6	6
Chitral Upper	216	11	42	20	11	17	3	21	1	1
D.I. Khan	1,617	299	0	18	13	0	43	0	0	43
Dir Lower	1,850	197	0	85	8	36	29	0	0	0
Dir Upper	2,289	32	60	19	57	19	25	0	12	25
Hangu	242	101	190	0	98	5	5	0	45	1
Haripur	1,428	21	168	0	17	12	19	0	0	12
Karak	612	190	46	26	29	5	38	5	259	23
Khyber	767	315	55	131	56	77	37	6	71	22
Kohat	890	105	1	48	14	19	44	1	16	0
Kohistan Lower	148	5	2	4	0	0	1	0	0	0
Kohistan Upper	317	15	0	23	5	1	0	0	0	0
Kolai Palas	99	4	4	13	1	2	6	0	0	8
L & C Kurram	2	7	0	2	0	1	0	0	0	0
Lakki Marwat	904	311	0	8	0	20	77	0	0	6
Malakand	715	35	0	0	0	87	0	0	1	0
Mansehra	1,381	0	219	4	0	11	0	0	0	4
Mardan	1,104	176	231	99	219	32	9	0	1	28
Mohmand	187	213	61	32	5	5	9	91	86	6
North Waziristan	83	77	0	39	46	5	4	22	10	4
Nowshera	3,062	139	31	13	1	19	40	4	8	11
Orakzai	165	28	0	20	0	0	7	0	0	0
Peshawar	4,958	35	444	139	21	135	9	26	0	23
SD Tank	16	8	2	5	0	0	0	0	0	0
Shangla	1,204	383	0	4	7	12	60	0	0	116
South Waziristan (Lower)	65	33	73	0	1	5	0	3	0	5
SWU	73	44	10	3	0	0	0	6	0	0
Swabi	1,827	62	294	27	36	73	200	68	0	7

Swat	4,183	44	145	96	93	50	60	0	0	22
Tank	498	251	89	6	11	18	1	0	0	4
Tor Ghar	108	35	4	39	7	6	15	25	6	0
Upper Kurram	231	14	186	71	7	14	9	200	0	3
Total	38,869	5,746	4,379	1,217	1,156	909	904	586	558	486

Figure 6: Most frequently reported suspected cases during Week 25, KP

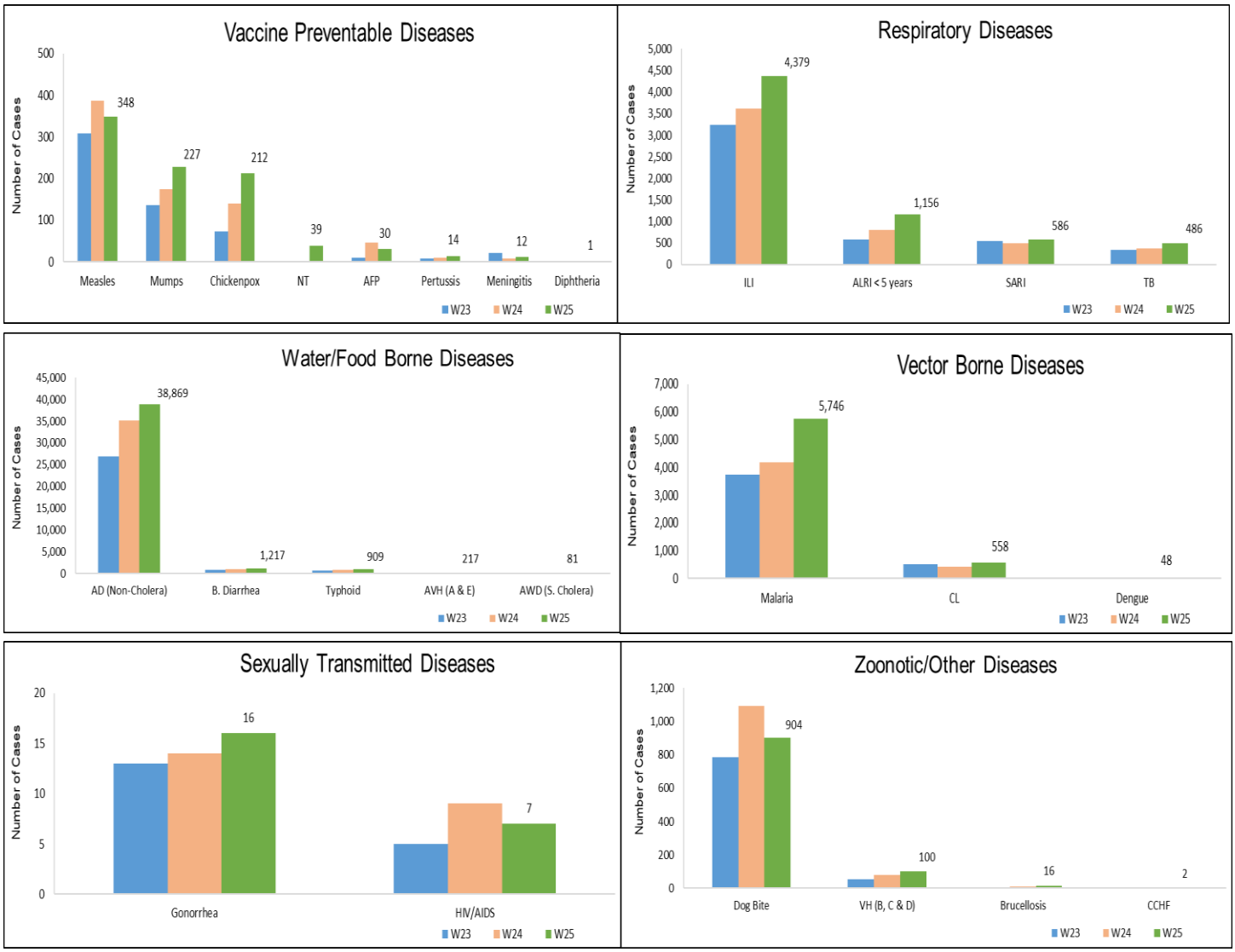
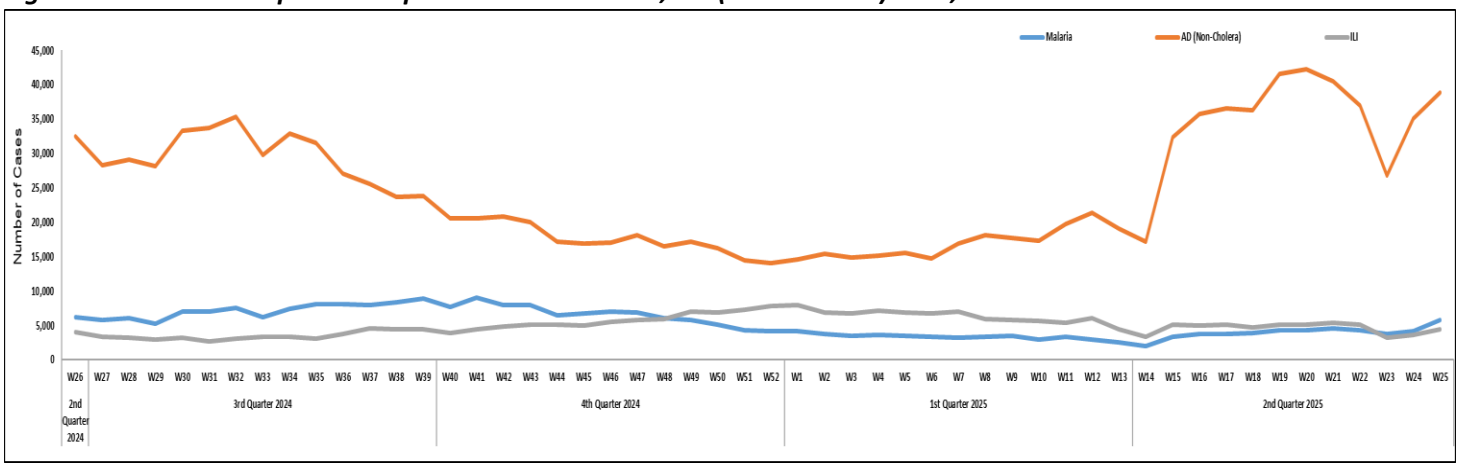


Figure 7: Week wise reported suspected cases Malaria, AD (Non-Cholera) & ILI, KP



PUNJAB

- The most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by TB, dog bite, ALRI <5 years, Malaria, Typhoid and AWD (S. Cholera) this week.
- There is a decline in cases observed for Acute Diarrhea (Non-Cholera), TB, dog bite, ALRI <5 years, Malaria and Typhoid this week.
- Five cases of AFP reported Punjab this week. They are suspected cases and need field verification.
- Five suspected cases of HIV/ AIDS reported from Punjab this week. They require field investigation.

Figure 8: Most frequently reported suspected cases during Week 14, Punjab

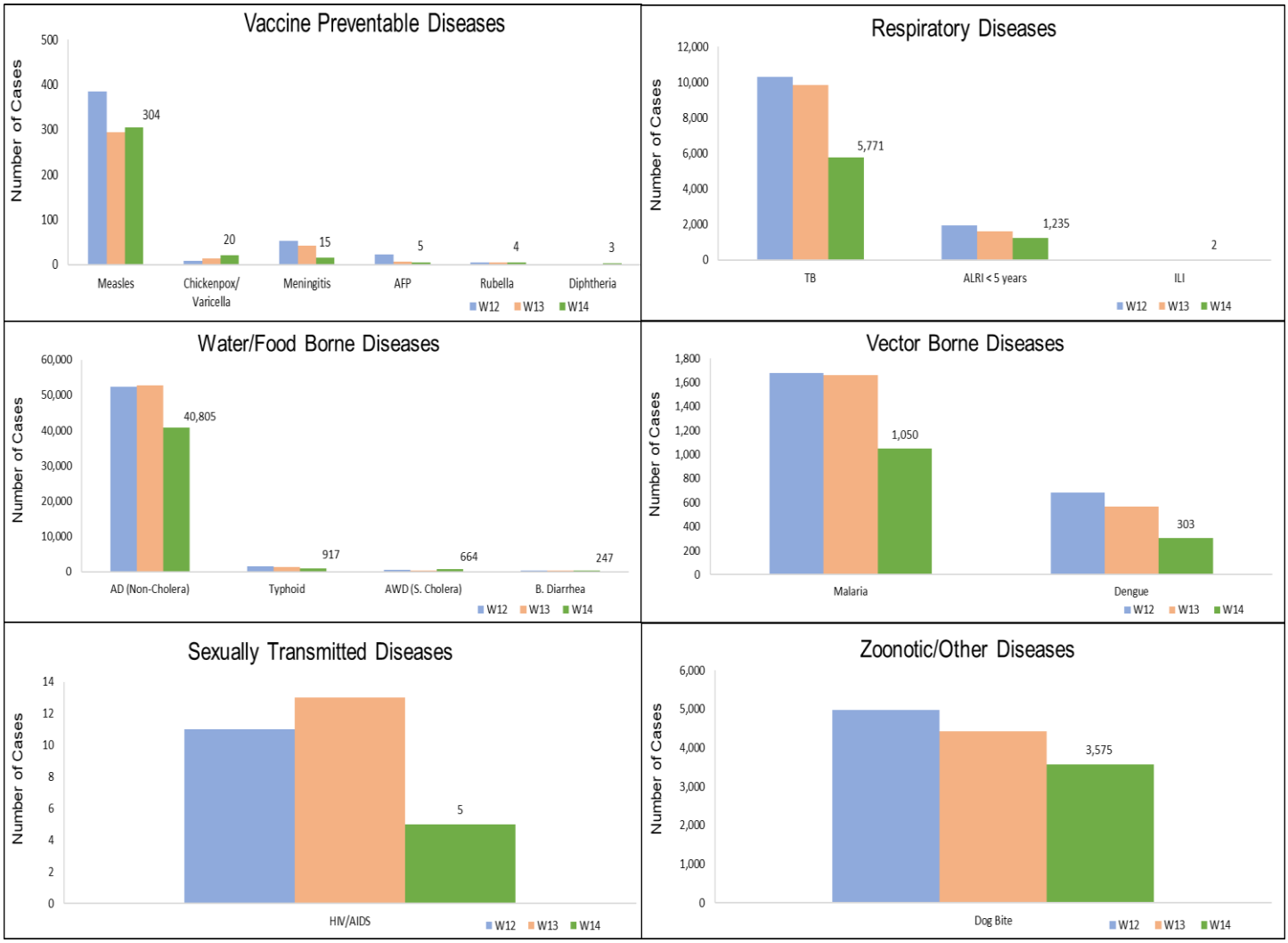
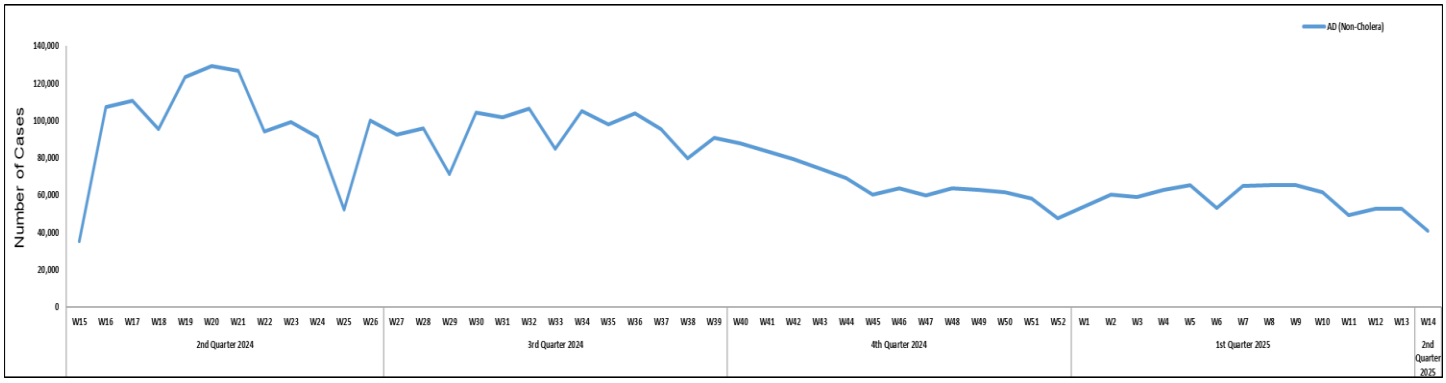


Figure 9: Week wise reported suspected cases of AD (Non-Cholera), Punjab



ICT, AJK & GB

ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera). ILI and AD (Non-Cholera) cases showed an increase in number this week.

AJK: AD (non-cholera) cases were maximum followed by ILI), ALRI < 5years, SARI, dog bite, TB, B. Diarrhea, VH (B, C & D), Typhoid and AWD (S. Cholera) cases. An increase in number of suspected cases was observed for AD (Non-Cholera), ALRI < 5years, ILI, dog bite, VH (B, C & D), Measles, Chicken pox, Mumps and AFP while a decline in cases observed for SARI and TB this week.

GB: AD (non-cholera) cases were the most frequently reported diseases followed by ALRI <5 years, ILI, TB and SARI cases. An increase in cases observed for by ALRI <5 Years, TB, Measles, AD (Non-Cholera), B. Diarrhea and AWD (S. Cholera) this week.

.

Figure 10: Most frequently reported suspected cases during Week 25, AJK

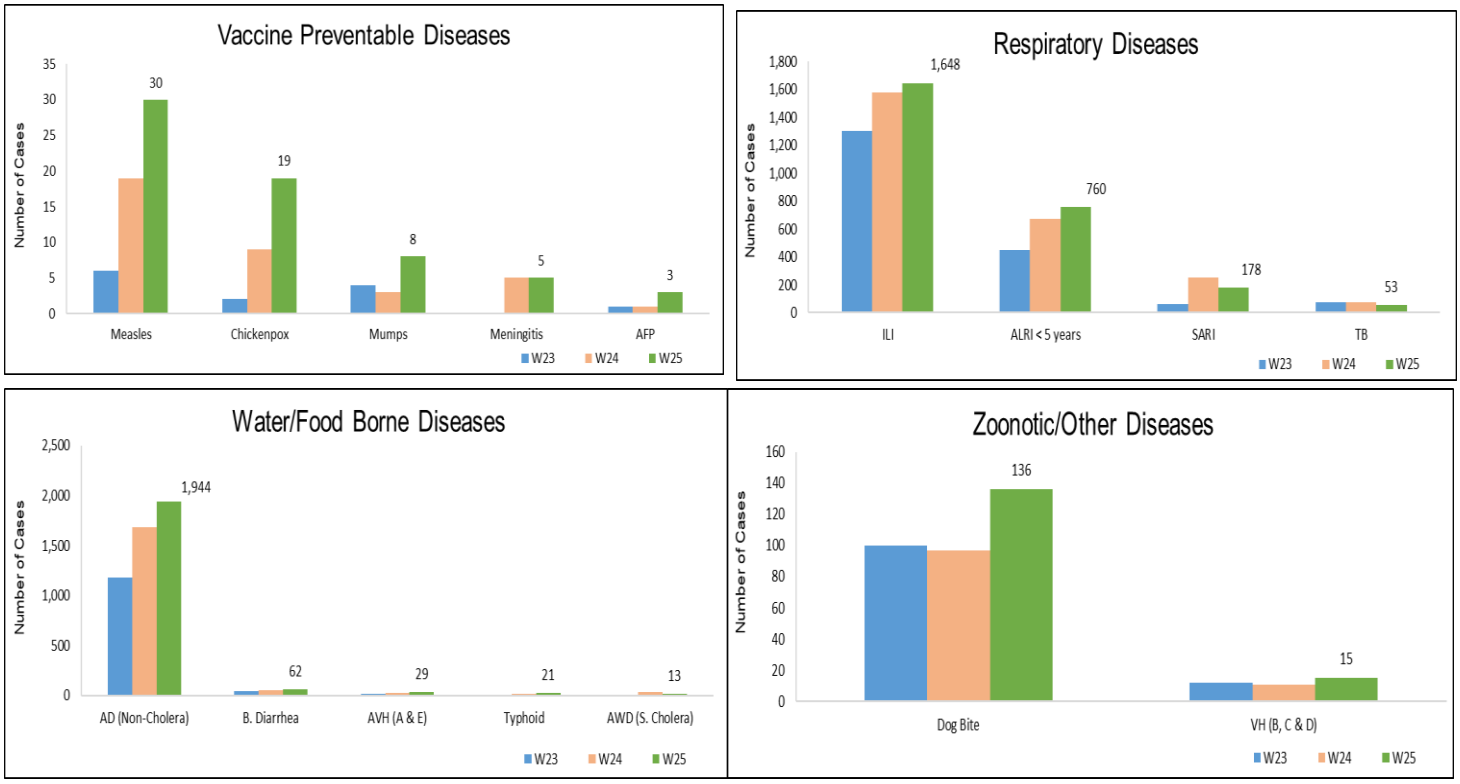


Figure 11: Week wise reported suspected cases of ILI and AD (Non-Cholera), AJK

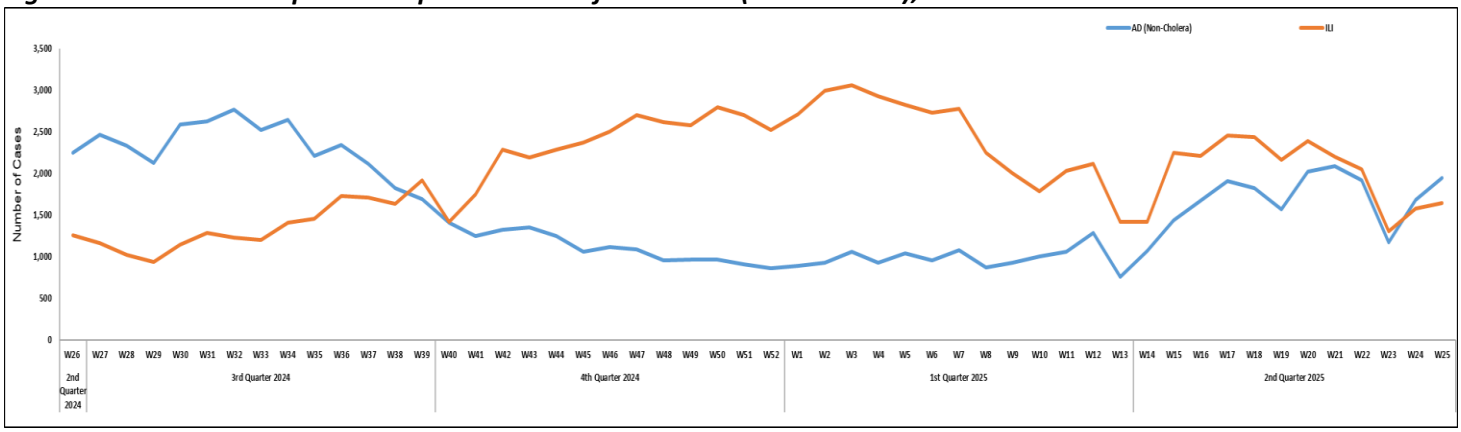


Figure 12: Most frequently reported suspected cases during Week 25, ICT

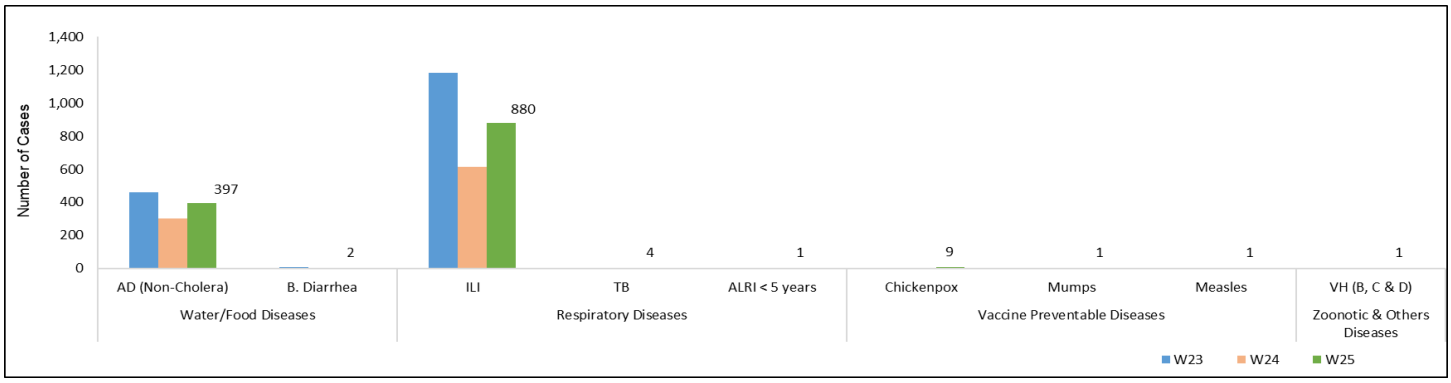


Figure 13: Week wise reported suspected cases of ILI, ICT

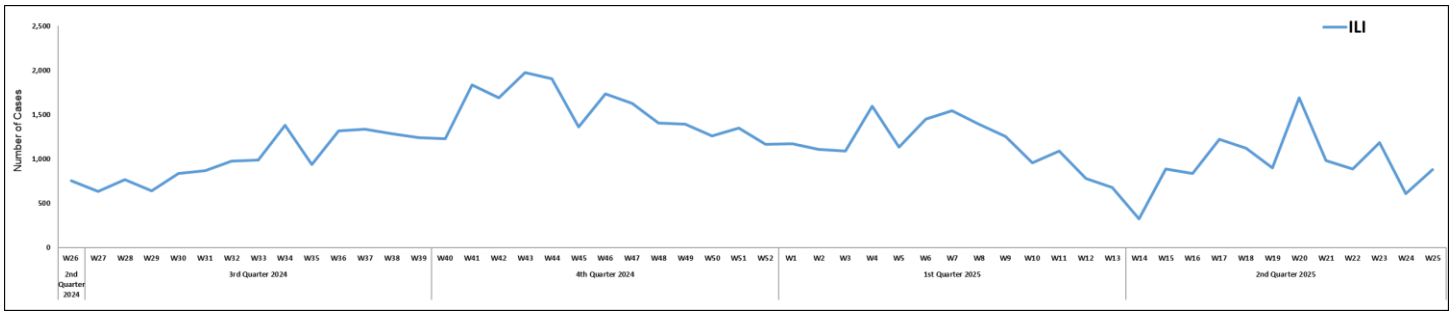


Figure 14: Most frequent cases reported during Week 25, GB

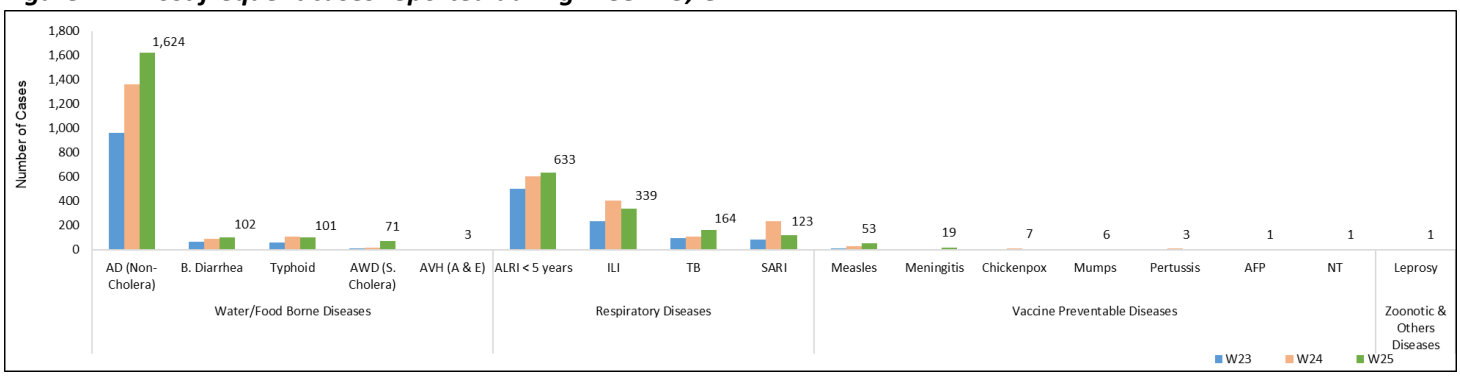


Figure 15: Week wise reported suspected cases of AD (Non-Cholera), GB

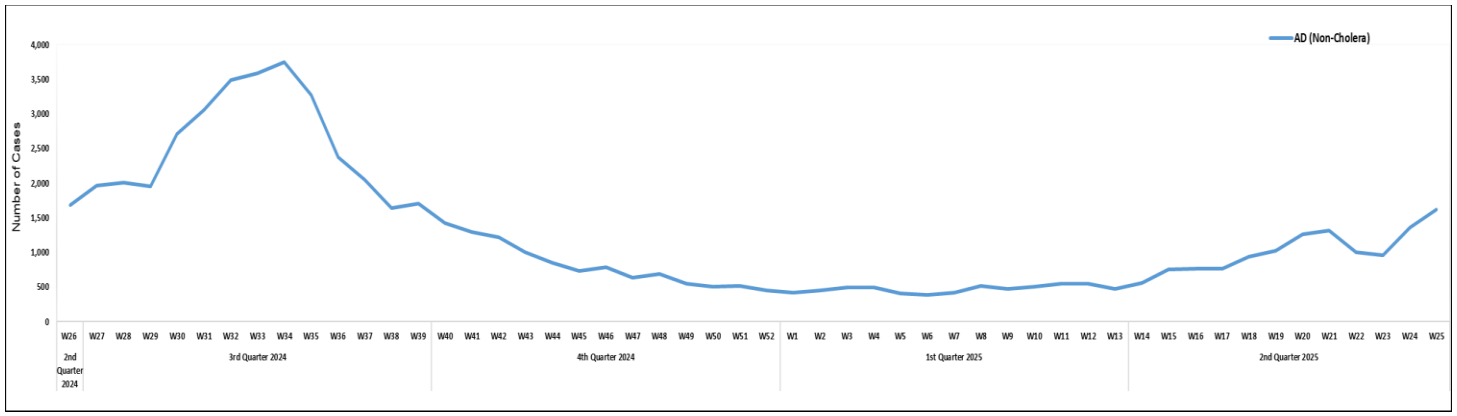


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi Week 25

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	Tota l Pos	Total Test	Total Pos	Total Test	Total Pos
AWD (S. Cholera)		81	3	-	-	0	0	-	-	-	-	-	-	0	0
Stool culture & Sensitivity		190	2	-	-	0	0	-	-	-	-	-	-	0	0
Malaria		8,603	669	-	-	97	12	-	-	-	-	-	-	10	0
CCHF		1	1	35	3	0	0	-	-	-	-	-	-	0	0
Dengue		2,289	214	-	-	3	0	-	-	-	-	-	-	0	0
VH (B)		16,162	399	116	89	56	0	-	-	-	-	-	-	591	4
VH (C)		16,335	1,253	89	35	60	2	-	-	-	-	-	-	587	50
VH (D)		393	117	25	5	0	0	-	-	-	-	-	-	0	0
VH (A)		54	12	-	-	0	0	-	-	-	-	-	-	0	0
VH (E)		128	51	-	-	0	0	-	-	-	-	-	-	0	0
Covid-19		39	1	3	0	0	0	-	-	-	-	-	-	16	0
TB		586	80	-	-	2	0	-	-	-	-	-	-	100	12
HIV/ AIDS		5,640	51	-	-	48	0	-	-	-	-	-	-	466	9
Syphilis		1,273	17	-	-	6	0	-	-	-	-	-	-	0	0
B. Diarrhea		81	1	-	-	0	0	-	-	-	-	-	-	0	0
Typhoid		1,543	26	-	-	0	0	4	0	-	-	-	-	0	0
Diphtheria		9	0	-	-	0	0	-	-	-	-	-	-	0	0
ILI		32	0	-	-	0	0	-	-	-	-	-	-	0	0
M-POX		0	0	-	-	0	0	-	-	-	-	-	-	0	0
Leishmaniasis (cutaneous)		0	0	-	-	20	4	-	-	-	-	-	-	0	0
Pneumonia (ALRI)		62	42	-	-	0	0	-	-	-	-	-	-	0	0
Meningitis		5	0	-	-	0	0	-	-	-	-	-	-	0	0
Measles		232	103	40	21	343	144	20	8	17	12	583	126	33	7
Rubella		232	3	40	1	343	0	20	0	17	0	583	4	33	0
Covid-19	Out of SARI	20	0	0	0	32	2	47	6	0	0	86	0	0	0
	Out of ILI	0	0	0	0	1	0	17	1	0	0	16	0	0	0
Influenza A	Out of SARI	20	0	0	0	32	1	47	0	0	0	86	0	0	0
	Out of ILI	0	0	0	0	1	0	17	0	0	0	16	0	0	0
Influenza B	Out of SARI	20	1	0	0	32	0	47	0	0	0	86	0	0	0
	Out of ILI	0	0	0	0	1	0	17	0	0	0	16	0	0	0
RSV	Out of SARI	20	0	0	0	32	0	47	0	0	0	86	0	0	0
	Out of ILI	0	0	0	0	0	0	17	0	0	0	16	0	0	0

IDSR Reports Compliance

- Out of 158 IDSR implemented districts, compliance is low from Balochistan and KP. Green color highlights >50% compliance while red color highlights <50% compliance

Table 6: IDSR reporting districts Week 25, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	98	88%
	Bannu	238	128	54%
	Battagram	59	35	59%
	Buner	34	23	68%
	Bajaur	44	41	93%
	Charsadda	59	58	98%
	Chitral Upper	34	30	88%
	Chitral Lower	35	35	100%
	D.I. Khan	114	113	99%
	Dir Lower	74	63	85%
	Dir Upper	37	32	86%
	Hangu	22	16	73%
	Haripur	72	70	97%
	Karak	36	36	100%
	Khyber	53	43	81%
	Kohat	61	61	100%
	Kohistan Lower	11	10	91%
	Kohistan Upper	20	16	80%
	Kolai Palas	10	9	90%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	5	12%
	Upper Kurram	41	30	73%
	Malakand	42	18	43%
	Mansehra	133	95	71%
	Mardan	80	58	73%
	Nowshera	56	52	93%
	North Waziristan	13	9	69%
	Peshawar	156	132	85%
	Shangla	37	30	81%
	Swabi	64	63	98%
	Swat	77	76	99%
	South Waziristan (Upper)	93	36	39%
	South Waziristan (Lower)	42	22	52%
	Tank	34	32	94%
	Torghar	14	14	100%
	Mohmand	68	50	74%

	SD Peshawar	5	0	0%
	SD Tank	58	5	9%
	Orakzai	69	11	16%
Azad Jammu Kashmir	Mirpur	37	37	100%
	Bhimber	42	20	48%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%
	Haveli	39	38	97%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Velley	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	23	23	100%
	CDA	15	6	40%
Balochistan	Gwadar	26	21	81%
	Kech	44	0	0%
	Khuzdar	74	5	7%
	Killa Abdullah	26	15	58%
	Lasbella	55	55	100%
	Pishin	69	0	0%
	Quetta	55	10	18%
	Sibi	36	20	56%
	Zhob	39	25	64%
	Jaffarabad	16	0	0%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	0	0%
	Kohlu	75	9	12%
	Chagi	36	20	56%
	Kalat	41	40	98%
	Harnai	17	0	0%
	Kachhi (Bolan)	35	11	31%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	4	13%
	Mastung	45	45	100%
	Loralai	33	23	70%
	Killa Saifullah	28	23	82%
	Ziarat	29	0	0%
	Duki	31	0	0%
	Nushki	32	0	0%
	Dera Bugti	45	19	42%
	Washuk	46	0	0%
	Panjgur	38	0	0%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	19	95%
	Hub	33	28	85%
	Musakhel	41	14	34%

	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	38	38	100%
	Gilgit	42	41	98%
	Diamer	62	59	95%
	Astore	55	55	100%
	Shigar	27	25	93%
	Skardu	53	53	100%
	Ganche	29	29	100%
	Kharmang	46	25	54%
Sindh	Hyderabad	72	72	100%
	Ghotki	64	64	100%
	Umerkot	62	62	100%
	Naushahro Feroze	107	98	92%
	Tharparkar	276	221	80%
	Shikarpur	60	60	100%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	21	15	71%
	Karachi-West	20	20	100%
	Karachi-Malir	35	35	100%
	Karachi-Kemari	22	22	100%
	Karachi-Central	12	9	75%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	6	100%
	Sujawal	55	54	98%
	Mirpur Khas	106	102	96%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	170	168	99%
	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 25, 2024

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	1	100%
	Bagh	1	1	100%
	Neelum	1	1	100%
	Jhelum Vellay	1	1	100%
	Sudhnooti	1	1	100%
Sindh	Karachi-South	1	1	100%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	0	0%
	Karachi-East	1	1	100%
	Karachi-Central	1	0	0%

Letter to Editor

Prioritizing Clean Water, Hygiene, and Sanitation in Pakistan - A Foundation for Diarrheal Disease Prevention

Dear Editor,

The cornerstone of a healthy society lies in its access to fundamental necessities: clean drinking water, effective hand hygiene, and proper waste disposal and sanitation practices. In Pakistan, despite ongoing efforts, significant challenges persist in these critical areas, directly impacting public health and exacerbating the burden of preventable diseases.

Access to safe drinking water remains a pressing concern. While progress has been made, only around 50.6% of Pakistan's population had access to clean water in 2022, with projections indicating that this figure may not by 2030 without accelerated efforts. [1, 2] This critical gap leaves millions vulnerable to waterborne diseases such as typhoid, cholera, hepatitis, and various diarrheal illnesses, which continue to be a leading cause of morbidity and mortality, particularly among children. [3, 4] The contamination of ground and surface water, coupled with an impending water scarcity crisis, further complicates this challenge. [5]

Equally vital, yet often overlooked, is the practice of hand hygiene. Despite public health messages, adherence to optimal handwashing practices, especially with soap and water, remains inconsistent, particularly in rural areas. While a 2018-19 survey reported that around 50% of households had a specific place for handwashing with soap and water, only 69% of households used soap and water for handwashing in 2017-18. [6] This simple act is a powerful barrier against the spread of numerous infectious diseases, including respiratory and gastrointestinal infections.

Furthermore, inadequate waste disposal and sanitation practices present a grave public health hazard. Millions in Pakistan still practice open defecation, and only about 68% of the population has access to basic sanitation. [2, 7] This contributes to widespread environmental pollution, contaminates water sources, and creates breeding grounds for disease vectors. Major cities grapple with collecting only about 60-70% of solid waste, with a mere 29% being treated, leading to open dumping and significant health hazards like skin and eye infections, respiratory problems, and the spread of diseases carried by flies and mosquitoes. [8, 9]

Addressing these interconnected challenges requires a multi-lateral and sustained approach:

Investment in WASH: Substantial investment is needed to ensure universal access to safely managed water services, including piped water and functional sanitation facilities, especially in underserved rural and peri-urban areas. [10]

Behavioral Change Communication: Targeted and culturally sensitive public awareness campaigns are essential to promote consistent hand hygiene practices, discourage open defecation, and educate communities on proper waste segregation and disposal. [6, 9]

Community-Led Initiatives: Empowering local communities to take ownership of their water sources, sanitation facilities, and waste management efforts can lead to sustainable change. [10]

Policy Enforcement and Regulation: Stricter enforcement of environmental laws and waste management regulations is crucial to curb illegal dumping and ensure proper waste treatment and disposal. [9]

Inter-sectoral Collaboration: A One Health approach, involving government, civil society, the private sector, and communities, is vital to integrate efforts across water, sanitation, and

hygiene sectors for comprehensive solutions. [10]

Prioritizing clean water, hand hygiene, and proper sanitation is not merely a matter of public health; it is an investment in human dignity, economic productivity, and the overall well-being of our nation. It is time for collective action to lay this fundamental foundation for a healthier Pakistan.

Sincerely,

Dr. Maryam Tanveer

Scientific Officer, CDC-NIH

References:

1. Macrotrends. (n.d.). Pakistan Clean Water Access | Historical Chart & Data. https://www.macrotrends.net/global-metrics/countries/pak/pakistan/clean-water-access-statistics
2. DAWN.COM. (2024, December 15). 'Only 39pc of population has safe water access in Pakistan'. https://www.dawn.com/news/1878741
3. UNICEF Pakistan. (n.d.). WASH: Water, sanitation and hygiene. https://www.unicef.org/pakistan/wash-water-sanitation-and-hygiene-0
4. Ayub Medical College Abbottabad. (n.d.). HEALTH IMPACT CAUSED BY POOR WATER AND SANITATION IN DISTRICT ABBOTTABAD. https://jamc.ayubmed.edu.pk/index.php/jamc/article/download/2602/1217
5. ResearchGate. (n.d.). Water availability in Pakistan by 2025 taken from Dr Muhammad Ashraf's research report. https://www.researchgate.net/figure/Water-availability-in-Pakistan-by-2025-taken-from-Dr-Muhammad-Ashrafs-research-report_fig6_365657322
6. The Global Handwashing Partnership. (n.d.). Hand Hygiene for All - Pakistan Roadmap. https://globalhandwashing.org/wp-content/uploads/2021/07/HH4A-Pakistan-Roadmap.pdf
7. World Bank. (n.d.). The economic impacts of inadequate sanitation in Pakistan. Retrieved from https://documents1.worldbank.org/curated/en/132701468286831158/pdf/681600WSP0Box30IC00WSP0esi0pakistan.pdf
8. International Trade Administration. (2024, January 12). Pakistan - Waste Management. https://www.trade.gov/country-commercial-guides/pakistan-waste-management
9. PakistanLawyer.com. (2025, January 17). Pakistan's Waste Management Crisis: Solutions and Challenges. https://articles.pakistanlawyer.com/2025/01/17/pakistans-waste-management-crisis-solutions-and-challenges/
10. World Bank. (2025, June 4). Water for People: A Wake-Up Call for Pakistan's WASH Sector. https://www.worldbank.org/en/news/feature/

Knowledge Hub

Typhoid Fever: What You Need to Know

Typhoid fever is a serious bacterial infection caused by *Salmonella Typhi*. It is spread through contaminated food or water and can lead to high fever, fatigue, abdominal pain, and other severe symptoms. If left untreated, typhoid fever can be fatal.

What is Typhoid Fever?

Typhoid fever is an illness caused by the bacterium *Salmonella Typhi*. It is different from the *Salmonella* bacteria that commonly cause food poisoning. Typhoid fever is a systemic infection, meaning it affects the entire body, and is primarily found in areas with poor sanitation and unsafe drinking water.

How Typhoid Fever Spreads

Typhoid fever is spread through the fecal-oral route. This means the bacteria are passed in the feces (poop) of infected people and then contaminate food or water, which is then consumed by others.

Transmission can occur through:

Contaminated food or water: This is the most common way. Food or water can become contaminated when handled by a person who is shedding the bacteria and has not washed their hands thoroughly. It can also happen if sewage containing the bacteria gets into the water supply.

Direct contact: Less commonly, direct contact with the feces of an infected person.

"Typhoid Mary" (Chronic Carriers): Some people who recover from typhoid fever can continue to carry the bacteria in their intestines or gallbladder for years, even without symptoms. These "chronic carriers" can unknowingly spread the bacteria to others.

Signs & Symptoms

Symptoms of typhoid fever typically appear 6 to 30 days after exposure to the bacteria, but commonly within 1-3 weeks. Symptoms can be mild at first and worsen over time if not treated.

Common symptoms include:

- Sustained high fever
- Weakness and fatigue.
- Headache.
- Loss of appetite.
- Abdominal pain.
- Constipation or diarrhea (diarrhea is more common in children).
- Rash (small, flat, rose-colored spots, especially on the chest and abdomen, appearing in some cases).
- Dry cough.
- If left untreated, symptoms can progress to:
- Extreme fatigue.
- Confusion or delirium.
- Severely distended abdomen.

Complications

Without prompt treatment, typhoid fever can lead to severe and life-threatening complications:

- **Intestinal hemorrhage (severe bleeding in the intestines):** This occurs when the bacteria cause ulcers in the intestines that bleed.
- **Intestinal perforation (a hole in the intestine):** This is a very serious complication where the intestinal contents leak into the abdominal cavity, leading to peritonitis (inflammation of the abdominal lining) and potentially sepsis. This requires emergency surgery.
- **Myocarditis:** Inflammation of the heart muscle.
- **Encephalitis:** Inflammation of the brain.
- **Pneumonia.**
- **Kidney failure.**
- **Bone infections (osteomyelitis).**
- **Gallbladder infection (cholecystitis):** Can lead to a chronic carrier state.

About 10-30% of untreated cases can be fatal.

Prevention

Prevention of typhoid fever focuses on safe food and water practices, good hygiene, and vaccination.

Vaccination:

Typhoid vaccines are recommended for travelers to areas where typhoid fever is common.

- There are two main types of typhoid vaccines: an injectable vaccine (Typhoid Vi polysaccharide vaccine) and an oral vaccine (Ty21a live attenuated vaccine).
- A newer conjugate vaccine (Typhoid Conjugate Vaccine, TCV) is also available and recommended for children in endemic areas.
- Vaccines are effective but do not provide 100% protection, so safe food and water practices are still essential.
- Safe Food and Water Practices (especially when traveling):
- "Boil it, cook it, peel it, or forget it."
- Drink only bottled or boiled water, or water that has been disinfected.
- Avoid ice unless it's made from safe water.
- Eat only thoroughly cooked food that is served hot.
- Avoid raw fruits and vegetables that you cannot peel yourself.
- Avoid food from street vendors.
- Good Hygiene:
- Wash hands thoroughly with soap and water before eating or preparing food, and after using the toilet.

- Use alcohol-based hand sanitizer if soap and water are not available.

Diagnosis

Typhoid fever is diagnosed by a healthcare provider based on symptoms, travel history, and laboratory tests.

- Blood culture: This is the most common and reliable method to confirm a typhoid fever diagnosis, especially in the early stages of the illness.
- Stool or urine cultures: Can also be used to detect the bacteria, particularly in later stages or to identify carriers.
- Bone marrow culture: Can be used if other tests are inconclusive.

Treatment

Typhoid fever is treated with antibiotics. Early diagnosis and treatment are crucial to prevent severe complications and death.

- Antibiotic therapy: The choice of antibiotic depends on the region where the infection was acquired (due to varying patterns of antibiotic resistance). Common antibiotics include azithromycin, fluoroquinolones (like ciprofloxacin), or ceftriaxone.
- Complete the full course: It is essential to take all prescribed doses of antibiotics, even if symptoms improve, to ensure the bacteria are completely eliminated and to prevent the development of antibiotic resistance.
- Supportive care: Rest, adequate fluids, and fever management are also important.
- Hospitalization: Severe cases, especially those with complications, may require hospitalization for intravenous antibiotics and supportive care.

More Information

For additional authoritative information on typhoid fever, please visit:

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

Typhoid fever

Information for the general public

Source of infection

Typhoid is a life-threatening systemic infection. It is transmitted through ingesting contaminated food or water.

Types of exposure & prevention

Poor sanitation and lack of clean drinking-water. Climate change has increased the burden of typhoid. Increased antibiotic resistance is making treatment a challenge. Prevention and vaccination are key.

- Get vaccinated as typhoid is becoming resistant to antibiotics
- Wash hands with soap and clean water, especially after using the toilet and before eating food
- Infected patients should avoid preparing or serving food to other people
- Ensure sanitation and clean drinking-water even if you are vaccinated

Signs & symptoms

In case of following symptoms, quickly see a doctor for treatment. Symptoms include:

- Prolonged high fever
- Fatigue, headache and nausea
- Abdominal pain
- Constipation or diarrhoea
- Rose spots usually occur between the second and fourth week of illness
- Groups of 5–15 pink blanching papules (little bumps) appear on the anterior trunk

Actions to take in case of symptoms: Seek immediate medical advice.

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

	https://phb.nih.org.pk/		https://twitter.com/NIH_Pakistan
	idsr-pak@nih.org.pk		https://www.facebook.com/NIH.PK/

UK Health Security Agency

World Health Organization

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION