

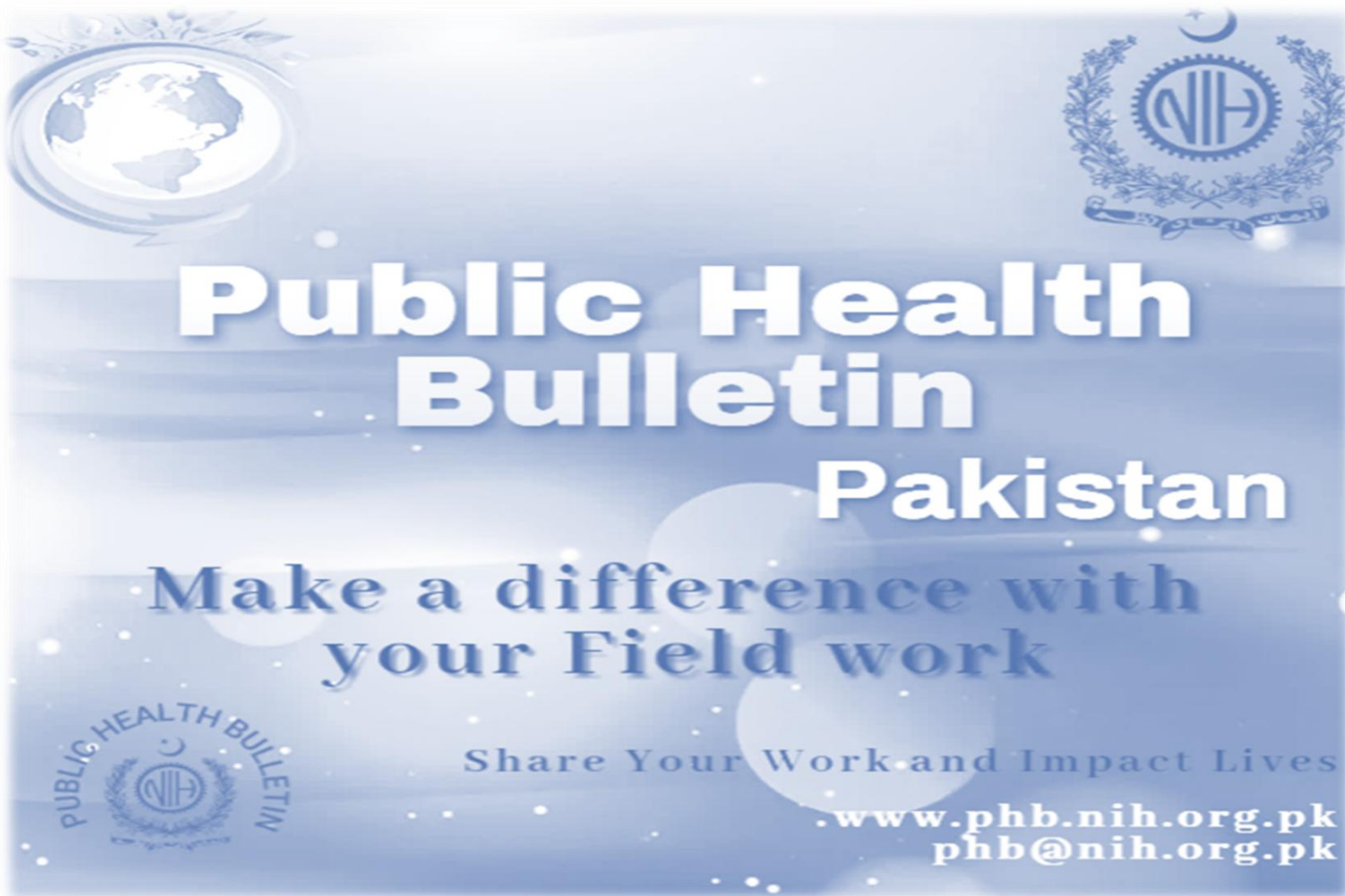
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

Vol. 5 | Week 48
24th NOVEMBER – 30th NOVEMBER
16th December, 2025

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.



Overview

Public Health Bulletin - Pakistan, Week 48, 2025

IDSR Reports

Ongoing Events

Field Reports

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 on H3N2 Influenza - A Season of Vigilance and Public Health Progress*
- *Outbreak Investigation of Diphtheria In Swabi District, Khyber Pakhtunkhwa, Pakistan, July, 2025*
- *Knowledge hub on Influenza like Illness: 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.

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Stay informed. Stay prepared. Stay healthy.

*Sincerely,
The Chief Editor*

- During Week 48, the most frequently reported cases were of Malaria followed by AD (non- cholera) ILI, ALRI <5 years, TB, dog bite, B. Diarrhea, VH (B, C & D), SARI and Typhoid.
- Twenty-six cases of AFP reported from KP, sixteen from Sindh and two from AJK.
- Twenty-six suspected cases of HIV/ AIDS reported from Sindh, seven from KP and four from AJK.
- Among VPDs, there is an increase in number of cases of Chickenpox, Measles, Meningitis, AFP and Diphtheria this week.
- Among Respiratory diseases, there is an increase in number of cases of ALRI<5years, TB and SARI this week.
- Among Water/food-borne diseases, there is decrease in number of cases of Acute Diarrhea (Non-Cholera) this week.
- Among Vector-borne diseases, there is decrease 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 dog bite 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 87%, GB 88% and ICT 74%.
- The lowest compliance rate was observed in KP 63% and Balochistan 44%.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2704	1698	63
Azad Jammu Kashmir	469	407	87
Islamabad Capital Territory	38	28	74
Balochistan	1308	577	44
Gilgit Baltistan	417	367	88
Sindh	2111	203	96
National	7047	5113	73

Public Health Actions

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

Influenza-Like Illness (ILI)

- **Strengthen Surveillance and Reporting:** Enhance ILI surveillance through IDSR and sentinel sites to monitor seasonal trends, detect early increases in respiratory illness, and guide preparedness actions.
- **Improve Laboratory Support:** Strengthen specimen collection and referral to designated laboratories for influenza and other respiratory virus testing, with timely sharing of results for public health action.
- **Promote Infection Prevention and Control (IPC):** Reinforce hand hygiene, respiratory etiquette, mask use, and environmental cleaning in healthcare facilities and community settings during periods of increased transmission.
- **Promote Vaccination of High-Risk Groups:** Encourage seasonal influenza vaccination for healthcare workers, older adults, and individuals with chronic illnesses.
- **Raise Community Awareness:** Disseminate public health messages on symptom recognition, home isolation when ill, and timely healthcare-seeking for worsening symptoms.

Severe Acute Respiratory Infection (SARI)

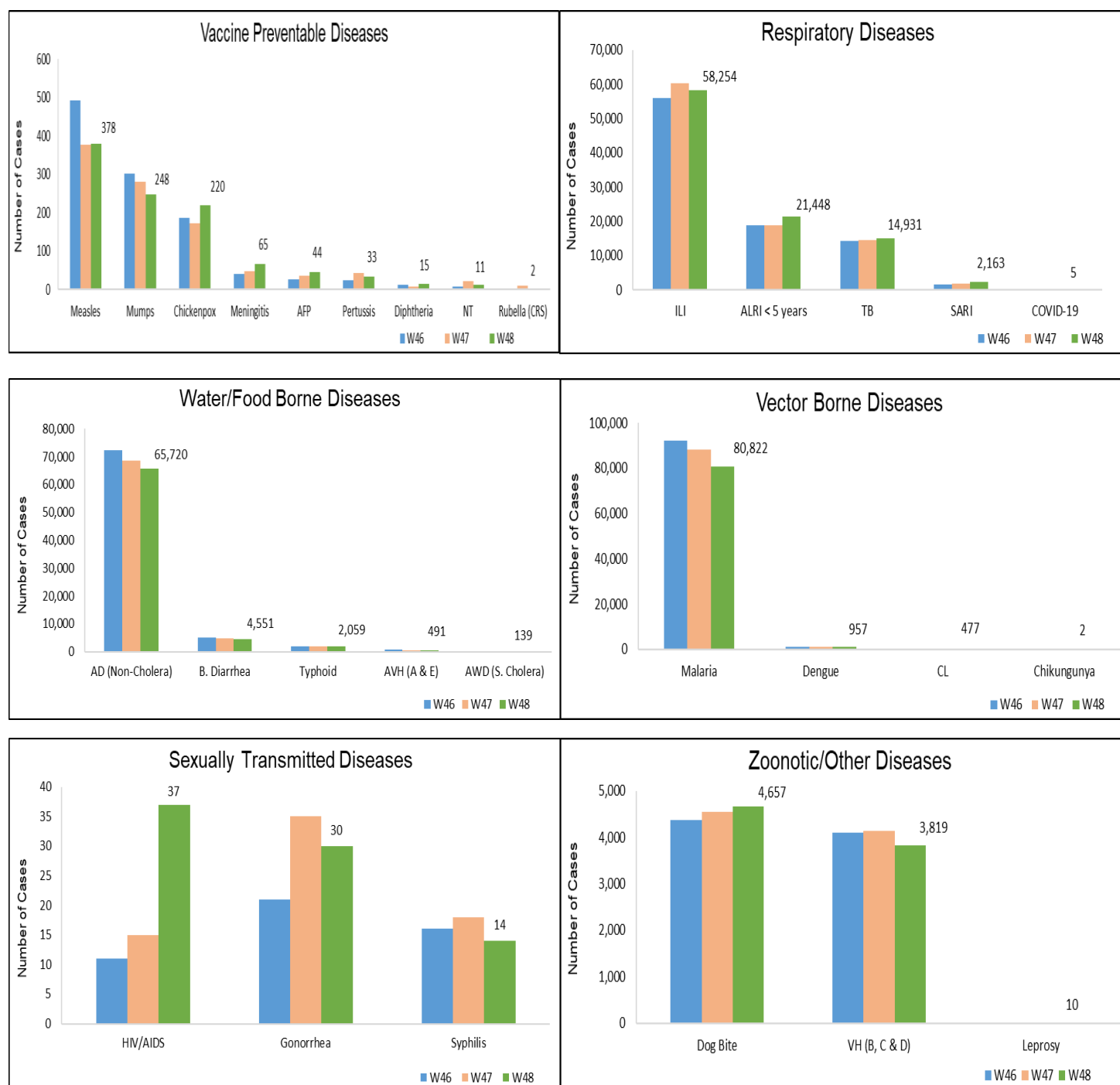
- **Strengthen Surveillance and Early Warning:** Enhance facility-based SARI surveillance to rapidly detect severe cases and clusters, supporting early outbreak detection and response.
- **Improve Diagnostic and Clinical Management Capacity:** Ensure access to laboratory diagnostics (RT-PCR) for priority respiratory pathogens and train healthcare workers in standardized case management protocols.
- **Ensure Availability of Essential Care:** Strengthen hospital readiness by ensuring adequate oxygen supply, ventilatory support, essential medicines, and referral systems for severe cases.
- **Enhance Risk Communication:** Provide clear guidance to the public on recognizing danger signs (difficulty breathing, persistent fever), seeking urgent care, and complying with public health measures during outbreaks.



Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 48, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
Malaria	2	2,799	0	1	4,561	172	73,287	80,822
AD (Non-Cholera)	1,368	4,154	586	378	21,757	24	37,453	65,720
ILI	3,344	5,366	695	3,343	8,317	0	37,189	58,254
ALRI < 5 years	1,460	2,049	1,509	21	1,588	26	14,795	21,448
TB	111	106	110	12	279	19	14,294	14,931
Dog Bite	103	283	4	0	843	0	3,424	4,657
B. Diarrhea	56	741	48	1	681	2	3,022	4,551
VH (B, C & D)	18	54	7	0	104	1	3,635	3,819
SARI	331	775	143	0	671	0	243	2,163
Typhoid	44	258	87	1	807	0	862	2,059
Dengue	36	10	5	3	99	0	804	957
AVH (A & E)	38	3	0	0	202	0	248	491
CL	0	111	0	0	357	0	9	477
Measles	4	24	6	0	289	0	55	378
Mumps	11	46	2	0	157	0	32	248
Chickenpox/ Varicella	17	1	62	6	121	0	13	220
AWD (S. Cholera)	14	75	0	0	50	0	0	139
Meningitis	9	1	4	0	14	0	37	65
AFP	2	0	0	0	26	0	16	44
HIV/AIDS	4	0	0	0	7	0	26	37
Pertussis	1	15	4	0	13	0	0	33
Gonorrhea	1	25	0	0	2	0	2	30
Diphtheria (Probable)	1	0	0	0	9	0	5	15
Syphilis	0	0	0	0	3	0	11	14
NT	0	0	0	0	11	0	0	11
Leprosy	0	1	0	0	9	0	0	10
COVID-19	0	0	0	0	5	0	0	5
Chikungunya	0	0	0	0	0	0	2	2
Rubella (CRS)	0	1	0	0	1	0	0	2

Figure 1: Most frequently reported suspected cases during week 48, Pakistan.



- Malaria cases were maximum followed by AD (Non- Cholera), ILI, ALRI<5 Years, TB, VH (B, C & D), dog bite, B. Diarrhea, Typhoid and Dengue
- AD (non-cholera) cases are mostly from Khairpur, Hyderabad and Dadu whereas Malaria cases are from Khairpur, Hyderabad and Dadu.
- Sixteen cases of AFP reported from Sindh. They are suspected cases and need field verification.
- There is a decline in number of cases of AD (Non-Cholera), B. Diarrhea, Measles, Mumps, Malaria, ILI and VH (B, C, D) while an increase in number of cases of Chicken pox, Meningitis, AFP, Diphtheria, ALRI<5years, TB and HIV/AIDS this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 48, Sindh.

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	Dog Bite	B. Diarrhea	Typhoid	Dengue
Badin	3,204	1,954	3,301	594	986	300	125	169	57	4
Dadu	4,757	2,106	744	1,364	715	81	518	339	125	0
Ghotki	4,087	915	110	1,067	759	473	198	89	0	0
Hyderabad	1,312	2,488	2,766	232	427	90	102	88	3	285
Jacobabad	1,582	729	1,383	563	307	302	206	102	28	0
Jamshoro	4,815	1,431	113	446	669	104	117	65	56	136
Kamber	3,961	1,520	0	347	830	60	224	109	20	0
Karachi Central	38	1,756	2,492	16	162	13	9	3	77	31
Karachi East	19	178	3	9	7	0	0	2	1	1
Karachi Keamari	8	461	262	17	3	0	0	1	1	1
Karachi Korangi	162	331	73	0	32	8	16	12	1	48
Karachi Malir	55	767	3,229	244	102	2	18	22	8	14
Karachi South	17	63	0	0	0	0	0	0	0	5
Karachi West	336	905	1,132	292	75	23	62	14	26	0
Kashmore	2,073	227	767	142	135	10	102	29	0	0
Khairpur	6,807	2,987	7,805	1,711	1,479	172	326	320	209	1
Larkana	6,479	1,507	0	346	960	25	44	279	5	0
Matlari	3,103	1,279	52	301	923	114	101	58	2	33
Mirpurkhas	3,254	1,768	5,550	507	879	19	108	77	4	0
Naushero Feroze	2,375	1,516	872	953	449	114	227	341	45	0
Sanghar	4,695	1,622	147	666	1,248	1,113	228	63	34	0
Shaheed Benazirabad	3,110	1,309	4	312	368	94	139	67	68	0
Shikarpur	3,338	993	10	163	293	214	238	145	6	0
Sujawal	1,280	1,787	11	161	149	0	78	134	9	0
Sukkur	3,314	1,220	2,299	1,885	479	42	82	127	3	0
Tando Allahyar	2,428	739	1,918	223	498	132	46	73	7	3
Tando Muhammad Khan	967	813	150	282	593	93	107	91	1	2
Tharparkar	2,819	2,096	1,669	792	488	29	3	98	13	239
Thatta	564	636	316	618	0	0	0	20	0	0
Umerkot	2,328	1,350	11	542	279	8	0	85	53	1
Total	73,287	37,453	37,189	14,795	14,294	3,635	3,424	3,022	862	804

Figure 2: Most frequently reported suspected cases during week 48, Sindh.

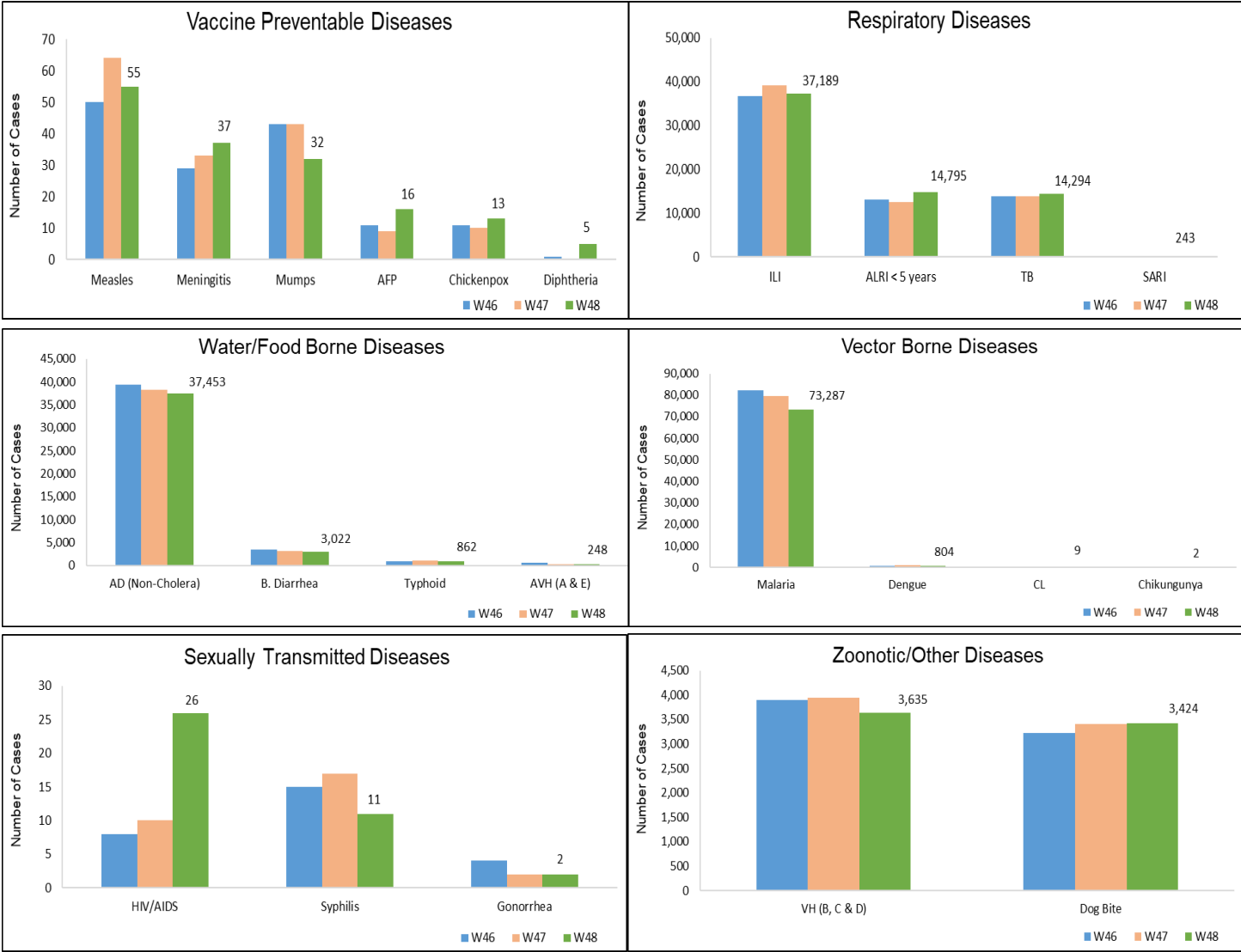
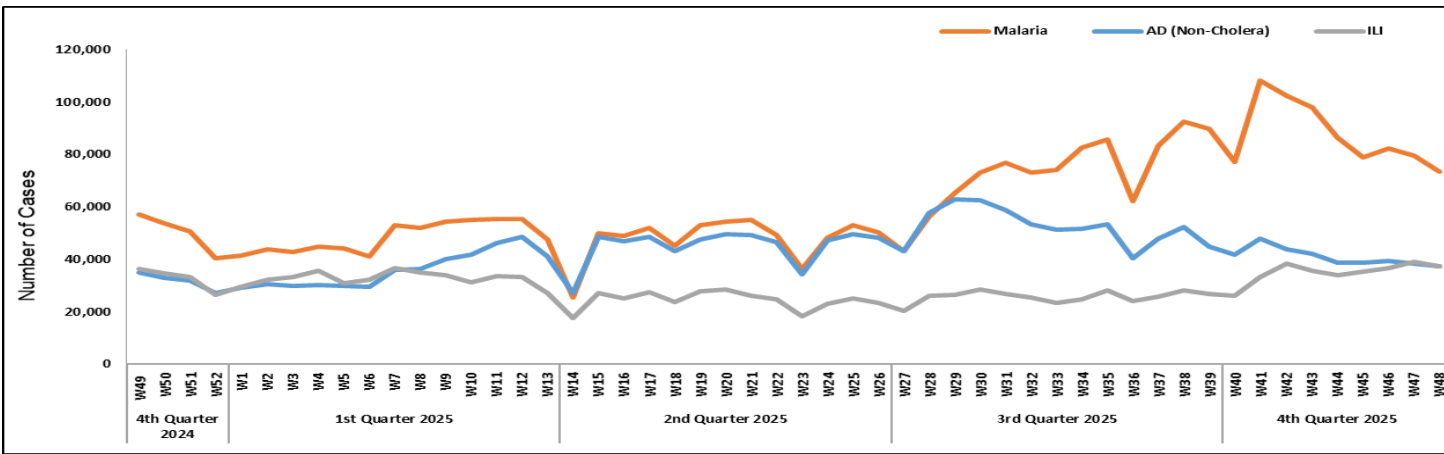


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh.



- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, SARI, B. Diarrhea, dog bite, Typhoid, 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 Quetta and while ILI cases are mostly reported from Kharan, Pishin and Loralai.
- Measles, Mumps, SARI, dog bite and CL showed an increase in number of cases this week while Rubella, Pertussis, Chickenpox. ILI, ALRI <5 years, TB, AD (Non- Cholera), B. Diarrhea, AWD (S. Cholera), Malaria and VH (B, C & D) showed decline in cases.

Table 3: District wise distribution of most frequently reported suspected cases during week 48, Balochistan.

Districts	ILI	AD (Non-Cholera)	Malaria	ALRI < 5 years	SARI	B. Diarrhea	Dog Bite	Typhoid	CL	TB
Awaran	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barkhan	56	79	52	5	0	8	12	20	0	0
Chagai	430	146	38	0	0	39	1	6	0	0
Chaman	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Dera Bugti	0	7	12	11	0	0	0	0	0	0
Duki	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Gwadar	22	15	6	2	0	7	4	4	0	0
Harnai	0	247	89	258	0	88	2	0	2	0
Hub	159	106	187	35	0	10	1	0	1	1
Jaffarabad	189	346	717	45	43	27	33	5	32	73
Jhal Magsi	155	146	239	6	0	0	1	1	0	0
Kachhi (Bolan)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Kalat	0	5	4	13	0	3	0	5	1	0
Kech (Turbat)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Kharan	753	156	25	0	78	57	0	4	0	0
Khuzdar	27	37	27	2	9	6	0	18	0	0
Killa Abdullah	262	158	10	26	104	55	11	19	6	0
Killa Saifullah	0	273	193	405	53	94	6	26	5	4
Kohlu	78	23	13	3	NR	9	NR	1	NR	1
Lasbella	109	299	563	131	0	5	27	4	8	5
Loralai	538	247	17	58	96	43	0	23	1	0
Mastung	380	140	26	90	52	12	4	4	0	0
MusaKhel	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naseerabad	14	303	230	63	54	14	144	40	5	10
Nushki	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Panjgur	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pishin	707	260	3	202	91	102	5	10	12	0
Quetta	527	329	10	45	14	14	0	28	0	0
Sherani	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sibi	386	74	26	164	131	10	0	3	2	9
Sohbat pur	7	173	136	121	11	53	0	21	0	0
Surab	69	20	0	0	0	0	0	0	0	0
Usta Muhammad	303	502	148	260	7	64	28	7	0	1
Washuk	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zhob	35	22	7	17	26	2	0	2	0	1
Ziarat	160	41	21	87	6	19	4	7	36	1
Total	5,366	4,154	2,799	2,049	775	741	283	258	111	106

Figure 4: Most frequently reported suspected cases during week 48, Balochistan.

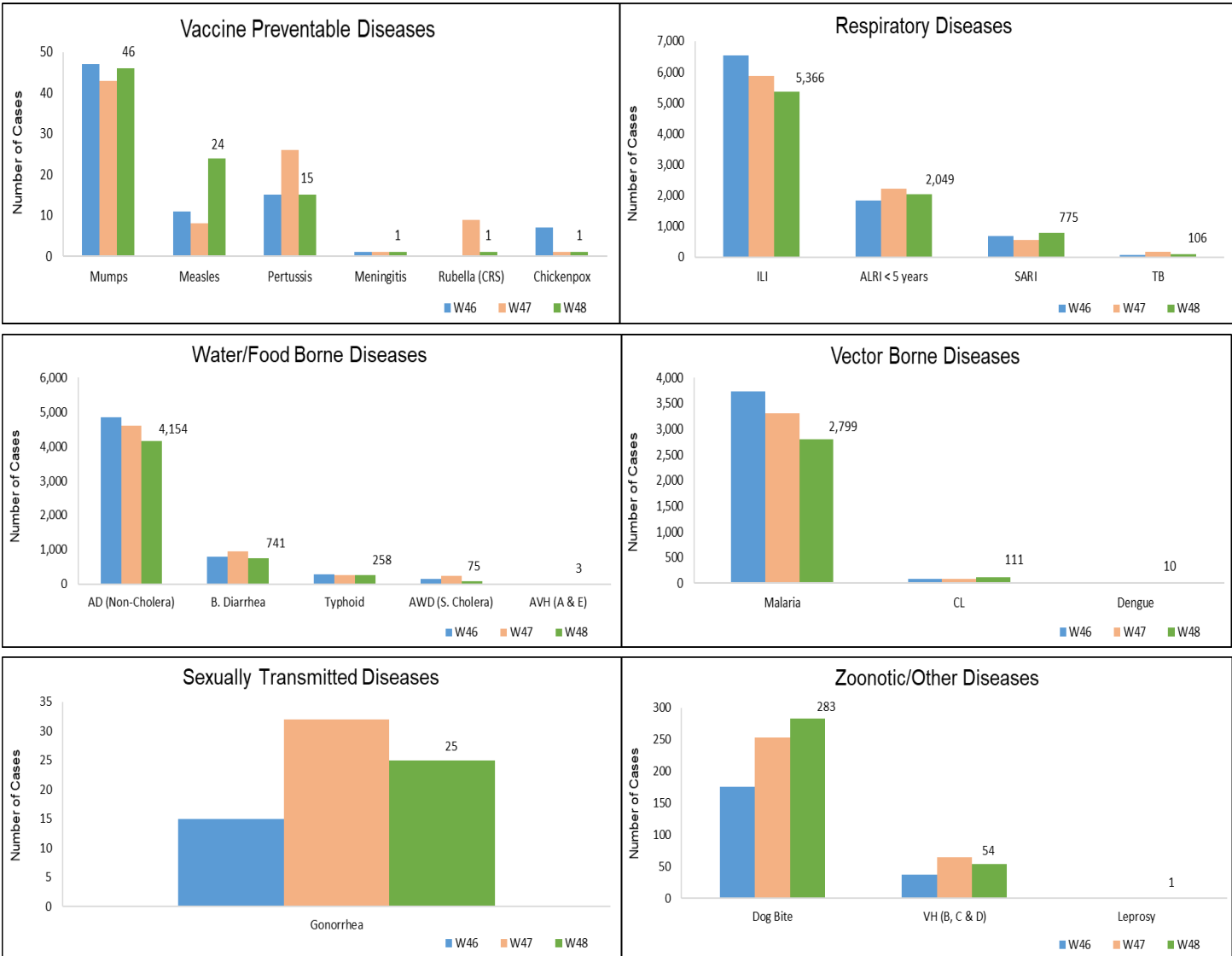
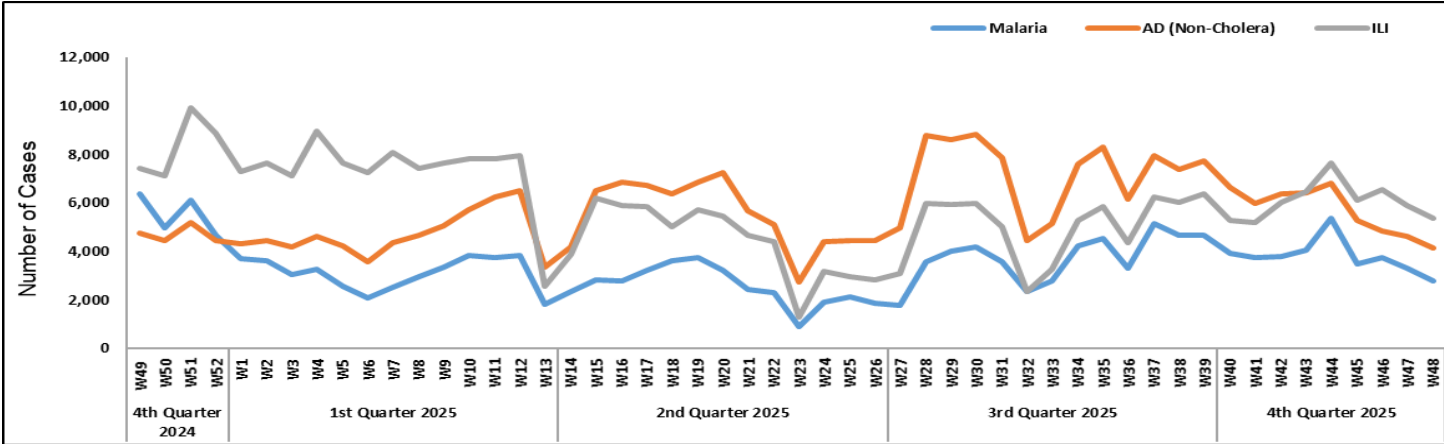


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan.



- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, dog bite, Typhoid, B. Diarrhea, SARI, CL and Measles
- Chickenpox, Meningitis, AFP, NT, Diphtheria, ALRI<5years, Typhoid, dog bite, HIV/AIDS and Leprosy cases showed an increase in number this week while Mumps, ILI, SARI, AD (Non-Cholera), Malaria, Dengue showed a decline in number this week.
- Twenty-six 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.

Table 4: District wise distribution of most frequently reported suspected cases during week 48, KP.

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI < 5 years	Dog Bite	Typhoid	B. Diarrhea	SARI	CL	Measles
Abbottabad	577	490	0	42	63	30	2	5	0	4
Bajaur	565	68	102	15	104	5	41	94	19	17
Bannu	770	0	1,278	36	0	98	8	0	0	29
Battagram	194	760	17	NR	12	NR	NR	NR	NR	NR
Buner	69	0	70	0	0	1	0	0	0	0
Charsadda	1,550	2,972	266	372	20	146	132	3	0	35
Chitral Lower	430	165	15	29	16	10	10	32	7	0
Chitral Upper	125	39	2	15	1	9	4	11	3	2
D.I. Khan	2,004	0	538	28	14	0	38	0	0	14
Dir Lower	1,213	0	72	11	52	31	61	0	1	8
Dir Upper	667	103	11	47	8	5	4	0	0	4
Hangu	218	32	99	0	16	4	2	0	27	0
Haripur	714	673	10	61	12	45	12	15	0	0
Karak	342	76	236	52	20	4	15	0	131	36
Khyber	353	81	253	68	47	96	65	17	63	0
Kohat	526	4	108	15	28	6	12	0	7	0
Kohistan Lower	125	0	1	10	4	0	6	0	0	8
Kohistan Upper	307	15	8	1	2	8	9	0	8	2
Kolai Palas	55	0	1	2	0	0	0	0	0	0
L & C Kurram	30	14	7	6	1	2	11	3	0	1
Lakki Marwat	515	47	363	17	63	14	2	0	0	0
Malakand	449	78	28	32	0	3	0	30	7	9
Mansehra	727	113	0	0	0	2	2	0	0	0
Mardan	770	84	57	205	17	48	24	6	2	16
Mohmand	83	135	118	1	13	2	7	220	47	1
North Waziristan	64	8	81	35	0	26	0	0	0	9
Nowshera	1,295	93	200	26	13	15	14	29	7	8
Orakzai	65	14	5	0	1	0	9	0	0	0
Peshawar	3,139	677	22	150	3	39	31	7	0	36
Shangla	582	0	158	35	66	40	2	0	2	7
South Waziristan (Lower)	78	131	56	38	16	10	1	87	10	3
SWU	47	1	20	14	0	3	1	47	8	0
Swabi	782	590	73	72	93	50	8	19	0	13
Swat	1,650	650	29	117	119	35	86	0	0	21
Tank	470	53	199	6	1	0	9	0	0	0
Tor Ghar	41	20	39	11	8	4	11	0	8	4
Upper Kurram	166	131	19	19	10	16	42	46	0	2
Total	21,757	8,317	4,561	1,588	843	807	681	671	357	289

Figure 6: Most frequently reported suspected cases during week 48, KP.

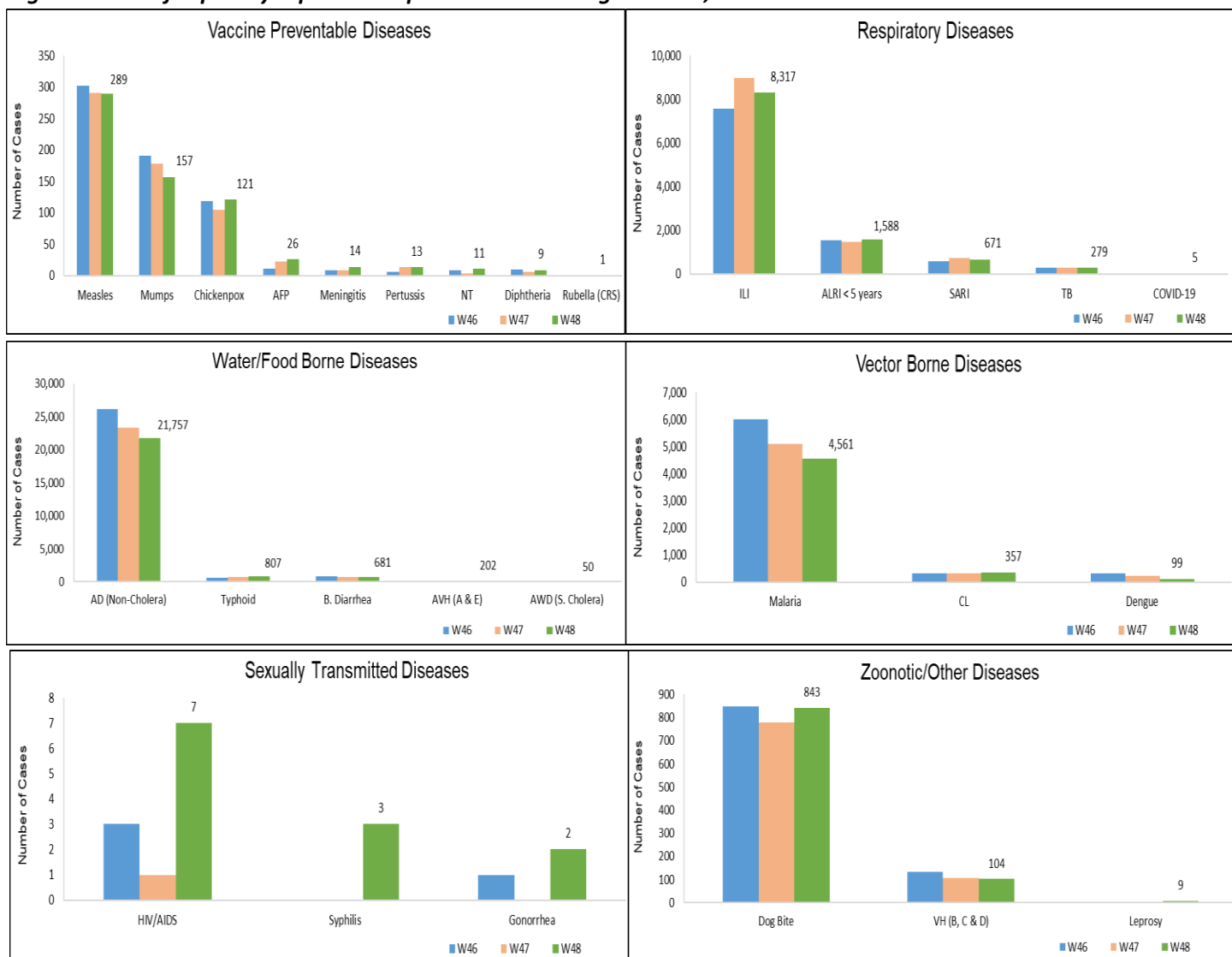
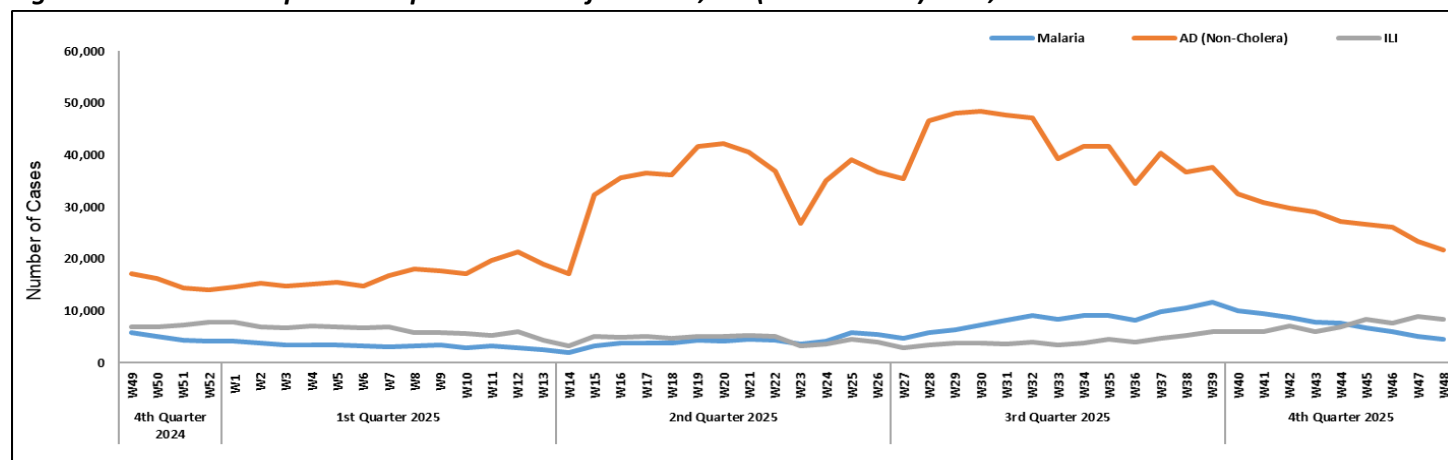


Figure 7: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, KP.



ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and ALRI<5years. ILI cases showed an increase this week.

AJK: ILI cases were maximum followed by ALRI < 5years, AD (Non-Cholera), SARI, TB, dog bite, B. Diarrhea, Typhoid, AVH (A&E), Dengue, Chicken pox and AWD (S. Cholera) cases. An increase in number of suspected cases was observed for Chickenpox, Mumps, Meningitis, Diphtheria, ILI, Diphtheria, Typhoid, SARI and HIV/AIDS while there is decline in number of cases of Measles, AFP, ALRI <5 years, AD (non-cholera), Dengue, Malaria, dog bite, VH (B, C & D)

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

Figure 8: Most frequently reported suspected cases during week 48, AJK.

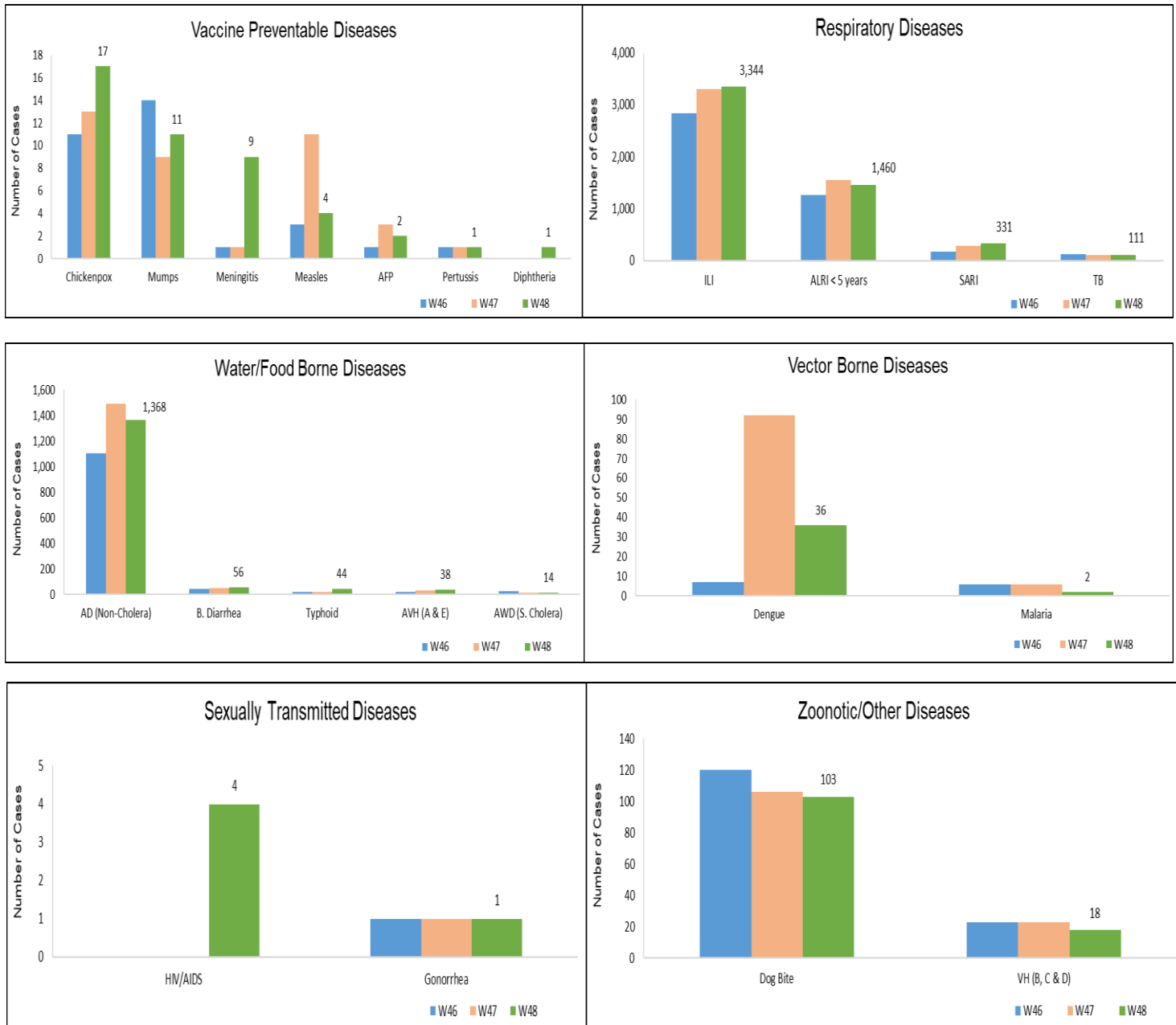


Figure 9: Week wise reported suspected cases of ILI and ALRI < 5 years, AJK

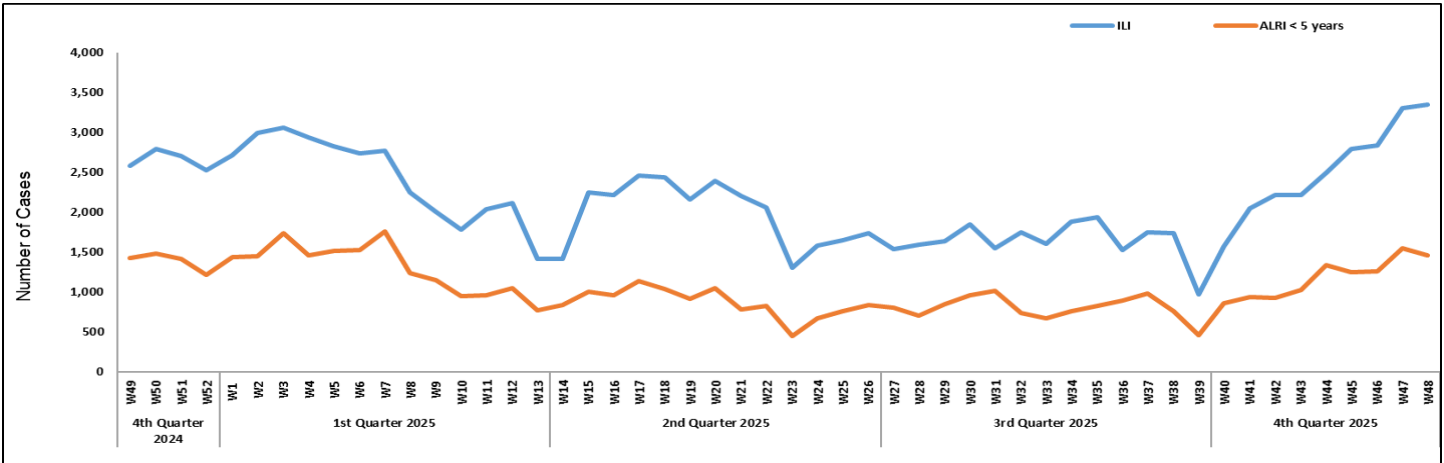


Figure 10: Most frequently reported suspected cases during week 48, ICT.

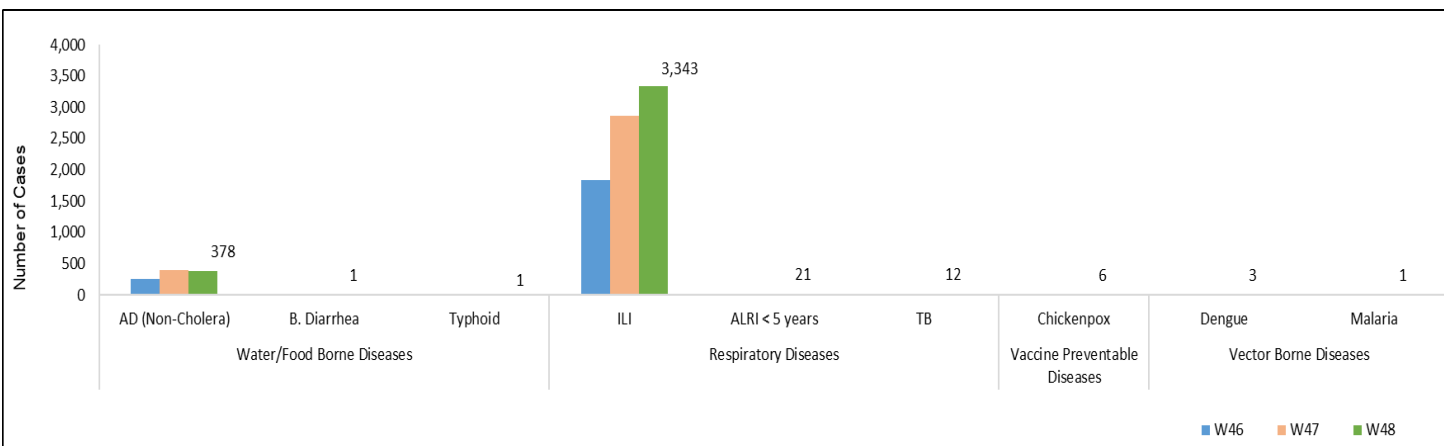


Figure 11: Week wise reported suspected cases of ILI, ICT.

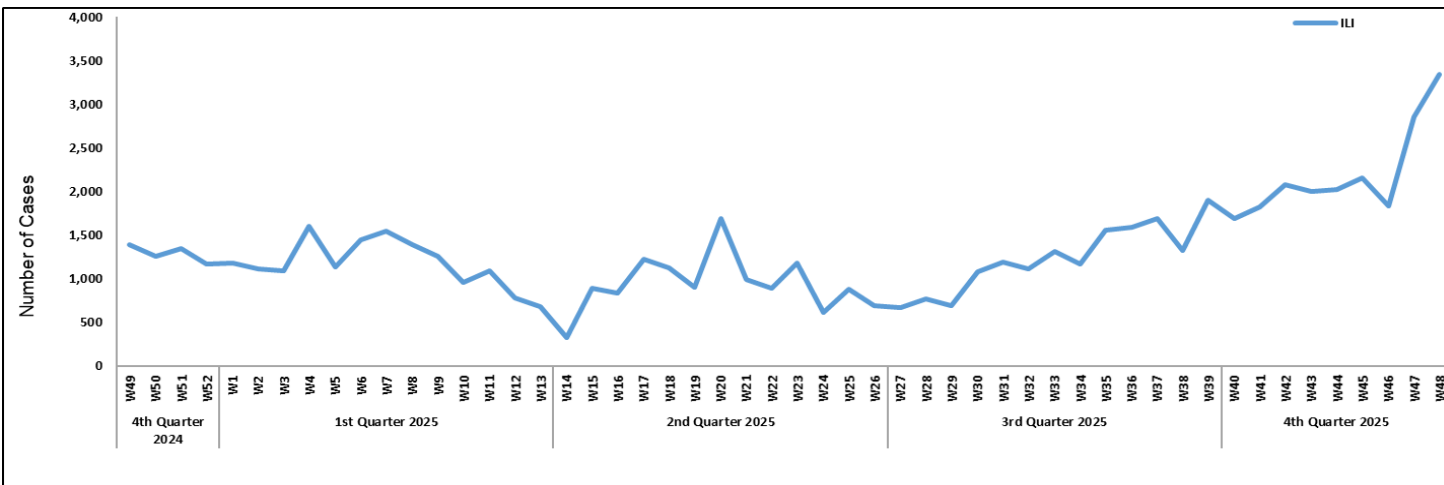


Figure 12: Most frequently reported suspected cases during week 48, GB.

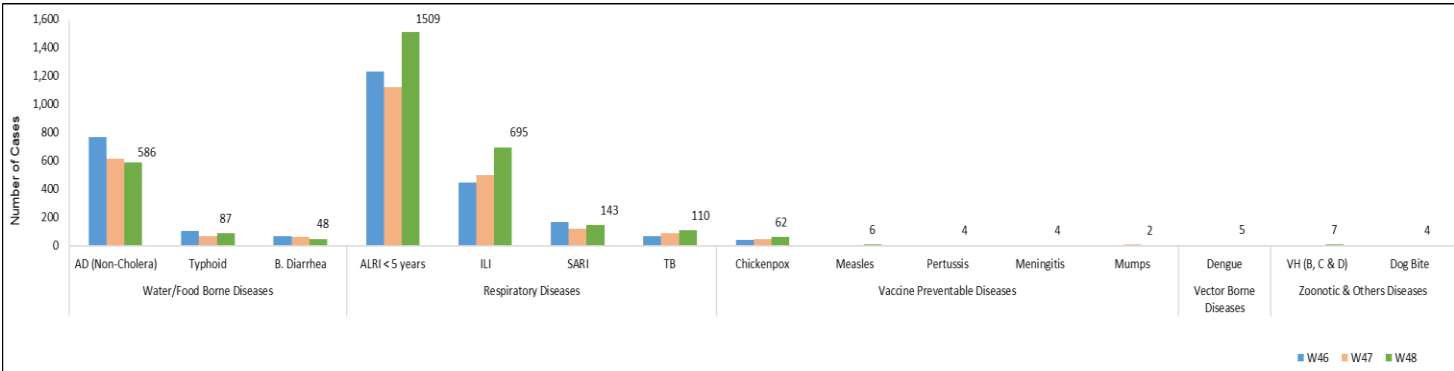


Figure 13: Week wise reported suspected cases of ALRI < 5 years, GB.

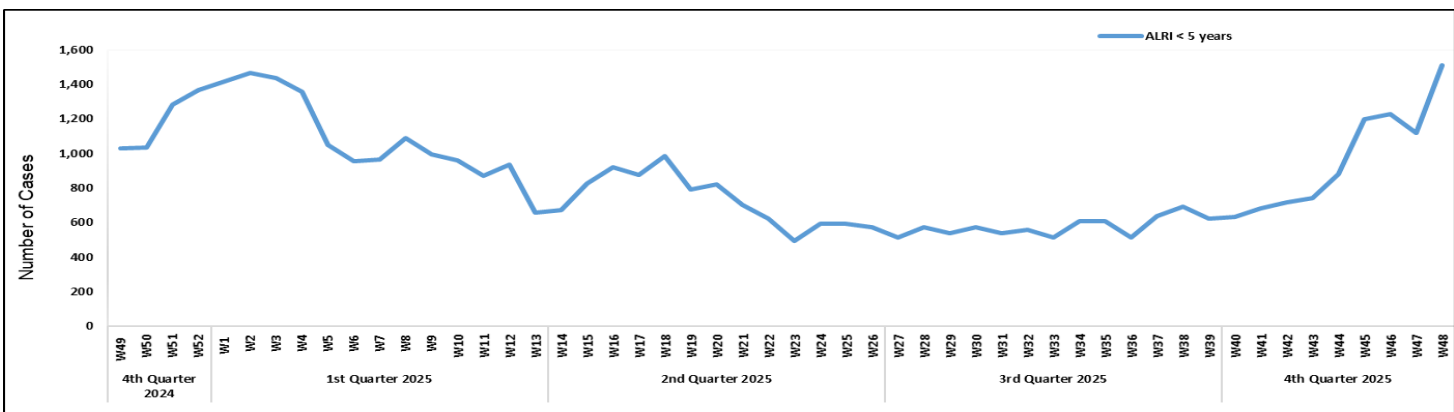


Table 5: Public health laboratories confirmed cases of IDSR priority diseases during Epi-week 48.

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)	29	0	-	-	-	-	-	-	1	0	-	-	-	-
Stool culture & Sensitivity	176	3	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	14,269	673	-	-	2,397	31	-	-	86	0	-	-	17	1
CCHF	1	1	-	-	-	-	-	-	-	-	-	-	-	-
Dengue	8,564	947	-	-	1,252	9	-	-	-	-	-	-	97	4
VH (B)	-	-	-	-	115	5	-	-	893	7	-	-	306	6
VH (C)	-	-	-	-	180	21	-	-	947	3	-	-	305	12
VH (D)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VH (A)	-	-	-	-	-	-	-	-	3	0	-	-	-	-
VH (E)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Covid-19	8	0	-	-	25	0	-	-	-	-	-	-	10	0
TB	-	-	-	-	-	-	-	-	35	0	-	-	84	9
HIV/ AIDS	3,853	87	-	-	354	0	-	-	225	1	-	-	309	1
Syphilis	-	-	-	-	4	0	-	-	89	0	-	-	-	-
Typhoid	-	-	-	-	-	-	-	-	141	14	-	-	-	-
Diphtheria	7	2	-	-	-	-	-	-	-	-	-	-	-	-
ILI	31	15	-	-	25	0	-	-	-	-	-	-	10	0
Pneumonia (ALRI)	260	36	-	-	-	-	-	-	-	-	-	-	-	-
Meningitis	12	0	-	-	-	-	-	-	-	-	-	-	-	-
Measles	159	77	40	26	164	78	40	24	3	1	468	81	29	7
Rubella (CRS)	5	3	-	-	-	-	-	-	-	-	-	-	-	-
Leishmaniosis (cutaneous)	14	0	-	-	5	0	-	-	-	-	-	-	-	-
Chikungunya	2	1	-	-	-	-	-	-	-	-	-	-	-	-
Chickenpox	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gonorrhea	110	0	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mpox	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Leishmaniosis (Visceral)	0	0	-	-	-	-	-	-	-	-	-	-	-	-



IDSR Reports Compliance

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

Table 6: Compliance of IDSR reporting districts week 48.

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	101	91%
	Bannu	238	127	53%
	Battagram	59	28	47%
	Buner	34	12	35%
	Bajaur	44	40	91%
	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	31	84%
	Hangu	22	18	82%
	Haripur	72	65	90%
	Karak	36	36	100%
	Khyber	53	47	89%
	Kohat	61	61	100%
	Kohistan Lower	11	10	91%
	Kohistan Upper	20	10	50%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	68	97%
	Lower & Central Kurram	42	8	19%
	Upper Kurram	41	33	80%
	Malakand	42	22	52%
	Mansehra	133	116	87%
	Mardan	80	66	83%
	Nowshera	56	53	95%
	North Waziristan	13	6	46%
	Peshawar	156	126	81%
	Shangla	37	32	86%
	Swabi	64	61	95%
	Swat	77	75	97%
	South Waziristan (Upper)	93	38	41%
	South Waziristan (Lower)	42	28	67%
	Tank	34	31	91%
	Torghar	14	13	93%
	Mohmand	68	17	25%
	Orakzai	69	13	19%
Azad Jammu Kashmir	Mirpur	37	37	100%
	Bhimber	92	74	80%
	Kotli	60	60	100%
	Muzaffarabad	45	37	82%
	Poonch	46	46	100%
	Haveli	39	39	100%
	Bagh	54	31	57%
	Neelum	39	27	69%



	Jhelum Valley	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	23	23	100%
	CDA	15	5	33%
Balochistan	Gwadar	26	1	4%
	Kech	44	0	0%
	Khuzdar	74	6	8%
	Killa Abdullah	26	26	100%
	Lasbella	55	55	100%
	Pishin	69	31	45%
	Quetta	55	17	31%
	Sibi	36	21	58%
	Zhob	39	8	21%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	0	0%
	Kohlu	75	6	8%
	Chagi	36	23	64%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	0	0%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	10	31%
	Mastung	46	43	93%
	Loralai	33	25	76%
	Killa Saifullah	28	25	89%
	Ziarat	29	12	41%
	Duki	31	0	0%
	Nushki	32	0	0%
	Dera Bugti	45	6	13%
	Washuk	46	0	0%
	Panjgur	38	0	0%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	19	95%
	Hub	33	21	64%
	Musakhel	41	0	0%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	38	38	100%
	Gilgit	44	44	100%
	Diamer	62	48	77%
	Astore	55	55	100%
	Shigar	27	24	89%
	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	101	94%
	Tharparkar	276	263	95%
	Shikarpur	60	59	98%
	Thatta	52	44	85%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	21	13	62%
	Karachi-West	20	20	100%
	Karachi-Malir	35	23	66%
	Karachi-Kemari	22	21	95%
	Karachi-Central	12	11	92%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	4	67%
	Sujawal	55	53	96%
	Mirpur Khas	106	102	96%
	Badin	124	123	99%
	Sukkur	64	63	98%
	Dadu	90	79	88%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	170	168	99%
	Kashmore	59	59	100%
	Matari	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: Compliance of IDSR reporting tertiary care hospitals week 48.

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	0	0%
	Jhelum Vellay	1	1	100%
	Sudhnooti	1	1	100%
Sindh	Karachi-South	3	2	67%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%
	Karachi-East	1	1	100%
	Karachi-Central	1	1	100%
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%

Letter to Editor

H3N2 Influenza - A Season of Vigilance and Public Health Progress

Dear Editor,

Seasonal influenza remains a perennial public health challenge. As the northern hemisphere enters the peak of its 2025–26 season, influenza activity has risen earlier and more robustly in many regions than usual, driven predominantly by influenza A(H3N2) viruses, including the emergent subclade K variant now circulating widely in Europe, North America, and Asia. Continued surveillance by international health agencies confirms that this pattern reflects the expected evolutionary dynamics of flu viruses rather than a fundamentally new pathogen, underscoring the value of sustained global monitoring and response coordination.

In Pakistan, media reports from Karachi and other urban centres describe a marked increase in influenza cases associated with the H3N2 strain, with clinicians noting higher transmission rates and typical influenza symptoms among vulnerable groups such as children, older adults, and pregnant women. This aligns with global patterns in which influenza A(H3N2) has become a dominant subtype in recent weeks, reflecting both viral drift and seasonal epidemiology.

Despite sensational terminology circulating in some media, public health authorities emphasize that the H3N2 subclade K variant represents the ongoing antigenic drift that characterizes seasonal influenza viruses. There is no evidence that this strain causes fundamentally more severe disease than past H3N2 seasons, but its higher transmissibility particularly in a period of lower population immunity warrants careful public health action rather than alarm.

Pakistan's public health infrastructure is well positioned to respond. Routine influenza

surveillance systems remain operational, hospitals and clinics are diagnosing and managing cases according to standard clinical protocols, and health professionals continue to advocate vaccination for high-risk populations. These efforts build upon decades of investment in respiratory virus surveillance and immunization delivery, demonstrating the resilience of the national health system when faced with seasonal respiratory threats.

At the same time, the global experience with H3N2 reinforces the importance of sustained immunization activities. Influenza vaccines even when antigenic match is partial, continue to provide meaningful protection against severe outcomes and hospitalizations. Observational data from current seasons show that vaccinated individuals are less likely to suffer severe disease.

The situation also highlights the critical role of ongoing surveillance and data sharing. World Health Organization reports indicate an increasing proportion of influenza A(H3N2) viruses in genetic surveillance databases and clinical guidance for the 2025–26 season. These data streams allow health authorities in Pakistan and internationally to calibrate their response based on real-time epidemiological trends.

In sum, while influenza activity is elevated and the H3N2 subclade K virus is widespread, the response framework already in place grounded in surveillance, vaccination, clinical management, and public communication, remains fit for purpose. Continued vigilance, timely vaccination of at-risk groups, and adherence to established infection prevention measures will sustain progress and mitigate the burden of influenza in the months ahead. In the interplay between a mutable virus and a prepared public health system, measured science and coordinated action will continue to guide the way.

Dr. Shafiq ur Rehman

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Notes from the field:

Outbreak Investigation Of Diphtheria In Swabi District, Khyber Pakhtunkhwa, Pakistan, July, 2025

Introduction

Diphtheria is an acute, toxin-mediated bacterial disease caused by *Corynebacterium diphtheriae* and is preventable through effective immunization. Globally, the burden of diphtheria has declined markedly following the introduction of diphtheria–tetanus–pertussis (DTP) vaccines; however, outbreaks continue to occur in low- and middle-income countries with gaps in routine immunization coverage. According to the World Health Organization, sporadic resurgences are increasingly reported from regions affected by weak health systems, population movement, and vaccine hesitancy. In the South-East Asia Region, diphtheria remains endemic with periodic outbreaks reported from India, Bangladesh, and Pakistan. In Pakistan, suboptimal routine immunization coverage, reliance on informal healthcare providers, and delayed care-seeking contribute to ongoing transmission risks. In July 2025, a laboratory-confirmed case of diphtheria was reported from Swabi District, Khyber Pakhtunkhwa, prompting an outbreak investigation.

Objectives

The objectives of this investigation were to

- Describe the magnitude and geographic distribution of the outbreak



- Assess demographic characteristics including age and gender affected, and identify potential risk factors
- Recommend measures to contain the outbreak and prevent future occurrences

Methods

A field-based cross-sectional outbreak investigation was conducted by the Provincial Disease Surveillance & Response Unit (PDSRU) in collaboration with the District Health Office (DHO), Swabi. The study population included the laboratory-confirmed index case and all identified household and close community contacts residing in affected areas. The investigation was carried out in Khalabat village, Swabi District, and Saleem Khan village, where the index case had resided prior to symptom onset. The investigation was conducted in July 2025 following notification of the confirmed case.

A probable case was defined as “any person with a close contact with laboratory-confirmed diphtheria case and presenting with compatible clinical symptoms such as sore throat, fever, neck swelling, or pseudomembrane, in the absence of laboratory confirmation” and a confirmed case was “any person with a lab confirmed diphtheria case”. Data were collected using a structured field investigation checklist capturing demographic information, clinical symptoms, vaccination history, exposure history, and care-seeking behavior. Active case finding and contact tracing were conducted through door-to-door visits, while hospital record review was undertaken for the index case. Throat swab sample of the index case were taken and sent to a referral laboratory for confirmation of *Corynebacterium diphtheriae*. Data were compiled and analyzed descriptively to summarize case counts, demographic characteristics, geographic distribution, clinical presentation, and vaccination status.

Results

A total of one laboratory-confirmed case of diphtheria was identified during the investigation. The index case was a 12-year-old male from Khalabat village, Swabi District. The

patient presented with severe sore throat, fever, and neck swelling and had initially received treatment from an untrained local dispenser before referral to a tertiary care facility, where diphtheria was confirmed. No deaths were reported.

Active case finding was conducted in 60 households across Khalabat and Saleem Khan villages. No secondary laboratory-confirmed or probable cases meeting the case definition were identified. A small number of individuals reported mild upper respiratory symptoms, including sore throat, but none exhibited classical signs of diphtheria such as pseudomembrane formation, fever, or cervical lymphadenopathy. There was no evidence of ongoing transmission in the community. Vaccination history of children during active case search revealed gaps in routine immunization, particularly incomplete DTP vaccination and missing booster doses, more pronounced in Saleem Khan village. The male-to-female ratio among symptomatic contacts could not be meaningfully assessed due to the absence of confirmed or probable secondary cases. No additional laboratory-positive samples were detected beyond the index case.

Discussion

This investigation documents a limited diphtheria outbreak characterized by a single confirmed case with no secondary transmission, reflecting timely detection and rapid public health response. The occurrence of diphtheria in an under-immunized child highlights persistent immunization gaps in rural Pakistan despite the availability of effective vaccines. Similar outbreaks reported in the region emphasize that even isolated cases pose a risk of wider transmission if surveillance and response are delayed.

The absence of secondary cases may be attributed to prompt contact tracing, administration of prophylactic antibiotics, and provision of DTP booster doses in affected communities. However, the investigation identified critical vulnerabilities, including reliance on informal healthcare providers who



lack training in recognizing vaccine-preventable diseases, and community hesitancy in sharing vaccination information. Geographic dispersion between Khalabat and Saleem Khan villages further complicated field operations and underscores the need for strong district-level preparedness.

Strengthening routine immunization coverage, particularly booster doses in older children and adolescents, remains central to diphtheria control. The findings reinforce the importance of integrated surveillance systems and community engagement to ensure early detection and interruption of transmission.

Conclusion

The diphtheria outbreak in Swabi District was limited to a single confirmed case with no secondary transmission, reflecting effective outbreak response measures. Nevertheless, the event underscores the continued risk of diphtheria in settings with immunization gaps and delayed care-seeking. Sustained vigilance is required to prevent re-emergence and larger outbreaks.

Recommendations

- Strengthen routine surveillance and rapid response mechanisms for vaccine-preventable diseases.
- Strengthen routine immunization services with emphasis on complete DTP schedules and booster doses.
- Conduct targeted catch-up vaccination campaigns in underserved and high-risk communities.
- Improve training and regulation of informal healthcare providers to ensure early recognition and referral of suspected diphtheria cases.
- Enhance community awareness on the importance of vaccination and early healthcare seeking for respiratory illnesses.

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Knowledge Hub

Influenza-Like Illness (ILI): What You Need to Know

Influenza-Like Illness (ILI) is a medical term used to describe a set of symptoms that mimic the flu but may be caused by a variety of different respiratory viruses. Public health agencies track ILI cases to monitor the spread of respiratory diseases in the community, even before specific laboratory results are available.

What is ILI?

ILI is defined by a specific cluster of symptoms rather than a single confirmed germ. According to the CDC and WHO, a case of ILI typically includes:

1. **Fever**
2. **Cough and/or a sore throat.**

Common Causes of ILI

While the **influenza virus** is a major cause, many other pathogens can trigger ILI symptoms:

- **Respiratory Syncytial Virus (RSV):** Common in children and the elderly.
- **SARS-CoV-2:** The virus that causes COVID-19.
- **Rhinoviruses and Enteroviruses:** Typical causes of the "common cold."
- **Adenoviruses:** Can cause respiratory and eye infections.



- **Parainfluenza viruses:** Often associated with croup in children.

How It Spreads

Most viruses that cause ILI are highly contagious and spread through **respiratory droplets**:

- **Inhalation:** Droplets are expelled when an infected person coughs, sneezes, or talks and are breathed in by others nearby.
- **Surface Contact:** Touching a surface (like a doorknob or phone) contaminated with the virus and then touching your own mouth, nose, or eyes.
- **Close Proximity:** Spending time in crowded or poorly ventilated indoor spaces.

Signs & Symptoms

ILI symptoms usually appear suddenly. While they overlap with the common cold, ILI is generally more severe and more likely to include

- Fever
- Body aches
- Fatigue
- Cough
- Stuffy nose

Complications

Most people recover from ILI within one to two weeks. However, some groups are at higher risk for complications:

- **Pneumonia:** A serious lung infection that can be viral or bacterial.
- **Worsening of Chronic Conditions:** Such as congestive heart failure, asthma, or diabetes.
- **Secondary Infections:** Bacterial infections of the ears or sinuses.
- **Hospitalization:** Especially in infants, adults over 65 and the immunocompromised.

Prevention

- **Vaccination:** The most effective way to prevent the primary cause of ILI is the **annual Flu Vaccine**. Staying up to date on **COVID-19** and **RSV** vaccines is also recommended for eligible groups.

- **Hand Hygiene:** Frequent handwashing with soap and water for at least 20 seconds.
- **Respiratory Etiquette:** Covering coughs and sneezes with a tissue or the crook of your elbow.
- **Physical Distancing:** Staying home when sick to prevent community spread.

Diagnosis and Treatment

- **Diagnosis:** Healthcare providers may use **Rapid Diagnostic Tests** (swabs) to determine if the ILI is caused by Influenza, COVID-19, or RSV. This is crucial for determining if specific antiviral medications are needed.
- **Treatment:**
 - **Supportive Care:** Most cases require rest, hydration (plenty of fluids), and over-the-counter fever reducers (e.g., acetaminophen or ibuprofen).
 - **Antivirals:** If influenza or COVID-19 is confirmed early, a doctor may prescribe antiviral drugs to shorten the duration of the illness and prevent complications.
 - **Antibiotics:** These are **not** effective against the viruses that cause ILI and are only used if a secondary bacterial infection develops.

More Information

For real-time tracking and clinical guidance on ILI, visit:

- **Centers for Disease Control and Prevention (CDC):** <https://www.cdc.gov/flu/weekly/index.htm>
- **World Health Organization (WHO):** <https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-surveillance-outputs>
- **UK Health Security Agency (UKHSA):** <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports>



Seasonal Flu موسمی فلو



موسمی فلو ایک قابل علاج بیماری ہے عام طور پر بزرگ چھوٹے بچے حاملہ خواتین، قوت مدافعت میں کمی اور دائمی بیماریوں کا شکار (کینسر، ذیابیطس، دل یا سانس کی شدید بیماریوں میں مبتلا مریض وغیرہ) کو اس بیماری سے جلد متاثر ہونے کا خطرہ ہے۔ اس بیماری کا وائرس کھلی فضا میں کھانسنے یا چھینکنے کی وجہ سے مریض کے ہاتھوں کے ذریعے ارد گرد کی جگہوں پر پھیل جاتا ہے اور جب کوئی صحت مند شخص وہاں سانس لیتا ہے یا متاثرہ چیزوں کو چھوتا ہے تو وائرس اس تک منتقل ہو جاتا ہے۔

استعمال کے فوراً بعد لٹو پیپ کو محفوظ طریقے سے ٹھکانے لگائیں۔		کھانسنے یا چھینکنے کے وقت منہ اور ناک کو کہنی سے ڈھانپ لیں۔	
فلو کی صورت میں ماسک کا استعمال کریں۔		اپنے ہاتھ صاف پانی اور صابن کے ساتھ اچھی طرح دھوئیں۔	
پیچیدگی کی صورت میں فوراً مستند معالج سے رابطہ کریں۔		فلو کی صورت میں گھر پر آرام کریں اور لوگوں سے کیل جول میں احتیاط کریں۔	

اس بیماری سے بچاؤ کے لیے معمول کی ویکسینیشن (Flu Vaccination) کر دینی جاسکتی ہے۔ خاص طور پر قوت مدافعت کی کمی کا شکار، حاملہ خواتین اور دائمی بیماری (ذیابیطس، دماغی، دل کے امراض، مریض، کینسر، وغیرہ) کے حاملین۔

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