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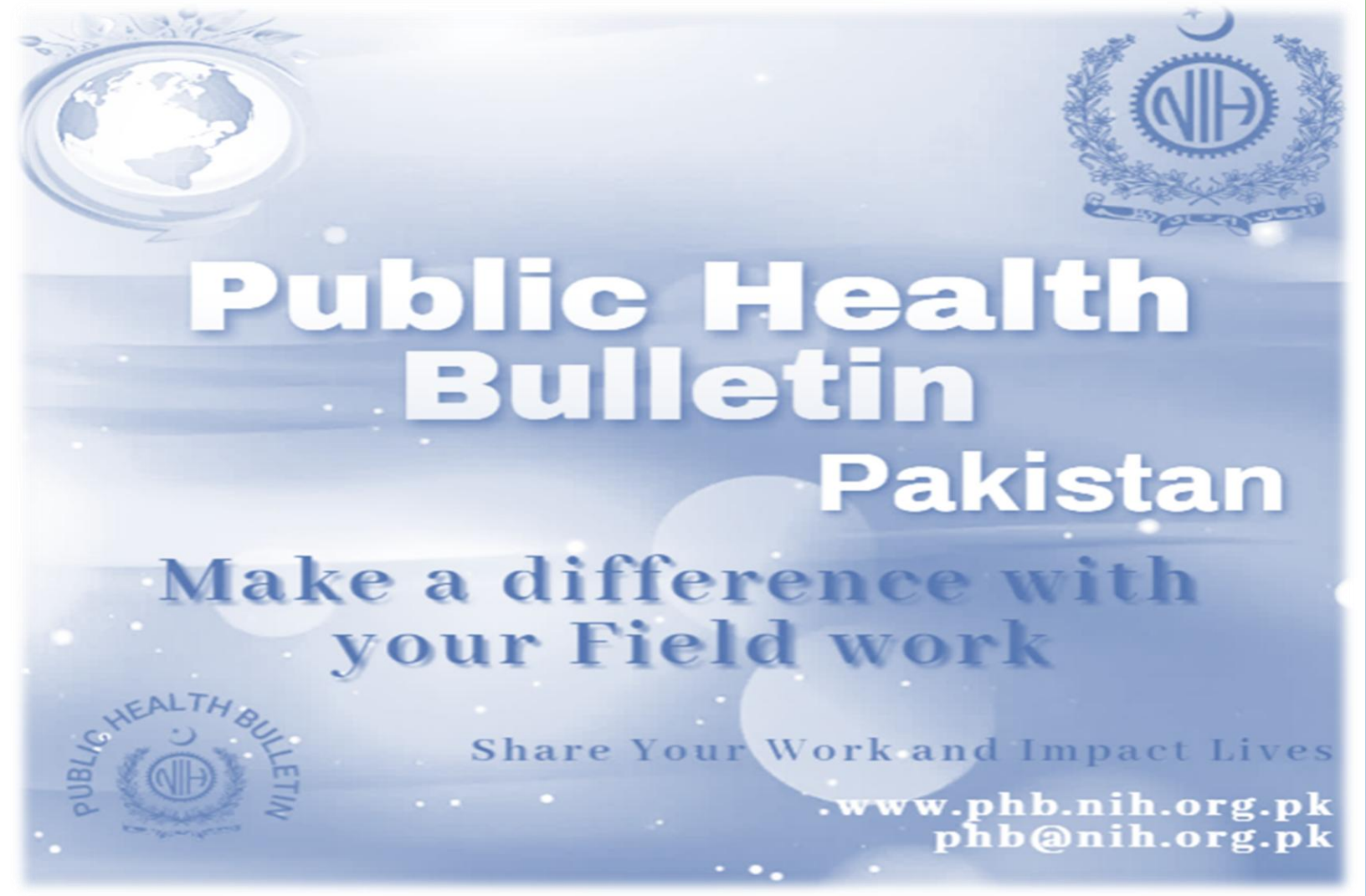
PUBLIC HEALTH BULLETIN-PAKISTAN

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 45, 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: Empowering Central Punjab in Infection Prevention and Control*
- *Chickenpox Outbreak Investigation Report*
- *Village Spalmay Waam, UC Mughal Kot, Tehsil Darazinda, District D.I. Khan, KP – August 2025*
- *Knowledge hub on Understanding: Acute Watery Diarrhea (AWD)*

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

Overview

Note: All reported cases in this report are suspected cases

- *During Week 45, the most frequently reported cases were of Malaria, followed by Acute Diarrhea (Non-Cholera), ILI, ALRI <5 years, TB, B. Diarrhea, VH (B, C & D), Dog Bite, Typhoid, Dengue and SARI.*
- *Twenty-five cases of AFP reported from KP, eleven from Sindh and three from AJK.*
- *Nine suspected cases of HIV/ AIDS reported from KP and seven from Sindh.*
- *Nine suspected cases of Chikungunya reported from Sindh.*
- *Among VPDs, there is an increase in number of cases of Measles, and NT this week.*
- *Among Respiratory diseases, there is an increase in number of cases of ILI this week.*
- *Among Water/food-borne diseases, there is a decrease in 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 a decrease in number of cases of Malaria, Dengue, CL and Chikungunya 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) and Dog Bite 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 70%*
- *Sindh is the top reporting region with a compliance rate of 95%, followed by GB 76%, ICT 74% and AJK 72%.*
- *The lowest compliance rate was observed in KP 57% and Balochistan 52%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2704	1542	57
Azad Jammu Kashmir	469	339	72
Islamabad Capital Territory	38	28	74
Balochistan	1308	676	52
Gilgit Baltistan	417	318	76
Sindh	2111	2013	95
National	7047	4900	70

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.

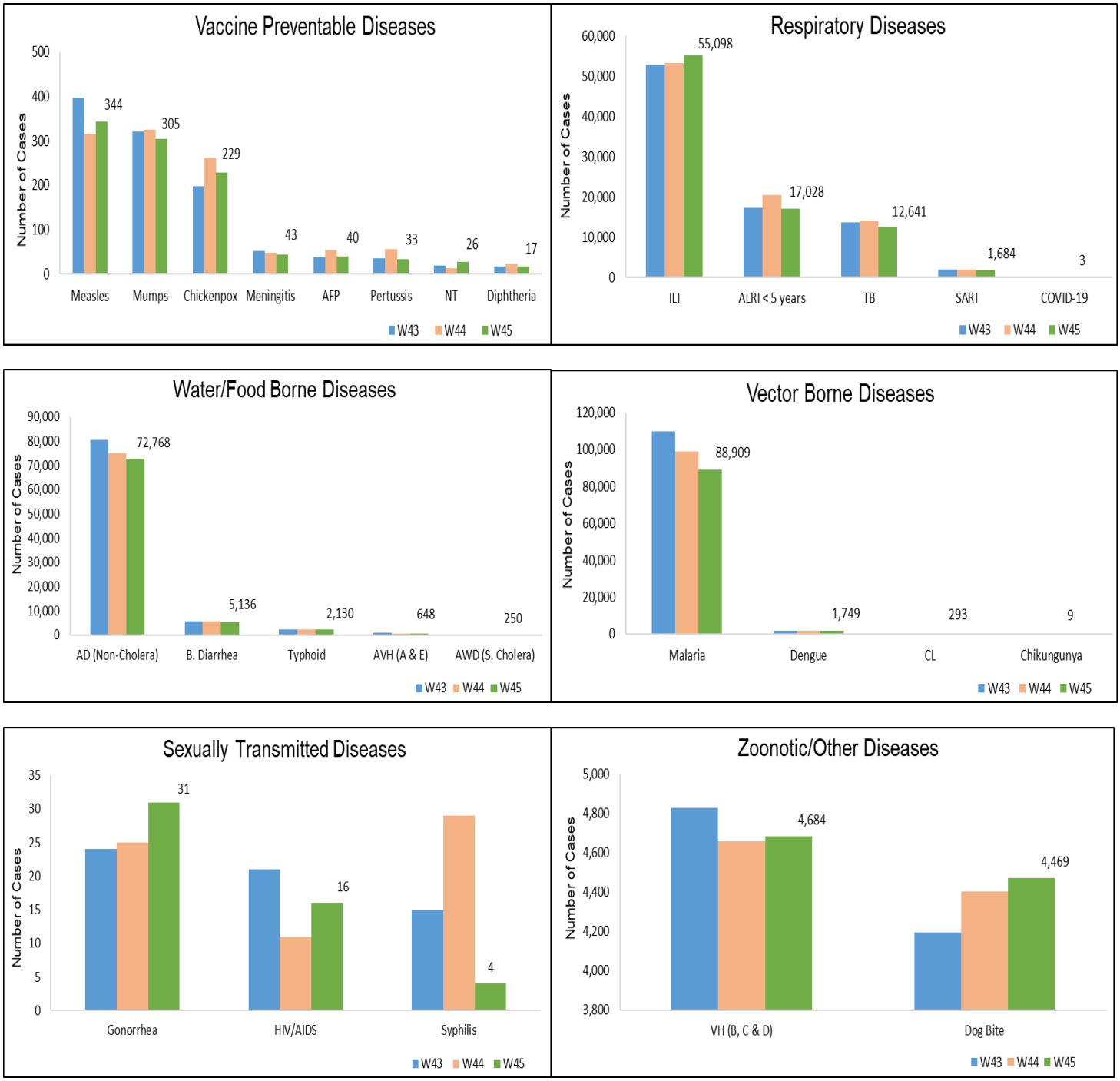
Acute Viral Hepatitis (A & E)

- **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 45, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
Malaria	5	3464	0	0	6751	NR	78689	88909
AD (non-cholera)	1290	5277	739	296	26596	NR	38570	72768
ILI	2793	6121	387	2157	8332	NR	35308	55098
ALRI < 5 years	1246	2023	1198	26	1375	NR	11160	17028
TB	72	65	84	9	316	NR	12095	12641
B. Diarrhea	35	1187	55	6	815	NR	3038	5136
VH (B, C & D)	20	32	2	0	135	NR	4495	4684
Dog Bite	81	247	1	0	919	NR	3221	4469
Typhoid	21	391	123	4	690	NR	901	2130
Dengue	183	4	29	0	591	NR	942	1749
SARI	305	476	190	0	630	NR	83	1684
AVH (A & E)	22	8	0	0	189	NR	429	648
Measles	10	21	6	0	256	NR	51	344
Mumps	10	39	0	0	216	NR	40	305
CL	1	3	0	0	289	NR	0	293
AWD (S.Cholera)	5	181	5	0	47	NR	12	250
Chickenpox/ Varicella	9	3	50	0	148	NR	19	229
Meningitis	9	1	2	0	7	NR	24	43
AFP	3	0	1	0	25	NR	11	40
Pertussis	0	19	4	0	10	NR	0	33
Gonorrhea	0	19	0	0	1	NR	11	31
NT	0	0	0	0	25	NR	1	26
Diphtheria (Probable)	0	1	0	0	11	NR	5	17
HIV/AIDS	0	0	0	0	9	NR	7	16
Chikungunya	0	0	0	0	0	NR	9	9
Syphilis	0	0	0	0	0	NR	4	4
COVID-19	0	0	0	0	3	NR	0	3

Figure 1: Most frequently reported suspected cases during Week 45, Pakistan.



Sindh

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

Table 2: District wise distribution of most frequently reported suspected cases during Week 45, Sindh

Districts	Malaria	AD (non-cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	Dog Bite	B. Diarrhea	Dengue	Typhoid
Badin	3660	2072	2654	758	442	418	110	224	0	161
Dadu	5490	1481	826	490	1400	57	583	361	0	137
Ghotki	3783	1097	55	582	740	535	157	99	0	0
Hyderabad	1665	2180	2711	401	188	127	63	63	363	4
Jacobabad	1537	694	1310	233	496	327	201	79	6	32
Jamshoro	5525	1528	113	671	461	175	122	107	105	55
Kamber	4446	1517	0	806	303	77	228	123	0	15
Karachi Central	59	1684	2224	169	71	21	28	1	42	86
Karachi East	34	192	3	6	8	0	1	4	3	0
Karachi Kemari	12	477	356	4	15	0	1	2	1	1
Karachi Korangi	155	363	43	29	3	0	0	9	57	3
Karachi Malir	61	936	3123	58	220	5	31	35	46	8
Karachi South	20	90	0	0	0	0	0	0	7	0
Karachi West	330	844	1115	68	286	20	64	19	0	31
Kashmore	2186	323	867	170	191	15	45	40	0	0
Khairpur	6221	2552	6439	1073	1120	163	233	287	8	141
Larkana	6437	1369	8	748	303	22	67	259	0	2
Matiari	3765	1194	9	687	247	140	59	53	62	10
Mirpurkhas	3392	2228	5016	692	613	27	183	223	4	7
Naushero Feroze	1752	1133	1535	337	481	57	168	141	0	31
Sanghar	6289	1972	99	1178	571	1249	221	54	16	25
Shaheed Benazirabad	3674	1603	2	350	297	49	104	113	0	92
Shikarpur	3112	1040	7	267	200	239	193	169	0	7
Sujawal	1023	1978	12	141	318	0	33	84	0	0
Sukkur	3353	1409	2237	451	212	46	98	141	0	2
Tando Allahyar	2463	831	1560	443	269	397	49	66	5	2
Tando Muhammad Khan	1146	997	116	576	182	94	95	87	6	0
Tharparkar	3115	1766	1265	412	670	27	3	77	194	13
Thatta	1792	1500	1591	35	407	180	81	30	10	14
Umerkot	2192	1520	12	260	446	28	0	88	7	22
Total	78689	38570	35308	12095	11160	4495	3221	3038	942	901

Figure 2: Most frequently reported suspected cases during Week 45 Sindh

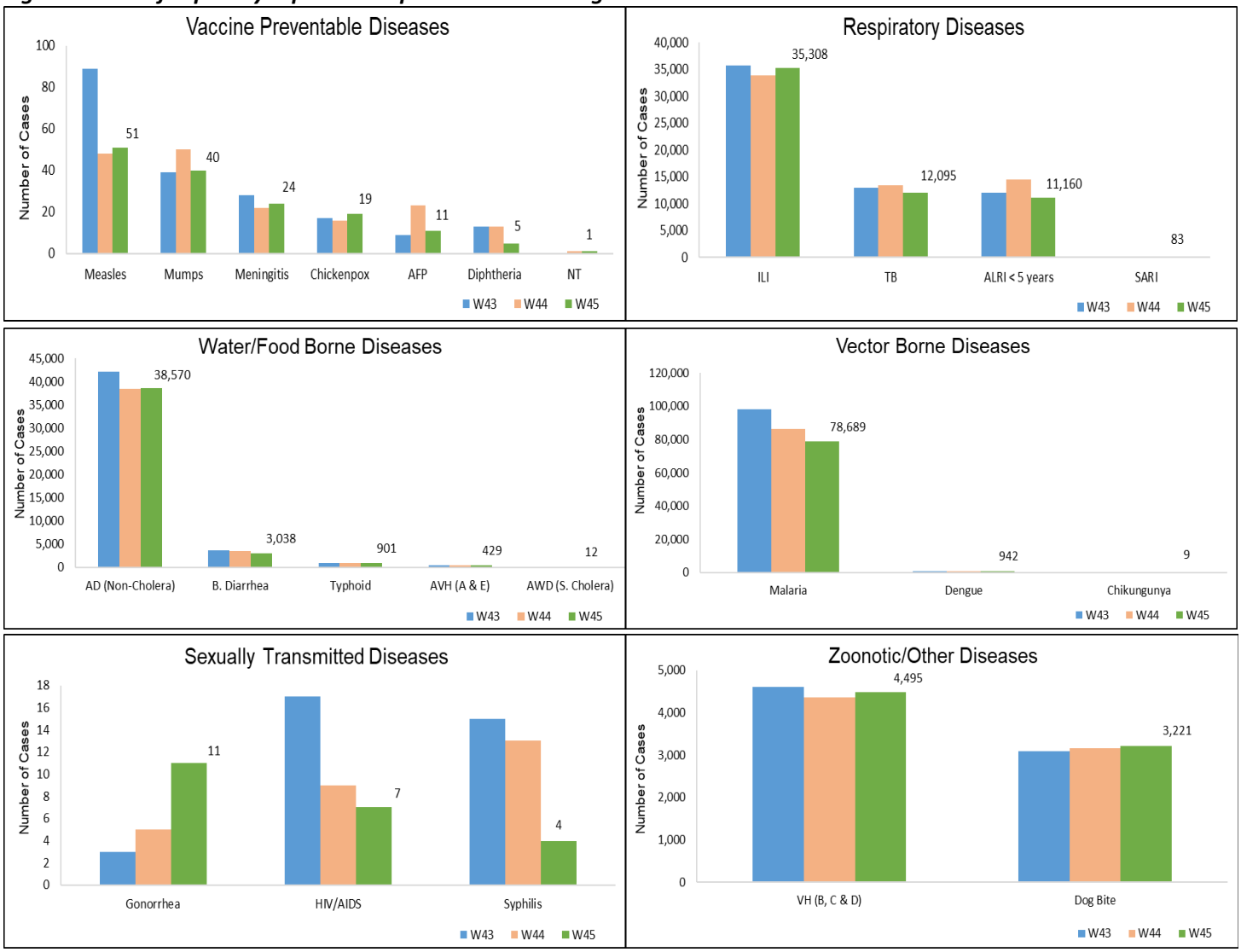
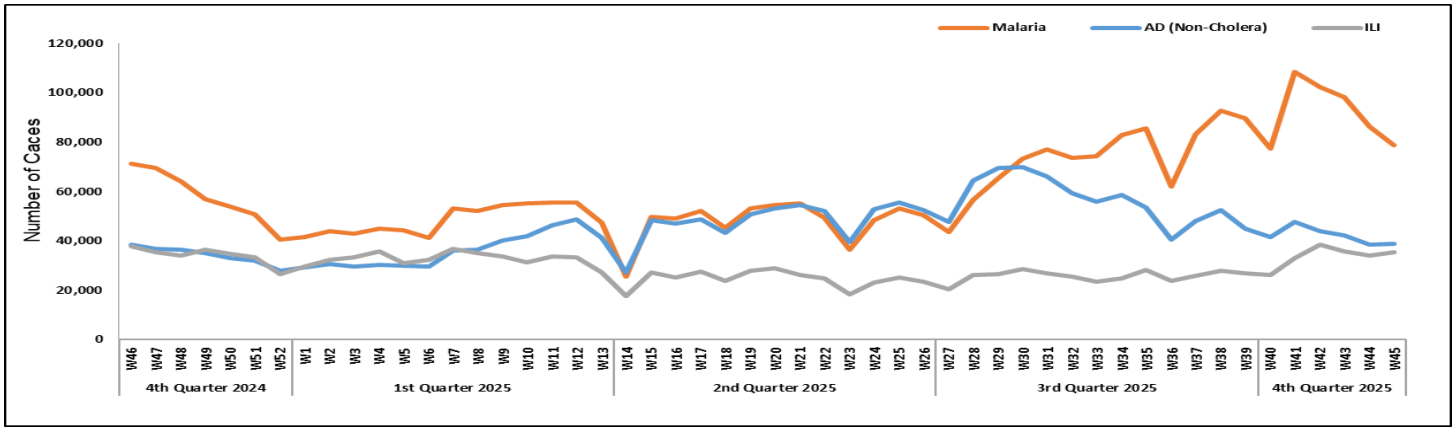


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



Balochistan

- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, Dog Bite, AWD (S. Cholera) and TB cases were the most frequently reported diseases from Balochistan province.
- ILI cases are mostly reported from Gwadar, Kharan and Sibi while AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Quetta and Jaffarabad.
- Dog Bite and Measles showed an increase in the number of cases. At the same time, a decline has been observed in the number of cases of ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), TB, Mumps, VH (B, C & D), Pertussis, AVH (A & E), Dengue, Chickenpox, CL, Diphtheria and Meningitis.

Table 3: District wise distribution of most frequently reported suspected cases during Week 45, Balochistan

Districts	ILI	AD (non-cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	Dog Bite	AWD (S. Cholera)	TB
Awaran	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barkhan	56	46	39	7	0	0	21	3	1	56
Chagai	312	154	61	0	46	0	11	0	0	312
Chaman	589	95	6	32	79	22	57	38	14	589
Dera Bugti	0	53	73	63	6	0	12	0	0	0
Duki	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Gwadar	720	224	192	2	177	0	3	3	12	720
Harnai	0	226	96	266	55	0	0	3	0	0
Hub	88	168	210	4	5	0	2	0	0	88
Jaffarabad	158	332	324	93	97	17	9	16	0	158
Jhal Magsi	252	160	119	18	0	1	2	0	0	252
Kachhi (Bolan)	284	269	312	0	99	38	2	3	76	284
Kalat	6	32	3	0	15	1	2	0	0	6
Kech (Turbat)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Kharan	666	180	28	0	56	0	4	0	0	666
Khuzdar	145	121	40	5	18	12	22	0	6	145
Killa Abdullah	280	191	8	10	55	91	16	9	40	280
Killa Saifullah	0	289	238	397	71	16	27	0	6	0
Kohlu	88	28	25	7	31	0	5	0	0	88
Lasbella	75	229	617	88	19	1	6	2	0	75
Loralai	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mastung	173	104	45	66	14	20	15	0	0	173
MusaKhel	69	119	135	45	22	12	29	1	11	69
Naseerabad	14	282	283	27	14	20	81	119	2	14
Nushki	0	104	2	0	33	11	0	0	0	0
Panjgur	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pishin	402	233	11	81	81	84	14	0	6	402
Quetta	497	348	8	153	9	39	2	8	1	497
Sherani	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sibi	639	301	179	78	21	58	10	0	6	639
Sohbat pur	0	199	151	127	66	9	9	2	0	0
Surab	88	24	0	0	0	0	0	0	0	88
Usta Muhammad	289	650	232	400	81	9	22	20	0	289
Washuk	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Zhob	30	15	11	14	0	11	2	0	0	30
Ziarat	201	101	16	40	17	4	6	20	0	201
Total	6121	5277	3464	2023	1187	476	391	247	181	6121

Figure 4: Most frequently reported suspected cases during Week 45, Baluchistan

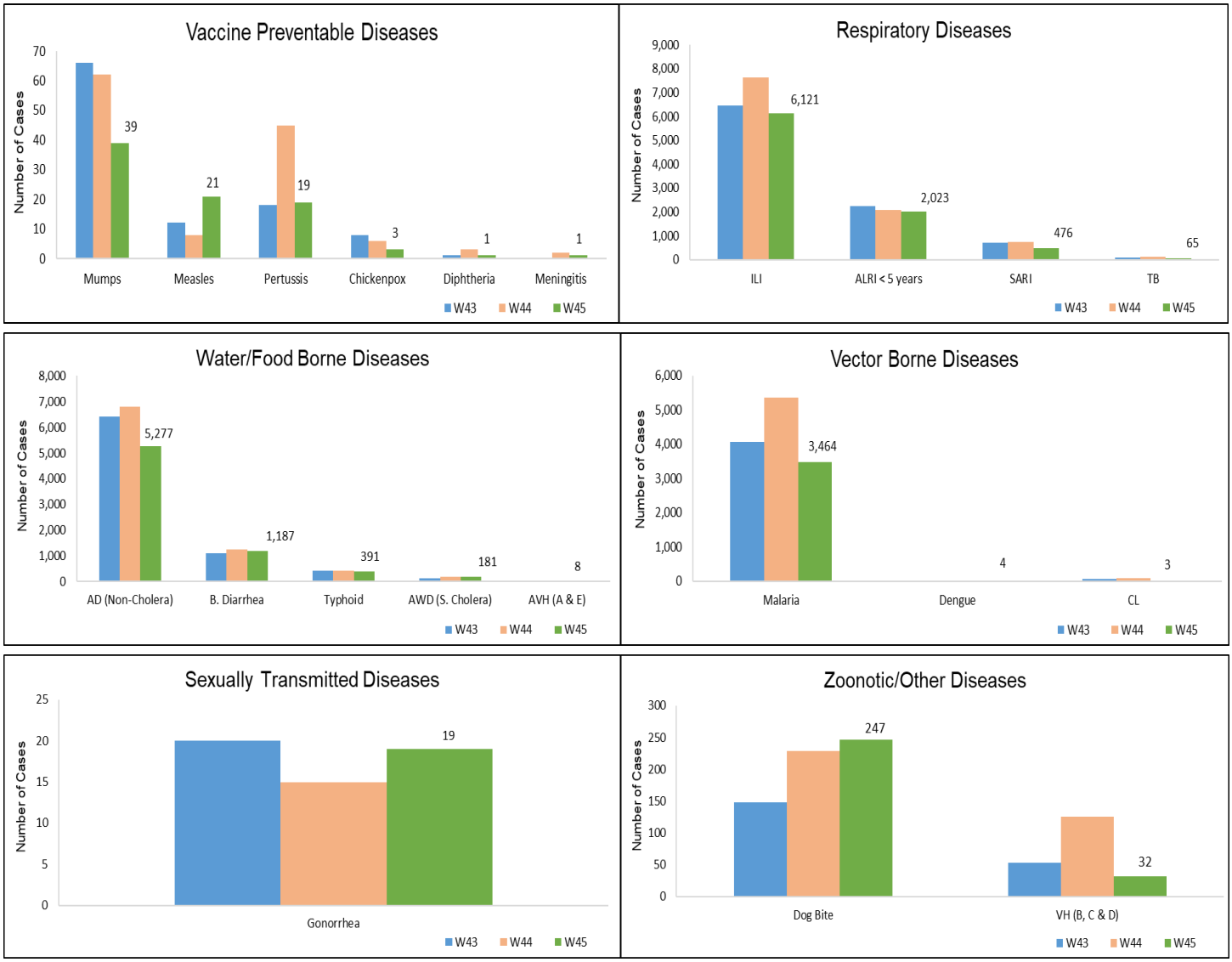
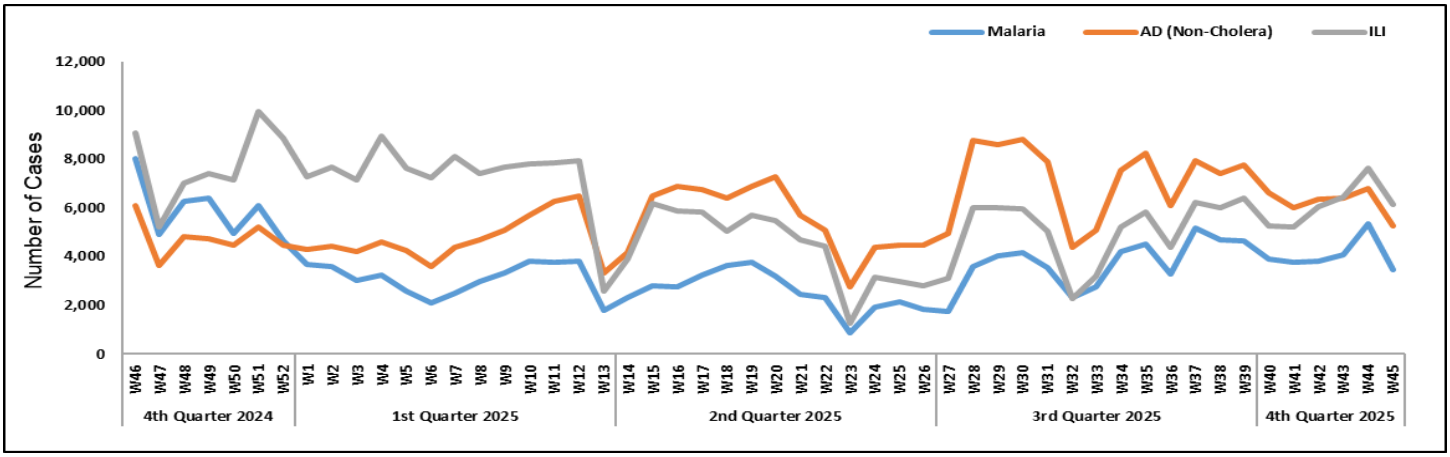


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



Khyber Pakhtunkhwa

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

Table 4: District wise distribution of most frequently reported suspected cases during Week 45, KP

Districts	AD (non-cholera)	ILI	Malaria	ALRI < 5 years	Dog Bite	B. Diarrhea	Typhoid	SARI	Dengue	TB
Abbottabad	634	321	0	17	96	7	8	5	17	10
Bajaur	534	89	204	9	74	62	1	69	5	4
Bannu	800	3	1509	21	1	9	106	10	0	26
Battagram	212	910	75	0	8	0	0	0	0	34
Buner	181	0	103	0	8	0	2	0	0	1
Charsadda	1488	2840	481	426	1	107	43	8	29	18
Chitral Lower	518	31	10	15	9	14	16	13	7	2
Chitral Upper	69	67	3	8	2	3	18	12	0	4
D.I. Khan	1927	0	699	16	7	29	0	0	0	3
Dir Lower	1401	0	127	6	64	66	31	0	34	1
Dir Upper	729	45	16	5	6	6	2	0	1	0
Hangu	184	236	57	2	7	0	5	0	0	4
Haripur	956	447	14	44	9	8	32	12	50	23
Karak	443	126	224	53	16	8	4	0	8	5
Khyber	453	58	478	39	33	97	48	11	0	11
Kohat	422	0	206	0	13	20	5	0	87	0
Kohistan Lower	86	0	1	0	0	0	0	0	0	0
Kohistan Upper	121	0	6	1	0	3	0	0	3	0
Kolai Palas	78	3	2	3	0	2	1	0	0	1
L & C Kurram	64	18	22	3	0	7	13	33	0	0
Lakki Marwat	788	1	553	6	79	7	14	0	11	8
Malakand	657	78	42	5	0	0	5	0	0	7
Mansehra	1659	452	0	2	0	2	15	1	0	0
Mardan	1083	31	127	160	70	69	61	4	39	6
Mohmand	121	76	262	1	7	18	1	218	20	0
North Waziristan	52	31	114	35	1	35	34	15	39	5
Nowshera	2239	8	409	40	8	18	17	12	17	17
Orakzai	96	14	20	0	1	10	0	0	0	0
Peshawar	4124	654	43	145	3	71	20	7	125	10
Shangla	776	0	332	11	94	2	14	0	6	59
South Waziristan (Lower)	47	110	41	39	9	1	14	58	3	6
South Waziristan (Upper)	41	46	19	4	2	1	3	29	0	0
Swabi	1017	812	125	78	140	20	57	80	68	29
Swat	1891	608	60	143	127	64	89	0	22	10
Tank	483	49	221	5	0	7	0	0	0	4
Tor Ghar	37	0	135	3	19	10	0	0	0	6
Upper Kurram	185	168	11	30	5	32	11	33	0	2
Total	26596	8332	6751	1375	919	815	690	630	591	316

Figure 6: Most frequently reported suspected cases during Week 45, KP

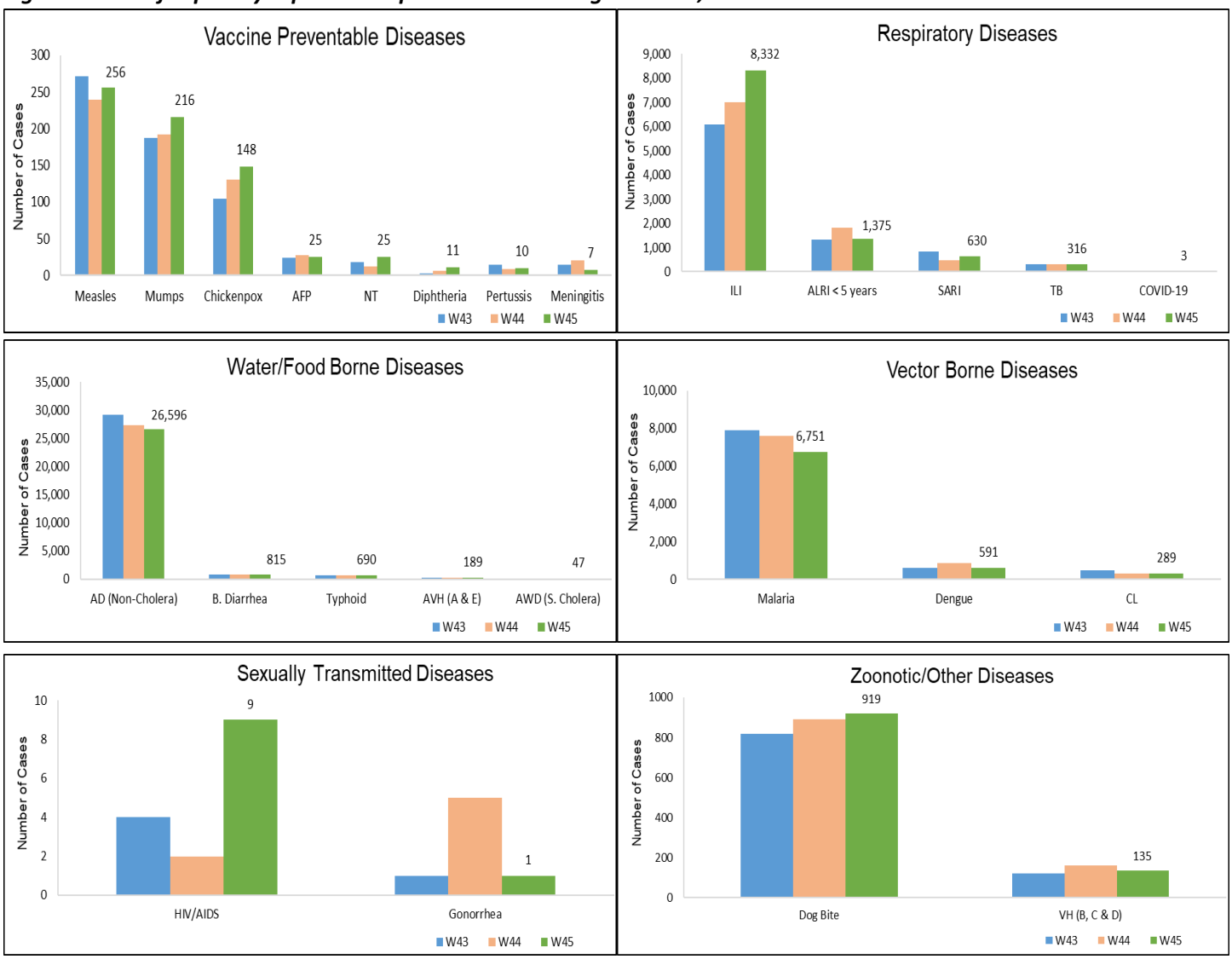
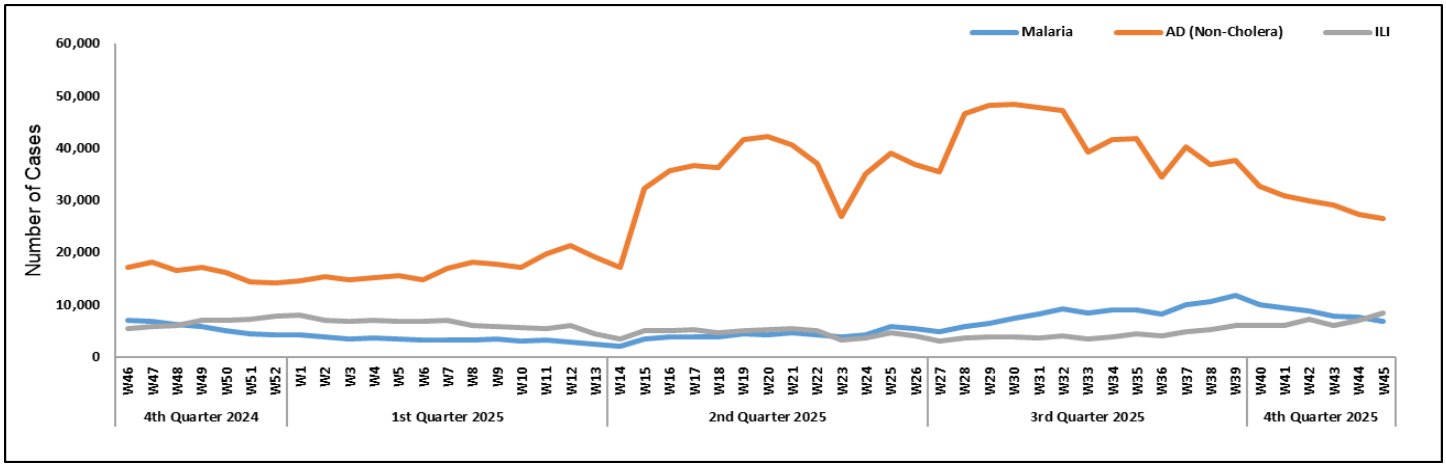


Figure 7: Week wise reported suspected cases Malaria, AD (Non-Cholera) & ILI, KP



ICT, AJK & GB

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

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

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

Figure 8: Most frequently reported suspected cases during Week 45, AJK

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

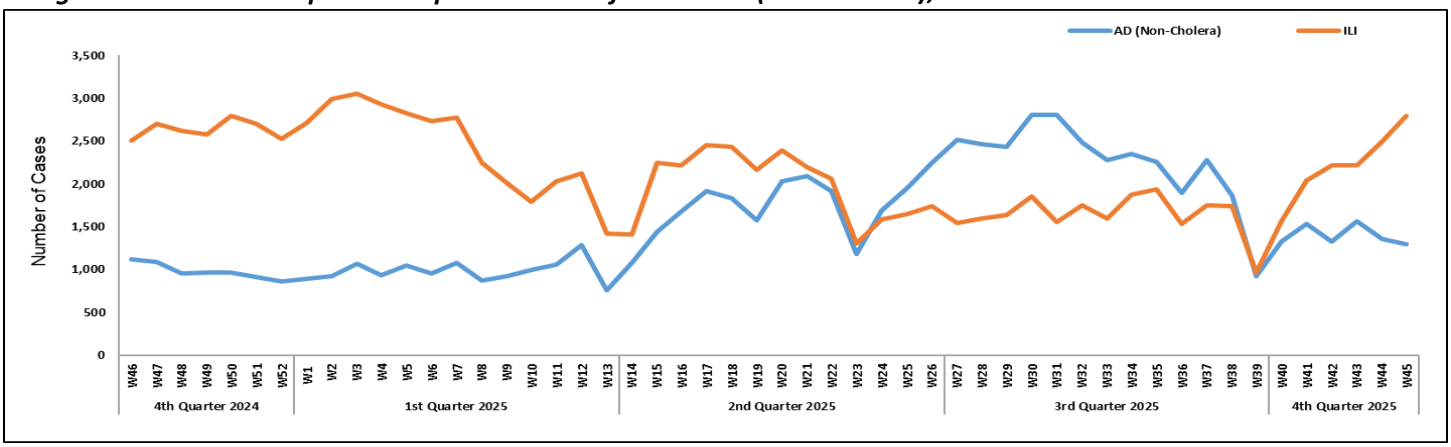
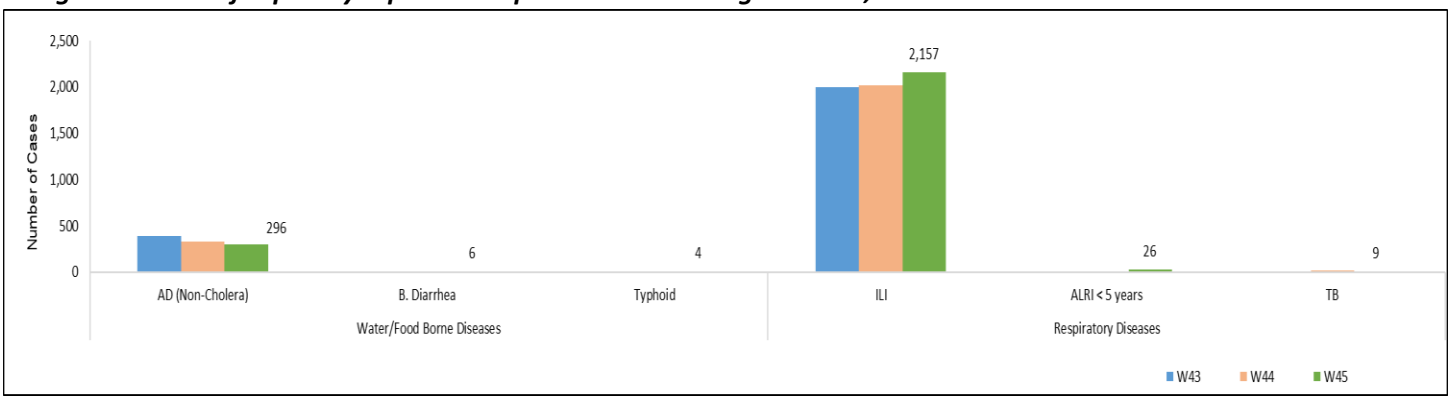


Figure 10: Most frequently reported suspected cases during Week 45, ICT



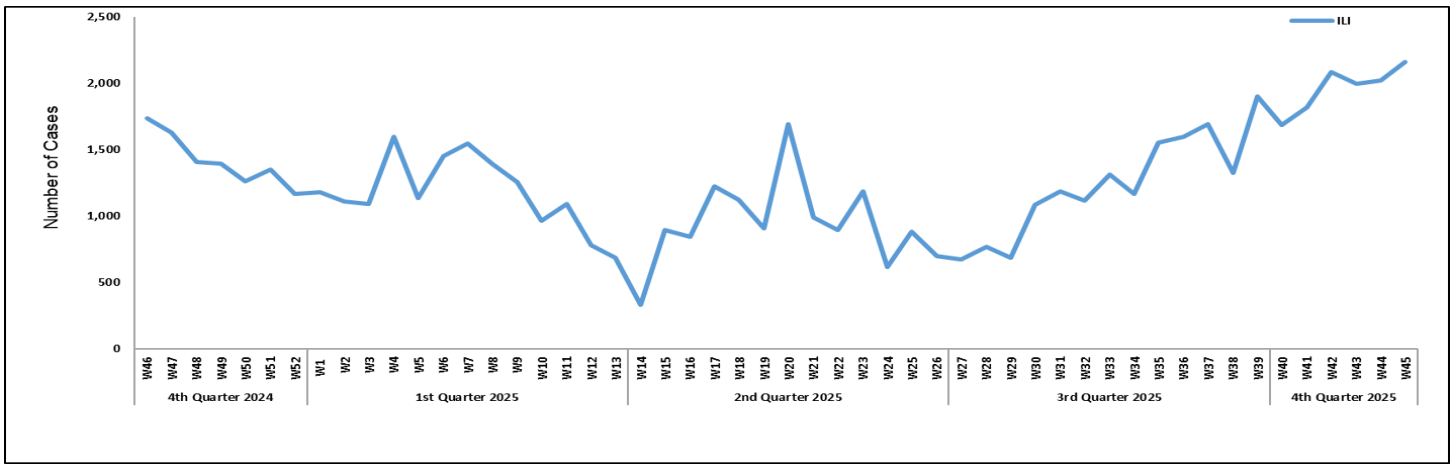


Figure 11: Week wise reported suspected cases of ILI, ICT

Figure 12: Most frequently reported suspected cases during Week 45, GB

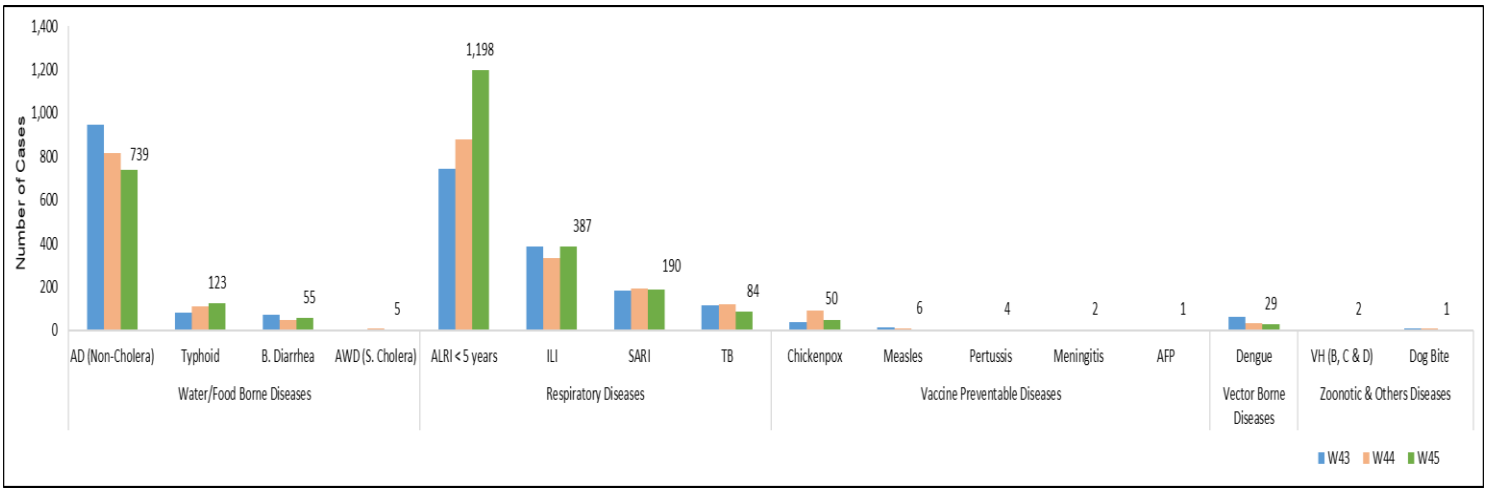


Figure 13: Week wise reported suspected cases of AD (Non-Cholera), GB

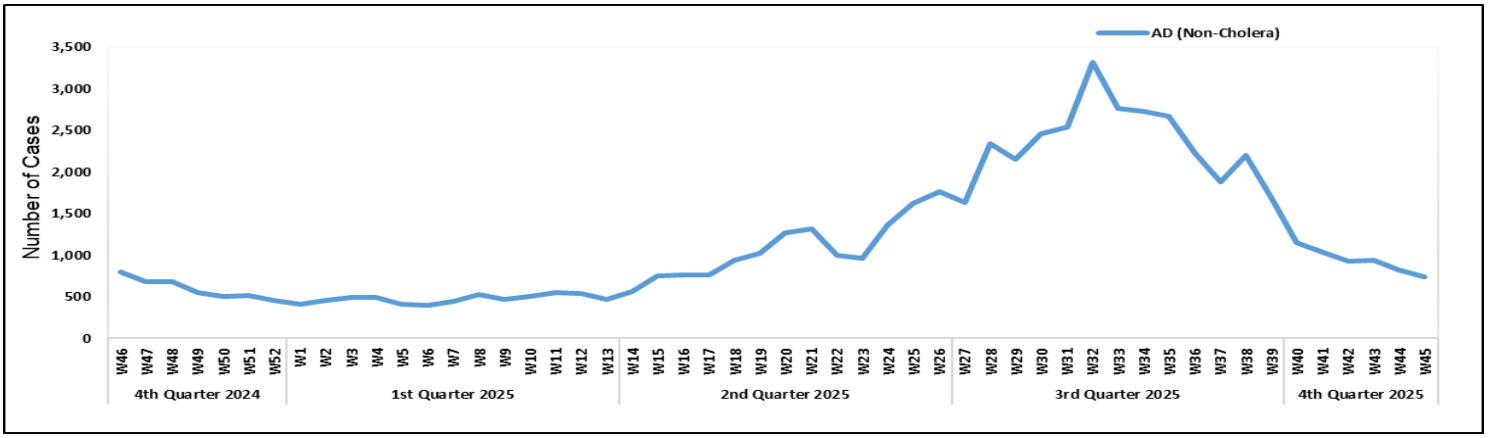


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi Week 45

**The verification of lab confirmed cases of Balochistan province for Week 45 is in progress.*

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)		204	0	-	-	0	0	-	-	0	0	-	-	0	0
Stool culture & Sensitivity		-	-	-	-	0	0	-	-	0	0	-	-	0	0
Malaria		12218	470	-	-	7,193	19	-	-	201	2	-	-	9	0
CCHF		-	-	-	-	0	0	-	-	0	0	-	-	0	0
Dengue		13398	2263	-	-	6,961	122	-	-	0	0	-	-	186	33
VH (B)		-	-	-	-	25	8	-	-	1,193	13	-	-	138	0
VH (C)		-	-	23	8	69	19	-	-	1,272	8	-	-	136	33
VH (D)		-	-	-	-	0	0	-	-			-	-	0	0
VH (A)		-	-	-	-	0	0	-	-	4	0	-	-	0	0
VH (E)		-	-	-	-	0	0	-	-	0	0	-	-	0	0
Covid-19		34	0	-	-	20	1	-	-	0	0	-	-	7	0
TB		-	-	-	-	0	0	-	-	37	0	-	-	65	5
HIV/ AIDS		3399	26	-	-	371	1	-	-	208	0	-	-	142	0
Syphilis		-	-	-	-	0	0	-	-	194	0	-	-	0	0
Typhoid		-	-	-	-	0	0	-	-	160	11	-	-	0	0
Diphtheria		3	2	-	-	1	0	-	-	0	0	-	-	0	0
ILI		35	9	-	-	20	1	-	-	0	0	-	-	0	0
Pneumonia (ALRI)		426	16	-	-	0	0	-	-	0	0	-	-	0	0
Meningitis		7	0	-	-	0	0	-	-	0	0	-	-	0	0
Measles		-	-	-	-	202	80	20	14	4	2	404	102	16	8
Rubella (CRS)		-	-	-	-	0	0	-	-	0	0	-	-	0	0
Leishmaniansis (cutaneous)		14	0	-	-	13	1	-	-	0	0	-	-	0	0
Chikungunya		4	0	-	-	0	0	-	-	0	0	-	-	0	0
Gonorrhea		128	1	-	-	0	0	-	-	0	0	-	-	0	0
Brucellosis		-	-	-	-	0	0	-	-	0	0	-	-	0	0
Chickenpox		2	2	-	-	0	0	-	-	0	0	-	-	0	0
Mpox		2	0	-	-	1	0	-	-	0	0	-	-	0	0
Covid-19	Out of SARI	4	0	0	0	-	-	-	-	-	-	44	0	-	-
	Out of ILI	2	0	0	0	-	-	-	-	-	-	8	0	-	-
Influenza A	Out of SARI	4	0	0	0	-	-	-	-	-	-	44	0	-	-
	Out of ILI	2	0	0	0	-	-	-	-	-	-	8	0	-	-
Influenza B	Out of SARI	4	0	0	0	-	-	-	-	-	-	44	0	-	-
	Out of ILI	2	0	0	0	-	-	-	-	-	-	8	0	-	-
RSV	Out of SARI	4	0	0	0	-	-	-	-	-	-	44	0	-	-
	Out of ILI	2	0	0	0	-	-	-	-	-	-	8	0	-	-

IDSR Reports Compliance

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

Table 6: IDSR reporting districts Week 45, 2025

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
s	Abbottabad	111	90	81%
	Bannu	238	80	34%
	Battagram	59	30	51%
	Buner	34	18	53%
	Bajaur	44	27	61%
	Charsadda	59	57	97%
	Chitral Upper	34	23	68%
	Chitral Lower	35	31	89%
	D.I. Khan	114	92	81%
	Dir Lower	74	58	78%
	Dir Upper	37	30	81%
	Hangu	22	14	64%
	Haripur	72	60	83%
	Karak	36	29	81%
	Khyber	53	33	62%
	Kohat	61	43	70%
	Kohistan Lower	11	6	55%
Khyber Pakhtunkhwa	Kohistan Upper	20	7	35%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	53	76%
	Lower & Central Kurram	42	7	17%
	Upper Kurram	41	29	71%
	Malakand	42	18	43%
	Mansehra	133	109	82%
	Mardan	80	63	79%
	Nowshera	56	49	88%
	North Waziristan	13	6	46%
	Peshawar	156	114	73%
	Shangla	37	32	86%
	Swabi	64	60	94%
	Swat	77	72	94%
	South Waziristan (Upper)	93	93	100%
	South Waziristan (Lower)	42	40	95%
	Tank	34	30	88%
	Torghar	14	9	64%
	Mohmand	68	12	18%
	Orakzai	69	8	12%
Azad Jammu Kashmir	Mirpur	37	25	68%
	Bhimber	92	39	42%
	Kotli	60	45	75%
	Muzaffarabad	45	45	100%
	Poonch	46	30	65%
	Haveli	39	32	82%
	Bagh	54	48	89%

	Neelum	39	26	67%
	Jhelum Velley	29	29	100%
	Sudhnooti	27	20	74%
Islamabad Capital Territory	ICT	23	22	100%
	CDA	15	6	33%
Balochistan	Gwadar	26	17	65%
	Kech	44	0	0%
	Khuzdar	74	11	15%
	Killa Abdullah	26	25	96%
	Lasbella	55	45	82%
	Pishin	69	21	30%
	Quetta	55	23	42%
	Sibi	36	34	94%
	Zhob	39	8	21%
	Jaffarabad	16	14	94%
	Naserabad	32	29	91%
	Kharan	30	27	90%
	Sherani	15	0	0%
	Kohlu	75	9	12%
	Chagi	36	23	64%
	Kalat	41	40	98%
	Harnai	17	16	94%
	Kachhi (Bolan)	35	18	51%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	16	64%
	Surab	32	12	38%
	Mastung	45	45	100%
	Loralai	33	0	0%
	Killa Saifullah	28	22	79%
	Ziarat	29	13	44%
	Duki	31	0	0%
	Nushki	32	25	78%
	Dera Bugti	45	34	76%
	Washuk	46	0	0%
	Panjgur	38	0	0%
	Awaran	23	0	0%
	Chaman	24	24	100%
	Barkhan	20	19	95%
	Hub	33	26	79%
	Musakhel	41	19	46%
	Usta Muhammad	34	33	95%
Gilgit Baltistan	Hunza	32	31	97%
	Nagar	25	8	32%
	Ghizer	38	37	97%
	Gilgit	44	37	84%
	Diamer	62	40	65%
	Astore	55	55	100%
	Shigar	27	22	81%
	Skardu	53	36	68%

	Ganche	29	28	97%
	Kharmang	46	24	52%
Sindh	Hyderabad	72	72	100%
	Ghotki	64	64	100%
	Umerkot	62	62	100%
	Naushahro Feroze	107	103	96%
	Tharparkar	276	236	86%
	Shikarpur	60	58	97%
	Thatta	52	50	96%
	Larkana	67	61	91%
	Kamber Shadadkot	71	71	100%
	Karachi-East	21	14	67%
	Karachi-West	20	20	100%
	Karachi-Malir	35	27	77%
	Karachi-Kemari	22	21	95%
	Karachi-Central	12	11	92%
	Karachi-Korangi	18	15	83%
	Karachi-South	6	4	67%
	Sujawal	55	51	93%
	Mirpur Khas	106	105	99%
	Badin	124	119	96%
	Sukkur	64	64	100%
	Dadu	90	89	99%
	Sanghar	100	99	99%
	Jacobabad	44	44	100%
	Khairpur	170	165	97%
	Kashmore	59	58	98%
	Matiari	42	42	100%
	Jamshoro	75	74	99%
	Tando Allahyar	54	52	96%
	Tando Muhammad Khan	41	40	98%
	Shaheed Benazirabad	122	122	100%

Table 7: IDSR reporting Tertiary care hospital Week 45, 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	1000%
	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	3	1	33%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%
	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%

Letter To Editor

Empowering Central Punjab in Infection Prevention and Control

Dear Editor,

Strengthening Infection Prevention and Control (IPC) remains a national priority in advancing Pakistan's public health system, particularly in improving routine surveillance, patient safety, and outbreak response capacity. In this context, a series of five-day IPC cascade trainings were conducted from 3rd to 7th November 2025 across three major tertiary care institutions in Central Punjab i.e. Allied Hospital Faisalabad, Children's Hospital Faisalabad, and Gujranwala Teaching Hospital. The initiative was jointly implemented by the Specialized Healthcare & Medical Education (SHC&ME) Department, Punjab, and the National Institute of Health (NIH), Islamabad, under the C19RM Global Fund-supported project.

The primary objectives of the event were to build practical IPC competencies among healthcare providers, enhance standardization of IPC practices, improve surveillance and reporting mechanisms for healthcare-associated infections, and promote a culture of patient and healthcare worker safety. The audience comprised frontline clinicians, nurses, infection control teams, and administrative representatives from the participating hospitals. Provincial IPC master trainers facilitated the sessions, ensuring structured learning, hands-on demonstrations, and participatory engagement.

Key training topics included proper hand hygiene practices, rational use of personal protective equipment, biomedical waste management, safe injection practices, outbreak detection and response, environmental cleaning, and strengthening routine disease surveillance within hospital settings. These learning components directly support improved data quality and timely reporting into national surveillance systems, which are essential for early outbreak detection, risk mitigation, and informed public health decision-making.

Conducting such training at large referral hospitals is particularly significant, as these institutions serve diverse populations and handle high patient volumes, making them central nodes for disease detection and reporting. By reinforcing adherence to standard IPC protocols, healthcare facilities can reduce the incidence of healthcare-associated infections, minimize preventable morbidity and mortality, and create safer care environments. Improved IPC practices also lead to better documentation, early identification of unusual disease trends, and enhanced reporting through systems such as DHIS-2 and the Integrated Disease Surveillance and Response System (IDSRS). As a result, hospitals become more capable contributors to timely national situational awareness and coordinated public health response.

Beyond immediate skill enhancement, this initiative contributes to long-term health system strengthening by promoting sustainable institutional culture change, structured IPC governance, and improved multisectoral coordination. The success of the program reflects the strong leadership of the SHC&ME Department, sustained guidance from the Provincial IPC team, and committed engagement from hospital administrations, trainers, and participants.

Ongoing investment in IPC capacity building is essential for resilient health systems. Continued implementation of such collaborative initiatives will support Pakistan's progress toward reducing preventable infections, reinforcing surveillance networks, and delivering safer, more accountable healthcare services across the province.

Dr Nimra Gillani
Medical Epidemiologist
IDSRS - NIH

Notes from the field:

Chickenpox Outbreak Investigation Report Village Spalmay Waam, UC Mughal Kot, Tehsil Darazinda, District D.I. Khan, KP – August 2025

Introduction

Chickenpox (varicella) is a highly contagious vaccine-preventable viral disease caused by the varicella-zoster virus, responsible for significant morbidity globally, especially in unvaccinated populations. Worldwide, before widespread vaccination, chickenpox resulted in millions of cases annually, with substantial burden among children. In the WHO Eastern Mediterranean Region, periodic outbreaks still occur due to suboptimal vaccine coverage and delayed detection. Pakistan continues to face recurrent localized outbreaks, particularly in remote districts with limited immunization uptake. District D.I. Khan historically reports low incidence; however, sporadic clusters indicate ongoing susceptibility. In August 2025, an unusual increase in rash-like illnesses was reported from UC Mughal Kot, prompting an outbreak investigation.

Objectives

1. To determine the magnitude of the outbreak, including age, gender, and area-wise distribution of cases.

2. To identify possible risk factors, including exposure histories, immunization status, and household clustering.

3. To provide evidence-based recommendations to control the outbreak and prevent future transmission in the community.

Methods

A descriptive outbreak investigation was conducted. The study population included all suspected and probable chickenpox cases residing in Village Spalmay Waam of UC Mughal Kot, Tehsil Darazinda, District D.I. Khan. The investigation was carried out during August 2025. Operational case definitions included probable cases with acute generalized maculo-papulo-vesicular rash and confirmed cases via IgM/IgG testing or epidemiologic linkage.Data were collected using a standardized case investigation form and immunity-profiling tool, followed by active case finding through door-to-door surveys across 30 households. Hospital records and private clinic reports were reviewed for additional unreported cases. Serum samples (3 ml) were transported under reverse cold-chain conditions to NIH Islamabad. The analysis plan included descriptive epidemiology with computation of frequencies, mean age, gender ratio, area distribution, and attack rates where possible.

Results

A total of 6 chickenpox cases were identified during the investigation. The median age was approximately 5 years, ranging from 16 months to 30 years. The male-to-female ratio was 5:1. All cases were from Village Spalmay Waam. Household clustering was observed, with multiple cases in two families. Age distribution included 1 case <2 years, 2 cases aged 2–5 years, and 3 cases >5 years. Clinical symptoms included rash in all cases, rash with fever in three cases, and rash with fever and headache in one adult female. All cases reported contact with a symptomatic individual; none reported recent travel. No case had documented or recall history of varicella vaccination. Three blood samples were collected and sent to NIH for laboratory confirmation. Active search found 3 additional cases not previously reported.

Discussion

This outbreak investigation confirmed a localized cluster of chickenpox in Village Spalmay Waam. The epidemiological pattern, with predominance among children, male majority, and household clustering, is consistent with transmission dynamics in undervaccinated populations. Low vaccination coverage was the primary contributing factor. Lack of timely reporting from private clinics delayed detection. Strengthening surveillance, vaccination coverage, and community awareness is critical to prevent recurrence.

Conclusion

A confirmed outbreak of chickenpox occurred in Village Spalmay Waam due to low vaccine uptake and close contact within households. Local transmission was evident, and timely interventions are essential to prevent further spread.

Recommendations

1. Strengthen routine surveillance to detect future outbreaks early.
1. Immediate isolation of symptomatic individuals for 14–16 days.
2. Enhance varicella vaccination coverage with 1 dose for preschoolers and 2 doses for school-aged children.
3. Conduct extensive contact tracing beyond the initial 30 households.
4. Implement regular community awareness sessions on vaccine-preventable diseases.
5. Sensitize public and private healthcare providers for early reporting.

References

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Knowledge Hub

Understanding: Acute Watery Diarrhea (AWD)

Acute Watery Diarrhea (AWD) is a significant global public health concern, characterized by the sudden onset of frequent, loose, or watery stools. While often self-limiting, AWD can rapidly lead to severe dehydration, especially in vulnerable populations, and can be life-threatening if not managed promptly and effectively. This knowledge hub provides a comprehensive overview of AWD, its causes, symptoms, prevention, and treatment strategies.

What is Acute Watery Diarrhea (AWD)?

AWD is defined as the passage of three or more loose or liquid stools within a 24-hour period, with a sudden onset and lasting less than 14 days. It is primarily a symptom of an infection in the intestinal tract. Unlike dysentery (acute bloody diarrhea) or persistent diarrhea (lasting 14 days or longer), AWD is characterized by significant fluid loss, making dehydration its most dangerous complication.

Causes of Acute Watery Diarrhea

AWD is predominantly caused by a variety of infectious agents, which are typically spread through contaminated food or water, or via the fecal-oral route due to poor hygiene.

Common infectious causes include:

- **Viruses:**

o **Rotavirus:** A leading cause of severe diarrhea in infants and young children worldwide.

o **Norovirus:** Highly contagious and a common cause of foodborne illness and outbreaks in communities. o **Adenovirus, Astrovirus.**

- **Bacteria:**

o **Vibrio cholerae:** The causative agent of cholera, a severe form of AWD that can lead to rapid and extreme dehydration.

o **Escherichia coli (E. coli),** particularly enterotoxigenic E. coli (ETEC), a common cause of traveler's diarrhea. o Salmonella spp.

o Campylobacter spp.

o **Shigella spp**. (though typically associated with bloody diarrhea, some strains can cause watery diarrhea initially).

- **Parasites:**

o Cryptosporidium

o Giardia

o Entamoeba histolytica (can cause both watery and bloody diarrhea).

Other contributing factors:

- **Contaminated Water Sources:** Ingestion of water contaminated with human or animal feces.
- **Unsafe Food Preparation and Storage:** Food prepared or stored in unhygienic conditions.
- **Poor Personal Hygiene:** Inadequate handwashing, especially after using the toilet and before preparing or eating food.
- **Malnutrition:** Children who are malnourished are more susceptible to diarrheal diseases and experience more severe outcomes.
- **Certain Medications:** Antibiotics, antacids containing magnesium, and some cancer treatments can cause diarrhea as a side effect.
- **Food Intolerances and Allergies:** Lactose intolerance or fructose intolerance can lead to watery stools.

Symptoms of Acute Watery Diarrhea

The primary symptom of AWD is the frequent passage of loose or watery stools. Associated symptoms can vary in intensity and may include:

- Abdominal cramps and pain
- Nausea and vomiting (especially at the onset)
- Bloating and gas
- Fever (low-grade or high, depending on the pathogen)
- Headache and aching limbs
- Urgent need to defecate
- Loss of appetite

The most critical complication of AWD is dehydration, which can manifest with the following signs:

- Increased thirst
- Dry mouth and tongue
- Sunken eyes
- Decreased urine output (fewer wet diapers in infants)
- Lethargy, irritability, or drowsiness
- Weakness, dizziness, or lightheadedness
- Skin that, when pinched, returns slowly to normal (poor skin turgor)
- Sunken fontanelle (soft spot) in infants
- Fast, weak pulse
- Cold hands and feet

Prevention of Acute Watery Diarrhea

Preventing AWD largely revolves around improving hygiene, sanitation, and access to safe water.

Key preventive measures include:

- **Safe Drinking Water**:

o Drinking only boiled, bottled, or chemically treated water.

o Ensuring proper storage of household water in clean, covered containers.

- **Improved Sanitation:**

o Proper disposal of human and animal feces.

o Access to and use of improved latrines and sewage systems.

- **Good Hygiene Practices:**

o Thorough and frequent handwashing with soap and clean water, especially before preparing food, eating, and after using the toilet.

o Avoiding sharing towels and flannels.

- **Food Safety:**

o Cooking food thoroughly, especially meat, poultry, and seafood.

o Eating food promptly after cooking.

o Storing cooked food safely and at appropriate temperatures.

o Washing fruits and vegetables thoroughly, or peeling them if possible.

o Avoiding raw or undercooked foods in high-risk areas.

Vaccination:

o Rotavirus vaccine is highly effective in preventing severe rotavirus diarrhea in children.

o Oral cholera vaccines are available and recommended for individuals traveling to areas with active cholera transmission or during outbreaks.

- **Breastfeeding:** Exclusive breastfeeding for the first six months of life provides crucial protection against diarrheal diseases in infants.

Treatment of Acute Watery Diarrhea

The cornerstone of AWD treatment is **rehydration** to prevent and manage dehydration. Most cases of AWD can be managed at home, but severe cases, especially in children and the elderly, require immediate medical attention.

Key treatment measures include:

1. **Oral Rehydration Therapy (ORT):**

   o **Oral Rehydration Solution (ORS):** This is the most critical intervention. ORS is a mixture of clean water, sugar, and salt that is absorbed in the small intestine to replace lost fluids and electrolytes. It is affordable and highly effective.

o Individuals should drink ORS frequently, especially after each loose stool.

o for infants, continued breastfeeding is vital alongside ORS.

o Avoid sugary drinks like sodas and undiluted fruit juices, as they can worsen diarrhea.

2. **Zinc Supplementation:**

   o for children with diarrhea, zinc supplements reduce the duration of the diarrheal episode by about 25% and decrease stool volume.

   o Zinc also helps prevent future episodes of diarrhea.

3. **Continued Feeding:**

   o Even during a diarrheal episode, individuals should continue to eat nutrient-rich foods, including breast milk for infants. This helps prevent malnutrition and promotes recovery.

   o Gradually reintroduce easily digestible foods like rice, bananas, and toast. Avoid fatty, spicy, or high-fiber foods initially.

4. **Intravenous (IV) Fluids:**

   o in cases of severe dehydration, shock, or inability to take ORS orally, intravenous fluids (e.g., Ringer's Lactate) are administered in a healthcare setting.

5. **Antibiotics:**

   o Antibiotics are generally not recommended for most cases of acute watery diarrhea, as most are viral and self-limiting.

   o They are only prescribed if a specific bacterial or parasitic infection is confirmed or strongly suspected, especially in cases of cholera or certain types of bacterial dysentery.

6. **Antidiarrheal Medications:**

   o Over-the-counter antidiarrheal medications like loperamide or bismuth subsalicylate can help reduce stool frequency in adults.

   o However, they are generally **not recommended for infants and children** and should be used with caution, as they can sometimes prolong the illness in certain infections. Always consult a healthcare professional before administering these to children.

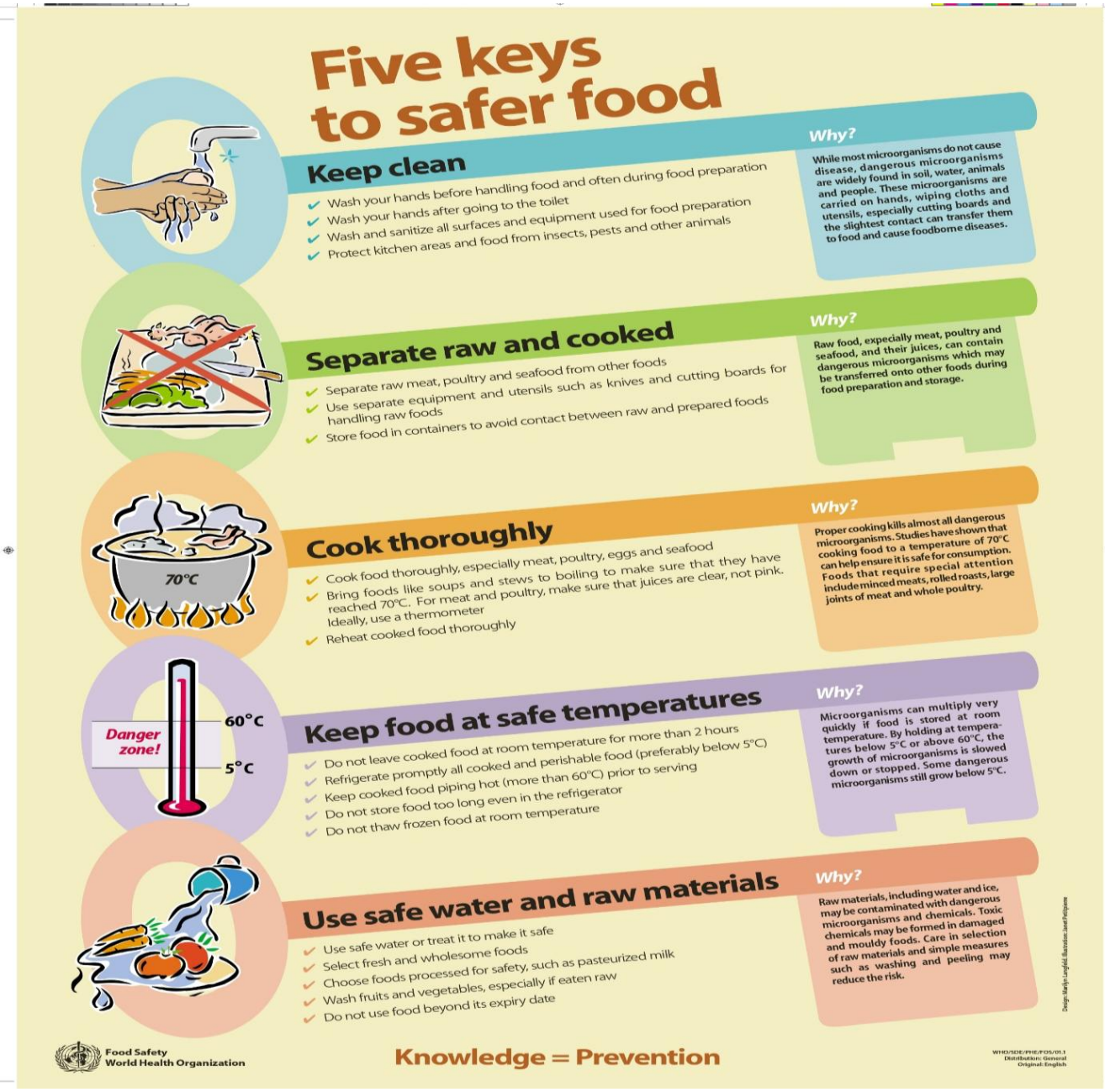
7. **Probiotics:**

o While research is ongoing, some probiotic strains may help restore gut balance and potentially shorten the duration of diarrhea, though more evidence is needed to confirm their widespread efficacy.

When to Seek Medical Attention

While most cases of AWD resolve on their own, it is crucial to seek medical help if any of the following symptoms are present:

- Signs of severe dehydration (drowsiness, inability to drink, decreased urination, cold extremities).
- Diarrhea lasting more than two days in adults, or more than 24 hours in children.
- High fever (above 101°F or 38°C in adults, or 102°F or 39°C in children).
- Bloody or black, tarry stools.
- Severe abdominal pain.
- Persistent vomiting.
- Unexplained weight loss.
- Diarrhea in infants under 6 months old.
- If the individual is immunocompromised or has underlying chronic health conditions.



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