

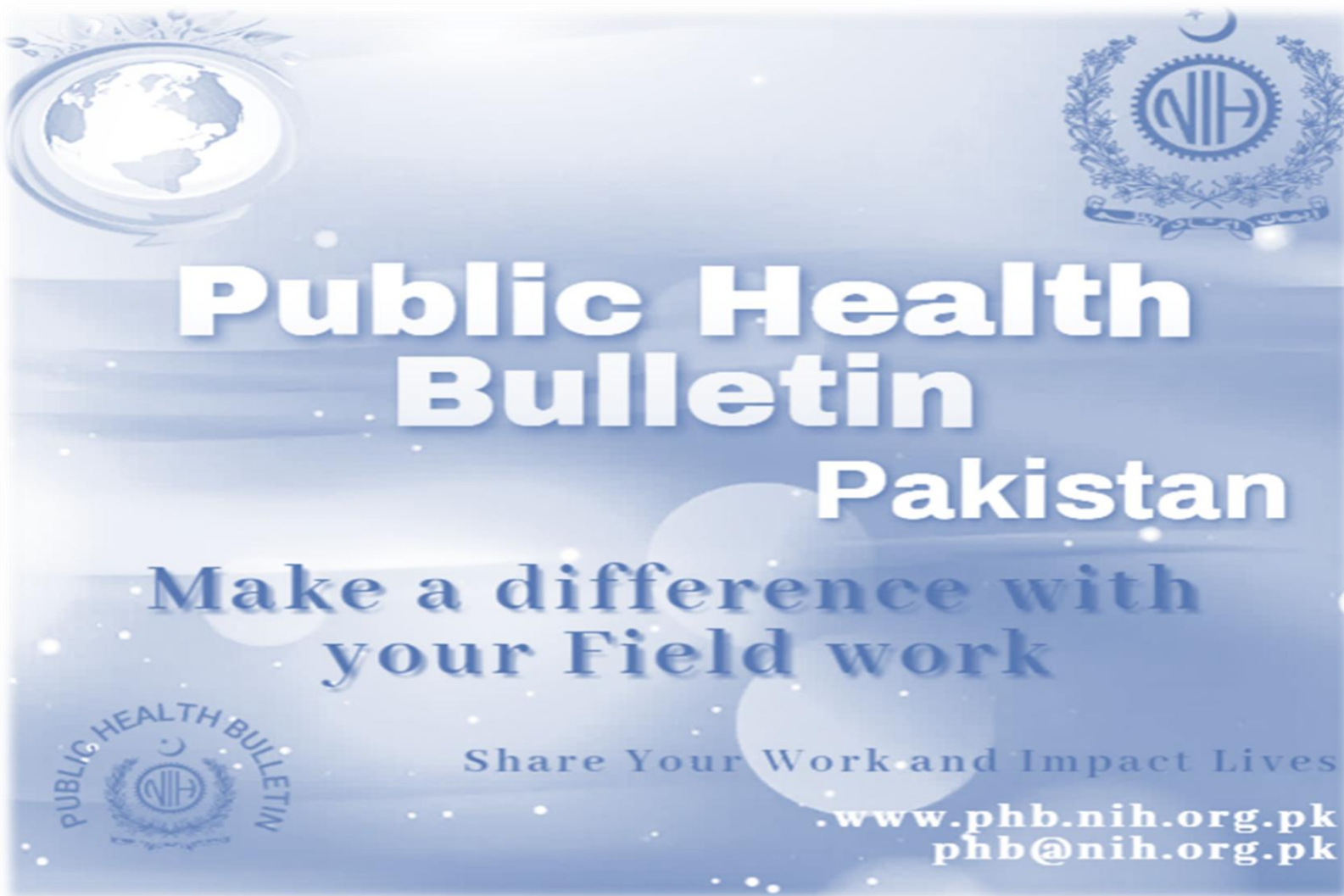
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

Vol. 5 | Week 37
08th SEPTEMBER – 14th SEPTEMBER
22nd September, 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 37, 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 Air Pollution and Its Health Impacts in Major Cities of Pakistan*
- Knowledge hub on Malaria: 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*



- During Week 37, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, B. Diarrhea, Dog Bite, VH (B, C & D), Typhoid, and SARI.
- Twenty-six cases of AFP were reported from KP, ten from Sindh, and six from Balochistan.
- Ten suspected cases of HIV/ AIDS were reported from Sindh, five from KP, and two from AJK.
- One suspected case of Brucellosis reported from KP.
- Among VPDs, there is an increase in the number of cases of Measles, Mumps, Chickenpox, Pertussis, AFP, and Diphtheria this week.
- Among Respiratory diseases, there is an increase in the number of cases of ILI, ALRI <5 years, TB, and SARI this week.
- Among Water/food-borne diseases, there is an increase in the number of cases of Acute Diarrhea (Non-Cholera), B. Diarrhea, and Typhoid this week.
- Among Vector-borne diseases, there is an increase in the number of cases of Malaria and Dengue this week.
- Among Zoonotic/Other diseases, there is an increase in the number of cases of Dog Bite and VH (B, C & D) this week.
- Field investigation is required for verification of the alerts and for prevention and control of the outbreaks.

IDSR compliance attributes

- The national compliance rate for IDSR reporting in 158 implemented districts is 77%.
- AJK is the top reporting region with a compliance rate of 99%, followed by Sindh 97%, GB 88% and ICT 82%.
- The lowest compliance rate was observed in KP 63% and Balochistan 61%.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2704	1701	63
Azad Jammu Kashmir	469	466	99
Islamabad Capital Territory	38	31	82
Balochistan	1308	800	61
Gilgit Baltistan	417	366	88

<i>Sindh</i>	<i>2111</i>	<i>2055</i>	<i>97</i>
<i>National</i>	<i>7047</i>	<i>5419</i>	<i>77</i>



Public Health Actions

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

Chikungunya

- **Strengthen Surveillance and Case Detection:** Integrate chikungunya reporting into the IDSR system by training healthcare providers on clinical recognition (fever with severe joint pain) and differential diagnosis from dengue and Zika; ensure timely reporting of suspected and confirmed cases.
- **Improve Laboratory Confirmation:** Expand diagnostic capacity for chikungunya virus using RT-PCR in the acute phase and IgM ELISA in the convalescent phase, especially in areas with ongoing arboviral activity.
- **Enhance Vector Surveillance and Control:** Conduct regular entomological surveillance for *Aedes* mosquitoes; implement targeted vector control measures, including elimination of breeding sites, larviciding, and space spraying in outbreak situations.
- **Promote Community-Based Prevention:** Engage communities to remove stagnant water from domestic and peri-domestic environments, use personal protective measures (mosquito repellents, long-sleeved clothing), and improve household waste management.
- **Raise Public Awareness and Risk Communication:** Disseminate information on chikungunya symptoms, mosquito bite prevention, and the importance of early care-seeking, especially for vulnerable groups such as older adults and those with comorbidities.

Malaria

- **Enhance Surveillance and Case Detection:** Strengthen malaria surveillance under IDSR through timely reporting, active case detection in high-risk areas, and training of healthcare workers on case identification and response.
- **Improve Diagnosis and Treatment:** Ensure universal testing of suspected cases using RDTs or microscopy and adherence to national treatment protocols with quality-assured ACTs.
- **Implement Vector Control Measures:** Expand distribution and use of Long-Lasting Insecticidal Nets (LLINs) and Indoor Residual Spraying (IRS); conduct entomological surveillance to monitor mosquito density and insecticide resistance.
- **Protect High-Risk Groups:** Provide intermittent preventive treatment for pregnant women (IPTp) and promote use of LLINs and repellents among children under five and other vulnerable populations.
- **Strengthen Outbreak Preparedness:** Maintain district-level contingency plans, train rapid response teams, and enhance community-based surveillance for early detection and control of outbreaks.
 - **Promote Community Awareness:** Engage communities in eliminating mosquito breeding sites, promoting environmental sanitation, and encouraging early care-seeking and adherence to treatment.

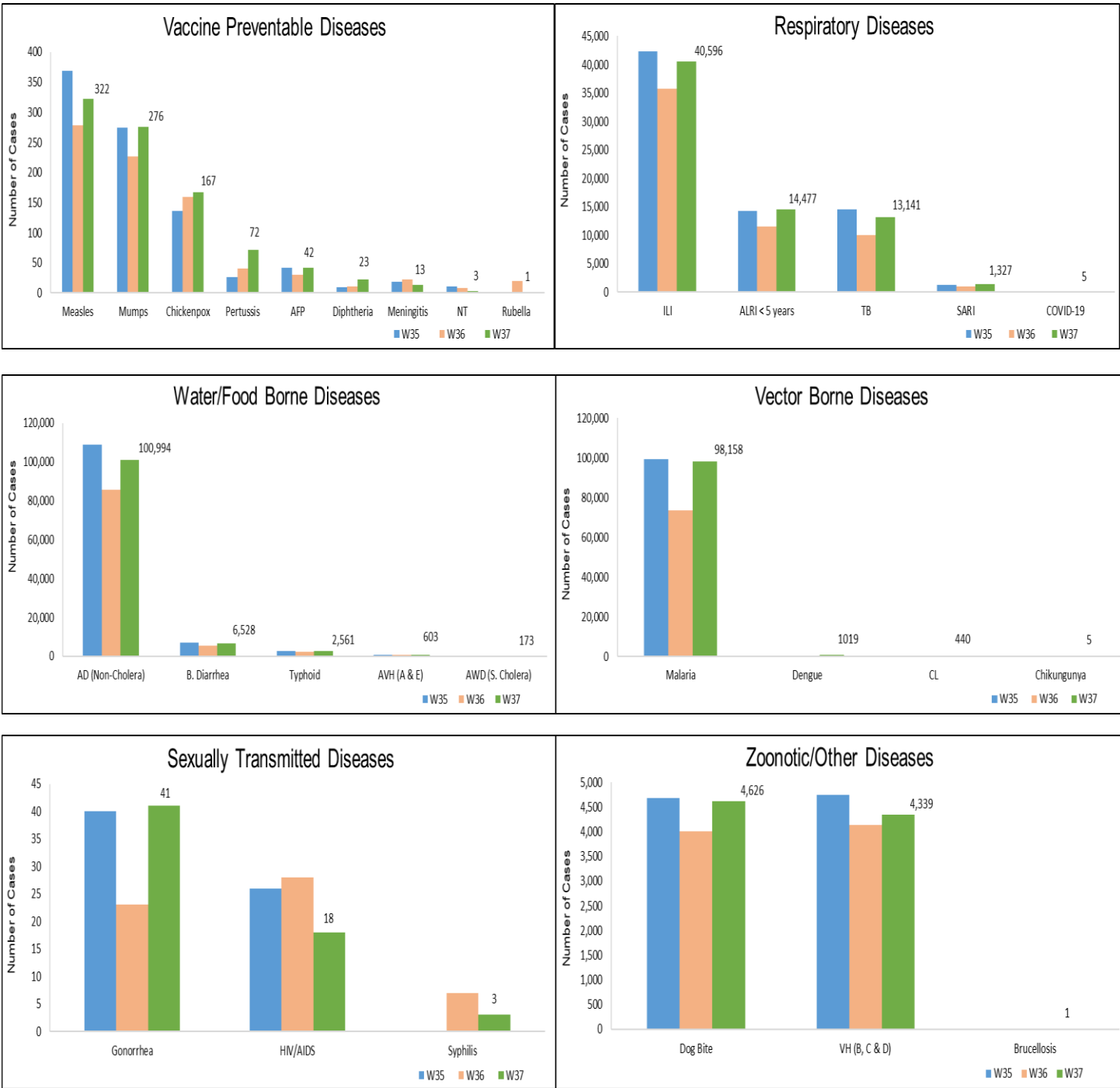


Pakistan

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 37, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	2282	7930	1883	593	40326	NR	47980	100994
Malaria	3	5151	0	6	9894	NR	83104	98158
ILI	1745	6242	345	1692	4783	NR	25789	40596
ALRI < 5 years	982	1757	645	3	974	NR	10116	14477
TB	101	114	137	16	349	NR	12424	13141
B. Diarrhea	64	1314	84	4	1109	NR	3953	6528
Dog Bite	157	280	3	0	985	NR	3201	4626
VH (B, C & D)	25	104	6	0	133	NR	4071	4339
Typhoid	29	522	69	2	804	NR	1135	2561
SARI	135	544	130	0	439	NR	79	1327
Dengue	105	4	3	0	769	NR	138	1019
AVH (A & E)	49	29	3	0	243	NR	279	603
CL	0	56	0	0	382	NR	2	440
Measles	3	7	32	0	248	NR	32	322
Mumps	9	67	8	0	145	NR	47	276
AWD (S. Cholera)	7	62	21	0	75	NR	8	173
Chickenpox/ Varicella	6	5	21	2	115	NR	18	167
Pertussis	3	50	8	0	6	NR	5	72
AFP	6	0	0	0	26	NR	10	42
Gonorrhea	0	25	0	0	1	NR	15	41
Diphtheria (Probable)	0	0	0	0	17	NR	6	23
HIV/AIDS	2	1	0	0	5	NR	10	18
Meningitis	5	1	1	0	2	NR	4	13
COVID-19	0	0	0	0	5	NR	0	5
Chikungunya	0	0	0	0	0	NR	5	5
NT	0	0	0	0	1	NR	2	3
Syphilis	0	0	0	0	0	NR	3	3
Brucellosis	0	0	0	0	1	NR	0	1
Rubella (CRS)	0	0	0	0	1	NR	0	1

Figure 1: Most frequently reported suspected cases during Week 37, Pakistan.



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

Table 2: District wise distribution of most frequently reported suspected cases during Week 37, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A & E)
Badin	5702	3222	2002	789	761	290	303	202	25	0
Dadu	3531	2678	522	531	769	62	413	494	118	3
Ghotki	5365	1264	80	529	464	470	118	211	0	0
Hyderabad	1649	2495	1400	327	217	56	67	41	6	8
Jacobabad	1559	1003	1116	207	493	166	177	168	32	8
Jamshoro	3162	1873	95	515	275	150	92	86	43	10
Kamber	4873	2115	0	859	273	72	126	206	15	0
Karachi Central	22	1034	1071	271	67	11	13	14	151	2
Karachi East	49	207	75	11	13	0	3	0	16	0
Karachi Keamari	16	608	344	1	13	0	1	0	1	0
Karachi Korangi	65	323	33	13	0	8	6	0	9	0
Karachi Malir	198	1450	2486	126	317	14	59	67	17	9
Karachi South	2	101	2	0	0	0	0	0	0	1
Karachi West	326	804	1014	81	243	26	17	51	24	3
Kashmore	1957	339	502	202	96	18	38	122	0	0
Khairpur	5594	3008	5582	1140	1067	204	329	195	278	39
Larkana	7126	1950	0	957	259	41	336	46	10	1
Matlari	4191	1680	3	640	212	281	57	66	2	3
Mirpurkhas	5292	3582	3384	774	416	74	165	124	16	38
Naushero Feroze	1888	1420	646	445	378	57	285	185	142	1
Sanghar	5840	2272	123	1106	420	1170	78	189	32	5
Shaheed Benazirabad	3021	2063	7	337	170	84	97	142	91	0
Shikarpur	2574	1277	4	246	165	231	214	212	5	0
Sujawal	2064	979	9	121	531	0	154	43	4	14
Sukkur	2446	1361	1916	442	330	107	117	64	3	0
Tando Allahyar	3955	1491	684	421	171	241	125	50	3	1
Tando Muhammad Khan	2604	1668	93	585	203	93	158	121	0	0
Tharparkar	3146	2447	1282	463	650	32	149	0	31	25
Thatta	2312	1517	1314	4	827	60	175	102	22	106
Umerkot	2575	1749	0	281	316	53	81	0	39	2
Total	83104	47980	25789	12424	10116	4071	3953	3201	1135	279

Figure 2: Most frequently reported suspected cases during Week 37, Sindh

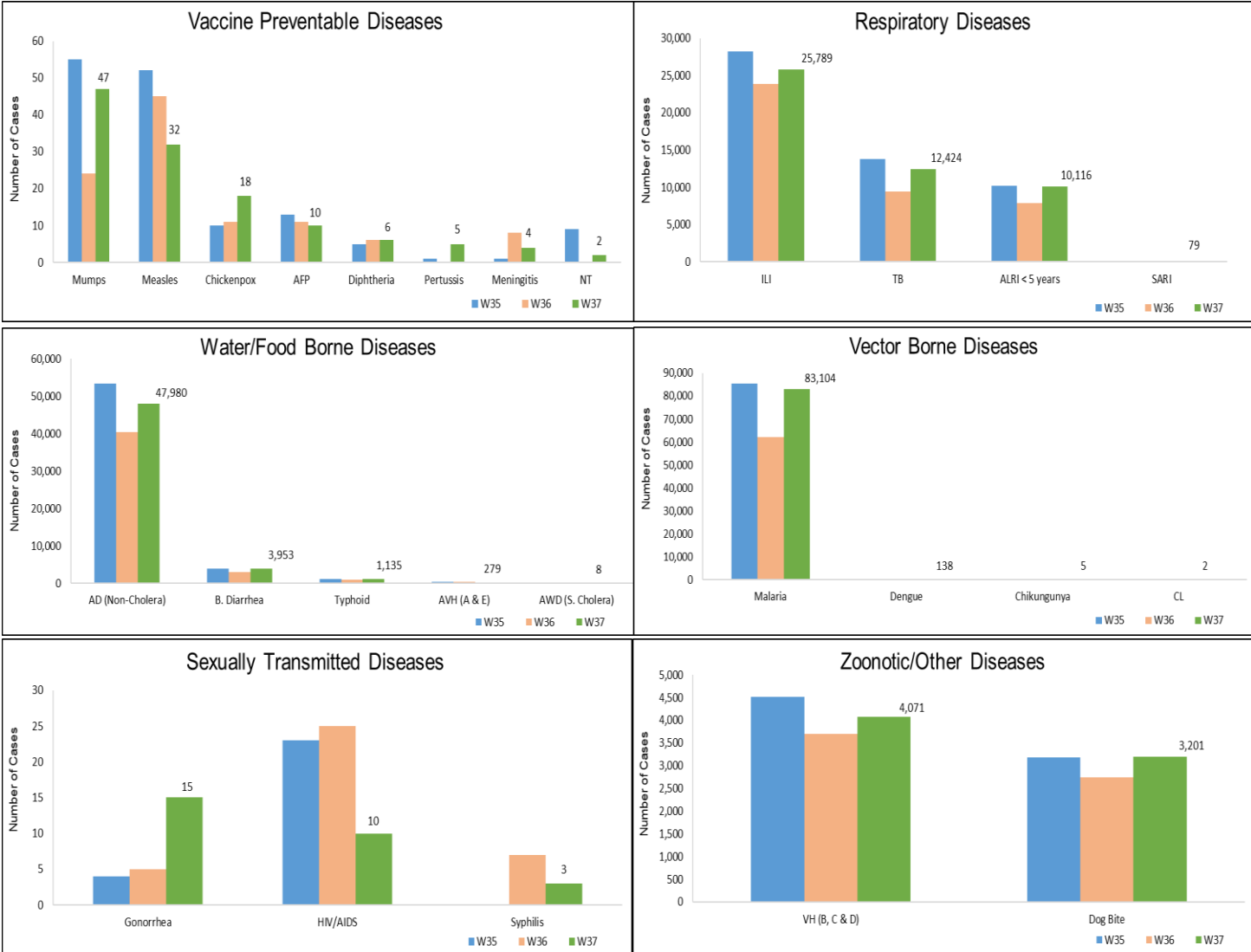
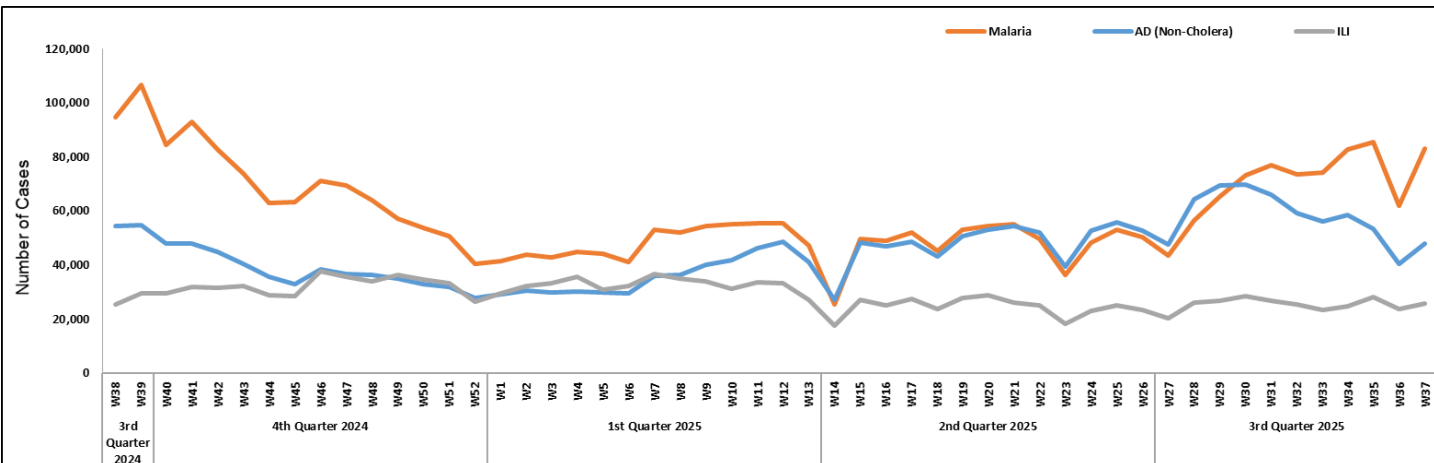


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, Dog Bite, TB and VH (B, C & D) cases were the most frequently reported diseases from Balochistan province
- AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Quetta and Kech (Turbat) while ILI cases are mostly reported from Kech (Turbat), Quetta and Jhal Magsi
- One case of HIV/AIDs reported from Balochistan. Field investigation is required to confirm the cases
- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, TB, VH (B, C & D), Mumps, CL, Pertussis, AVH (A & E), Chickenpox, Dengue, HIV/ AIDS, and Meningitis showed an increase in the number of cases this week. A decline in the number of cases is observed for Dog Bite, AWD (S. Cholera), and Measles.

Table 3: District wise distribution of most frequently reported suspected cases during Week 37, Balochistan

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	Dog Bite	TB	VH (B, C & D)
Awaran	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barkhan	82	64	112	5	8	0	20	29	7	0
Chagai	160	252	58	0	47	0	9	0	0	0
Chaman	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Dera Bugti	84	0	103	0	8	0	4	0	0	0
Duki	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Gwadar	17	27	7	2	7	0	5	2	0	0
Harnai	202	0	96	166	65	0	0	1	0	0
Hub	231	38	307	6	17	0	1	5	2	0
Jaffarabad	468	223	802	41	61	16	9	51	64	44
Jhal Magsi	383	622	347	39	1	0	27	12	5	0
Kachhi (Bolan)	112	69	78	2	15	0	10	10	7	0
Kalat	37	0	15	5	4	0	20	0	0	0
Kech (Turbat)	585	822	843	128	71	3	1	0	0	0
Kharan	226	617	46	0	79	12	5	0	0	0
Khuzdar	229	188	77	2	15	25	35	0	0	0
Killa Abdullah	227	141	13	1	40	45	33	2	0	1
Killa Saifullah	336	0	331	239	85	38	53	5	0	2
Kohlu	117	232	67	6	55	4	32	0	1	5
Lasbella	441	63	342	172	22	3	6	10	5	0
Loralai	289	357	58	43	43	52	22	2	0	1
Mastung	139	136	76	34	12	31	20	0	0	0
MusaKhel	129	37	274	56	28	6	27	5	1	4
Naseerabad	337	11	109	26	14	32	52	99	14	22
Nushki	160	0	1	0	54	0	0	0	0	0
Panjgur	41	13	149	48	12	3	0	0	0	0
Pishin	497	501	59	90	149	46	38	5	1	0
Quetta	573	768	31	158	61	52	19	0	0	0
Sherani	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Sibi	464	444	191	64	53	111	18	2	4	0
Sohbat pur	316	44	97	163	84	6	24	7	0	3
Surab	16	55	2	0	0	0	0	0	0	0
Usta Muhammad	704	129	186	148	92	38	4	19	0	22
Washuk	92	230	136	7	66	13	10	0	1	0
Zhob	83	40	79	65	3	2	2	0	2	0
Ziarat	153	119	59	41	43	6	16	14	0	0
Total	7930	6242	5151	1757	1314	544	522	280	114	104

Figure 4: Most frequently reported suspected cases during Week 37, Balochistan

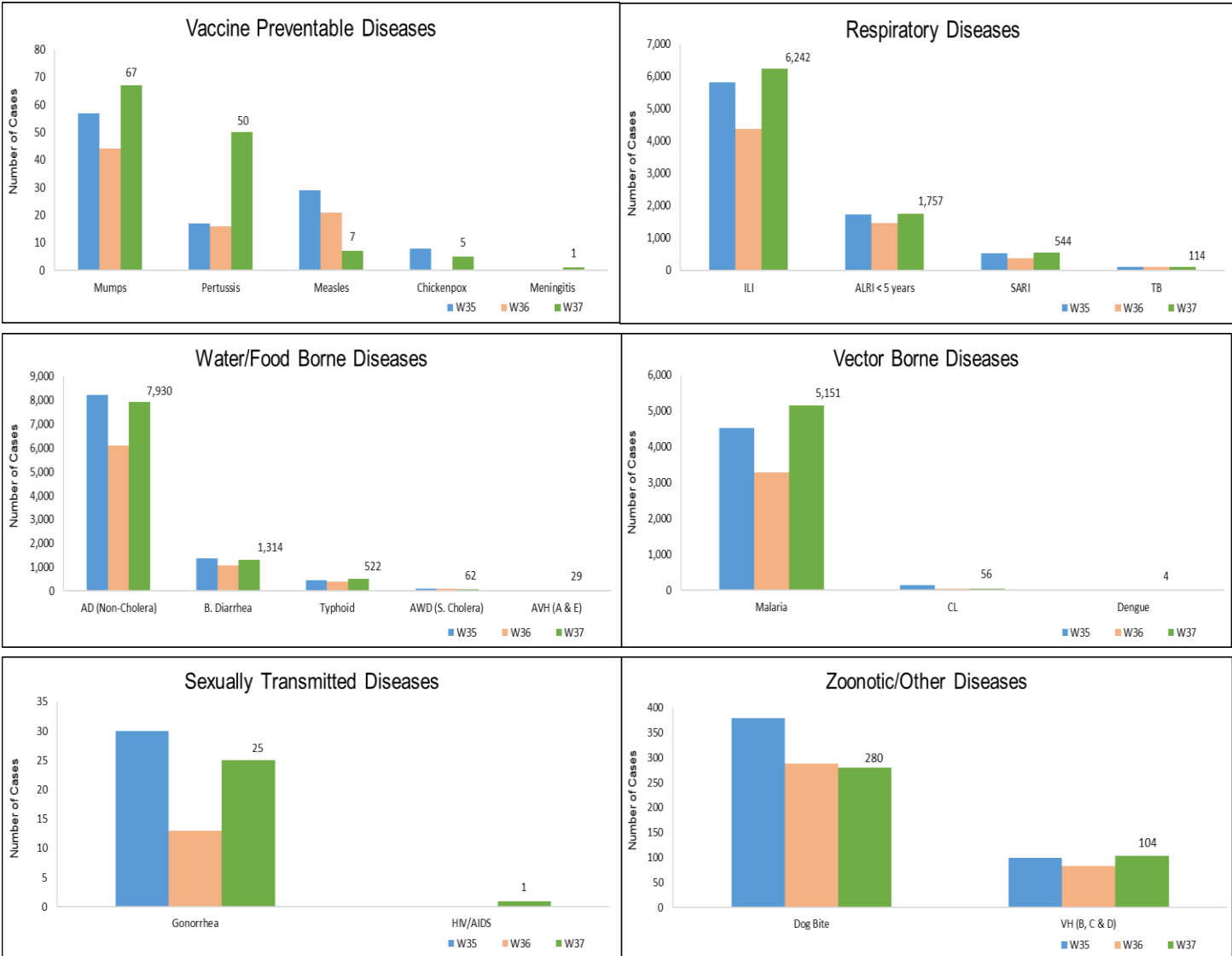
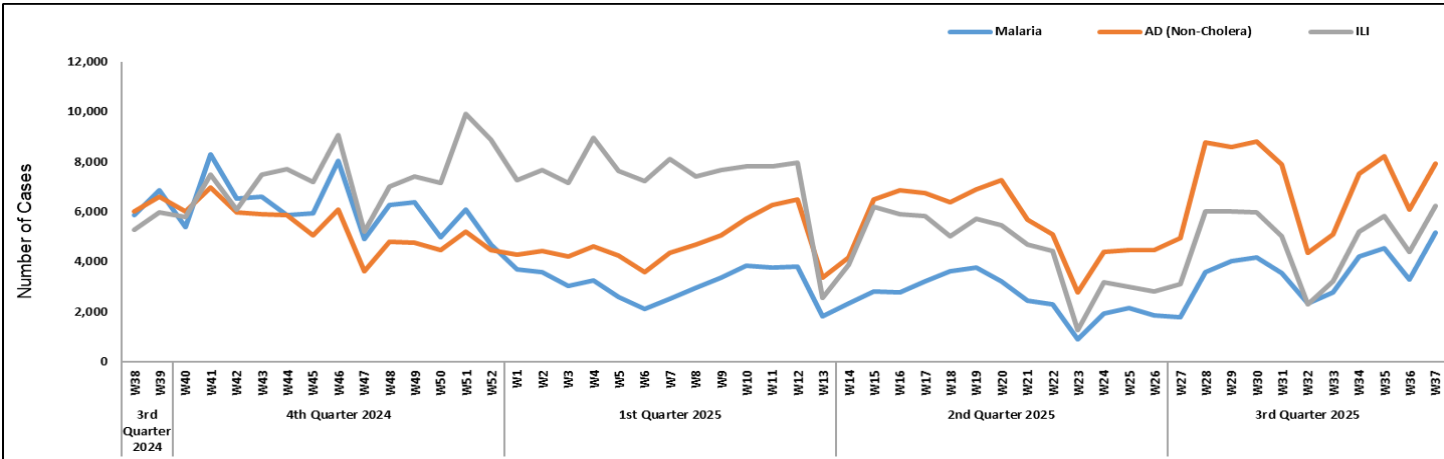


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, B. Diarrhea, Dog Bite, ALRI<5 Years, Typhoid, Dengue, SARI, and CL
- AD (Non-Cholera), Malaria, ILI, B. Diarrhea, Dog Bite, ALRI<5 Years, Typhoid, Dengue, SARI, TB, Measles, Chickenpox, AWD (S. Cholera), AFP, Diphtheria, HIV/ AIDS and Covid 19 cases showed an increase in number while CL, VH (B, C & D), Pertussis, Meningitis, NT, and Brucellosis showed a decline in number this week
- Twenty-six cases of AFP were reported from KP. All are suspected cases and need field verification.
- Five cases of HIV/AIDs reported from KP. Field investigation is required.

Table 4: District wise distribution of most frequently reported suspected cases during Week 37, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B. Diarrhea	Dog Bite	ALRI < 5 years	Typhoid	Dengue	SARI	CL
Abbottabad	1381	0	135	12	97	9	16	29	2	0
Bajaur	736	398	53	102	110	5	4	10	44	15
Bannu	970	1455	3	16	3	6	93	17	8	0
Battagram	0	7	0	4	0	10	5	15	3	0
Buner	495	230	0	0	0	0	6	0	0	0
Charsadda	4050	481	1651	129	17	438	44	360	4	0
Chitral Lower	781	46	20	15	13	12	10	0	9	12
Chitral Upper	241	9	29	5	4	5	12	0	9	0
D.I. Khan	2011	739	0	32	10	6	3	1	0	1
Dir Lower	2021	250	1	89	27	9	37	3	0	0
Dir Upper	2233	15	32	35	21	74	12	0	1	2
Hangu	225	128	133	0	0	0	4	17	0	43
Haripur	1665	6	399	0	18	10	2	37	3	0
Karak	838	381	48	37	35	37	7	0	0	198
Khyber	855	921	48	169	54	101	68	2	5	27
Kohat	989	423	0	28	25	5	28	1	0	6
Kohistan Lower	164	4	1	8	2	0	0	0	0	0
Kohistan Upper	336	69	0	23	0	0	3	144	1	0
Kolai Palas	81	1	6	10	0	2	0	0	0	0
L & C Kurram	52	1	0	8	0	4	14	0	0	0
Lakki Marwat	980	621	0	15	79	0	13	1	0	0
Malakand	817	56	40	0	0	0	0	0	0	2
Mansehra	1025	21	271	0	0	8	21	0	0	0
Mardan	1220	549	17	30	17	37	20	9	0	1
Mohmand	163	298	67	16	13	1	5	1	176	39
North Waziristan	46	64	0	0	0	15	16	0	0	0
Nowshera	2805	671	53	14	3	5	16	9	2	18
Orakzai	101	30	6	5	0	0	0	0	0	0
Peshawar	5069	83	461	84	4	19	193	66	1	0
Shangla	1399	1127	0	12	114	3	18	2	0	0
South Waziristan (Lower)	72	101	76	1	18	20	13	0	34	18
South Waziristan (Upper)	79	87	16	3	0	0	2	1	14	0
Swabi	1659	173	641	25	162	56	46	35	56	0
Swat	3898	141	416	105	126	65	57	9	11	0
Tank	565	203	54	7	0	8	0	0	0	0
Tor Ghar	100	83	0	24	7	2	1	0	11	0
Upper Kurram	204	22	106	46	6	2	15	0	45	0
Total	40326	9894	4783	1109	985	974	804	769	439	382

Figure 6: Most frequently reported suspected cases during Week 37, KP

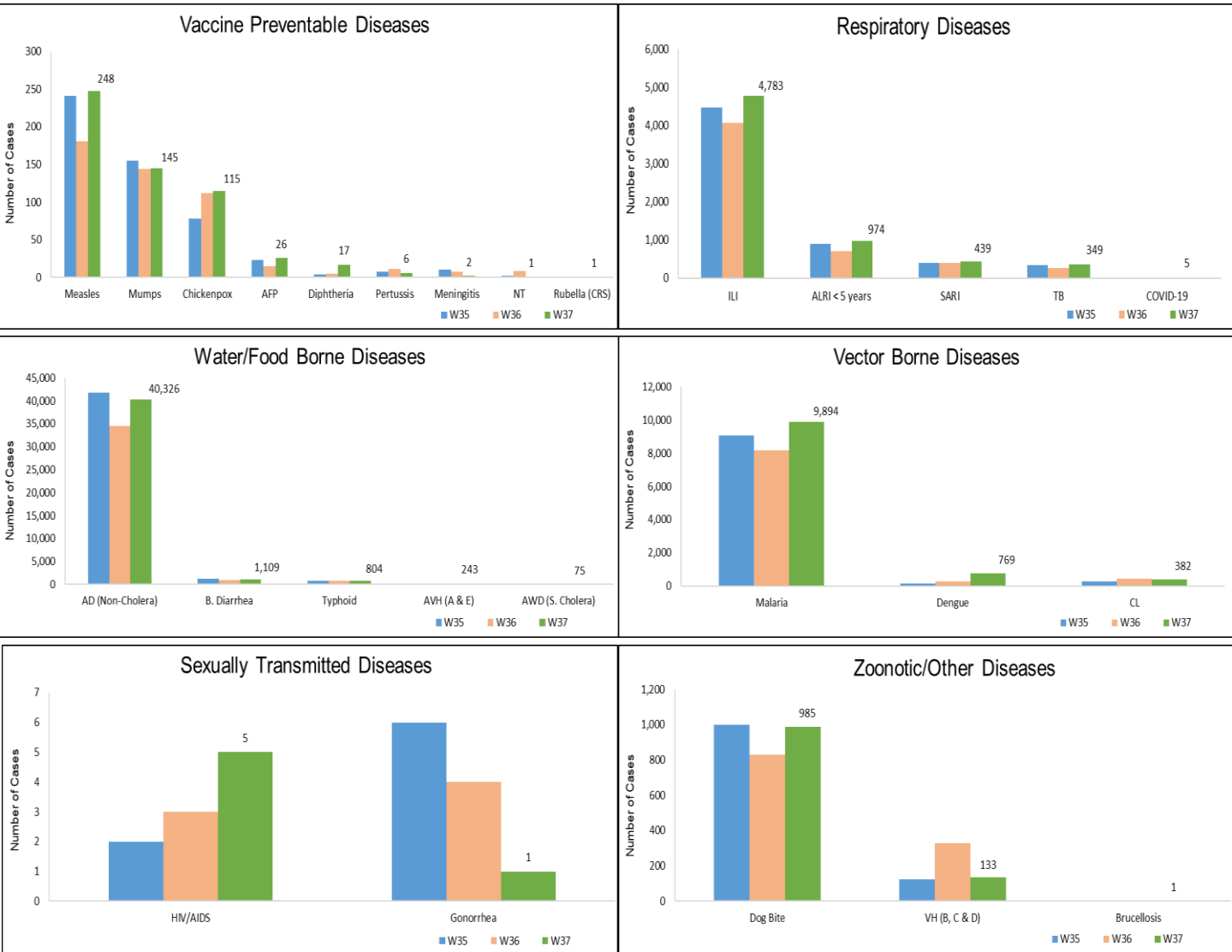
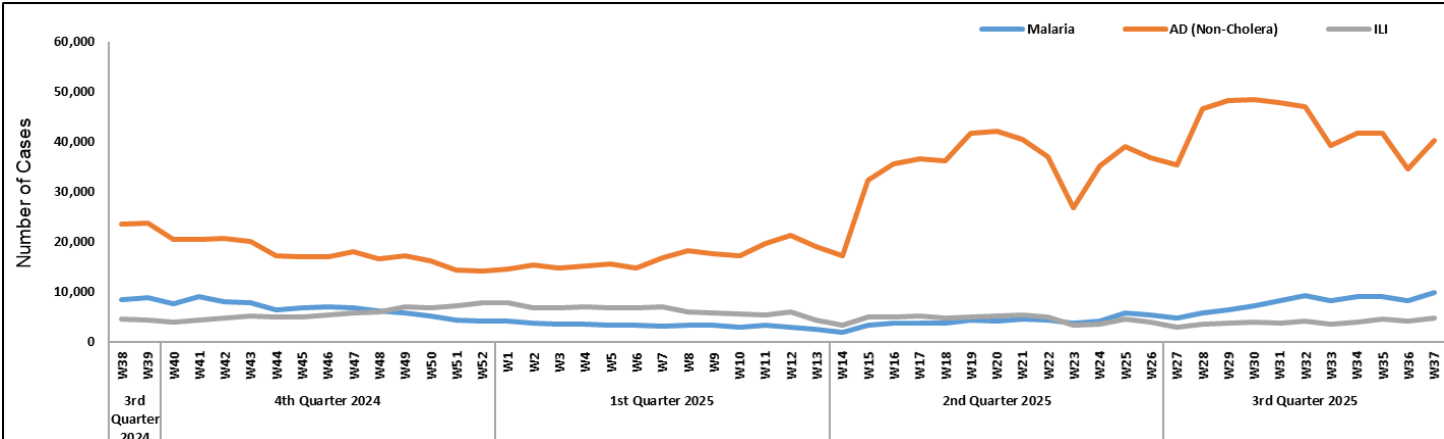


Figure 7: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, KP



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

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

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

Figure 8: Most frequently reported suspected cases during Week 37, AJK



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

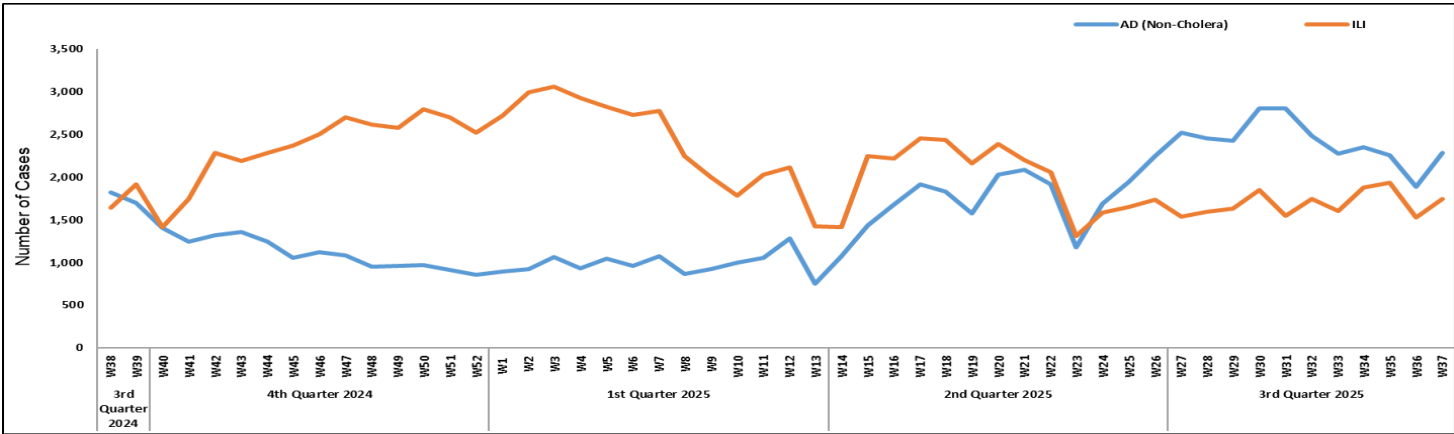


Figure 10: Most frequently reported suspected cases during Week 37, ICT

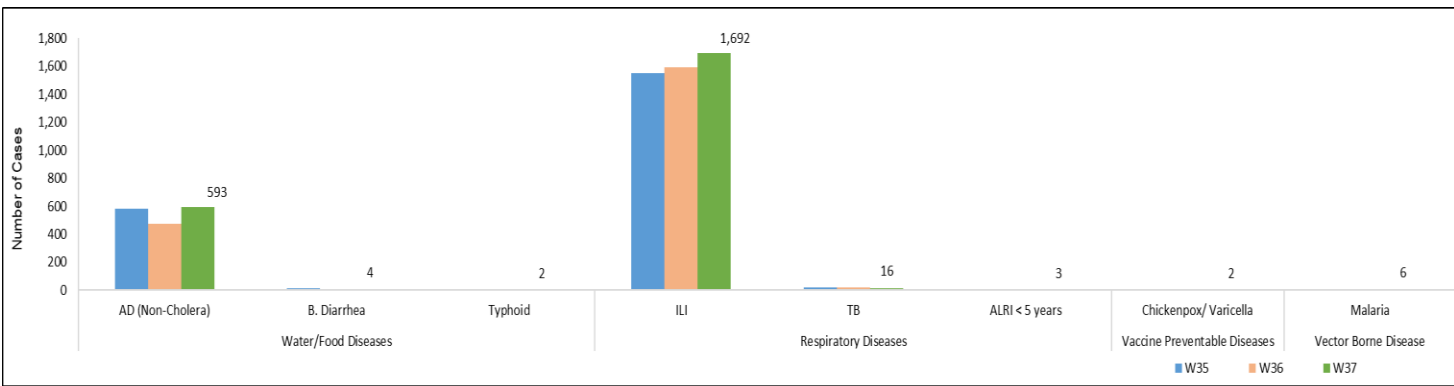


Figure 11: Week wise reported suspected cases of ILI, ICT

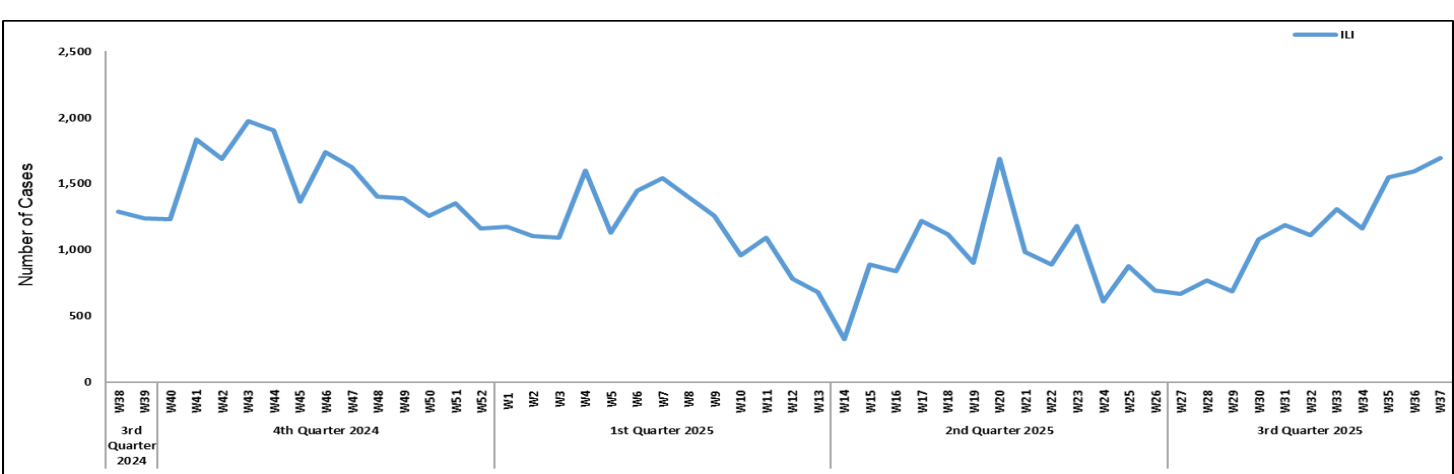


Figure 12: Most frequently reported suspected cases during Week 37, GB

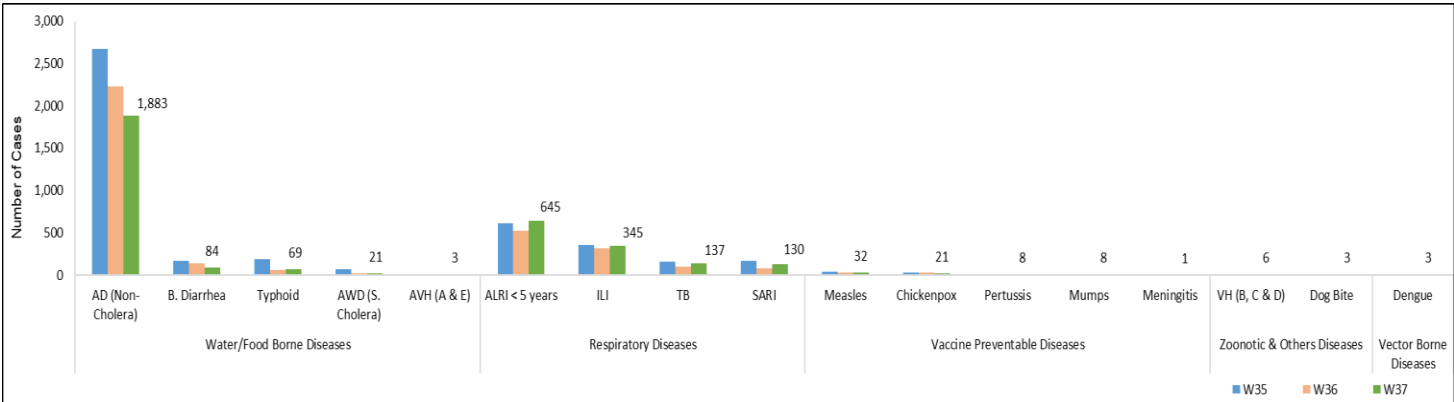


Figure 13: Week wise reported suspected cases of AD (Non-Cholera), GB

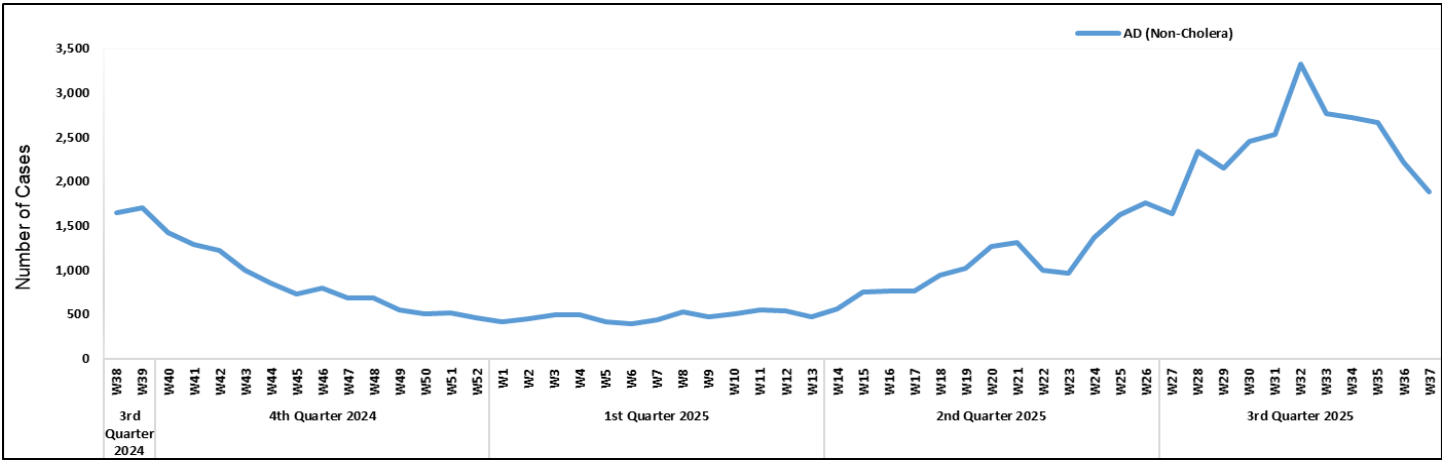


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi Week 37

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)	49	4	-	-	0	0	-	-	21	5	-	-	-	-
Stool culture & Sensitivity	207	0	-	-	0	0	-	-	-	-	-	-	-	-
Malaria	13,439	1,263	-	-	7,242	40	-	-	108	0	-	-	54	1
CCHF	1	1	6	1	-	-	-	-	-	-	-	-	-	-
Dengue	4,327	861	2	0	8,066	52	-	-	-	-	-	-	275	58
VH (B)	12,214	484	0	0	71	20	-	-	1,210	13	-	-	544	2
VH (C)	11,897	913	93	54	117	26	-	-	1,202	4	-	-	544	14
VH (D)	235	61	-	-	0	0	-	-	0	0	-	-	-	-
VH (A)	356	101	-	-	3	1	-	-	3	0	-	-	-	-
VH (E)	194	19	-	-	4	1	-	-	8	0	-	-	-	-
Covid-19	24	0	4	1	4	0	-	-	-	-	-	-	9	0
TB	409	39	-	-	63	7	-	-	26	1	-	-	38	2
HIV/ AIDS	4,074	37	-	-	1,371	0	-	-	282	0	-	-	475	2
Syphilis	1,302	9	-	-	-	-	-	-	99	0	-	-	-	-
Typhoid	2,058	55	-	-	-	-	-	-	98	10	-	-	-	-
Diphtheria	13	2	-	-	16	6	1	0	-	-	-	-	-	-
ILI	20	5	1	0	2	0	-	-	-	-	-	-	-	-
Pneumonia (ALRI)	233	59	-	-	-	-	-	-	-	-	-	-	-	-
Meningitis	35	3	-	-	-	-	-	-	-	-	-	-	-	-
Measles	40	12	16	8	210	111	13	10	1	0	248	58	6	2
Rubella (CRS)	5	4	-	-	1	1	-	-	-	-	-	-	-	-
Leishmaniasis (cutaneous)	21	3	-	-	6	1	-	-	-	-	-	-	-	-
Leishmaniasis (Visceral)	8	0	-	-	-	-	-	-	-	-	-	-	-	-
Chikungunya	19	2	2	0	-	-	-	-	-	-	-	-	-	-
Gonorrhea	111	0	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis	3	0	-	-	-	-	-	-	-	-	-	-	-	-
MPOX	0	0	-	-	1	1	-	-	-	-	-	-	-	-
Pertussis	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 37, 2025

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	102	92%
	Bannu	238	134	56%
	Battagram	59	32	54%
	Buner	34	22	65%
	Bajaur	44	36	82%
	Charsadda	59	57	97%
	Chitral Upper	34	28	82%
	Chitral Lower	35	35	100%
	D.I. Khan	114	113	99%
	Dir Lower	74	63	85%
	Dir Upper	37	29	78%
	Hangu	22	16	73%
	Haripur	72	71	99%
	Karak	36	36	100%
	Khyber	53	45	85%
	Kohat	61	61	100%
	Kohistan Lower	11	8	73%
	Kohistan Upper	20	15	75%
	Kolai Palas	10	9	90%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	5	12%
	Upper Kurram	41	29	71%
	Malakand	42	18	43%
	Mansehra	133	81	61%
	Mardan	80	53	66%
	Nowshera	56	53	95%
	North Waziristan	13	7	54%
	Peshawar	156	132	85%
	Shangla	37	25	68%
	Swabi	64	62	97%
	Swat	77	74	96%
	South Waziristan (Upper)	93	93	100%
	South Waziristan (Lower)	42	28	67%
	Tank	34	31	91%
	Torghar	14	13	93%
	Mohmand	68	37	54%
	Orakzai	69	11	16%
Azad Jammu Kashmir	Mirpur	37	37	100%
	Bhimber	92	90	98%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%
	Haveli	39	39	100%
	Bagh	54	54	100%



	Neelum	39	39	100%
	Jhelum Velley	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	23	23	100%
	CDA	15	8	53%
Balochistan	Gwadar	26	1	4%
	Kech	44	37	84%
	Khuzdar	74	17	23%
	Killa Abdullah	26	23	88%
	Lasbella	55	54	98%
	Pishin	69	39	57%
	Quetta	55	32	58%
	Sibi	36	36	100%
	Zhob	39	12	31%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	0	0%
	Kohlu	75	22	29%
	Chagi	36	25	69%
	Kalat	41	41	100%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	18	51%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	8	25%
	Mastung	45	45	100%
	Loralai	33	27	82%
	Killa Saifullah	28	24	86%
	Ziarat	29	15	52%
	Duki	31	0	0%
	Nushki	32	27	84%
	Dera Bugti	45	30	67%
	Washuk	46	16	35%
	Panjgur	38	5	13%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	19	95%
	Hub	33	27	82%
	Musakhel	41	19	46%
	Usta Muhammad	34	33	97%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	38	38	100%
	Gilgit	42	41	98%
	Diamer	62	55	89%
	Astore	55	54	98%
	Shigar	27	25	93%
	Skardu	53	52	98%
	Ganche	29	24	83%

	Kharmang	46	25	54%
Sindh	Hyderabad	72	72	100%
	Ghotki	64	64	100%
	Umerkot	62	62	100%
	Naushahro Feroze	107	102	95%
	Tharparkar	276	252	91%
	Shikarpur	60	59	98%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	21	14	67%
	Karachi-West	20	20	100%
	Karachi-Malir	35	30	86%
	Karachi-Kemari	22	22	100%
	Karachi-Central	12	9	75%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	4	67%
	Sujawal	55	53	96%
	Mirpur Khas	106	106	100%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	90	100%
	Sanghar	100	97	97%
	Jacobabad	44	44	100%
	Khairpur	170	168	99%
	Kashmore	59	59	100%
	Matari	42	42	100%
	Jamshoro	75	74	99%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	41	41	100%
	Shaheed Benazirabad	122	122	100%

Table 7: IDSR reporting Tertiary care hospital Week 37, 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	3	2	67%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	0	0%
	Karachi-East	1	1	100%
	Karachi-Central	1	0	0%
KP	Peshawar	3	0	0%
	Swabi	1	0	0%
	Nowshera	1	1	100%
	Mardan	1	1	100%
	Abbottabad	1	1	100%
	Swat	1	1	100%

Letter to Editor

Air Pollution and Its Health Impacts in Major Cities of Pakistan

Dear Editor

Through your esteemed weekly bulletin, I wish to highlight an issue that has quietly become one of the most serious public health crises of our time the growing menace of air pollution in Pakistan's urban centers. It is a problem that no longer belongs to the realm of environmentalists alone; it is now a direct threat to public health, economic productivity, and human survival.

Every winter, thick smog blankets Lahore, Faisalabad, Gujranwala, and Karachi. The situation has become so severe that Lahore often ranks among the most polluted cities in the world, with Air Quality Index (AQI) levels routinely exceeding 400 several times above the World Health Organization (WHO) safe limit. This is not fog, as some still call it; it is a toxic mixture of fine particulate matter (PM_{2.5}), nitrogen oxides, sulfur dioxide, and carbon monoxide that we are all breathing daily. The air we inhale has become a slow poison.

The health impacts are devastating. Exposure to PM_{2.5} the tiny particles that penetrate deep into the lungs and bloodstream has been linked to asthma, chronic bronchitis, heart disease, stroke, and even cancer. According to WHO estimates, around 128,000 premature deaths in Pakistan each year are attributed to outdoor air pollution. Children and the elderly are especially vulnerable. Pediatric hospitals in Lahore and Karachi report sharp increases in respiratory illnesses during smog season, and long-term exposure in childhood can permanently impair lung development.

The burden extends beyond hospitals. Air pollution reduces worker productivity, increases healthcare costs, and contributes to school absenteeism. A study by the World Bank estimated that environmental degradation, mainly due to air pollution, costs Pakistan around 6% of its GDP annually a staggering figure that underscores how environmental neglect translates directly into economic loss.

The causes of this crisis are well known. Vehicular emissions are the leading source, fueled by old, poorly maintained vehicles, low-quality fuel, and weak enforcement of emission standards. Industrial pollution, particularly from brick kilns and steel mills operating without filters, adds to the toxic load. The widespread burning of crop residues after harvest contributes massively to seasonal smog in Punjab. In addition, household burning of solid fuels for cooking and heating continues to pollute indoor air, particularly in low-income areas.

Unfortunately, our policy response remains reactive and fragmented. Each year, as the smog worsens, the government resorts to temporary measures school closures, partial shutdowns, or rain seeding instead of addressing the root causes. Environmental protection agencies, though legally empowered, lack the resources, data, and political support to enforce compliance. Coordination between provincial and federal bodies is weak, and long-term planning is sacrificed for short-term convenience.

Pakistan needs a sustained, multi-pronged strategy to tackle air pollution. The first step must be accurate monitoring and transparent data. Continuous air quality monitoring stations should be expanded across all major cities, and the data should be publicly available in real time. The public has the right to know the quality of the air they breathe.



Second, transport reforms are critical. Upgrading fuel standards to Euro-V, phasing out old diesel vehicles, and promoting electric or hybrid public transport must become urgent priorities. Expanding metro and bus systems can help reduce the number of private vehicles on the road. Incentives for carpooling, cycling, and walking can further ease the burden on urban air.

Third, industrial and agricultural pollution must be controlled with strict enforcement. Brick kilns should transition to cleaner zigzag technology, and industries must be compelled to install emission control equipment. The burning of crop residues can be reduced through subsidies for mechanical shredders and awareness campaigns among farmers.

Fourth, urban planning needs to integrate environmental health principles. Increasing green cover through urban forestry, restricting the construction of high-polluting industries within city limits, and zoning regulations can significantly reduce pollution exposure. Green belts and roadside plantations, though not a complete solution, help absorb some pollutants and reduce heat islands.

Fifth, public awareness and behavioral change are key. Citizens can contribute by avoiding unnecessary vehicle use, maintaining engines properly, and supporting policies that prioritize clean air. Schools can educate children on the importance of environmental health, fostering a sense of civic responsibility from a young age.

Air pollution is also a climate issue. Many of the pollutants that foul our air black carbon, methane, and ozone are also potent greenhouse gases. By tackling air pollution, we simultaneously contribute to mitigating climate change and protecting future generations.

This is not a problem that can be solved overnight, but neither is it unsolvable. Many countries once plagued by dangerous pollution such as China and Mexico have demonstrated that with evidence-based policy, enforcement,

and public participation, air quality can improve dramatically within a decade.

The people of Pakistan deserve to breathe clean air without fearing for their health. Every breath should sustain life, not shorten it. Protecting our air is not only an environmental obligation; it is a public health necessity and a moral duty.

Dr. Hamza Ikram
Scientific Officer
CDC-NIH

Knowledge Hub

Malaria: What You Need to Know

Malaria is a serious and sometimes fatal disease caused by a **parasite** that infects a certain type of mosquito. It is transmitted to humans through the bite of infected female *Anopheles* mosquitoes.

What is Malaria?

Malaria is a mosquito-borne infectious disease caused by **parasites** of the *Plasmodium* group. These parasites are microscopic organisms. Humans typically get malaria from the bite of an infected **female *Anopheles* mosquito**.

- There are five parasite species that cause malaria in humans:
- ***Plasmodium falciparum***: The most common and **deadliest** species, prevalent in Africa.
- ***Plasmodium vivax***: Found mostly outside Africa and can cause relapses weeks or months after the initial infection.
- ***Plasmodium ovale*, *P. malariae*, and *P. knowlesi***: Less common species.

How Malaria Spreads

Malaria is transmitted when an infected ***Anopheles* mosquito** bites a human. The parasite enters the bloodstream and travels to the liver,



where it multiplies. It then re-enters the bloodstream to infect red blood cells.

- **Mosquito-to-human:** The primary way the parasite is passed.
- **Human-to-human (rare):** Congenital malaria (mother to baby), blood transfusion, or shared needles.
- Malaria is **not** contagious from person to person like a cold or flu and cannot be sexually transmitted.

Signs & Symptoms

Symptoms of malaria typically appear **10 days to 4 weeks after infection**, though they can emerge earlier or much later. The classic presentation includes cycles of fever, chills, and sweating.

- Common symptoms include:
- **Fever** (often characterized by cycles of chills, then fever, then sweating).
- **Chills** (intense shivering).
- Headache.
- Muscle aches.
- Fatigue.
- Nausea and vomiting.
- **Seek immediate medical attention** if you develop these symptoms, especially after traveling to a malaria-endemic area.

Complications

If left untreated, malaria can quickly become life-threatening. Complications can include:

- Brain swelling.
- Severe anemia (due to destruction of red blood cells).
- Kidney failure or liver failure.
- Shock and death.

Prevention

Prevention is crucial, especially for travelers to malaria-endemic areas.

- **Antimalarial medication (chemoprophylaxis):** Take prescription drugs before, during, and after travel to

high-risk areas. The specific drug depends on the region.

- **Mosquito bite prevention:**
- Use insect repellent containing **DEET**.
- Wear long-sleeved shirts and long pants, especially from **dusk to dawn**.
- Sleep under an **insecticide-treated bed net**.
- **Malaria Vaccine (RTS,S/AS01):** This vaccine is recommended by the WHO for children living in areas with moderate to high *P. falciparum* malaria transmission in Africa. Other prevention methods must still be used alongside the vaccine.

Diagnosis and Treatment

Diagnosis: Malaria is diagnosed by a healthcare provider, typically using **blood tests**. A blood smear viewed under a microscope is the most common method to identify the malaria parasites. Rapid diagnostic tests (RDTs) are also used.

Treatment: Malaria is a treatable disease. It is treated with **antimalarial drugs**. The specific treatment depends on the parasite species, the severity of the illness, and known drug resistance patterns in the area of infection. It is essential to complete the entire course of prescribed medication.

More Information

For additional authoritative information on malaria, please visit:

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



VECTOR-BORNE DISEASES

VECTORS MAY BE A THREAT TO YOU, AT HOME AND WHEN TRAVELLING

VECTORS ARE SMALL ORGANISMS THAT CARRY SERIOUS DISEASES

COMMON VECTORS



WITH JUST 1 BITE

they can transmit diseases such as:

-  Malaria
-  Dengue

-  Zika
-  Lyme disease

-  Yellow fever
-  Japanese encephalitis



TAKE SIMPLE MEASURES TO PROTECT YOURSELF AND YOUR FAMILY

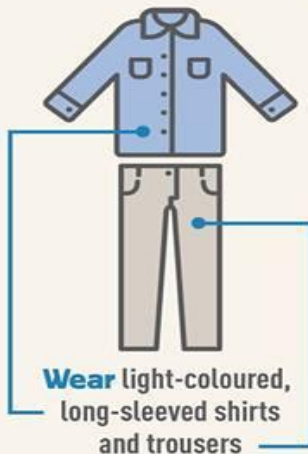
Get vaccinated against yellow fever and Japanese encephalitis



Install



window screens



Use insect repellent

Sleep under an insecticide-treated bed net



Get rid of stagnant water from places where mosquitoes breed, such as in old containers, flower pots and used tyres



For more information, contact your health-care professional

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