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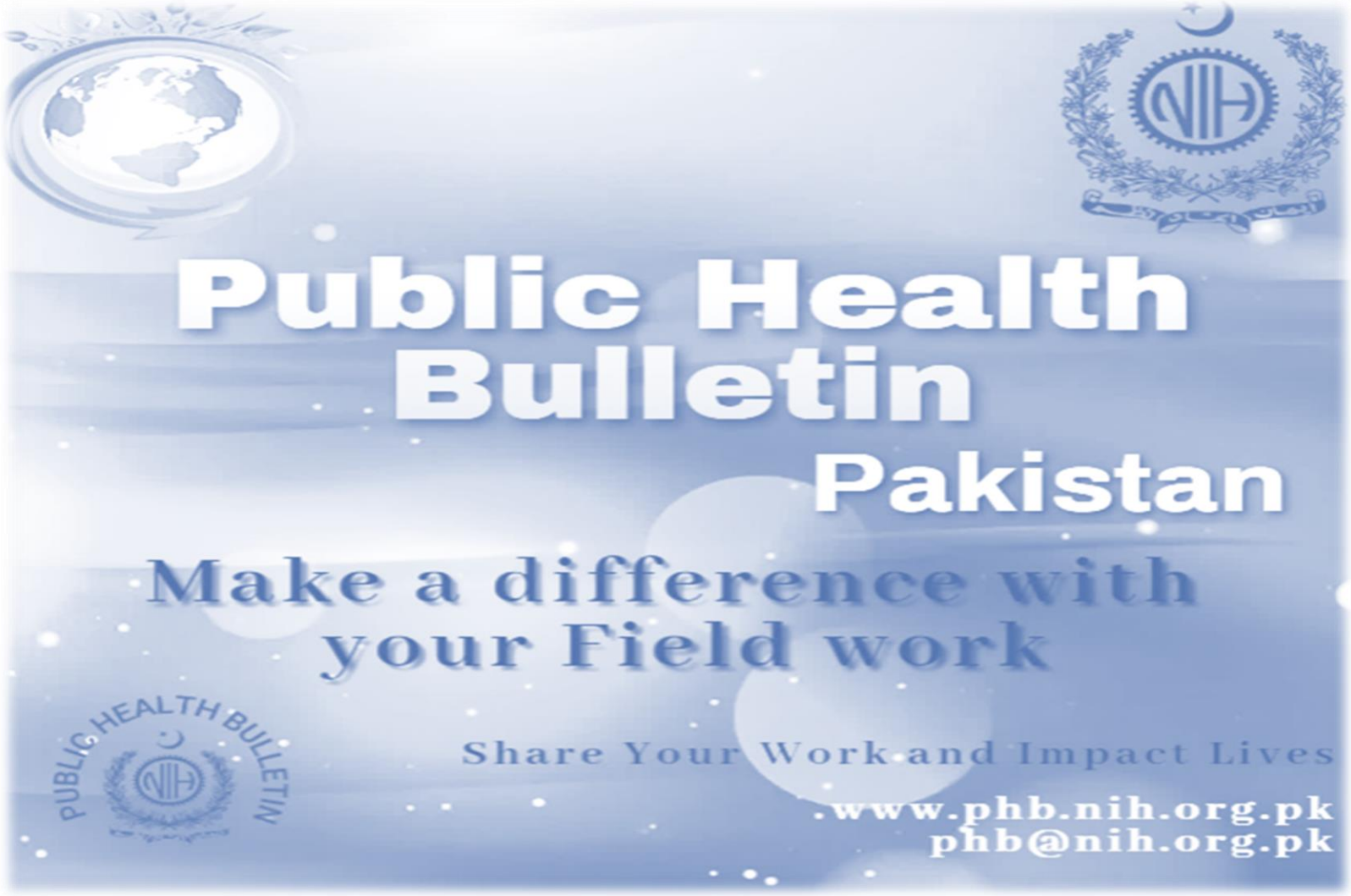
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

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



Public Health Bulletin - Pakistan, Week 16, 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;

- *Strengthening Public Health Surveillance for Effective Outbreak*
- *Knowledge hub on Acute Watery Diarrhea*

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

Subscribe to the Weekly Bulletin today!

Stay informed. Stay prepared. Stay healthy.

Sincerely,
The Chief Editor

Note: All reported cases in this report are suspected cases

- *During Week 16, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, B. Diarrhea, VH (B, C & D), dog bite, SARI and Typhoid.*
- *Twenty-nine cases of AFP reported from KP, fifteen from Sindh, three from AJK, two from Balochistan and one from GB.*
- *Four suspected cases of HIV/ AIDS reported from KP and two each from Sindh and Balochistan.*
- *Fifteen suspected cases of Brucellosis reported from KP.*
- *Among VPDs, there is an increase in number of cases of Measles, Chickenpox, Mumps, AFP, NT, Rubella and Diphtheria this week.*
- *Among Respiratory diseases, there is an increase in number of cases of TB and SARI this week.*
- *Among Water/food-borne diseases, there is an increase in number of cases of Acute Diarrhea (Non-Cholera) and B. Diarrhea this week.*
- *Among STDs, there is an increase in number of cases of HIV/AIDs this week.*
- *Among other diseases, there is an increase in number of cases of VH (B, C & D) this week.*

IDSR compliance attributes

- *The national compliance rate for IDSR reporting in 158 implemented districts is 79%*
- *Sindh is the top reporting regions with a compliance rate of 94%, followed by GB 93%, AJK 89%, and ICT 81%.*
- *The lowest compliance rate was observed in KP 73% and Balochistan 59%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2315	1699	73
Azad Jammu Kashmir	404	358	89
Islamabad Capital Territory	36	29	81
Balochistan	1308	766	59
Gilgit Baltistan	405	377	93
Sindh	2094	1974	94
National	6562	5203	79

Public Health Actions

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

AWD (Non Cholera)

- **Surveillance and Reporting:** Strengthen Integrated Disease Surveillance and Response (IDSR) to monitor AWD trends, detect outbreaks (e.g., cholera), and identify high-risk areas for timely interventions.
- **Water, Sanitation, and Hygiene (WASH):** Ensure access to safe drinking water, promote regular handwashing with soap (especially after defecation and before food preparation), and improve sanitation facilities to prevent fecal-oral transmission.
- **Environmental Sanitation:** Strengthen waste management systems, proper sewage disposal, and regular disinfection of water sources to reduce contamination.
- **Food Safety:** Promote safe food handling, preparation, and storage practices; ensure consumption of thoroughly cooked food and clean water.
- **Community Engagement:** Educate communities on early symptom recognition, importance of oral rehydration therapy (ORS), seeking timely medical care, and preventive hygiene practices through TV, radio, schools, and community health workers.

Acute Viral Hepatitis (A & E)

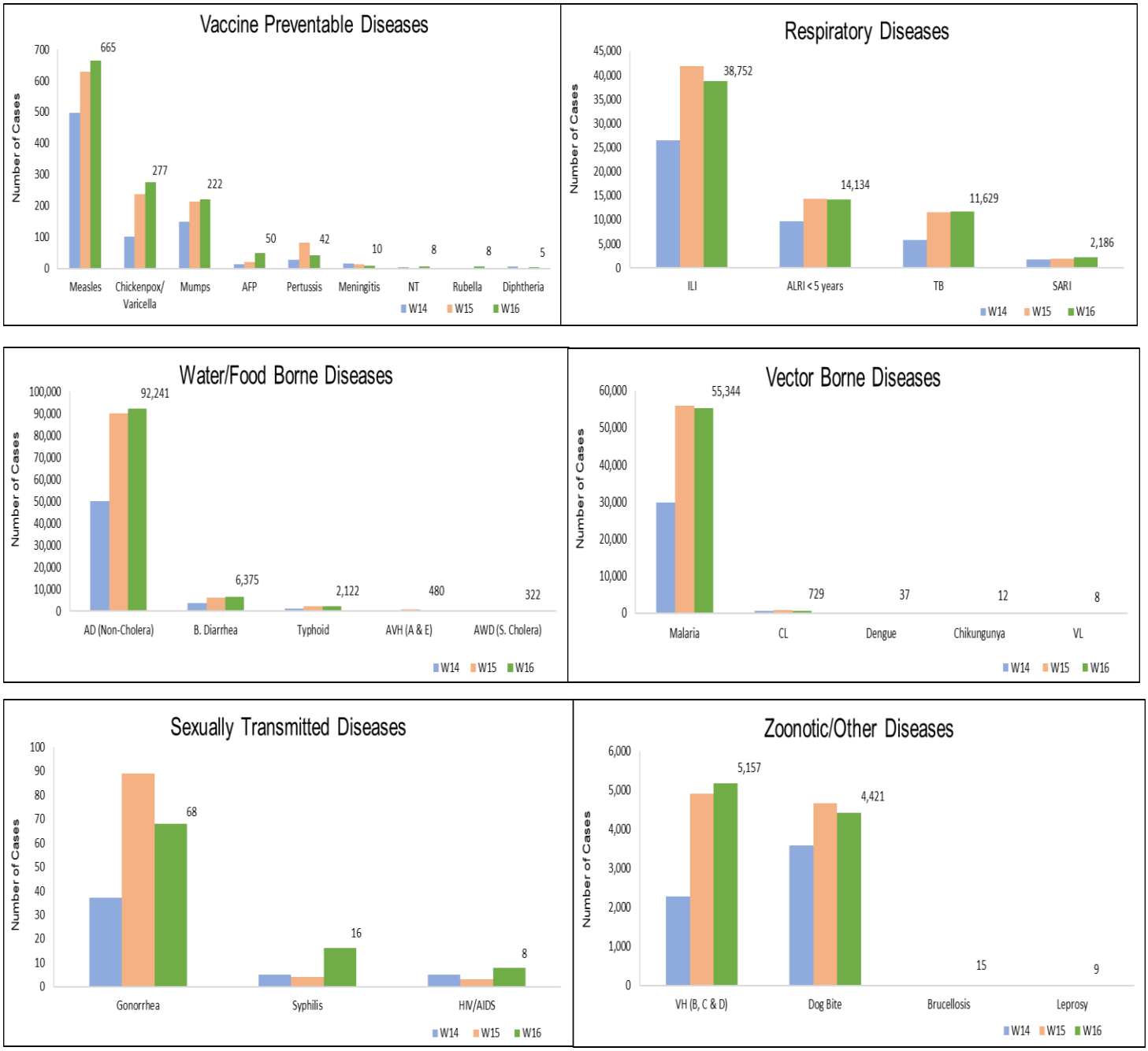
- **Enhance Case Detection and Reporting:** Strengthen AVH (A & E) surveillance in the IDSR system by training health personnel to recognize symptoms and ensure timely reporting, especially during seasonal peaks or in outbreak-prone areas.
- **Strengthen Laboratory Confirmation:** Improve diagnostic 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 products.

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 15, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (non-cholera)	1,676	6,862	769	488	35,699	NR	46,747	92,241
Malaria	2	2,773	0	0	3,777	NR	48,792	55,344
ILI	2,215	5,887	390	840	4,999	NR	24,421	38,752
ALRI < 5 years	965	1878	919	5	1,517	NR	8,850	14,134
TB	49	87	65	11	504	NR	10,913	11,629
B. Diarrhea	42	1256	75	4	1,571	NR	3,427	6,375
VH (B, C & D)	17	73	0	0	85	NR	4,982	5,157
Dog Bite	110	166	5	0	1,041	NR	3,099	4,421
SARI	266	708	100	1	986	NR	125	2,186
Typhoid	12	407	51	1	690	NR	961	2,122
CL	1	61	0	0	667	NR	0	729
Measles	10	38	4	0	472	NR	141	665
AVH (A & E)	23	10	10	0	278	NR	159	480
AWD (S. Cholera)	2	212	4	0	97	NR	7	322
Chickenpox/ Varicella	5	11	2	2	74	NR	183	277
Mumps	0	35	1	2	118	NR	66	222
Gonorrhea	0	30	0	0	22	NR	16	68
AFP	3	2	1	0	29	NR	15	50
Pertussis	0	13	3	0	8	NR	18	42
Dengue	0	20	0	0	8	NR	9	37
Syphilis	0	0	0	0	11	NR	5	16
Brucellosis	0	0	0	0	15	NR	0	15
Chikungunya	0	3	0	0	0	NR	9	12
Meningitis	2	0	2	0	1	NR	5	10
Leprosy	0	0	0	0	7	NR	2	9
VL	1	7	0	0	0	NR	0	8
Rubella (CRS)	8	0	0	0	0	NR	0	8
HIV/AIDS	0	2	0	0	4	NR	2	8
NT	0	2	0	0	6	NR	0	8
Diphtheria (Probable)	0	1	0	0	2	NR	2	5

★ ***Punjab Data delayed due to non-reporting by HF***

Figure 1: Most frequently reported suspected cases during Week 15, Pakistan.



Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and Chickenpox.
- Malaria cases are mostly from Larkana, Khairpur and Dadu whereas AD (Non-Cholera) cases are from Khairpur, Badin and Mirpurkhas.
- Fifteen cases of AFP reported from Sindh. They are suspected cases and need field verification.
- Two suspected cases of HIV/ AIDS reported from Sindh. They need field investigation.
- There is an increase in number of cases of TB, B. Diarrhea, VH (B, C, D) and VPDs including Chickenpox, Measles, Mumps, Pertussis, AFP and Diphtheria while a decline in number of cases of Malaria, AD (Non-Cholera), ILI, ALRI<5 Years and dog bite this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 15, Sindh

Districts	Malaria	AD (non-cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	Chickenpox/ Varicella
Badin	3,046	3,584	2,665	859	347	318	234	149	63	28
Dadu	3,907	2,971	547	454	984	98	434	612	147	6
Ghotki	905	589	93	264	416	32	55	149	0	0
Hyderabad	703	2,829	1,613	249	113	73	38	31	17	16
Jacobabad	745	806	558	139	265	167	92	229	25	9
Jamshoro	1,880	1,615	112	561	288	203	146	93	26	6
Kamber	3,650	1,722	0	848	303	143	128	179	25	5
Karachi Central	7	669	609	9	10	6	6	0	91	4
Karachi East	23	417	292	10	25	3	2	19	0	8
Karachi Keamari	13	552	372	10	30	1	8	0	9	10
Karachi Korangi	76	371	0	17	1	0	6	0	2	2
Karachi Malir	122	881	1,409	76	125	12	17	33	4	3
Karachi South	2	84	0	0	0	0	0	0	0	0
Karachi West	309	833	1,066	62	188	39	19	101	29	1
Kashmore	1,956	545	432	172	128	8	64	87	3	0
Khairpur	4,541	3,938	6,528	1,046	1,098	221	397	228	195	8
Larkana	5,060	2,174	65	911	330	56	316	35	6	19
Matiari	2,532	1,894	3	553	257	503	63	88	3	1
Mirpurkhas	1,768	3,016	2,324	744	411	210	99	133	12	18
Naushero Feroze	1,317	1,116	892	350	340	55	175	207	43	0
Sanghar	3,344	1,951	39	1,017	454	1,413	59	170	56	2
Shaheed Benazirabad	2,024	2,036	7	320	197	108	123	115	94	1
Shikarpur	2,274	1,389	2	242	178	590	154	166	4	2
Sujawal	1,018	1,941	6	152	208	58	187	70	5	0
Sukkur	1,682	1,697	2,182	412	348	79	143	99	4	4
Tando Allahyar	1,669	1,932	924	462	152	339	141	57	14	5
Tando Muhammad Khan	797	847	51	307	70	0	29	29	0	0
Tharparkar	1,731	1,976	1,356	390	615	143	114	2	33	10
Thatta	653	1,050	274	26	592	49	82	18	13	13
Umerkot	1,038	1,322	0	251	377	55	96	0	38	2
Total	48,792	46,747	24,421	10,913	8,850	4,982	3,427	3,099	961	183

Figure 2: Most frequently reported suspected cases during Week 15 Sindh

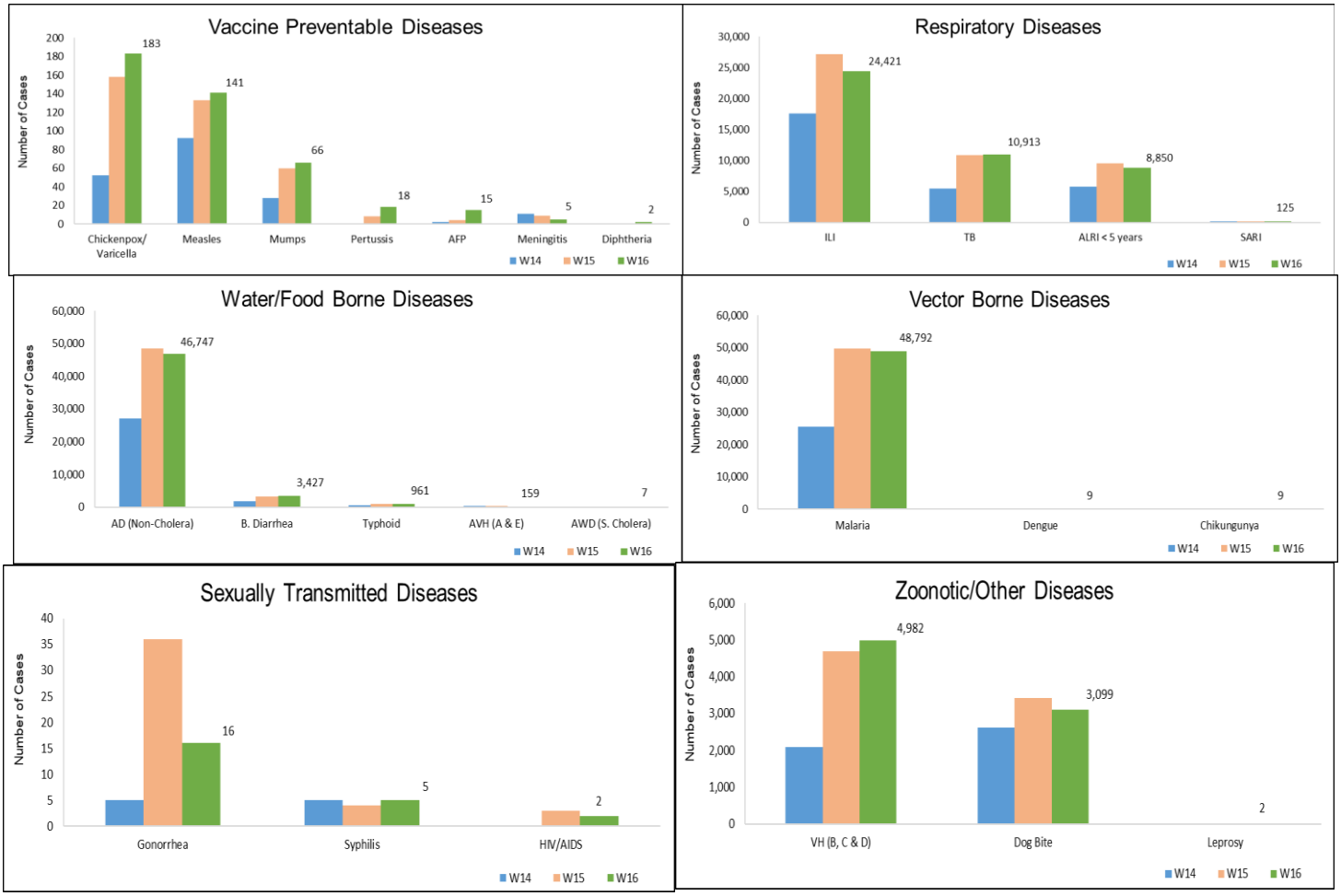
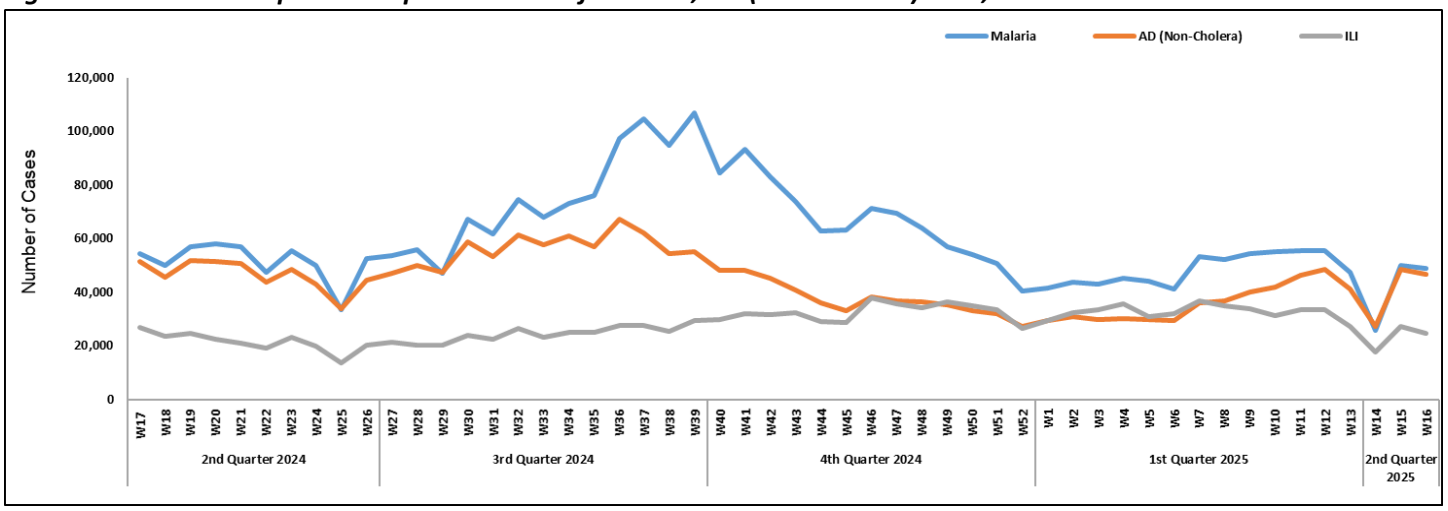


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), dog bite and TB cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Quetta, Usta Muhammad and Lasbella while ILI cases are mostly reported from Quetta, Gwadar and Pishin.
- Two cases of AFP reported from Balochistan. They are suspected cases and need field verification.
- Two suspected cases of HIV/ AIDS reported from Balochistan. They need field investigation.

Table 3: District wise distribution of most frequently reported suspected cases during Week 15, Balochistan

Districts	AD (non-cholera)	ILI	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	AWD (S. Cholera)	Dog Bite	TB
Barkhan	99	28	41	14	8	0	28	5	23	8
Chagai	180	206	37	0	48	0	11	0	0	0
Dera Bugti	66	13	45	23	1	0	0	0	0	0
Gwadar	358	772	93	26	46	0	16	2	1	0
Hub	229	65	135	32	19	2	0	0	1	0
Jhal Magsi	277	195	334	235	1	0	7	0	13	10
Kachhi (Bolan)	159	78	123	43	45	150	20	42	0	1
Kalat	20	0	8	9	9	0	12	0	0	0
Kharan	238	502	38	39	83	0	0	0	0	0
Khuzdar	294	468	165	4	143	17	28	34	0	0
Killa Abdullah	122	108	13	19	33	54	30	43	10	0
Killa Saifullah	160	0	237	175	85	27	19	2	6	0
Kohlu	244	234	114	9	65	52	27	NR	2	NR
Lasbella	485	55	372	118	59	3	8	0	34	1
Loralai	223	327	33	35	46	89	13	1	3	0
Mastung	149	145	55	71	40	45	22	0	8	1
MusaKhel	37	19	42	11	5	0	6	9	0	0
Naseerabad	376	29	230	48	18	16	52	0	43	8
Nushki	153	0	8	0	66	11	0	0	0	0
Panjgur	58	97	41	49	22	0	4	18	0	0
Pishin	402	575	31	98	106	35	14	38	3	5
Quetta	838	942	16	188	42	60	32	11	0	0
Sibi	224	186	46	19	5	14	3	0	0	1
Sohbat pur	257	51	222	88	37	14	18	3	5	3
Surab	34	101	4	0	0	0	0	0	0	0
Usta Muhammad	813	208	123	163	81	0	7	0	14	0
Washuk	165	288	144	2	112	13	15	4	0	2
Zhob	202	195	23	360	31	106	15	0	0	47
Total	6,862	5,887	2,773	1,878	1,256	708	407	212	166	87

Figure 4: Most frequently reported suspected cases during Week 15, Balochistan

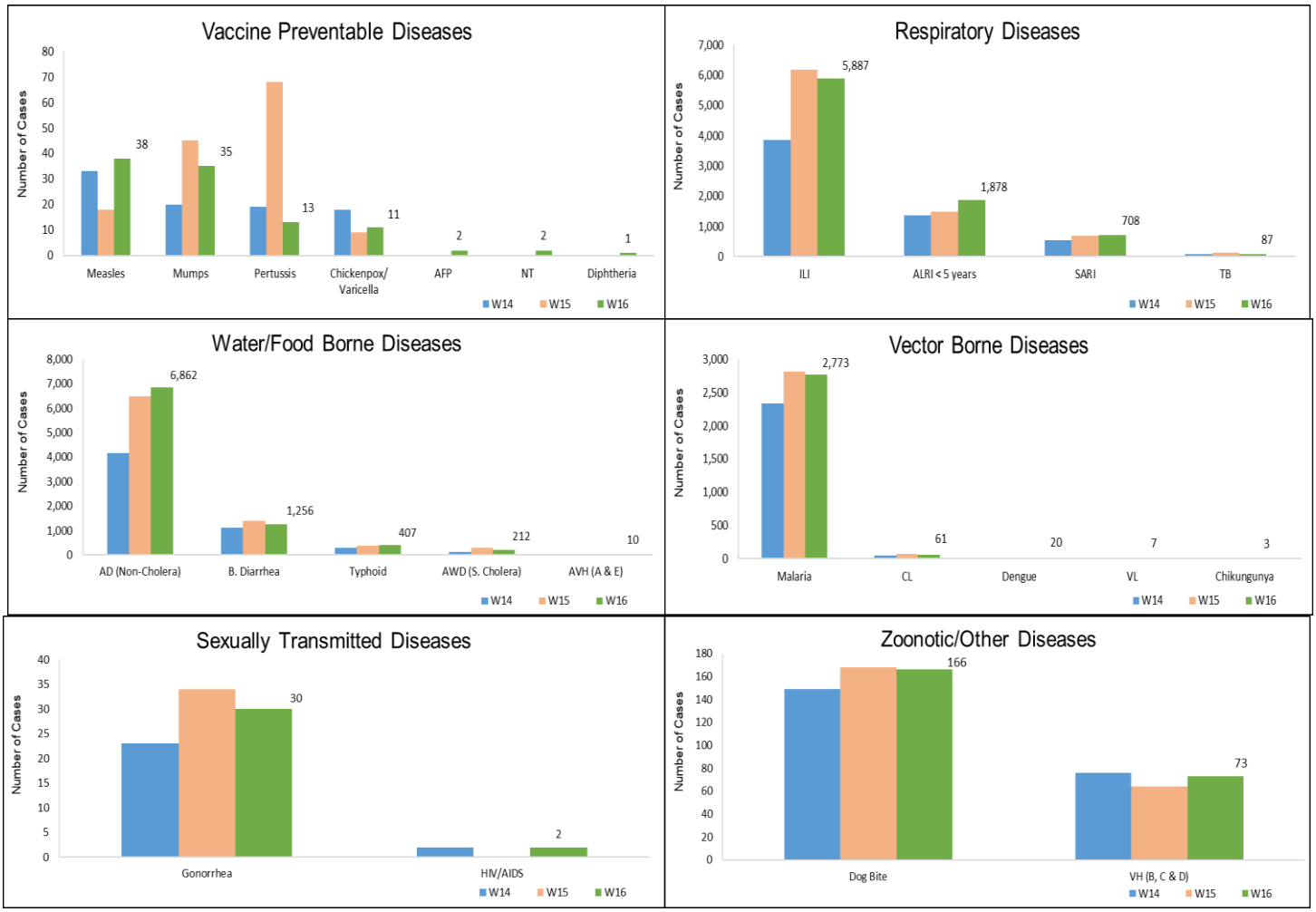
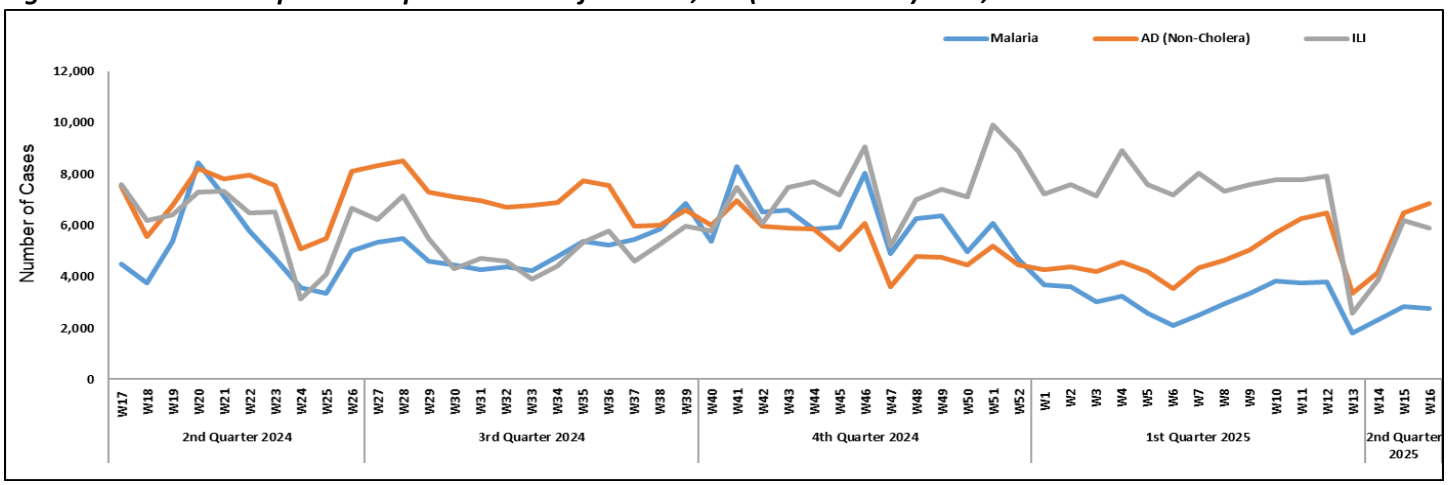


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, B. Diarrhea, ALRI<5 Years, dog bite, SARI, Typhoid, CL and TB.
- AD (Non-Cholera), Malaria, B. Diarrhea, dog bite, SARI, Typhoid, TB, HIV/AIDs and VPDs including Measles, Mumps, Chickenpox, AFP, Pertussis and NT showed an increase in number of cases while ILI and ALRI < 5 Years showed a decline in number of cases this week.
- Twenty-nine cases of AFP reported from KP. All are suspected cases and need field verification.
- Four suspected cases of HIV/ AIDS reported from KP. They need field investigation.
- Fifteen suspected cases of Brucellosis reported from KP. They require field verification.

Table 4: District wise distribution of most frequently reported suspected cases during Week 15, KP

Districts	AD (non-cholera)	ILI	Malaria	B. Diarrhea	ALRI < 5 years	Dog Bite	SARI	Typhoid	CL	TB
Abbottabad	1,062	78	0	5	22	13	0	41	0	6
Bajaur	615	93	163	82	10	71	101	7	29	14
Bannu	871	0	1,475	34	10	1	4	77	0	14
Battagram	193	437	11	2	13	16	NR	NR	5	49
Buner	299	0	208	0	0	13	0	1	0	1
Charsadda	3,620	1,411	341	251	455	0	9	70	4	14
Chitral Lower	507	128	6	22	19	16	17	3	5	9
Chitral Upper	139	15	3	3	14	4	4	10	0	1
D.I. Khan	2,284	0	132	28	21	29	0	6	2	34
Dir Lower	1,824	0	174	89	12	121	0	58	1	135
Dir Upper	925	60	14	0	7	13	0	3	0	18
Hangu	233	150	60	10	26	4	0	5	45	7
Haripur	1,411	198	0	0	62	23	0	5	0	3
Karak	462	42	98	27	48	51	8	7	368	7
Khyber	943	115	128	421	103	35	18	68	49	31
Kohat	680	2	31	45	3	29	6	10	13	0
Kohistan Lower	136	0	0	10	3	1	0	0	0	0
Kohistan Upper	218	0	1	16	14	1	3	10	0	1
Kolai Palas	65	12	0	9	2	0	0	0	0	0
L & C Kurram	11	4	0	5	0	0	0	0	0	0
Lakki Marwat	1,011	7	140	9	1	58	0	14	0	8
Malakand	313	148	0	52	98	12	129	20	23	2
Mansehra	972	290	0	9	2	0	11	27	0	0
Mardan	1,566	63	30	67	304	74	0	12	19	1
Mohmand	226	150	127	19	0	24	165	4	91	2
North Waziristan	130	0	49	20	4	0	0	6	2	1
Nowshera	2,150	85	80	44	7	53	18	39	6	10
Orakzai	148	22	7	12	0	4	0	0	0	0
Peshawar	6,000	336	26	145	69	12	60	71	0	21
SD Tank	39	0	33	5	0	1	0	0	5	0
Shangla	892	0	255	3	7	104	0	11	0	63
South Waziristan (Lower)	9	122	17	1	5	8	31	4	0	9
SWU	35	31	13	1	0	0	25	0	0	0
Swabi	1,972	450	54	18	37	159	180	54	0	27
Swat	2,616	178	9	40	110	25	0	24	0	10
Tank	850	116	61	2	19	8	0	12	0	2
Tor Ghar	81	1	20	29	1	42	25	1	0	0
Upper Kurram	191	255	11	36	9	16	172	10	0	4
Total	35,699	4,999	3,777	1,571	1,517	1,041	986	690	667	504

Figure 6: Most frequently reported suspected cases during Week 15, KP

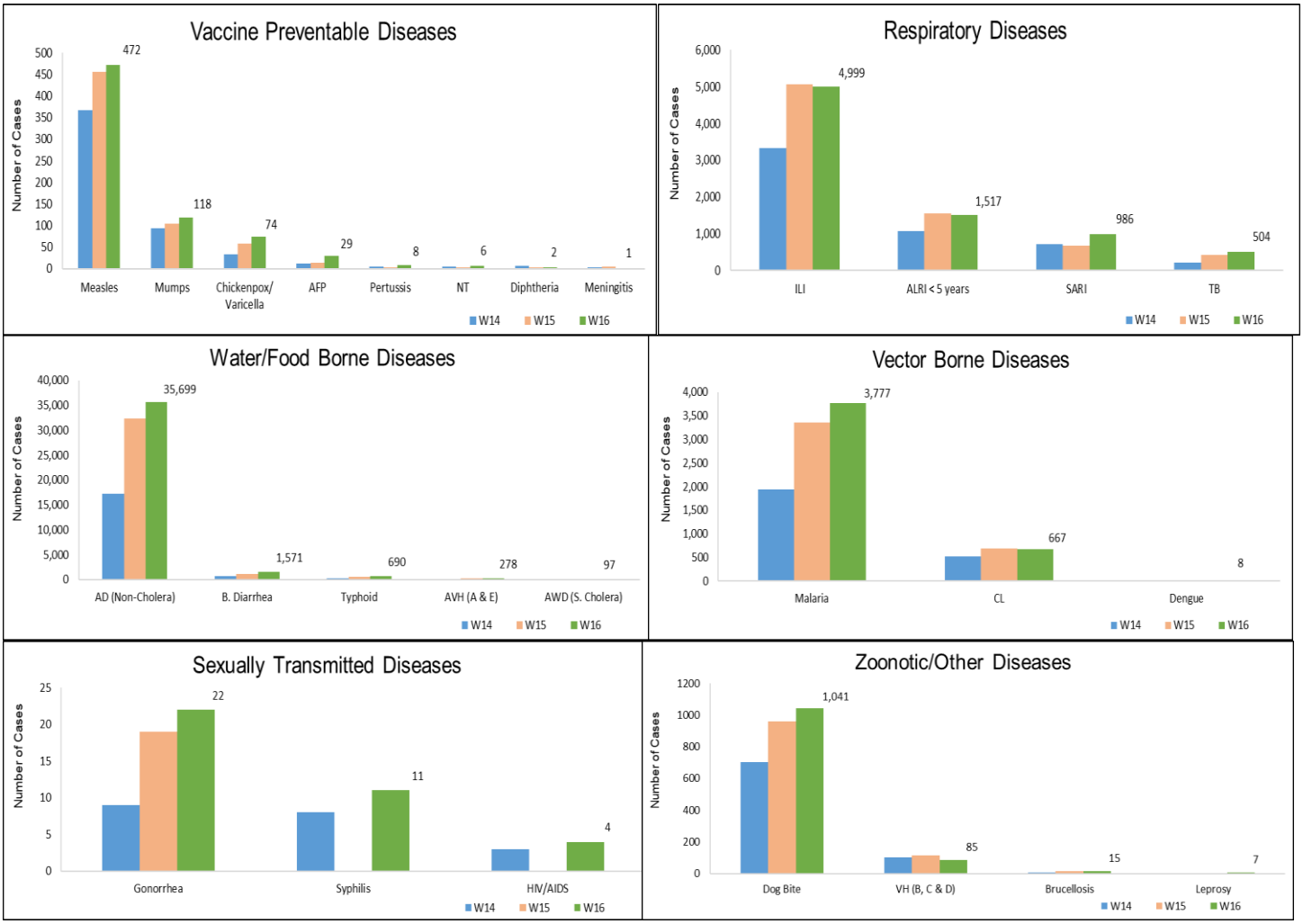
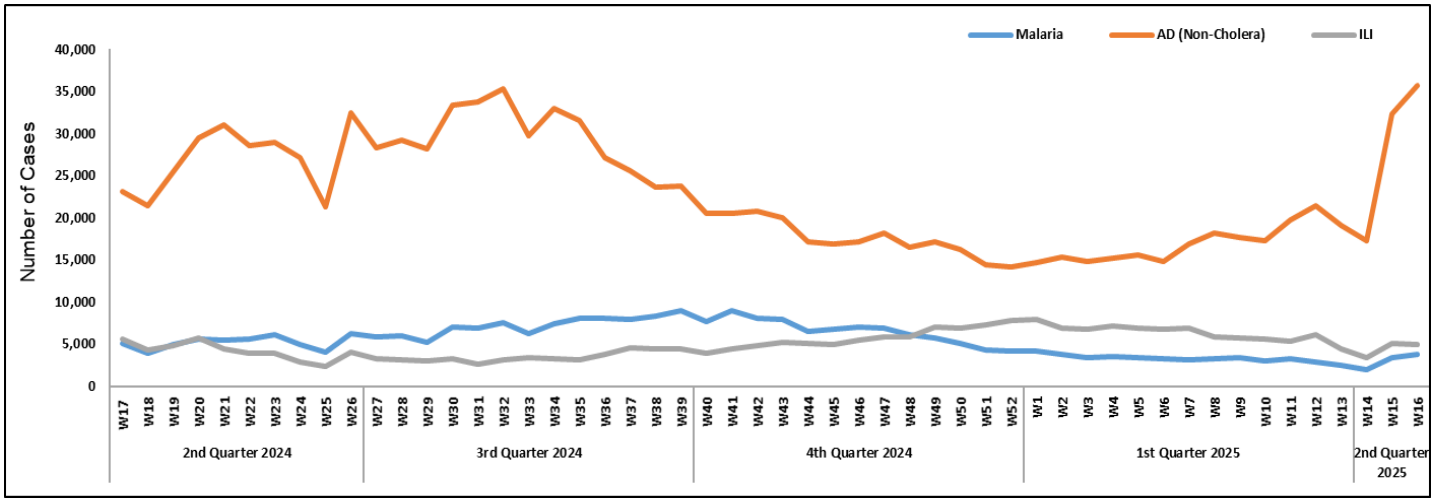


Figure 7: Week wise reported suspected cases Malaria, AD (Non-Cholera) & ILI, KP



ICT, AJK & GB

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

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI < 5years, SARI, dog bite, TB, B. Diarrhea, AVH (A & E), VH (B, C & D) and Typhoid cases. Three cases of AFP reported from AJK. They are suspected cases and need field verification. An increase in cases observed for AD (Non-Cholera), SARI, dog bite and VPDs including Rubella, Chickenpox and Meningitis while a decline in cases observed for ILI, ALRI < 5years, TB and VH (B, C & D) this week.

GB: ALRI <5 Years cases were the most frequently reported diseases followed by AD (Non-Cholera), ILI, SARI, B. Diarrhea, TB, Typhoid and AVH (A & E) cases. One case of AFP reported from GB. It is suspected case and needs field verification.

Figure 10: Most frequently reported suspected cases during Week 15, AJK

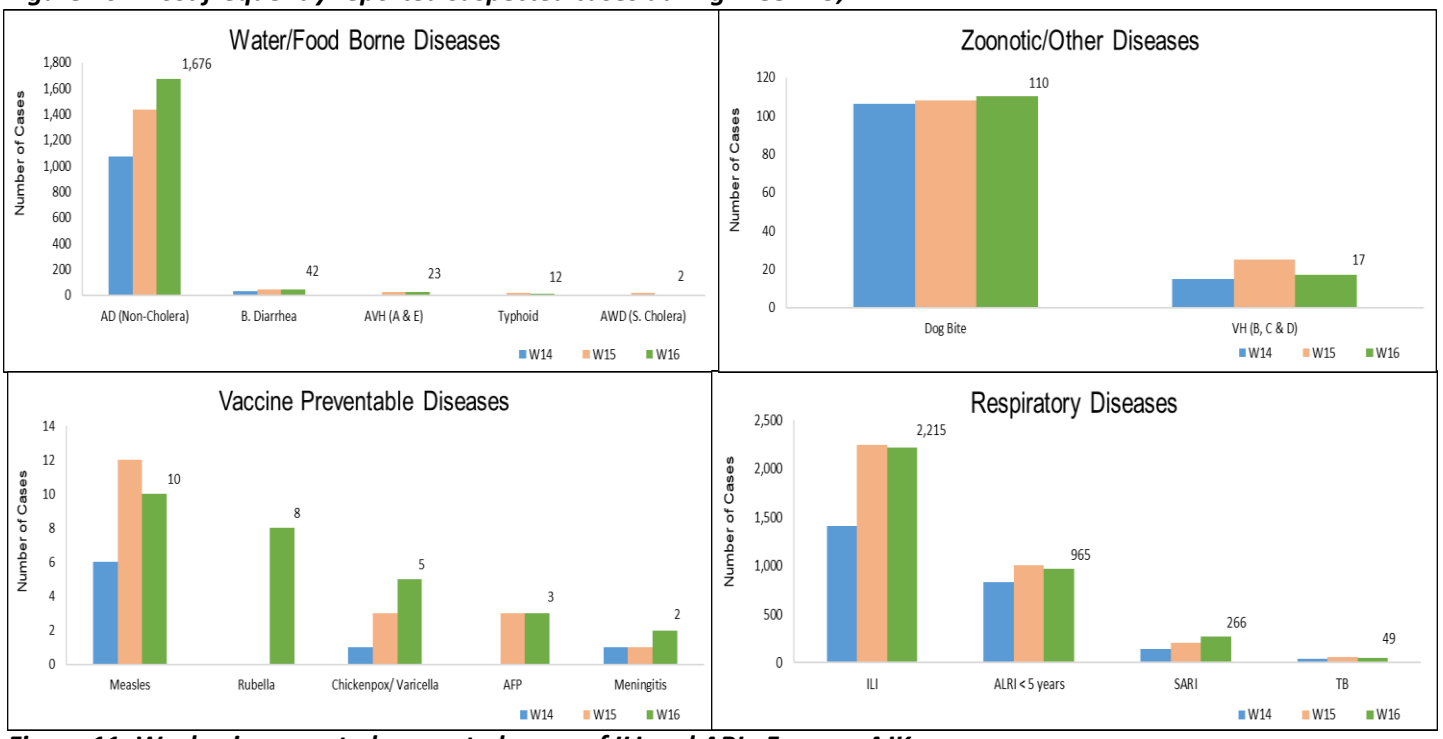


Figure 11: Week wise reported suspected cases of ILI and ARI <5 years, AJK

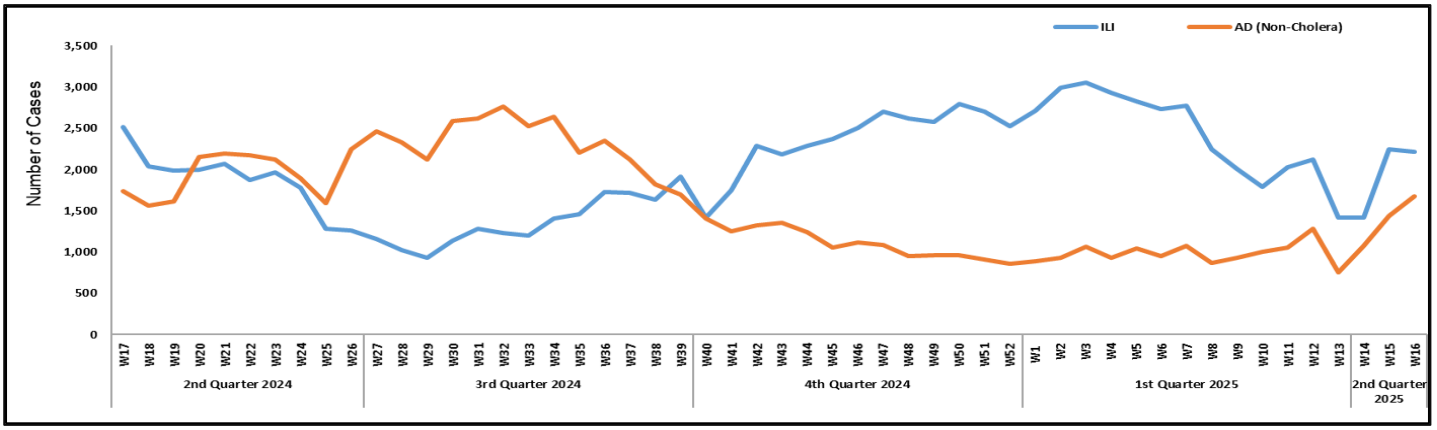


Figure 12: Most frequently reported suspected cases during Week 15, ICT

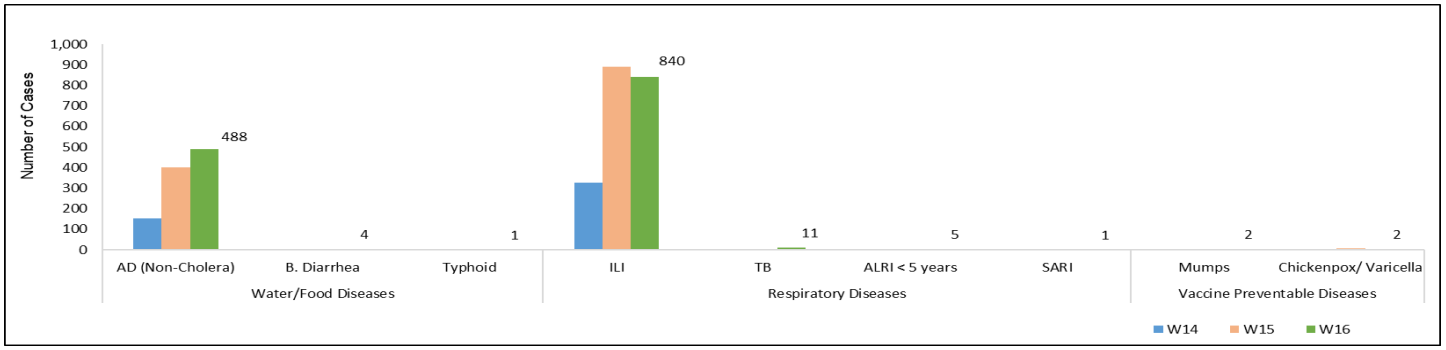


Figure 13: Week wise reported suspected cases of ILI, ICT

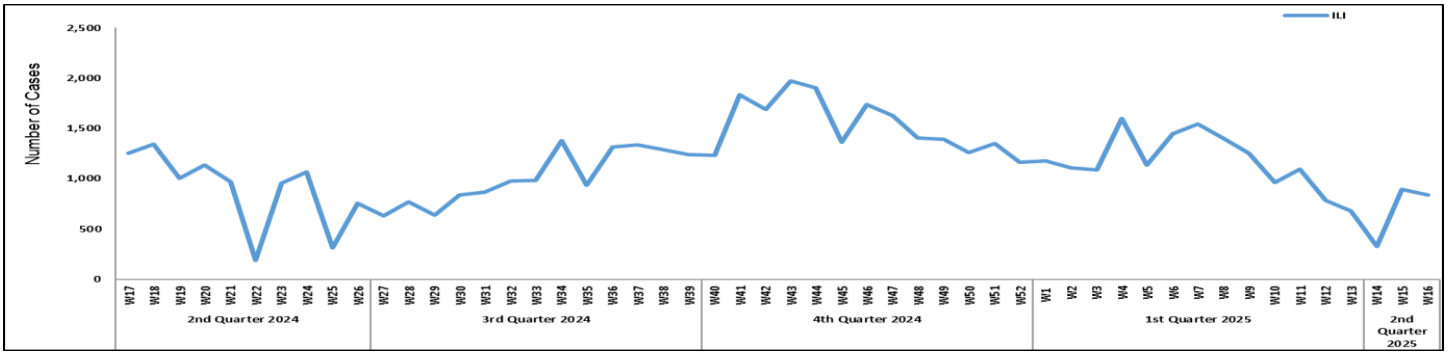


Figure 14: Most frequent cases reported during Week 15, GB

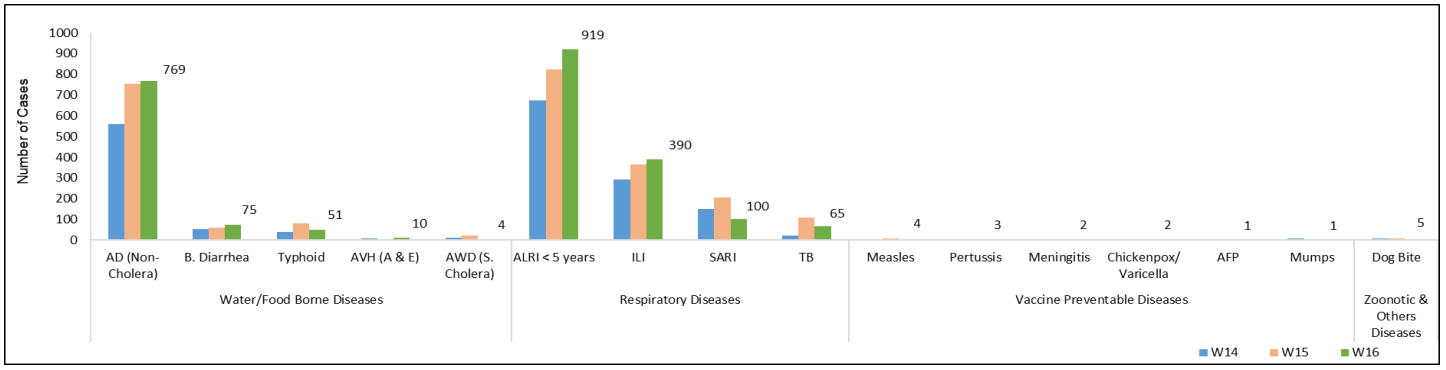


Figure 15: Week wise reported suspected cases of ALRI <5 years, GB

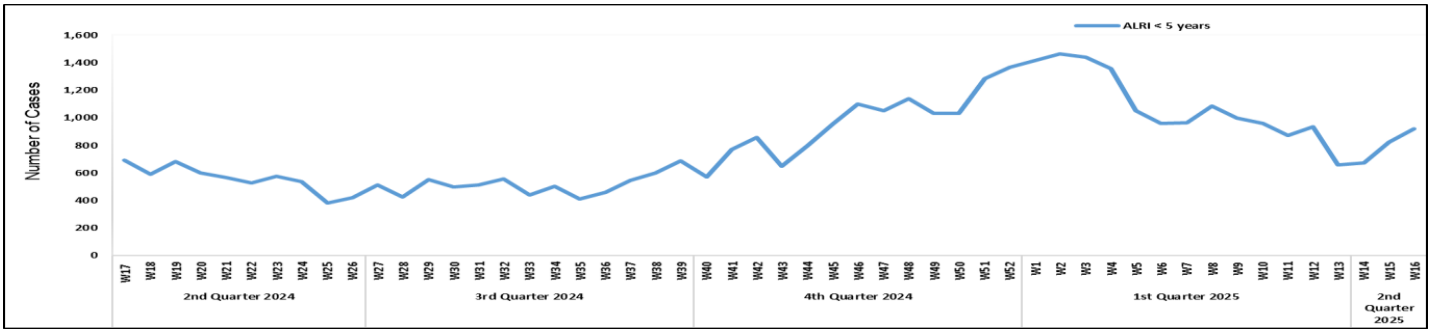


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 15

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)		166	1	-	-	0	0	-	-	-	-	-	-	0	0
AD (non-cholera)		267	1	-	-	4	0	-	-	-	-	-	-	0	0
Malaria		6,823	351	-	-	551	5	-	-	-	-	-	-	5	1
CCHF		0	0	10	0	0	0	-	-	-	-	-	-	0	0
Dengue		1,555	75	3	0	5	0	5	0	-	-	-	-	2	0
VH (B)		12,350	398	66	57	1,252	3	-	-	-	-	-	-	169	1
VH (C)		12,542	1,211	41	16	1,252	2	-	-	-	-	-	-	169	2
VH (D)		110	31	35	9	0	0	-	-	-	-	-	-	0	0
VH (A)		146	49	-	-	4	2	-	-	-	-	-	-	0	0
VH (E)		89	50	-	-	0	0	-	-	-	-	-	-	0	0
Covid-19		20	0	90	1	0	0	6	0	-	-	-	-	0	0
Chikungunya		0	0	3	0	0	0	-	-	-	-	-	-	0	0
TB		592	108	-	-	22	1	-	-	-	-	-	-	36	3
HIV/ AIDS		6,045	40	6	1	1,099	0	-	-	-	-	-	-	84	0
Syphilis		1,087	14	-	-	330	0	-	-	-	-	-	-	0	0
B. Diarrhea		133	0	-	-	0	0	-	-	-	-	-	-	0	0
Typhoid		1,210	25	-	-	5	0	-	-	-	-	-	-	1	0
Diphtheria		6	1	-	-	0	0	-	-	-	-	-	-	0	0
ILI		20	4	2	0	0	0	-	-	-	-	-	-	0	0
Pneumonia (ALRI)		118	42	-	-	0	0	-	-	-	-	-	-	0	0
Measles		391	181	64	41	420	208	18	11	10	7	437	112	28	8
Rubella		391	9	64	2	420	5	18	1	10	0	437	2	28	0
Covid-19	Out of SARI	0	0	0	0	13	0	13	0	14	0	65	3	0	0
	Out of ILI	0	0	0	0	1	0	4	0	10	0	58	2	20	0
Influenza A	Out of SARI	0	0	0	0	13	0	13	0	14	0	65	3	0	0
	Out of ILI	0	0	0	0	1	0	4	0	10	0	58	2	20	0
Influenza B	Out of SARI	0	0	0	0	13	0	13	0	14	0	65	2	0	0
	Out of ILI	0	0	0	0	1	0	4	0	10	0	58	0	20	0
RSV	Out of SARI	0	0	0	0	13	0	13	1	14	0	65	0	0	0
	Out of ILI	0	0	0	0	1	0	4	0	10	0	58	0	20	0

Table 6: IDSR reporting districts Week 15, 2024

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	137	58%
	Battagram	59	33	56%
	Buner	34	25	74%
	Bajaur	44	42	95%
	Charsadda	59	57	97%
	Chitral Upper	34	30	88%
	Chitral Lower	35	34	97%
	D.I. Khan	113	113	100%
	Dir Lower	74	62	84%
	Dir Upper	37	33	89%
	Hangu	22	21	95%
	Haripur	72	72	100%
	Karak	36	36	100%
	Khyber	53	44	83%
	Kohat	61	61	100%
	Kohistan Lower	11	10	91%
	Kohistan Upper	20	16	80%
	Kolai Palas	10	8	80%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	4	10%
	Upper Kurram	41	27	66%
	Malakand	42	36	86%
	Mansehra	133	50	38%
	Mardan	80	38	48%
	Nowshera	55	52	95%
	North Waziristan	13	7	54%
	Peshawar	155	128	83%
	Shangla	37	31	84%
	Swabi	64	63	98%
	Swat	77	76	99%
	South Waziristan (Upper)	93	38	41%
	South Waziristan (Lower)	42	18	43%
	Tank	34	29	85%
	Torghar	14	14	100%
	Mohmand	68	62	91%
	SD Peshawar	5	0	0%
	SD Tank	58	9	16%
	Orakzai	69	12	17%
	Mirpur	37	37	100%

Azad Jammu Kashmir	Bhimber	42	20	48%
	Kotli	60	60	100%
	Muzaffarabad	45	43	96%
	Poonch	46	46	100%
	Haveli	39	17	44%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Velley	29	29	100%
Islamabad Capital Territory	Sudhnooti	27	27	100%
	ICT	21	21	100%
Balochistan	CDA	15	8	53%
	Gwadar	26	26	100%
	Kech	44	0	0%
	Khuzdar	74	44	59%
	Killa Abdullah	26	20	77%
	Lasbella	55	55	100%
	Pishin	69	45	65%
	Quetta	55	34	62%
	Sibi	36	19	53%
	Zhob	39	31	79%
	Jaffarabad	16	16	100%
	Naserabad	32	0	0%
	Kharan	30	30	100%
	Sherani	15	4	27%
	Kohlu	75	49	65%
	Chagi	36	22	61%
	Kalat	41	40	98%
	Harnai	17	0	0%
	Kachhi (Bolan)	35	13	37%
	Jhal Magsi	28	14	50%
	Sohbat pur	25	25	100%
	Surab	32	25	78%
	Mastung	45	45	100%
	Loralai	33	28	85%
	Killa Saifullah	28	0	0%
	Ziarat	29	0	0%
	Duki	31	0	0%
	Nushki	32	0	0%
	Dera Bugti	45	29	64%
	Washuk	46	38	83%
	Panjgur	38	14	37%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	20	100%
	Hub	33	30	91%
	Musakhel	41	16	39%
Gilgit Baltistan	Usta Muhammad	34	34	100%
	Hunza	32	32	100%
	Nagar	25	20	80%

	Ghizer	38	38	100%
	Gilgit	40	40	100%
	Diamer	62	62	100%
	Astore	54	54	100%
	Shigar	27	25	93%
	Skardu	52	52	100%
	Ganche	29	29	100%
Sindh	Kharmang	46	25	54%
	Hyderabad	73	68	93%
	Ghotki	64	63	98%
	Umerkot	43	43	100%
	Naushahro Feroze	107	96	90%
	Tharparkar	276	233	84%
	Shikarpur	61	60	98%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	24	19	79%
	Karachi-West	20	20	100%
	Karachi-Malir	37	36	97%
	Karachi-Kemari	18	17	94%
	Karachi-Central	12	6	50%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	4	67%
	Sujawal	55	22	40%
	Mirpur Khas	106	104	98%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	87	97%
	Sanghar	100	99	99%
	Jacobabad	44	44	100%
	Khairpur	170	169	99%
	Kashmore	59	59	100%
	Matiari	42	41	98%
	Jamshoro	75	74	99%
	Tando Allahyar	54	52	96%
	Tando Muhammad Khan	41	41	100%
	Shaheed Benazirabad	122	122	100%

Table 7: IDSR reporting Tertiary care hospital Week 15, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
AJK	Mirpur	2	2	100%
	Bhimber	1	1	100%
	Kotli	1	1	100%
	Muzaffarabad	2	2	100%
	Poonch	2	2	100%
	Haveli	1	1	100%
	Bagh	1	1	100%
	Neelum	1	1	100%
	Jhelum Vellay	1	1	100%
	Sudhnooti	1	1	100%
Sindh	Karachi-South	1	0	0%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%
	Karachi-East	1	1	100%
	Karachi-Central	1	1	100%

Letter to Editor

Strengthening Public Health Surveillance for Effective Outbreak Response

Accurate and timely surveillance data are the bedrock of effective public health decision-making. Despite this, persistent challenges in data quality continue to hinder our ability to detect and respond to outbreaks with the necessary speed and precision. To overcome these limitations, a multi-pronged approach focusing on harmonized digital tools, robust data quality assurance, and a culture of data stewardship is essential.

Inconsistent case definitions pose a significant barrier to comparable and reliable data. Embedding built-in validation logic directly into these digital tools is crucial. This includes features like mandatory fields and real-time dropdown menus that are dynamically linked to the latest World Health Organization (WHO) case criteria. Such measures ensure that clinicians and data clerks capture standardized information efficiently, without adding undue burden to their existing workflows.

Improving the completeness and accuracy of surveillance data also necessitates user-friendly interfaces and supportive infrastructure. The introduction of mobile reporting applications with offline data capture capabilities empowers health workers in remote districts to record cases immediately, even without internet connectivity, and to synchronize the data once connectivity is restored. These tools should be coupled with automated dashboards that highlight missing demographic or laboratory fields. This enables supervisors to continuously monitor data quality and trigger targeted follow-up training for sites that fall below predefined completeness thresholds, ensuring continuous improvement in data collection practices.

To effectively bridge the gap between data collection and actionable insights, routine data triangulation and streamlined audit processes are vital. A risk-based sampling approach for quarterly audits is recommended, focusing on high-priority diseases and high-volume facilities. These audits would involve comparing facility registries with laboratory logs to verify data accuracy. Simple analytic alerts, such as flagging sudden declines in reported cases of diseases like measles or neonatal tetanus, can direct district officers to investigate anomalies promptly. This proactive approach helps prevent critical blind spots in our surveillance network.

Sustained improvements in surveillance data quality depend on cultivating a robust culture of data stewardship. Regular, concise feedback bulletins, circulated electronically to all reporting sites, are a key mechanism. These bulletins should showcase key performance indicators (such as timeliness and completeness rates), celebrate high-performing teams, and clearly outline corrective actions taken in response to identified data gaps. In parallel, peer-led mentorship programs, pairing seasoned epidemiologists with frontline staff, can reinforce best practices through case reviews and hands-on problem-solving, fostering a collaborative learning environment.

By strategically combining harmonized digital tools, risk-based audits, and continuous engagement strategies, we can transform surveillance data from a passive record into a dynamic asset. This transformation will empower every level of the health system to anticipate and contain emerging threats with greater precision and confidence, ultimately strengthening global public health security.

Dr. M Hamza Ikram

Scientific Officer, CDC-NIH

Knowledge Hub:

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:**
    - **Rotavirus:** A leading cause of severe diarrhea in infants and young children worldwide.
    - **Norovirus:** Highly contagious and a common cause of foodborne illness and outbreaks in communities.
    - Adenovirus, Astrovirus.
- **Bacteria:**
    - ***Vibrio cholerae***: The causative agent of cholera, a severe form of AWD that can lead to rapid and extreme dehydration.
    - *Escherichia coli* (E. coli), particularly enterotoxigenic E. coli (ETEC), a common cause of traveler's diarrhea.
    - *Salmonella* spp.
    - *Campylobacter* spp.
    - *Shigella* spp. (though typically associated with bloody diarrhea, some strains can cause watery diarrhea initially).
- **Parasites:**
    - *Cryptosporidium*
    - *Giardia*
    - *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:**
  - Drinking only boiled, bottled, or chemically treated water.
  - Ensuring proper storage of household water in clean, covered containers.
- **Improved Sanitation:**
  - Proper disposal of human and animal feces.
  - Access to and use of improved latrines and sewage systems.
- **Good Hygiene Practices:**
  - **Thorough and frequent handwashing** with soap and clean water, especially before preparing food, eating, and after using the toilet.
  - Avoiding sharing towels and flannels.
- **Food Safety:**
  - Cooking food thoroughly, especially meat, poultry, and seafood.
  - Eating food promptly after cooking.
  - Storing cooked food safely and at appropriate temperatures.
  - Washing fruits and vegetables thoroughly, or peeling them if possible.
  - Avoiding raw or undercooked foods in high-risk areas.
- **Vaccination:**
  - **Rotavirus vaccine** is highly effective in preventing severe rotavirus diarrhea in children.
  - **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):**
   - **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.

- Individuals should drink ORS frequently, especially after each loose stool.
- For infants, continued breastfeeding is vital alongside ORS.
- Avoid sugary drinks like sodas and undiluted fruit juices, as they can worsen diarrhea.

2. **Zinc Supplementation:**
   - For children with diarrhea, zinc supplements reduce the duration of the diarrheal episode by about 25% and decrease stool volume.
   - Zinc also helps prevent future episodes of diarrhea.
3. **Continued Feeding:**
   - 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.
   - Gradually reintroduce easily digestible foods like rice, bananas, and toast. Avoid fatty, spicy, or high-fiber foods initially.
4. **Intravenous (IV) Fluids:**
   - 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:**
   - Antibiotics are generally **not recommended** for most cases of acute watery diarrhea, as most are viral and self-limiting.
   - 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:**
   - Over-the-counter antidiarrheal medications like loperamide or bismuth subsalicylate can help reduce stool frequency in adults.
   - 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:**
   - 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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