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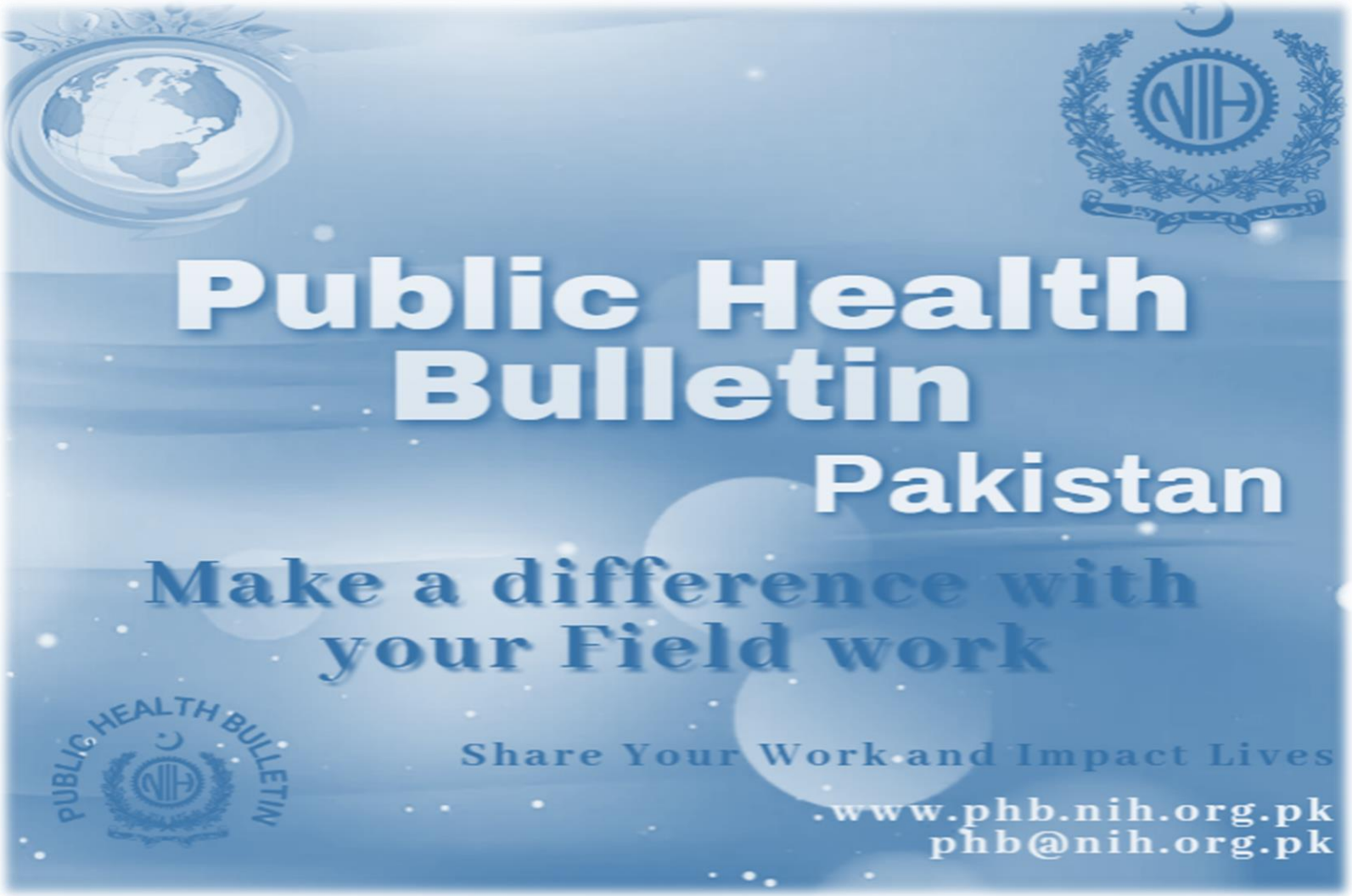
Integrated Disease Surveillance & Response (IDSR) Report

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 44, 2023

This bulletin highlights the most notable public health events in Pakistan during Week 44 of 2023.

During Week 44, Acute Diarrhea (Non-Cholera) emerged as the most frequently reported disease, followed by Malaria, Influenza-Like Illness (ILI), Acute Respiratory Infection (ALRI) in children under five years of age, B. Diarrhea, Typhoid, Viral Hepatitis (B&C), Severe Acute Respiratory Infection (SARI), dog bites, and Acute Watery Diarrhea (AWD). A notable increase in Measles and Mumps cases has been observed, particularly in Balochistan, Sindh, and Khyber Pakhtunkhwa (KPK). Fifty suspected Diphtheria cases have been reported from Gilgit-Baltistan (GB). All reported cases are suspected and require field verification for rapid response. Acute Diarrhea cases continue to be reported from across the country, necessitating field investigations to verify these cases.

This issue of the Public Health Bulletin also includes information on enigmatic West Nile fever case of KPK, a field activity report on National Consultative Workshop on IDSR Road Map, Polio resurgence in Pakistan, Dengue fever cases surge in Punjab, and educational awareness essay on Understanding the Threat and Protecting Ourselves against West Nile Virus.

The team reminds the public to stay vigilant and to seek medical attention promptly if they experience any symptoms of the diseases listed above.

Working together, we can safeguard the health of our communities.

Sincerely,
The Chief Editor

- *During week 44, most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, B. Diarrhea, Typhoid, VH (B&C), SARI, dog bite and AWD (S. Cholera).*
- *There is an overall increase in reported cases of Measles and Mumps especially from Balochistan, Sindh and KPK. Fifty cases of Diphtheria cases alone reported from GB. All are suspected cases and need field verification for rapid response.*
- *Acute diarrhea cases continued to be reported from across the country. Field investigation required to verify cases.*

IDSR compliance attributes

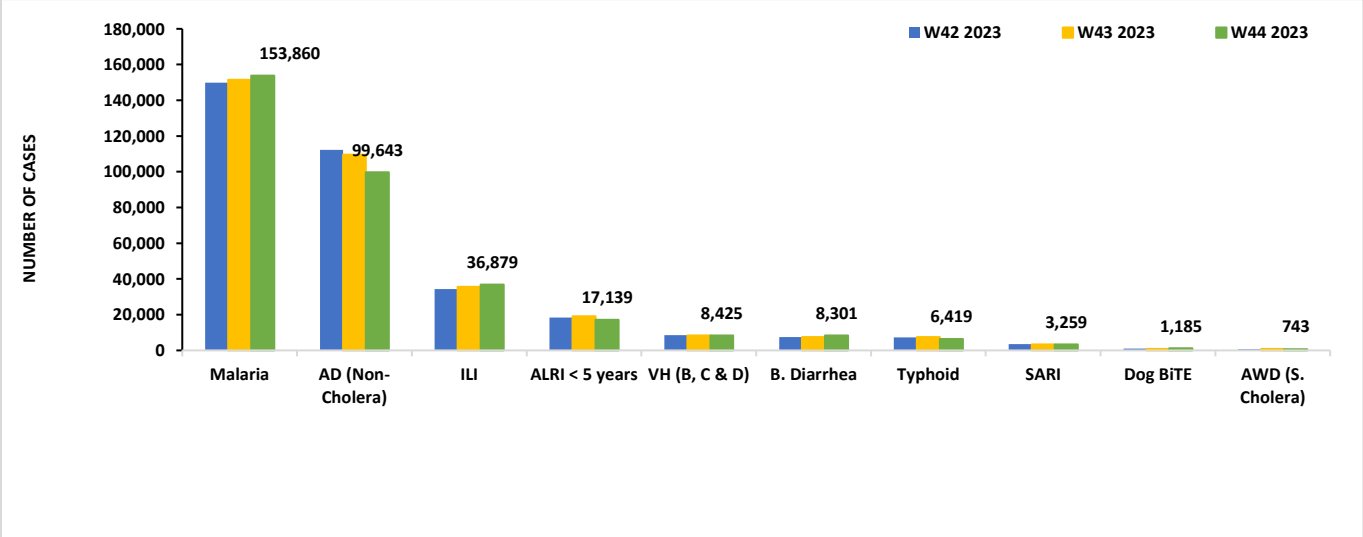
- *The national compliance rate for IDSR reporting in 121 implemented districts* is 75%
- *Sindh and AJK are the top reporting region with a compliance rate of 92% and 74% followed by Khyber Pakhtunkhwa AND BOLACHISTAN with 70%*
- *The lowest compliance rate was observed in ICT and Gilgit Baltistan.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2013	1418	70
Azad Jammu Kashmir	380	282	74
Islamabad Capital Territory	27	4	15
Balochistan	1270	889	70
Gilgit Baltistan	440	158	36
Sindh	2038	1881	92
National	6168	4632	75

Table 1: Province/Area wise distribution of most frequently reported cases during week 44, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,050	7,115	295	38	18,076	88,321	38,965	153,860
Malaria	73	8,922	2	0	5,519	4,072	81,046	99,643
ILI	2,129	8,861	229	304	4,700	8	20,648	36,879
ALRI < 5 years	994	2,122	372	0	1,834	NR	11,817	17,139
B. Diarrhea	50	1,860	27	0	844	2,612	3,032	8,425
Typhoid	55	1,095	23	0	733	5,223	1,172	8,301
VH (B, C & D)	9	66	2	0	103	NR	6,239	6,419
SARI	293	1,240	312	0	900	NR	514	3,259
Dog Bite	46	254	0	0	209	NR	676	1,185
AWD (S. Cholera)	80	441	31	0	70	NR	121	743
Mumps	82	154	47	0	109	NR	292	684
AVH (A & E)	12	30	8	0	214	NR	272	536
CL	3	182	1	0	291	32	0	509
Dengue	8	38	0	2	56	NR	287	391
Measles	19	152	4	0	161	NR	51	387
Chickenpox/ Varicella	22	6	5	0	88	79	17	217
Pertussis	1	164	7	0	28	NR	6	206
Gonorrhea	1	100	0	0	16	NR	20	137
Syphilis	0	17	0	0	16	NR	70	103
AFP	3	0	0	0	18	NR	58	79
Diphtheria (Probable)	0	0	50	0	6	NR	0	56
VL	0	13	0	0	27	NR	0	40
Leprosy	0	6	0	0	23	NR	0	29
Meningitis	2	10	3	0	2	NR	3	20
Brucellosis	0	9	0	0	8	NR	0	17
Rubella (CRS)	0	9	0	0	0	NR	0	9
HIV/AIDS	0	0	0	0	1	NR	4	5
Anthrax	0	0	0	0	0	NR	0	0
NT	1	0	0	0	2	NR	1	4
Chikungunya	0	0	0	0	0	NR	0	0
CCHF	0	0	0	0	0	NR	0	0

Figure 1: Most frequently reported suspected cases during week 44, Pakistan



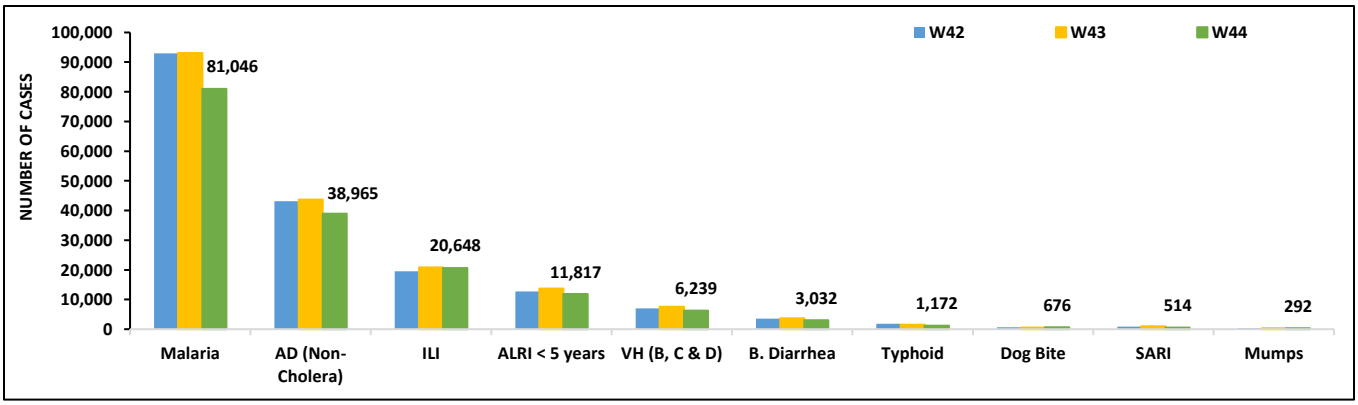
Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, SARI and Mumps.
- Trends for ILI cases showed a slight rise this week.
- One hundred and twenty-five Mumps cases with clustering reported from Tharparkar. These are suspected cases and require urgent field verification.
- Kambar (1199) and Sanghar (948) reported highest cases of VH (B&C). Field investigation is required to identify the source to control the spread of disease.

Table 2: District wise distribution of most frequently reported suspected cases during week 44, Sindh

DISTRICTS	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Typhoid	Dog Bite	SARI	Mumps
Badin	4,706	2,497	621	751	184	279	48	51	3	16
Dadu	3,608	1,283	0	938	0	189	123	100	0	0
Ghotki	1,349	741	0	545	348	95	0	0	0	0
Hyderabad	573	1,897	454	80	60	30	20	0	0	17
Jacobabad	3,145	1,059	222	1,306	196	122	9	42	56	4
Jamshoro	2,320	1,522	21	176	123	79	39	13	6	0
Kamber	6,530	2,101	0	487	1,199	165	44	30	0	0
Karachi Central	60	991	2,077	82	132	17	151	0	0	0
Karachi East	139	421	38	20	0	7	7	0	2	0
Karachi Keamari	4	367	363	49	0	1	3	0	0	1
Karachi Korangi	78	241	5	2	0	2	0	0	0	1
Karachi Malir	161	893	2,456	331	27	74	38	19	79	4
Karachi South	35	116	0	0	0	0	1	0	0	0
Karachi West	161	943	843	142	24	41	34	33	38	0
Kashmore	2,717	579	730	194	72	74	12	12	0	4
Khairpur	7,257	2,599	801	1,244	331	314	188	32	147	12
Larkana	11,866	2,041	1	534	181	300	5	0	0	2
Matiari	1,818	1,388	26	350	205	76	8	26	2	11
Mirpurkhas	5,658	2,405	4,660	598	144	100	28	21	76	11
Naushero Feroze	1,438	1,188	547	129	70	24	48	74	0	1
Sanghar	3,452	1,977	100	596	948	83	13	72	0	14
Shaheed Benazirabad	1,726	1,938	2	509	226	107	184	14	0	8
Shikarpur	3,714	1,089	2	247	269	135	1	90	13	14
Sujawal	770	607	0	68	4	28	14	0	0	0
Sukkur	4,648	1,540	1,855	365	301	198	8	2	0	4
Tando Allahyar	1,864	1,397	1,123	333	311	98	11	6	0	21
Tando Muhammad Khan	2,018	1,215	2	294	268	98	1	0	0	0
Tharparkar	3,635	1,633	2,524	1,060	125	159	56	3	57	125
Thatta	3,079	1,189	1,165	119	270	69	26	36	19	4
Umerkot	2,517	1,108	10	268	221	68	52	0	16	18
Total	81,046	38,965	20,648	11,817	6,239	3,032	1,172	676	514	292

Figure 2: Most frequently reported suspected cases during week 44 Sindh



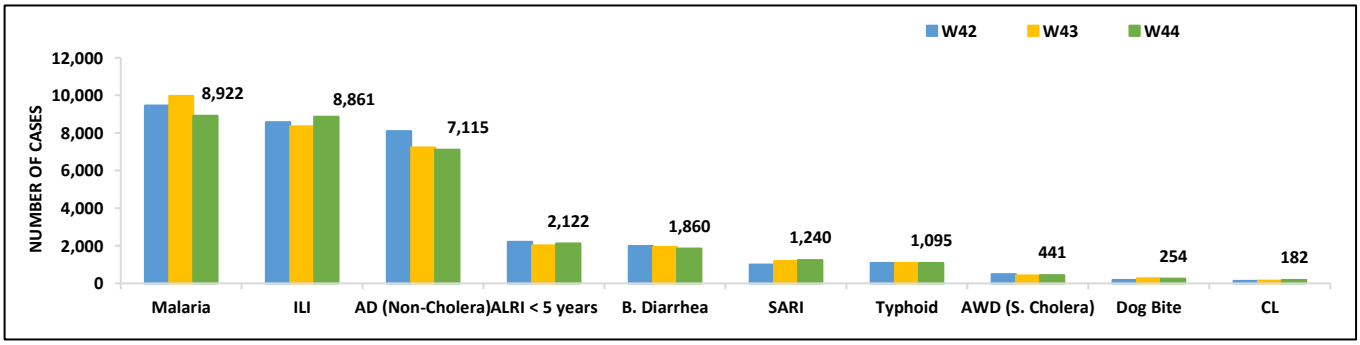
Balochistan

- Malaria, ILI, AD (Non-Cholera), ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), dog bite and CL were the most frequently reported diseases from Balochistan province.
- Trend for ILI showed rise in cases whereas AD and Malaria cases declined this week.
- Kohlu, Panjgur and Sohbat pur cases of SARI were reported in high numbers. All are suspected cases and need field investigation to verify the cases.

Table 3: District wise distribution of most frequently reported suspected cases during week 44, Balochistan

Districts	Malaria	ILI	AD Non-Cholera)	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	AWD (S.Cholera)	Dog Bite	CL
Barkhan	132	135	116	113	41	21	130	49	23	0
Chagai	23	352	223	0	71	0	31	27	0	10
Chaman	20	314	78	2	159	44	80	38	12	41
Dera Bugti	254	52	57	42	42	14	26	0	0	0
Duki	86	58	96	9	71	37	13	36	2	3
Gwadar	117	792	402	32	82	5	27	0	0	1
Harnai	97	22	121	225	58	0	11	4	4	0
Hub	82	129	80	37	20	19	0	0	0	0
Jaffarabad	2,057	96	522	57	62	31	6	0	12	9
Jhal Magsi	778	248	542	43	18	0	17	6	4	7
Kachhi (Bolan)	443	326	371	20	37	83	53	20	20	5
Kalat	74	34	60	18	11	2	61	0	0	3
Kech (Turbat)	253	1,082	353	100	46	22	5	NR	NR	NR
Kharan	81	386	140	4	67	1	3	4	0	0
Khuzdar	136	139	143	11	86	8	42	0	7	12
Killa Saifullah	233	1	173	168	62	18	33	2	0	11
Kohlu	222	628	239	58	143	175	48	36	0	0
Lasbella	457	116	389	122	17	43	6	3	6	0
Loralai	61	305	138	65	56	93	30	0	0	0
Mastung	84	122	349	26	67	76	47	28	0	0
Naseerabad	494	0	183	6	10	0	36	0	140	1
Nushki	26	4	191	0	83	2	0	7	0	0
Panjgur	140	42	150	8	32	101	104	10	0	6
Pishin	2	125	52	19	27	0	7	0	2	9
Quetta	36	1,254	374	44	73	11	36	82	0	32
Sherani	3	82	55	0	20	78	13	0	0	7
Sibi	543	1,038	369	75	67	53	32	56	7	9
Sohbat pur	832	42	261	181	96	80	79	3	4	10
Surab	95	91	44	24	5	14	35	0	0	5
Usta Muhammad	782	178	435	173	39	40	9	0	2	0
Washuk	70	289	197	13	101	20	28	0	0	0
Zhob	164	188	121	390	44	115	19	8	0	0
Ziarat	45	191	91	37	47	34	28	22	9	1
Total	8922	8861	7115	2122	1860	1240	1095	441	254	182

Figure 3: Most frequently reported suspected cases during week 44, Balochistan



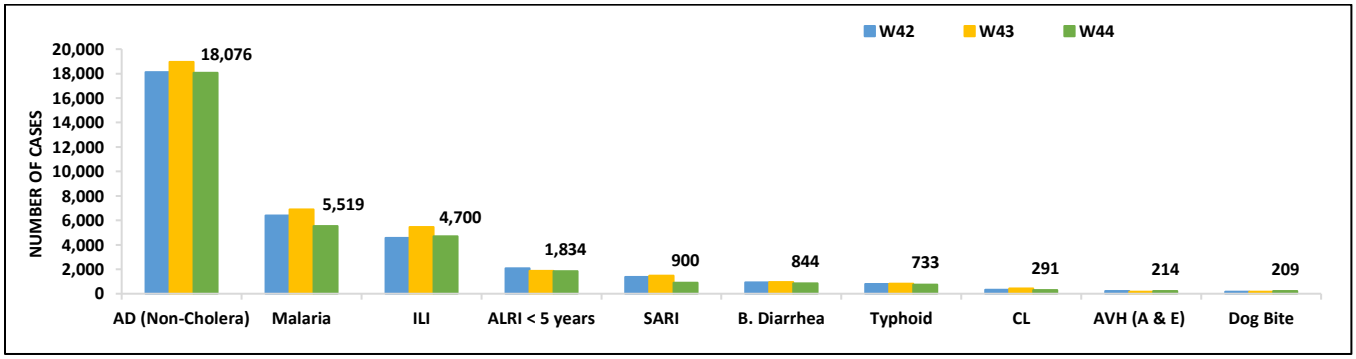
Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, CL, AVH (A&E) and dog bite cases.
- Malaria, ILI and Acute Diarrhea cases showed declined this week.
- Peshawar and upper Kurrem reported increased number of Typhoid cases. Further, Acute diarrhea (AD) cases continue to be reported in high numbers from Dir lower, Peshawar, Swat, Nowshera and Haripur.

Table 4: District wise distribution of most frequently reported suspected cases during week 44, KP

Districts	AD (Non-Cholera)	Malaria	ILI	ALRI <5 Years	SARI	B. Diarrhea	Typhoid	CL	AVH (A & E)	Measles
Abbottabad	437	3	38	23	24	3	11	0	0	2
Bajaur	109	83	25	30	15	11	0	1	0	0
Bannu	659	906	2	2	0	8	30	0	2	0
Battagram	181	201	226	0	3	1	0	2	2	0
Buner	273	378	0	59	0	0	5	0	0	0
Charsadda	875	420	190	57	101	30	16	9	6	31
Chitral Lower	192	17	53	19	21	14	7	6	7	2
Chitral Upper	104	7	9	13	7	4	28	0	1	0
D.I. Khan	935	388	6	5	33	4	4	3	0	4
Dir Lower	1,037	562	4	157	0	112	42	2	39	15
Dir Upper	571	14	35	34	0	5	19	5	6	0
Hangu	227	401	126	9	44	10	3	29	7	29
Haripur	1,303	36	1,034	260	23	1	51	0	18	0
Karak	244	161	72	9	8	0	2	34	0	24
Khyber	119	221	58	32	3	28	11	7	3	2
Kohat	48	21	0	0	0	0	0	1	0	1
Kohistan Lower	102	2	0	13	2	7	0	1	0	0
Kohistan Upper	124	16	34	2	6	4	15	0	0	0
Kolai Palas	37	4	0	3	0	7	0	0	0	0
L & C Kurram	30	13	140	0	0	5	2	0	0	0
Lakki Marwat	399	314	0	67	0	8	8	21	0	0
Malakand	545	37	0	31	6	39	13	19	29	0
Mansehra	264	5	276	113	9	13	1	0	4	0
Mardan	780	41	125	377	0	30	0	7	0	0
Mohmand	112	106	57	10	10	17	15	85	1	10
Nowshera	1,677	69	4	1	21	24	13	10	0	0
Peshawar	2,768	112	826	85	212	247	122	17	40	6
SD Bannu	12	69	15	3	3	9	2	0	2	0
SD Lakki	10	7	0	0	0	1	0	1	0	0
Shangla	125	100	12	4	17	2	14	0	2	9
SWA	79	205	270	203	86	26	41	14	3	11
Swabi	1,048	69	610	121	21	12	36	0	12	0
Swat	2,120	53	162	45	0	23	0	0	24	34
Tank	265	340	0	17	0	2	38	9	0	0
Tor Ghar	53	121	0	8	7	22	10	8	2	10
Upper Kurram	212	17	291	22	218	115	174	0	4	19
Total	18,076	5,519	4,700	1,834	900	844	733	291	214	209

Figure 4: Most frequently reported suspected cases during week 44, KP



ICT, AJK & GB

ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and AWD. ILI cases showed a decreasing trend in cases this week.

AJK: ILI cases were the most frequently reported followed by AD (Non-Cholera), ALRI <5 years, SARI, Mumps, AWD (S. Cholera), Malaria, Typhoid, B. Diarrhea and dog bite. Trend for ILI, AD and ILI cases showed a downward trend in cases this week.

GB: ALRI<5 years cases were the most frequently reported diseases followed by SARI, AD (Non. Cholera), ILI, Diphtheria, Mumps, AWD and B. Diarrhea. There is a continuous rising trend in ALRI<5 years cases this week.

Figure 5: Week wise reported suspected cases of ILI, ICT

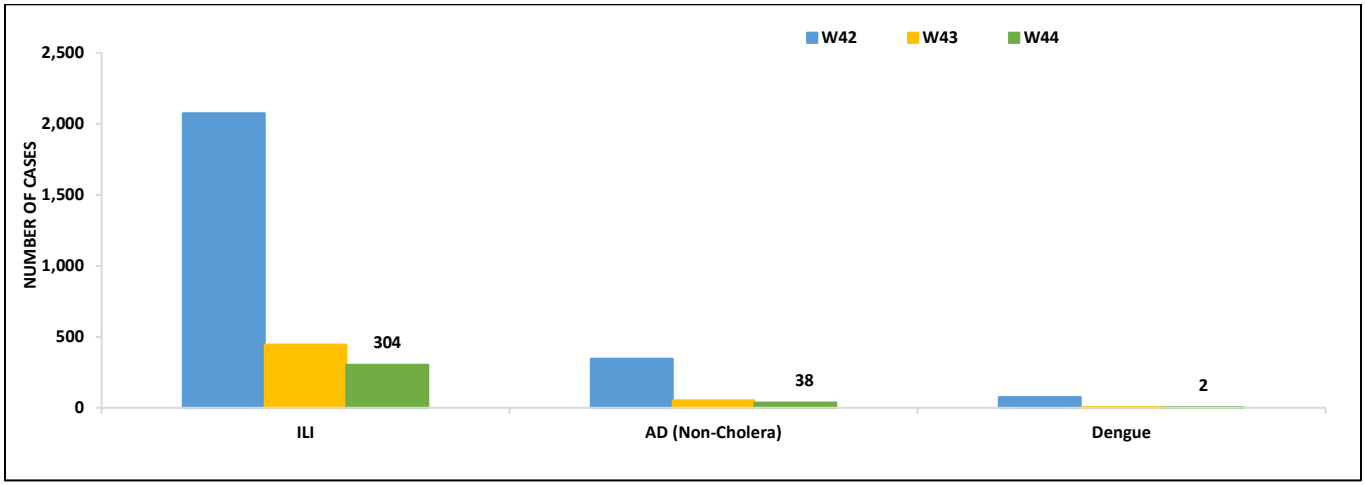


Figure 6: Week wise reported suspected cases of ILI, ICT

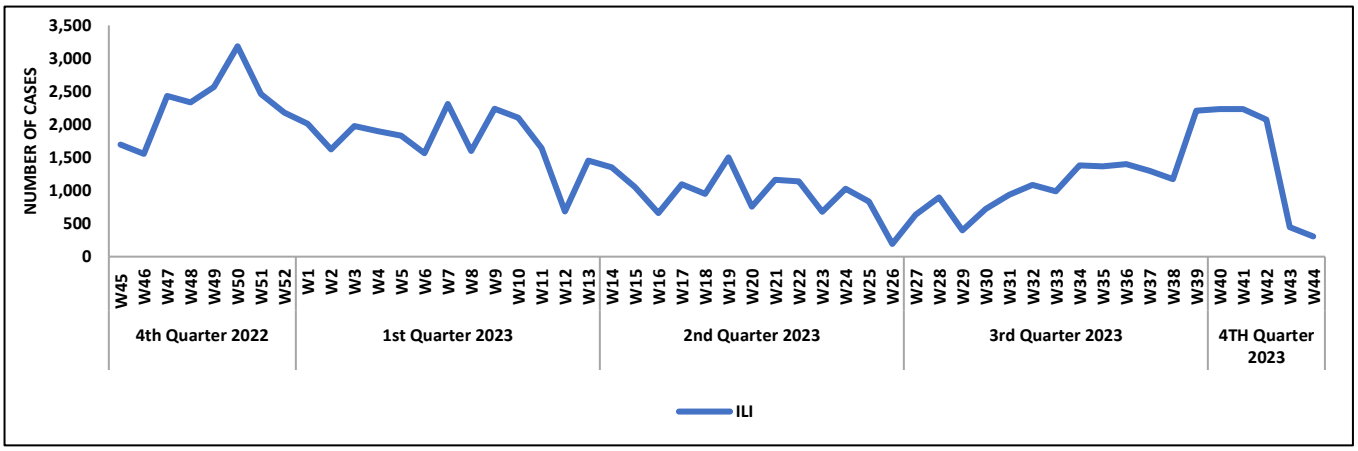


Figure 7: Most frequently reported suspected cases during week 44, AJK

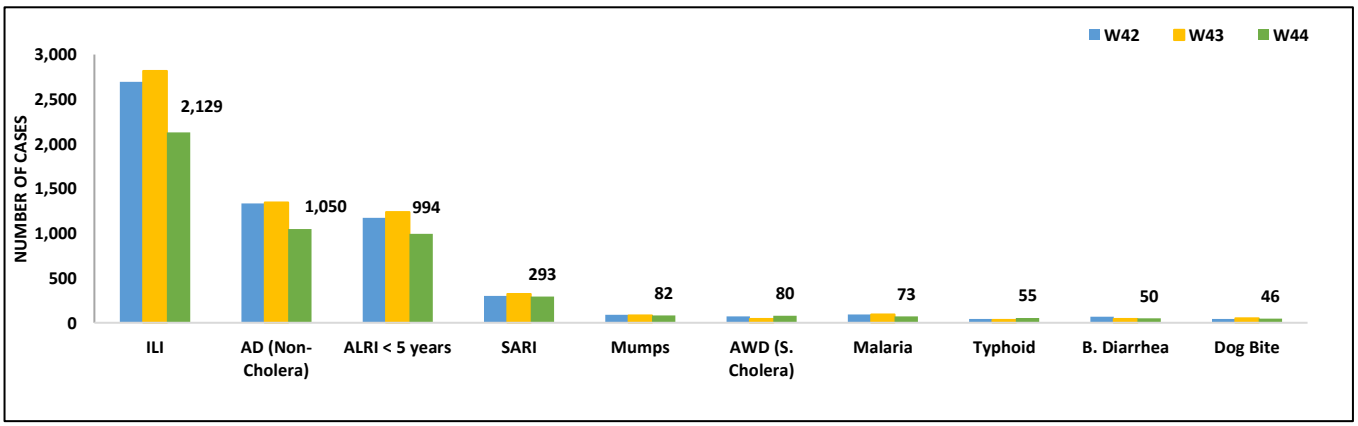


Figure 8: Week wise reported suspected cases of ALRI and ILI, AJK

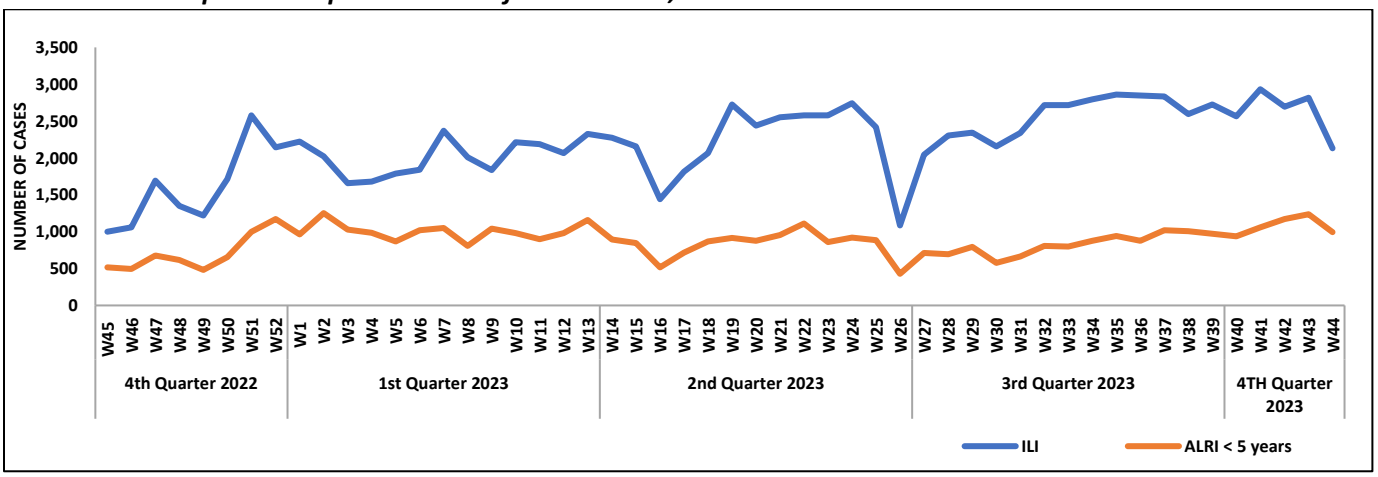


Figure 9: Most frequent cases reported during WK 44, GB

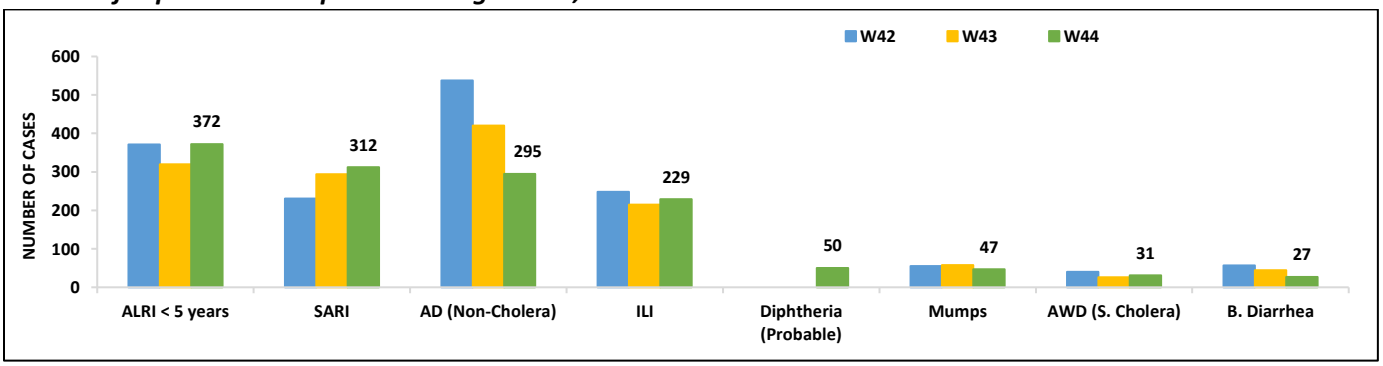
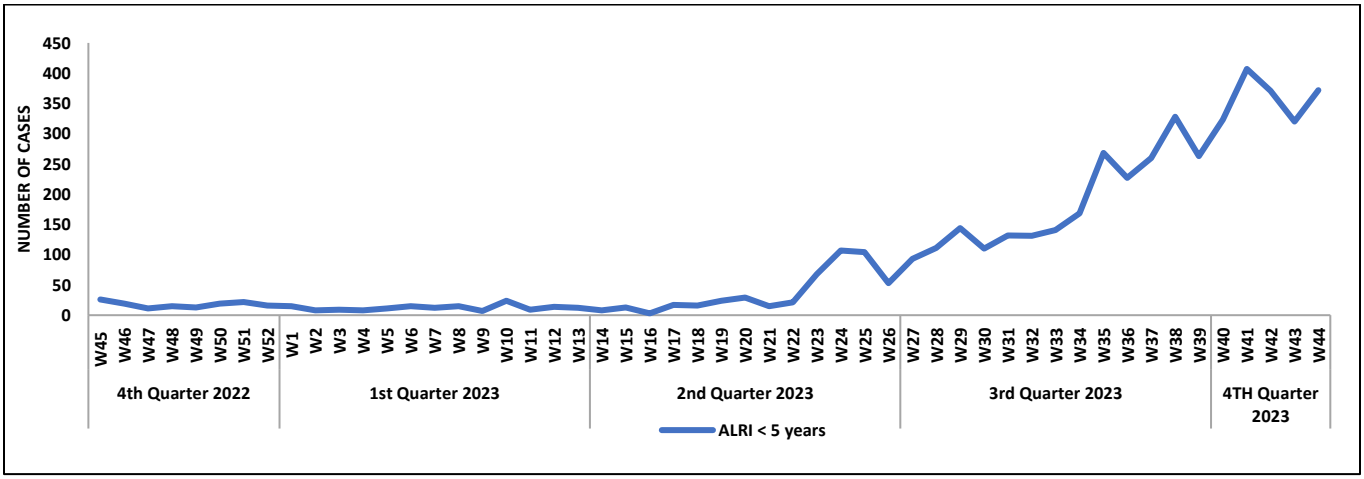


Figure 10: Week wise reported suspected cases of ALRI, GB



Punjab

- Cases of AD (Non-Cholera) were the most frequently reported followed by Typhoid, Malaria and B. Diarrhea. Ad (Non-cholera) cases showed a slight upward trend this week.

Figure 11: District wise distribution of most frequently reported suspected cases during week 44, Punjab

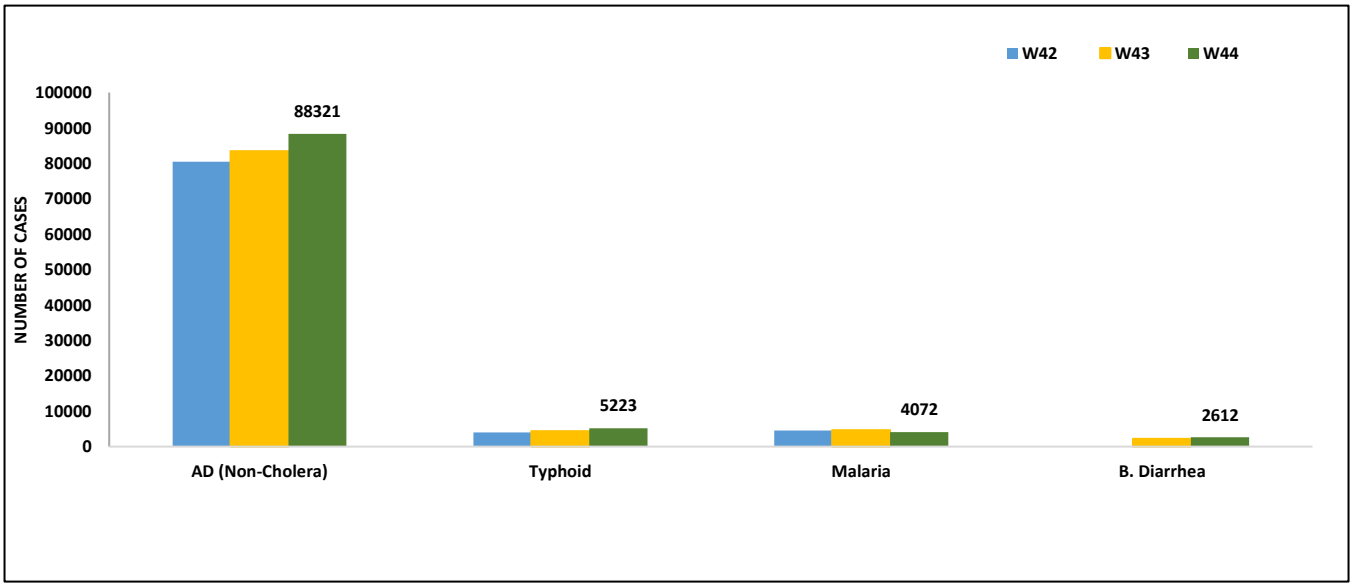


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 44

Diseases	Sindh	Balochistan	Punjab	KPK	ISL	Gilgit
Acute Watery Diarrhea (S. Cholera)	0	-	-	0	-	-
Acute diarrhea(non-cholera)	0	-	0	-	-	-
Malaria	214	-	-	0	0	0
CCHF	-	2	--	0	--	-
Dengue	26	0	-	0		-
MPOX	0	-	-	0	-	-
Acute Viral Hepatitis(B)	0	0	-	-	-	8
Acute Viral Hepatitis(C)	0	8	0	0	2	4
Acute Viral Hepatitis(E)	0	-	-	2	-	-
Typhoid	5	-	-	0	0	6
Covid 19	0	0		0	-	
Tb	-	-	1	-	-	5

IDSR Reports Compliance

- Out OF 120 IDSR implemented districts, compliance is low from Gilgit Baltistan districts. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSR reporting districts Week 44

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	110	96	87%
	Bannu	111	79	71%
	Battagram	63	19	30%
	Buner	32	24	75%
	Bajaur	44	22	50%
	Charsadda	59	52	88%
	Chitral Upper	34	27	79%
	Chitral Lower	35	33	94%
	D.I. Khan	94	86	91%
	Dir Lower	74	73	99%
	Dir Upper	61	40	66%
	Hangu	22	22	100%
	Haripur	71	64	90%
	Karak	39	39	100%
	Khyber	64	14	22%
	Kohat	96	61	64%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	18	90%
	Kolai Palas	10	10	100%
	Lakki Marwat	49	49	100%
	Lower & Central Kurram	40	7	18%
	Upper Kurram	42	15	36%
	Malakand	48	37	77%
	Mansehra	150	43	29%
	Mardan	80	70	88%
	Nowshera	54	53	98%
	North Waziristan	22	0	0%
	Peshawar	121	115	95%
	Shangla	64	15	23%
	Swabi	67	65	97%
	Swat	76	64	84%
	South Waziristan	78	49	63%
	Tank	54	28	52%
	Torghar	18	18	100%
	Mirpur	37	33	89%
	Bhimber	20	16	80%
	Kotli	60	11	18%
	Muzaffarabad	43	42	98%
	Poonch	46	46	100%
	Haveli	39	19	49%
	Bagh	40	28	70%

Azad Jammu Kashmir	Neelum	39	33	85%
	Jhelum Vellay	29	27	93%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	35	2	6%
	CDA	35	2	6%
Balochistan	Gwadar	73	25	34%
	Kech	39	23	59%
	Khuzdar	20	20	100%
	Killa Abdullah	20	0	0%
	Lasbella	55	49	89%
	Pishin	62	7	11%
	Quetta	43	19	44%
	Sibi	36	35	97%
	Zhob	39	33	85%
	Jaffarabad	47	16	34%
	Naserabad	37	36	97%
	Kharan	33	29	88%
	Sherani	18	15	83%
	Kohlu	75	70	93%
	Chagi	35	27	77%
	Kalat	41	36	88%
	Harnai	18	17	94%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	26	25	96%
	Sohbat pur	25	25	100%
	Surab	32	17	53%
	Mastung	45	45	100%
	Loralai	33	24	73%
	Killa Saifullah	28	27	96%
	Ziarat	29	22	76%
	Duki	31	22	71%
	Nushki	32	30	94%
	Dera Bugti	45	22	49%
	Washuk	46	23	50%
	Panjgur	38	10	26%
	Awaran	23	0	0%
	Chaman	24	22	92%
	Barkhan	20	19	95%
	Hub	33	30	91%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	20	0	0%
	Ghizer	62	1	2%
	Gilgit	40	38	95%
	Diamer	78	3	4%

	Astore	54	1	2%
	Shigar	27	26	96%
	Skardu	52	37	71%
	Ganche	29	13	45%
	Kharmang	46	7	15%
Sindh	Hyderabad	73	48	66%
	Ghotki	64	63	98%
	Umerkot	43	33	77%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	253	90%
	Shikarpur	60	60	100%
	Thatta	53	52	98%
	Larkana	66	64	97%
	Kamber Shadadkot	71	70	99%
	Karachi-East	23	20	87%
	Karachi-West	20	20	100%
	Karachi-Malir	37	19	51%
	Karachi-Kemari	18	11	61%
	Karachi-Central	11	11	100%
	Karachi-Korangi	18	11	61%
	Karachi-South	4	4	100%
	Sujawal	54	42	78%
	Mirpur Khas	106	103	97%
	Badin	124	102	82%
	Sukkur	64	64	100%
	Dadu	90	83	92%
	Sanghar	100	100	100%
	Jacobabad	44	43	98%
	Khairpur	168	159	95%
	Kashmore	59	59	100%
	Matiari	42	41	98%
	Jamshoro	68	68	100%
	Tando Allahyar	54	52	96%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	124	124	100%

A note from Field Activities.

Source: DHIS-2 Reports
https://dhis2.nih.org.pk/dhis-web-event-reports/

West Nile Virus: An Enigmatic Flavivirus

West Nile virus (WNV), a member of the flavivirus family, has established a persistent presence in nature through a complex enzootic cycle involving birds and Culex mosquitoes, the primary vectors of transmission. This virus, with its widespread distribution and varying levels of activity across different regions, poses a significant public health threat.

The first encounter with WNV occurred in 1937 in Uganda, and since then, the virus has expanded its reach, encompassing regions in Africa, Europe, the Middle East, and North America. The alarming rise in WNV cases is evident in the global tally of 58,648 cases, with an additional 2,073 cases reported in a single year.

The presence of WNV has also been confirmed in Pakistan and its neighboring countries, including Iran, Afghanistan, and India, where it has been identified as the causative agent of human encephalitic disease. Serological evidence of WNV in humans and the vector competence for the virus in Pakistan dates back to 1982.

Studies conducted in these neighboring regions have revealed the circulation of WNV in various Culex mosquito species, as well as in a diverse range of birds, including wild, migratory, and domestic species. Water sources have also been implicated in the virus's transmission cycle.

While approximately 80% of infected individuals remain asymptomatic, the remaining 20% develop West Nile fever, characterized by symptoms such as fever, headache, fatigue, body aches, nausea, vomiting, occasional skin rash, and swollen lymph glands. In more severe cases, WNV can lead to neuro invasive diseases such as West Nile encephalitis and meningitis, manifesting with symptoms like headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis.

The risk of developing severe WNV infection is approximately 1 in 150 infected individuals. Older individuals above the age of 50 and those with compromised immune systems are more susceptible to severe complications. The incubation period for WNV infection typically ranges from 3 to 14 days.

The first case of WNV infection in Khyber Pakhtunkhwa, Pakistan, emerged from UC Adezei. The patient presented with severe encephalitic symptoms at Hayatabad Medical Complex (MTI), and subsequent analyses of specimens sent to the National Institute of Health confirmed the presence of West Nile virus. This was the first confirmed case of WNV in the region. A team of public health specialists was assembled to investigate the origin of the infection, identify any additional cases, and implement control and prevention measures.

Investigation Findings

The primary case presented with symptoms consistent with WNV, including fever, headache, body aches, and joint pain. An active case search was conducted in the area, but no other individuals were identified with symptoms of WNV. No evidence of a wider outbreak was found. A potential mosquito breeding site was identified near the primary case. No unusual incidents or events related to the deaths of birds in the area were reported.

A swab test administered to the primary case raised concerns and a plaque reduction neutralization test was needed to further confirm the diagnosis, but the primary case passed away before the test could be performed.

The emergence of WNV in Pakistan highlights the need for heightened surveillance and preventive measures to mitigate the risk of further transmission and outbreaks. Public awareness campaigns should emphasize personal protection strategies, such as mosquito avoidance and the use of insect repellents, to minimize individual exposure to the virus.

Effective mosquito control programs, including larvicide application and the elimination of mosquito breeding sites, are crucial for reducing mosquito populations and interrupting the virus's transmission cycle. Strengthening healthcare infrastructure and ensuring the availability of diagnostic tools and treatment modalities are essential components of a comprehensive WNV management strategy.

The enigmatic nature of WNV, with its ability to cause asymptomatic infections and severe neurological complications, underscores the importance of continuous research efforts. Understanding the virus's genetic diversity, ecological factors influencing transmission, and the host immune response can inform the development of more effective vaccines and therapeutic interventions.

In conclusion, West Nile virus, a flavivirus with a global presence, poses a significant public health threat. Its ability to cause asymptomatic infections and severe neurological complications necessitates comprehensive surveillance, prevention, and treatment strategies. By raising public awareness, implementing effective mosquito control measures, and fostering ongoing research efforts, we can better protect individuals and communities from the adverse effects of WNV infection.

A Note from Field Activities.

National Consultative Workshop on IDSR Road Map: Charting the Course for Effective Disease Surveillance and Response in Pakistan.

Dr. Shahban Nadeem
Manager Operations,
CD&EPC, Punjab

The National Consultative Workshop on IDSR Road Map convened at PC Bhurban from November 7th to 9th, bringing together representatives from all provinces and federating units, including Punjab, Sindh, KPK, Balochistan, AJK, and GB. Chaired by Dr. Salman, CEO of NIH, and co-chaired by Dr. Safi Malik, Representative of MONHSR&C, the workshop aimed to deliberate and finalize the IDSR road map for the next five years, establishing a comprehensive framework to strengthen the Integrated Disease Surveillance and Response (IDSR) system in Pakistan.

The workshop delved into a broad spectrum of IDSR-related topics, encompassing:

- A thorough assessment of the current state of IDSR in Pakistan
- Identification of challenges and opportunities for IDSR enhancement
- Formulation of strategies to reinforce IDSR effectiveness
- Implementation of mechanisms for IDSR monitoring and evaluation

Participants actively shared their experiences and insights gained from their respective provinces and federating units, fostering a collaborative learning environment and enabling the identification of best practices.

The Punjab Health Department's unwavering commitment to IDSR was acknowledged and commended throughout the workshop. The Punjab team, comprising Dr. Mohsin Watto, Dr. Anzaar, Dr. Saeed, and Dr. Shahban presented insightful findings that were well-received by the participants. Additionally, the Punjab team engaged in a separate

meeting with experts to explore the application of R technology for data analysis of DHIS2.

The workshop provided a valuable platform for representatives from various provinces to engage in a SWOT analysis of IDSR, fostering a collaborative approach to address challenges and identify opportunities for improvement. The active participation of stakeholders and donor agencies/development partners, including UK-HSA, JSI-USAID, WHO, Chemonics, NIH, and MONHSR&C, further strengthened the workshop's outcomes.

The National Consultative Workshop on IDSR Road Map emerged as a resounding success, laying the groundwork for a more robust and effective IDSR system in Pakistan. The workshop culminated in the formulation of key recommendations:

- Expeditious finalization and implementation of the IDSR road map
- Allocation of adequate government resources to facilitate IDSR road map implementation
- Prioritization of training and capacity building for IDSR personnel
- Establishment of a regular monitoring and evaluation framework for the IDSR system

The National Consultative Workshop on IDSR Road Map stands as a significant step towards bolstering Pakistan's IDSR system. The workshop's outcomes, coupled with the dedication of the participants, pave the way for a more resilient and effective response to disease outbreaks in Pakistan. The organizers are commended for their unwavering efforts in convening this impactful event.

Letter to the Editor:

Pakistan Grapples with Polio Resurgence Amidst Vaccination Drive

Dr. Muhammad Ali Mirza
District Surveillance coordinator
Rawalpindi.

The persistent presence of wild poliovirus in Pakistan, as evidenced by its detection through the AFP surveillance system and the confirmation of an additional paralysis case in Karachi East, highlights the ongoing challenges faced by the country in achieving polio-free status. The robust AFP surveillance system has been instrumental in uncovering the virus's presence in environmental samples, while the confirmation of a new paralysis case underscores the importance of continued vigilance and comprehensive measures to eradicate polio from Pakistan. These findings serve as stark reminders of the need to address the underlying challenges hindering polio eradication efforts.

In response to these concerning developments, heath administration urged parents to vaccinate their children during the upcoming vaccination drive, emphasizing that the polio vaccine is the only way to ensure lifelong protection against this crippling disease. Polio has no cure, and any paralysis caused by it is irreversible.

Coordinator of the National Emergency Center for Polio Eradication, acknowledged Karachi as a high-priority area for the Polio Program due to its history as a core reservoir for the virus and the significant movement of people within and outside the country. He emphasized the need for a thorough investigation to identify the origin of the virus and any unvaccinated populations.

Pakistan has made significant progress in its polio eradication efforts, but these recent cases highlight the need for continued vigilance and comprehensive vaccination campaigns. The upcoming vaccination drive is crucial to ensure that all children are protected from this preventable disease.

Targeted vaccination campaigns are being conducted in all areas where the virus has been detected, and all parents are advised to cooperate by getting their children vaccinated.

The District Health Authority of Rawalpindi responded swiftly and effectively to the detection of wild poliovirus type 1 (WPV-1) in an environmental sample from the Safdarabad drainage site by conducting a comprehensive outbreak response immunization campaign.

It is noteworthy that the District Health Authority of Rawalpindi has consistently demonstrated exceptional performance in E-LQAS and PCM evaluations for polio campaigns, including the recent OBR Nov-2023 campaign. These outstanding achievements are a direct reflection of

the dedicated efforts of the field staff and the unwavering leadership of the district health authority.

The E-LQAS assessment revealed that out of 32 evaluations conducted, 30 achieved a perfect score of 100%, while only two were categorized as intermediate. Similarly, the PCM evaluation demonstrated the exceptional competence of our frontline workers. Out of 20 PCM assessments, 18 were passed, with only two categorized as intermediate. This remarkable outcome speaks volumes about the dedication and expertise of our team in ensuring the effective implementation of the polio vaccination campaign.

The unprecedented number of E-LQAS and PCM evaluations conducted in District Rawalpindi is a testament to the unwavering support and guidance provided by the District Administration, the tireless efforts of frontline workers, and the dedication of all supervisory staff.

Letter to the Editor:

Dengue Fever Tightens Grip on Punjab as Cases Soar

Dr. Sajjad Mahmood
DSC (EP & C)

Punjab province remains in the firm grasp of dengue fever, with 215 new cases reported on Wednesday. This brings the total number of confirmed cases this year to a staggering 10,758 across 36 districts.

Lahore stands as the epicenter of the outbreak, with a staggering 4,675 cases recorded so far. Rawalpindi follows closely with 2,414 cases, while Multan, Faisalabad, and Gujranwala have reported 1,069, 518, and 969 cases, respectively.

A worrying spike in new Dengue cases has been observed in recent times, with Lahore accounting for 117 cases, Rawalpindi 31, Multan 9, Gujranwala 29, Faisalabad 14, Sheikhupura 5, and Rahim Yar Khan 2. Currently, 192 dengue fever patients are receiving treatment in various hospitals across Punjab, with 103 of them admitted to district hospitals in Lahore.

In a fervent appeal to citizens, Govt of Punjab, Health Department has urged everyone to take proactive measures to combat dengue fever. They emphasized the importance of maintaining clean and dry surroundings to prevent the breeding of mosquitoes, the primary vectors of the disease.

The relentless spread of dengue fever underscores the urgent need for intensified preventive measures and public awareness campaigns. By adopting simple yet effective measures, such as eliminating stagnant water and using mosquito repellents, individuals can

significantly contribute to curbing the spread of this infectious disease.

To address the increasing dengue crisis, the health administration in Rawalpindi has mandated the use of full-sleeved shirts in schools to protect children. This emphasizes the urgency to control the disease.

District Coordinator for Epidemics Prevention and Control (DCEPC), disclosed that new cases are emerging from specific areas and stressed the importance of taking precautions in November to avoid mosquito bites. The initial strategy to confine dengue mosquitoes to hotspot areas has proven ineffective, leading to a multi-pronged approach including intensified fogging campaigns and targeted awareness efforts, especially in schools. Close coordination between the health department and allied hospitals has been crucial in the recovery of 419 patients, demonstrating the effectiveness of improved strategies.

The District Health Authority (DHA) has enforced strict measures, including registering FIRs and sealing premises for violating anti-dengue SOPs, as well as identifying high-risk zones for dengue within the city. The administration's commitment to combating the dengue crisis is evident through comprehensive measures such as issuing tickets for non-compliance with anti-dengue regulations. The goal is to safeguard public health and bring the dengue situation under control.

Knowledge Hub

West Nile Virus: Understanding the Threat and Protecting Ourselves

West Nile virus (WNV), an arbovirus, is a type of virus transmitted through the bite of infected mosquitoes. Belonging to the flavivirus family, it shares kinship with Zika virus, yellow fever virus, and dengue virus. WNV is prevalent in Africa, Asia, Europe, the Middle East, Oceania, and North America.

Transmission and Symptoms

The primary route of WNV transmission to humans is through the bite of an infected Aedes or Culex mosquito. These mosquitoes acquire the virus by feeding on birds that harbor the virus. Casual contact between individuals does not facilitate WNV transmission.

While most WNV infections remain asymptomatic, approximately 20% of infected individuals develop West Nile fever, characterized by symptoms such as fever, headache, fatigue, body aches, nausea, vomiting, skin rash, and swollen lymph glands. In severe cases, WNV can lead to encephalitis (brain inflammation) or meningitis (inflammation of the brain and spinal cord linings).

Risk Factors and Prevention

Older adults and individuals with weakened immune systems are at a higher risk of developing severe WNV infection. Although there is no vaccine available for WNV, several measures can be taken to reduce the risk of infection:

1. Minimize Mosquito Bites: This is the cornerstone of WNV prevention. When venturing outdoors, apply insect repellent containing DEET, picaridin, or IR3535. Wear long-sleeved shirts and pants, especially during dawn and dusk when mosquito activity is at its peak.
2. Eliminate Mosquito Breeding Grounds: Mosquitoes thrive in standing water.

Regularly empty containers that hold water, such as flower pots, buckets, and trash cans. Change the water in bird baths and fountains every week.

3. Utilize Mosquito Nets: When sleeping outdoors, particularly in areas with high WNV prevalence, use a mosquito net to minimize exposure to mosquitoes.

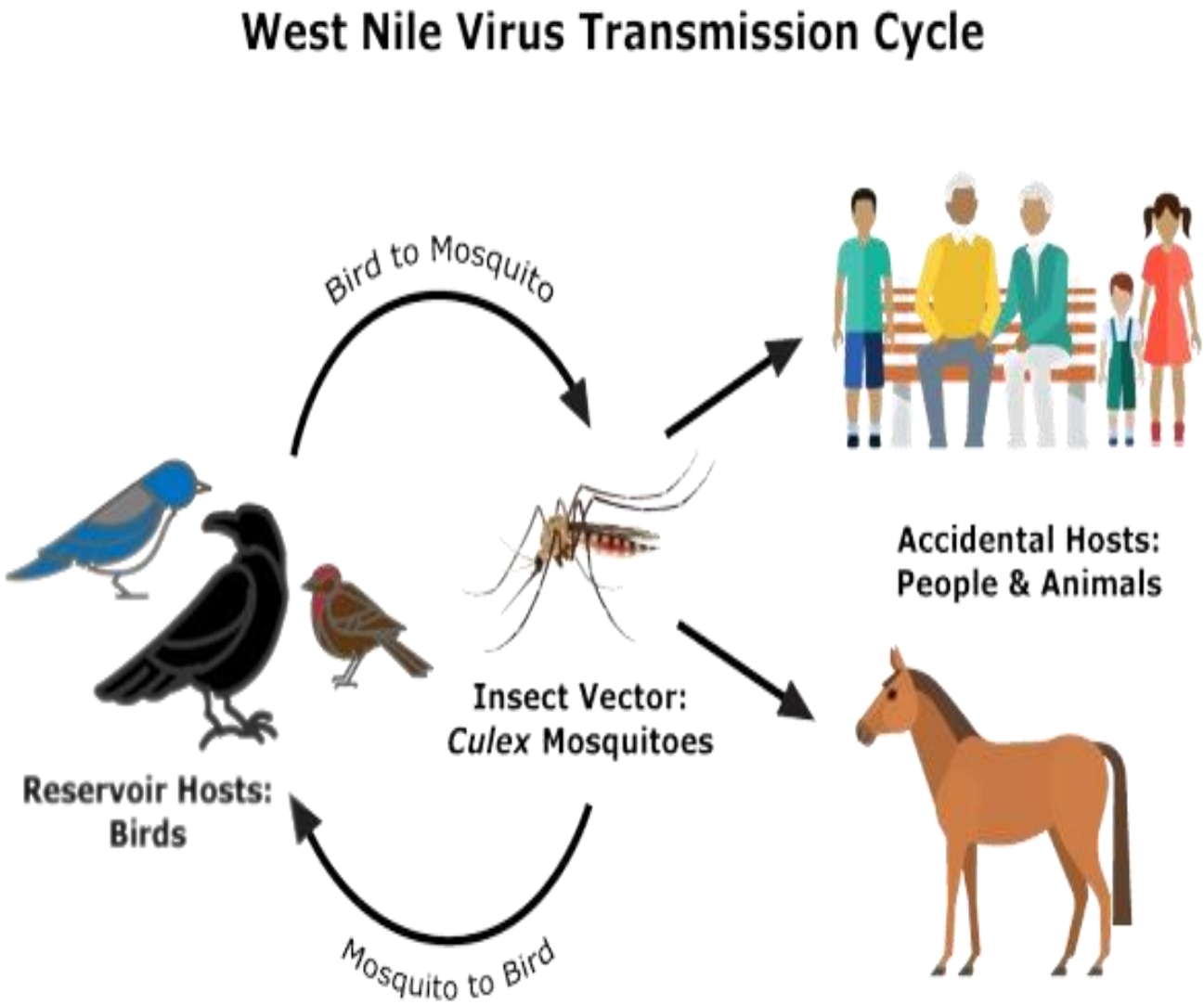
Diagnosis and Treatment

No specific treatment exists for WNV infection. Most individuals recover fully within a few weeks. However, severe cases may require hospitalization for supportive care.

If you suspect you have WNV infection, seek immediate medical attention. Your doctor will conduct tests to confirm the diagnosis and recommend appropriate supportive care measures.

Protecting Ourselves and Communities

WNV poses a significant public health threat, but it is preventable. By taking proactive steps to avoid mosquito bites and eliminate mosquito breeding sites, we can collectively safeguard ourselves and our communities from this disease.



WORLD PNEUMONIA DAY

NOV 12

WHAT IS PNEUMONIA

Pneumonia is an infection caused by bacteria, viruses, or fungi. It leads to inflammation in the air sacs of one or both lungs. These sacs, called alveoli, fill with fluid or pus, making it difficult to breathe

SYMPTOMS

- Coughing
- Fever
- Sweating or chills
- Shortness of breath
- Chest Pain
- Fatigue
- Loss of appetite
- Nausea or vomitting
- Headaches

PREVENTION

Simple, proven solutions

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UK Health Security Agency

World Health Organization

USAID

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