PUBLIC HEALTH BULLETIN-PAKISTAN

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11th Nov– 17th Nov
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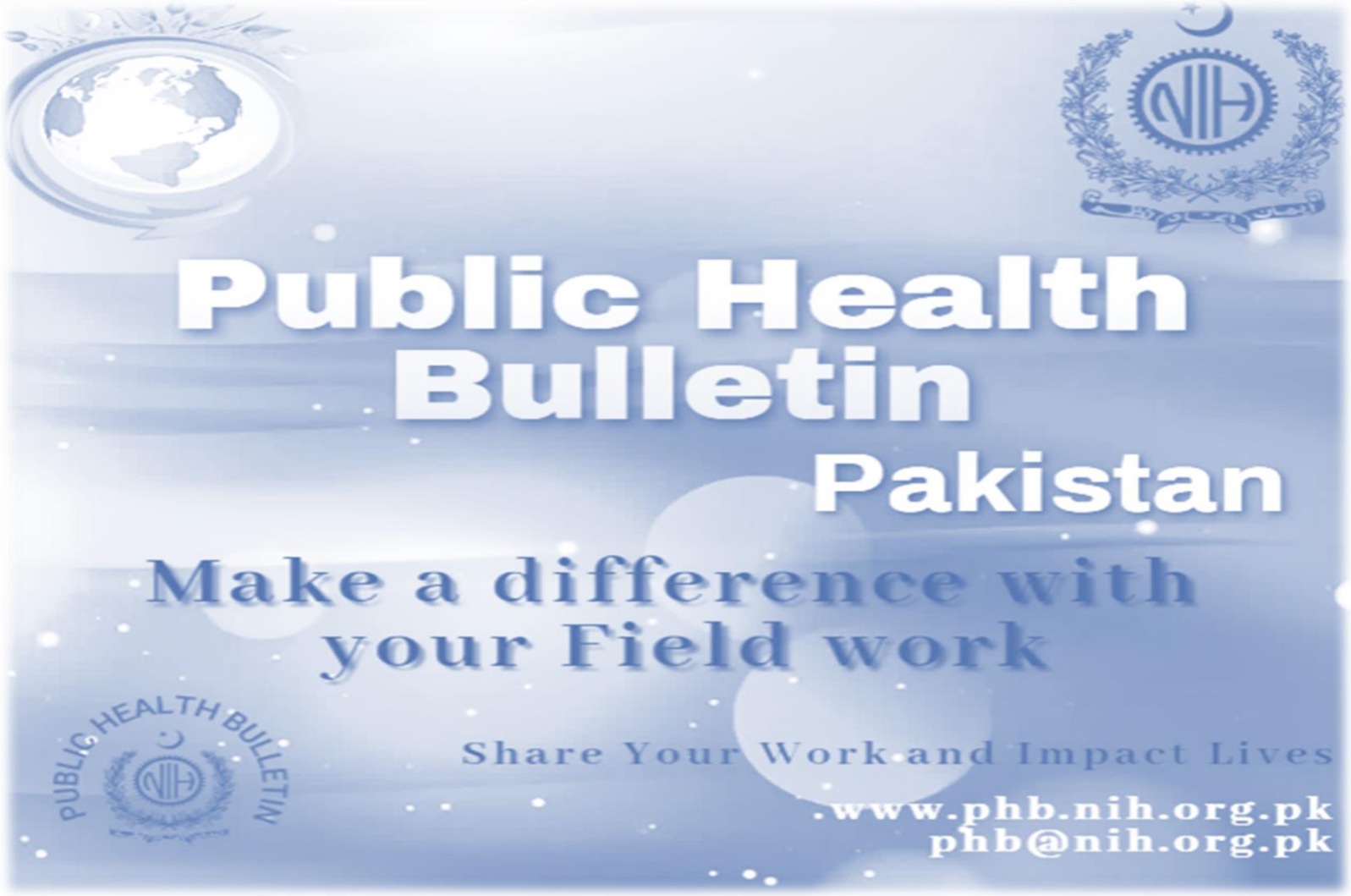
Integrated Disease Surveillance & Response (IDSR) Report

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.



Overview

IDSR Reports

Ongoing Events

Field Reports

Public Health Bulletin - Pakistan, Week 46, 2024

Evolving from a basic disease registry, Pakistan's Public Health Bulletin has become an indispensable tool for safeguarding public health. By meticulously tracking disease trends, the Bulletin serves as an early warning system, enabling timely interventions to prevent outbreaks.

Beyond data compilation, this week's bulletin also includes updates on Activities done in world AMR week by NIH, Outbreak Investigation of Dengue in Balochistan and a knowledge review on HIV/AIDS

Stay well-informed about public health matters. Subscribe to the Weekly Bulletin today! By equipping everyone with knowledge, the Public Health Bulletin empowers Pakistanis to build a healthier nation.

Sincerely,
The Chief Editor

- *During week 46, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, TB, ALRI <5 years, dog bite, B. Diarrhea, VH (B, C & D), Typhoid and SARI.*
- *Thirty cases of AFP reported from KP,thirteen from Sindh,eleven from Punjab, three from AJK ,three from Balochistan and one from GB. All are suspected cases and need field verification.*
- *Six suspected cases of HIV/ AIDS reported from Punjab, five from Balochistan, four from KP and three from Sindh. Field investigation required to verify the cases.*
- *Twenty-six suspected cases of Brucellosis reported from KP and one from ICT. Field investigation required to verify the cases.*
- *There is an increase in number of cases reported for Acute Diarrhea (Non-Cholera),Malaria,ILI, TB, ALRI <5years, dog bite, B. Diarrhea,VH (B,C& D), Typhoid and SARI this week.*

IDSR compliance attributes

- *The national compliance rate for IDSR reporting in 158 implemented districts* is 82%
- *Gilgit Baltistan , Sindh and AJK are the top reporting regions with a compliance rate of 94, followed by ICT 80% and KP 75%*
- *The lowest compliance rate was observed in Balochistan 70%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2319	1740	75
Azad Jammu Kashmir	405	381	94
Islamabad Capital Territory	36	29	80
Balochistan	1307	900	70
Gilgit Baltistan	407	385	94
Sindh	2094	1974	94
National	6568	5409	82

Public Health Actions

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

Tuberculosis

- **Early Detection and Diagnosis:** Implement regular screening for high-risk groups and utilize rapid diagnostic tools to identify cases promptly.
- **Directly Observed Therapy, Short-course (DOTS):** Ensure optimal treatment adherence through supervised medication administration.
- **Community Awareness:** Conduct community awareness campaigns on tuberculosis (TB) focusing on early symptom recognition, reducing stigma, and promoting free diagnosis and treatment services available through public health programs

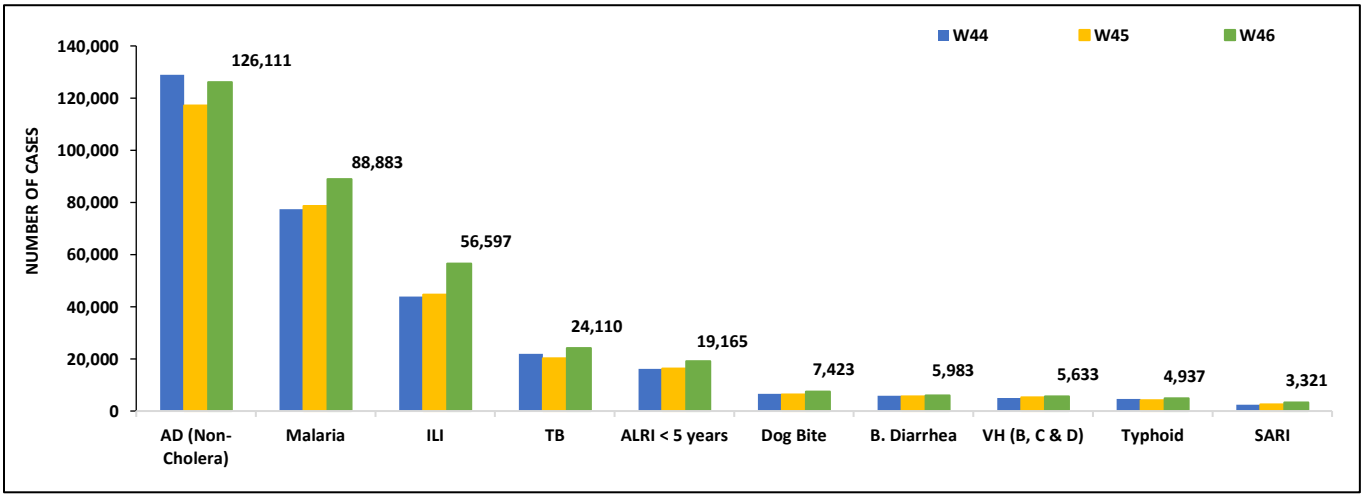
Typhoid Fever

- **Safe Water and Sanitation:** Improve access to clean water and adequate sanitation facilities.
- **Vaccination of High Risk Population:** Vaccinate children under 15 with typhoid conjugate vaccine (TCV) in high-risk areas to prevent the spread of XDR *Salmonella Typhi* and reduce dependency on antibiotics
- **Food Safety:** Implement food safety practices, such as proper cooking and storage, to prevent foodborne transmission.
- **Community Awareness:** Leverage local health workers and community influencers to hold community awareness sessions.

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 46, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,159	6,085	785	275	16,692	63,774	37,341	126,111
Malaria	7	8,016	0	1	6,822	3,223	70,814	88,883
ILI	2,538	9,052	559	1,737	5,436	1	37,274	56,597
TB	65	140	77	12	316	10,657	12,843	24,110
ALRI < 5 years	1,341	1,670	1,097	12	1,139	1,494	12,412	19,165
Dog Bite	77	194	6	0	507	4,231	2,408	7,423
B. Diarrhea	30	1,296	63	1	767	712	3,114	5,983
VH (B, C & D)	14	293	0	1	121	0	5,204	5,633
Typhoid	15	685	68	0	661	2,386	1,122	4,937
SARI	312	795	308	2	1,635	0	269	3,321
Dengue	15	4	41	5	392	1,763	89	2,309
AVH (A & E)	16	11	32	0	261	0	877	1,197
AWD (S. Cholera)	5	174	12	0	84	809	19	1,103
Measles	4	18	1	1	218	193	32	467
Chikungunya	0	2	0	0	0	0	300	302
Mumps	6	56	11	1	89	0	100	263
CL	0	74	0	0	156	1	0	231
Chickenpox/ Varicella	6	1	24	2	65	9	8	115
Leprosy	0	0	0	0	69	0	7	76
Pertussis	0	33	15	0	3	0	20	71
AFP	3	3	1	0	30	11	13	61
Gonorrhea	0	49	0	0	1	0	10	60
Meningitis	0	0	3	0	0	50	5	58
Diphtheria (Probable)	0	12	0	0	14	11	7	44
Brucellosis	0	0	0	1	26	0	0	27
HIV/AIDS	0	5	0	0	4	6	3	18
Syphilis	0	0	0	0	0	0	12	12
NT	0	1	0	0	8	2	0	11
VL	0	1	0	0	0	0	5	6

Figure 1: Most frequently reported suspected cases during Week 46, Pakistan.



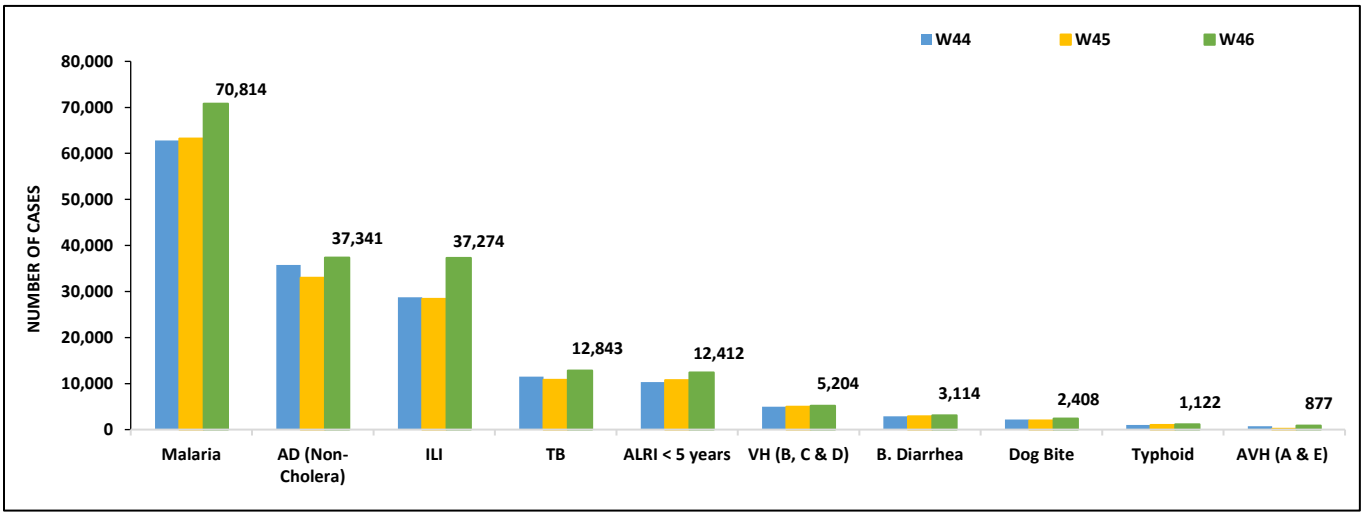
Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and AVH(A&E).
- Malaria cases are mostly from Larkana, Khairpur and Dadu whereas AD (Non-Cholera) cases are from Khairpur, Badin and Dadu.
- Thirteen cases of AFP, three suspected cases of HIV/ AIDS reported from Sindh. Field investigation required to verify the case.
- There is an increase in number of cases reported for Malaria, AD (Non-Cholera), ILI, TB, ALRI <5years, VH(B,C&D), B. Diarrhea, dog bite and AVH(A&E) this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 46, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	2,519	2,202	3,044	951	689	260	168	92	65	6
Dadu	5,788	2,110	637	554	1,280	68	352	241	133	41
Ghotki	2,034	712	65	319	450	174	99	180	4	60
Hyderabad	31	1,328	3,095	4	47	0	0	0	0	0
Jacobabad	2,166	806	865	146	366	247	128	148	36	3
Jamshoro	2,552	1,421	97	505	219	380	122	80	53	6
Kamber	5,304	1,948	0	923	347	127	125	186	28	0
Karachi Central	39	579	1,665	25	17	6	8	0	93	17
Karachi East	71	318	589	12	20	8	9	12	0	0
Karachi Keamari	0	431	224	2	51	0	2	1	2	2
Karachi Korangi	29	273	0	24	3	0	4	0	1	1
Karachi Malir	505	1,453	4,003	167	343	54	44	55	28	5
Karachi South	38	75	0	0	0	0	0	0	0	0
Karachi West	273	864	1,311	149	209	135	31	83	29	3
Kashmore	3,452	454	606	363	242	40	64	142	17	0
Khairpur	6,404	2,487	8,157	1,213	1,173	222	324	193	201	3
Larkana	8,022	1,643	0	1,086	558	64	385	38	14	2
Matiari	2,155	1,218	10	634	420	127	69	47	6	2
Mirpurkhas	2,730	2,086	4,101	659	829	74	98	45	11	2
Naushero Feroze	2,419	1,209	1,089	544	525	30	122	156	141	1
Sanghar	4,670	2,022	36	1,359	794	1,611	68	211	75	8
Shaheed Benazirabad	1,533	1,388	3	318	210	49	60	101	102	0
Shikarpur	3,950	1,204	3	324	263	702	188	150	8	0
Sujawal	666	990	0	94	86	53	26	21	1	15
Sukkur	4,054	1,086	1,979	545	617	109	163	122	10	0
Tando Allahyar	2,210	1,112	1,457	611	393	317	162	42	8	1
Tando Muhammad Khan	1,057	861	0	533	165	136	69	0	1	0
Tharparkar	2,669	1,902	1,989	403	898	81	79	1	19	45
Thatta	1,332	1,682	2,249	47	621	80	72	61	12	653
Umerkot	2,142	1,477	0	329	577	50	73	0	24	1
Total	70,814	37,341	37,274	12,843	12,412	5,204	3,114	2,408	1,122	877

Figure 2: Most frequently reported suspected cases during Week 46 Sindh

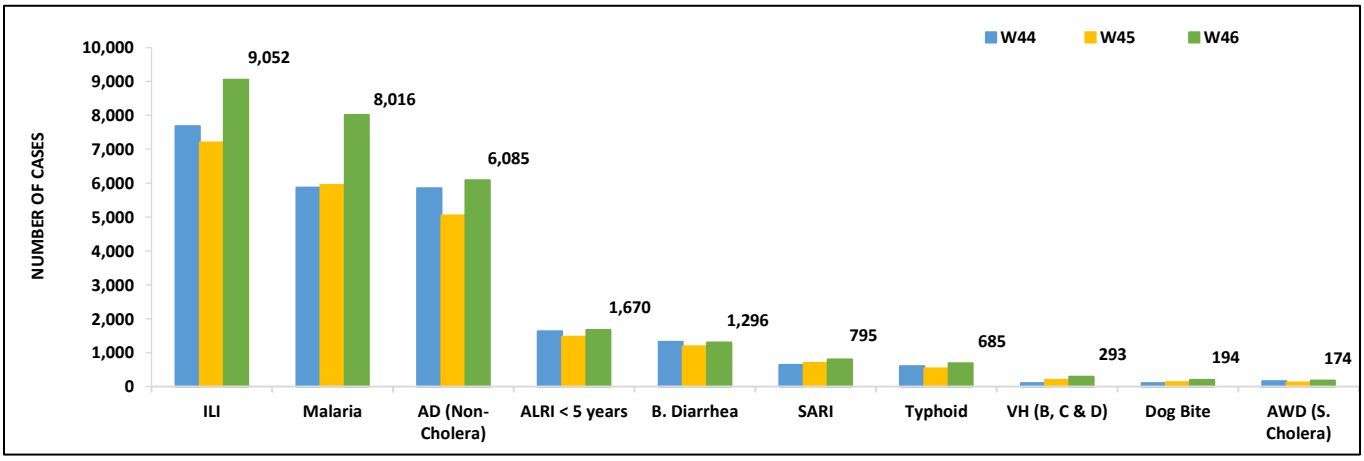


- ILI, Malaria, AD (Non-Cholera), ALRI <5 years, B. Diarrhea, SARI, Typhoid, VH (B, C & D), dog bite and AWD (S. Cholera) cases were the most frequently reported diseases from Balochistan province.
- ILI cases are mostly reported from Gwadar, Kech (Turbat) and Quetta while Malaria cases are mostly reported from Jhal Magsi,Jaffarabad and Sohbat Pur.
- Three cases of AFP, five suspected cases of HIV/ AIDS reported from Balochistan. All are suspected cases and require field verification.

Table 3: District wise distribution of most frequently reported suspected cases during Week 46, Balochistan

Districts	AD (Non-Cholera)	Malaria	ILI	B. Diarrhea	ALRI < 5 years	Typhoid	SARI	AWD (S.Cholera)	TB	CL
Barkhan	74	86	112	31	4	8	41	2	4	0
Chagai	462	238	202	0	79	0	28	0	1	4
Chaman	5	1	3	0	4	0	3	0	0	0
Dera Bugti	75	160	45	59	14	6	2	0	0	0
Gwadar	1,375	290	495	6	96	0	3	3	0	4
Hub	0	10	25	0	0	0	0	0	0	0
Jaffarabad	152	1,206	397	33	89	19	6	93	40	0
Jhal Magsi	238	1,418	264	99	7	0	43	0	10	24
Kalat	1	27	42	22	10	6	21	0	0	0
Kech (Turbat)	1,158	407	299	20	45	1	NR	20	NR	NR
Kharan	418	109	117	0	63	12	2	0	0	7
Khuzdar	482	244	292	9	132	43	75	0	0	6
Killa Saifullah	0	128	146	167	44	0	32	0	0	0
Kohlu	485	140	200	7	82	91	74	NR	NR	NR
Lasbella	91	684	379	74	31	4	17	2	14	0
Loralai	323	44	158	49	36	109	22	0	10	0
Mastung	253	85	217	138	44	41	55	37	21	0
MusaKhel	50	159	42	22	8	7	11	0	0	12
Naseerabad	70	707	355	41	23	1	76	111	82	9
Nushki	65	6	75	0	13	0	0	0	0	0
Panjgur	267	269	248	103	79	57	4	0	0	19
Pishin	455	36	353	64	88	66	28	0	4	32
Quetta	1,044	36	449	191	51	94	43	0	1	51
Sherani	67	5	11	0	9	28	2	0	0	0
Sibi	506	45	146	33	11	56	42	0	0	0
Sohbat pur	45	854	247	184	89	23	28	9	2	5
Surab	159	88	68	0	0	0	0	0	0	0
Usta Muhammad	190	306	463	122	37	36	6	16	5	1
Washuk	369	159	185	4	87	5	10	0	0	0
Zhob	173	69	50	192	21	82	11	0	0	0
Total	9,052	8,016	6,085	1,670	1,296	795	685	293	194	174

Figure 3: Most frequently reported suspected cases during Week 46, Balochistan

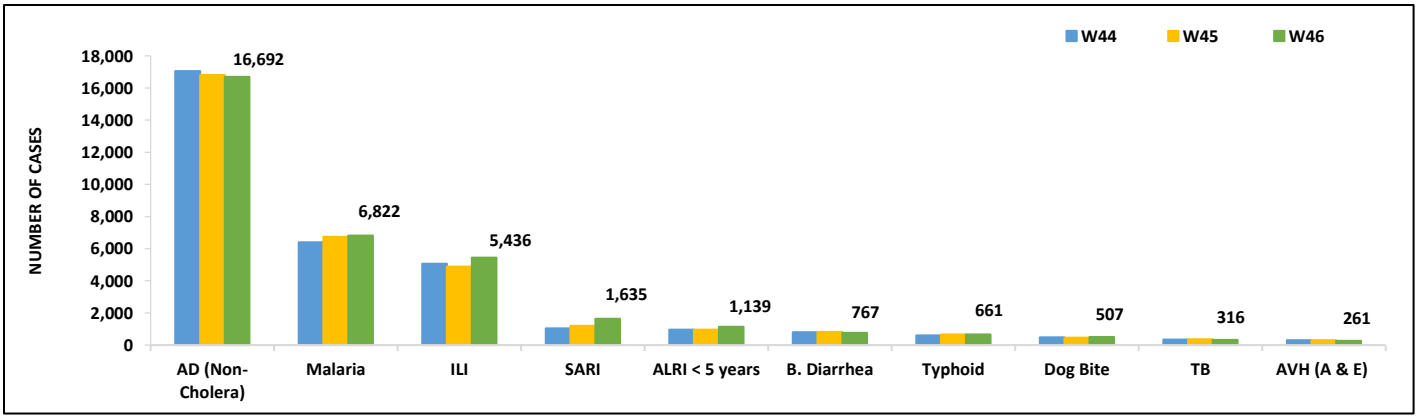


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, SARI, ALRI<5 Years, B. Diarrhea, Typhoid, dog bite, TB and AVH (A & E) cases.
- AD (Non-Cholera) ,TB, Bloody Diarrhea and AVH(A &E) cases showed a decreasing trend while Malaria, ILI, SARI,ALRI <5 years, Typhoid and dog bite cases showed an increasing trend this week.
- Thirty-one cases of AFP, sixteen suspected cases of HIV/ AIDS, eleven suspected cases of Brucellosis reported from KP. All are suspected cases and need field verification.

Table 4: District wise distribution of most frequently reported suspected cases during Week 46, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B.Diarrhea	SARI	ALRI <5 Years	Typhoid	Dog Bite	TB	AVH (A&E)
Abbottabad	314	15	166	30	43	8	48	4	13	0
Bajaur	874	270	76	76	94	74	2	29	9	85
Bannu	713	1,848	47	0	24	29	95	3	25	2
Battagram	63	36	455	NR	NR	1	0	25	NR	NR
Buner	162	173	0	0	0	0	2	5	2	0
Charsadda	941	392	681	7	106	46	84	2	4	31
Chitral Lower	226	8	95	20	17	10	3	11	7	1
Chitral Upper	68	3	0	6	26	0	8	1	2	1
D.I. Khan	1,025	709	0	0	9	18	0	14	42	0
Dir Lower	940	327	1	0	93	77	52	43	11	22
Dir Upper	384	4	46	0	4	0	2	3	2	3
Hangu	64	90	0	0	0	4	0	0	1	0
Haripur	546	38	155	14	44	4	6	2	25	21
Karak	293	259	121	414	18	11	2	7	7	2
Khyber	388	240	64	52	28	101	53	18	7	3
Kohat	409	239	119	167	8	16	16	2	3	0
Kohistan Lower	56	4	0	0	0	8	0	1	0	0
Kohistan Upper	324	28	9	0	17	20	5	0	16	0
Kolai Palas	63	2	7	9	5	1	3	0	0	0
L & C Kurram	12	24	59	0	0	18	3	1	0	0
Lakki Marwat	576	491	13	0	29	21	2	43	14	0
Malakand	537	25	61	21	36	47	39	0	0	16
Mansehra	336	2	282	102	65	3	27	0	0	0
Mardan	520	37	0	0	87	6	3	29	7	0
Mohmand	119	299	174	179	8	32	5	12	2	5
North Waziristan	45	22	0	30	3	17	8	0	0	0
Nowshera	1,125	168	41	26	3	26	19	13	9	20
Orakzai	71	15	20	0	0	6	13	18	0	0
Peshawar	2,228	102	1,172	134	93	75	39	21	16	4
SD Tank	9	16	3	0	0	0	0	0	0	0
Shangla	438	208	0	22	13	2	34	23	36	1
SWA	63	41	178	35	28	17	7	4	14	0
Swabi	838	63	825	53	117	2	36	119	6	24
Swat	1,314	29	106	0	72	28	9	30	7	16
Tank	424	518	180	27	11	3	25	8	27	0
Tor Ghar	40	55	0	6	1	15	3	9	0	4
Upper Kurram	144	22	280	205	37	21	8	7	2	0
Total	16,692	6,822	5,436	1,635	1,139	767	661	507	316	261

Figure 4: Most frequently reported suspected cases during Week 46, KP



ICT, AJK & GB

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

AJK: ILI cases were maximum followed by ALRI < 5years, AD (Non-Cholera), SARI, dog bite, TB, B. Diarrhea , AVH (A & E) ,Typhoid and VH(B,C &D)cases. An increasing trend observed for ILI,ALRI <5 years, AD (Non-Cholera), SARI,B.Diarrhea while a decreasing trend observed for dog bite, AVH(A&E) and Typhoid cases and same trend observed for TB and VH (B,C&D) cases this week. Three suspected cases of AFP reported from AJK. Field investigation required to verify the cases.

GB: ALRI <5 Years cases were the most frequently reported diseases followed by AD (Non-Cholera), ILI, SARI, TB,Typhoid and B. Diarrhea cases. An increasing trend observed for ALRI <5 years, AD (Non-Cholera),ILI, SARI, Typhoid and B. Diarrhea cases while same trend observed for TB cases this week. One suspected case of AFP reported from GB. Field investigation required to verify the cases.

Figure 5: Most frequently reported suspected cases during Week 46, ICT

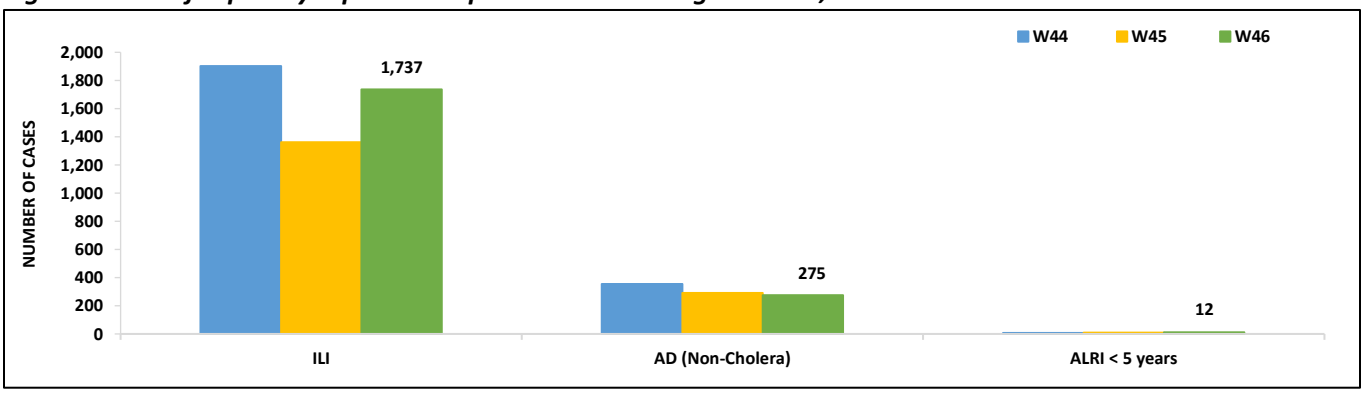


Figure 6: Week wise reported suspected cases of ILI, ICT

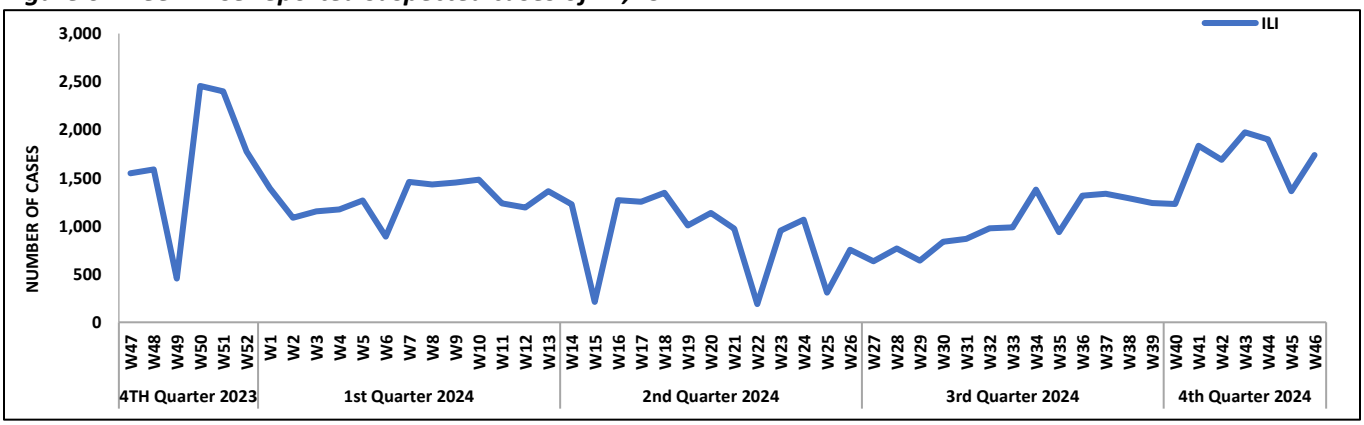


Figure 7: Most frequently reported suspected cases during Week 46, AJK

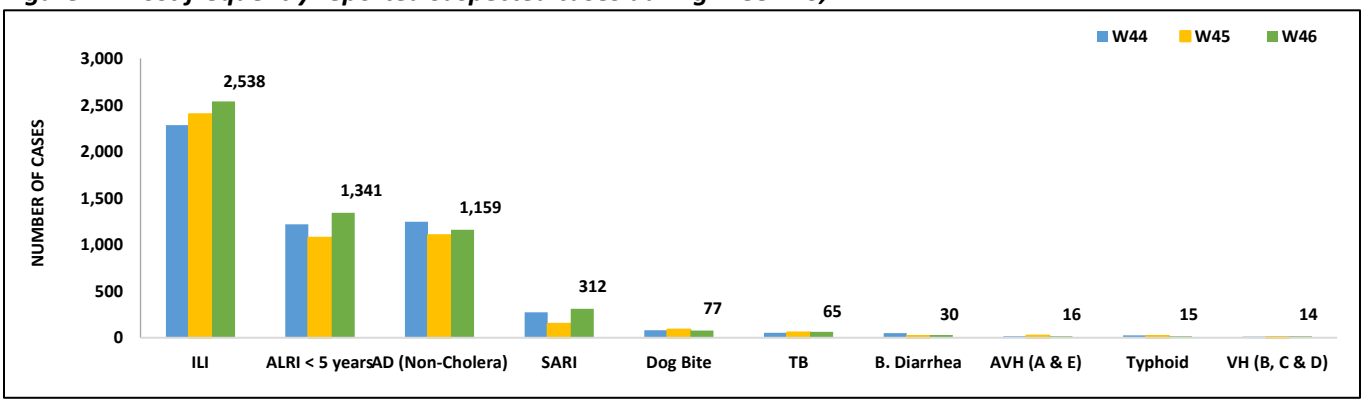


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

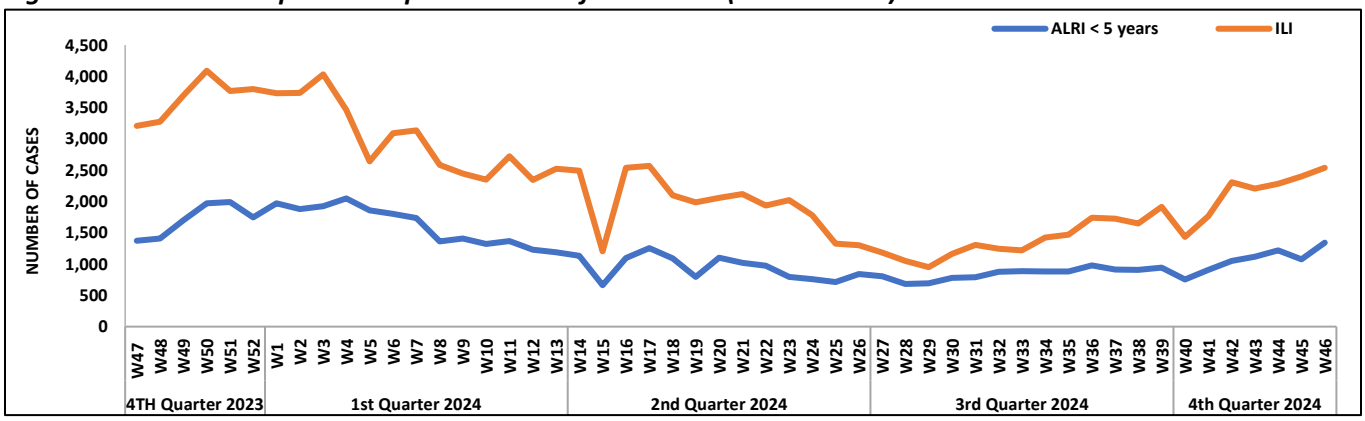


Figure 9: Most frequent cases reported during Week 46, GB

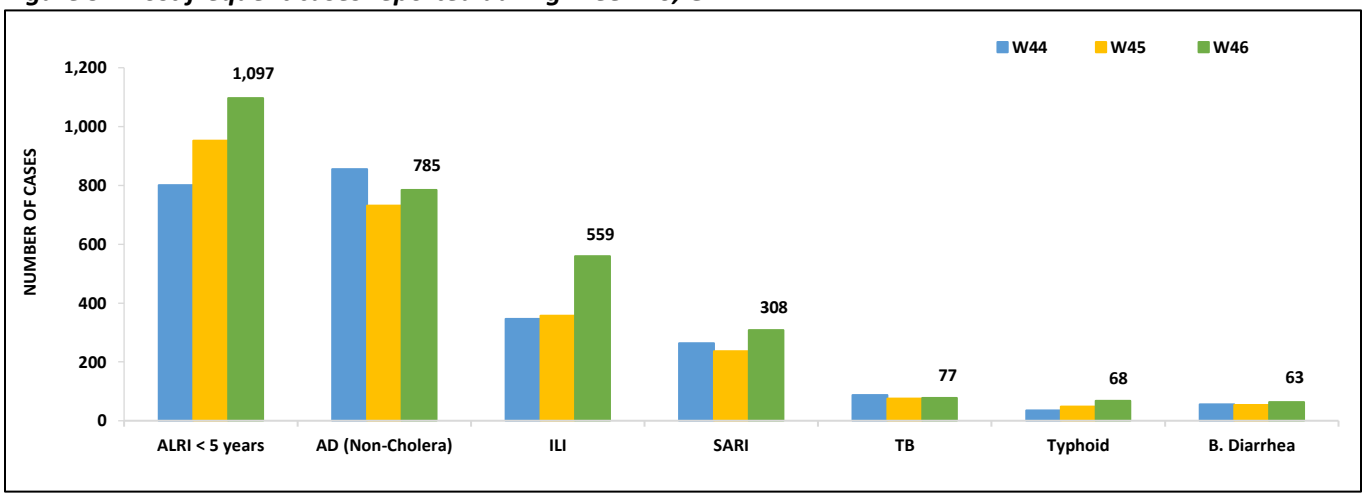
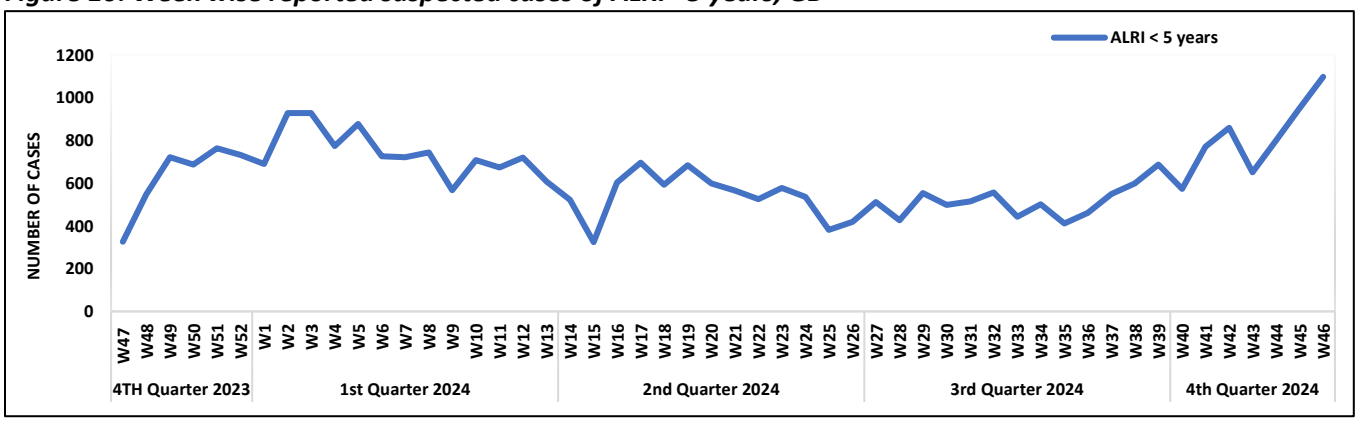


Figure 10: Week wise reported suspected cases of ALRI <5 years, GB



Punjab

- AD (Non-Cholera) cases were maximum followed by TB, dog bite, Malaria, Typhoid, ALRI<5 Years, AWD (S. Cholera), B. Diarrhea and Measles cases.
- AD (Non-Cholera), TB, dog bite, Malaria, Typhoid, ALRI<5 Years cases showed an increasing trend while AWD (S. Cholera), B. Diarrhea and Measles cases showed a decreasing trend this week.
- Eleven cases of AFP, six suspected cases of HIV/ AIDS reported from Punjab. Field investigation required to verify the cases.

Figure 11: Most frequently reported suspected cases during Week 46, Punjab.

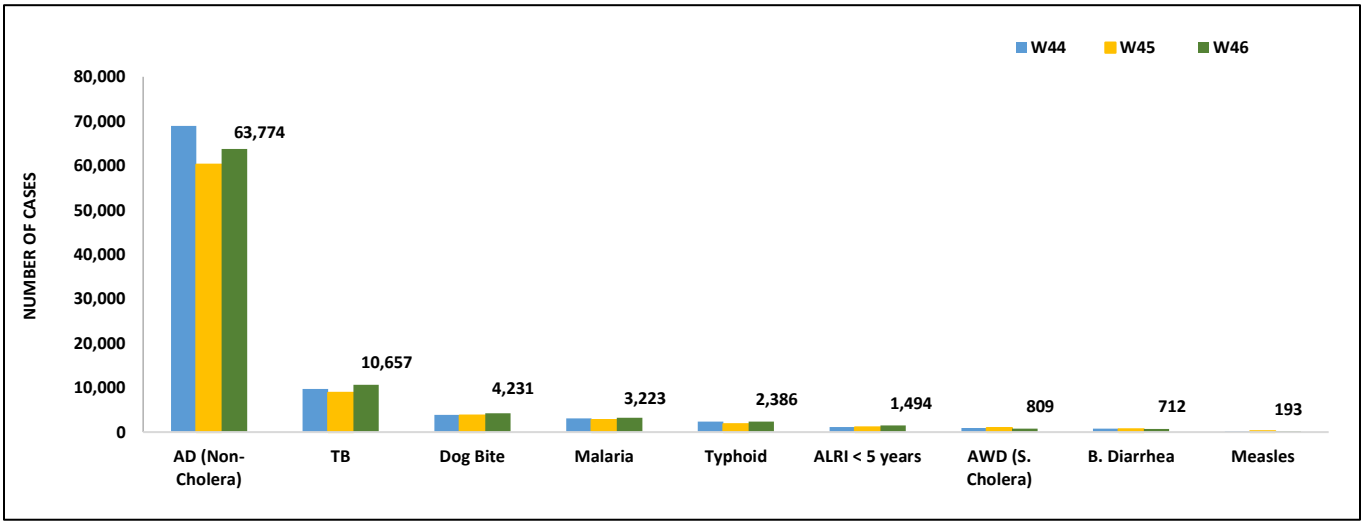


Figure 12: Week wise reported suspected cases of AD (Non-Cholera), Punjab.

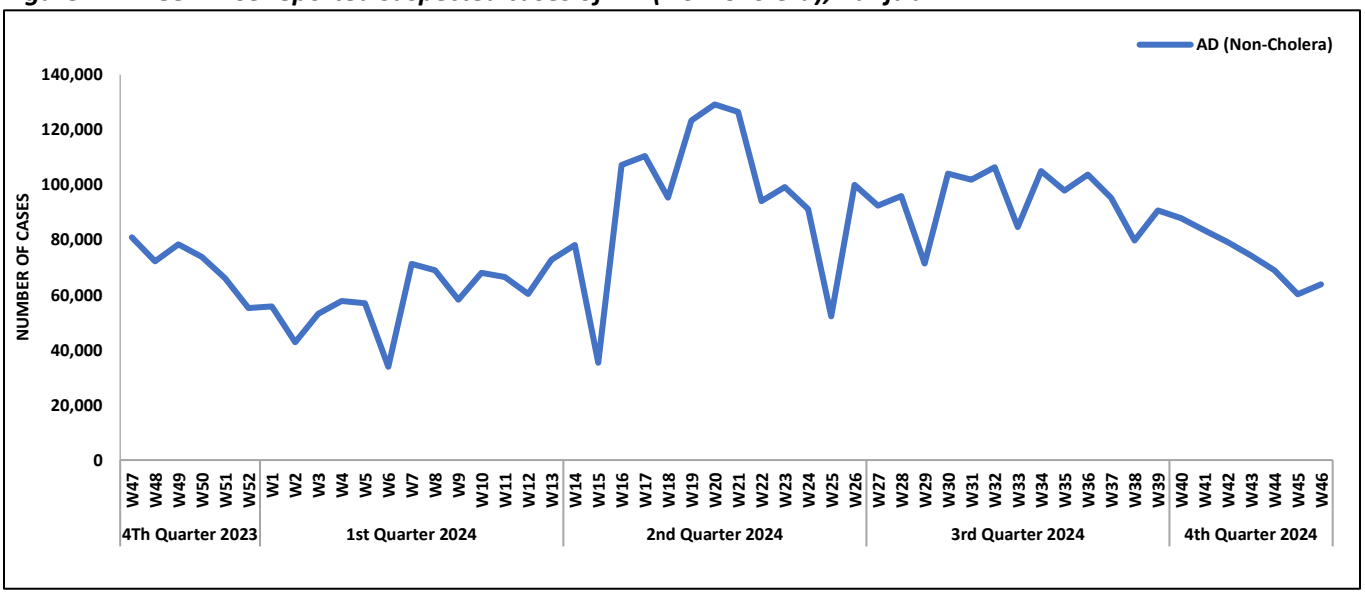


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 46

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)		11	0	-	-	-	-	-	-	-	-	-	-	15	0
AD (Non-Cholera)		75	0	-	-	3	0	-	-	-	-	-	-	25	0
Malaria		989	81	-	-	-	-	-	-	-	-	-	-	140	5
CCHF		-	-	2	1	2	0	-	-	-	-	-	-	0	0
Dengue		950	31	-	-	-	-	-	-	-	-	-	-	98	9
VH (B)		2,981	111	70	49	-	-	-	-	198	3	-	-	768	0
VH (C)		3,101	314	85	29	-	-	-	-	157	0	-	-	768	3
VH (A&E)		-	-	-	-	2	0	-	-	-	-	-	-	0	0
Covid-19		-	-	6	0	19	0	-	-	-	-	-	-	35	0
HIV		-	-	-	-	-	-	-	-	-	-	-	-	0	0
TB		-	-	-	-	-	-	-	-	-	-	-	-	127	4
Syphilis		-	-	-	-	-	-	-	-	-	-	-	-	11	0
Typhoid		560	5	-	-	-	-	-	-	-	-	-	-	0	0
Diptheria (Probabale)		-	-	-	-	1	0	-	-	-	-	-	-	0	0
Pertussis		-	-	-	-	-	-	-	-	-	-	-	-	0	0
M-POX		-	-	-	-	-	-	-	-	-	-	-	-	0	0
Measles		78	27	15	8	225	103	6	4	1	0	232	59	23	7
Rubella		78	1	15	1	225	3	6	0	1	0	232	1	23	1
Covid-19	Out of SARI	3	0	0	0	12	0	37	1	0	0	92	0	0	0
	Out of ILI	0	0	0	0	1	0	47	0	0	0	76	1	0	0
Influenza A	Out of SARI	3	0	0	0	12	0	37	0	0	0	92	5	0	0
	Out of ILI	0	0	0	0	1	0	47	1	0	0	76	3	0	0
Influenza B	Out of SARI	3	0	0	0	12	0	37	0	0	0	92	5	0	0
	Out of ILI	0	0	0	0	1	0	47	0	0	0	76	3	0	0
RSV	Out of SARI	3	0	0	0	12	0	37	0	0	0	92	0	0	0
	Out of ILI	0	0	0	0	1	0	47	0	0	0	76	0	0	0

- 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 46, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	104	94%
	Bannu	238	138	58%
	Battagram	63	23	37%
	Buner	34	33	97%
	Bajaur	44	36	82%
	Charsadda	59	57	97%
	Chitral Upper	34	28	82%
	Chitral Lower	35	34	97%
	D.I. Khan	114	113	99%
	Dir Lower	74	74	100%
	Dir Upper	37	9	24%
	Hangu	22	12	55%
	Haripur	72	66	92%
	Karak	35	35	100%
	Khyber	52	20	38%
	Kohat	61	61	100%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	14	33%
	Upper Kurram	41	29	71%
	Malakand	42	30	71%
	Mansehra	136	111	82%
	Mardan	80	74	93%
	Nowshera	55	53	96%
	North Waziristan	13	6	46%
	Peshawar	153	128	84%
	Shangla	37	30	81%
	Swabi	64	57	89%
	Swat	77	70	91%
	South Waziristan	135	58	43%
	Tank	34	29	85%
	Torghar	14	14	100%
	Mohmand	68	64	94%
	SD Peshawar	5	0	0%
	SD Tank	58	6	10%
	Orakzai	69	14	20%
	Mirpur	37	37	100%
	Bhimber	42	20	48%
	Kotli	60	60	100%

Azad Jammu Kashmir	Muzaffarabad	45	43	96%
	Poonch	46	46	100%
	Haveli	40	40	100%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	15	8	53%
Balochistan	Gwadar	25	22	88%
	Kech	44	22	50%
	Khuzdar	74	66	89%
	Killa Abdullah	26	0	0%
	Lasbella	55	55	100%
	Pishin	69	46	67%
	Quetta	55	35	64%
	Sibi	36	20	56%
	Zhob	39	23	59%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	13	87%
	Kohlu	75	48	64%
	Chagi	36	27	75%
	Kalat	41	40	98%
	Harnai	17	0	0%
	Kachhi (Bolan)	35	0	0%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	24	96%
	Surab	32	25	78%
	Mastung	45	45	100%
	Loralai	33	25	76%
	Killa Saifullah	28	25	89%
	Ziarat	29	0	0%
	Duki	31	0	0%
	Nushki	32	29	91%
	Dera Bugti	45	29	64%
	Washuk	46	32	70%
	Panjgur	38	25	66%
	Awaran	23	0	0%
	Chaman	24	1	4%
	Barkhan	20	19	95%
	Hub	33	5	15%
	Musakhel	41	19	46%
	Usta Muhammad	34	33	97%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	40	40	100%
	Gilgit	40	40	100%

	Diamer	62	62	100%
	Astore	54	54	100%
	Shigar	27	25	93%
	Skardu	52	52	100%
	Ganche	29	28	97%
	Kharmang	46	25	54%
Sindh	Hyderabad	74	69	93%
	Ghotki	64	64	100%
	Umerkot	43	43	100%
	Naushahro Feroze	107	96	90%
	Tharparkar	276	241	87%
	Shikarpur	60	59	98%
	Thatta	52	51	98%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	19	83%
	Karachi-West	20	20	100%
	Karachi-Malir	37	28	76%
	Karachi-Kemari	18	17	94%
	Karachi-Central	11	6	55%
	Karachi-Korangi	18	16	89%
	Karachi-South	4	4	100%
	Sujawal	55	39	71%
	Mirpur Khas	106	86	81%
	Badin	125	119	95%
	Sukkur	64	63	98%
	Dadu	90	88	98%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	170	168	99%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	75	73	97%
	Tando Allahyar	54	53	98%
	Tando Muhammad Khan	41	41	100%
	Shaheed Benazirabad	125	122	98%

Table 7: IDSR reporting Tertiary care hospital Week 46, 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	0	0%

World AMR Awareness Week-2024 at NIH

Antimicrobial resistance (AMR) is quickly becoming one of the most pressing challenges in global public health, with infections increasingly resistant to treatment. During the inaugural session of the National Symposium on AMR, Dr. Muhammad Salman, Chief Executive Officer of the National Institutes of Health (NIH), highlighted the growing concerns associated with AMR. "The emergence of extensively drug-resistant (XDR) infections and the rising number of hospital-acquired infections are especially troubling," he emphasized. Dr. Salman's remarks set the tone for the week-long discussions aimed at addressing the escalating threat of AMR.

A Global Initiative for Awareness

The National Symposium on AMR, a key event during World Antimicrobial Awareness Week (WAAW) 2024, was organized by the NIH in collaboration with prominent global partners, including the World Health Organization (WHO), Fleming Fund, Health Services Academy (HSA), and Getz Pharma. This global event, observed from November 18 to 24, serves as a critical platform for increasing public awareness about AMR and advocating for action to combat the rise of drug-resistant infections.

World Antimicrobial Awareness Week is a collaborative effort to promote the responsible use of antimicrobial medicines and raise awareness about the threats posed by AMR. The week aims to educate healthcare professionals, policymakers, and the public about the importance of preserving the effectiveness of antibiotics, antivirals, and other antimicrobial drugs.

National Symposium Highlights

The National Symposium on AMR featured leading experts, healthcare professionals, policymakers, and global stakeholders who came together to discuss the latest research, share insights, and propose practical solutions to combat AMR. The event also included presentations on the global burden of AMR, the role of infection prevention and control, and the importance of developing new antibiotics and other antimicrobial agents.

The discussions underscored the importance of a "One Health" approach to AMR, which recognizes the interconnectedness of human, animal, and environmental health in the spread of resistant pathogens. Speakers also highlighted the need for coordinated efforts at local, national, and international levels to tackle AMR effectively.

Raising Public Awareness: NIH's Awareness Walk

To complement the symposium, an awareness walk was organized within the NIH premises as part of World AMR Awareness Week's broader objective to engage the public in the fight against AMR. Participants, including healthcare professionals, students, and members of the community, took part in the walk to show their commitment to spreading the message about the importance of responsible antimicrobial use and the need for better stewardship.

Notes from the field: Dengue Outbreak Investigation in UC Shahi Tump District Kech, May 2024.

Dr. Bilal Khan Frontline FETP

Dr. Nida Rasheed

Introduction:

Dengue, an arboviral disease transmitted primarily by Aedes mosquitoes, has emerged as a significant global health threat. In Pakistan, the southern coastal belt of Balochistan, particularly the districts of Kech, Gwadar, Lasbella, and Hub, has been experiencing endemic dengue transmission since 2016. However, in 2024, a substantial increase in dengue cases was observed, particularly in the union councils of Aab-Sar and Jusak within the district of Kech.

This outbreak investigation was initiated in response to reports of a significant surge in dengue cases from the Provincial Disease Surveillance and Response Unit (PDSRU). The outbreak is believed to be driven by a combination of factors, including favorable climatic conditions such as irregular rainfall and flooding, which have led to increased mosquito breeding sites. Additionally, local water storage practices may contribute to the persistence of mosquito populations.

To understand the magnitude and dynamics of this outbreak, a comprehensive investigation was undertaken.

Objectives:

- To identifying confirmed dengue cases in the affected union council.
- To identify the risk factors.
- To conduct vector assessment
- To recommend relevant control and preventive measures for limiting further spread of the disease.

Methods

A descriptive study was conducted in Union Council Shahi Tump, Kech district, Balochistan, Pakistan, from 12th May to 25th May, 2024, to investigate the dengue outbreak. The study population included all residents of the union council. A suspected dengue case was defined as an individual with acute fever (≥38°C) for 2-7 days and at least two of the following symptoms: headache, muscle or joint pain, nausea/vomiting, rash, or retro-orbital pain, low blood pressure, arthralgia, positive tourniquet test, leukopenia, thrombocytopenia and signs of severe dengue hemorrhagic fever. Blood samples were collected for confirmation via RTD/NS1. Data was collected through the review of health facility records and community-based active case finding. A standardized CDC Case Investigation Form was used to gather detailed information from suspected dengue cases. Descriptive analysis was done and attack rates were calculated using SPSS.

Results

Of the 380 suspected dengue cases in Union Council Shahi Tump, 18 were confirmed, yielding a positivity rate of 4.7%. The 30-44 age group was most affected by the outbreak, with an attack rate of 42 cases per 100,000 population. This was followed by the 60 and above age group, the 15-29 age group, the 45-59 age group, and the 0-14 age group. The most common symptoms among confirmed cases included fever, retro-orbital pain, and a positive tourniquet test. Hematological abnormalities, such as thrombocytopenia and leukopenia, were also frequently observed. Other symptoms, including arthralgia, nausea, vomiting, and signs of severe dengue, were less prevalent. On environmental surveillance revealed a house index of 11% positivity out of 73 houses and a container index of 16% positivity out of 284 checked containers, indicating a significant presence of Aedes mosquitoes in the area.

Public Health Actions:

Targeted Hotspots: Peri-focal focal fogging and IGR application were conducted in all the affected Union Councils.

Larvae Source Eradication: All Aedes larvae were mechanically destroyed for source reduction and all the tanks were properly covered with and cloths.

Awareness Campaigns: Large public awareness sessions conducted through BCC and RCC by well-designed awareness brochures, print and electronic media for safe water storage and precautionary measures against dengue.

Discussion

The identification of a significant number of dengue cases, coupled with the presence of Aedes

mosquito larvae, confirms the ongoing transmission of the virus in the area. The predominance of fever, retro-orbital pain, and hematological abnormalities among confirmed cases aligns with the classic clinical presentation of dengue fever as described by the World Health Organization (WHO) [1]. The varying attack rates across different age groups suggest that certain populations may be more susceptible to dengue infection.

Several risk factors contributed to the outbreak, including poor water storage practices, favorable climatic conditions, inadequate sanitation, and low public awareness [2, 3]. Addressing these factors is crucial to preventing future outbreaks.

While the implemented control measures, such as larviciding, fogging, and public awareness campaigns, are essential for immediate outbreak control, a long-term, integrated vector management approach is necessary to sustain the gains [4]. This approach should include regular surveillance, community engagement, and capacity building of healthcare workers [5].

Furthermore, strengthening the surveillance system and early warning systems can help in early detection and timely response to future outbreaks [6]. Collaboration between health authorities, local communities, and international organizations is essential for sharing knowledge, resources, and best practices [7].

Conclusion

The investigation confirmed the dengue outbreak in Union Council Shahi Tump, with both travel-related and indigenous cases identified. Active vector surveillance revealed the presence of Aedes mosquito larvae, highlighting a local source of transmission. These findings underscore the need for robust vector control measures, public awareness campaigns, and strengthened surveillance systems to prevent future outbreaks and mitigate the impact of dengue in the region.

Recommendations

Strengthening Surveillance: Improve dengue case surveillance and reporting, and establish a high dependency unit for case management

Sustained Interventions: Continue larval source management, IGR application, and peri-focal fogging in the affected areas

Collaborative Efforts: Strong collaboration of local authorities with donor organization is crucial in addressing the dengue outbreak in Kech district.

Comprehensive Approach: The integrated vector control management activities, capacity building, and community engagement is the key to the response. Continued efforts and a multisectoral approach are necessary to effectively control and prevent future dengue outbreaks

References

1. World Health Organization. (2023). Dengue and severe dengue. Retrieved from WHO website.
2. Gubler, D. J. (2011). Dengue, urbanization, and globalization: The unholy trinity of the 21st century. Tropical Medicine and Health, 39(4), 3-11.
3. Bhatt, S., Gething, P. W., Brady, O. J., et al. (2013). The global distribution and burden of dengue. Nature, 496(7446), 504–507.
4. Wilder-Smith, A., Ooi, E. E., Horstick, O., & Wills, B. (2019). Dengue. The Lancet, 393(10169), 350–363.
5. Shepard, D. S., Undurraga, E. A., Halasa, Y. A., & Stanaway, J. D. (2016). The global economic burden of dengue: A systematic analysis. The Lancet Infectious Diseases, 16(8), 935–941.
6. Murray, N. E. A., Quam, M. B., & Wilder-Smith, A. (2013). Epidemiology of dengue: Past, present, and future prospects. Clinical Epidemiology, 5, 299–309.
7. Bowman, L. R., Donegan, S., & McCall, P. J. (2016). Is dengue vector control deficient in effectiveness or evidence? Systematic Review of Evidence-Based Medicine, 352, i1869.

Knowledge Hub

HIV/AIDS: Key Information and Public Health Overview

Introduction to HIV/AIDS

Human Immunodeficiency Virus (HIV) is a virus that attacks the body's immune system, weakening its ability to fight infections. Acquired Immunodeficiency Syndrome (AIDS) is the most severe stage of HIV infection, where the immune system is so compromised that the body becomes vulnerable to opportunistic infections and certain cancers. With advances in treatment, HIV is now a manageable chronic condition, but it remains a global public health issue.

Key Facts about HIV/AIDS

1. **Transmission**: HIV is primarily transmitted through blood, semen, vaginal fluids, rectal fluids, and breast milk. It is most commonly spread via unprotected sexual contact, sharing needles, or from mother to child during childbirth or breastfeeding.

2. **Global Impact**: According to the World Health Organization (WHO), there are approximately 39 million people worldwide living with HIV. In recent years, global efforts have helped reduce the number of new infections and AIDS-related deaths, but many challenges remain, especially in low- and middle-income countries.
3. **Symptoms**: Early-stage HIV often presents with flu-like symptoms. If untreated, HIV gradually weakens the immune system, leading to AIDS. Individuals with AIDS are at increased risk of opportunistic infections and cancers, such as tuberculosis and Kaposi's sarcoma.
4. **Prevention**: Prevention strategies include:
    - **Use of condoms**: The most effective method to prevent sexual transmission of HIV.
    - **Pre-Exposure Prophylaxis (PrEP)**: A daily pill that reduces the risk of HIV infection for individuals at high risk.
    - **Harm reduction strategies**: Needle exchange programs and safe injection sites to prevent HIV transmission through shared needles.
    - **Antiretroviral therapy (ART)**: While not a cure, ART helps to manage HIV, allowing individuals to live longer, healthier lives. ART also significantly reduces the likelihood of transmitting the virus to others.
5. **Diagnosis and Testing**: Early diagnosis is crucial for managing HIV. Routine HIV testing, particularly for those at higher risk, is essential. Testing involves blood tests to detect the virus or the body's immune response to it.
6. **Treatment and Care**: ART involves a combination of medications that suppress HIV replication, reducing viral load to undetectable levels. When the viral load is undetectable, the risk of transmission (termed undetectable = untransmittable or U=U) is significantly reduced.

Key Takeaways

- **Early detection and consistent treatment** are essential to preventing the progression from HIV to AIDS and ensuring long-term health.
- **Prevention** is the most effective strategy in reducing the global spread of HIV. Methods like condoms, PrEP, and harm reduction programs are crucial.
- **Supportive care** for individuals living with HIV/AIDS should include physical, psychological, and social support services to manage the disease effectively.
- **Stigma and discrimination** remain significant barriers to HIV prevention, care, and treatment, making public education and awareness critical in combatting these issues.

Public Health Resources

For additional information and updates, the following organizations provide valuable resources:

- **Centers for Disease Control and Prevention (CDC)**: The CDC provides comprehensive resources on HIV testing, prevention, and treatment in the United States. Their website offers detailed guides, data, and research on HIV/AIDS.
    - CDC HIV Resources
- **World Health Organization (WHO)**: WHO offers a global perspective on HIV/AIDS, including prevention strategies, research updates, and guidelines for managing HIV in diverse health systems worldwide.
    - WHO HIV/AIDS Information
- **Public Health Agency of Canada (PHAC)**: PHAC offers resources tailored to Canada, including information on HIV prevention, care, and statistics on the disease's impact across the country.
    - PHAC HIV/AIDS Resources

UNAIDS

NACP

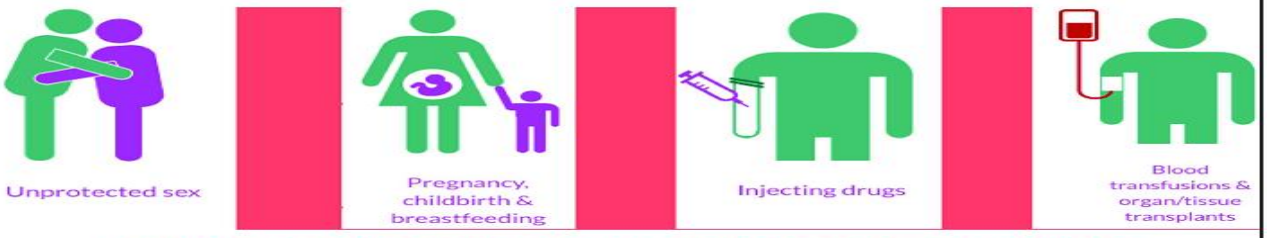
World Health Organization

HIV INFO SHEET

What to know about HIV and AIDS

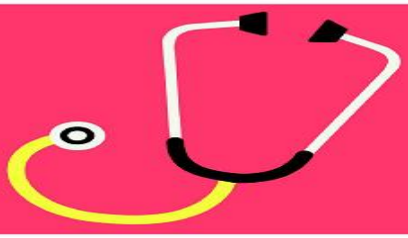
LEARNING THE BASICS ABOUT HIV CAN KEEP YOU HEALTHY AND PREVENT TRANSMISSION.

HIV CAN BE TRANSMITTED BY

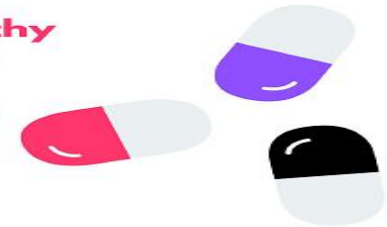


HIV CANNOT BE TRANSMITTED BY

KEEP YOURSELF HEALTHY AND PROTECT OTHERS IF YOU ARE LIVING WITH HIV



- Find HIV care. It can keep you healthy and greatly reduce your chance of transmitting HIV.
- Take your medicines the right way every day.
- Stay in HIV care.



GET TESTED AT LEAST ONCE OR MORE OFTEN IF YOU ARE AT RISK.

NIH

UK Health Security Agency

World Health Organization

USAID
UNITED STATES AGENCY INTERNATIONAL DEVELOPMENT