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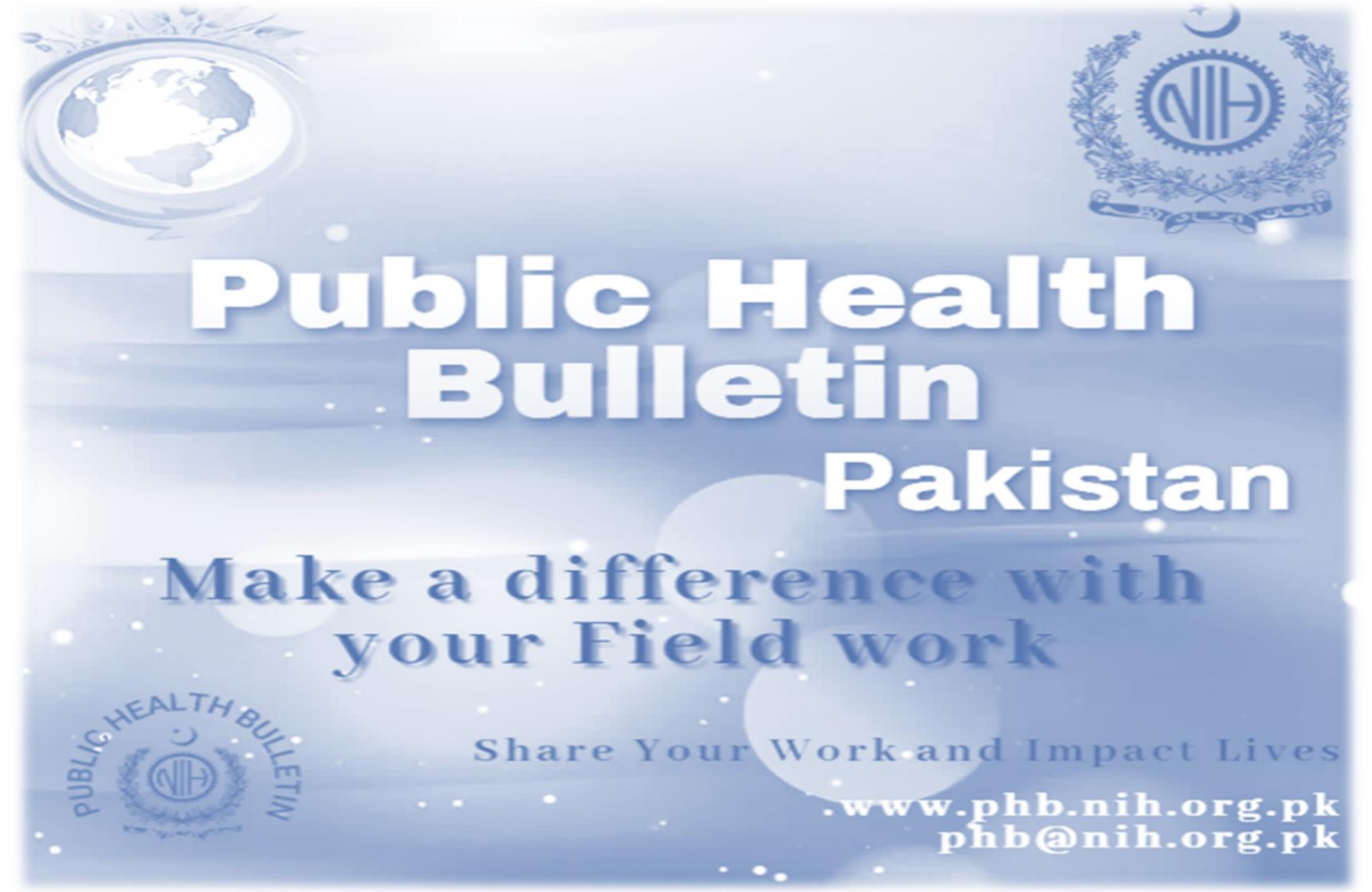
Integrated Disease Surveillance & Response (IDSR) Report

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 38, 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 information on the 24th polio case in Pakistan, the evolution of Pakistan's public health bulletin—highlighting a transformation in health communication—World Patient Safety Day, an outbreak investigation of dengue in the HUB District, and a knowledge review on chikungunya.

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 38, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, TB, ALRI <5 years, B. Diarrhea, dog bite, VH (B, C & D), Typhoid and SARI.*
- *Thirty-eight cases of AFP reported from KP, eighteen from Sindh, fourteen from Punjab, two each from AJK and GB and one from Balochistan. All are suspected cases and need field verification.*
- *Fifteen suspected cases of HIV/ AIDS reported from KP, eleven from Balochistan, five from Punjab, three from Sindh and two from AJK. Field investigation required to verify the cases.*
- *Eight suspected cases of Brucellosis reported from Sindh and one from KP. Field investigation required to verify the cases.*
- *There is a decreasing trend observed for Acute Diarrhea (Non-Cholera), Malaria, ILI, TB, ALRI <5 years, B. Diarrhea, dog bite, Typhoid and SARI cases this week.*

IDSR compliance attributes

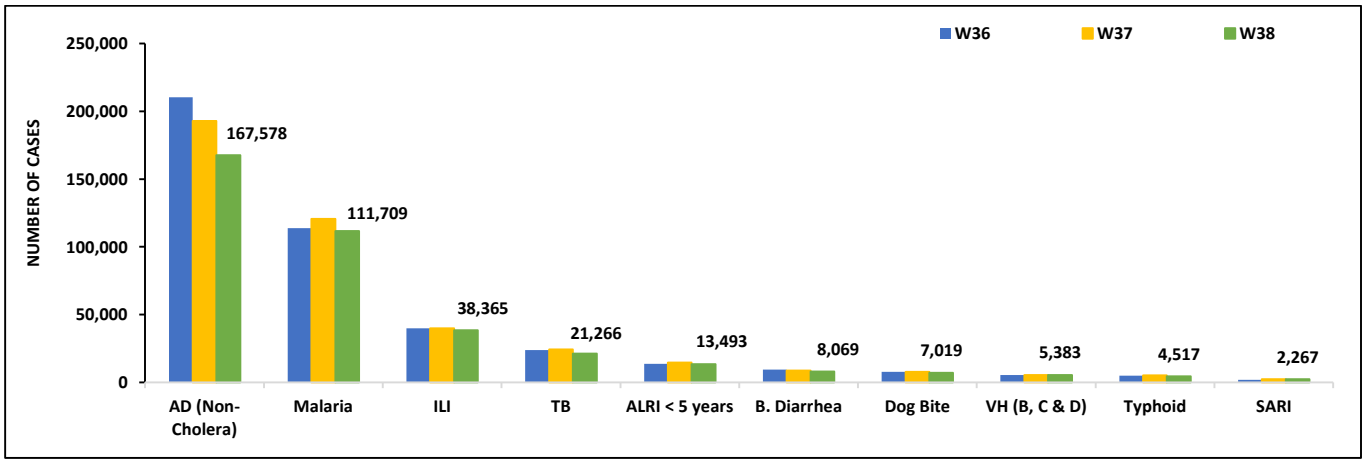
- *The national compliance rate for IDSR reporting in 158 implemented districts* is 83%
- *Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 98%, followed by Sindh 95% and ICT 77%*
- *The lowest compliance rate of 70% was observed in Balochistan and KPK.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	*2330*	*1649*	*70*
Azad Jammu Kashmir	*382*	*373*	*98*
Islamabad Capital Territory	*36*	*28*	*77*
Balochistan	*1291*	*896*	*70*
Gilgit Baltistan	*374*	*367*	*98*
Sindh	*2086*	*1971*	*95*
National	*6499*	*5364*	*83*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 38, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,911	6,000	1,645	393	23,577	79,794	54,258	167,578
Malaria	12	5,871	0	5	8,319	2,765	94,737	111,709
ILI	1,622	5,274	325	1,289	4,472	0	25,383	38,365
TB	54	120	60	13	468	8,320	12,231	21,266
ALRI < 5 years	908	1,173	599	3	1,096	624	9,090	13,493
B.Diarrhea	57	1,179	118	2	1,216	781	4,716	8,069
Dog Bite	103	132	2	0	575	3,967	2,240	7,019
VH (B, C & D)	11	366	1	0	80	0	4,925	5,383
Typhoid	32	556	92	1	800	1,834	1,202	4,517
SARI	176	535	241	1	1,150	0	164	2,267
Dengue	2	0	0	0	199	1,462	195	1,858
AWD (S. Cholera)	52	172	29	0	86	1,248	18	1,605
AVH (A&E)	25	3	3	0	384	0	226	641
Measles	18	27	3	1	199	198	36	482
CL	0	72	0	0	229	3	10	314
Mumps	8	57	5	0	105	0	111	286
Chikungunya	0	0	0	0	1	0	210	211
Gonorrhea	0	70	0	1	8	0	15	94
Chickenpox/ Varicella	13	4	11	3	47	4	6	88
Meningitis	0	0	0	0	6	49	28	83
Pertussis	2	52	1	0	21	0	1	77
AFP	2	1	2	0	38	14	18	75
HIV/AIDS	2	11	0	0	15	5	3	36
Syphilis	0	3	0	0	0	0	14	19
Diphtheria (Probable)	0	3	0	0	7	8	1	19
Brucellosis	0	0	0	0	1	0	8	9
NT	1	0	0	0	2	0	2	5
Leprosy	0	1	0	0	0	0	0	1
Rubella (CRS)	0	0	0	0	1	0	0	1

Figure 1: Most frequently reported suspected cases during Week 38, Pakistan.



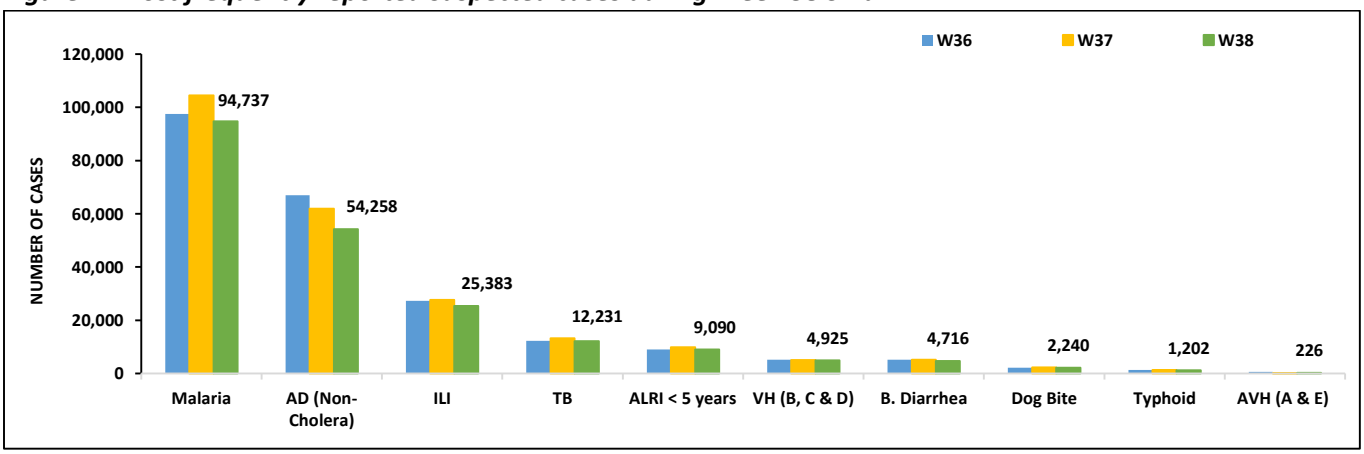
Sindh

- Malaria cases were highest 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 Khairpur, Larkana and Mirpurkhas whereas AD (Non-Cholera) cases are from Dadu, Khairpur and Tharparkar.
- Eighteen cases of AFP, Three cases of HIV/ AIDS, Eight cases of Brucellosis reported from Sindh. All are suspected cases and need field verification.
- There is a decreasing trend observed for Malaria, AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite and Typhoid cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 38, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	6,373	3,176	865	778	526	268	242	69	82	15
Dadu	5,117	3,777	389	532	839	39	579	257	129	33
Ghotki	3,202	2,019	128	393	390	401	139	193	0	4
Hyderabad	893	1,558	1,496	125	134	22	0	11	16	0
Jacobabad	1,346	1,098	407	147	366	182	171	141	51	0
Jamshoro	2,762	2,248	97	527	247	336	116	48	37	24
Kamber	6,828	2,305	8	792	287	74	261	168	21	0
Karachi Central	115	1,244	1,681	197	16	44	2	27	127	11
Karachi East	70	527	377	11	23	1	6	6	4	0
Karachi Keamari	12	382	243	0	85	0	4	2	20	0
Karachi Korangi	66	364	0	3	3	0	5	0	1	3
Karachi Malir	573	1,914	3,354	175	271	69	73	37	51	2
Karachi South	33	79	0	0	0	0	0	0	0	0
Karachi West	184	788	1,105	136	221	121	37	53	29	10
Kashmore	2,251	770	641	261	210	27	105	165	9	0
Khairpur	10,333	3,717	5,838	1343	1,154	253	493	136	252	5
Larkana	10,159	2,980	0	1034	302	90	474	40	16	1
Matiari	2,826	1,999	4	634	213	185	88	51	8	4
Mirpurkhas	7,092	2,856	3,092	572	616	172	136	53	7	3
Naushero Feroze	3,484	1,918	1,078	435	295	37	188	135	110	0
Sanghar	4,517	1,389	53	1012	426	1,162	63	157	33	1
Shaheed Benazirabad	2,851	2,344	4	379	215	86	143	119	95	1
Shikarpur	3,443	1,581	0	261	130	777	207	178	6	0
Sujawal	1,161	2,458	0	110	66	34	286	16	6	31
Sukkur	3,890	1,423	1,661	507	288	46	231	88	9	0
Tando Allahyar	4,469	1,566	715	432	227	308	184	66	13	3
Tando Muhammad Khan	2,215	1,525	0	503	169	15	147	0	3	0
Tharparkar	4,499	3,694	1,743	474	736	92	250	2	28	61
Thatta	586	447	404	22	196	49	15	22	10	11
Umerkot	3,387	2,112	0	436	439	35	71	0	29	3
Total	94,737	54,258	25,383	12,231	9,090	4,925	4,716	2,240	1,202	226

Figure 2: Most frequently reported suspected cases during Week 38 Sindh

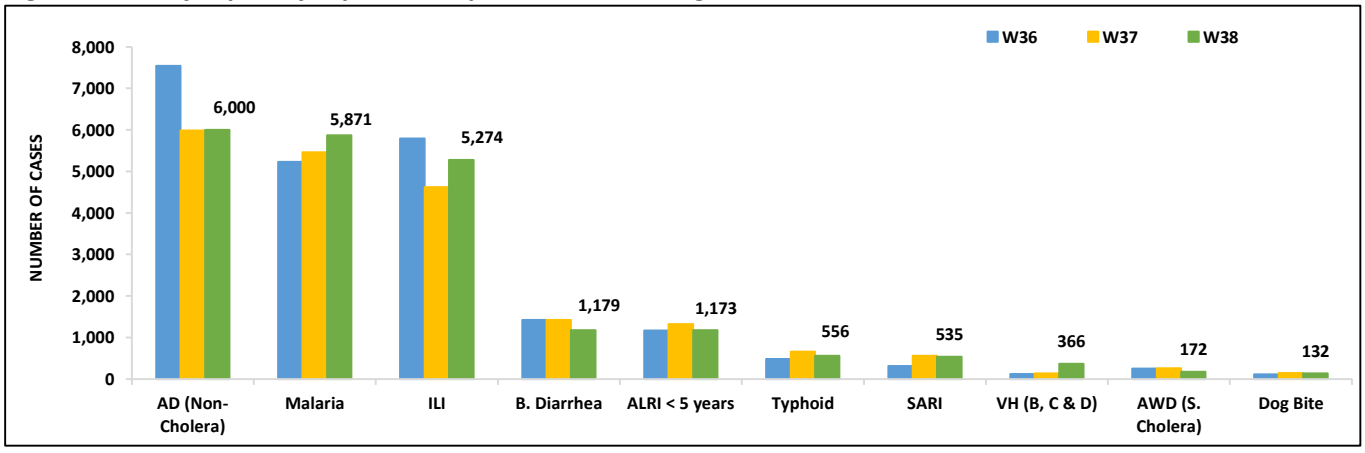


- AD (Non-Cholera), Malaria, ILI, B. Diarrhea, ALRI <5 years, Typhoid, SARI, VH (B, C & D), AWD (S. Cholera) and dog bite cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Lesbella and Jaffarabad while Malaria cases are mostly reported from Jaffarabad, Lesbella and Jhal Magsi.
- One case of AFP, Eleven cases of HIV/ AIDS reported from Balochistan. All are suspected cases. Field investigation required to verify the cases.

Table 3: District wise distribution of most frequently reported suspected cases during Week 38, Balochistan

Districts	AD (Non-Cholera)	Malaria	ILI	B. Diarrhea	ALRI < 5 years	Typhoid	SARI	AWD (S.Cholera)	TB	CL
Barkhan	106	81	55	7	13	39	0	1	1	1
Chagai	157	70	276	47	3	17	3	0	19	0
Chaman	293	93	112	55	25	35	52	212	11	3
Dera Bugti	75	194	46	37	38	20	0	0	0	0
Gwadar	296	218	759	25	0	23	0	0	0	0
Harnai	95	76	17	59	160	0	0	0	4	0
Hub	101	119	45	27	3	0	0	0	0	0
Jaffarabad	399	863	105	61	23	5	8	64	4	27
Jhal Magsi	309	496	441	5	43	10	2	0	0	4
Kalat	33	39	5	14	10	28	2	0	0	0
Kharan	107	106	339	55	0	1	0	0	5	0
Khuzdar	350	318	445	109	8	48	31	0	16	2
Killa Abdullah	116	15	75	64	3	28	21	1	0	1
Kohlu	149	143	273	96	7	44	63	NR	2	NR
Lasbella	436	673	103	23	72	5	14	2	0	7
Loralai	285	82	383	39	51	27	89	0	16	11
Mastung	211	173	143	52	69	49	41	38	1	21
Musakhel	59	220	60	22	21	23	18	6	24	4
Naseerabad	295	296	8	19	10	55	8	15	0	33
Panjgur	273	310	118	57	89	14	44	0	36	0
Quetta	178	32	316	5	23	14	11	8	8	0
Sherani	35	7	44	13	2	3	3	0	0	0
Sibi	284	82	326	22	12	9	31	0	1	1
Sohbat pur	254	420	21	62	136	33	14	9	0	4
Surab	51	48	73	3	4	1	3	0	2	0
Usta Muhammad	727	389	100	64	124	4	2	10	21	13
Washuk	191	163	380	107	2	13	14	0	1	0
Zhob	135	145	206	30	222	8	61	0	0	0
Total	6,000	5,871	5,274	1,179	1,173	556	535	366	172	132

Figure 3: Most frequently reported suspected cases during Week 38, Balochistan

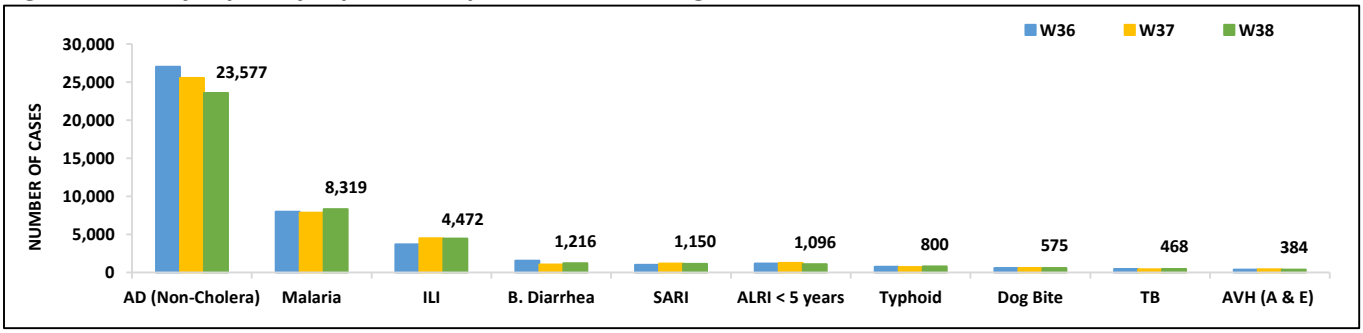


- Cases of AD (Non-Cholera) were highest followed by Malaria, ILI, B. Diarrhea, SARI, ALRI<5 Years, Typhoid, dog bite, TB and AVH (A & E) cases.
- AD (Non-Cholera), SARI, ALRI<5 Years and AVH (A & E) cases showed a decreasing trend while Malaria, B. Diarrhea, Typhoid and TB cases showed an increasing trend this week.
- Thirty-eight cases of AFP, fifteen cases of HIV, one case 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 38, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B.Diarrhea	SARI	ALRI <5 Years	Typhoid	Dog Bite	TB	AVH (A&E)
Abbottabad	697	26	53	10	0	20	59	2	17	1
Bajaur	860	334	39	103	52	336	7	51	11	54
Bannu	875	1,871	6	39	0	37	100	4	37	16
Battagram	177	132	450	0	115	0	0	6	0	0
Buner	341	283	0	0	0	3	5	18	1	0
Charsadda	908	389	607	35	0	49	55	2	1	25
Chitral Lower	375	20	132	19	26	9	11	18	2	0
Chitral Upper	163	2	11	9	7	1	15	0	2	3
D.I. Khan	1,211	725	0	19	0	5	0	27	48	0
Dir Lower	1,504	267	2	133	0	108	41	27	17	5
Dir Upper	864	19	79	2	0	19	5	0	19	0
Hangu	98	178	0	28	0	11	0	0	2	0
Haripur	950	55	196	18	5	58	22	3	27	40
Karak	353	364	90	16	145	10	21	9	5	0
Khyber	472	342	5	130	54	40	47	18	9	12
Kohat	118	11	0	11	0	0	10	0	0	0
Kohistan Lower	124	17	0	9	4	0	1	1	2	0
Kohistan Upper	460	7	25	17	0	3	3	0	15	0
Kolai Palas	73	1	10	1	3	1	1	0	2	1
L & C Kurram	44	37	77	8	1	0	2	0	0	0
Lakki Marwat	769	431	1	22	0	9	17	38	3	0
Malakand	838	43	0	196	4	22	28	0	2	20
Mansehra	521	5	252	0	4	21	44	0	3	0
Mardan	301	55	0	6	0	34	0	0	5	0
Mohmand	129	425	144	62	161	1	11	15	4	2
North Waziristan	11	26	1	19	18	1	5	0	0	3
Nowshera	1,617	320	46	37	14	2	7	14	10	25
Orakzai	18	43	23	4	0	0	0	1	0	0
Peshawar	3,293	79	908	112	83	37	52	7	16	34
SD Peshawar	3	0	0	0	0	0	0	0	0	0
SD Tank	19	37	3	4	0	0	1	0	0	0
Shangla	1,416	959	0	14	0	18	34	33	105	3
SWA	91	112	176	9	82	26	26	5	4	4
Swabi	1,573	110	555	17	87	78	34	194	63	52
Swat	1,713	76	217	32	28	92	48	67	20	84
Tank	343	336	62	4	0	23	49	1	14	0
Tor Ghar	121	154	0	37	0	0	11	2	0	0
Upper Kurram	134	28	302	34	257	22	28	12	2	0

Figure 4: Most frequently reported suspected cases during Week 38, KP



ICT, AJK & GB

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

AJK: AD (Non-Cholera) cases were highest followed by ILI, ALRI <5 years, SARI, dog bite, B. Diarrhea, TB, AWD (S. Cholera), Typhoid and AVH (A & E) cases. A decreasing trend observed for AD (Non-Cholera), ILI, ALRI <5 years, SARI, dog bite, B. Diarrhea, TB, AWD (S. Cholera), AVH (A & E) and Typhoid cases this week.
Two cases of AFP, two cases of HIV/ AIDS reported from AJK. They are suspected cases and require field verification.

GB: AD (Non-Cholera) cases were the most frequently reported diseases followed by ALRI <5 Years, ILI, SARI, B. Diarrhea, Typhoid and TB cases. A decreasing trend observed for AD (Non-Cholera), ILI, SARI, B. Diarrhea and TB cases this week.
Two cases of AFP reported from GB. These are suspected cases and need field verification.

Figure 5: Most frequently reported suspected cases during Week 38, ICT

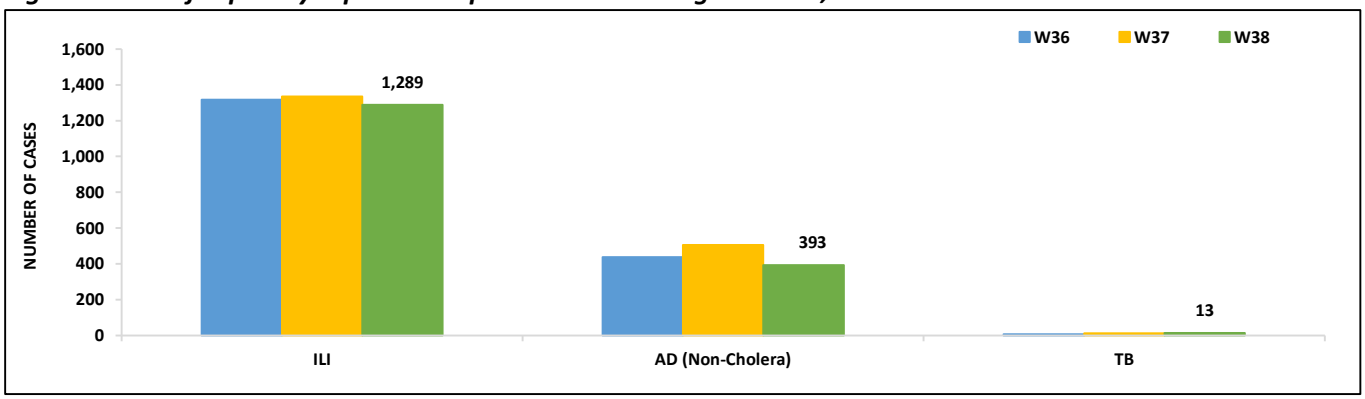


Figure 6: Week wise reported suspected cases of ILI, ICT

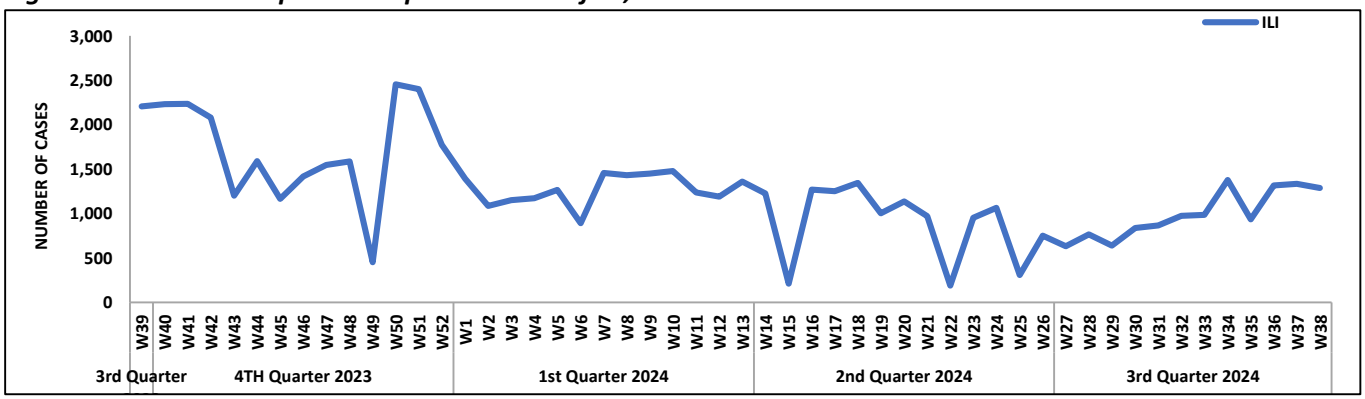


Figure 7: Most frequently reported suspected cases during Week 38, AJK

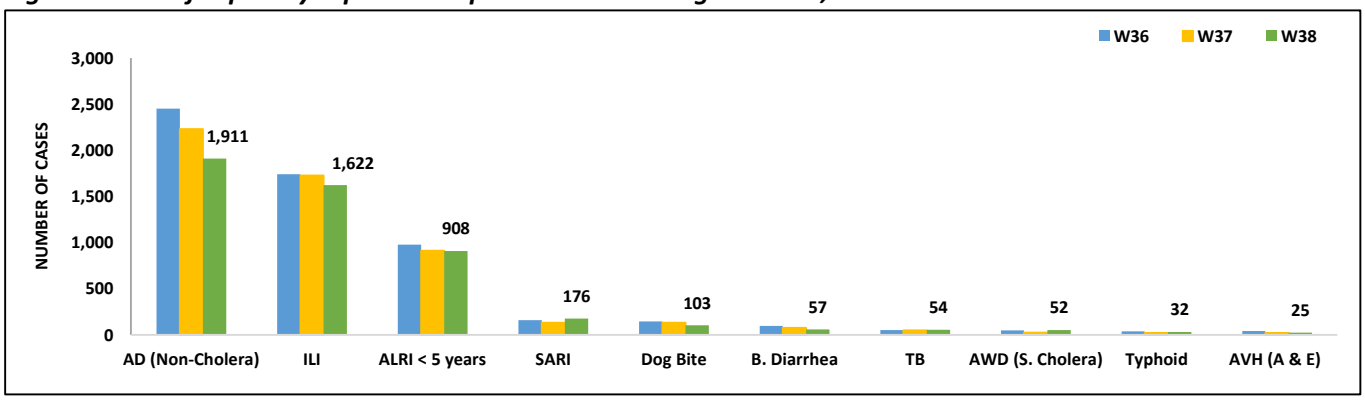


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

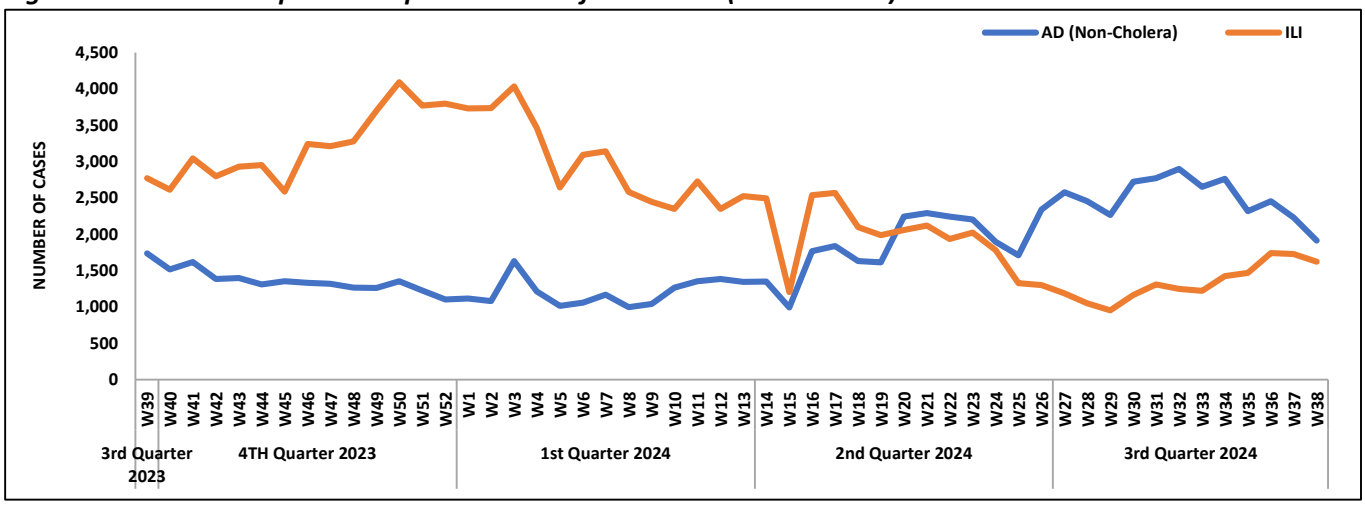


Figure 9: Most frequent cases reported during Week 38, GB

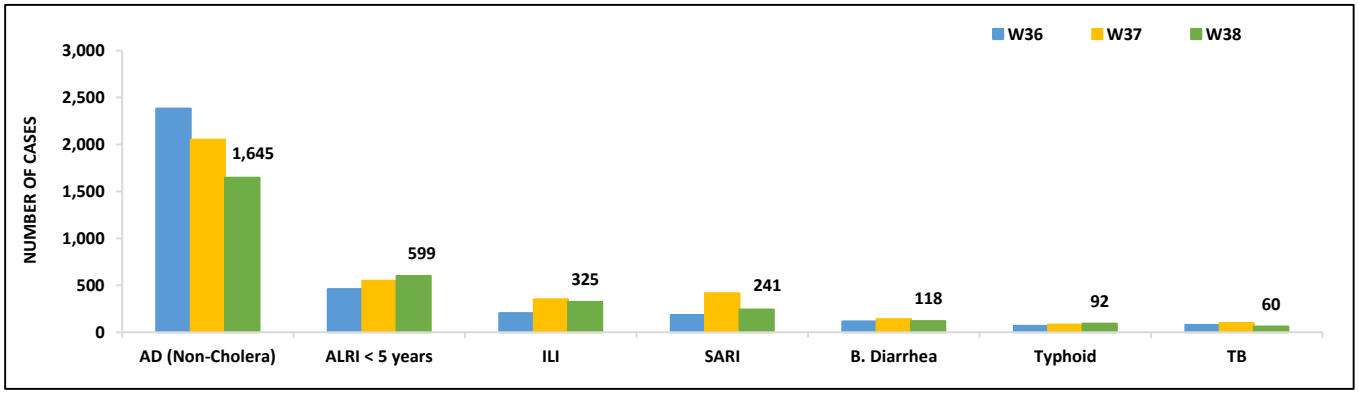
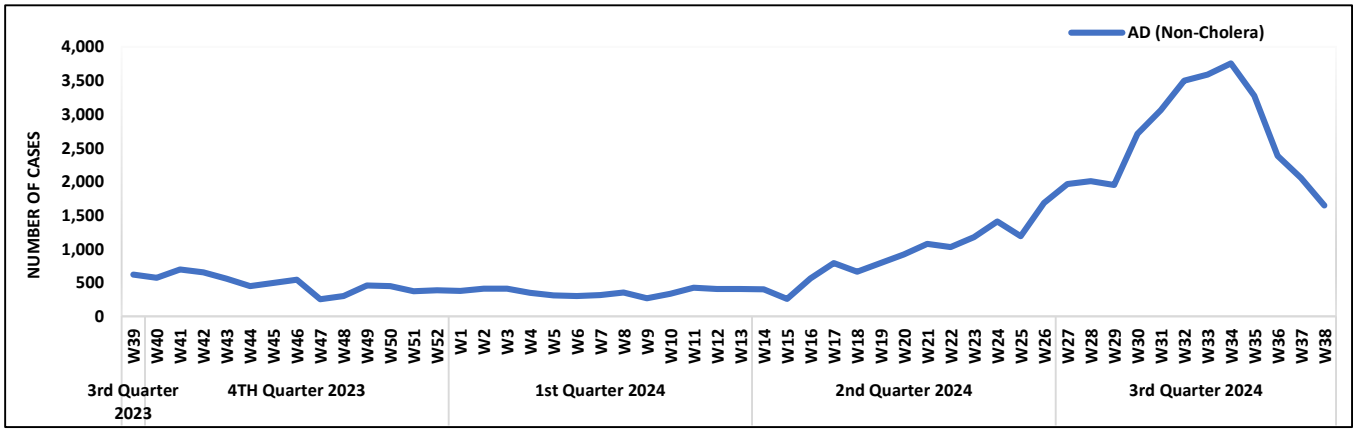


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



Punjab

- AD (Non-Cholera) cases were highest followed by TB, dog bite, Malaria, Typhoid, AWD (S. Cholera), Dengue, B. Diarrhea, ALRI<5 Years and Measles cases.
- AD (Non-Cholera), TB, dog bite, Malaria, Typhoid, AWD (S. Cholera), Dengue, B. Diarrhea, ALRI<5 Years and Measles cases showed a decreasing trend this week.
- Fourteen cases of AFP, five cases of HIV/ AIDS reported from Punjab. All are suspected cases and need field verification.

Figure 11: Most frequently reported suspected cases during Week 38, Punjab.

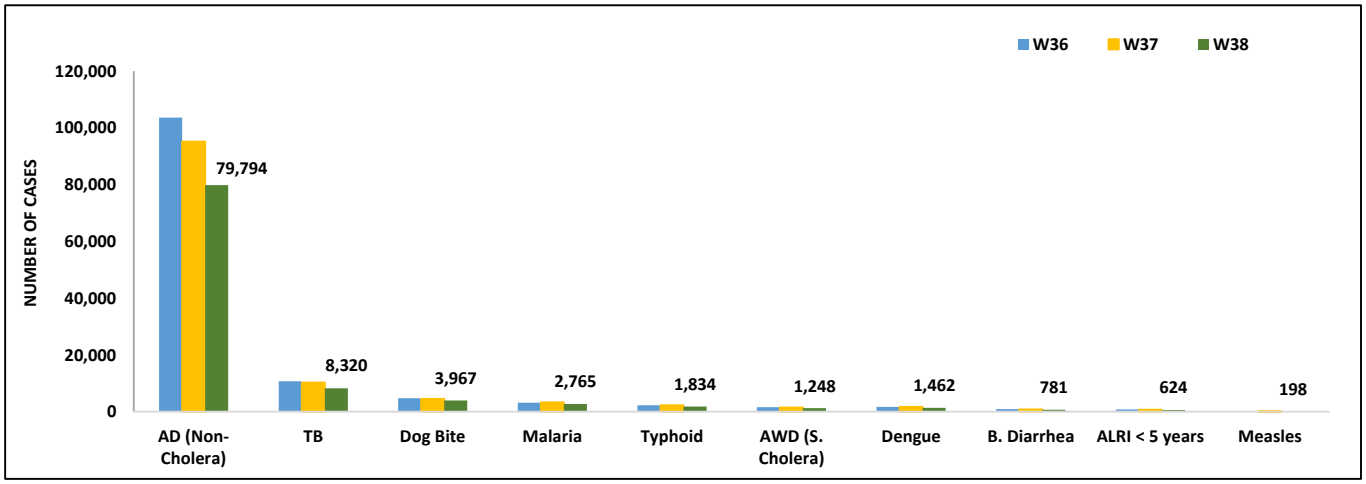


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 38

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)	6	0	-	-	2	1	5	2	-	-	-	-	6	0
AD (Non-Cholera)	103	0	-	-			0	0	-	-	-	-	35	1
Malaria	1,641	132	-	-	-	-	-	-	-	-	-	-	313	3
CCHF			15	3	2	1	1	0	-	-	-	-	0	0
Dengue	1,727	35	-	-	7	0	44	4	-	-	-	-	119	1
VH (B)	2,877	66	35	24	-	-	-	-	128	0	-	-	2,150	16
VH (C)	2,892	315	39	10	-	-	-	-	128	0	-	-	2,144	32
VH (A&E)	-	-	-	-	14	0	-	-	-	-	-	-	0	0
Covid-19	-	-	9	0	10	1	-	-	-	-	-	-	23	0
HIV	-	-	-	-	-	-	-	-	-	-	-	-	573	0
TB	2	0	-	-	-	-	-	-	-	-	-	-	39	3
Syphilis	-	-	-	-	-	-	-	-	-	-	-	-	12	0
Typhoid	531	4	-	-	-	-	18	0	-	-	-	-	0	0
Diptheria (Probabale)	-	-	-	-	1	1	17	0	-	-	-	-	0	0
Pertussis	-	-	-	-	-	-	3	0	-	-	-	-	0	0
M-POX	-	-	-	-	-	-	18	0	-	-	-	-	0	0
Chickenpox/ Varicella	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Chikungunya	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Measles	55	21	15	4	275	130	4	1	2	0	199	58	15	2
Rubella	55	1	15	0	275	7	4	0	2	0	199	6	15	0
B.Diarrhea	-	-	-	-	-	-	-	-	-	-	-	-	12	0
Leishmaniansis (cutaneous)	-	-	-	-	-	-	-	-	-	-	-	-	2	0
Leishmaniansis (Visceral)	-	-	-	-	-	-	-	-	-	-	-	-	1	0

IDSR Reports Compliance

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

Table 6: IDSR reporting districts Week 38, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	105	95%
	Bannu	239	136	57%
	Battagram	63	19	30%
	Buner	34	26	76%
	Bajaur	44	38	86%
	Charsadda	59	55	93%
	Chitral Upper	34	26	76%
	Chitral Lower	35	33	94%
	D.I. Khan	114	113	99%
	Dir Lower	74	74	100%
	Dir Upper	53	47	89%
	Hangu	22	16	73%
	Haripur	72	71	99%
	Karak	35	33	94%
	Khyber	52	22	42%
	Kohat	61	16	26%
	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	33	80%
	Malakand	42	31	74%
	Mansehra	136	91	67%
	Mardan	80	23	29%
	Nowshera	55	54	98%
	North Waziristan	12	3	25%
	Peshawar	151	112	74%
	Shangla	37	32	86%
	Swabi	63	63	100%
	Swat	77	73	95%
	South Waziristan	134	54	40%
	Tank	34	30	88%
	Torghar	14	14	100%
	Mohmand	68	62	91%
	SD Peshawar	5	1	20%
	SD Tank	58	7	12%
	Orakzai	68	12	18%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	44	98%

Azad Jammu Kashmir	Poonch	46	46	100%
	Haveli	39	38	97%
	Bagh	40	34	85%
	Neelum	39	39	100%
	Jhelum Vellay	29	28	97%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	20	95%
	CDA	15	8	53%
Balochistan	Gwadar	25	25	100%
	Kech	44	0	0%
	Khuzdar	74	64	86%
	Killa Abdullah	26	13	50%
	Lasbella	55	55	100%
	Pishin	69	0	0%
	Quetta	39	12	31%
	Sibi	36	20	56%
	Zhob	39	28	72%
	Jaffarabad	16	16	100%
	Naserabad	32	31	97%
	Kharan	30	30	100%
	Sherani	15	4	27%
	Kohlu	75	45	60%
	Chagi	35	28	80%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	28	27	96%
	Sohbat pur	25	25	100%
	Surab	32	17	53%
	Mastung	45	44	98%
	Loralai	33	31	94%
	Killa Saifullah	28	0	0%
	Ziarat	29	0	0%
	Duki	31	0	0%
	Nushki	32	0	0%
	Dera Bugti	45	33	73%
	Washuk	46	32	70%
	Panjgur	38	25	66%
	Awaran	23	0	0%
	Chaman	25	24	96%
	Barkhan	20	18	90%
	Hub	33	14	42%
	Musakhel	41	19	46%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	40	100%
	Diamer	62	56	90%

	Astore	54	53	98%
	Shigar	27	27	100%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	59	81%
	Ghotki	64	64	100%
	Umerkot	43	43	100%
	Naushahro Feroze	107	91	85%
	Tharparkar	282	251	89%
	Shikarpur	59	59	100%
	Thatta	52	21	40%
	Larkana	67	67	100%
	Kamber Shadadkot	71	70	99%
	Karachi-East	23	20	87%
	Karachi-West	20	20	100%
	Karachi-Malir	37	34	92%
	Karachi-Kemari	18	15	83%
	Karachi-Central	11	11	100%
	Karachi-Korangi	18	18	100%
	Karachi-South	4	4	100%
	Sujawal	54	53	98%
	Mirpur Khas	106	103	97%
	Badin	124	123	99%
	Sukkur	63	59	94%
	Dadu	88	88	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	167	99%
	Kashmore	59	59	100%
	Matiari	42	40	95%
	Jamshoro	72	72	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	122	122	100%
Punjab	D.G Khan	108	0	0%

Table 7: IDSR reporting Tertiary care hospital Week 38, 2024

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	1	100%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%
	Karachi East	1	1	100%

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The Evolution of Pakistan's Public Health Bulletin: A Transformation in Health Communication

Pakistan's public health system underwent a significant transformation in 2021 with the launch of the Pakistan Public Health Bulletin (PHB). This innovative tool aimed to improve health communication and data management in the country, addressing the growing need for accessible and accurate public health information.

Pre-PHB Health Reporting

Prior to the PHB, health reporting in Pakistan was primarily handled through the National Institute of Health's (NIH) weekly epidemiological reports and the Integrated Disease Surveillance and Response (IDSR) system. While these reports were valuable for monitoring health trends, they lacked the broader scope, design, and outreach necessary to engage diverse stakeholders beyond health professionals. The technical nature of these reports limited their accessibility to a wider audience, hindering their impact on decision-making and public awareness.

The Transformation: Developing the PHB

Recognizing the limitations of existing reporting mechanisms, the NIH, in collaboration with the US Centers for Disease Control and Prevention (US-CDC), initiated a comprehensive transformation. The goal was to convert technical reports into a more dynamic, engaging, and impactful public health communication tool. The US-CDC's global expertise in public health communication provided invaluable training to the NIH team on developing an effective PHB, covering areas such as content creation and visually compelling info-graphics.

PHB Launch and Impact

By 2023, the PHB was established as a critical resource for health professionals and policymakers across Pakistan. The revamped bulletin featured key sections like surveillance summaries, outbreak reports, policy briefs, and expert commentaries. Its visually compelling design, incorporating info-graphics and easy-to-read data summaries, made the content accessible to a broader audience, including policymakers, media personnel, and the general public. The PHB's enhanced accessibility led to a significant increase in its reach and impact, with a substantial growth in subscribers and open rates.

Capacity Building and Collaboration

The transformation of the PHB was underpinned by capacity-building efforts that equipped the NIH team with the skills necessary to produce a high-quality bulletin. In collaboration with the US-CDC, the NIH team received comprehensive training on all aspects of public health bulletin production. Cascade training sessions were conducted throughout Pakistan to ensure that even remote areas had access to the necessary knowledge and tools. The involvement of SAFETYNET in providing technical support and advising the NIH further strengthened the PHB's foundation.

Dissemination and Impact

A strategic dissemination plan was implemented to ensure the PHB reached its target audience effectively. Leveraging platforms like Mailchimp, the NIH was able to target specific stakeholders with tailored messages. By October 2024, the PHB had published 94 editions, covering a wide range of topics and demonstrating its growing readership and engagement. The integration of feedback mechanisms allowed the NIH to continuously refine the bulletin's content, ensuring its relevance and impact.

While the PHB has achieved significant success, challenges such as data availability and quality, technical expertise, and the sustainability of public health initiatives remain. However, the PHB's transformation has laid the groundwork for a more responsive and adaptive public health system in Pakistan. Its ability to track health data, educate the public, and influence policy positions it as a vital tool in the nation's health infrastructure.

The evolution of the Pakistan Public Health Bulletin represents a significant leap forward in public health communication. Through collaboration, capacity building, and strategic dissemination, the PHB has transformed from a technical report into a dynamic tool for public health action. Its success serves as a model for other nations seeking to modernize their public health reporting systems. With continued support and adaptation, the PHB is poised to play a central role in protecting Pakistan's population from current and emerging health threats.

Pakistan's Polio Battle: 24 Cases Reported in 2024

Recent Polio Cases

As of September 26, 2024, Pakistan recorded two additional polio cases, raising the national tally to 24 for the year. One case was detected in a 10-month-old child in Kohat district, Khyber Pakhtunkhwa, and the other in a 29-month-old boy in Hyderabad district, Sindh province. These new cases underscore the ongoing threat of polio to children nationwide and highlight the virus's continued spread in both provinces. The distribution of these cases across provinces is Punjab 1 case, Sindh 5, Khyber Pakhtunkhwa 2, Balochistan 15, and Islamabad Capital Territory 1. It is noteworthy that no polio cases have been reported in Azad Jammu and Kashmir (AJK) or Gilgit-Baltistan during the year 2024.

Importance of Vaccination

The resurgence of polio cases has prompted renewed calls for intensified vaccination efforts. In response to the outbreak, the National Emergency Operations Center for Polio Eradication (NEOC) has implemented a targeted roadmap to address gaps in access to children, campaign quality, and community trust. Large-scale vaccination campaigns are planned to close immunity gaps and curb the virus's spread. The NEOC coordinator stressed the importance of identifying and addressing the challenges hindering progress in the fight against polio. They urged the nation to unite against the disease and ensure the vaccination of all children at every opportunity.

Pakistan's Polio Eradication Efforts: A Review of the September 2024 Campaign

The Pakistan Polio Eradication Program successfully vaccinated nearly 33 million children under the age of five during a nationwide campaign conducted in September 2024. Led by the PM's Focal Person for Polio Eradication, the campaign aimed to protect Pakistani children from the devastating effects of polio.

Key Achievements and Challenges

A comprehensive evaluation of the campaign was conducted to assess its outcomes and identify areas for improvement. The review meeting, attended by key stakeholders including provincial EOC coordinators, focused on the campaign's successes and challenges, as well as strategies for future vaccination efforts.

The September campaign marked a significant milestone in Pakistan's polio eradication efforts. Despite facing numerous challenges, the program managed to reach a large number of children, including those in high-risk areas. The campaign's success was attributed to strong inter-provincial coordination, effective collaboration between health teams and law enforcement agencies, and targeted outreach efforts to mobile and migrant populations.

Recommendations for Future Campaigns

The PM's Focal Person for Polio Eradication emphasized the importance of continued focus on addressing the remaining gaps in campaign operations. They highlighted the progress made in key areas but also acknowledged the need for further improvements.

Specific recommendations included:

- **Strengthening routine immunization:** Ensuring that children receive all necessary vaccinations, including polio, according to the national immunization schedule.
- **Improving surveillance:** Enhancing the country's surveillance system to detect and respond promptly to new polio cases.
- **Enhancing transit team outreach:** Increasing the capacity and effectiveness of transit teams to reach mobile and migrant populations.
- **Addressing vaccine hesitancy:** Implementing strategies to address vaccine hesitancy and misinformation within communities.
- **Strengthening community engagement:** Fostering stronger partnerships with communities to increase awareness of polio and its prevention.

The NEOC Coordinator emphasized the importance of ongoing improvements, particularly in response to recent polio cases. They stressed the need to strengthen vaccination efforts in hard-to-reach areas and close the gaps identified in the September campaign.

Conclusion

Pakistan is committed to eradicating polio and safeguarding the health of its children. The successful implementation of the recommendations outlined in this review will be crucial in achieving this goal.

World Patient Safety Day; Improving Diagnosis for Patient Safety

Introduction

On World Patient Safety Day, the Ministry of National Health Services Regulations, the National Institute of Health and World Health Organization Pakistan, organized a significant awareness-raising walk and advocacy seminar. This event highlighted the critical importance of accurate diagnosis in ensuring patient safety and promoting high-quality healthcare.

The Collaborative Initiative

The initiative aimed to foster collective action to improve diagnostic practices in Pakistan. By bringing together healthcare professionals, policymakers, and community representatives, the event facilitated discussions on the challenges and opportunities associated with enhancing diagnostic accuracy. Participants explored strategies such as investing in diagnostic infrastructure, providing comprehensive training for healthcare professionals, and implementing robust quality assurance measures.

Key Objectives

- **Raising Awareness:** The walk and seminar sought to increase public and professional awareness of the critical role of accurate diagnosis in patient care.
- **Advocacy:** The event aimed to advocate for policy changes and resource allocation to support improved diagnostic practices.
- **Collaboration:** By bringing together diverse stakeholders, the initiative fostered collaboration and partnerships to address the challenges of diagnostic errors.

Conclusion

The World Patient Safety Day Walk and advocacy seminar marked a significant step towards improving diagnostic practices in Pakistan. By promoting a culture of evidence-based medicine and patient-centered care, the initiative has the potential to enhance patient safety, reduce the incidence of misdiagnosis, and improve the overall quality of healthcare services in the country.

Notes from the field:

Investigation of Dengue Outbreak in Jam Colony, UC Pathra IV, Tehsil Hub, District Hub – 7th to 13th August, 2024

Dr Maryam Ahmed

DSO-HUB

Dr. Nida Rasheed

Fellow FETP 14th Cohort

Introduction

On 5th August 2024, two deaths due to dengue fever were reported from Jam Colony and Sakran in Tehsil Hub, District Hub, within the same family. Another female from the same household was critically ill and admitted to a private hospital in Karachi, presenting with high-grade fever and hemoptysis. Given the severity of the situation investigation was initiated to assess the outbreak. The primary aim of this study was to determine the cause, magnitude, and distribution of the dengue outbreak and to recommend appropriate interventions to prevent further morbidity and mortality.

Objective

- To identify the cause of the dengue outbreak,
- To assess the extent of the disease in the community,
- To provide recommendations to prevent further outbreaks.

Methods

A descriptive cross-sectional study was carried out in Jam Colony, UC Pathra IV, Tehsil Hub, District Hub, from 7th to 13th August 2024. The investigation team, comprised of public health officials and lab personnel, conducted active surveillance to identify suspected cases of dengue fever. Data were collected through structured interviews with affected individuals and their families using a pre-defined questionnaire. The team used suspected case definitions for dengue fever and dengue hemorrhagic fever (DHF) as any person from Jam Colony who presented with acute onset of fever (>38°C) and at least three of the following symptoms: vomiting, nausea, retro-orbital pain, arthralgia, leukopenia, thrombocytopenia, or signs of DHF (mucosal bleeding, nasal bleeding, hematuria) between 27th July and 13th August 2024 and a confirmed case was defined as a suspected case with confirmed laboratory test. Blood samples were collected from suspected cases and sent to the National Institute of Health for antigen detection and strain identification. The team also conducted an environmental assessment, evaluating mosquito breeding sites and community practices for mosquito prevention. Data were analyzed using descriptive statistics to determine the distribution of cases by age, gender, and symptoms, as well as the current status of patients.

Results

The active case finding revealed 20 suspected dengue cases, with two hospitalizations and one death. A total of 11 NS1 antigen rapid tests were conducted, 7 of which returned positive results. All cases resided near stagnant rainwater, and 100% of residents were not using mosquito nets or repellents. The median age of affected individuals was 9 years (range: 4-29 years), with 65% of cases occurring in females. The most affected age group was 5-9 years (50%), followed by 0-4 years (15%). The majority of cases were concentrated in the same neighborhood, indicating a localized outbreak. Common symptoms included fever (70%), abdominal pain (40%), joint pain (30%), myalgia (30%), nausea/vomiting (20%), headache (10%), and hemorrhage (10%). By 13th August 2024, one patient had died due to dengue hemorrhagic fever, while others had recovered or were under medical observation.

Discussion

The findings of this study align with existing literature on dengue outbreaks, particularly in terms of demographic patterns and risk factors. As seen in previous studies, children, especially those aged 5-9 years, were most affected, and a slightly higher incidence in females was noted. Environmental factors, such as stagnant water from rain, were a major contributor to mosquito breeding, which is consistent with the role of poor environmental hygiene in dengue transmission. When compared to similar outbreaks in Pakistan and other regions, this study underscores the critical need for public health interventions, particularly focusing on environmental management and community education. Studies have shown that targeted awareness programs can significantly reduce dengue cases, which was a gap in this community. Overall, while this study adds valuable insight to dengue outbreak patterns.

While the study effectively identified risk factors such as poor environmental hygiene and lack of mosquito protection practices, it was limited by the rapid response nature of the investigation, which focused primarily on immediate data collection rather than long-term monitoring. Further longitudinal

studies may be necessary to evaluate the long-term effectiveness of the implemented recommendations.

Conclusion

This investigation into the dengue outbreak in revealed critical gaps in environmental hygiene and mosquito prevention practices that significantly contributed to the spread of the disease. The high prevalence among children and the community's lack of awareness regarding mosquito protection underscores the urgent need for targeted public health interventions. Immediate actions such as environmental cleanup, enhanced surveillance, and community education are essential to prevent future outbreaks. Moreover, strengthening healthcare facilities to manage dengue cases effectively will be key in reducing morbidity and mortality. By addressing these issues proactively, we can safeguard the community and mitigate the devastating impact of dengue in vulnerable areas like Jam Colony. The findings from this study not only highlight local challenges but also offer valuable insights that can inform broader dengue prevention strategies in similar regions globally.

Recommendations

- Strengthening of a surveillance system to monitor dengue cases in District Hub, including mandatory reporting from private labs and clinics.
- Providing local healthcare facilities with necessary medications, diagnostic tools, and training to manage dengue cases.
- Immediate drainage and cleaning of stagnant water in affected areas.
- Public health education campaigns to raise awareness about the importance of mosquito bite prevention, hygiene, and sanitation.
- Distribution of anti-mosquito sprays in the community.

Knowledge hub

Chikungunya: The Bending Disease's Global March

Introduction

Chikungunya is a viral disease transmitted to humans by infected mosquitoes, primarily Aedes aegypti and Aedes albopictus, the same species responsible for spreading dengue and Zika viruses. The disease is characterized by sudden onset fever, severe joint pain, and other symptoms like rash, muscle pain, and headache. First identified in Tanzania in 1952, chikungunya derives its name from the Makonde word meaning "that which bends up," reflecting the posture of individuals suffering from intense joint pain caused by the disease. Chikungunya has become a global health concern due to its ability to cause large outbreaks across multiple continents. Historically confined to Africa and Asia, the disease spread rapidly to the Americas in 2013, with outbreaks reported in nearly 60 countries since then. The global distribution of the Aedes mosquito vectors and increased international travel contribute significantly to the virus's spread.

Transmission

Chikungunya is primarily spread through the bite of infected Aedes mosquitoes. These mosquitoes typically bite during the day, with peaks in early morning and late afternoon. The virus can also be transmitted from mother to child during childbirth. However, unlike some other viral infections, chikungunya does not spread through human-to-human contact. Environmental factors like rainfall, temperature, and urbanization contribute to mosquito proliferation, influencing the spread of the disease, especially in tropical and subtropical regions.

Clinical Features

The incubation period for chikungunya is typically 3-7 days following a mosquito bite. The most common symptoms include:

High fever (above 38°C) lasting for 2-3 days.

Severe joint pain that can be debilitating and persist for weeks or months, often affecting the wrists, ankles, and hands.

Muscle pain, headache, fatigue, and **rash** are also frequently reported.

While most patients recover within a few weeks, some develop chronic joint pain lasting months or even years, which can resemble arthritis. Although fatalities are rare, chikungunya can be severe in older adults, newborns, and individuals with pre-existing health conditions.

Diagnosis

Diagnosing chikungunya involves assessing clinical symptoms and recent travel history to regions where the virus is prevalent. Laboratory tests used to confirm chikungunya include:

Polymerase Chain Reaction (PCR): Used in the early stages of infection to detect viral RNA.

Serological tests (IgM ELISA): Useful for detecting chikungunya antibodies in later stages of infection.

Treatment

Currently, there is no specific antiviral treatment for chikungunya. Management of the disease focuses on relieving symptoms:

Pain relief: Non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and acetaminophen can reduce fever and joint pain.

Hydration: Maintaining fluid intake is crucial, especially during the acute phase of the disease.

Rest: Proper rest is recommended during recovery, especially for individuals experiencing severe joint pain or fatigue.

For individuals with chronic joint pain, physical therapy and long-term use of anti-inflammatory medications may be required.

Prevention and Control

Prevention strategies focus on reducing mosquito exposure, given the lack of a licensed vaccine or specific antiviral treatment for chikungunya. Key preventive measures include:

Mosquito control: Reducing mosquito breeding sites, particularly stagnant water around homes and communities, is essential. Insecticide spraying in high-risk areas can help control mosquito populations.

Personal protection: Using insect repellents, wearing long-sleeved clothing, and sleeping under mosquito nets, especially during peak mosquito activity times, are effective ways to minimize bites.

Community engagement: Educating communities on the importance of eliminating breeding sites and adopting protective measures is crucial for reducing the spread of chikungunya.

International health organizations such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) emphasize strengthening surveillance systems, especially in regions where chikungunya and other mosquito-borne diseases are prevalent. Public health campaigns aim to raise awareness about prevention, early diagnosis, and proper management of symptoms.

Countries in endemic regions are encouraged to enhance vector control programs, monitor mosquito populations, and improve healthcare facilities' capacity to manage outbreaks effectively. Since outbreaks often coincide with the rainy season, timing interventions is crucial for reducing mosquito breeding and viral transmission.

Conclusion

Chikungunya remains a significant public health challenge, particularly in tropical and subtropical regions where Aedes mosquitoes thrive. While most cases resolve with supportive care, the disease can cause prolonged suffering due to chronic joint pain and disability. Ongoing efforts in vector control, community education, and research on potential vaccines are crucial for mitigating the impact of chikungunya and preventing future outbreaks. Strengthening global surveillance and response systems will also be vital in managing the spread of this disease, especially in the face of climate change and increased urbanization, which contribute to the expansion of mosquito habitats.


World Patient Safety Day 2024
Improving Diagnosis for Patient Safety
Get it right, make it safe!


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