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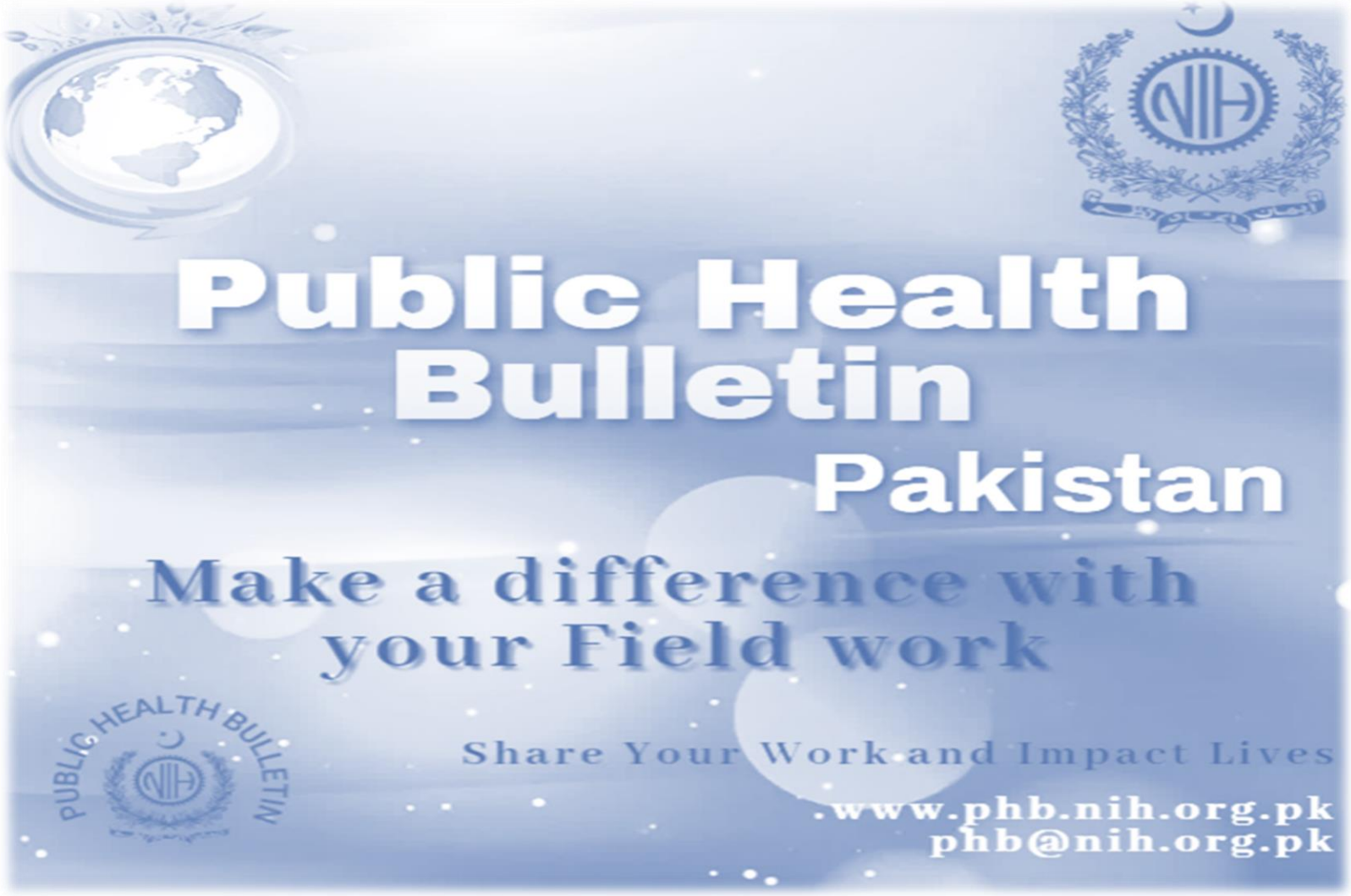
Integrated Disease Surveillance & Response (IDSR) Report

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 40, 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 PAK-FETP representation at 8th EMPHNET regional conference, Outbreak Investigation of Measles in Dist. Ghotki, and a knowledge review and info graphic of Diphtheria.

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 40, 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 Dengue.*
- *Thirty-seven cases of AFP reported from KP, eighteen from Punjab, sixteen from Sindh, eight from Balochistan and three from AJK. All are suspected cases and need field verification.*
- *Five suspected cases of HIV/ AIDS reported from Punjab, three from KP and one from Sindh. Field investigation required to verify the cases.*
- *Five suspected cases of Brucellosis reported from Balochistan and three from KP. Field investigation required to verify the cases.*
- *One case of CCHF reported from Punjab. It requires field verification.*
- *There is a decreasing trend observed for Acute Diarrhea (Non-Cholera), Malaria, ILI, TB, ALRI <5 years, dog bite, B. Diarrhea, VH (B, C & D) and Typhoid cases this week.*

IDSR compliance attributes

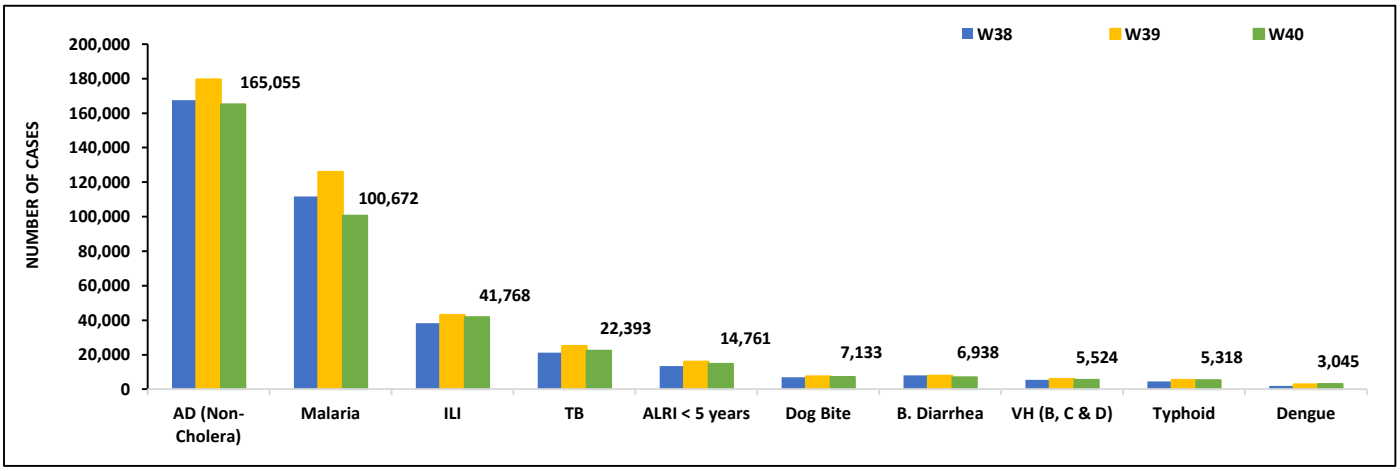
- *The national compliance rate for IDSR reporting in 158 implemented districts* is 80%
- *Gilgit Baltistan and Sindh are the top reporting regions with a compliance rate of 98% and 94%, followed by AJK 92% and ICT 77%*
- *The lowest compliance rate was observed in Balochistan and Khyber Pakhtunkhwa i.e. 70%.*

Region	**Expected Reports**	**Received Reports**	**Compliance (%)**
Khyber Pakhtunkhwa	*2330*	*1644*	*70*
Azad Jammu Kashmir	*382*	*355*	*92*
Islamabad Capital Territory	*36*	*28*	*77*
Balochistan	*1291*	*879*	*70*
Gilgit Baltistan	*374*	*374*	*98*
Sindh	*2086*	*1963*	*94*
National	*6499*	*5243*	*80*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 40, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,488	6,018	1,427	263	20,529	87,864	47,466	165,055
Malaria	3	5,395	0	5	7,628	3,699	83,942	100,672
ILI	1,432	5,795	380	1,260	3,909	1	28,991	41,768
TB	36	135	105	6	409	9,978	11,734	22,393
ALRI < 5 years	756	1,451	573	1	1,191	974	9,815	14,761
Dog Bite	109	172	0	1	450	4,021	2,380	7,133
B.Diarrhea	42	1,303	94	0	908	912	3,679	6,938
VH (B, C & D)	10	135	0	0	94	0	5,285	5,524
Typhoid	25	610	72	2	701	2,598	1,310	5,318
Dengue	12	6	0	52	469	2,249	257	3,045
SARI	77	616	219	1	1,248	0	131	2,292
AWD (S. Cholera)	16	145	47	0	56	1,521	0	1,785
AVH (A&E)	19	7	3	0	318	0	661	1,008
Chikungunya	0	0	0	0	0	0	502	502
Measles	3	19	0	1	209	211	50	493
CL	0	122	0	0	182	2	1	307
Mumps	4	44	3	0	71	0	112	234
Gonorrhea	0	83	0	0	20	0	14	117
Meningitis	1	0	0	0	4	70	30	105
Chickenpox/ Varicella	8	1	7	0	52	3	27	98
Pertussis	0	61	2	0	23	0	0	86
AFP	3	8	0	0	37	18	16	82
Diphtheria (Probable)	0	5	0	0	2	9	2	18
Syphilis	0	5	0	0	0	0	9	14
HIV/AIDS	0	0	0	0	3	5	1	9
Brucellosis	0	5	0	0	3	0	0	8
NT	0	3	0	0	3	0	0	6
Leprosy	0	3	0	0	0	0	0	3
CCHF	0	0	0	0	0	1	0	1

Figure 1: Most frequently reported suspected cases during Week 40, Pakistan.



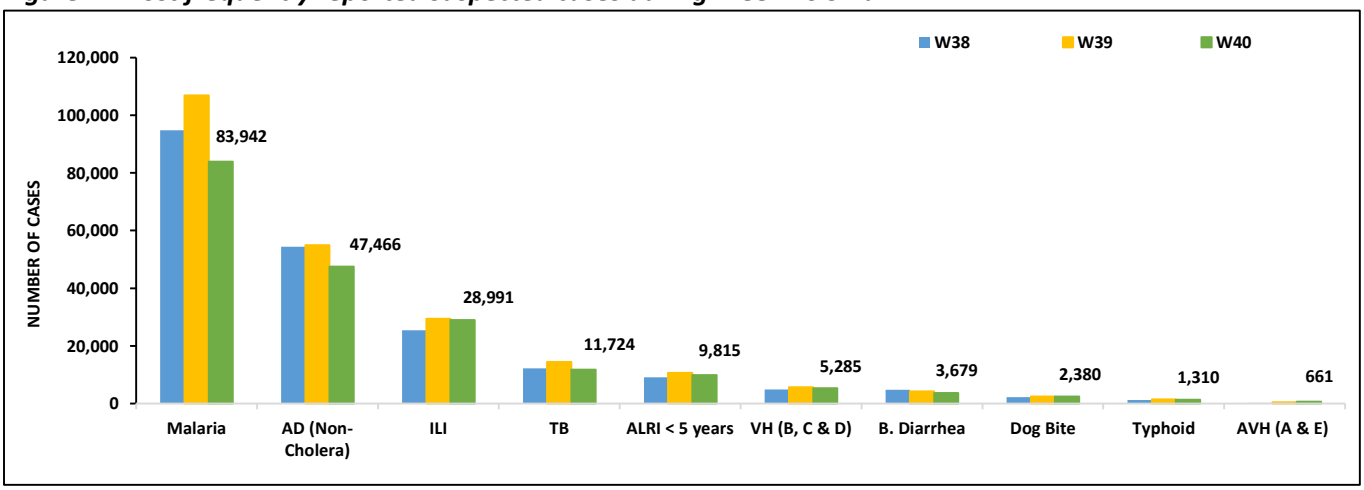
Sindh

- 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).
- Most Malaria cases are from Larkana, Kamber and Khairpur whereas AD (Non-Cholera) cases are from Khairpur, Dadu and Mirpurkhas.
- Sixteen cases of AFP, one case of HIV/ AIDS reported from Sindh. Field investigation required to verify the case.
- There is a decreasing trend observed for Malaria, AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea and dog bite cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 40, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	3,338	2,324	1,042	713	446	171	202	91	71	11
Dadu	5,338	2,810	280	435	903	37	484	249	127	39
Ghotki	3,055	1,423	134	317	447	443	134	210	0	5
Hyderabad	828	1,480	1,270	115	90	71	0	0	15	0
Jacobabad	1,349	967	589	124	353	212	137	149	37	0
Jamshoro	3,143	2,261	156	522	327	386	96	63	67	28
Kamber	7,413	2,093	18	763	281	117	156	143	27	0
Karachi Central	160	1,396	2,094	242	32	37	7	31	173	20
Karachi East	128	513	429	12	25	6	9	12	4	4
Karachi Keamari	5	382	300	0	90	0	5	0	15	2
Karachi Korangi	59	384	0	11	2	0	6	0	2	0
Karachi Malir	714	1,770	3,686	188	377	80	74	42	55	21
Karachi South	52	73	0	0	0	0	0	0	0	0
Karachi West	212	944	1,415	173	268	154	42	59	30	8
Kashmore	2,116	654	564	271	182	27	63	153	2	0
Khairpur	7,142	2,838	6,070	947	979	256	394	163	189	12
Larkana	9,701	2,184	6	959	370	82	378	34	25	8
Matiari	2,323	1,549	5	537	233	245	64	37	14	3
Mirpurkhas	4,858	2,697	3,961	685	357	207	116	39	33	9
Naushero Feroze	2,975	1,832	852	666	464	17	185	204	116	0
Sanghar	4,740	1,584	49	1,174	478	1,158	56	195	58	4
Shaheed Benazirabad	2,694	1,993	6	318	225	119	66	112	106	0
Shikarpur	3,264	1,267	0	233	151	777	175	178	4	0
Sujawal	1,538	2,047	0	194	311	72	127	35	7	65
Sukkur	3,941	1,342	1,932	480	315	101	187	72	52	0
Tando Allahyar	3,723	1,364	849	392	189	328	138	46	7	6
Tando Muhammad Khan	1,440	1,214	0	494	149	8	110	0	0	0
Tharparkar	3,972	2,537	1,743	428	712	89	130	2	31	45
Thatta	1,035	1,532	1,541	17	596	57	69	61	8	367
Umerkot	2,686	2,012	0	314	463	28	69	0	35	4
Total	83,942	47,466	28,991	11,724	9,815	5,285	3,679	2,380	1,310	661

Figure 2: Most frequently reported suspected cases during Week 40 Sindh

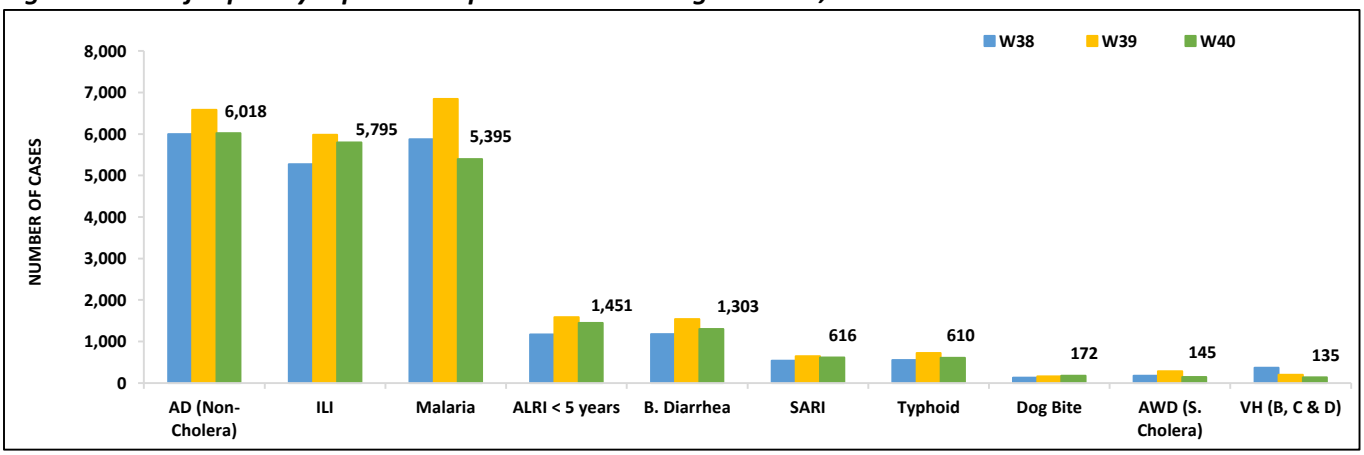


- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, dog bite, AWD (S. Cholera) and VH (B, C & D) cases were the most frequently reported diseases from Balochistan.
- AD (Non-Cholera) cases are mostly reported from Quetta, Usta Muhammad and Gwadar while ILI cases are mostly reported from Gwadar, Quetta and Khuzdar.
- Eight cases of AFP, five cases of Brucellosis reported from Balochistan. All are suspected case and needs field verification.
- AD (Non-Cholera), ILI, Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera) and VH (B, C & D) cases showed a decreasing trend this week.

Table 3: District wise distribution of most frequently reported suspected cases during Week 40, Balochistan

Districts	AD (Non-Cholera)	Malaria	ILI	B. Diarrhea	ALRI < 5 years	Typhoid	SARI	AWD (S.Cholera)	TB	CL
Barkhan	193	55	135	41	9	0	33	2	1	0
Chagai	164	302	74	1	56	0	22	0	15	0
Dera Bugti	18	0	45	12	9	1	1	0	0	0
Duki	66	49	26	4	36	10	6	4	5	0
Gwadar	541	1,295	238	32	109	1	8	3	0	0
Harnai	83	9	101	142	56	0	2	0	3	3
Hub	88	35	94	0	20	0	1	0	0	0
Jaffarabad	412	43	832	33	38	11	2	26	0	52
Jhal Magsi	168	332	114	41	1	0	33	13	0	0
Kalat	37	0	65	7	20	2	42	0	0	0
Kharan	178	382	52	0	74	9	2	0	3	0
Khuzdar	347	461	264	18	122	42	46	0	11	0
Killa Abdullah	128	68	24	13	73	35	32	2	2	1
Killa Saifullah	122	0	107	28	25	0	6	0	0	0
Kohlu	111	218	99	15	50	44	31	NR		2
Lasbella	348	55	560	65	24	0	0	9	0	0
Loralai	201	317	65	45	37	91	15	9	0	0
Mastung	238	174	174	65	42	22	62	20	2	29
Musakhel	56	48	215	32	19	10	17	1	13	1
Naseerabad	336	33	396	50	22	2	74	74	6	20
Panjgur	253	130	224	115	62	46	16	0	25	2
Quetta	555	780	58	79	87	27	56	0	16	0
Sherani	16	37	17	4	13	24	4	0	0	0
Sibi	143	148	184	51	41	63	28	2	18	0
Sohbat pur	270	7	536	107	56	42	32	6	1	2
Surab	76	98	49	20	0	4	3	0	0	0
Usta Muhammad	548	126	367	166	50	13	11	1	18	22
Washuk	216	381	184	9	122	32	17	0	6	0
Zhob	106	212	96	256	30	85	8	0	0	1
Total	6,018	5,795	5,395	1,451	1,303	616	610	172	145	135

Figure 3: Most frequently reported suspected cases during Week 40, Balochistan

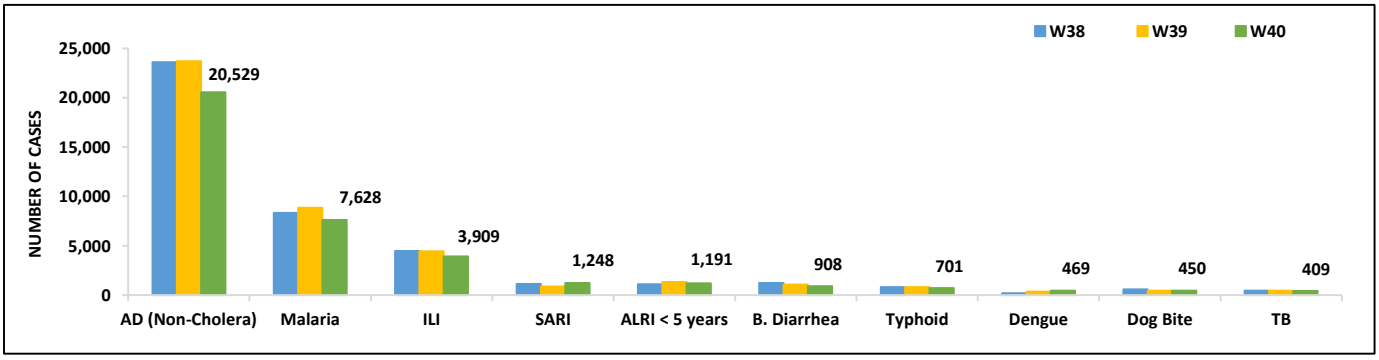


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, SARI, ALRI<5 Years, B. Diarrhea, Typhoid , Dengue, dog bite and TB cases.
- AD (Non-Cholera), Malaria, ILI, ALRI<5 Years, B. Diarrhea, Typhoid and TB cases showed a decreasing trend this week.
- Thirty-seven cases of AFP, three cases of HIV/ AIDS, three 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 40, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B.Diarrhea	SARI	ALRI <5 Years	Typhoid	Dog Bite	TB	AVH (A&E)
Abbottabad	542	24	62	0	11	7	40	0	5	11
Bajaur	1,074	322	74	42	312	117	5	27	38	17
Bannu	774	1,510	18	18	21	33	104	5	2	28
Buner	247	345	0	0	0	0	10	0	11	3
Charsadda	727	322	413	0	48	22	48	4	4	0
Chitral Lower	320	25	61	30	13	30	10	2	12	9
Chitral Upper	146	0	12	13	15	8	11	0	2	2
D.I. Khan	1,132	879	0	0	7	14	0	10	23	47
Dir Lower	1,263	309	7	0	123	116	56	2	16	11
Dir Upper	777	10	115	0	12	2	8	2	0	18
Hangu	126	72	0	0	28	13	0	69	0	0
Haripur	669	34	280	5	21	10	14	20	4	16
Karak	340	306	93	204	19	26	13	5	13	13
Khyber	296	259	34	32	27	83	36	22	20	8
Kohistan Lower	95	7	2	2	3	15	0	54	0	0
Kohistan Upper	345	7	0	0	62	10	2	0	1	16
Kolai Palas	71	5	17	0	3	2	1	3	0	0
L & C Kurram	47	8	60	2	1	18	1	0	0	1
Lakki Marwat	722	516	0	0	17	31	13	6	25	6
Malakand	953	41	47	9	38	83	30	1	0	3
Mansehra	454	3	282	102	0	1	4	43	0	0
Mardan	618	83	0	0	68	9	0	34	5	6
Mohmand	128	411	156	177	0	18	6	1	13	3
North Waziristan	0	27	0	6	3	3	1	3	0	0
Nowshera	1,425	333	2	9	6	32	9	27	8	10
Orakzai	28	27	10	0	2	4	2	1	15	1
Peshawar	2,970	73	834	82	67	93	89	74	5	12
SD Peshawar	5	0	0	0	0	0	0	0	0	0
SD Tank	31	50	6	0	1	5	2	0	1	1
Shangla	912	724	0	16	10	25	37	41	35	87
SWA	78	77	43	16	9	8	8	0	3	0
Swabi	1,360	137	673	150	121	8	43	12	122	56
Swat	1,253	90	142	0	75	13	1	0	47	16
Tank	380	496	198	0	32	1	76	0	0	5
Tor Ghar	54	68	5	17	0	25	4	1	1	0
Upper Kurram	167	28	263	316	16	23	17	0	19	3
Total	20,529	7,628	3,909	1,248	1,191	908	701	469	450	409

Figure 4: Most frequently reported suspected cases during Week 40, KP



ICT, AJK & GB

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

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

GB: AD (Non-Cholera) cases were the most frequently reported diseases followed by ALRI <5 Years, ILI, SARI, TB, B. Diarrhea and Typhoid cases. A decreasing trend observed for AD (Non-Cholera), ALRI <5 Years, SARI, B. Diarrhea and Typhoid cases this week.

Figure 5: Most frequently reported suspected cases during Week 40, ICT

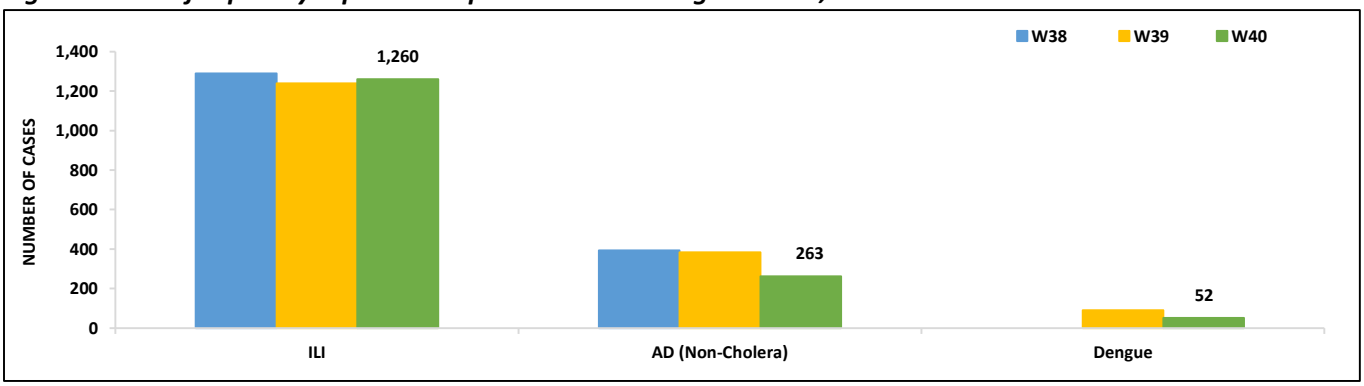


Figure 6: Week wise reported suspected cases of ILI, ICT

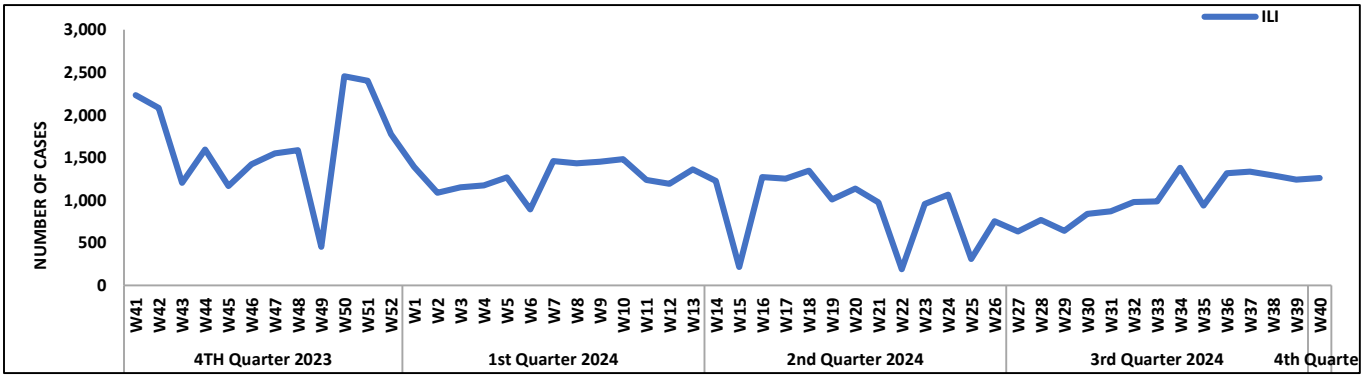


Figure 7: Most frequently reported suspected cases during Week 40, AJK

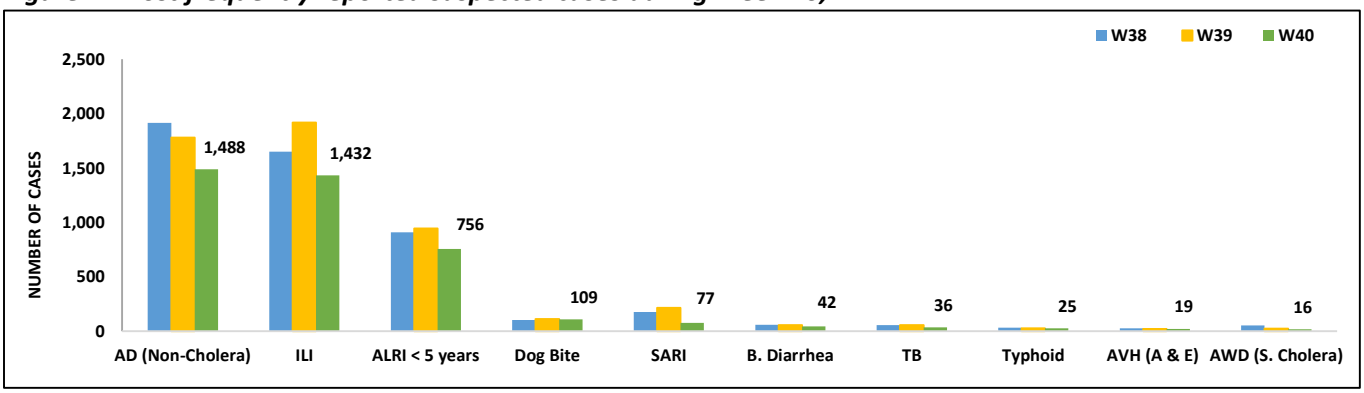


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

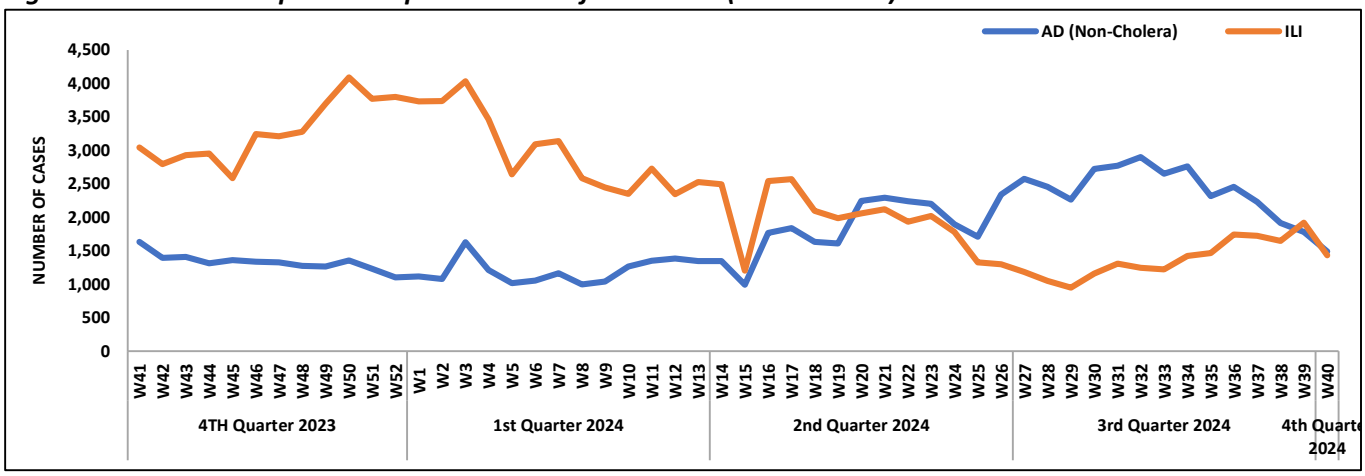


Figure 9: Most frequent cases reported during Week 40, GB

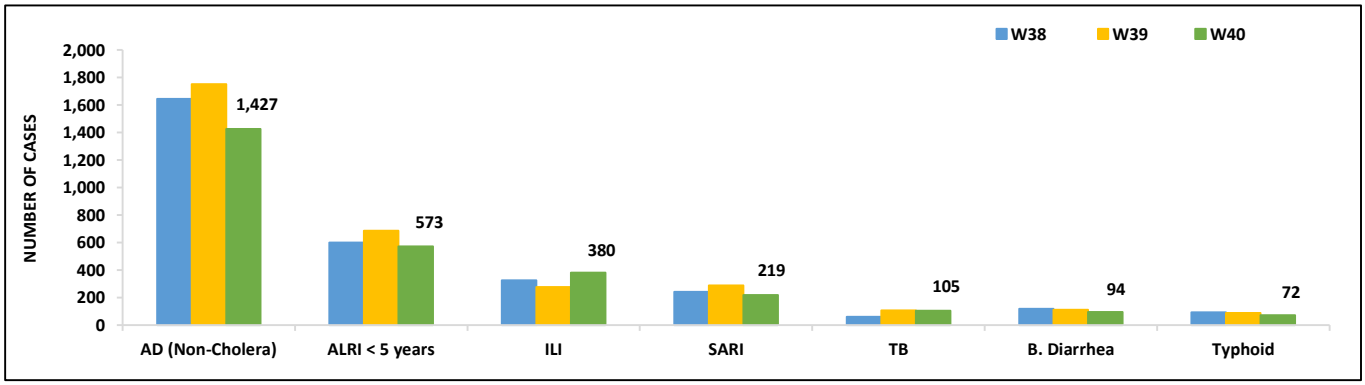
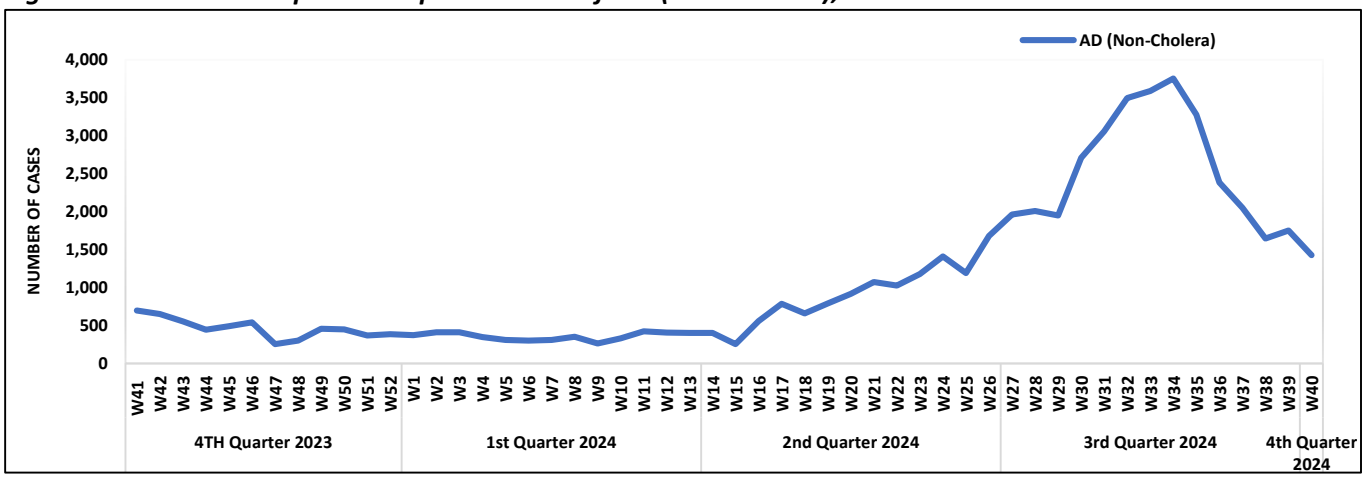


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



Punjab

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

Figure 11: Most frequently reported suspected cases during Week 40, Punjab.

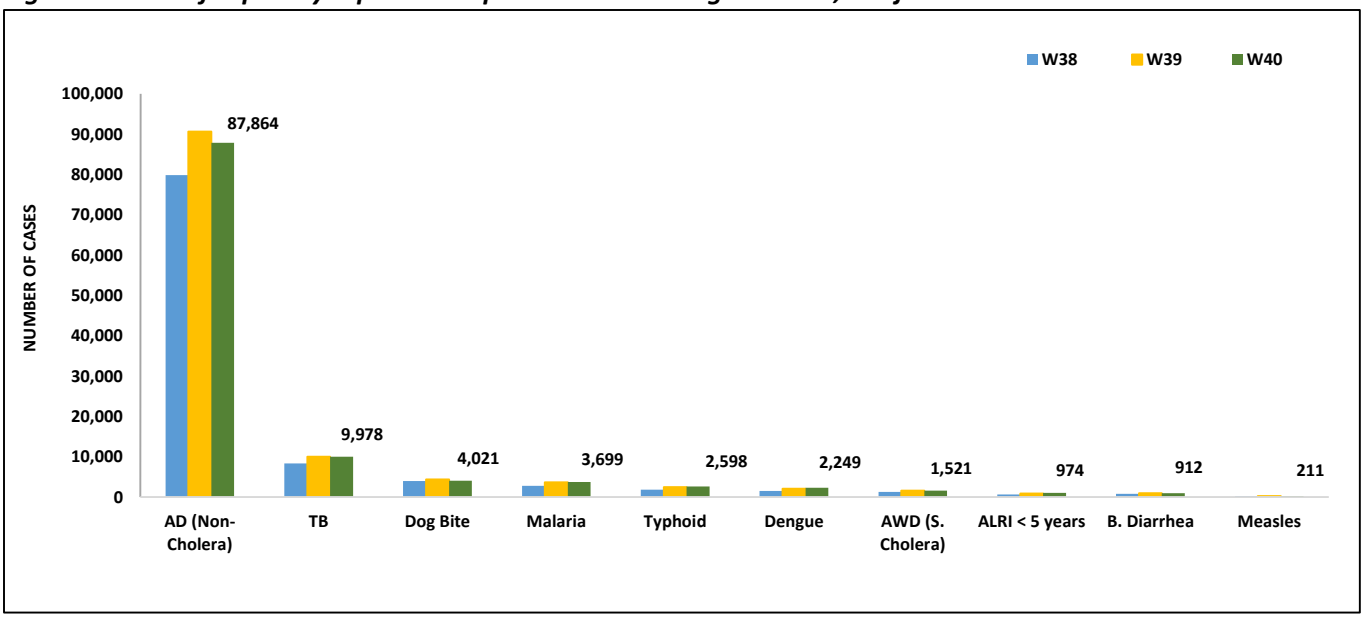


Figure 12: Week wise reported suspected cases of AD (Non-Cholera), Punjab.

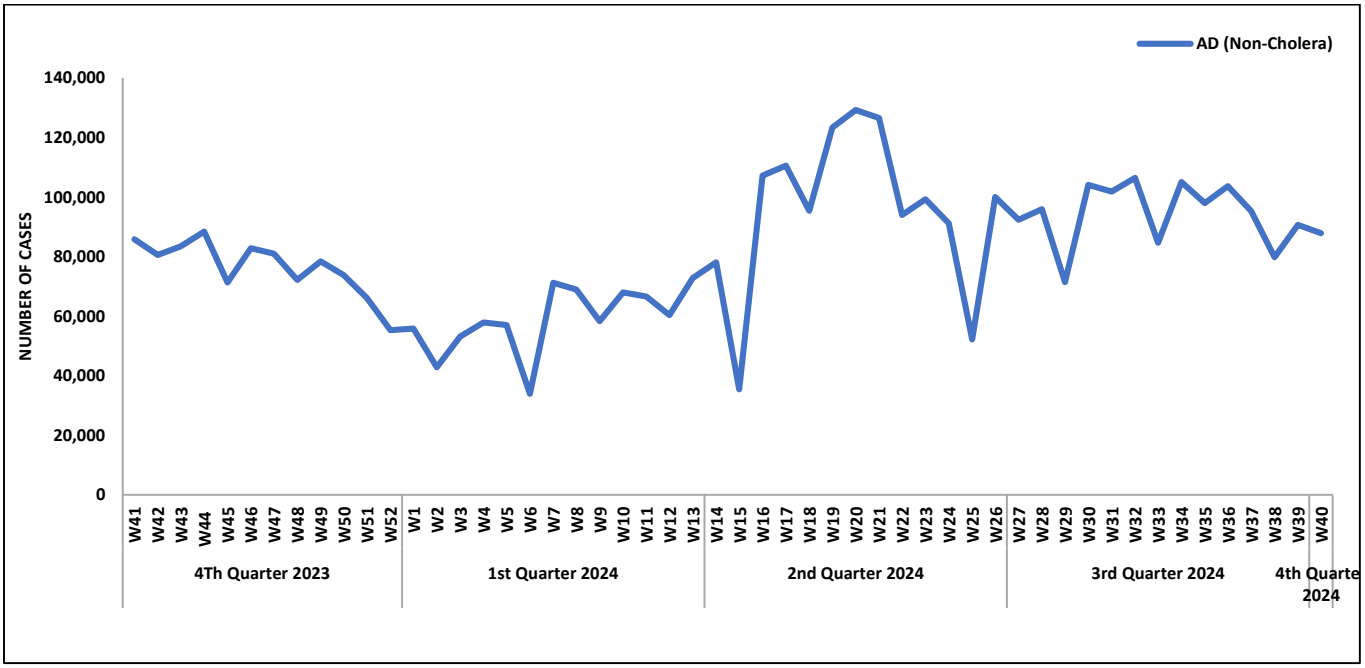


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 40

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)	20	0	-	-	8	1	0	0	-	-	-	-	0	0
AD (Non-Cholera)	112	1	-	-	-	-	-	-	-	-	-	-	35	0
Malaria	1,498	140	-	-	-	-	-	-	-	-	-	-	97	4
CCHF	-	-	10	1	2	0	-	-	-	-	-	-	0	0
Dengue	1,599	32	0	0	2	0	82	21	-	-	-	-	66	6
VH (B)	3,012	76	79	60	-	-	-	-	194	0	-	-	662	4
VH (C)	3,014	275	90	29	-	-	-	-	194	0	-	-	663	26
VH (A&E)	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Covid-19	-	-	34	0	7	0	-	-	-	-	-	-	28	0
HIV	30	0	-	-	-	-	-	-	-	-	-	-	569	0
TB	-	-	-	-	-	-	-	-	-	-	-	-	9	0
Syphilis	-	-	-	-	-	-	-	-	-	-	-	-	2	0
Typhoid	628	11	-	-	-	-	18	1	-	-	-	-	0	0
Diptheria (Probabale)	-	-	-	-	-	-	0	0	-	-	-	-	0	0
Pertussis	-	-	-	-	-	-	0	0	-	-	-	-	0	0
M-POX	-	-	0	0	-	-	4	0	-	-	-	-	0	0
Measles	43	21	5	3	136	55	1	0	1	0	133	52	9	6
Rubella	43	1	5	0	136	0	1	0	1	0	133	0	9	0
B.Diarrhea	-	-	-	-	-	-	-	-	-	-	-	-	12	0
SARI-Covid-19	3	0	0	0	14	1	10	1	0	0	100	3	-	-
SARI-Influenza A	3	0	0	0	14	1	10	0	0	0	100	6	-	-
SARI-Influenza B	3	0	0	0	14	1	10	0	0	0	100	4	-	-
SARI-RSV	3	0	0	0	14	0	10	0	0	0	100	0	-	-
ILI-Covid-19	0	0	0	0	2	0	55	3	0	0	53	5	-	-
ILI-Influenza A	0	0	0	0	2	1	55	4	0	0	53	4	-	-
ILI-Influenza B	0	0	0	0	2	0	55	3	0	0	53	3	-	-
ILI-RSV	0	0	0	0	2	0	55	0	0	0	53	0	-	-

Table 6: IDSR reporting districts Week 40, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	98	88%
	Bannu	239	133	56%
	Battagram	63	0	0%
	Buner	34	33	97%
	Bajaur	44	36	82%
	Charsadda	59	55	93%
	Chitral Upper	34	27	79%
	Chitral Lower	35	35	100%
	D.I. Khan	114	112	98%
	Dir Lower	74	74	100%
	Dir Upper	53	39	74%
	Hangu	22	16	73%
	Haripur	72	69	96%
	Karak	35	35	100%
	Khyber	52	16	31%
	Kohat	61	0	0%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	18	43%
	Upper Kurram	41	34	83%
	Malakand	42	31	74%
	Mansehra	136	84	62%
	Mardan	80	72	90%
	Nowshera	55	48	87%
	North Waziristan	12	2	17%
	Peshawar	151	118	78%
	Shangla	37	28	76%
	Swabi	63	62	98%
	Swat	77	72	94%
	South Waziristan	134	53	40%
	Tank	34	31	91%
	Torghar	14	14	100%
	Mohmand	68	67	99%
	SD Peshawar	5	1	20%
	SD Tank	58	7	12%
	Orakzai	68	14	21%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%

Azad Jammu Kashmir	Muzaffarabad	45	0	0%
	Poonch	46	46	100%
	Haveli	39	38	97%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Vellay	29	28	97%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	15	7	47%
Balochistan	Gwadar	25	22	88%
	Kech	44	0	0%
	Khuzdar	74	67	91%
	Killa Abdullah	26	14	54%
	Lasbella	55	55	100%
	Pishin	69	0	0%
	Quetta	39	33	85%
	Sibi	36	35	97%
	Zhob	39	29	74%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	15	100%
	Kohlu	75	32	43%
	Chagi	35	24	69%
	Kalat	41	40	98%
	Harnai	17	15	88%
	Kachhi (Bolan)	35	0	0%
	Jhal Magsi	28	14	50%
	Sohbat pur	25	25	100%
	Surab	32	18	56%
	Mastung	45	43	96%
	Loralai	33	27	82%
	Killa Saifullah	28	19	68%
	Ziarat	29	0	0%
	Duki	31	12	39%
	Nushki	32	0	0%
	Dera Bugti	45	7	16%
	Washuk	46	35	76%
	Panjgur	38	25	66%
	Awaran	23	0	0%
	Chaman	25	0	0%
	Barkhan	20	20	100%
	Hub	33	14	42%
	Musakhel	41	22	54%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	31	97%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	40	100%

	Diamer	62	59	95%
	Astore	54	54	100%
	Shigar	27	26	96%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	51	70%
	Ghotki	64	64	100%
	Umerkot	43	43	100%
	Naushahro Feroze	107	93	87%
	Tharparkar	282	237	84%
	Shikarpur	59	59	100%
	Thatta	52	47	90%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	20	87%
	Karachi-West	20	20	100%
	Karachi-Malir	37	33	89%
	Karachi-Kemari	18	14	78%
	Karachi-Central	11	11	100%
	Karachi-Korangi	18	18	100%
	Karachi-South	4	4	100%
	Sujawal	54	53	98%
	Mirpur Khas	106	100	94%
	Badin	124	118	95%
	Sukkur	63	59	94%
	Dadu	88	88	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	161	95%
	Kashmore	59	59	100%
	Matiari	42	41	98%
	Jamshoro	72	72	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	122	122	100%

Table 7: IDSR reporting Tertiary care hospital Week 40, 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	1	100%
	Sukkur	1	1	100%
	Shaheed Benazirabad	1	1	100%
	Karachi-East	1	1	100%
	Karachi-Central	1	0	0%

Table 8: Compliance Table for Labs for Week 40

Provinces/Regions	Districts	Total Number of Reporting Labs	Number of Reported Labs for current week	Compliance Rate (%)
Sindh	Karachi-South	1	1	100%
	Badin	1	1	100%
Balochistan	Quetta	1	1	100%
GB	Skardu	1	1	100%
	Gilgit	1	1	100%
ISB	ICT	1	1	100%

PAK-FETP Leadership and Alumni Represent Pakistan at the 8th EMPHNET Regional Conference, Jordan

A team of FETP fellows and alumni from Pakistan attended the 8th EMPHNET Regional Conference in Amman, Jordan. The conference provided a valuable platform for networking with public health professionals from across the Eastern Mediterranean Region, fostering collaboration and exchanging knowledge on pressing public health issues.

Key Highlights:

- **Networking and Collaboration:** The conference facilitated meaningful connections with public health professionals from diverse countries and organizations, fostering collaboration and knowledge exchange on a range of public health topics.
- **Technical Sessions and Presentations:** Attendees participated in insightful technical sessions, engaging keynote addresses, and informative abstract presentations, covering critical areas such as disease surveillance, outbreak response, non-communicable diseases, and emerging health threats.
- **Awards and Recognition:** Two FETP alumni from the region were honored with prestigious awards for their outstanding research contributions, recognizing their dedication to public health and their innovative approaches to addressing health challenges.
- **Roundtable Discussions:** The conference featured thought-provoking roundtable discussions on pressing public health issues, including professionalizing public health education, pandemic preparedness and response, non-communicable diseases (NCDs), antimicrobial resistance, and public health responses to the Gaza war.
- **Knowledge Exchange and Capacity Building:** The conference provided a unique opportunity for FETP alumni to share their experiences, learn from their peers, and contribute to the strengthening of public health capacity in the Eastern Mediterranean Region. By participating in the conference, the FETP alumni were able to expand their professional networks, gain new insights, and develop innovative strategies for addressing public health challenges.

Beyond the conference, the participation of FETP alumni from Pakistan showcased the valuable contributions of the FETP program to public health in the region. The experience gained by these alumni will undoubtedly strengthen their capacity to address public health challenges and contribute to the development of a more resilient health system in Pakistan.

The 8th EMPHNET Regional Conference was a highly successful event that provided a valuable platform for knowledge exchange, networking, and collaboration among public health professionals. The conference contributed to strengthening public health capacity in the Eastern Mediterranean Region and beyond, fostering a more united and effective approach to addressing shared health challenges.

Notes from the field:

Outbreak Investigation of Suspected Measles Cases in Village Gul Bahar Laghari, District Ghotki-Sindh, August 2024

Dr. Shakeel Ahmed Abbasi
FETP Frontline Fellow 21st Cohort
IDSR Focal Person DDSRU Ghotki

Introduction

Measles, a highly contagious viral illness, remains a significant public health concern worldwide despite the availability of effective vaccines. Outbreaks continue to occur in various regions due to factors such as low vaccination rates, inadequate surveillance systems, and socio-economic disparities (WHO, 2019). This report presents an outbreak investigation conducted in Village Gul Bahar Laghari, District Ghotki, Pakistan, in August 2024, to assess the extent of the outbreak, identify risk factors, and recommend appropriate control measures.

Objectives

1. To determine the extent and magnitude of the measles outbreak.
2. To identify possible risk factors associated with the outbreak.
3. To recommend preventive and control measures to prevent future outbreaks.

Methods

A descriptive cross-sectional study was conducted from 5th to 8th September 2024 in Village Gul Bahar Laghari, District Ghotki, Pakistan. The study population consisted of all children under 10 years of age residing in Village Gul Bahar Laghari who exhibited symptoms of measles, including fever, maculopapular rash, cough, or coryza, during the study period.

Data was collected through semi-structured questionnaires, active case searches, face-to-face interviews, and health facility records. Seven cases were identified, and laboratory investigations were conducted at the National Institute of Health (NIH). Data analysis involved the use of a line list to organize and analyse the collected information. Descriptive analysis was done in the form of frequencies, rates, and ratios to describe the characteristics of the outbreak and identify potential risk factors.

Results

A total of seven cases were identified, with a mean age of 50 months (range: 14-120 months). The male-to-female ratio was 2.5:1. The most common symptoms reported were fever (100%), maculopapular rash (71%), coryza (43%), and conjunctivitis (57%). The overall attack rate was 6% (116 population). The age-specific attack rate was higher in children aged 0-4 years (8%) compared to 5-10 years (4%).

Risk factor analysis revealed a significant association between vaccination status and the outbreak, with 57% of cases occurring in unvaccinated children. Additionally, malnutrition, delayed healthcare seeking, and socioeconomic disparities were identified as contributing factors. These findings highlight the importance of addressing immunization gaps, improving access to healthcare, and addressing underlying social determinants of health to prevent future measles outbreaks in the community.

Discussion

The outbreak investigation in Village Gul Bahar Laghari highlighted the critical role of vaccination in preventing measles outbreaks, as low immunization rates emerged as a key risk factor (Gavi,

2021; WHO, 2019). This emphasizes the need for enhanced vaccination coverage within the community. Additionally, the study revealed associations between malnutrition, poor health-seeking behavior, and socioeconomic disparities, underlining the importance of addressing these underlying issues to mitigate the impact of measles outbreaks (Lantos & McCarthy, 2017; Vashishtha & Tiwari, 2017).

However, ongoing challenges such as vaccine hesitancy, limited healthcare access, and socioeconomic disparities continue to hinder global measles eradication efforts (SAGE Working Group on Vaccine Hesitancy, 2015; UNICEF, 2020).

Addressing socioeconomic disparities involves implementing poverty reduction programs to improve the socioeconomic status of vulnerable populations and increase their access to healthcare (WHO, 2019). Social safety nets, such as food assistance and conditional cash transfers, can help alleviate poverty and enhance health outcomes.

Conclusion

The measles outbreak in Village Gul Bahar Laghari was primarily attributed to low vaccination rates. Addressing this issue through increased immunization coverage, improved healthcare access, and community engagement is crucial to prevent future outbreaks. Additionally, addressing underlying factors such as malnutrition, poor health-seeking behavior, and socioeconomic disparities is essential for improving the overall health and well-being of the population.

Public Health Measures Taken

- **Mop-up Activities:** Vaccination campaigns were conducted in neighboring villages, covering 149 children.
- **Health Awareness Sessions:** Health care providers conducted educational sessions on measles prevention and control in UC Keenjhar.
- **Medical Camp:** A medical camp was established in the affected UC to provide healthcare services to the community.

Recommendations

- **Increase Vaccination Coverage:** Implement regular vaccination campaigns targeting unvaccinated children, particularly those under 5 years of age, to increase immunization rates.
- **Enhance Health Education and Community Engagement:** Organize workshops for community leaders, religious figures, and local influencers to disseminate accurate information about the importance of measles vaccination and to address vaccine hesitancy
- **Improve Healthcare Access:** Ensure adequate staffing and resources in local health facilities to provide comprehensive healthcare services, including vaccination
- **Strengthen Surveillance and Reporting Systems:** Strengthen disease surveillance systems to ensure timely detection and reporting of measles cases and outbreaks.
- **Foster Collaboration among Stakeholders:** Engage with non-governmental organizations and private sector partners to enhance resource mobilization for vaccination and health education initiatives.
- **Coordination with Local Health Authorities:** Ensure ongoing collaboration between community health workers, local health departments, and national health agencies to maintain a unified response to public health threats.

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Knowledge hub

Diphtheria: A Preventable Threat

Diphtheria is a serious bacterial infection that affects the upper respiratory tract, causing a thick, gray membrane to form in the throat, nose, or windpipe. This membrane can obstruct breathing, leading to suffocation. The diphtheria toxin, produced by the bacteria, can also damage other organs, such as the heart and kidneys.

Causes:

Diphtheria is caused by the bacterium *Corynebacterium diphtheriae*. The bacteria are spread through respiratory droplets, such as those produced when an infected person coughs or sneezes.

Symptoms:

Symptoms of diphtheria typically begin within two to five days of exposure and may include:

- Sore throat
- Hoarseness
- Difficulty swallowing
- Stiff neck
- Fever
- Cough
- Swollen lymph nodes in the neck
- A thick, gray membrane in the throat or nose
- In severe cases, diphtheria can lead to complications such as:
- Difficulty breathing
- Heart problems
- Kidney failure
- Paralysis

Prevention:

The most effective way to prevent diphtheria is through vaccination. The diphtheria vaccine is included in the DTaP vaccine, which is routinely administered to children in the United States and many other countries. Adults who have not received a booster dose of the Tdap vaccine (tetanus, diphtheria, and pertussis) should also get vaccinated.

Treatment:

Diphtheria is a medical emergency and requires prompt treatment. Treatment typically includes:

- **Antitoxin:** A medication that neutralizes the diphtheria toxin.
- **Antibiotics:** To kill the bacteria causing the infection.
- **Supportive care:** May include breathing assistance, intravenous fluids, and treatment for any complications.

Outlook:

With prompt treatment, the outlook for diphtheria is generally good. However, the disease can be fatal if not treated promptly.

Conclusion:

Diphtheria is a serious but preventable disease. Vaccination is the most effective way to prevent diphtheria. If you suspect that you or someone you know may have diphtheria, seek medical attention immediately.

Additional Information:

- Diphtheria is most commonly seen in developing countries with low vaccination rates.
- The diphtheria vaccine is safe and effective.
- Outbreaks of diphtheria can occur even in highly vaccinated populations.
- Early diagnosis and treatment are essential for preventing complications and improving outcomes.

Sources:

- Centers for Disease Control and Prevention (CDC): https://www.cdc.gov/diphtheria/index.html
- World Health Organization (WHO): https://www.who.int/news-room/questions-and-answers/item/diphtheria
- Mayo Clinic: https://www.mayoclinic.org/diseases-conditions/diphtheria/diagnosis-treatment/drc-20351903

INDENTIFYING AND PREVENTING DIPHTHERIAE

Causative Agent

The bacterium *Corynebacterium diphtheriae* attacks the mucous membranes of the nasal and throat regions

Routes of Transmission

Respiratory route, through contact with infected individuals or carriers of the bacterium

Contact with objects contaminated with secretions from an infected person

Contact with open wounds of an infected person

Symptoms

Mild fever

Sore throat, cough, hoarseness

Appearance of ivory-white pseudomembranes in the throat

Complications

Myocarditis, poor prognosis, high mortality rate

Conjunctivitis

Neuritis leading to paralysis of the nerves

Respiratory failure due to airway obstruction

Prevention

Wash hands with soap or disinfectant solutions

Maintain oral, nasal, and throat hygiene daily

Cover your mouth and nose when coughing or sneezing

Isolate and seek medical attention at the nearest healthcare facility if the disease is suspected or detected

Vaccinate fully and on schedule according to the instructions of medical staff

FIELD EPIDEMIOLOGY & DISEASE SURVEILLANCE DIVISION

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https://baodanang.vn/english/infographics/202407/identifying-and-preventing-diphtheria-3978036/