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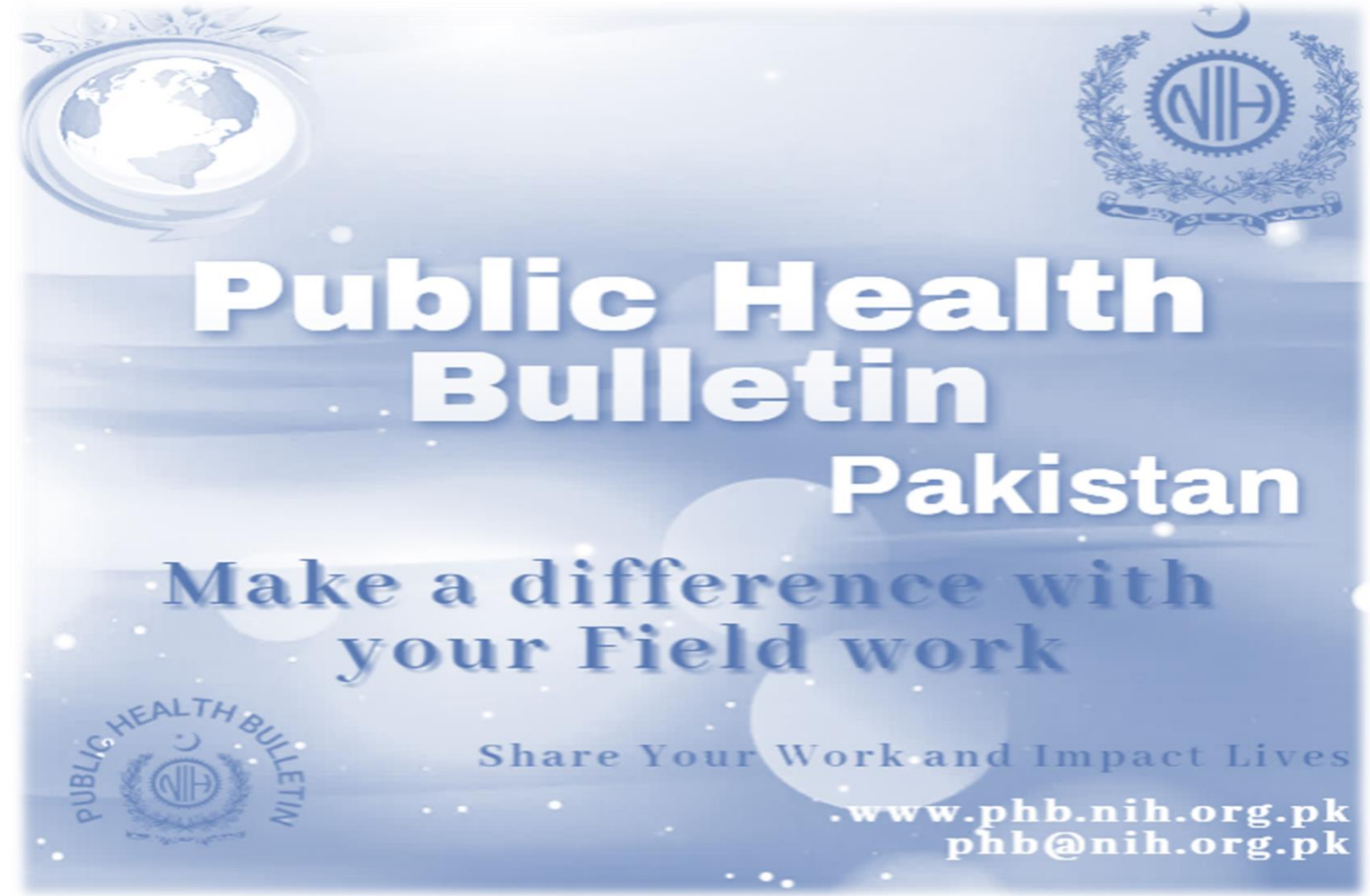
Integrated Disease Surveillance & Response (IDSR) Report

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 12, 2024

Pakistan's Public Health Pulse: A Snapshot from Week 12

This edition of the Public Health Bulletin offers a snapshot of Pakistan's current health landscape, serving as a valuable resource for both healthcare professionals and the public.

The report dives into the most commonly reported illnesses during week 12, including acute diarrhea, malaria, influenza-like illness, and respiratory infections in young children. It also highlights trends in tuberculosis, viral hepatitis, typhoid, and dog bites. This data empowers stakeholders, from doctors to public health officials, to tailor preventive efforts and address areas needing the most attention.

Encouragingly, this report reveals a downward trend in cases of acute diarrhea, malaria, influenza-like illness, respiratory infections in young children, tuberculosis, viral hepatitis, and typhoid.

This bulletin extends a warm invitation to Pakistan's dedicated field epidemiologists to contribute their invaluable expertise to future editions. Sharing their insights is crucial for strengthening Pakistan's public health infrastructure and ensuring a healthier future for all.

This issue showcases real-world examples of public health initiatives in action. It delves into investigations of suspected measles cases, the ongoing fight against extensively drug-resistant typhoid fever, and even highlights World Tuberculosis Day events promoting awareness and hope in the fight against TB.

Recognizing the essential role of individual action in safeguarding public health, the issue concludes with a comprehensive exploration of neglected tropical diseases in Pakistan. This section emphasizes the importance of public awareness, education, and community engagement in the ongoing fight against these preventable illnesses.

By working together, healthcare professionals, public health officials, and the public can make a significant impact on Pakistan's health landscape.

Sincerely,

The Chief Editor

Overview

- *During week 12, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, B. Diarrhea, VH (B, C & D), Typhoid, SARI, and dog bite.*
- *Twelve cases of AFP reported from KP, eight from AJK and six from Sindh. All are suspected cases and need field verification.*
- *Six suspected cases of HIV/ AIDS reported from Sindh, two from KP and two from Balochistan. Field investigation required to verify the cases.*
- *Two cases of Brucellosis reported from KP. It requires field verification.*
- *There is a decreasing trend observed for Acute Diarrhea (Non-Cholera), Malaria, ILI, ALRI <5 years, TB, VH (B, C & D) and Typhoid cases this week.*

IDSR compliance attributes

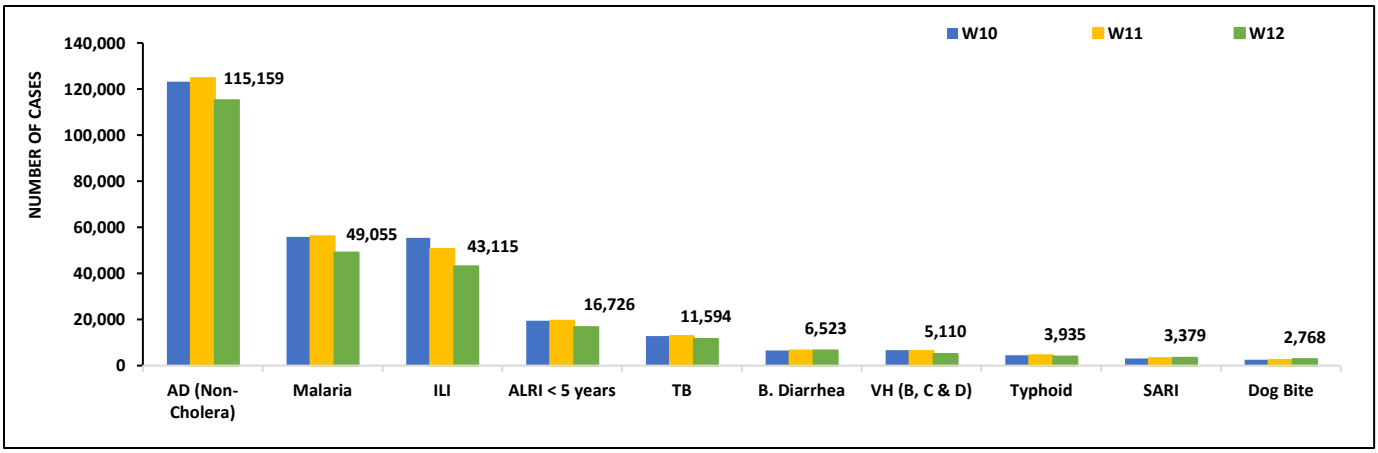
- *The national compliance rate for IDSR reporting in 149 implemented districts* is 77%
- *Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 100% and 99%, followed by Sindh 93%, ICT 83% and Baluchistan 75%*
- *The lowest compliance rate was observed in KPK.*

Region	**Expected Reports**	**Received Reports**	**Compliance (%)**
Khyber Pakhtunkhwa	*2740*	*1650*	*60*
Azad Jammu Kashmir	*382*	*379*	*99*
Islamabad Capital Territory	*35*	*29*	*83*
Balochistan	*1220*	*918*	*75*
Gilgit Baltistan	*374*	*374*	*100*
Sindh	*2086*	*1938*	*93*
National	*6837*	*5288*	*77*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 12, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,383	5,672	394	286	14,057	60,319	33,048	115,159
Malaria	1	3,389	0	1	3,267	2,624	39,773	49,055
ILI	2,347	7,288	320	1,193	5,443	49	26,475	43,115
ALRI < 5 years	1,230	1,812	717	8	1,670	NR	11,291	16,728
TB	63	82	45	17	413	NR	10,974	11,594
B.Diarrhea	61	1,424	33	5	724	1,233	3,043	6,523
VH (B, C & D)	12	85	1	0	63	NR	4,949	5,110
Typhoid	37	547	27	1	512	1,739	1,072	3,935
SARI	282	669	273	0	1,248	NR	907	3,379
Dog Bite	75	127	1	0	253	NR	2,312	2,768
Measles	27	41	20	0	397	NR	180	665
AVH(A&E)	17	12	1	0	124	NR	460	614
CL	0	75	0	0	357	5	0	437
Mumps	15	49	2	1	69	NR	203	339
AWD (S. Cholera)	33	169	57	0	31	NR	0	290
Chickenpox/ Varicella	0	19	1	1	50	11	96	178
Pertussis	0	82	2	0	32	NR	4	120
Dengue	0	23	0	0	1	NR	48	72
Gonorrhea	0	41	0	0	9	NR	22	72
Meningitis	7	0	1	0	11	NR	10	29
AFP	8	1	0	0	12	NR	6	27
NT	0	10	0	0	1	NR	1	12
VL	0	2	0	0	0	NR	9	11
HIV/AIDS	0	2	0	0	2	NR	6	10
Syphilis	0	1	0	0	0	NR	6	7
Diphtheria (Probable)	0	2	0	0	2	NR	0	4
Chikungunya	0	3	0	0	0	NR	0	3
Rubella (CRS)	0	0	0	0	3	NR	0	3
Brucellosis	0	0	0	0	2	NR	0	2
Leprosy	0	0	0	0	0	NR	1	1

Figure 1: Most frequently reported suspected cases during week 12, Pakistan.



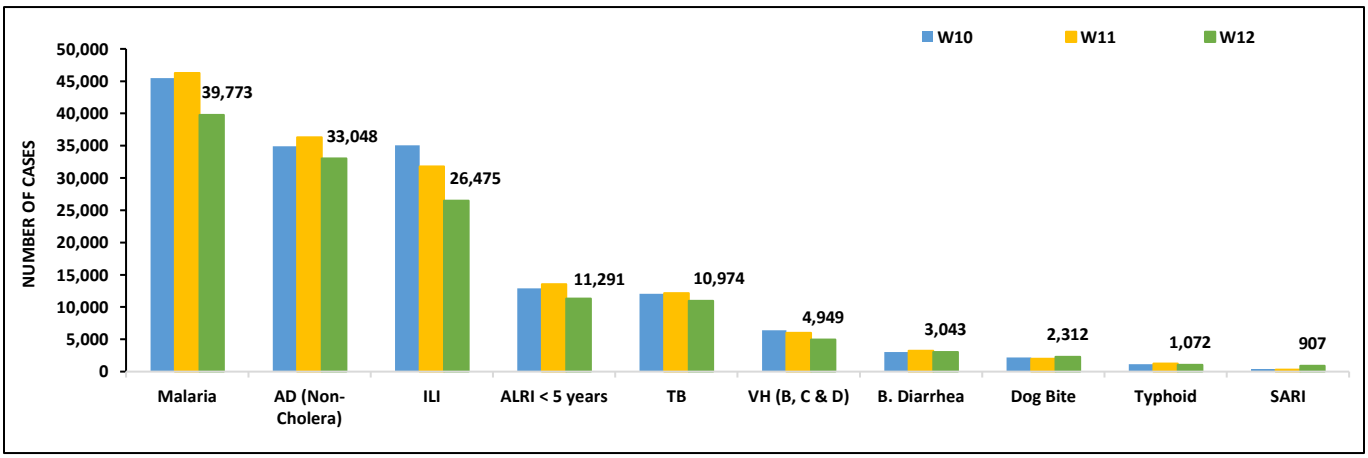
Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, TB, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and SARI. Malaria cases are from Larkana, Dadu and Khairpur whereas AD (Non-Cholera) cases are mostly from Khairpur, Dadu and Badin.
- Six cases of AFP reported from Sindh. All are suspected cases and need field verification.
- Six suspected cases of HIV/ AIDS reported from Sindh. Field investigation required to verify the cases.
- There is a decreasing trend observed for Malaria, AD (Non- Cholera), ILI, ALRI<5 Years, TB, VH (B, C, D) and Typhoid cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 12, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	SARI
Badin	2,174	2,276	489	453	943	120	142	84	57	0
Dadu	3,764	2,374	381	746	443	37	322	566	159	26
Ghotki	564	585	0	451	207	351	80	228	0	0
Hyderabad	245	1,053	2,621	229	271	31	74	10	8	0
Jacobabad	586	786	479	609	157	106	93	135	12	41
Jamshoro	1,194	1,108	27	217	402	99	85	14	19	0
Kamber	3,577	1,352	0	411	824	518	156	106	40	0
Karachi Central	35	738	1,519	57	405	220	21	14	40	4
Karachi East	73	439	208	53	8	0	8	3	3	0
Karachi Keamari	3	132	53	21	0	0	1	0	0	0
Karachi Korangi	32	174	0	1	1	0	3	0	1	0
Karachi Malir	39	697	2,257	220	34	31	35	37	14	0
Karachi South	22	93	48	0	0	0	0	0	0	0
Karachi West	110	1,045	1,821	89	142	114	64	92	43	48
Kashmore	1,295	543	841	186	243	55	46	224	3	0
Khairpur	3,645	2,605	4,392	1,600	1077	238	524	111	337	730
Larkana	4,973	1,832	28	708	823	192	259	0	5	0
Matiari	893	1,304	12	409	513	197	70	38	7	0
Mirpurkhas	1,818	1,877	3,317	648	516	135	135	45	27	0
Naushero Feroze	773	458	1,041	128	325	92	72	126	57	0
Sanghar	2,388	1,224	0	457	991	668	35	63	23	8
Shaheed Benazirabad	1,331	1,672	0	538	322	114	65	144	127	0
Shikarpur	1,836	751	4	127	144	723	93	107	5	5
Sujawal	915	636	0	185	120	68	52	15	0	0
Sukkur	1,426	1,235	2,212	412	434	230	147	36	8	0
Tando Allahyar	1,207	962	772	244	370	181	134	32	9	1
Tando Muhammad Khan	697	739	0	159	387	24	59	0	1	0
Tharparkar	1,820	2,141	2,241	1,203	440	243	129	0	40	41
Thatta	1,516	1,238	1,712	339	40	122	60	76	8	1
Umerkot	815	979	0	391	380	40	77	0	19	2
Total	39,773	33,048	26,475	11,291	10,974	4,949	3,043	2,312	1,072	907

Figure 2: Most frequently reported suspected cases during week 12 Sindh



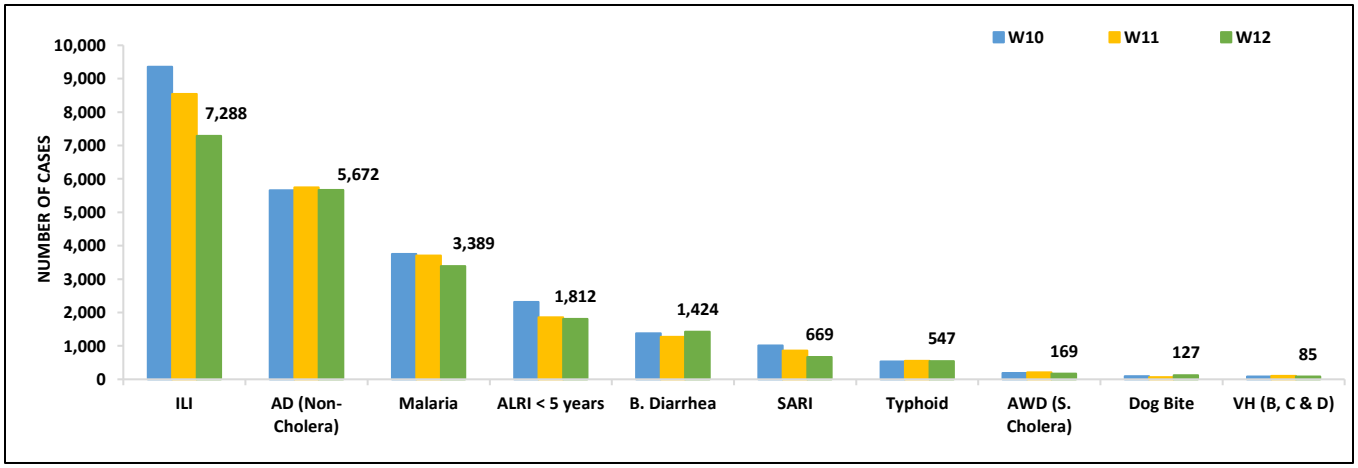
Balochistan

- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), dog bite and VH (B, C & D) cases were the most frequently reported diseases from Balochistan province. ILI cases are mostly reported from Quetta, Kech (Turbat) and Gwadar while AD (Non-Cholera) cases are mostly reported from Gwadar, Kech (Turbat) and Jhal Magsi.
- ILI, Malaria, SARI and AWD (S. Cholera) cases showed a decreasing trend while AD (Non-Cholera), ALRI <5 years and Typhoid cases showed an almost same trend this week.
- Two cases of HIV/AIDS reported from Balochistan this week. These are suspected cases and require field verification.

Table 3: District wise distribution of most frequently reported suspected cases during week 12, Balochistan

Districts	ILI	AD Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	AWD (S.Cholera)	Dog Bite	VH(B,C&D)
Awaran	49	26	15	1	23	1	3	10	0	0
Barkhan	74	87	36	64	4	0	31	2	23	0
Chagai	273	154	18	0	47	0	16	1	2	1
Chaman	157	61	3	8	34	16	14	0	0	0
Dera Bugti	42	53	136	36	43	24	15	0	1	0
Duki	52	89	22	28	73	21	8	20	5	0
Gwadar	701	511	60	0	38	0	0	0	0	0
Harnai	35	74	42	154	65	0	8	13	0	0
Hub	124	261	131	15	40	0	6	0	19	15
Jaffarabad	156	323	349	72	35	26	6	0	10	16
Jhal Magsi	170	429	442	27	15	0	10	0	15	0
Kachhi (Bolan)	47	114	110	15	25	51	27	29	0	0
Kalat	5	17	7	6	14	0	8	0	0	0
Kech (Turbat)	870	441	155	104	79	NR	2	NR	NR	NR
Kharan	349	115	32	0	58	17	4	5	0	3
Khuzdar	103	107	60	4	47	7	21	0	0	1
Killa Saifullah	2	126	122	147	85	11	22	3	0	0
Kohlu	474	201	87	26	112	108	44	21	0	1
Lasbella	66	346	274	69	19	12	7	0	3	0
Loralai	310	154	39	60	50	115	20	0	2	0
Mastung	153	177	21	65	45	11	22	3	0	11
Naseerabad	3	240	213	33	12	5	37	1	33	4
Nushki	22	128	9	0	45	8	0	2	0	0
Panjgur	91	115	71	41	25	4	7	8	0	3
Pishin	238	43	8	37	40	0	6	0	2	0
Quetta	1,066	274	12	42	76	23	17	9	0	1
Sherani	32	7	0	2	16	6	5	0	0	0
Sibi	579	146	199	39	30	39	35	24	1	2
Sohbat pur	65	214	267	209	50	23	47	5	2	6
Surab	124	47	7	15	3	0	11	0	0	0
Usta Muhammad	169	276	358	180	31	21	7	0	6	21
Washuk	228	99	30	7	67	1	3	0	0	0
Zhob	235	109	32	275	38	114	62	3	0	0
Ziarat	199	106	22	31	36	5	16	10	3	0

Figure 3: Most frequently reported suspected cases during week 12, Balochistan



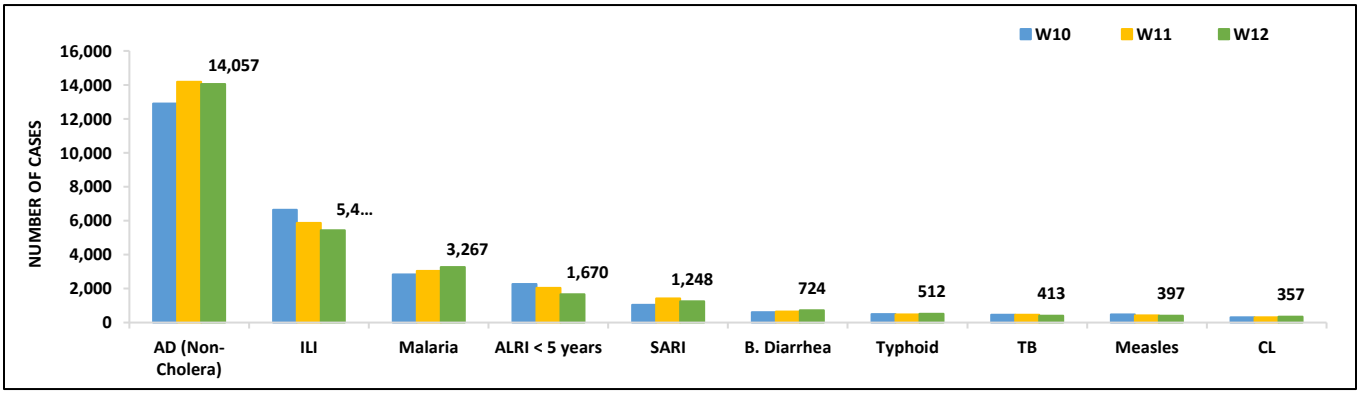
Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, TB, Measles and CL cases.
- AD (Non-Cholera), Malaria and SARI cases showed an increasing trend while ILI and ALRI<5 Years cases showed a decreasing trend this week.
- Fourteen cases of AFP reported from KP. All are suspected cases and need field verification. Two suspected cases of HIV/ AIDS reported from KP. Field investigation required to verify the cases.

Table 4: District wise distribution of most frequently reported suspected cases during week 12, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI <5 Years	SARI	B. Diarrhea	Typhoid	TB	Measles	CL
Abbottabad	412	91	0	19	23	2	8	18	5	0
Bajaur	178	20	48	2	93	8	1	1	2	11
Bannu	746	0	1,397	30	0	11	82	29	14	2
Battagram	69	169	10	0	0	0	0	0	1	8
Buner	255	0	138	68	0	0	10	1	2	0
Charsadda	694	627	285	99	17	22	16	0	6	1
Chitral Lower	223	47	4	29	24	24	20	6	8	6
Chitral Upper	88	9	2	6	7	7	4	2	1	0
D.I. Khan	848	0	102	23	6	20	0	45	72	0
Dir Lower	597	0	227	166	0	86	36	17	12	2
Dir Upper	208	91	2	17	4	3	34	25	3	4
Hangu	135	272	272	30	38	8	4	5	3	10
Haripur	697	399	12	25	41	55	42	29	10	0
Karak	199	60	75	27	0	0	9	8	55	76
Khyber	171	86	20	50	11	69	19	10	6	15
Kohat	50	68	43	4	10	6	1	0	0	2
Kohistan Lower	127	0	0	4	0	9	0	0	1	0
Kohistan Upper	362	17	0	3	176	32	15	9	9	0
Kolai Palas	61	0	0	2	6	2	0	0	0	0
L & C Kurram	2	32	0	0	0	2	0	0	0	0
Lakki Marwat	312	3	94	30	0	13	12	18	14	7
Malakand	353	113	6	14	27	40	7	3	11	23
Mansehra	457	378	1	50	12	7	4	19	6	0
Mardan	893	6	8	494	1	19	0	11	6	2
Mohmand	108	64	127	6	23	30	6	2	2	107
Nowshera	1,029	127	55	13	14	15	11	11	49	15
Orakzai	16	19	6	0	0	6	0	0	0	0
Peshawar	2,023	793	12	127	63	95	71	26	37	20
SD Peshawar	1	0	0	0	0	0	0	0	0	0
SD Tank	8	0	12	0	0	1	1	0	0	2
Shangla	90	0	138	15	0	0	12	4	0	0
SWA	57	252	25	73	46	14	5	0	4	18
Swabi	855	1,019	22	144	139	12	17	81	39	0
Swat	1,127	288	16	66	6	58	0	26	1	0
Tank	454	125	81	13	0	10	59	5	13	21
Tor Ghar	65	0	18	1	23	17	3	0	1	5
Upper Kurram	87	268	9	20	438	21	3	2	4	0
Total	14,057	5,443	3,267	1,670	1,248	724	512	413	397	357

Figure 4: Most frequently reported suspected cases during week 12, KP



ICT, AJK & GB

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

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, dog bite, TB, B. Diarrhea, Typhoid, AWD (S. Cholera) and Measles cases. Cases of ILI, ALRI <5 years, SARI, dog bite and B. Diarrhea showed a decreasing trend while cases of AD (Non-Cholera) and TB showed an increasing trend this week.

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

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

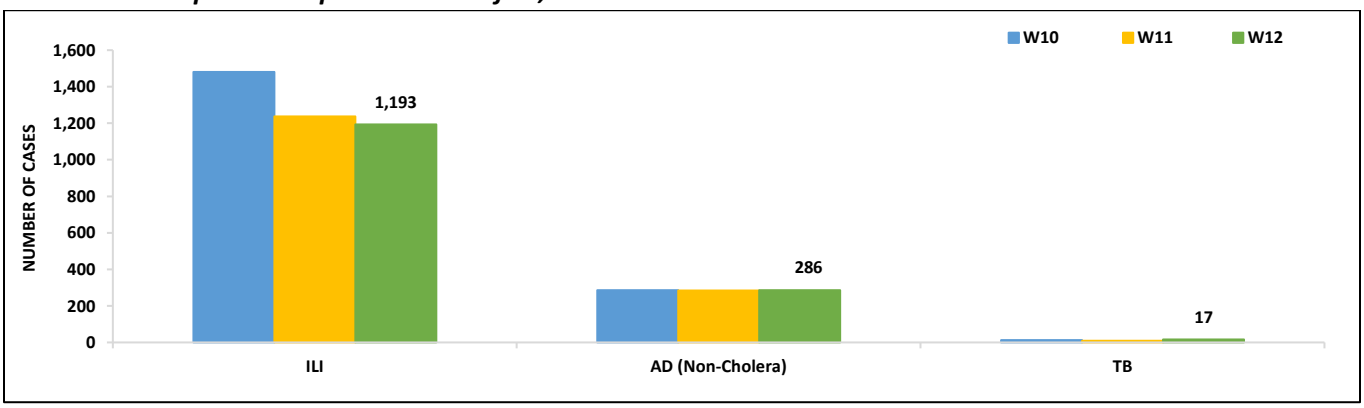


Figure 6: Week wise reported suspected cases of ILI, ICT

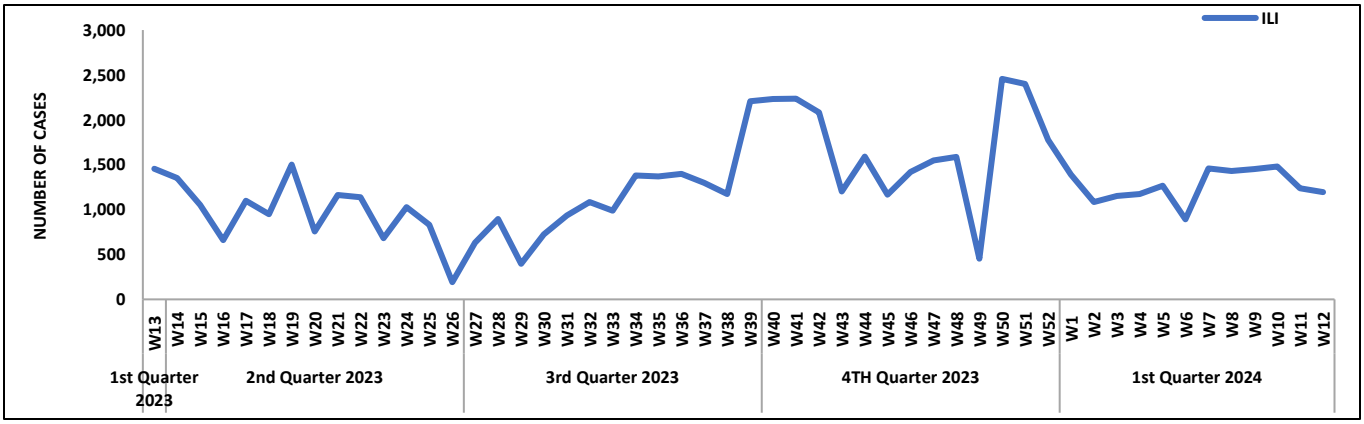


Figure 7: Most frequently reported suspected cases during week 12, AJK

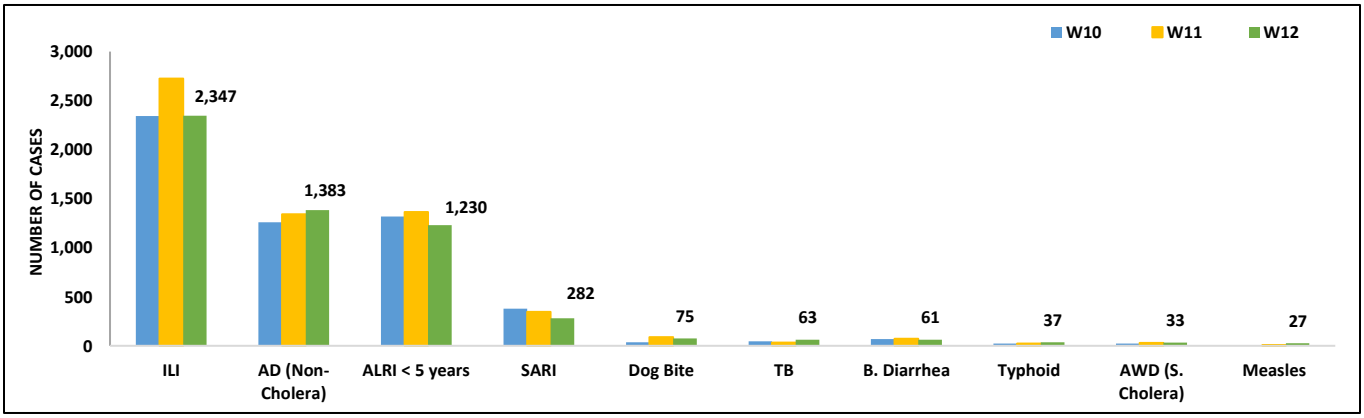


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

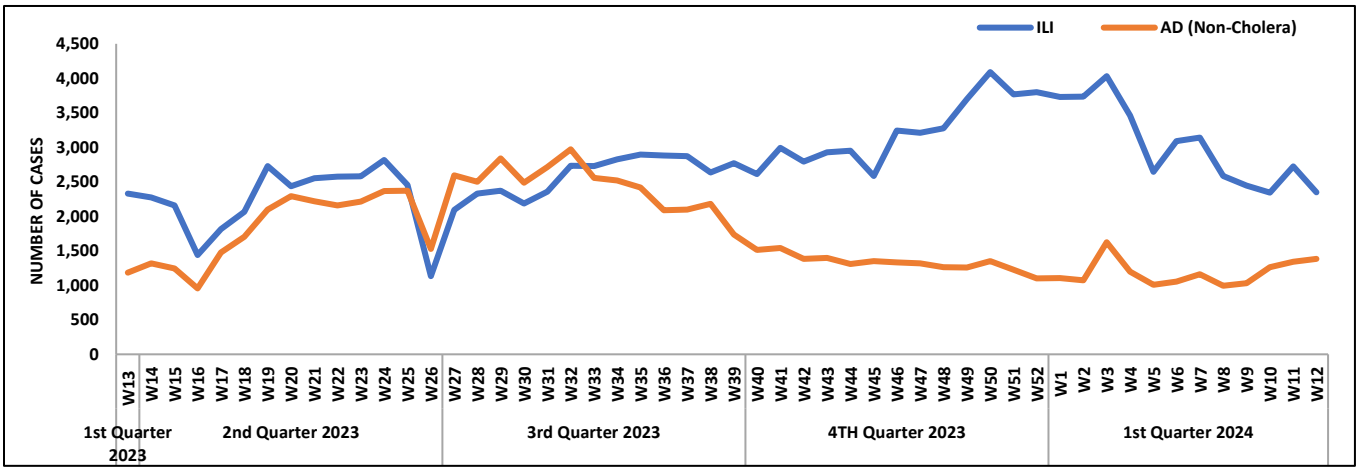


Figure 9: Most frequent cases reported during Week 12, GB

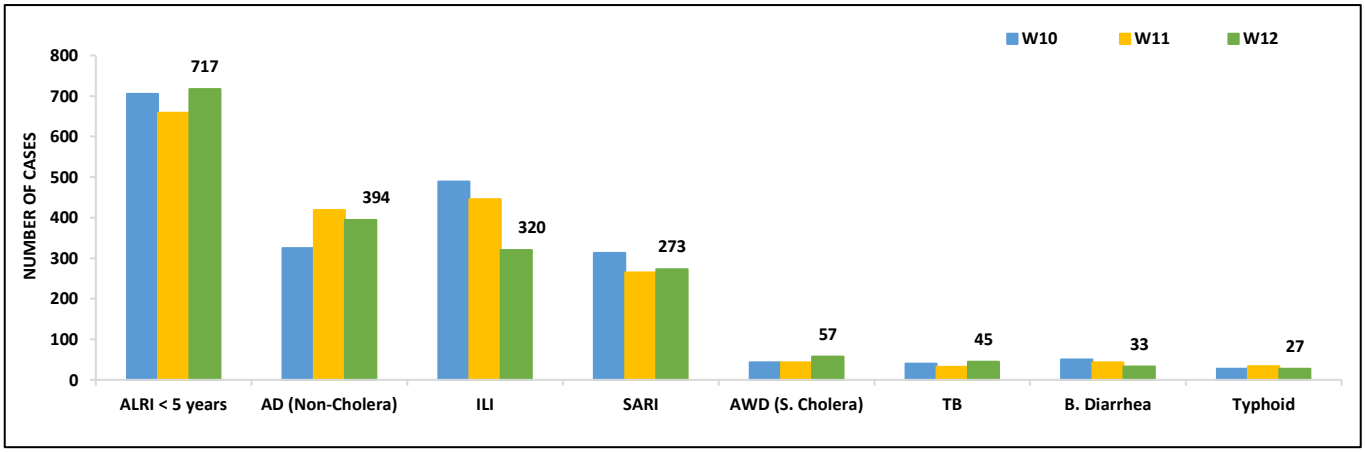
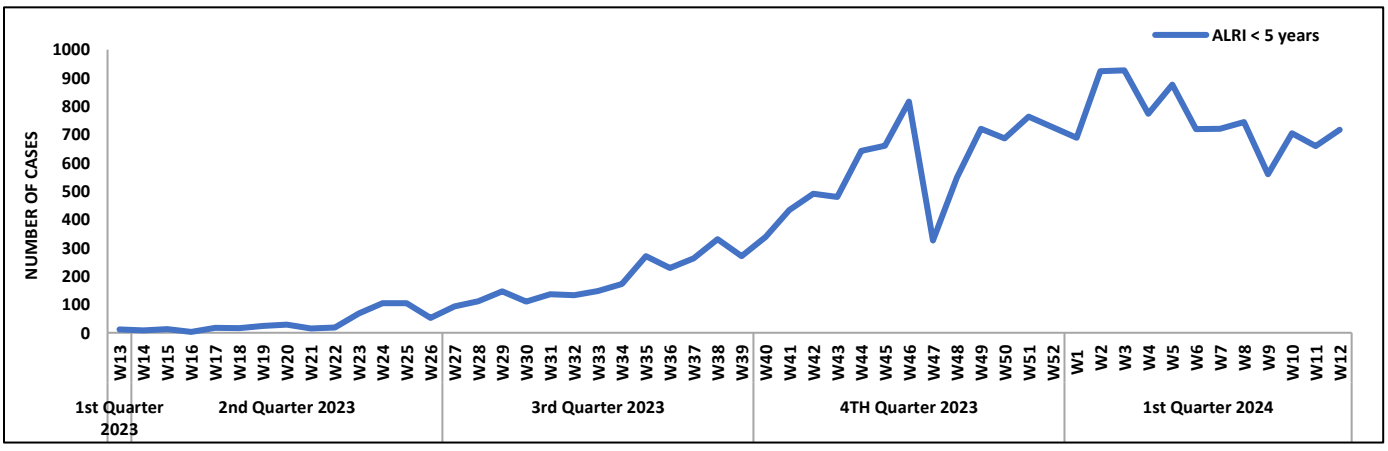


Figure 10: Week wise reported suspected cases of ALRI, GB



Punjab

- Cases of AD (Non-Cholera) were maximum followed by Malaria, Typhoid, B. Diarrhea, ILI and Chickenpox. AD (Non-Cholera), Malaria, B. Diarrhea, ILI and CL cases showed a decreasing trend this week.

Figure 11: District wise distribution of most frequently reported suspected cases during week 12, Punjab

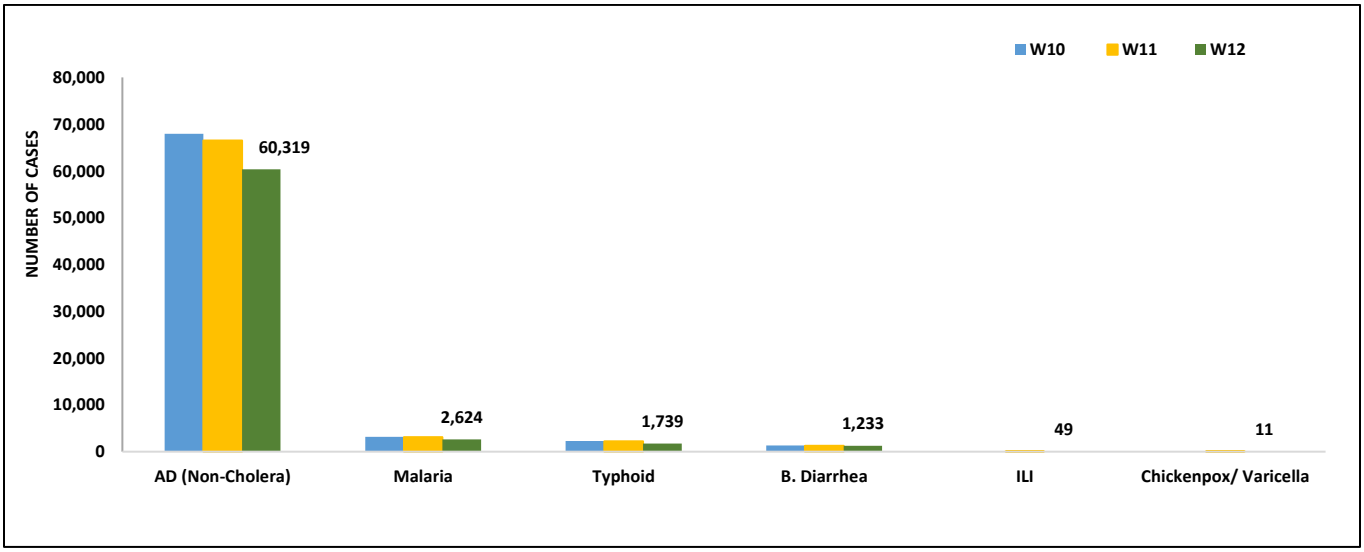


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 12

Diseases	Sindh		Balochistan		KPK		ISL		GB	
	Total Test	Total Positive	Total Test	Total Positive	Total Test	Total Positive	Total Test	Total Positive	Total Test	Total Positive
AWD (S. Cholera)	81	0	-	-	-	-	0	0	-	-
AD (Non-Cholera)	81	0	-	-	-	-	0	0	-	-
Malaria	2,717	95	-	-	-	-	0	0	0	0
CCHF	0	0	12	0	-	-	0	0	-	-
Dengue	310	10	0	0	-	-	2	0	0	0
VH (B)	2,804	78	88	74	-	-	0	0	91	0
VH (C)	3,522	333	71	23	-	-	0	0	91	0
VH (A&E)	0	0	-	-	-	-	0	0	-	-
Covid-19	-	-	125	0	26	3	110	14	-	-
HIV	165	0	-	-	-	-	0	0	-	-
Diphtheria	0	0	-	-	-	-	14	1	-	-
Influenza A	0	0	0	0	20	0	47	2	0	0
TB	136	6	-	-	-	-	-	-	-	-
Syphilis	112	4	-	-	-	-	-	-	-	-
Pertussis	0	0	-	-	-	-	5	0	-	-
Typhoid	442	5	-	-	-	-	8	1	-	-
Mumps	0	0	-	-	-	-	0	0	-	-
Measles	0	0	-	-	-	-	0	0	-	-

IDSR Reports Compliance

- Out OF 149 IDSR implemented districts, compliance is low from KPK. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSR reporting districts Week 12, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	110	104	95%
	Bannu	234	134	57%
	Battagram	63	20	32%
	Buner	34	23	68%
	Bajaur	44	30	68%
	Charsadda	59	52	88%
	Chitral Upper	34	28	82%
	Chitral Lower	35	34	97%
	D.I. Khan	115	99	86%
	Dir Lower	74	74	100%
	Dir Upper	52	43	83%
	Hangu	22	20	91%
	Haripur	71	62	87%
	Karak	35	35	100%
	Khyber	64	16	25%
	Kohat	61	60	98%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	70	100%
	Lower & Central Kurram	40	3	8%
	Upper Kurram	42	18	43%
	Malakand	42	36	86%
	Mansehra	136	86	63%
	Mardan	80	76	95%
	Nowshera	55	53	96%
	North Waziristan	380	0	0%
	Peshawar	153	126	82%
	Shangla	65	15	23%
	Swabi	63	62	98%
	Swat	76	73	96%
	South Waziristan	134	51	38%
	Tank	34	32	94%
	Torghar	14	14	100%
	Mohmand	86	35	41%
	SD Peshawar	5	1	20%
	SD Tank	58	4	7%
	Orakzai	68	19	28%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	44	98%
	Poonch	46	46	100%
	Haveli	39	39	100%

Azad Jammu Kashmir	Bagh	40	40	100%
	Neelum	39	37	95%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	20	95%
	CDA	14	9	64%
Balochistan	Gwadar	25	19	76%
	Kech	40	32	80%
	Khuzdar	20	20	100%
	Killa Abdullah	20	0	0%
	Lasbella	55	55	100%
	Pishin	62	7	11%
	Quetta	43	17	40%
	Sibi	36	34	94%
	Zhob	39	30	77%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	12	80%
	Kohlu	75	66	88%
	Chagi	35	25	71%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	26	26	100%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	44	98%
	Loralai	33	29	88%
	Killa Saifullah	28	27	96%
	Ziarat	29	21	72%
	Duki	31	29	94%
	Nushki	32	31	97%
	Dera Bugti	45	20	44%
	Washuk	46	15	33%
	Panjgur	38	16	42%
	Awaran	23	7	33%
	Chaman	24	22	92%
	Barkhan	20	20	100%
	Hub	33	33	100%
	Musakhel	41	0	0%
	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	62	100%
	Astore	54	54	100%

	Shigar	27	27	100%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	61	84%
	Ghotki	64	64	100%
	Umerkot	43	38	88%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	249	88%
	Shikarpur	60	60	100%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	19	83%
	Karachi-West	20	20	100%
	Karachi-Malir	37	17	46%
	Karachi-Kemari	18	8	44%
	Karachi-Central	11	9	82%
	Karachi-Korangi	18	13	72%
	Karachi-South	4	4	100%
	Sujawal	54	51	94%
	Mirpur Khas	106	105	99%
	Badin	123	118	96%
	Sukkur	64	64	100%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	168	166	99%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	68	68	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	124	123	99%

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Public Health Bulletin Pakistan

Pakistan's dedicated field epidemiologists are the backbone of our public health system. Your tireless work in disease investigation, outbreak response, and program evaluation directly impacts the health and well-being of millions. But your expertise can reach even further.

The Public Health Bulletin Pakistan (PHBP) offers a powerful platform to **broaden the impact** of your work. Share your experiences and insights through case studies, short reports, perspectives, or opinion pieces. By reaching fellow professionals, policymakers, and the public, you can:

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A note from Field Activities.

Suspected Measles Case Investigation in Basti Choti, UC Chohar Kot, District Barkhan

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

Introduction

Following a report on local social media regarding suspected measles cases in Basti Choti, UC Chohar Kot, a team was assembled and dispatched upon the directive of the Assistant Commissioner (AC) and District Health Officer (DHO) of Barkhan. Under the supervision of the District Surveillance Officer (DSO) Barkhan

Objectives

1. Determine the magnitude of suspected measles cases in Basti Choti, UC Chohar Kot, District Barkhan.
2. Control the potential spread of measles within UC Chohar Kot, District Barkhan.

Methods

An investigative activity was conducted during Epidemiological Week 12 to assess suspected measles cases in Basti Choti, UC Chohar Kot, District Barkhan. A suspected measles case was defined as any child aged 0-60 months residing in the aforementioned village who presented with fever (body temperature > 37.5°C) and a maculopapular skin rash lasting for at least three days, accompanied by at least one of the following: cough, coryza, or

conjunctivitis. Data collection regarding clinical signs and symptoms was facilitated by a structured questionnaire aligned with the Integrated Disease Surveillance and Response (IDSR) protocol for measles.

Results

During Epidemiological Week 12, the team visited all 20 households within the village. This targeted investigation yielded a single suspected case: a 2-month-old child residing in a community with a documented history of refusing routine childhood vaccinations. A blood sample was collected from the child to confirm the suspected measles diagnosis.

Discussion

This single case, combined with the community's known vaccine hesitancy, raises significant public health concerns. The potential for measles transmission within the affected area and surrounding villages is heightened due to the lack of immunization coverage.

The prompt investigation and identification of a suspected measles case highlight the importance of robust public health surveillance systems. The identified community's refusal of routine vaccination necessitates the implementation of a comprehensive response strategy to prevent a potential outbreak, control the potential spread of the disease, strengthen the healthcare infrastructure, and promote vaccine acceptance within the community.

Recommendations

To curb potential measles spread, a multifaceted plan is needed: establish isolation units, deploy integrated outreach services with measles vaccination, strengthen healthcare facilities, and launch targeted vaccination campaigns in affected areas. Additionally, district-wide awareness sessions and community counseling programs promoting vaccination are crucial to achieve 100% coverage and prevent outbreaks

A note from Field Activities.

Investigation Report of Laboratory-Confirmed Measles Cases In Younus Nagar Uc-3, Taluka Tando Adam, District Sanghar, March 2024

DR. Waheed
Fellow FELTP,
Sindh

Introduction

On March 24, 2024, the Public Health Emergency Response Unit of the Directorate General of Health Services Sindh (PDSRU-DGHSS) received notification regarding five (5) laboratory-confirmed cases of measles in Yunus Nagar UC-3, Taluka Tando Adam, District Sanghar. In response, a team was assembled by the DGHSS Hyderabad Sindh to investigate the outbreak and implement control measures.

Objectives

1. Investigate the extent of the measles outbreak in Yunus Nagar UC-3.
2. Identify risk factors associated with the outbreak.
3. Recommend control measures to prevent further.

Methods

A comprehensive investigation was conducted using the following methods: Interviews were conducted with family members of affected children to gather details of disease history, clinical course, and routine immunization status. The WHO standard case definition for measles was employed to actively search for additional suspected cases within the community and assess risk factors for measles transmission.

Findings

Face-to-face interviews revealed that all five confirmed measles cases had recovered approximately ten days prior to the investigation. Mop-up vaccination activities had already been conducted.

Active case finding did not identify any additional suspected cases. All previously reported cases were already included in a line list for monitoring.

Conclusion

Based on the investigation, the reported laboratory-confirmed measles cases likely originated from an index case introduced from Karachi. Contributing factors potentially included malnutrition, poor routine immunization coverage, limited knowledge of disease transmission, and reliance on informal healthcare providers.

Recommendations

To prevent further outbreaks and strengthen public health measures in the area, the following recommendations are made:

1. Conduct mop-up vaccination activities throughout Yunus Nagar UC-3.
2. Sensitize healthcare providers regarding timely reporting of suspected measles cases.
3. Expand and strengthen the existing disease surveillance network to include informal healthcare providers, considering the community's health-seeking behavior.
4. Enhance routine immunization services at local Expanded Programme on Immunization (EPI) facilities.

A note from Field Activities.

Epidemiological Report: Investigation of Extensively Drug-Resistant (XDR) Typhoid Fever, Village Rumboor, Union Council Ayun, Chitral Lower, February 2024

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

Introduction

Salmonella Typhi, the causative agent of typhoid fever, poses a significant public health threat in regions with inadequate sanitation and limited access to clean water, such as Lower Chitral. The emergence of extensively drug-resistant (XDR) strains further complicates outbreak management and containment.

Outbreak Detection:

On March 18, 2024, a local physician reported five cases exhibiting high-grade fever in Rumboor village, U/C Ayun. These cases were unresponsive to conventional antibiotic treatment, suggesting XDR Typhoid. In response, the Director General of Health Services, Khyber Pakhtunkhwa, dispatched a team of Public Health Specialists and Fellows from the Field Epidemiology Training Program (FETP) at PDSRU DGHS, KP, to investigate the outbreak.

Objectives

1. Determine the magnitude and distribution of XDR Salmonella Typhi cases in Chitral Lower.
2. Identify risk factors associated with disease transmission.
3. Implement evidence-based interventions to control the outbreak and prevent recurrence.
4. Strengthen surveillance systems and public health infrastructure for early detection and response to infectious disease threats.

Methods

To investigate the outbreak, a comprehensive approach was employed. Public health officials actively searched for cases through healthcare facilities and community outreach, while established surveillance systems were leveraged. Blood and urine samples were collected from suspected cases for confirmation through laboratory testing, including blood culture and sensitivity analysis. Additionally, detailed interviews and surveys were conducted to gather information on demographics, symptoms, exposure history, and travel patterns. Environmental assessments evaluated sanitation conditions, water sources, and food handling practices in affected communities to identify potential contamination sources. All this data, both epidemiological and laboratory-based, was analyzed to understand transmission patterns, risk factors, and

case clusters. Finally, targeted interventions were implemented, including medical treatment, distribution of water purification supplies, and health education campaigns. The effectiveness of these interventions was constantly monitored, disease trends were tracked, and response strategies were adapted based on ongoing surveillance and assessments.

Results

A total of 46 suspected XDR Typhoid cases were identified, with a female predominance (26 females, 21 males). Children and adolescents appear to be disproportionately affected. The highest number of cases is concentrated within the 5-15-year age group, followed by the 15-45-year age group. Conversely, fewer cases are observed in children under 5 years old and adults over 45 years old. No typhoid related death was reported.

Outbreak Response:

To effectively control the outbreak, a multi-pronged response strategy was implemented. This strategy prioritized WASH interventions, focusing on water quality, sanitation practices, and hygiene behaviors. To ensure targeted medical treatment, blood culture and sensitivity testing were conducted at the Public Health Reference Laboratory. Additionally, water sources in affected communities were sampled and tested to identify contamination levels and guide necessary actions. Aqua tabs and water purifiers were distributed to households to promote access to safe drinking water. Alongside these measures, comprehensive health education campaigns were implemented to raise awareness about typhoid transmission routes and the importance of proper hygiene practices. Finally, field visits were conducted to assess sanitation conditions, pinpoint potential contamination sources, and provide targeted interventions to address them directly.

Laboratory Results:

Laboratory testing is still ongoing for the XDR Typhoid outbreak investigation. While results for 28 blood samples are outstanding, analysis of the received samples (n=22) has identified 12 positive cases of XDR Salmonella Typhi and 10 negative cases. Additionally, the test results for the 9 water samples collected are still pending.

Discussion

The XDR Typhoid outbreak in Chitral Lower highlights the urgent need for a holistic approach to disease control, with WASH interventions as a cornerstone. Coordinated action, effective communication, and community engagement are crucial for implementing evidence-based interventions addressing both immediate health needs and underlying determinants of the outbreak. Prioritizing WASH infrastructure investments, promoting hygiene behaviors, and strengthening surveillance systems are essential for mitigating future outbreaks and strengthening public health resilience.

Follow-up Activities:

To ensure the long-term effectiveness of the outbreak response and prevent future occurrences, a multi-pronged approach will be sustained. This includes continued distribution of water purification supplies to affected communities. Additionally, ongoing health education initiatives will target not only the community but also healthcare providers and stakeholders to raise awareness and promote preventive behaviors. Regular surveillance and case monitoring will be crucial for early detection of any suspected cases. Finally, efforts will focus on strengthening the Integrated Disease Surveillance and Response System (IDSRS) to enhance the capacity for swift detection and response to future infectious disease threats.

A note from Field Activities.

World Tuberculosis Day Commemorative Walk and Seminar in Lahore: A Beacon of Hope in the Fight Against TB

Dr Yadullah
Director
CD&EPC Punjab

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

Lahore Takes a Stand Against Tuberculosis:

On March 25th, 2024, in recognition of World Tuberculosis Day (WTBD), the Provincial TB

Control Program (PTBCP) organized a highly successful commemorative walk in Lahore, Pakistan. This event transcended the realm of a simple walk; it served as a powerful testament to Pakistan's unwavering commitment to eradicating this devastating disease.

A Multi-Sectoral Approach Takes Center Stage:

The walk boasted a distinguished presence, showcasing a united front against TB. High-level officials from the Primary & Secondary Health Department (P&SHD) participated, including the Minister of Health, Director-General of Health Services, Provincial Director of TB Control, Provincial Director of the Health Care Commission, and Provincial Manager and Director of the Communicable Diseases Control Program. This impressive public sector representation was further strengthened by the participation of Mst Shazia Khurram, a prominent Member of the Provincial Assembly (MPA), the CEO of DHA Lahore, and representatives from esteemed private organizations. This diverse range of participants served as a powerful reminder of the critical importance of a multi-sectoral approach in tackling the global health challenge of TB. It highlighted the need for collaboration across government agencies, civil society organizations, and the private sector to achieve significant and sustainable progress in the fight against this disease.

A Minister's Message of Hope and Innovation:

The event was further elevated by a powerful address from the Health Minister. He shed light on the significant burden of TB in Pakistan, highlighting the devastating impact on public health. However, his message transcended mere statistics; it conveyed unwavering commitment and a spirit of hope. He reaffirmed the department's dedication to TB eradication and emphasized a groundbreaking initiative by the Chief Minister: delivering TB medications directly to patients' doorsteps. This innovative program has the potential to significantly improve treatment adherence, a crucial factor in combating the rise of drug-resistant TB.

A Walk Symbolizing Unity and Determination:

Beyond the informative address, the commemorative walk itself served as a potent symbol. A diverse group of participants, representing various sectors of Pakistani society, marched together in solidarity. This collaborative effort served as a powerful symbol of Pakistan's unwavering dedication to a TB-free future. The walk embodied the spirit of unity and determination in the fight against TB, offering a beacon of hope in the ongoing battle against this public health threat.

Strengthening TB Control Efforts Through Stakeholder Engagement

Complementing the walk, the PTBCP, in collaboration with Mercy Corps and ASD, held a seminar at Shalimar Hall, Faletti's Lahore. This event brought together public health officials, medical professionals, and stakeholders to discuss TB control strategies within the province. Highlighting the province's commitment, Mr. Rashid Irshad Hussain (Additional Secretary) chaired the session co-chaired by Dr. Muhammad Ilyas Gondal (Director General of Health Services) and Mr Sohail (DG Drug Control and currently having the charge of PD TB Control Program Punjab). The seminar also acknowledged individuals making significant contributions through honorary shield presentations, solidifying the collaborative fight against TB in Punjab.

Pakistan: A Model of Commitment

The World TB Day walk in Lahore serves as a shining example of Pakistan's unwavering dedication to eradicating TB. This success story should be an inspiration to other nations facing this global health challenge. By fostering collaboration, innovation, and a multi-sectoral approach, we can collectively realize the vision of a world free from tuberculosis. Let us continue to support such initiatives, paving the way for a healthier future for all.

Knowledge Hub

Neglected but Not Forgotten: Combating Tropical Diseases in Pakistan

Neglected tropical diseases (NTDs) cast a long shadow over the health landscape of Pakistan. These aren't glamorous illnesses that dominate headlines, but a diverse group of chronic infections silently affecting millions in low- and middle-income countries like Pakistan. They cause significant illness, disability, and economic hardship, creating a ripple effect that undermines individual and national well-being. This essay delves into the causes, symptoms, and preventative measures for NTDs, with a particular focus on their prevalence and devastating impact in Pakistan.

A Spectrum of Silent Threats:

NTDs encompass a vast array of parasitic, bacterial, viral, and fungal infections. They aren't a single disease, but rather a collection of over 20 distinct illnesses, each with its own unique characteristics. Here are some of the most common culprits wreaking havoc in Pakistan:

- **Soil-Transmitted Helminthiases (STHs):** Roundworm, hookworm, and whipworm infections lurk in contaminated soil. Children playing barefoot are particularly vulnerable to these microscopic worms, leading to stunted growth, malnutrition, and impaired cognitive development.
- **Leishmaniasis:** Transmitted by sandflies, this disease manifests in two forms. Cutaneous leishmaniasis causes disfiguring skin lesions, while visceral leishmaniasis attacks internal organs and can be fatal if left untreated.
- **Dengue Fever:** A mosquito-borne viral infection causing flu-like symptoms, dengue fever can escalate into a severe and potentially life-threatening illness known as Dengue Hemorrhagic Fever (DHF).
- **Lymphatic Filariasis:** Another mosquito-borne foe, lymphatic filariasis disrupts the lymphatic system, leading to grotesque swelling of limbs and genitalia, causing immense physical and social discomfort.
- **Leprosy:** This chronic bacterial infection, while treatable, can damage nerves, skin, and eyes if left unchecked. The associated social stigma further isolates and marginalizes affected individuals.

Symptoms and Impact: A Ripple Effect

NTDs often present with a range of non-specific symptoms like fever, fatigue, and pain, making diagnosis challenging. This delay in treatment allows the infections to progress, causing significant physical limitations. Children with chronic NTD infections may experience stunted growth and development, leading to reduced future earning potential. Adults with NTDs may struggle with diminished productivity, impacting household income and overall economic well-being.

The impact extends beyond physical limitations. The social stigma associated with some NTDs, particularly leprosy, further isolates and marginalizes affected individuals. This can lead to depression, anxiety, and difficulty accessing social services and education.

The Pakistani Context: A Nation Facing a Challenge:

Pakistan carries a disproportionate burden of NTDs. Millions are estimated to be infected with STHs, according to the World Health Organization (WHO). Outbreaks of leishmaniasis and dengue fever are a recurring concern, particularly in resource-limited rural areas.

Several factors contribute to the high prevalence of NTDs in Pakistan. Inadequate sanitation and hygiene practices, coupled with poor access to clean water, create ideal breeding grounds for disease-carrying insects and parasites. Limited healthcare infrastructure in rural areas further hinders early diagnosis and treatment. Low awareness about NTDs and a lack of education on

preventative measures further compound the challenges.

Turning the Tide: Strategies for Prevention and Control

Fortunately, there is hope. We are not powerless against NTDs. Several measures can be taken to prevent and control them, creating a healthier future for all Pakistanis:

- **Mass Drug Administration (MDA):** Regularly administering deworming medication to entire communities is a key weapon in the fight against STHs and lymphatic filariasis. This proven strategy can significantly reduce the burden of these infections.
- **Enhanced Vector Control:** Mosquito nets, effective insecticides, and improved housing infrastructure are crucial to reduce transmission of mosquito-borne NTDs like dengue fever. Investing in these measures not only protects against NTDs but also reduces the spread of other mosquito-borne diseases like Malaria.
- **Sanitation and Hygiene Promotion:** Promoting handwashing, proper waste disposal, and access to clean water are essential for preventing fecal-oral transmission of NTDs. These basic hygiene practices are foundational for overall public health and well-being.
- **Investing in Healthcare:** Strengthening primary healthcare systems is vital for early diagnosis, treatment, and surveillance of NTDs. A robust healthcare infrastructure with trained personnel is essential for combating NTDs and other public health threats.
- **Community Education:** Educating communities about the signs and symptoms of NTDs, as well as preventative measures, empowers individuals to seek timely diagnosis and treatment. Community engagement is crucial for long-term success in controlling NTDs.

Conclusion: A Brighter Future Through Collaborative Action:

Neglected tropical diseases remain a significant public health challenge in Pakistan. They may be neglected globally, but they demand our attention and action. Implementing a multi-pronged approach, focusing on the strategies mentioned above, is essential to alleviate the burden of NTDs. By raising awareness, prioritizing NTD control efforts, and fostering collaboration between communities, healthcare providers, and the government, Pakistan can pave the way for a healthier and more prosperous future for its citizens.

UK Health Security Agency

World Health Organization

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