

PUBLIC HEALTH BULLETIN-PAKISTAN

Integrated Disease Surveillance & Response (IDSR) Report

**Center of Disease Control
National Institute of Health, Islamabad**

<http://www.phb.nih.org.pk/>

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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

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Public Health Bulletin - Pakistan, Week 11, 2024

Overview

This edition of the Public Health Bulletin serves as a comprehensive resource for both healthcare professionals and the general public, offering valuable insights into Pakistan's current health landscape. The report identifies the most prevalent illnesses reported during week 11, including Acute Diarrhea (Non-Cholera), Malaria, Influenza-Like Illness (ILI), Acute Lower Respiratory Infection in children under 5 (ALRI <5), Tuberculosis (TB), Bloody Diarrhea, Viral Hepatitis (B, C & D), Typhoid, Upper Respiratory Tract Infection (SARI), and dog bites. This data empowers stakeholders, including healthcare providers and public health officials, to tailor preventive efforts and address areas of greatest concern.

IDSR Reports

Ongoing Events

While cases of Malaria, ALRI in young children, TB, Bloody Diarrhea, Viral Hepatitis, and Typhoid remained relatively stable compared to previous weeks, a slight increase in Acute Diarrhea (Non-Cholera) was observed. This highlights the importance of continuous monitoring and response strategies.

Field Reports

Beyond providing surveillance data, the Public Health Bulletin extends an invitation to field epidemiologists to contribute their invaluable expertise to future editions. Their insights are crucial for strengthening Pakistan's public health infrastructure.

Additionally, this issue showcases recent advancements in Pakistani public health preparedness. Articles explore critical topics such as the Poliovirus Alert, prompting renewed vaccination efforts, investigations into suspected Measles Outbreaks, and case reports of Extensively-drug resistant (XDR) Typhoid Fever. These analyses empower healthcare professionals with essential knowledge for effective diagnosis, treatment, and outbreak control.

Recognizing the critical role of individual action in safeguarding public health, the issue concludes with a comprehensive exploration of the World Tuberculosis Day: A Cause for Hope in Pakistan. This section emphasizes the importance of public awareness, education, and community engagement in the ongoing fight against TB.

Sincerely,

The Chief Editor



- During week 11, 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.
- Compared to previous weeks, cases of malaria, ALRI in young children, TB, bloody diarrhea, viral hepatitis, and typhoid remained relatively stable. However, there was a slight increase in reported cases of acute diarrhea (non-cholera) this week.
- Health authorities in Khyber Pakhtunkhwa (KP) have reported 14 suspected cases of AFP, while Sindh has reported 9. All cases require field investigation for confirmation.
- Five suspected cases of HIV/AIDS have been identified in Sindh, with two additional cases in KP. Further investigation is needed to verify these cases.
- KP health teams are investigating 9 suspected cases of Brucellosis. Baluchistan has also reported 8 suspected cases. Field verification is required for all cases.

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%, followed by Sindh 94% and ICT 83%
- The lowest compliance rate was observed in KPK.

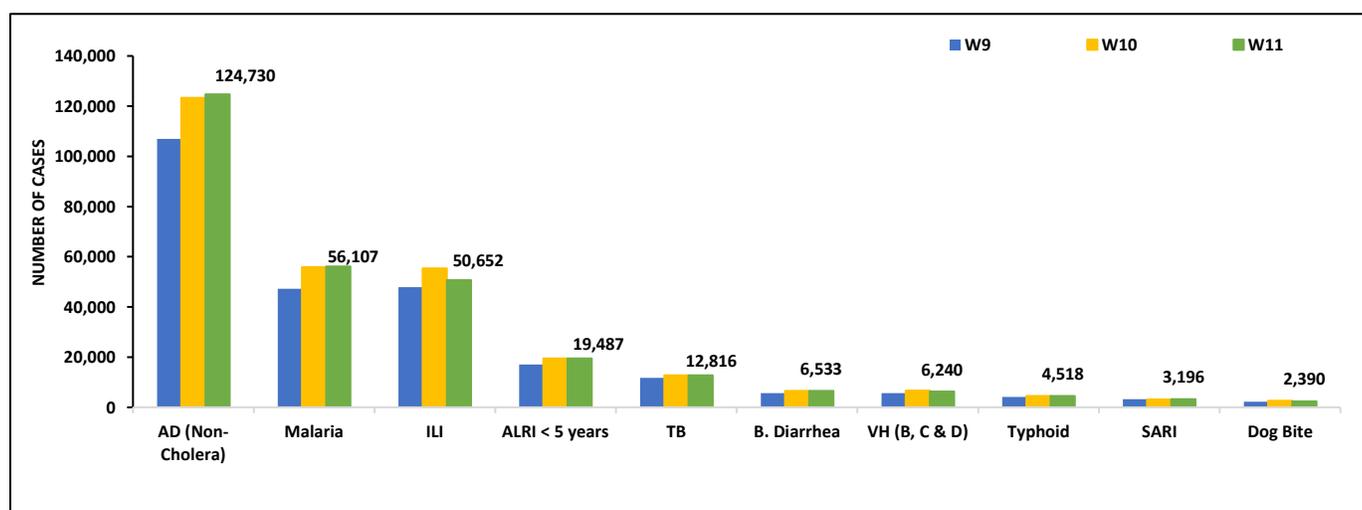
Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2740	1645	60
Azad Jammu Kashmir	382	382	100
Islamabad Capital Territory	35	29	83
Balochistan	1220	845	69
Gilgit Baltistan	374	374	100
Sindh	2086	1956	94
National	6837	5231	77



Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 11, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,342	5,746	419	284	14,153	66,535	36,251	124,730
Malaria	7	3,703	0	1	3,033	3,088	46,275	56,107
ILI	2,725	8,542	446	1,237	5,878	59	31,765	50,652
ALRI < 5 years	1,364	1,855	659	2	2,046	NR	13,561	19,487
TB	33	135	32	10	462	NR	12,144	12,816
B.Diarrhea	72	1,273	43	4	640	1,249	3,252	6,533
VH (B, C & D)	13	102	2	0	110	NR	6,013	6,240
Typhoid	24	555	34	2	482	2,183	1,238	4,518
SARI	347	862	265	0	1,421	NR	301	3,196
Dog Bite	87	67	0	0	242	NR	1,994	2,390
Measles	7	44	20	0	424	NR	163	658
AVH(A&E)	26	16	0	0	139	NR	399	580
CL	0	128	0	0	314	49	1	492
Mumps	10	48	4	1	65	NR	299	427
AWD (S. Cholera)	31	209	43	0	23	NR	0	306
Chickenpox/ Varicella	4	6	2	0	39	28	106	185
Pertussis	0	118	1	0	45	NR	0	164
Gonorrhoea	0	55	0	0	15	NR	11	81
Dengue	0	7	0	0	7	NR	62	76
AFP	1	2	2	0	14	NR	9	28
Syphilis	0	12	0	0	1	NR	15	28
Brucellosis	0	8	0	0	9	NR	0	17
VL	0	5	0	0	11	NR	0	16
Meningitis	0	4	0	0	2	NR	5	11
Chikungunya	0	8	0	0	0	NR	0	8
NT	0	1	0	0	7	NR	0	8
HIV/AIDS	0	0	0	0	2	NR	5	7
Diphtheria (Probable)	0	2	0	0	0	NR	0	2

Figure 1: Most frequently reported suspected cases during week 11, Pakistan.

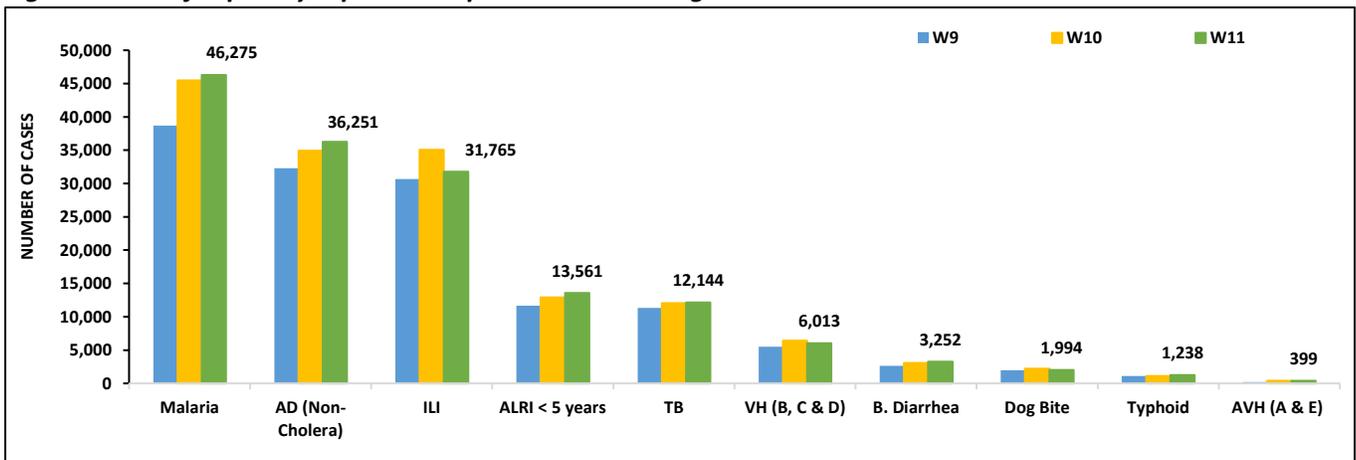


- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, TB, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and AVH (A & E). Malaria cases are from Larkana, Khairpur and Dadu whereas AD (Non-Cholera) cases are mostly from Dadu, Khairpur and Badin.
- Nine cases of AFP reported from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

Table 2: District wise distribution of most frequently reported suspected cases during week 11, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	2,197	2,531	546	689	742	256	177	57	42	1
Dadu	4,300	2,683	0	1,177	455	28	393	127	155	3
Ghotki	503	489	0	518	168	334	82	205	0	7
Hyderabad	369	1,114	3,022	249	264	92	61	0	16	3
Jacobabad	748	849	663	775	302	190	89	155	13	0
Jamshoro	1,640	1,183	13	200	390	17	81	44	20	4
Kamber	4,109	1,403	0	433	918	339	164	92	47	0
Karachi Central	48	890	1,990	114	620	282	9	0	58	0
Karachi East	71	483	222	32	9	0	9	8	1	0
Karachi Keamari	4	153	46	38	1	0	1	0	0	0
Karachi Korangi	27	239	0	2	0	0	2	0	1	0
Karachi Malir	42	811	2,698	315	37	35	47	34	20	2
Karachi South	34	90	0	0	0	0	0	0	0	0
Karachi West	143	1,056	2,542	138	198	137	62	123	50	40
Kashmore	1,752	515	970	231	337	266	46	257	10	1
Khairpur	4,582	2,654	5,148	1,579	1088	289	532	165	325	1
Larkana	5,871	1,757	9	825	962	225	256	0	3	0
Matiari	1,295	1,522	5	441	603	535	66	49	11	0
Mirpurkhas	2,235	2,052	4,488	734	652	68	166	30	56	4
Naushero Feroze	843	473	1,008	130	325	100	58	106	54	0
Sanghar	2,783	1,282	10	480	1122	981	38	189	29	1
Shaheed Benazirabad	1,202	1,826	0	664	331	83	72	115	190	0
Shikarpur	2,158	1,033	3	192	153	918	130	110	6	0
Sujawal	978	580	0	197	96	75	30	12	0	77
Sukkur	1,584	1,477	2,211	434	515	186	154	30	24	0
Tando Allahyar	1,411	1,113	1,175	361	462	204	121	10	9	1
Tando Muhammad Khan	878	844	0	210	376	17	80	0	2	0
Tharparkar	1,861	2,408	3,318	1,244	583	232	185	3	35	19
Thatta	1,438	1,335	1,678	352	65	82	61	73	14	235
Umerkot	1,169	1,406	0	807	370	42	80	0	47	0
Total	46,275	36,251	31,765	13,561	12,144	6,013	3,252	1,994	1,238	399

Figure 2: Most frequently reported suspected cases during week 11 Sindh

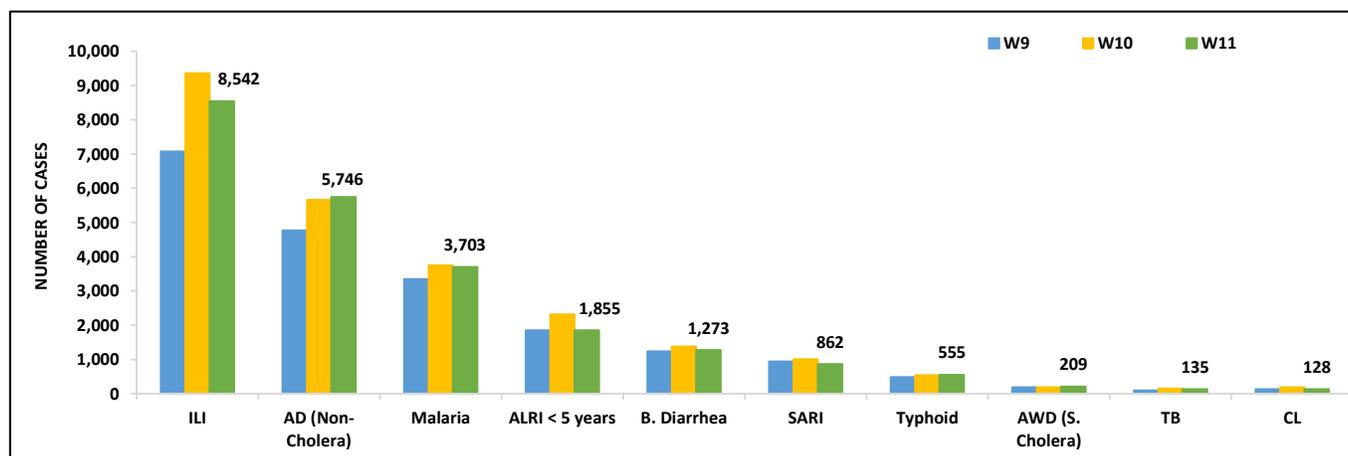


- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), TB and CL cases were the most frequently reported diseases from Balochistan province. ILI cases are mostly reported from Gwadar, Kech (Turbat) and Quetta while AD (Non-Cholera) cases are mostly reported from Gwadar, Kech (Turbat) and Jhal Magsi.
- AD (Non-Cholera), Malaria and Typhoid cases showed an almost same trend while ILI, ALRI <5 years, B. Diarrhea and SARI cases showed a decreasing trend this week.
- Eight cases of Brucellosis reported from Balochistan this week. All are suspected cases and require field verification.

Table 3: District wise distribution of most frequently reported suspected cases during week 11, Balochistan

Districts	ILI	AD Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	AWD (S.Cholera)	TB	CL
Awaran	82	28	17	0	16	2	0	9	0	0
Barkhan	85	99	38	75	5	0	52	19	3	0
Chagai	272	130	14	0	62	4	28	18	0	0
Chaman	9	3	0	0	10	1	4	0	0	0
Dera Bugti	19	16	38	24	14	16	3	0	0	0
Duki	71	117	28	19	56	39	10	6	0	0
Gwadar	1,104	575	80	13	33	0	10	0	0	1
Hub	129	232	170	33	37	4	4	0	7	9
Jaffarabad	127	313	469	30	35	17	2	0	88	23
Jhal Magsi	208	361	580	59	15	0	10	1	6	0
Kachhi (Bolan)	57	235	94	12	35	70	46	17	3	1
Kalat	7	12	7	6	9	1	17	0	0	1
Kech (Turbat)	1,067	478	193	149	73	NR	4	NR	NR	1
Kharan	423	129	33	3	59	0	2	3	0	0
Khuzdar	93	93	33	0	51	9	17	0	0	1
Killa Saifullah	2	110	103	146	76	18	26	1	0	4
Kohlu	638	250	110	54	125	164	55	23	1	1
Lasbella	79	319	289	90	28	23	1	0	1	12
Loralai	382	160	41	58	63	110	21	0	0	0
Mastung	153	140	34	62	37	46	17	6	2	5
Naseerabad	3	293	210	30	10	1	34	0	4	8
Nushki	18	117	7	1	36	3	0	9	0	0
Panjgur	186	129	115	59	39	6	11	19	1	0
Pishin	290	51	8	22	32	6	8	0	1	7
Quetta	1,006	253	4	32	32	7	13	24	1	34
Sherani	106	30	2	2	21	101	10	0	0	0
Sibi	942	169	204	50	30	21	41	40	4	14
Sohbat pur	32	267	362	219	84	36	47	9	12	5
Surab	147	90	9	29	2	14	29	0	1	0
Usta Muhammad	202	342	334	205	43	29	14	0	0	1
Washuk	291	92	35	13	64	2	8	0	0	0
Zhob	312	113	42	360	41	112	11	5	0	0
Total	8,542	5,746	3,703	1,855	1,273	862	555	209	135	128

Figure 3: Most frequently reported suspected cases during week 11, Balochistan

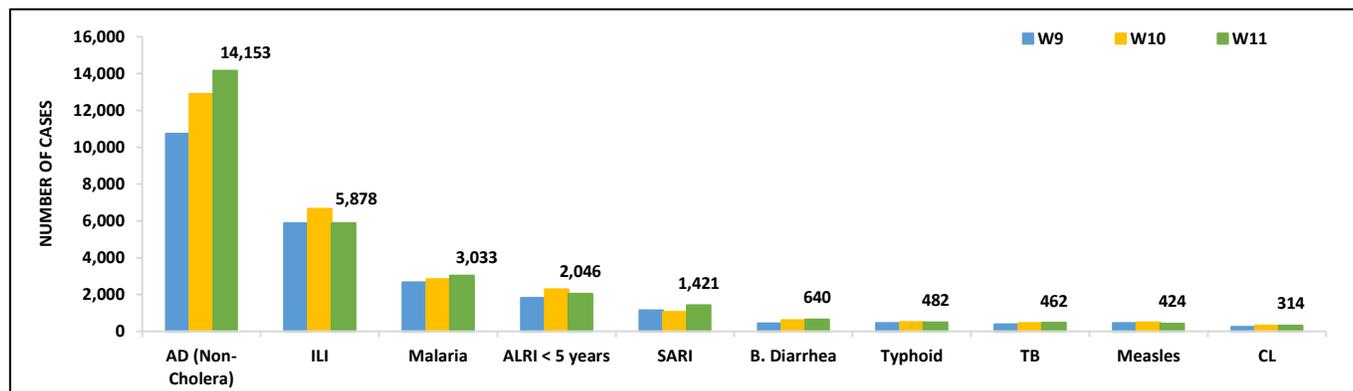


- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, TB, Measles and CL cases.
- AD (Non-Cholera), Malaria and SARI cases showed an increasing trend while ILI and ALRI<5 Years cases showed a decreasing trend this week.
- Fourteen cases of AFP reported 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 11, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI <5 Years	SARI	B. Diarrhea	Typhoid	TB	Measles	CL
Abbottabad	365	96	0	21	28	2	7	13	5	0
Bajaur	806	12	74	160	85	20	3	4	8	13
Bannu	768	0	1,238	35	0	5	104	24	14	0
Battagram	74	250	10	0	0	0	0	0	2	4
Buner	269	0	141	75	0	1	2	3	0	0
Charsadda	640	660	277	131	77	26	30	2	4	0
Chitral Lower	138	46	2	56	25	27	9	6	0	7
Chitral Upper	60	12	4	14	10	5	9	2	0	0
D.I. Khan	770	0	90	13	6	14	0	41	88	0
Dir Lower	626	6	160	125	0	107	22	16	16	4
Dir Upper	212	92	2	22	5	1	33	24	8	6
Hangu	154	309	265	26	14	11	8	5	1	12
Haripur	689	469	7	77	2	68	44	42	6	0
Karak	230	68	58	23	0	0	8	7	74	59
Khyber	181	20	9	73	93	30	3	8	8	11
Kohat	38	64	42	0	8	5	1	0	0	0
Kohistan Lower	78	0	0	4	123	5	0	0	4	0
Kohistan Upper	344	18	0	2	134	13	18	16	4	0
Kolai Palas	52	4	0	1	3	0	0	0	0	0
L & C Kurram	1	30	0	0	0	0	0	0	0	0
Lakki Marwat	272	20	96	40	0	7	9	14	9	3
Malakand	345	122	11	26	21	43	11	5	13	22
Mansehra	492	421	0	38	35	6	10	16	0	0
Mardan	664	42	5	548	1	31	0	12	2	0
Mohmand	94	52	107	10	25	17	15	1	9	105
Nowshera	926	150	60	18	20	15	6	5	37	7
Orakzai	6	16	3	0	0	0	1	0	0	0
Peshawar	1,951	770	13	100	94	94	56	31	44	33
SD DI Khan	0	0	0	0	0	0	0	0	1	0
SD Peshawar	0	0	0	0	0	0	0	0	0	0
SD Tank	0	0	4	0	0	0	1	0	0	0
Shangla	223	0	204	17	0	0	10	50	8	2
SWA	48	301	34	78	58	7	8	1	3	14
Swabi	740	1,220	17	235	127	6	11	81	19	0
Swat	1,320	120	8	45	2	34	0	26	2	0
Tank	422	168	70	9	0	0	39	3	26	10
Tor Ghar	66	0	22	1	10	18	0	1	2	2
Upper Kurram	89	320	0	23	415	22	4	3	7	0
Total	14,153	5,878	3,033	2,046	1,421	640	482	462	424	314

Figure 4: Most frequently reported suspected cases during week 11, KP



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 ALRI <5 years, AD (Non-Cholera), SARI, dog bite, B. Diarrhea, TB, AWD (S. Cholera), AVH (A & E) and Typhoid cases. Cases of ILI, ALRI <5 years, AD (Non-Cholera) and dog bite showed an increasing trend while cases of SARI and B. Diarrhea showed a decreasing trend this week.

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

ICT, AJK & GB

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

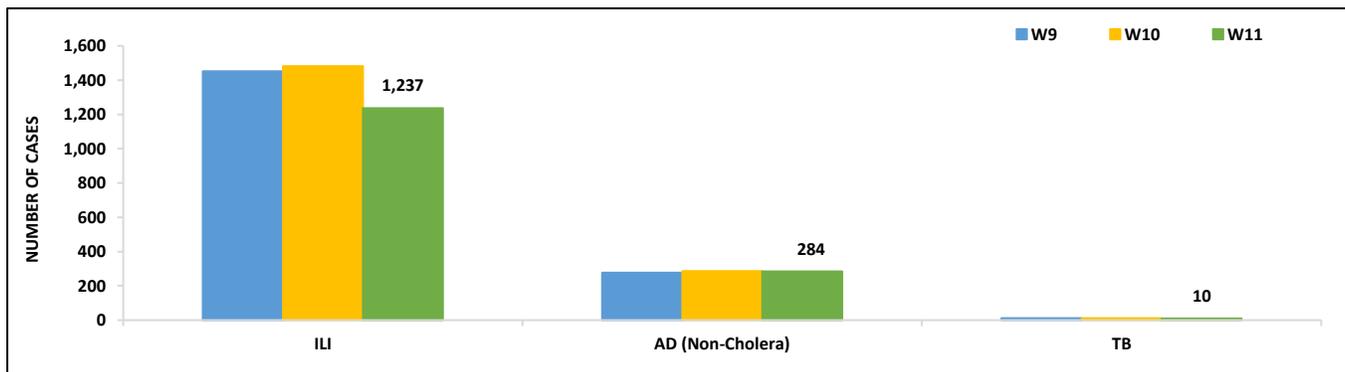


Figure 6: Week wise reported suspected cases of ILI, ICT

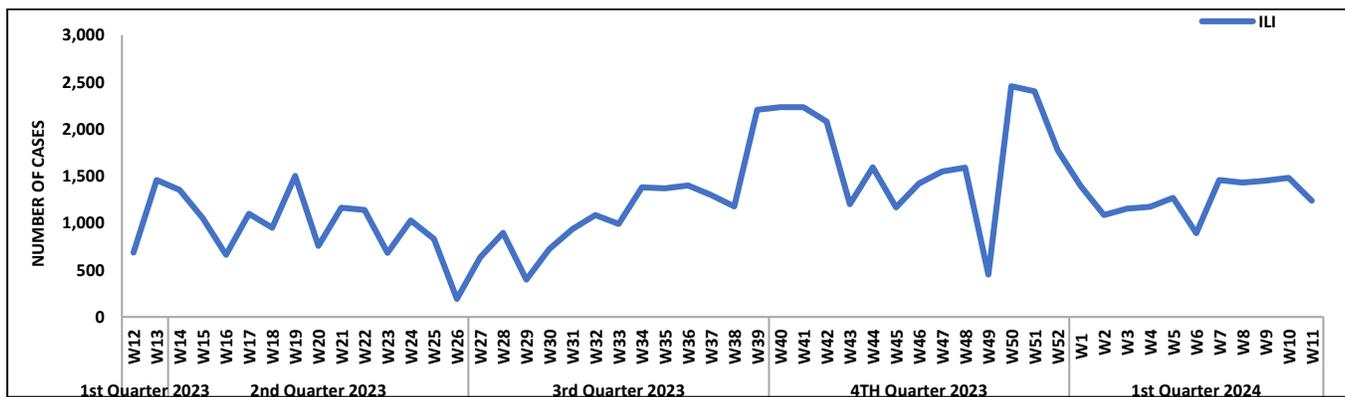


Figure 7: Most frequently reported suspected cases during week 11, AJK

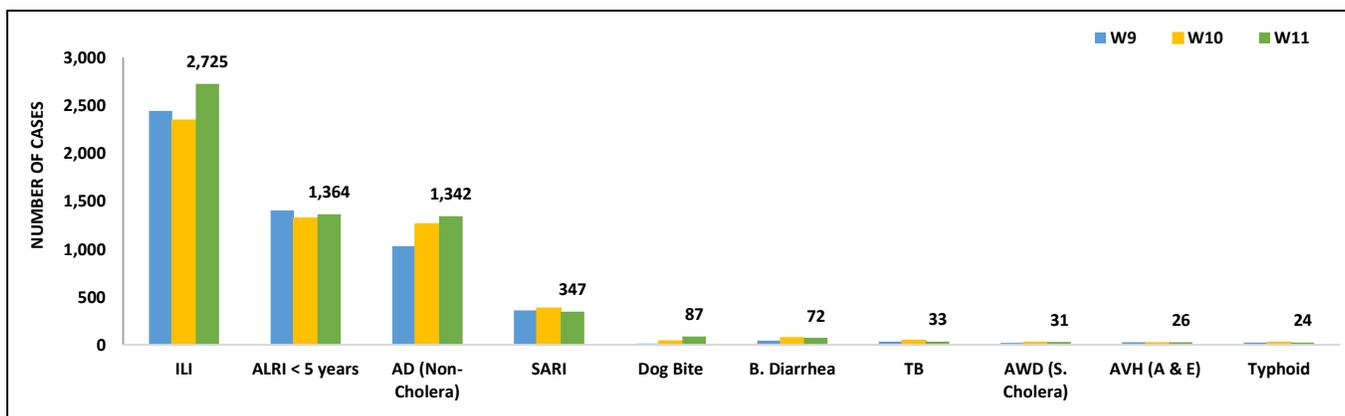


Figure 8: Week wise reported suspected cases of ILI and ALRI<5 years AJK

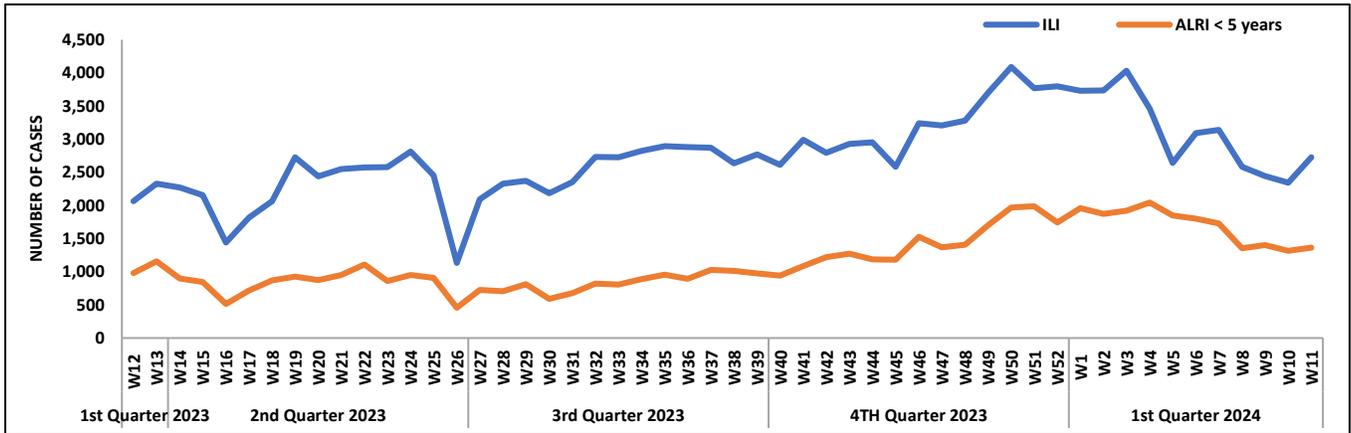


Figure 9: Most frequent cases reported during Week 11, GB

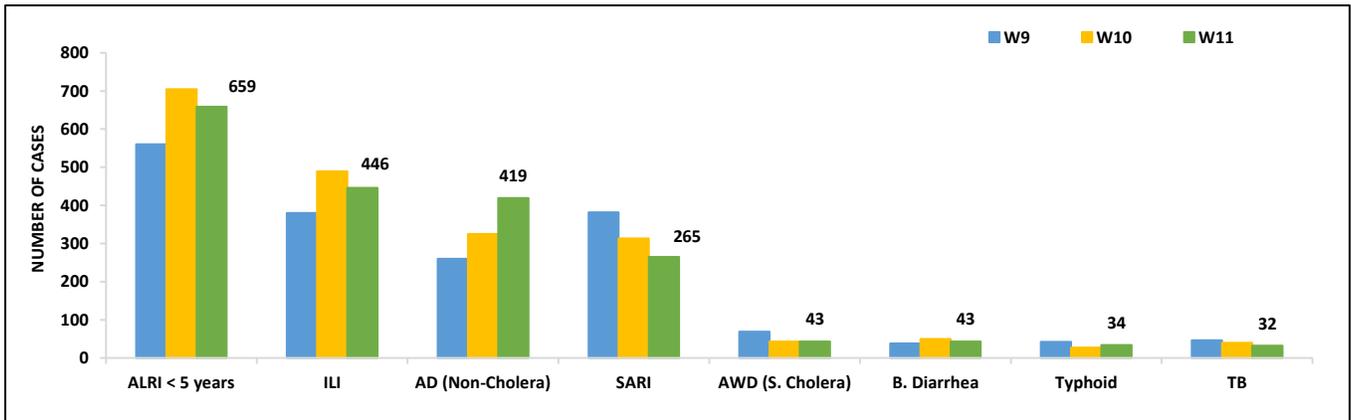
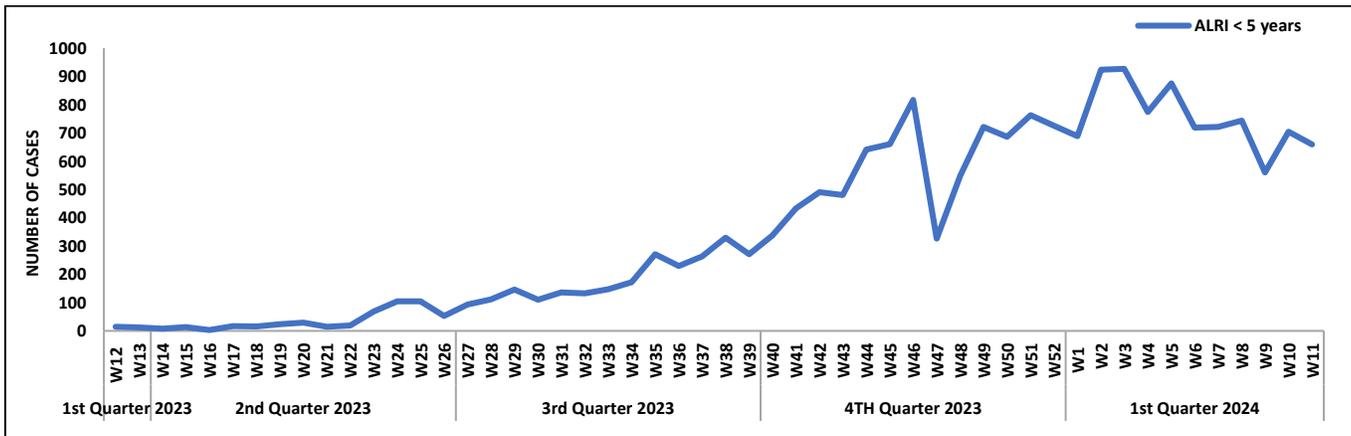


Figure 10: Week wise reported suspected cases of ALRI, GB



- Cases of AD (Non-Cholera) were maximum followed by Malaria, Typhoid, B. Diarrhea, ILI and Chickempox. 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 11, Punjab

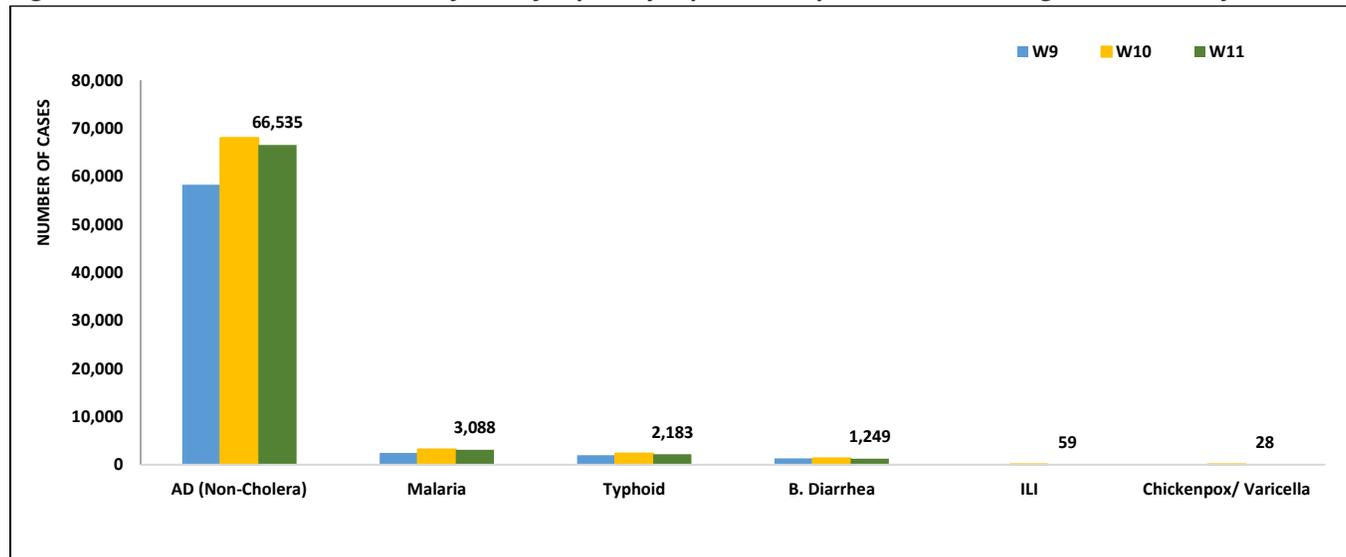


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 11

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)	92	0	-	-	-	-	0	0	-	-
AD (Non-Cholera)	92	0	-	-	-	-	0	0	-	-
Malaria	2,762	97	-	-	-	-	0	0	1	0
CCHF	0	0	0	0	-	-	0	0	-	-
Dengue	300	5	-	-	-	-	3	0	0	0
VH (B)	2,875	103	0	0	-	-	0	0	104	1
VH (C)	3,327	327	0	0	-	-	0	0	104	0
VH (A&E)	13	0	-	-	-	-	-	-	-	-
Covid-19	0	0	-	-	7	2	78	9	-	-
HIV	106	0	-	-	-	-	0	0	-	-
Diphtheria	0	0	-	-	-	-	0	0	-	-
Influenza A	0	0	-	-	9	1	230	3	-	-
TB	201	13	-	-	-	-	-	-	-	-
Syphilis	166	0	-	-	-	-	0	0	-	-
Pertussis	0	0	-	-	-	-	0	0	-	-
Typhoid	430	9	-	-	-	-	8	0	-	-
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 11, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	110	105	95%
	Bannu	234	124	53%
	Battagram	63	21	33%
	Buner	34	30	88%
	Bajaur	44	33	75%
	Charsadda	59	54	92%
	Chitral Upper	34	24	71%
	Chitral Lower	35	35	100%
	D.I. Khan	94	93	99%
	Dir Lower	74	74	100%
	Dir Upper	52	43	83%
	Hangu	22	20	91%
	Haripur	71	64	90%
	Karak	35	35	100%
	Khyber	64	16	25%
	Kohat	61	61	100%
	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	17	40%
	Malakand	42	37	88%
	Mansehra	136	82	60%
	Mardan	80	76	95%
	Nowshera	55	54	98%
	North Waziristan	380	0	0%
	Peshawar	153	130	85%
	Shangla	65	16	25%
	Swabi	63	62	98%
	Swat	76	71	93%
	South Waziristan	134	51	38%
	Tank	34	34	100%
	Torghar	14	13	93%
Mohmand	86	36	42%	
SD DI Khan	19	1	5%	
SD Peshawar	5	2	40%	
SD Tank	58	3	5%	
Orakzai	68	14	21%	
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%



Azad Jammu Kashmir	Haveli	39	39	97%
	Bagh	40	40	95%
	Neelum	39	39	100%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	14	8	57%
Balochistan	Gwadar	25	25	100%
	Kech	40	33	83%
	Khuzdar	20	20	100%
	Killa Abdullah	20	0	0%
	Lasbella	55	55	100%
	Pishin	62	10	16%
	Quetta	43	15	35%
	Sibi	36	32	89%
	Zhob	39	32	82%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	5	33%
	Kohlu	75	69	92%
	Chagi	35	26	74%
	Kalat	41	40	98%
	Harnai	17	0	0%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	26	26	100%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	45	100%
	Loralai	33	30	91%
	Killa Saifullah	28	26	93%
	Ziarat	29	0	0%
	Duki	31	13	42%
	Nushki	32	30	94%
	Dera Bugti	45	9	20%
	Washuk	46	14	30%
	Panjgur	38	21	55%
	Awaran	23	7	30%
	Chaman	24	2	8%
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%
	Diامر	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	82%
	Ghotki	64	64	100%
	Umerkot	43	41	95%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	263	93%
	Shikarpur	60	60	100%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	18	78%
	Karachi-West	20	20	100%
	Karachi-Malir	37	19	51%
	Karachi-Kemari	18	8	44%
	Karachi-Central	11	9	82%
	Karachi-Korangi	18	11	61%
	Karachi-South	4	4	100%
	Sujawal	54	54	100%
	Mirpur Khas	106	105	99%
	Badin	123	119	97%
	Sukkur	64	64	100%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	168	163	97%
	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	124	100%



Public Health Bulletin Pakistan

The Public Health Bulletin Pakistan (PHBP) seeks valuable contributions from Pakistan's dedicated field epidemiologists. Your expertise in disease investigation, outbreak response, and program evaluation is crucial for informing public health policy. Sharing your experiences and insights through case studies, short reports, perspectives, or opinion pieces will:

- **Broaden the Impact:** Reach fellow professionals, policymakers, and the public, fostering collaboration and shaping national public health practices.
- **Enhance Public Understanding:** Translate complex information into accessible language, raise awareness, and dispel myths about public health issues.
- **Inspire the Next Generation:** Showcase your passion and dedication, potentially inspiring future generations to join the fight for a healthier Pakistan.
- **Refine Writing Skills:** Hone your communication and advocacy abilities by contributing to a respected publication.

The PHBP welcomes diverse perspectives on current challenges and potential solutions.

Visit the PHBP website (<https://www.nih.org.pk/>)

or

email phb@nih.org.pk for submission information.

Together, let's build a healthier future through informed public health discourse.

Poliovirus Alert: Pakistan Launches Vaccination Campaign After New Cases Detected.

A cause for concern has emerged in Pakistan's fight against polio. Health officials confirmed two new cases of wild poliovirus type 1 (WPV1) in Balochistan province, raising the alarm for a renewed public health push.

The infected children, from Dera Bugti and Chaman districts, experienced paralysis in late February, highlighting the potential for local transmission. These concerns are amplified by the fact that the isolated virus strain belongs to the YB3A cluster, previously detected in environmental samples from Quetta and Chaman in 2023. This suggests the virus may have been circulating undetected for some time.

In a commendable response, Pakistani health authorities have initiated a four-day polio vaccination campaign. Launched on March 25th, 2024, the campaign prioritizes children under five

years old residing in high-risk districts across Balochistan, Sindh, and Punjab provinces. This critical initiative aims to bolster childhood immunity and effectively interrupt the virus's transmission chain.

"While the current low transmission season offers a strategic advantage," says a senior health official, "we cannot afford to be complacent. We are intensifying surveillance efforts, particularly in areas previously affected by the YB3C cluster but haven't reported new cases since September 2023."

While significant progress has been made towards polio eradication in recent years, these new cases serve as a stark reminder that the fight is far from over. Pakistan's dedicated polio program is working tirelessly to strengthen routine immunizations, improve disease surveillance, and address vaccine hesitancy in specific communities.

Public health officials urge all parents and caregivers in the affected districts to ensure their children under five are fully vaccinated during this critical campaign. Vaccination remains the most



effective weapon in our arsenal to protect our children from this devastating disease.

A note from Field Activities.

Report on Suspected Measles Outbreak in Retalara UC, Wyaro Tehsil Uthal March 2024

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

Introduction

This report details the investigation of a suspected measles outbreak in Retalara UC, Wyaro Tehsil Uthal, from March 16 to 19, 2024. The investigation was initiated following reports of suspected measles cases to the District Disease Surveillance and Response Unit (DDSRU) Lasbella from DHQ Hospital Uthal.

Methods

The investigation employed a multi-pronged approach to define the scope of the outbreak and implement control measures. A standardized case definition was established, identifying any resident of Retalara UC with fever and one of four specified symptoms (maculopapular rash, cough, coryza, or conjunctivitis) as a suspected measles case. An investigative team deployed to DHQ Hospital Uthal reviewed medical records to identify confirmed cases. Additionally, a house-to-house search was conducted within the affected area to locate any potential secondary cases. Finally, the investigation included a community education component, where residents were informed about the importance of routine immunization and proper hygiene practices to prevent the spread of infectious diseases.

Results

The investigation revealed a concerning measles outbreak localized within a single family. Four active cases were identified, comprising three males, one female child, and tragically, one death associated with the outbreak. All confirmed cases shared similar symptoms, presenting with fever and a telltale maculopapular rash, a hallmark sign of measles. Notably, none of the infected individuals were vaccinated against measles, highlighting the

importance of routine immunization in preventing outbreaks. The deceased case suffered complications associated with measles, with pneumonia suspected as the contributing factor.

The house-to-house search yielded no further active cases, suggesting potential containment of the outbreak within this family unit. To prevent similar situations in the future, community awareness sessions were conducted, emphasizing the critical role of routine immunization in safeguarding children from preventable diseases like measles.

Discussion

The findings suggest a localized outbreak of suspected measles in Retalara UC. Low awareness regarding routine immunization, poor hygiene practices, and overcrowding likely contributed to the outbreak's spread.

Recommendations

- Conduct targeted community awareness campaigns emphasizing the importance of routine immunization for measles prevention.
- Promote proper hygiene practices within the community to prevent the spread of infectious diseases.
- Educate community members on identifying symptoms of measles and the importance of isolating suspected cases.
- Ensure adequate vaccine availability at healthcare facilities within the affected area.

Conclusion

A prompt investigation identified a suspected measles outbreak in Retalara UC. Implementing the recommended interventions can prevent further spread and control the outbreak. Continued surveillance is necessary to monitor the situation.



A note from Field Activities.

Case Report: Extensively-drug resistant (XDR) Typhoid Fever - Rawalpindi, Pakistan

Dr. Ehsan Ghani
Fellow FELTP
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Introduction

This report details a case of extensively-drug resistant (XDR) typhoid fever identified in a 4-year-old female resident of Rawalpindi, Punjab, Pakistan. The case was reported on November 27th, 2023, with an illness onset date of November 22nd, 2023.

Methods

A standardized case investigation form was used to collect epidemiological data, including demographic information, clinical presentation, travel history, contact history, and antibiotic use. Laboratory results, including blood culture and antimicrobial susceptibility testing, were obtained from the medical records.

Results

A 4-year-old girl in Rawalpindi, Pakistan, developed a fever and abdominal pain on November 22nd, 2023, classic symptoms of typhoid fever. Notably, the child had no recent travel to endemic areas or known contact with confirmed cases, suggesting a possible local source of infection. Additionally, her medical history revealed no prior antibiotic use, eliminating that as a potential factor in the development of a concerning complication: extensively-drug resistant (XDR) typhoid fever. A blood culture, collected on November 27th, 2023, confirmed the presence of *Salmonella* Typhi, the bacterium responsible for typhoid fever. However, a concerning finding emerged during antimicrobial susceptibility testing. The isolated bacteria exhibited resistance to most commonly used antibiotics for treating typhoid fever. Notably, only Azithromycin and Meropenem demonstrated susceptibility. This pattern of resistance signifies a case of XDR typhoid fever.

Based on the positive blood culture and XDR antibiogram, the case was classified as a laboratory-confirmed XDR typhoid fever.

Public Health Response

A team of Public health officials responded to the XDR typhoid case with a multi-pronged approach. Vaccination status for both routine immunizations (RI) and typhoid conjugate vaccine (TCV) was confirmed, revealing the child was unvaccinated. The source of drinking water was investigated, with samples sent for analysis. Health seeking behavior was identified as poor, highlighting a need for community education. Food sources were assessed in collaboration with the Punjab Food Authority. Due to suspected community transmission, identifying the index case proved difficult. Sewage disposal infrastructure was found to be inadequate, requiring improvement. Active case searching was not documented. Antibiotic resistance (AMR) protocols were not being followed, necessitating corrective measures. No active search for typhoid perforation (a serious complication) was conducted. Lab testing protocols for typhoid were confirmed to be up-to-date. Healthcare providers were oriented on proper surveillance protocols. Clinical management for the case was addressed, and vaccination of children due or who had missed TCV is underway. Additionally, health education initiatives were implemented within the community. Finally, the case file and line list were updated to ensure accurate tracking.

Discussion

This case highlights the emergence of XDR typhoid fever, a serious public health threat. The lack of information regarding the public health response hinders a comprehensive understanding of the control measures implemented.

Recommendations

- Conduct a thorough epidemiological investigation to identify potential sources of infection and contacts.
- Implement appropriate antibiotic stewardship measures.
- Consider targeted vaccination campaigns in high-risk communities.
- Strengthen surveillance for XDR typhoid fever.



Knowledge Hub

World Tuberculosis Day: A Cause for Hope in Pakistan

The Devastating Impact of TB in Pakistan

Tuberculosis (TB) casts a long shadow over Pakistan, a country ranked fifth globally for TB burden. This infectious disease, primarily affecting the lungs, claims countless lives each year. World Tuberculosis Day, observed annually on March 24th, serves as a stark reminder of the ongoing fight against TB in Pakistan and worldwide.

Understanding TB: A Bacterial Threat

Mycobacterium tuberculosis, a bacteria, is the culprit behind TB. The disease spreads through the air when infected individuals cough, sneeze, or spit. Fortunately, TB is both preventable and treatable with antibiotics. However, a concerning estimated statistic reveals that approximately a quarter of the global population harbors TB bacteria, with 5–10% of those individuals eventually developing symptoms and progressing to TB disease. While those with latent TB are not contagious, those with active TB can pose a significant health risk.

A Day of Hope: Ending TB in Pakistan

This year's World TB Day theme, "Yes! We can end TB!", resonates deeply in Pakistan. The World Health Organization (WHO) emphasizes the need for increased investment, leadership, and quicker adoption of new WHO recommendations to combat the TB epidemic. Following global pledges to accelerate TB eradication efforts in 2023, the WHO urges concrete action in 2024.

A Historical Perspective: From Discovery to Awareness

The history of TB stretches back millennia, with the bacterium responsible, Mycobacterium tuberculosis, existing for millions of years. The term "tuberculosis" itself was coined in 1834, though the disease held various names throughout history, from "phthisis" (Greeks) to "the white plague" (1700s-1800s). However, a pivotal discovery in 1882 by Dr. Robert Koch, identifying the causative bacteria, paved

the way for World TB Day's establishment on March 24th nearly a century later. This day serves as a global platform to raise awareness about TB's devastating impact and the importance of prevention.

The Significance of World TB Day in Pakistan

World TB Day holds immense importance in Pakistan. By raising public awareness about TB's health, social, and economic consequences, it galvanizes efforts to eradicate the disease. Through education and advocacy, this day mobilizes resources and support for essential TB prevention, diagnosis, and treatment programs.

Understanding TB: Causes, Symptoms, and Diagnosis

Mycobacterium tuberculosis causes TB, primarily affecting the lungs but potentially impacting other organs like kidneys, spine, and brain. Not everyone infected develops active TB disease. Latent TB infection (LTBI) describes the presence of bacteria without symptoms or contagiousness. Factors like weakened immunity, diabetes, malnutrition, and smoking increase the risk of progressing from LTBI to active TB disease.

Individuals with active TB may experience a persistent cough (sometimes bloody), chest pain, fatigue, weight loss, fever, and night sweats. Symptoms can vary depending on the affected organ. Early diagnosis is crucial for effective treatment. The WHO recommends rapid molecular tests as initial diagnostic tools for suspected TB cases. These tests offer high accuracy and facilitate early detection of TB and drug-resistant strains.

The Path Forward: A TB-Free Pakistan

World TB Day serves as a springboard for collective action against TB in Pakistan. By raising awareness, advocating for action, and mobilizing resources, the goal of ending TB becomes more achievable. Through concerted efforts at all levels, Pakistan can build a TB-free future for generations to come.





March 24

Beware of these symptoms!

Fatigue, weight loss, lack of appetite, fever, night sweats, coughing, chest pain, and the coughing up of blood.

WORLD TB DAY 2024
UNITED FOR A **TB-FREE PAKISTAN!**



TB control measures

Implementing a respiratory protection program
Training health care personnel on respiratory protection
Educating patients on respiratory hygiene and the importance of cough etiquette procedures

