

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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11th Jun 2024

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 22, 2024

Overview

The Public Health Bulletin has revolutionized public health information access in Pakistan. No longer a mere list of illnesses, it has become a comprehensive resource empowering both healthcare professionals and citizens alike.

IDSR Reports

Moving beyond basic reporting, the Bulletin delves into detailed analysis of prevalent diseases. This includes malaria, influenza-like illness (ILI), tuberculosis (TB), acute lower respiratory infections in children under five (ALRI <5), B. diarrhea, dog bites, viral hepatitis (B, C, and D), typhoid fever, and acute watery diarrhea (AWD) including suspected cholera. Stakeholders can leverage this valuable data to tailor preventive measures and address emerging threats proactively.

Ongoing Events

The Bulletin also functions as an early warning system, identifying trends in disease prevalence. This allows for swift public health interventions to prevent the spread of diseases like acute flaccid paralysis and brucellosis.

Field Reports

For those seeking in-depth information, the Bulletin offers a wealth of resources. This week's edition features a report on the recent CCHF outbreak investigation in Attock, NID Polio Drive and Hepatitis updates from Rawalpindi. Additionally, the Bulletin provides advisories for public health threats like Typhoid Fever. The Knowledge Hub section delves deeper into the Preventing and Controlling Mosquito-Borne Diseases

By staying informed through the Public Health Bulletin and utilizing its insights, everyone can contribute to a healthier Pakistan.

Sincerely,
The Chief Editor



- During week 22, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, TB, ALRI <5 years, B. Diarrhea, dog bite, VH (B, C & D), Typhoid and AWD (S. Cholera).
- Twenty-three cases of AFP reported from KP, nine from Sindh, five from Punjab and three from AJK. All are suspected cases and need field verification.
- Fifteen suspected cases of HIV/ AIDS reported from Sindh, nine from Balochistan and one each from KP, GB and Punjab. Field investigation required to verify the cases.
- Eight cases of Brucellosis reported from KP and five from Balochistan. These are suspected cases and require field verification.
- Thirty-three suspected cases of CCHF reported from Sindh. Field investigation required to verify the cases.
- There is a sudden sharp increase in AD (Non-cholera) cases, an increasing trend for TB, ALRI <5 years, B. Diarrhea, dog bite, Typhoid and AWD (S. Cholera) cases while a decreasing trend for Malaria, ILI and VH (B, C & D) cases this week

IDSR compliance attributes

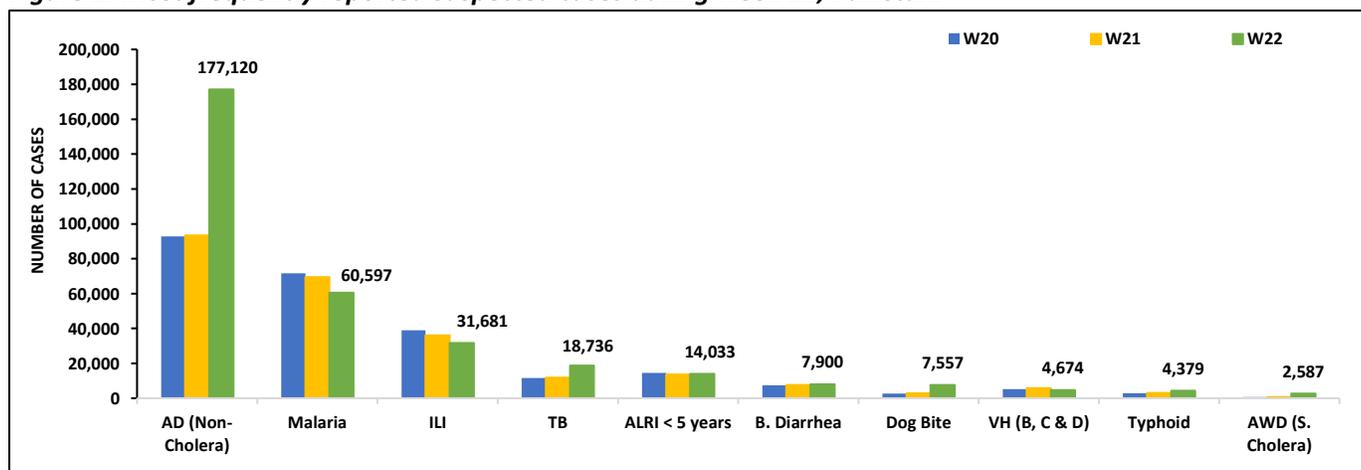
- The national compliance rate for IDSR reporting in 149 implemented districts is 77%
- Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 99% and 97%, followed by Sindh 91% and Balochistan 79%
- The lowest compliance rate was observed in ICT.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2740	1636	60
Azad Jammu Kashmir	382	370	97
Islamabad Capital Territory	35	12	34
Balochistan	1206	947	79
Gilgit Baltistan	374	370	99
Sindh	2085	1890	91
National	6822	5225	77

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 22, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	2241	7,959	1024	93	28,143	93,988	43,672	177,120
Malaria	3	5,776	0	2	4,891	2,464	47,461	60,597
ILI	1923	6,478	392	189	3,850	8	18,841	31,681
TB	41	114	70	0	505	7,846	10,160	18,736
ALRI < 5 years	976	1626	525	0	1,585	643	8,678	14,033
B.Diarrhea	78	1948	83	4	1,310	1,333	3,144	7,900
Dog Bite	76	276	3	0	628	4,631	1,943	7,557
VH (B, C & D)	7	133	4	0	110	0	4,420	4,674
Typhoid	27	758	45	2	730	1,610	1,207	4,379
AWD (S. Cholera)	28	466	61	2	94	1,934	2	2,587
SARI	196	794	179	1	1,143	0	130	2,443
Measles	15	56	23	1	490	517	208	1,310
Dengue	0	216	0	0	17	587	86	906
AVH (A&E)	25	15	1	0	296	0	478	815
CL	0	171	0	0	365	0	0	536
Mumps	4	51	3	1	47	2	232	340
Chickenpox/ Varicella	2	50	3	1	54	37	59	206
Pertussis	0	131	3	0	30	0	0	164
Chikungunya	0	0	0	0	0	0	130	130
Gonorrhoea	0	97	0	0	10	0	16	123
AFP	3	0	0	0	23	5	9	40
Meningitis	2	6	1	0	5	9	15	38
CCHF	0	0	0	0	0	0	33	33
HIV/AIDS	0	9	1	0	1	1	15	27
Syphilis	0	5	0	0	0	0	18	23
VL	0	9	0	0	5	0	0	14
Diphtheria (Probable)	0	3	0	0	4	7	0	14
Brucellosis	0	5	0	0	8	0	0	13
Leprosy	0	0	0	0	11	0	0	11
NT	1	0	0	0	6	0	0	7
Rubella (CRS)	0	4	0	0	1	0	0	5

Figure 1: Most frequently reported suspected cases during week 22, Pakistan.

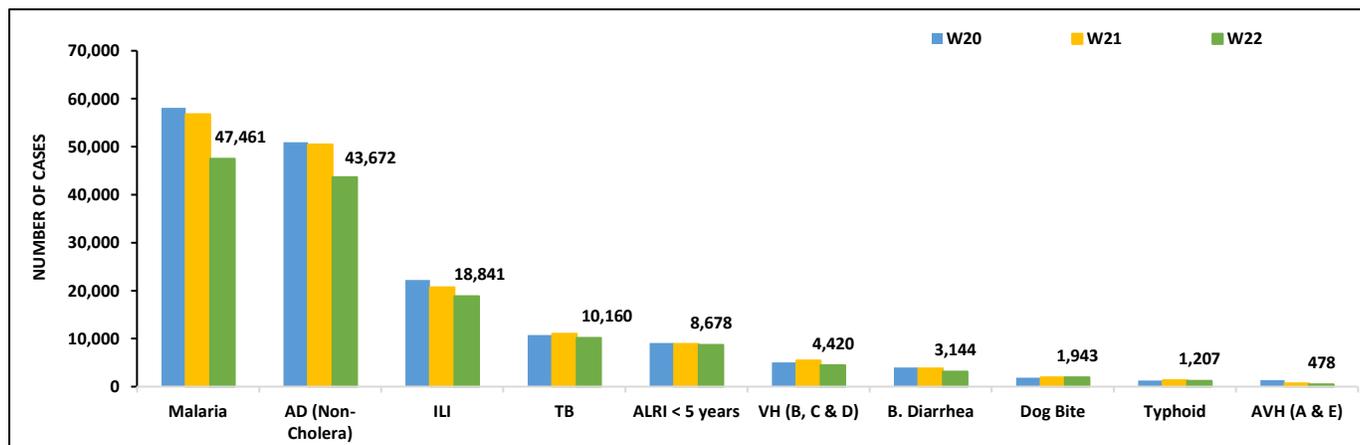


- Malaria cases were maximum followed by AD (Non-Cholera), ILI, TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and AVH (A & E).
- Malaria cases are mostly from Larkana, Khairpur and Dadu whereas AD (Non-Cholera) cases are from Dadu, Khairpur and Jamshoro.
- Thirty-three suspected cases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

Table 2: District wise distribution of most frequently reported suspected cases during week 22, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	3,433	2,925	224	698	590	180	193	46	84	8
Dadu	3,556	3,368	157	425	658	25	418	255	131	25
Ghotki	1,040	1,186	0	195	243	304	150	178	0	23
Hyderabad	221	1,520	1,350	63	53	27	24	0	11	0
Jacobabad	944	776	292	136	402	140	105	102	51	2
Jamshoro	1,692	2,942	24	378	147	241	77	8	29	4
Kamber	3,149	1,672	0	684	294	134	154	157	19	0
Karachi Central	51	1,171	965	435	73	233	13	0	64	5
Karachi East	56	403	107	5	1	0	14	4	12	0
Karachi Keamari	1	219	88	0	6	0	1	0	2	0
Karachi Korangi	19	256	59	1	2	0	0	0	3	0
Karachi Malir	270	1,670	2,203	96	193	62	39	49	35	9
Karachi South	44	87	2	0	0	0	0	0	0	0
Karachi West	156	944	1,667	140	119	118	56	115	26	23
Kashmore	1,169	582	633	256	131	43	46	149	6	2
Khairpur	4,695	2,975	4,250	857	937	106	549	141	437	5
Larkana	4,904	2,114	0	746	398	115	275	0	9	0
Matiali	1,276	1,726	2	505	289	305	75	31	12	4
Mirpurkhas	1,990	2,137	1,577	401	739	154	38	31	17	4
Naushero Feroze	979	616	815	294	119	82	87	144	45	0
Sanghar	3,312	1,464	4	960	388	881	22	165	29	1
Shaheed Benazirabad	1,471	1,848	0	428	321	290	61	151	98	1
Shikarpur	1,960	1,233	2	222	135	434	135	88	0	0
Sujawal	663	335	0	80	101	2	24	0	0	0
Sukkur	1,632	1,343	1,120	401	224	68	140	21	4	0
Tando Allahyar	1,563	1,278	361	447	214	151	121	38	8	6
Tando Muhammad Khan	1,363	1,150	0	510	142	25	40	0	0	0
Tharparkar	1,931	2,088	1,400	393	726	180	121	0	29	38
Thatta	2,131	2,069	1,539	42	505	69	105	70	34	318
Umerkot	1,790	1,575	0	362	528	51	61	0	12	0
Total	47,461	43,672	18,841	10,160	8,678	4,420	3,144	1,943	1,207	478

Figure 2: Most frequently reported suspected cases during week 22 Sindh



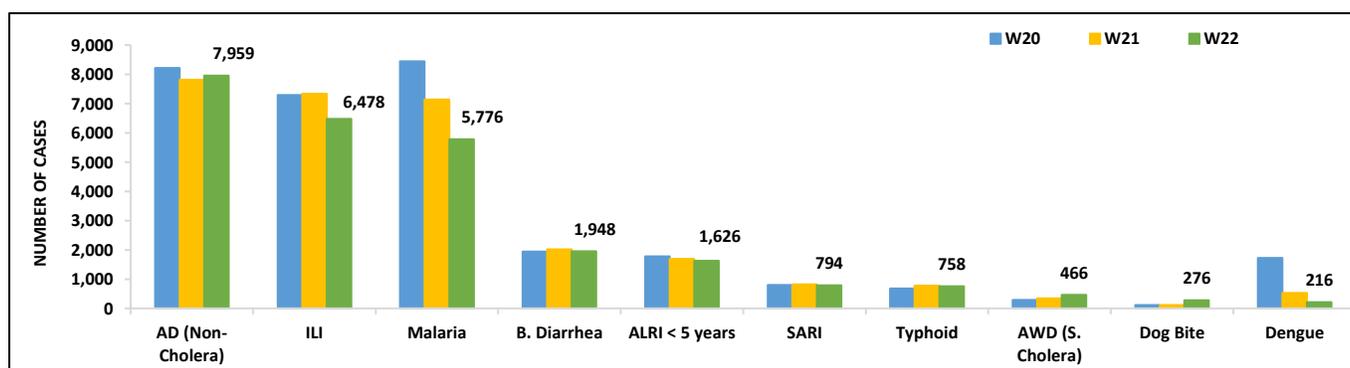
Balochistan

- AD (Non-Cholera), ILI, Malaria, B. Diarrhea, ALRI <5 years, SARI, Typhoid, AWD (S. Cholera), dog bite and Dengue cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Quetta and Kech Pishin while ILI cases are mostly reported from Quetta, Gwadar and Kech (Turbat).
- ILI, Malaria, B. Diarrhea, ALRI <5 years, SARI, Typhoid and Dengue cases showed a decreasing trend while AD (Non-Cholera), AWD (S. Cholera) and dog bite cases showed an increasing trend this week.
- Nine suspected case of HIV/ AIDS and Five suspected cases of Brucellosis reported from Balochistan. It requires field investigation for verification.

Table 3: District wise distribution of most frequently reported suspected cases during week 22, Balochistan

Districts	AD Non-Cholera)	ILI	Malaria	B. Diarrhea	ALRI < 5 years	SARI	Typhoid	AWD (S.Cholera)	Dog Bite	Dengue
Awaran	8	42	50	17	9	1	3	6	0	0
Barkhan	144	44	100	10	34	0	47	3	18	0
Chagai	177	238	58	61	1	3	20	9	2	0
Chaman	146	156	23	77	32	34	47	53	0	0
Dera Bugti	20	13	61	21	8	4	9	0	0	0
Duki	88	50	26	44	20	17	8	7	5	0
Gwadar	484	872	208	49	19	0	26	0	0	76
Harnai	91	16	68	41	122	0	1	13	2	0
Hub	348	51	196	31	10	0	9	0	14	4
Jaffarabad	432	79	841	60	32	9	4	0	25	0
Jhal Magsi	312	266	330	5	54	2	5	1	5	0
Kachhi (Bolan)	109	65	132	41	17	74	47	26	1	0
Kalat	59	7	24	14	11	0	26	0	0	0
Kech (Turbat)	498	700	732	127	62	45	1	NR	NR	136
Kharan	181	324	48	64	0	1	4	9	0	0
Khuzdar	100	120	106	32	6	3	8	0	0	0
Killa Abdullah	200	80	61	127	54	40	49	79	24	0
Killa Saifullah	237	4	202	133	147	22	43	2	1	0
Kohlu	250	277	165	109	18	60	39	6	2	0
Lasbella	359	51	336	23	86	5	6	0	12	NR
Loralai	238	302	61	52	44	95	17	0	8	0
Mastung	200	79	51	44	75	32	12	25	8	0
Naseerabad	246	11	304	21	25	2	55	0	128	0
Nushki	194	14	18	32	0	0	0	3	0	0
Panjgur	185	36	142	43	25	33	0	6	0	0
Pishin	557	431	51	212	50	24	50	123	5	0
Quetta	617	1,042	42	99	94	36	67	31	0	0
Sherani	30	70	19	14	13	31	14	7	0	0
Sibi	186	347	329	50	100	71	34	29	2	0
Sohbat pur	230	12	401	135	138	18	26	3	7	0
Surab	37	177	9	0	0	0	30	0	0	0
Usta Muhammad	722	90	426	68	75	23	14	0	6	0
Washuk	48	65	4	9	0	0	0	0	0	0
Zhob	119	169	73	37	233	71	16	0	0	0
Ziarat	107	178	79	46	12	38	21	25	1	0
Total	7,959	6,478	5,776	1,948	1,626	794	758	466	276	216

Figure 3: Most frequently reported suspected cases during week 22, Balochistan

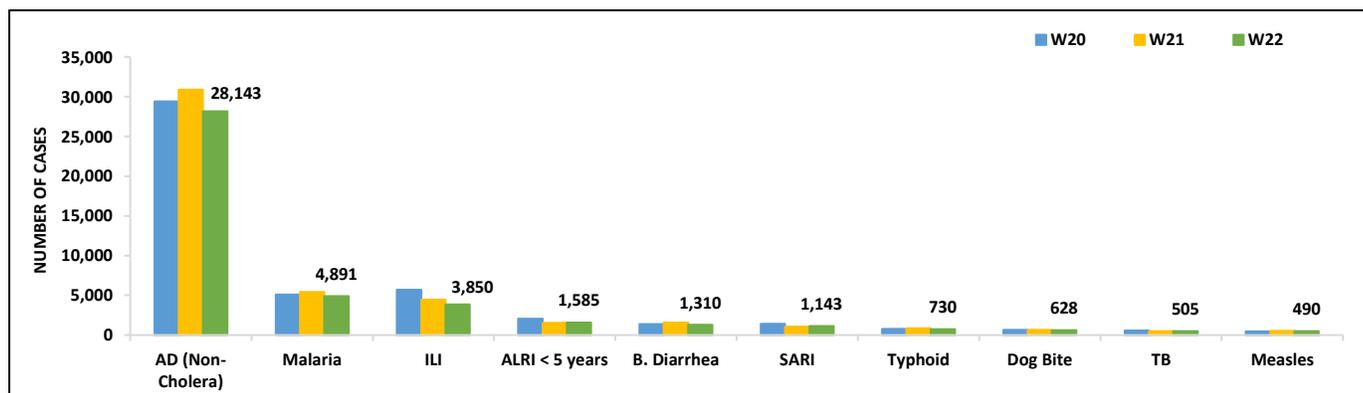


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, ALRI<5 Years, B. Diarrhea, SARI, Typhoid, dog bite, TB and Measles cases.
- AD (Non-Cholera), Malaria, ILI, B. Diarrhea, Typhoid and Measles cases showed a decreasing trend while ALRI<5 Years, SARI and TB cases showed an increasing trend this week.
- Twenty-three cases of AFP, eight suspected cases of Brucellosis and one suspected case of HIV/ AIDS reported from KP. All are suspected cases and need field verification.

Table 4: District wise distribution of most frequently reported suspected cases during week 22, KP

Districts	AD (Non-Cholera)	Malaria	ILI	ALRI <5 Years	B.Diarrhea	SARI	Typhoid	Dog Bite	TB	Measles
Abbottabad	1,214	28	250	188	22	34	33	3	29	28
Bajaur	832	226	29	98	72	45	2	27	18	17
Bannu	774	1,413	5	7	35	0	90	1	34	14
Battagram	64	0	97	0	0	0	0	0	0	0
Buner	542	297	0	0	1	0	15	19	1	2
Charsadda	1,407	274	405	100	114	0	49	4	2	39
Chitral Lower	361	12	43	35	17	34	8	12	7	2
Chitral Upper	127	4	13	3	9	10	14	3	2	0
D.I. Khan	1,580	319	0	4	22	0	0	5	50	90
Dir Lower	1,126	196	2	128	98	0	94	8	11	12
Dir Upper	455	12	54	12	7	0	8	0	25	8
Hangu	20	37	5	0	0	0	0	0	0	0
Haripur	1,498	21	319	59	20	26	41	4	22	20
Karak	361	242	34	17	0	0	13	50	15	47
Khyber	337	145	38	22	90	30	40	42	12	4
Kohat	31	65	22	0	0	0	0	0	0	0
Kohistan Lower	195	9	0	2	7	0	0	0	0	0
Kohistan Upper	768	26	42	78	23	62	9	0	52	2
Kolai Palas	76	5	0	6	8	5	3	0	6	0
L & C Kurram	9	0	53	0	3	0	0	0	0	0
Lakki Marwat	685	190	12	1	22	0	8	30	9	5
Malakand	1,099	24	36	24	117	9	26	0	4	11
Mansehra	803	3	464	33	30	15	6	115	4	0
Mardan	868	18	0	343	15	0	0	0	6	1
Mohmand	249	171	77	5	32	41	11	4	1	2
NWA	20	2	0	28	9	10	0	0	0	8
Nowshera	2,184	67	21	0	28	5	7	9	8	27
Orakzai	59	33	10	0	5	5	5	5	1	6
Peshawar	4,181	53	526	89	246	136	88	2	23	51
SD Peshawar	11	2	0	0	0	0	0	0	0	0
SD Tank	4	38	0	0	1	0	1	0	0	0
Shangla	554	338	0	13	12	0	5	32	56	1
SWA	84	114	139	42	46	117	41	22	0	1
Swabi	1,955	89	629	175	39	81	26	132	56	56
Swat	2,918	42	158	60	102	12	27	90	30	10
Tank	459	235	102	0	1	0	42	0	16	23
Tor Ghar	81	109	0	3	15	16	13	4	3	0
Upper Kurram	152	32	265	10	42	450	5	5	2	3
Total	28,143	4,891	3,850	1,585	1,310	1,143	730	628	505	490

Figure 4: Most frequently reported suspected cases during week 22, KP



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

AJK: AD (Non-Cholera) cases were maximum followed by ILI, ALRI <5 years, SARI, B. Diarrhea, dog bite, TB, AWD (S. Cholera), Typhoid and AVH (A & E) cases. Cases of AD (Non-Cholera), ILI, ALRI <5 years, SARI, B. Diarrhea, dog bite, TB, AWD (S. Cholera) and Typhoid cases showed a decreasing trend this week. Three cases of AFP reported from AJK. These are suspected cases and need field verification.

GB: AD (Non-Cholera) cases were the most frequently reported diseases followed by ALRI <5 Years, ILI, SARI, B. Diarrhea, TB, AWD (S. Cholera) and Typhoid cases. Decreasing trend for AD (Non-Cholera), ALRI <5 Years, ILI, SARI, B. Diarrhea and AWD (S. Cholera) cases observed this week. One suspected case of HIV/AIDs reported from GB that needs field verification.

ICT, AJK & GB

Figure 5: Most frequently reported suspected cases during week 22, ICT

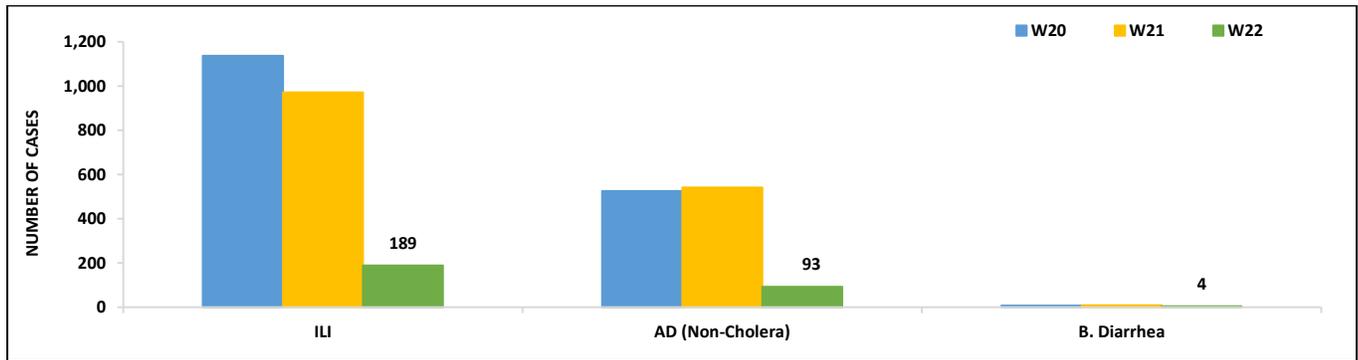


Figure 6: Week wise reported suspected cases of ILI, ICT

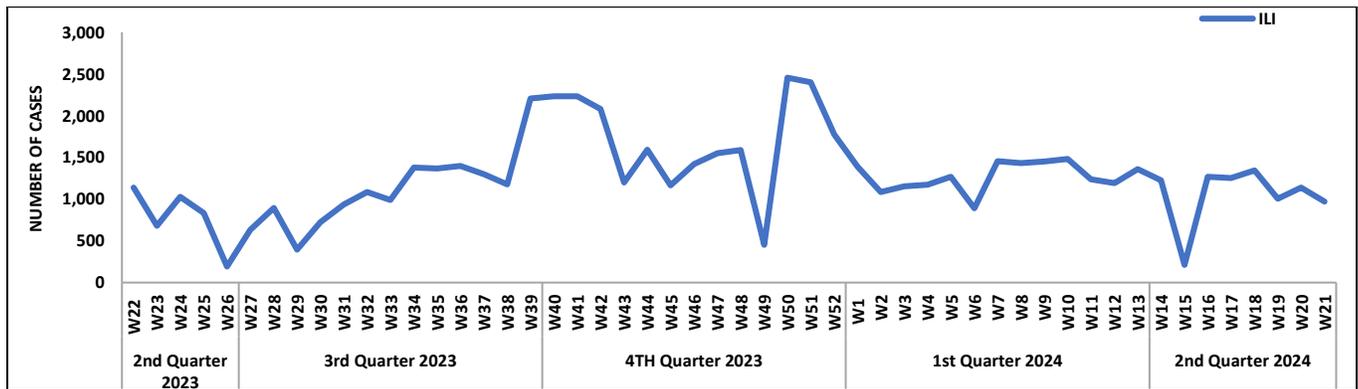


Figure 7: Most frequently reported suspected cases during week 22, AJK

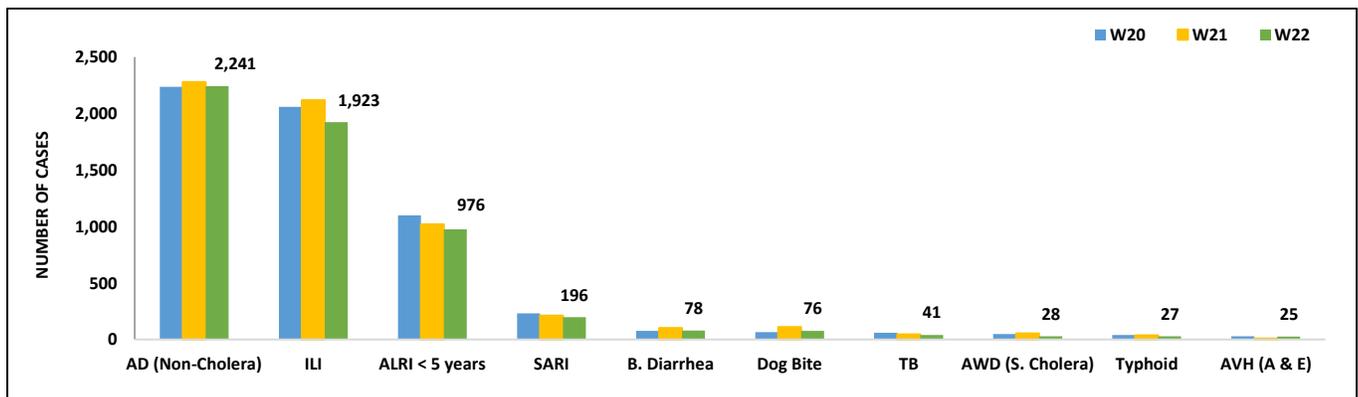


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

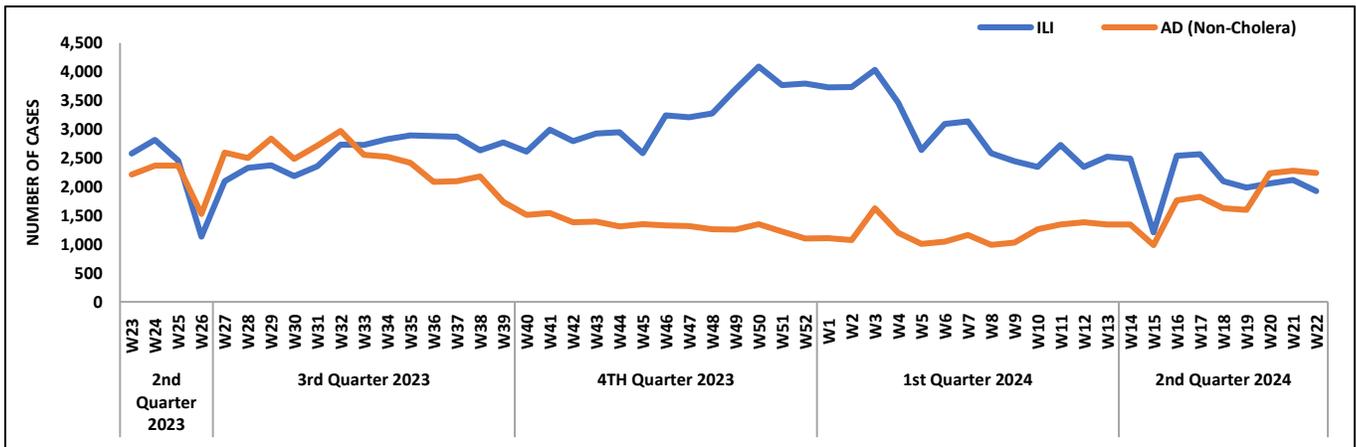


Figure 9: Most frequent cases reported during Week 22, GB

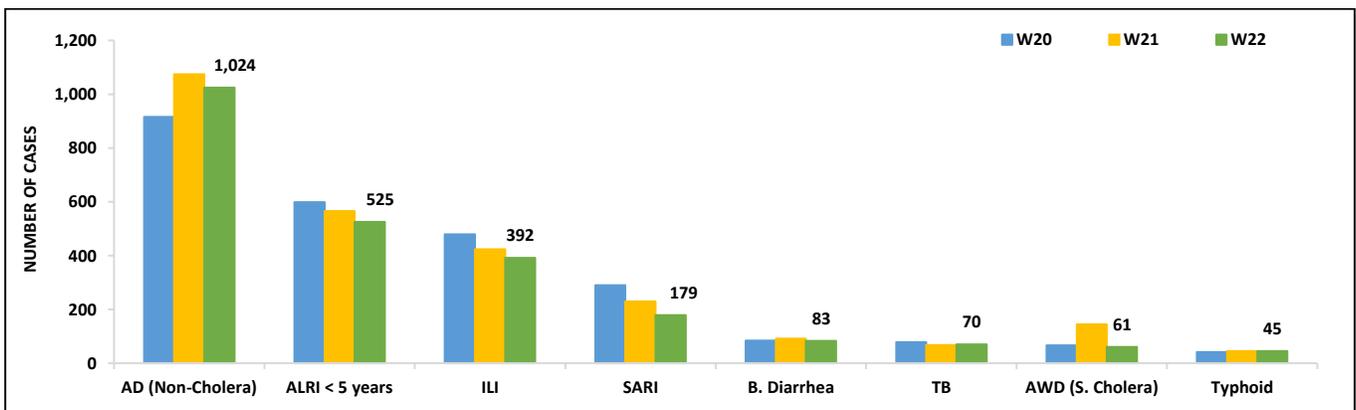
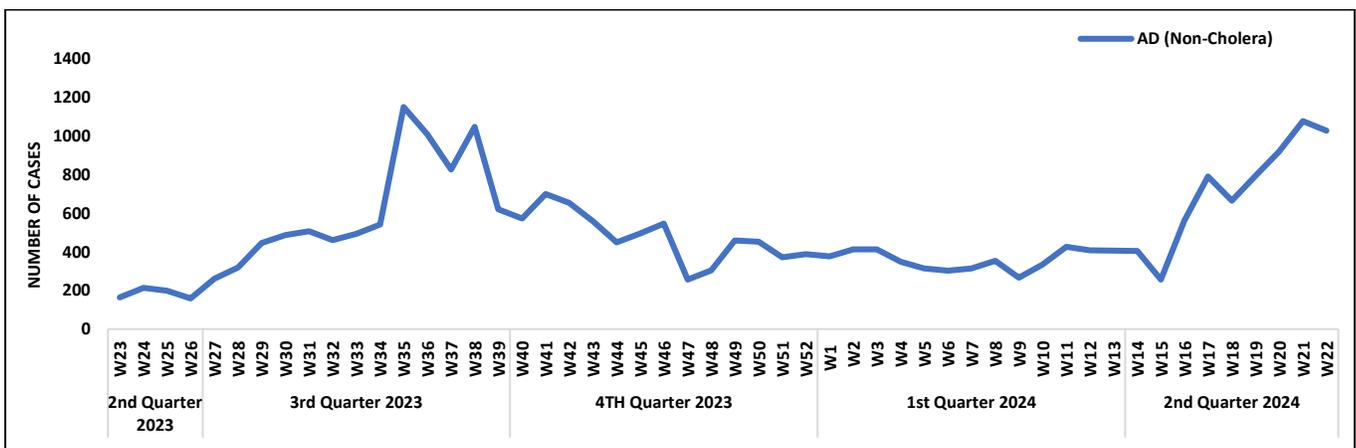


Figure 10: Week wise reported suspected cases of ALRI, GB



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

Figure 11: Most frequently reported suspected cases during week 22, Punjab.

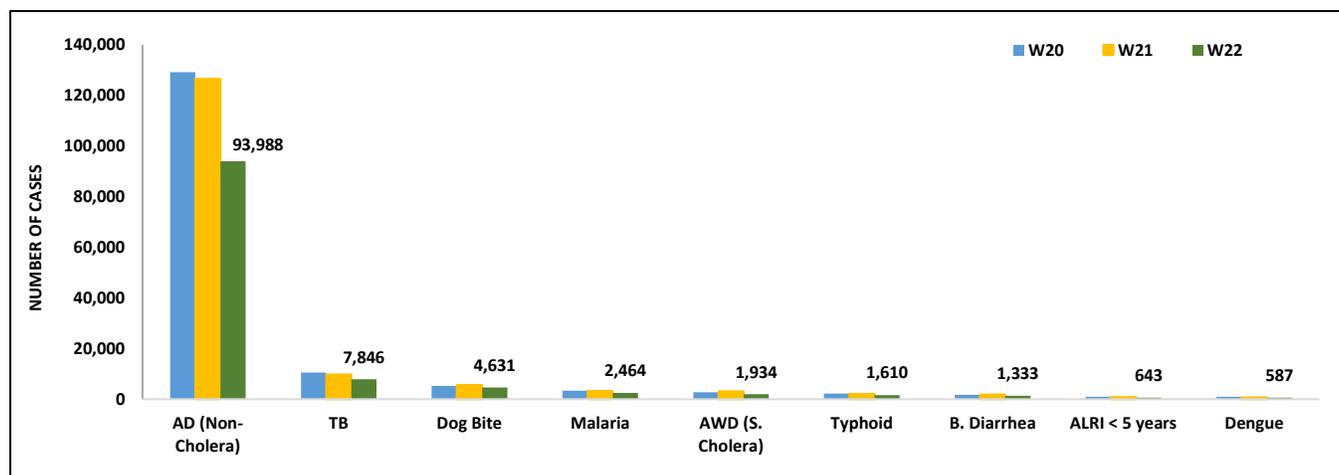


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 22

Diseases	Sindh		Balochistan		KPK		ISL		GB		Punjab	
	Total Test	Total Positive	Total Test	Total Positive	Total Test	Total Test	Total Test	Total Positive	Total Test	Total Positive	Total Test	Total Positive
AWD (S. Cholera)	0	0	-	-	2	0	0	0	-	-	-	-
AD (Non-Cholera)	67	0	-	-	-	-	-	-	-	-	-	-
Malaria	2,513	129	-	-	-	-	-	-	-	-	-	-
CCHF	0	0	10	4*	3	0	1	0	-	-	-	-
Dengue	862	54	-	-	-	-	7	0	-	-	-	-
VH (B)	2,809	58	180	126	-	-	-	-	190	14	-	-
VH (C)	3,004	282	163	55	-	-	-	-	155	0	-	-
VH (A&E)	12	0	-	-	4	2	-	-	-	-	-	-
Covid-19	-	-	40	0	1	0	17	0	350	0	-	-
HIV	64	0	-	-	-	-	-	-	-	-	-	-
Diphtheria	-	-	-	-	-	-	8	0	-	-	-	-
Influenza A	5	0	0	0	13	0	47	0	3	0	42	0
TB	186	10	-	-	-	-	-	-	-	-	-	-
Syphilis	52	0	-	-	-	-	-	-	-	-	-	-
Pertussis	-	-	-	-	-	-	2	0	-	-	-	-
Typhoid	517	15	-	-	-	-	2	0	-	-	-	-
Mumps	-	-	-	-	-	-	0	0	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-
Chikungunya	-	-	-	-	-	-	-	-	-	-	-	-
M-Pox	-	-	-	-	1	0	0	0	-	-	-	-

*Reported from PHL Quetta

IDSR Reports Compliance

- Out OF 158 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 22, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	103	93%
	Bannu	234	137	59%
	Battagram	63	14	22%
	Buner	34	28	82%
	Bajaur	44	24	55%
	Charsadda	59	52	88%
	Chitral Upper	34	27	79%
	Chitral Lower	35	34	97%
	D.I. Khan	114	109	96%
	Dir Lower	74	74	100%
	Dir Upper	53	27	51%
	Hangu	22	2	9%
	Haripur	72	64	89%
	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	2	5%
	Upper Kurram	42	24	57%
	Malakand	42	33	79%
	Mansehra	136	96	71%
	Mardan	80	74	93%
	Nowshera	55	52	95%
	North Waziristan	380	1	0%
	Peshawar	151	130	86%
	Shangla	65	12	18%
	Swabi	63	60	95%
	Swat	77	73	95%
	South Waziristan	134	55	41%
	Tank	34	32	94%
	Torghar	14	13	93%
	Mohmand	86	37	43%
SD Peshawar	5	2	40%	
SD Tank	58	4	7%	
Orakzai	68	18	26%	
FATA	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%
	Haveli	39	38	97%



Azad Jammu Kashmir	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Vellay	29	18	62%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	03	14%
	CDA	14	9	64%
Balochistan	Gwadar	25	25	100%
	Kech	40	34	85%
	Khuzdar	20	20	100%
	Killa Abdullah	24	19	79%
	Lasbella	55	55	100%
	Pishin	68	38	56%
	Quetta	43	32	74%
	Sibi	36	35	97%
	Zhob	39	25	64%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	14	93%
	Kohlu	75	59	79%
	Chagi	35	27	77%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	26	25	96%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	44	98%
	Loralai	33	25	76%
	Killa Saifullah	28	26	93%
	Ziarat	29	22	76%
	Duki	31	16	52%
	Nushki	32	29	91%
	Dera Bugti	45	10	22%
	Washuk	46	9	20%
	Panjgur	38	13	34%
	Awaran	23	7	30%
	Chaman	25	24	96%
	Barkhan	20	20	100%
Hub	33	33	100%	
Musakhel	41	0	0%	
Usta Muhammad	34	34	100%	
Gilgit Baltistan	Hunza	32	30	94%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	38	95%
	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	59	81%
	Ghotki	64	64	100%
	Umerkot	43	42	98%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	236	84%
	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	37	100%
	Karachi-Kemari	18	9	50%
	Karachi-Central	11	8	73%
	Karachi-Korangi	18	14	78%
	Karachi-South	4	4	100%
	Sujawal	54	26	48%
	Mirpur Khas	106	71	67%
	Badin	124	120	97%
	Sukkur	63	63	100%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	166	98%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	69	69	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	122	122	100%



Pakistan Battles Poliovirus Outbreak with Intensified Vaccination Efforts

Pakistan faces a renewed challenge in its fight against polio, with five cases confirmed so far in 2024 and the recent detection of the virus in additional environmental samples.

The National Institute of Health's Regional Reference Laboratory for Polio Eradication identified the presence of wild poliovirus type 1 (WPV1) in five environmental samples collected across the country in May. These detections, from previously unaffected districts, underscore the widespread circulation of the virus and the potential for further human cases. This brings the total number of infected districts in 2024 to 44, highlighting the urgent need for intensified control measures.

Tragically, a two-year-old child from Quetta, Balochistan, became the fifth confirmed case of polio this year. The child succumbed to the disease after developing paralysis in the legs and arms. Laboratory testing confirmed the presence of the imported YB3A strain of WPV1, further emphasizing the importance of maintaining robust national and regional vaccination efforts.

Recognizing the gravity of the situation, the Pakistan Polio Programme is implementing an aggressive vaccination schedule. The program has already conducted four campaigns this year and is currently underway with its fifth. This latest campaign aims to vaccinate over 17.1 million children under five across 37 high-risk districts and select areas in 32 others. The program strategically aligns these campaigns with the upcoming Eid holiday season to maximize coverage before increased travel.

Despite these efforts, challenges remain. The Pakistan Polio Programme emphasizes the critical role of parental cooperation in ensuring all children receive vaccinations at every opportunity. Eradicating polio requires a collaborative effort from health workers, government officials, and the public.

The recent polio cases and environmental detections serve as a stark reminder that Pakistan's fight against

this devastating disease is far from over. Intensified vaccination campaigns and unwavering commitment from all stakeholders are crucial to protect children and ultimately achieve polio eradication.

A note from Field Activities.

Outbreak Investigation of CCHF at District Attock, May, 2024

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

Introduction:

A recent cluster of Crimean-Congo Hemorrhagic Fever (CCHF) cases in District Attock, Pakistan, prompted a public health investigation. This report details the findings of the investigation conducted following the identification of a second CCHF case admitted to BBH Rawalpindi within a month. The report aims to understand the outbreak's scope and propose control measures.

Methods:

Following a descriptive study design, an epidemiological team visited Tehsil Hazroo and Kot Fateh Jang, areas reporting active cases. The team conducted targeted surveillance in Village Khor (near Kot Fateh Jang) and Malla Kallan Village (Hazroo).

Results:

- **Case 1 (Malla Kallan Village):** Reported in early May, the patient succumbed to the illness at BBH Rawalpindi. Contacts were traced, isolated, and monitored, with no secondary cases identified. Active surveillance in the village yielded no new cases.
- **Case 2 (Kot Fateh Jang):** Currently hospitalized at BBH Rawalpindi, this patient's contacts within the healthcare facility and at home were isolated and monitored. All remained asymptomatic during the investigation. Active case finding in the area



detected no new cases. Both cases reported contact with cattle at home.

Discussion:

Samples were sent to the National Institute of Health (NIH) for confirmation of CCHF. The likely source of infection for both cases is suspected to be contact with infected animals.

Recommendations:

- **Healthcare Worker Training:** Refresher training on early CCHF detection, disease reporting, and isolation procedures for medical staff to prevent nosocomial transmission.
- **Infection Prevention & Control (IPC):** Sensitization of healthcare workers on appropriate IPC measures for safe CCHF management.
- **Community Awareness:** Launch of community awareness campaigns through various media channels targeting farmers (both urban and rural), cattle market vendors, livestock farm workers, and slaughterhouse butchers. Educate them on the importance of Personal Protective Equipment (PPE) and potential CCHF risks.
- **Interdepartmental Collaboration:** Ensure effective monitoring of CCHF prevention and control measures through collaboration between district administration, district health authority, and the livestock department.

Letters to the Editor:

Successful National Immunization Day (NID) Campaign in Rawalpindi Demonstrates Commitment to Eradicating Polio.

Mr. Muhammad Nadeem
District Superintendent Vaccination
DHA, Rawalpindi

The National Immunization Day (NID) June 2024 Anti-Polio Campaign in Rawalpindi, Pakistan, serves as a beacon of hope in the fight against polio. With a remarkable 95% coverage rate, the campaign

successfully administered over 651,131 doses of the polio vaccine to children under five years old. This achievement is particularly significant given the recent detection of poliovirus in environmental samples within Rawalpindi, highlighting the critical role of sustained immunization efforts.

Factors Contributing to Success:

The campaign's impressive results can be attributed to a multifaceted approach:

- **Tireless Dedication of Vaccinators:** Over 3,000 dedicated vaccinators and support staff spearheaded the campaign, tirelessly visiting homes and establishing fixed vaccination booths in key locations. Their commitment to reaching and immunizing vulnerable children is truly commendable.
- **Exemplary Community Engagement:** The high coverage rate reflects the commendable cooperation and support of the Rawalpindi community. Recognizing the importance of immunization, parents actively participated, ensuring their children received the vital polio vaccine.
- **Government's Proactive Leadership:** The Government of Punjab provided unwavering leadership and resources, significantly contributing to the campaign's success. Their commitment to public health and polio eradication is evident in the meticulous planning and execution of this initiative.
- **Effective Public Awareness:** Through targeted campaigns, the government and its partners educated the community about the importance of polio vaccination. This proactive approach fostered understanding and acceptance of the vaccine, ultimately leading to high immunization rates.
- **Strong Partnerships:** The campaign benefited from the collaborative efforts of various stakeholders, including the World Health Organization (WHO), UNICEF, and NGOs. This collective approach ensured the campaign's reach and effectiveness.

Looking Forward: Sustaining the Momentum

While the June 2024 campaign represents a significant milestone, the fight against polio is far from over. The presence of the virus in environmental



samples underscores the need for sustained vigilance and continued immunization efforts.

Here are key steps to maintain progress:

- **Maintain High Immunization Coverage:** Sustaining the current momentum is crucial to ensuring all children are protected. Regular NIDs and supplementary immunization activities are essential for achieving this goal.
- **Continue Public Awareness:** Ongoing community engagement and education are vital to maintaining public understanding and support for polio eradication efforts.
- **Strengthen Surveillance and Monitoring:** Closely monitoring environmental samples and potential polio cases is crucial for early detection and swift containment measures.

By maintaining unwavering commitment and adopting a comprehensive approach, the success achieved in Rawalpindi can be replicated nationwide. This will ultimately lead to Pakistan's complete eradication of polio, ensuring a healthier future for all children.

Urgent Public Health Action Needed: High Hepatitis Rates in Rawalpindi

Dr. Anser Ishaq,
Program Director,
LHEAP, Rawalpindi

A recent public health project in Rawalpindi, Pakistan, has uncovered concerning high rates of hepatitis B and C, particularly in the Fauji Colony area. This letter aims to raise awareness of this critical issue and call for immediate action from relevant authorities.

The Localized Hepatitis Elimination and Prevention Project (LHEAP), launched in July 2023, screened over 36,000 residents across nine union councils. While the overall prevalence was 2.79%, a staggering 9.95% infection rate was identified in Fauji Colony near Pirwadhahai. This stark disparity demands urgent investigation and targeted interventions in this specific community.

Despite the worrying statistics, there are positive aspects. LHEAP provides free testing and treatment for hepatitis B and C within the project areas. Hundreds have already begun treatment, and

over 20,000 doses of the hepatitis B vaccine have been administered.

However, significant challenges remain:

- **Fauji Colony's High Prevalence:** Further investigation into the underlying causes and tailored interventions are essential.
- **Limited Awareness:** Community education is crucial to raise awareness about hepatitis, its transmission risks, and available free testing and treatment options.
- **Treatment Accessibility:** Guaranteeing uninterrupted access to free testing and treatment for all identified cases is critical.

Therefore, It is recommended to relevant authorities to take further decisive steps:

- **Expand Screening Efforts:** Extend LHEAP to encompass more union councils, prioritizing those with high prevalence.
- **Invest in Public Awareness Campaigns:** Educate communities using culturally appropriate campaigns that emphasize prevention, early detection, and treatment options.
- **Ensure Accessible Treatment:** Guarantee uninterrupted access to free testing and treatment, removing any existing barriers.
- **Conduct Further Research:** Investigate the reasons behind the high prevalence in Fauji Colony and other hotspots to inform targeted interventions.

Hepatitis is a serious public health threat, but it is preventable and treatable. By taking immediate and comprehensive action, we can protect the health and well-being of Rawalpindi's communities and work towards eliminating hepatitis across Pakistan. Let us work together to ensure everyone has access to the information, resources, and treatment they need to live healthy lives free from hepatitis.

Knowledge Hub

Battling Buzz: Preventing and Controlling Mosquito-Borne Diseases

Mosquitoes, the persistent buzzers of our summers, are more than just a nuisance. They are



carriers of a variety of serious diseases, posing a significant threat to public health globally. Dengue fever, malaria, and chikungunya are just a few examples of mosquito-borne illnesses that can cause debilitating symptoms and even death.

Understanding the Threat:

Mosquitoes thrive in warm, humid environments and breed in stagnant water. They transmit diseases by feeding on infected individuals and then transferring the pathogens to healthy people through subsequent bites. The symptoms of mosquito-borne diseases can vary depending on the specific illness:

- **Dengue Fever:** Sudden high fever, severe headache, muscle and joint pain, nausea, vomiting, and rash. Dengue can progress to a more severe form called Dengue Hemorrhagic Fever, which can be life-threatening.
- **Malaria:** High fever, chills, sweating, headache, nausea, vomiting, fatigue, and muscle aches. In severe cases, malaria can lead to coma and death.
- **Chikungunya:** Fever, severe joint pain, headache, muscle aches, fatigue, and rash. While rarely fatal, chikungunya can cause chronic joint pain in some individuals.

Preventative Measures:

Fortunately, there are several effective ways to protect ourselves from mosquito bites and the diseases they carry:

- **Individual measures:** Applying insect repellents containing DEET, picaridin, or oil of lemon eucalyptus can significantly reduce the risk of mosquito bites. Wearing long-sleeved shirts and pants, especially during dusk and dawn when mosquitoes are most active, is another preventive strategy. Additionally, using mosquito nets while sleeping and eliminating potential mosquito breeding grounds around homes by emptying stagnant water containers are crucial practices.
- **Community-based efforts:** Effective mosquito control programs are essential for long-term prevention. These programs involve activities like spraying insecticides,

larviciding breeding sites, and promoting community education campaigns.

Empowering Communities:

Raising awareness within communities is critical for successful mosquito-borne disease control. Educational campaigns can inform individuals about the risks associated with mosquito bites, the specific symptoms of different diseases, and the importance of preventive measures. Engaging local communities in identifying and eliminating potential mosquito breeding sites fosters a sense of ownership and responsibility for public health.

Early Diagnosis and Treatment:

For any symptoms suggestive of a mosquito-borne disease, it is crucial to seek medical attention promptly. Early diagnosis and treatment can significantly improve outcomes and prevent complications.

The Future Fight:

While prevention is key, research and development play a vital role in the fight against mosquito-borne diseases. Scientists are constantly working on creating new vaccines and treatment options. Additionally, research on mosquito control methods and genetic modification techniques aimed at reducing mosquito populations holds promise for the future.

Conclusion:

Mosquito-borne diseases pose a significant health threat, but they are not inevitable. By taking individual precautions, supporting community-based control programs, promoting awareness, and staying informed about developments in research and treatment, we can significantly reduce the risk of exposure and infection. By working together, we can silence the buzz of these harmful diseases and ensure a healthier future for ourselves and future generations.



National Institute of Health: Advisories

No.F.1-22/Advisory/CDC/2024

22 May 2024

Subject: Advisory for Prevention and Treatment of Typhoid Fever including XDR Typhoid

Background:

Typhoid fever is a bacterial infection caused by the *Salmonella Typhi* and *Salmonella Paratyphi* pathogens. The disease if not treated properly may be a life-threatening infection. It is endemic in most of the Asian, African, Latin American and Caribbean countries. Pakistan is also among the countries, with highest burdens of typhoid fever. Lack of access to safe drinking water, inadequate sanitation and poor hygiene practices, low immunization coverage, and limited disease surveillance make country at high risk of increased disease burden. Cases of Extensively Drug Resistant *Salmonella Typhi* (XDR *S. Typhi*) in the country have been reported since 2016 from different parts of the country, especially during summer and monsoon season. This XDR *S. Typhi* is resistant to commonly used antibiotics such as ampicillin, chloramphenicol, trimethoprim-sulfamethoxazole, fluoroquinolones and third generation cephalosporins. The XDR *S. Typhi* is sensitive only to carbapenem (Meropenem) and macrolide (azithromycin).

Purpose: Keeping in view the seasonal trend of XDR Typhoid, it is important to take necessary measures to limit its transmission through preventive measures; early detection, using recommended diagnostic tools and prompt treatment. This advisory aim to alert the health authorities for timely actions for preparedness for prevention and control of typhoid fever including XDR Typhoid. Moreover, the health departments must involve other line departments such as WASA, Public Health Engineering, District and Local Administration for preparedness and response.

Case Definition:

Suspected Case: Any person with a history of fever of at least 38°C for 3 or more days with abdominal symptoms like diarrhea or constipation, abdominal tenderness, and prostration.

Confirmed Case: A suspected/ probable case that is laboratory confirmed by isolation of *S. Typhi* from blood/ stool or urine.

Classification of Typhoid Fever Cases by Drug Resistance in Pakistan (WHO-2018):

Non-resistant Typhoid fever: Typhoid fever caused by *S. Typhi* and/or *Salmonella Paratyphi* A, B or C strain which are sensitive to first-line drug and third generation cephalosporins, with or without resistance to second-line drugs.

Multi-drug resistant (MDR) Typhoid fever: Typhoid fever caused by *S. Typhi* and/or *Salmonella Paratyphi* A, B or C strain which are resistant to the first-line recommended drugs for treatment, with or without resistance to second-line drugs.

Extensive Drug Resistance (XDR) Typhoid: Typhoid fever caused by *S. Typhi* strain which are resistant to all the recommended antibiotics for typhoid fever.

Clinical Presentation:

Typhoid fever and paratyphoid fever are systemic illnesses that have an insidious onset characterized by prolonged fever (>38°C), headache, constipation or diarrhea, body aches, abdominal pain, fatigue, loss of appetite and vomiting. A transient, rash of rose spots may be present on the trunk. Severe cases may include encephalopathy, gastrointestinal bleeding, or intestinal perforation, which typically occur after 2-3 weeks of illness.

Mode of Transmission:

Typhoid infection occurs through feco-oral route and infection spreads through contaminated food, milk, frozen fruits, raw/fresh fruits or vegetables and water or through close contact with already infected persons. The contamination of food and water usually occurs due to poor sanitation and mixing of sewerage water with drinking water.

Incubation period:

It depends on the inoculum size and host factors; 3 days to more than 60 days with a usual range of 8 to 14 days for *S. Typhi* and 1 to 10 days for *S. Paratyphi*.



Diagnosis:

S. Typhi can be isolated from blood during the first week of illness or from stool and urine after the first week of illness.

Widal and Typhidot have No diagnostic value due to limited sensitivity, specificity and cross reactivity and must be stopped immediately by all labs.

Treatment:

Suspected patients compatible with case definition(s) should immediately seek medical advice from registered medical practitioner. Samples should be collected for culture & sensitivity before starting the empirical therapy from all the suspected cases. The prescription of antibiotics for treatment should base on culture report. Unnecessary use of antimicrobial agents should be discouraged to treat the patients presenting with fever. To limit the antimicrobial resistance (AMR), antibiotics should be prescribed based on the results of culture and sensitivity tests. The XDR Typhoid cases and lab culture report must be notified to the concerned district health authorities, DG. Offices of the respective province and NIH.

- Use of **Azithromycin** and **Meropenem** should be restricted and only be given to XDR cases of typhoid fever based on prescription by registered medical practitioner.
- In case of other infections such as upper and lower respiratory tract infections, other available drug options should be used instead of oral azithromycin which should be spared/ reserved for lab confirmed XDR Typhoid cases and other serious medical conditions.

Preventive measures and Vaccination:

The treatment options for typhoid becoming more limited, following preventive measures are urgently needed, including improved sanitation and vaccination campaigns:

- Raising community awareness on the following:
 - Thorough hand washing with soap and water is highly recommended after changing baby's diaper, after using toilet, before and after attending patient, before handling, cooking, and eating.
 - Drink treated, boiled, or bottled water. Use ice, prepared from clean drinking water preferably boiled. Wash fruits and vegetables properly before eating. Eat freshly cooked, hot served, and home-made food.
 - Avoid eating street vendors foods, raw fruits or vegetables, market prepared or leftover food.
 - Use pasteurized milk.
- Vaccination is recommended for all age groups especially high-risk group of people and those who are exposed to the disease. Typhoid fever vaccines do not provide 100% protection however they will reduce the severity of the illness.
- Typhoid conjugate vaccine (Typbar-TCV@) is a new conjugate vaccine with longer immunity. WHO has prequalified the first conjugate vaccine in December 2017 to prevent typhoid fever.

Laboratory Diagnosis and NIH Support:

- Patients with typhoid typically have bacteremia; blood culture is therefore the preferred method of diagnosis.
- Depending on the blood culture system used, cultures might need to be held and observed for up to 7 days before reporting a negative result.
- Although bone marrow culture is more invasive (and therefore less commonly performed), it increases the sensitivity to 80% of cases and is relatively unaffected by previous or concurrent antibiotic use.
- Stool culture is not usually positive during the first week of illness and has less diagnostic sensitivity than blood culture. Lab tests for Typhoid fever should be recommended to those who fulfill criteria of suspected case definition.
- For any further assistance in this context, the Center for Disease Control (CDC-NIH) (051- 9255237 and Fax No. 051-9255575) and Virology Department of Public Health Laboratories Division (051-9255082), NIH may be contacted



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