

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.

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Overview

IDSR Reports

Public Health Bulletin - Pakistan, Week 08, 2024

Ongoing Events

This This week's Public Health Bulletin offers crucial information on Pakistan's health situation. The report identifies common illnesses like acute diarrhea, respiratory infections, malaria, and tuberculosis. However, it also highlights suspected cases of serious diseases like AFP, HIV/AIDS, and Typhoid, requiring further investigation.

Field Reports

The bulletin seeks contributions from field epidemiologists to strengthen its future editions. It also features reports on strengthening VPD surveillance in Rawalpindi and managing respiratory diseases in Rahim Yar Khan.

Recognizing the importance of individual action, the editor concludes with prevention and control advice for pertussis from the National Institute of Health Islamabad.

Sincerely,

The Chief Editor



- During week 8, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, VH (B, C & D), B. Diarrhea, Typhoid, SARI, and dog bite.
- Nineteen cases of AFP reported from KP and eleven from Sindh. All are suspected cases and need field verification.
- Three suspected cases of HIV/ AIDS reported from KP. Field investigation required to verify the cases.
- A large number of Typhoid cases are reported from Punjab, Sindh, KP and Balochistan. All are suspected cases and need field verification.
- There is an increasing trend observed for Malaria and TB cases and a decreasing trend observed for Acute Diarrhea (Non-Cholera), ILI, ALRI <5 years, B. Diarrhea and Typhoid cases this week.

IDSR compliance attributes

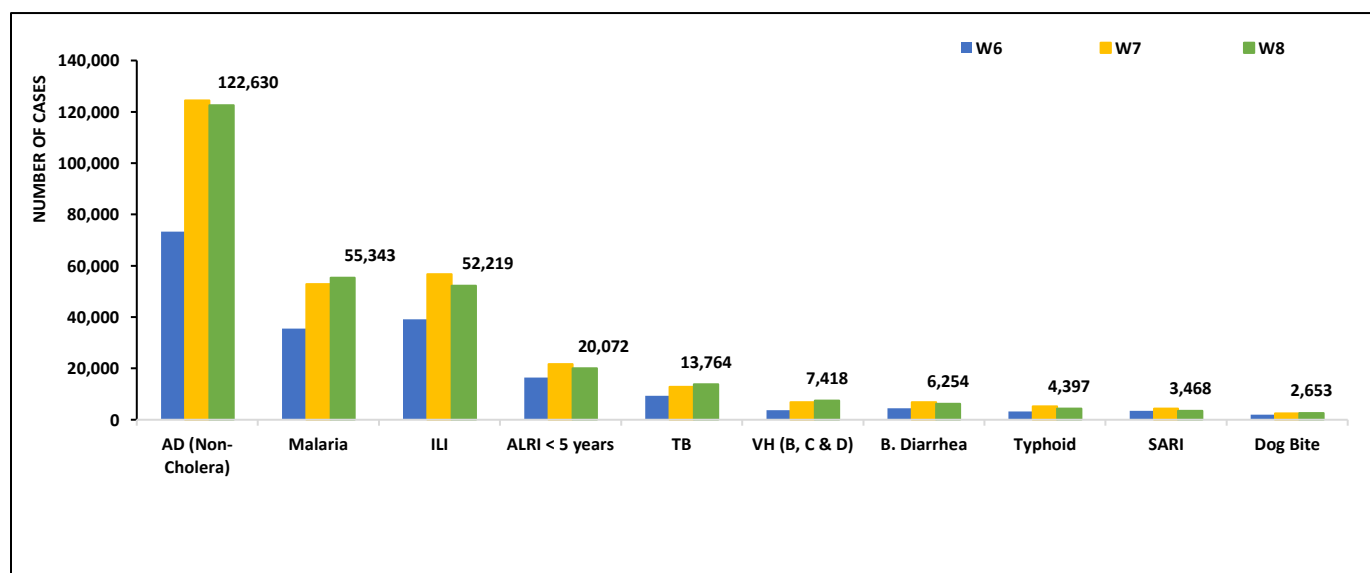
- The national compliance rate for IDSR reporting in 149 implemented districts is 76%
- Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 100% and 98%, followed by Sindh 94% and ICT 86%
- The lowest compliance rate was observed in KPK.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2750	1599	58
Azad Jammu Kashmir	382	375	98
Islamabad Capital Territory	35	30	86
Balochistan	1220	840	69
Gilgit Baltistan	374	374	100
Sindh	2088	1955	94
National	6849	5173	76

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 08, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	990	5,137	339	254	11,709	68,944	35,257	122,630
Malaria	0	4,155	1	0	2,867	3,490	44,830	55,343
ILI	2,572	7,744	597	1,431	5,949	7	33,919	52,219
ALRI < 5 years	1,356	1,912	730	7	2,291	NR	13,776	20,072
TB	58	126	43	13	362	NR	13,162	13,764
VH (B, C & D)	12	110	2	0	70	NR	7,224	7,418
B.Diarrhea	37	1,276	49	4	464	1,301	3,123	6,254
Typhoid	14	530	32	0	444	2,085	1,292	4,397
SARI	426	1,021	295	1	979	NR	746	3,468
Dog Bite	10	92	1	0	142	NR	2,408	2,653
Measles	10	39	32	1	454	NR	142	678
CL	0	167	0	0	271	14	73	525
AVH(A&E)	12	8	3	0	107	NR	351	481
Mumps	9	45	3	2	63	NR	323	445
AWD (S. Cholera)	34	136	42	0	41	NR	7	260
Chickenpox/ Varicella	7	10	2	2	36	50	76	183
Pertussis	0	58	2	0	42	NR	4	106
Gonorrhea	0	67	0	0	13	NR	15	95
Dengue	0	3	0	0	0	NR	88	91
AFP	1	1	0	0	19	NR	11	32
Syphilis	4	14	0	0	0	NR	5	23
Meningitis	4	0	2	0	0	NR	10	16
Diphtheria (Probable)	0	4	0	0	11	NR	1	16
VL	0	1	0	0	12	NR	0	13
NT	0	0	0	0	10	NR	0	10
Chikungunya	0	0	0	0	0	NR	7	7
Brucellosis	0	0	0	0	7	NR	0	7
Rubella (CRS)	0	0	0	0	0	NR	4	4
HIV/AIDS	0	0	0	0	3	NR	0	3
Leprosy	0	2	0	0	0	NR	0	2

Figure 1: Most frequently reported suspected cases during week 08, Pakistan.

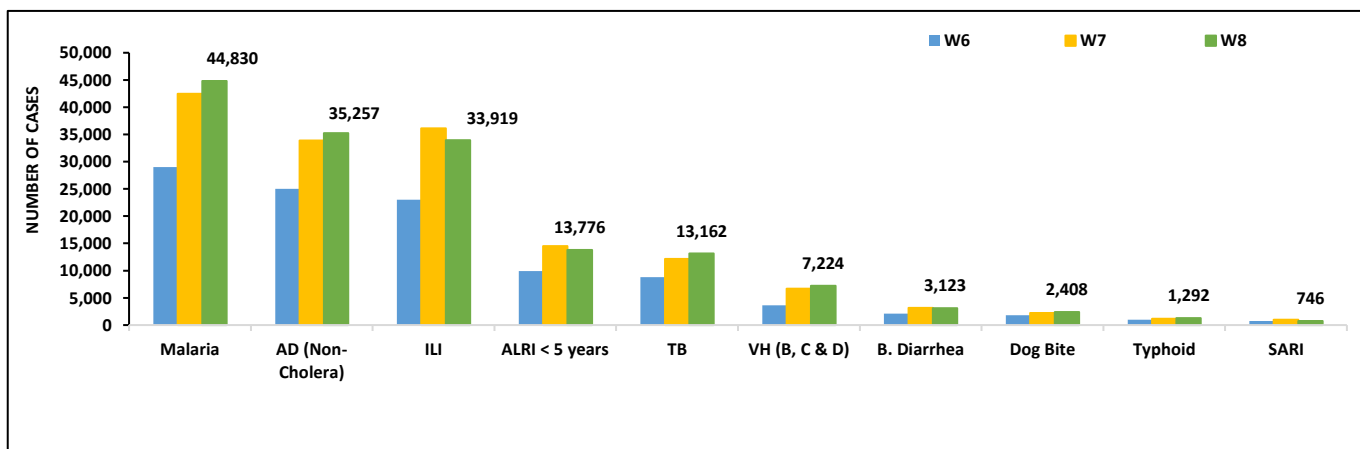


- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, TB, VH (B, C, D), B. Diarrhea, dog bite, Typhoid and SARI.
- Malaria cases are from Larkana, Khairpur and Kamber whereas AD cases are mostly from Khairpur, Badin and Tharparkar.
- Eleven cases of AFP reported from Sindh. All are suspected cases and need field verification.
- High number of Typhoid cases reported from Khairpur and Shaheed Benazirabad. Field verification is required to confirm the cases.
- There is an increasing trend observed for Malaria, AD (Non-Cholera), TB, VH (B, C, D) and dog bite cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 08, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	SARI
Badin	1,997	2,223	650	582	848	199	184	71	22	0
Dadu	3,124	2,036	160	894	493	283	264	126	106	3
Ghotki	344	450	0	616	224	363	46	319	2	0
Hyderabad	356	1,233	3,082	300	369	262	89	36	18	0
Jacobabad	1,575	737	719	792	233	227	124	133	17	13
Jamshoro	1,525	1,404	23	340	483	113	58	7	83	2
Kamber	3,889	1,122	0	496	951	358	124	65	57	12
Karachi Central	54	1,167	2,646	148	742	654	22	0	76	14
Karachi East	96	752	457	60	16	0	23	8	1	0
Karachi Keamari	2	237	163	20	0	0	1	0	2	0
Karachi Korangi	70	307	75	2	2	0	3	0	0	0
Karachi Malir	83	963	3,704	327	48	50	81	26	32	4
Karachi South	35	94	0	0	0	0	0	0	0	0
Karachi West	128	1,180	2,786	206	299	273	73	263	84	59
Kashmore	1,299	471	952	295	310	267	34	398	3	0
Khairpur	4,749	2,783	4,942	1,567	1,046	308	541	107	306	449
Larkana	5,639	1,415	8	656	878	124	232	9	7	0
Matiali	1,315	1,429	22	615	777	684	73	49	8	0
Mirpurkhas	2,439	2,122	4,587	701	875	215	98	49	7	0
Naushero Feroze	938	603	1,181	204	404	100	65	169	61	0
Sanghar	3,126	1,245	12	612	1,148	1,098	43	175	30	6
Shaheed Benazirabad	1,389	1,771	0	555	420	109	73	120	207	3
Shikarpur	2,466	1,044	3	190	189	734	146	143	1	7
Sujawal	769	702	0	187	60	37	38	15	1	0
Sukkur	1,603	1,277	2,372	473	534	272	180	38	44	0
Tando Allahyar	1,383	1,068	1,353	466	440	141	99	4	15	0
Tando Muhammad Khan	749	694	0	217	325	21	46	0	1	3
Tharparkar	1,817	2,181	2,764	1,391	567	56	181	9	42	168
Thatta	975	1,021	1,258	404	35	181	65	69	20	3
Umerkot	896	1,526	0	460	446	95	117	0	39	0
Total	44,830	35,257	33,919	13,776	13,162	7,224	3,123	2,408	1,292	746

Figure 2: Most frequently reported suspected cases during week 08 Sindh

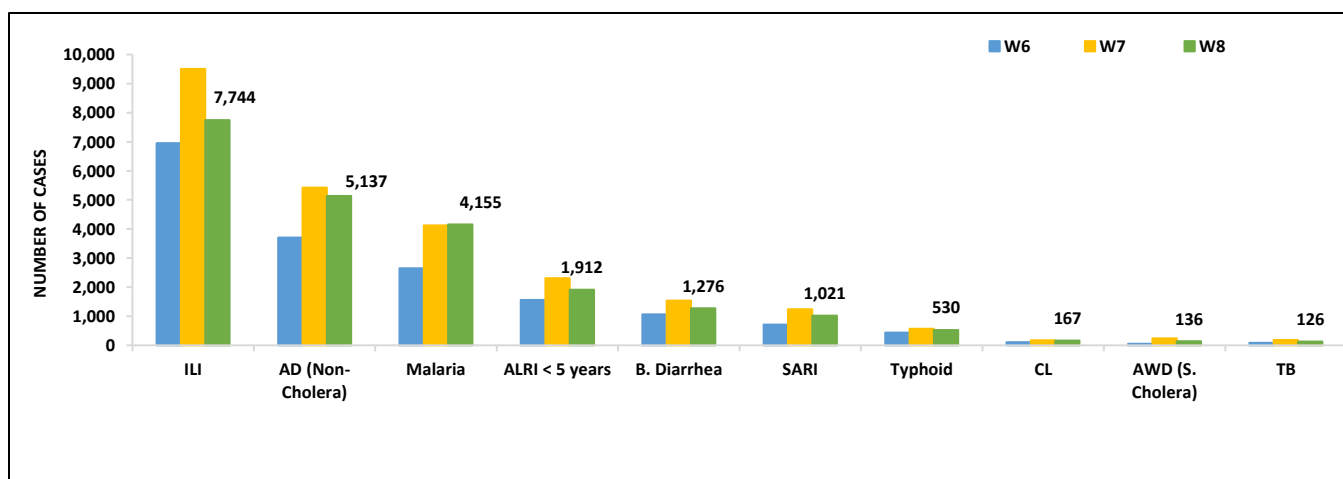


- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), TB and CL were the most frequently reported diseases from Balochistan province.
- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera) and TB cases showed an increasing trend this week.
- ILI cases are mostly reported from Kech (Turbat), Quetta and Sibi while AD (Non-Cholera) cases are mostly reported

Table 3: District wise distribution of most frequently reported suspected cases during week 08, Balochistan

Districts	ILI	AD Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	CL	AWD (S.Cholera)	TB
Awaran	44	15	58	3	15	3	4	0	5	0
Barkhan	95	78	10	62	6	7	20	0	2	0
Chagai	450	180	14	0	58	4	30	0	14	1
Chaman	40	3	0	0	14	0	3	0	0	0
Dera Bugti	30	18	28	17	21	2	1	0	0	0
Duki	65	117	22	53	54	47	16	6	7	2
Harnai	16	61	39	152	73	0	4	0	9	6
Hub	136	244	211	32	36	14	5	6	0	1
Jaffarabad	229	337	750	33	30	27	4	28	0	50
Jhal Magsi	318	376	561	71	10	6	6	9	2	14
Kachhi (Bolan)	65	133	86	16	57	101	45	2	19	1
Kalat	5	22	5	8	9	0	12	0	0	1
Kech (Turbat)	1,359	548	207	173	70	50	NR	NR	NR	NR
Kharan	399	111	24	0	71	21	3	0	8	0
Khuzdar	186	121	57	3	47	5	6	7	0	0
Killa Saifullah	9	121	96	135	43	27	17	10	2	4
Kohlu	521	212	98	32	102	81	28	10	13	1
Lasbella	102	286	410	120	13	27	22	25	0	1
Loralai	371	162	36	53	56	110	28	4	0	0
Mastung	177	140	19	68	41	51	19	6	3	0
Naseerabad	0	218	238	13	10	0	38	6	0	2
Nushki	39	133	2	0	42	0	0	0	2	0
Panjgur	78	79	86	83	27	10	5	0	12	0
Pishin	193	29	2	8	35	0	6	4	0	0
Quetta	1,178	400	12	43	59	17	17	28	8	1
Sherani	214	44	1	0	14	149	6	0	0	0
Sibi	283	122	218	58	22	37	34	8	15	0
Sohbat pur	12	241	367	139	69	37	41	7	0	5
Surab	146	51	24	0	3	21	58	0	0	0
Usta Muhammad	199	272	374	264	37	40	14	1	0	1
Washuk	222	81	34	5	52	4	4	0	0	0
Zhob	293	77	45	246	35	115	17	0	0	35
Ziarat	270	105	21	22	45	8	17	0	15	0
Total	7,744	5,137	4,155	1,912	1,276	1,021	530	167	136	126

Figure 3: Most frequently reported suspected cases during week 08, Balochistan

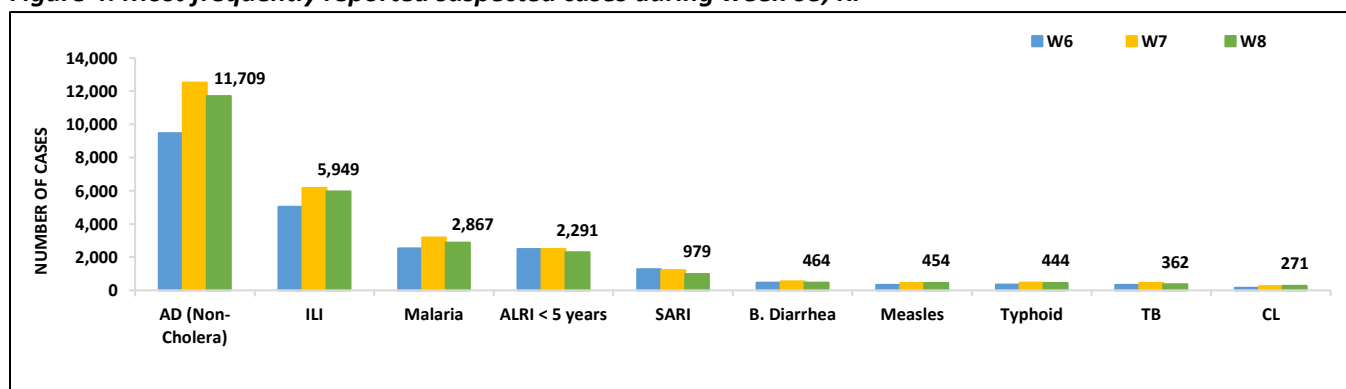


- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Measles, Typhoid, TB, and CL cases.
- AD (Non-Cholera), ILI, Malaria, ALRI<5 Years, SARI and B. Diarrhea cases showed a decreasing trend this week.
- Nineteen cases of AFP and three suspected cases of HIV/ AIDS reported from KP. All are suspected cases and need field verification.
- High number of Typhoid cases reported from Bannu and Peshawar. Field verification is required to confirm the cases.

Table 4: District wise distribution of most frequently reported suspected cases during week 08, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI <5 Years	SARI	B. Diarrhea	Measles	Typhoid	TB	CL
Abbottabad	326	100	0	26	20	2	6	6	20	0
Bajaur	143	36	37	6	18	14	7	19	0	0
Bannu	653	6	1067	26	9	10	21	96	25	0
Battagram	86	188	12	0	0	0	0	0	0	3
Buner	245	0	117	71	0	0	0	1	2	0
Charsadda	656	930	311	302	48	31	17	18	1	0
Chitral Lower	116	63	4	65	33	8	0	8	12	12
Chitral Upper	65	8	1	20	8	0	0	8	1	0
D.I. Khan	747	0	98	41	43	20	81	0	41	2
Dir Lower	735	2	369	254	0	61	29	29	21	10
Dir Upper	179	145	2	2	0	0	9	26	11	5
Hangu	134	317	321	18	13	5	5	4	7	31
Haripur	729	92	4	88	23	9	4	30	23	0
Karak	186	84	56	30	0	0	87	7	9	41
Khyber	47	139	11	27	3	9	3	0	8	7
Kohat	42	53	9	0	7	0	0	1	0	2
Kohistan Lower	45	0	0	3	0	3	0	0	0	0
Kohistan Upper	185	18	0	6	0	4	14	1	0	0
Kolai Palas	54	0	0	0	20	0	0	0	0	0
L & C Kurram	3	70	11	0	0	1	0	1	0	0
Lakki Marwat	228	29	87	58	2	17	12	10	20	4
Malakand	241	175	9	73	38	64	26	7	4	13
Mansehra	334	412	0	46	48	6	3	42	11	0
Mardan	493	47	7	623	4	17	0	0	3	0
Mohmand	63	44	75	5	11	12	5	5	0	79
Nowshera	717	78	10	1	12	13	19	4	4	10
Orakzai	2	20	3	0	7	0	0	0	0	0
Peshawar	1728	814	10	210	119	88	57	62	32	23
SD DI Khan	0	0	0	0	0	0	0	0	0	0
SD Peshawar	0	0	0	0	0	0	0	0	0	0
SD Tank	1	0	1	0	0	1	0	0	0	0
Shangla	260	0	95	11	0	1	1	8	32	0
SWA	27	199	12	40	53	1	4	7	1	17
Swabi	740	1065	24	178	91	12	18	14	50	1
Swat	1063	261	14	32	11	16	5	0	13	0
Tank	233	99	76	13	0	2	10	23	3	7
Tor Ghar	40	0	14	3	17	11	0	4	1	4
Upper Kurram	163	455	0	13	321	26	11	3	7	0
Total	11,709	5,949	2,867	2,291	979	464	454	444	362	271

Figure 4: Most frequently reported suspected cases during week 08, KP



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

AJK: ILI cases were maximum followed by ALRI <5 years, AD (Non-Cholera), SARI, TB, B. Diarrhea, AWD (S. Cholera), Typhoid, VH (B, C & D) and AVH (A & E) cases. Cases of ILI, ALRI <5 years, AD (Non-Cholera), SARI, B. Diarrhea and AWD (S. Cholera) showed a decreasing trend this week.

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

ICT, AJK & GB

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

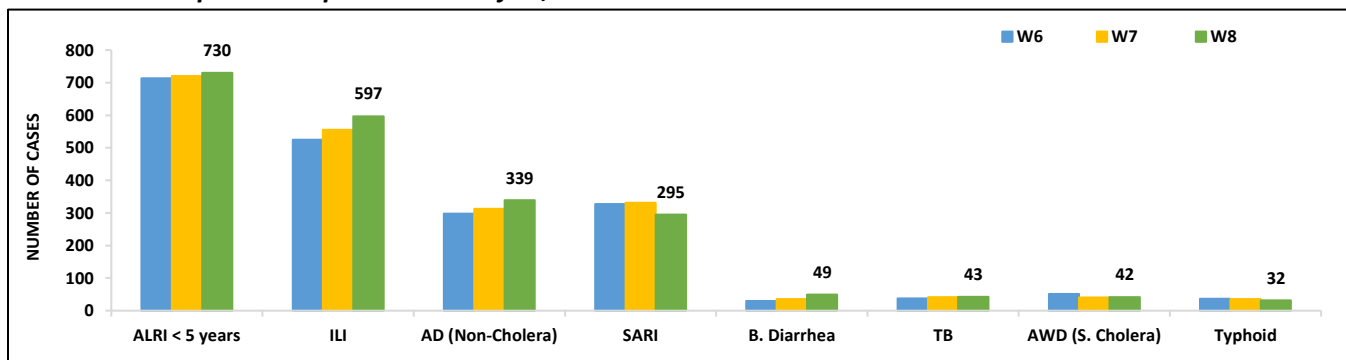


Figure 6: Week wise reported suspected cases of ILI, ICT

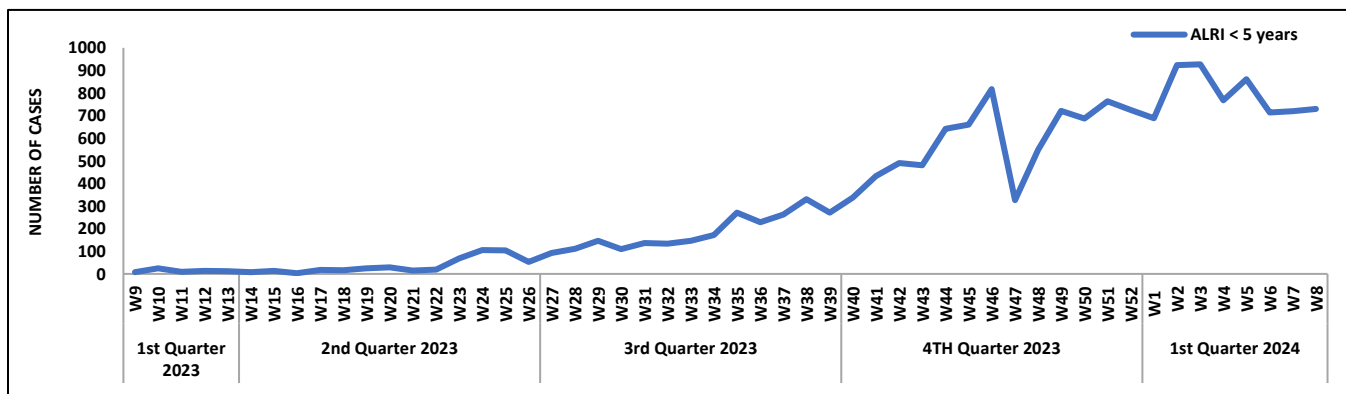


Figure 7: Most frequently reported suspected cases during week 08, AJK

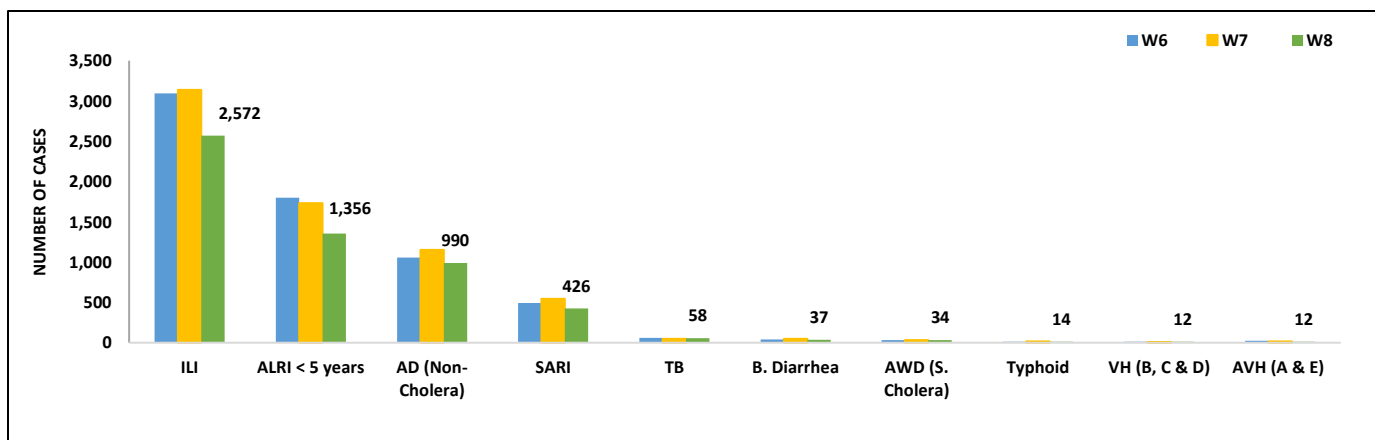


Figure 8: Week wise reported suspected cases of ILI and ALRI<5 years AJK

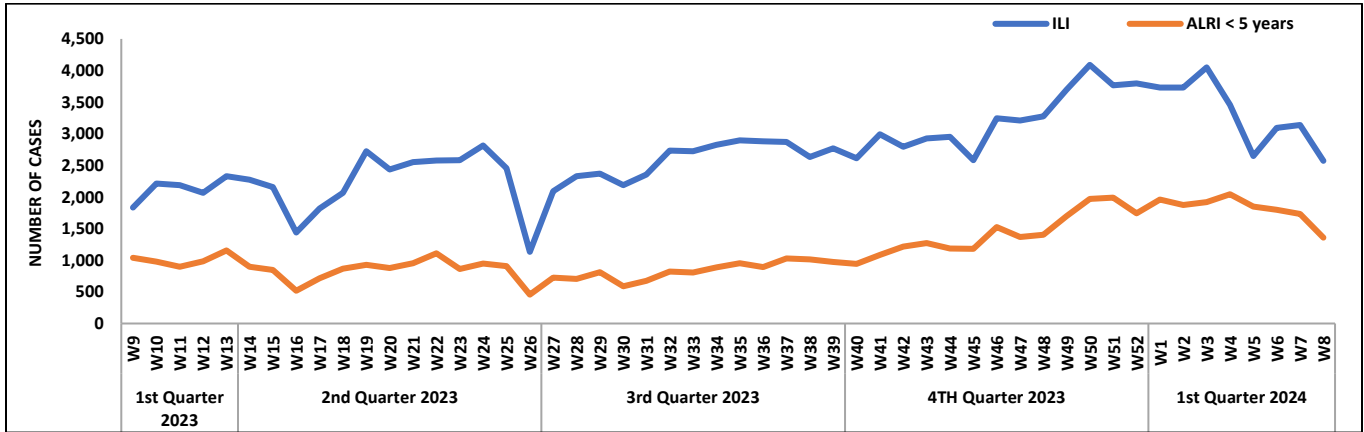


Figure 9: Most frequent cases reported during Wk 04, GB

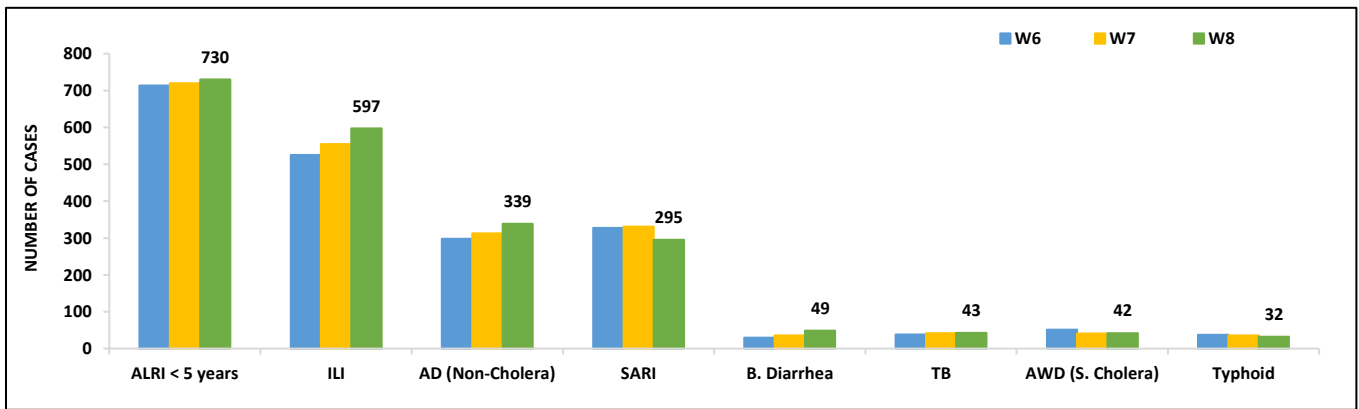
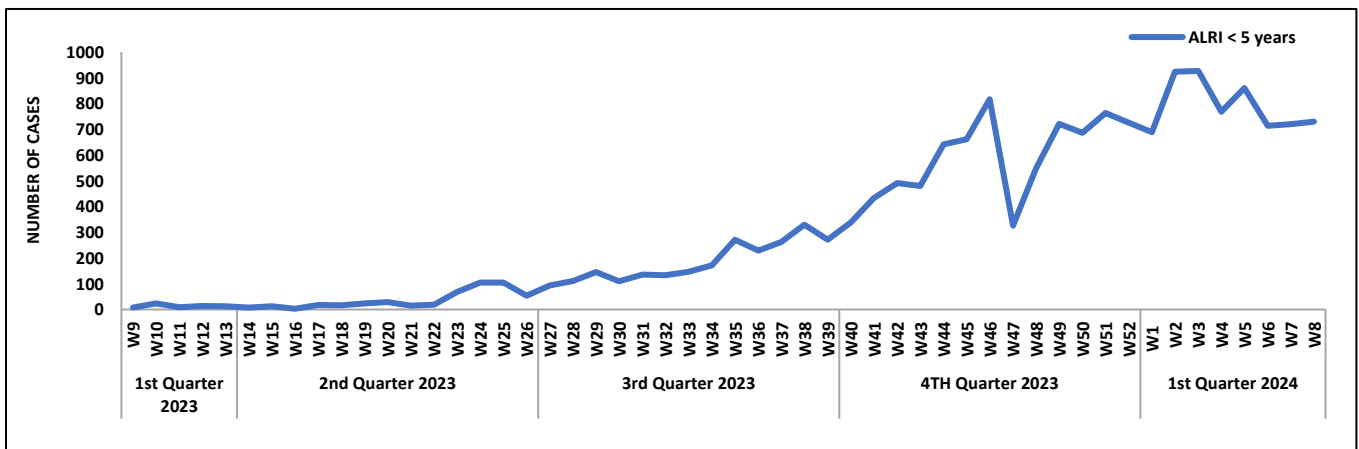


Figure 10: Week wise reported suspected cases of ALRI, GB



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

Figure 11: District wise distribution of most frequently reported suspected cases during week 08, Punjab

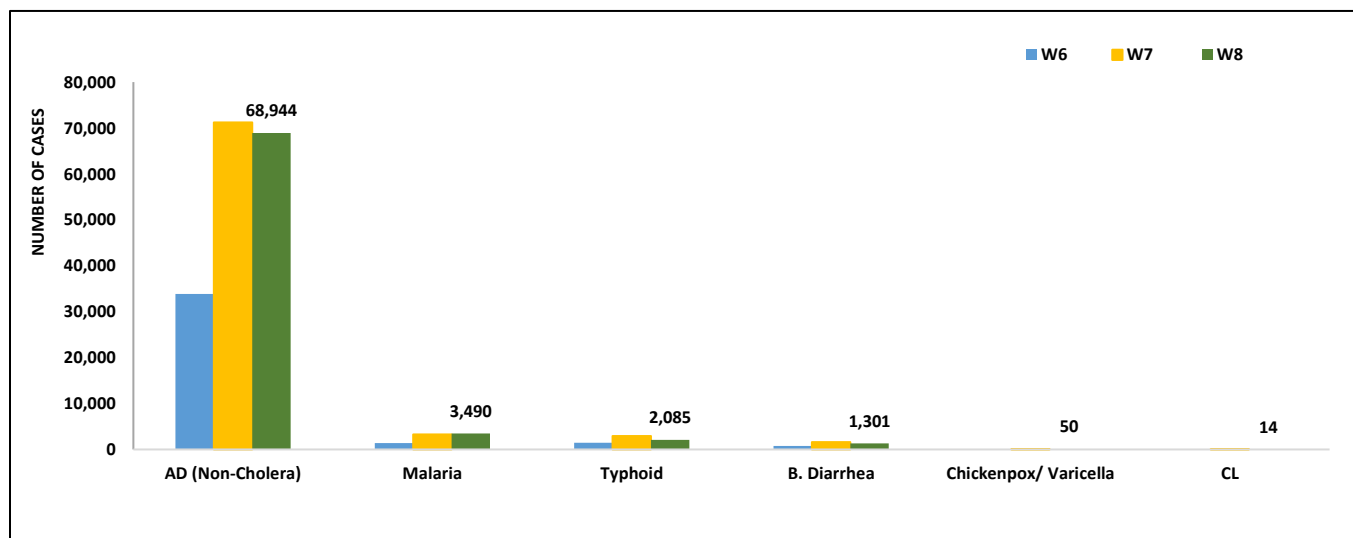


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 08

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)	69	1	-	-	0	0	0	0	-	-
AD (Non-Cholera)	69	0	-	-	0	0	0	0	-	-
Malaria	3,280	143	-	-	0	0	0	0	2	0
CCHF	0	0	5	0	0	0	0	0	-	-
Dengue	30	2	-	-	0	0	3	0	0	0
VH (B)	674	67	76	55	0	0	31	0	123	0
VH (C)	1,288	156	66	21	0	0	31	0	123	1
Typhoid	428	8	-	-	0	0	8	1	-	-
Covid-19	-	-	-	-	0	0	145	9	-	-
HIV	40	0	-	-	0	0	3	0	-	-
Diphtheria	-	-	-	-	0	0	11	1	-	-
Influenza A	-	-	-	-	0	0	54	1	-	-
TB	210	34	-	-	0	0	0	0	-	-
Syphilis	117	0	-	-	0	0	0	0	-	-
Pertussis	-	-	-	-	0	0	4	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 08, 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	127	54%
	Battagram	63	20	32%
	Buner	34	26	76%
	Bajaur	44	28	64%
	Charsadda	59	55	93%
	Chitral Upper	34	26	76%
	Chitral Lower	35	35	100%
	D.I. Khan	94	92	98%
	Dir Lower	74	74	100%
	Dir Upper	52	43	83%
	Hangu	22	21	95%
	Haripur	71	61	86%
	Karak	35	35	100%
	Khyber	64	11	17%
	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	4	10%
	Upper Kurram	42	12	29%
	Malakand	48	41	85%
	Mansehra	136	79	58%
	Mardan	80	75	94%
	Nowshera	55	51	93%
	North Waziristan	380	0	0%
	Peshawar	153	128	84%
	Shangla	65	13	20%
	Swabi	63	62	98%
	Swat	76	64	84%
	South Waziristan	134	52	39%
	Tank	34	34	100%
	Torghar	14	14	100%
Mohmand	86	22	26%	
SD DI Khan	19	1	5%	
SD Peshawar	5	2	40%	
SD Tank	58	1	2%	
Orakzai	68	14	21%	
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	58	97%
	Muzaffarabad	45	43	96%
	Poonch	46	46	100%



Azad Jammu Kashmir	Haveli	39	38	97%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Vellay	29	27	93%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	14	9	64%
Balochistan	Gwadar	25	0	0%
	Kech	40	33	83%
	Khuzdar	20	20	100%
	Killa Abdullah	20	0	0%
	Lasbella	55	55	100%
	Pishin	62	9	15%
	Quetta	43	18	42%
	Sibi	36	34	94%
	Zhob	39	29	74%
	Jaffarabad	16	16	100%
	Naserabad	32	29	91%
	Kharan	30	30	100%
	Sherani	15	14	93%
	Kohlu	75	68	91%
	Chagi	35	30	86%
	Kalat	41	40	98%
	Harnai	17	13	76%
	Kachhi (Bolan)	35	13	37%
	Jhal Magsi	26	26	100%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	45	100%
	Loralai	33	27	82%
	Killa Saifullah	28	27	96%
	Ziarat	29	17	59%
	Duki	31	29	94%
	Nushki	32	30	94%
	Dera Bugti	45	8	18%
	Washuk	46	16	35%
	Panjgur	38	16	42%
	Awaran	23	7	30%
	Chaman	24	2	8%
Barkhan	20	16	80%	
Hub	33	33	100%	
Musakhel	41	0	0%	
Usta Muhammad	34	33	97%	
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	84%
	Ghotki	64	64	100%
	Umerkot	43	39	91%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	264	94%
	Shikarpur	60	60	100%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	16	70%
	Karachi-West	20	20	100%
	Karachi-Malir	37	19	51%
	Karachi-Kemari	18	6	33%
	Karachi-Central	11	8	73%
	Karachi-Korangi	18	16	89%
	Karachi-South	4	3	75%
	Sujawal	54	54	100%
	Mirpur Khas	106	105	99%
	Badin	123	120	98%
	Sukkur	64	64	100%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	164	97%
	Kashmore	59	59	100%
	Matiari	42	41	98%
	Jamshoro	68	68	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	124	124	100%
Punjab	Bahalwalpur	91	0	0%



Public Health Bulletin Pakistan

Invitation to Contribute and Shape Public Health Discourse

The dedicated field epidemiologists of Pakistan play a critical role in safeguarding public health. From tirelessly tracking disease trends and investigating outbreaks to meticulously evaluating program effectiveness, your expertise forms the essential foundation for informed public health policy. The Public Health Bulletin Pakistan (PHBP) recognizes the immense value of your contributions and seeks to amplify your unique insights. We invite you to share your valuable perspectives and findings with a broader audience, including fellow professionals, policymakers, and the public at large.

Benefits of Contributing:

- **Broader Impact:** Disseminate your experiences and findings to a wider audience, fostering collaboration and shaping public health practices across the country.
- **Public Understanding:** By translating complex information into an accessible format, you can raise awareness, dispel myths, and promote a deeper understanding of public health issues based on evidence.
- **Inspiring the Next Generation:** Showcase your passion and dedication to public health, potentially inspiring future generations to join the fight for a healthier Pakistan.
- **Refined Writing Skills:** Contributing to a publication cultivates valuable writing skills, enhancing your communication and advocacy abilities. The PHBP provides a platform to hone your writing and effectively communicate your knowledge.

Submission Opportunities:

- **Case Studies:** Share your valuable experiences in investigating outbreaks or implementing public health programs.
- **Short Reports:** Summarize key research findings in a concise and user-friendly format.

- **Perspectives:** Offer your insights on current public health challenges and potential solutions.
- **Opinions:** Engage in constructive dialogue on relevant public health topics.

Key Points to Consider:

- The PHBP welcomes diverse perspectives and approaches to public health discourse.
- Emphasize the public health significance of your work and its impact on the community.
- Your unique voice matters! Sharing your stories can significantly contribute to advancing public health knowledge, practices, and policies.

For Submission Information:

- Visit the PHBP website: <https://www.nih.org.pk/>
- Submit your contributions electronically to phb@nih.org.pk

We encourage you to join us in shaping the future of public health in Pakistan. Let's build a healthier future, one informed voice at a time.

A note from Field Activities.

Strengthening VPD Surveillance and Response in Rawalpindi: Report on Deputy District Health Officers and Vaccination Superintendents Training

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DHO (Preventive Services)
Rawalpindi

Dr. Muhammad Ali Mirza
DSC

The Disease Surveillance and Response Unit (DSRU) of Rawalpindi recently undertook a vital initiative: an orientation session for deputy district health officers and vaccination superintendents. The program, focusing on updated VPD (vaccine-preventable disease) surveillance and response training with a particular emphasis on outbreak investigation, aimed to equip participants with the crucial knowledge and skills necessary to effectively detect, investigate, and respond to VPD outbreaks. As



we all know, robust VPD surveillance plays a vital role in safeguarding public health by monitoring disease trends and enabling the early identification of potential outbreaks, ultimately protecting communities.

Key Themes Covered:

Understanding Outbreak Definitions: The session clarified the specific criteria for classifying outbreaks of various VPDs, including diphtheria and measles. For instance, a single laboratory-confirmed case of diphtheria triggers a public health response, while two or more linked cases within a specific timeframe constitute an outbreak.

Steps in Outbreak Investigation: Participants were trained on the standardized approach to investigating VPD outbreaks, encompassing:

- **Field Visits:** Assessing the affected area and verifying the existence of an outbreak.
- **Case Finding and Data Collection:** Gathering data from both healthcare facilities and the community through active and passive surveillance methods.
- **Data Analysis:** Identifying trends and patterns in the collected data to understand the outbreak's characteristics.
- **Implementing Control Measures:** Initiating appropriate interventions, including vaccination campaigns, to control and prevent the spread of the disease.
- **Reporting and Documentation:** Timely reporting of the outbreak and maintaining accurate records for future reference.
- **Strengthening Systems:** Continuous improvement of VPD surveillance and immunization programs, potentially including adjustments to vaccination policies.

Adapting VPD Surveillance During Outbreaks:

The training emphasized that VPD surveillance undergoes crucial modifications during outbreaks. This may involve:

- **Shifting Objectives:** Prioritizing data collection for immediate disease control instead of routine disease burden or vaccine impact monitoring.

- **Active Case Finding:** Proactively searching for cases beyond relying solely on passive reporting from healthcare facilities.
- **Modifying Case Definitions:** Refining the case definition to capture the specific time and location of the outbreak.
- **Enhanced Laboratory Role:** Utilizing laboratory testing strategically for case confirmation in new areas or specific groups and for pathogen characterization to guide response efforts.
- **Increased Reporting Frequency:** Submitting reports more frequently, potentially daily, to ensure timely monitoring and response.
- **Improved Communication:** Establishing clear communication channels between public health officials, healthcare providers, and the public, including regular situational reports and targeted messaging for non-technical audiences.

Investing in Preparedness:

By equipping our healthcare workforce with the necessary expertise and fostering a collaborative approach involving surveillance, vaccination, and public health communication, we can significantly strengthen our ability to detect, investigate, and effectively respond to VPD outbreaks. This training program serves as a significant step towards safeguarding the health and well-being of the Rawalpindi community.

Letter to the Editor:

Successful Orientation Session on Respiratory Disease Management in Rahim Yar Khan

Dr. Muhammad Saleh
Fellow FELTP
DSC Rahim Yar Khan

In an effort to bolster the preparedness of medical professionals in Rahim Yar Khan, the Disease Surveillance and Response Unit (DSRU) of the region recently spearheaded a successful orientation session. Held at the Sheikh Zayed Hospital/Medical College Department of Pediatrics, the initiative



focused on equipping medical officers and staff with the necessary knowledge and skills to effectively respond to respiratory illnesses. This report details the key components of the program and its potential impact on improving healthcare response capabilities within the community.

The program addressed several critical topics:

- **Standardized Case Definitions:** Participants gained a clear understanding of the standardized criteria used to diagnose various respiratory illnesses. This promotes accurate identification and reporting of cases, ensuring appropriate public health interventions.
- **Best Practices for Sample Collection:** The session provided training on proper sample collection techniques for respiratory illnesses, ensuring reliable test results and informing effective clinical decision-making.
- **Safe and Efficient Sample Transportation:** Participants learned about the established Standard Operating Procedures (SOPs) for sample transportation. This ensures the swift and secure delivery of samples to laboratories, facilitating timely diagnosis and treatment.
- **Preventive Measures:** The session emphasized the importance of promoting hygiene practices and vaccination (where applicable) to minimize the spread of respiratory illnesses. This knowledge empowers healthcare professionals to educate the community and contribute to disease prevention efforts.

Outcomes:

- Improved capacity of healthcare professionals to diagnose, treat, and prevent respiratory diseases.
- Enhanced preparedness of the healthcare system in Rahim Yar Khan for effectively responding to respiratory illnesses.

We are grateful to Professor Jamal Anwar for his invaluable contribution in facilitating this important training session. His expertise significantly enhanced the learning experience and bolstered the preparedness of our healthcare professionals in Rahim Yar Khan.

By equipping our healthcare workforce with these critical skills and knowledge, the DSRU aims to

significantly improve our ability to diagnose, treat, and prevent the spread of respiratory illnesses in Rahim Yar Khan. We remain committed to working collaboratively with our partners in the healthcare community to safeguard the health and well-being of our citizens.

Knowledge Hub

Advisory for the prevention and control of Pertussis

Pertussis (whooping cough), is a highly contagious vaccine preventable disease with >80% of secondary attack rates among the susceptible contacts. It is caused by toxins produced by a bacterium *Bordetella pertussis* which infects the mucosal layer of respiratory system. According to World Health Organization, Pertussis is endemic all across the globe and is more prevalent in developed countries. As with other countries, pertussis is also endemic in Pakistan and sporadic cases are reported from all across the country throughout the year. Enhancing routine immunization coverage and infection prevention and control measures can greatly reduce the surge of cases and may limit the potential and scale of outbreak.

Objectives of the Advisory:

The objective of this advisory is to alert and facilitate the health authorities and other stakeholders for ensuring timely preventive and control measures encompassing preparedness to deal with increased workload expected in the outpatient and in-patient departments during next few months specifically late winter and spring.

Mode of transmission:

Pertussis infected person usually spreads this disease through respiratory droplets by coughing and sneezing while in close contact with others. The incubation period for the disease is usually 7 to 10 days, with a range of 4 to 21 days. The clinical course of the illness is divided into three stages: catarrhal, paroxysmal, and convalescent.



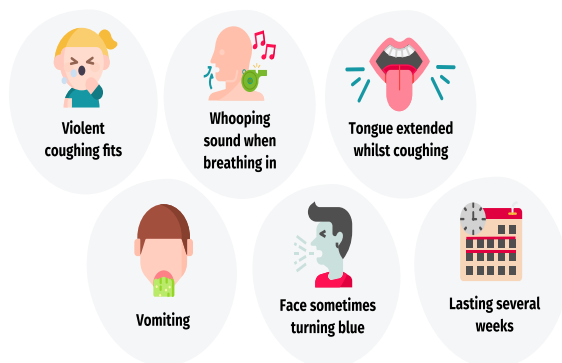
Clinical Presentation:

The clinical course of the illness is divided into three stages: catarrhal, paroxysmal, and convalescent. **The first catarrhal stage**, is characterized by the insidious onset of Flu-like illness including coryza (runny nose), sneezing, low-grade fever, and a mild, occasional cough similar to the common cold. The cough gradually becomes more severe

The second paroxysmal stage, begins after 1-2 weeks and the patient might have bursts, or paroxysms, of numerous, rapid coughs, apparently due to difficulty expelling thick mucus from the tracheobronchial tree. At the end of the paroxysm, a long inspiratory effort is usually accompanied by a characteristic high-pitched whoop and the patient may become cyanotic. Children and young infants, especially, might appear very ill and distressed. Vomiting and exhaustion might follow the episode.

The third convalescent stage, usually follows recovery and cough becomes less paroxysmal and disappears in 2 to 3 weeks. However, paroxysms often recur with subsequent respiratory infections for many months after the onset of pertussis.

The most common complications are secondary bacterial pneumonia, otitis media, anorexia, and dehydration. Neurologic complications such as seizures and encephalopathy may occur as a result of hypoxia from coughing, or possibly from pertussis toxin.



Sample Collection and Transportation:

Nasopharyngeal swab for culture or for PCR should only be obtained using sterile polyester, rayon or nylon flocked swabs. Amies-Transport medium with

charcoal is generally used as the transport medium. Specimens should be transported at room temperature and plated at the laboratory within 24 hours.

Laboratory Confirmation:

PCR is a rapid test and has excellent sensitivity while culture is considered the gold standard laboratory test and is the most specific of the laboratory tests for pertussis.

Clinical Management:

The clinical management of pertussis patients is primarily supportive however antibiotics may prevent or mitigate pertussis when given during the incubation period or the early catarrhal stage. Recommended antibiotics are azithromycin, clarithromycin, and erythromycin. Trimethoprim-sulfamethoxazole can also be used. Although antimicrobial drugs do not change the clinical course during the paroxysmal phase of the disease but may eliminate bacteria from the nasopharynx and thus reduce transmission.

Prevention and Control Measures:

Vaccination is one of the earliest and most effective way to prevent pertussis infection and its severe outcomes particularly in high risk groups. Unvaccinated or incompletely vaccinated persons should begin or complete active immunization with DTaP. Vaccination for pertussis is included in routine immunization schedule and 03 doses are given as 6th, 10th and 14th week after the birth on EPI centers across the country. If someone is sick or has been in close-contact with suspected pertussis patient, following preventive measures are recommended to curb pertussis transmission:

Frequent and thorough hand washing with soap and water and use of hand sanitizer if soap and water are unavailable.





COUGH INTO YOUR ARM
AND DO NO HARM



COUGH ETIQUETTE

COVER YOUR COUGH



- Cover your mouth and nose with a tissue when you cough or sneeze
OR
- Cover your mouth and nose using your upper sleeve, not your hands, when you cough or sneeze
- Put the used tissue in a waste basket
- Wash your hands with soap and water
OR
- Clean them with an alcohol-based hand rub if soap and water are not available

HELP
PREVENT
THE SPREAD OF
INFECTION

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