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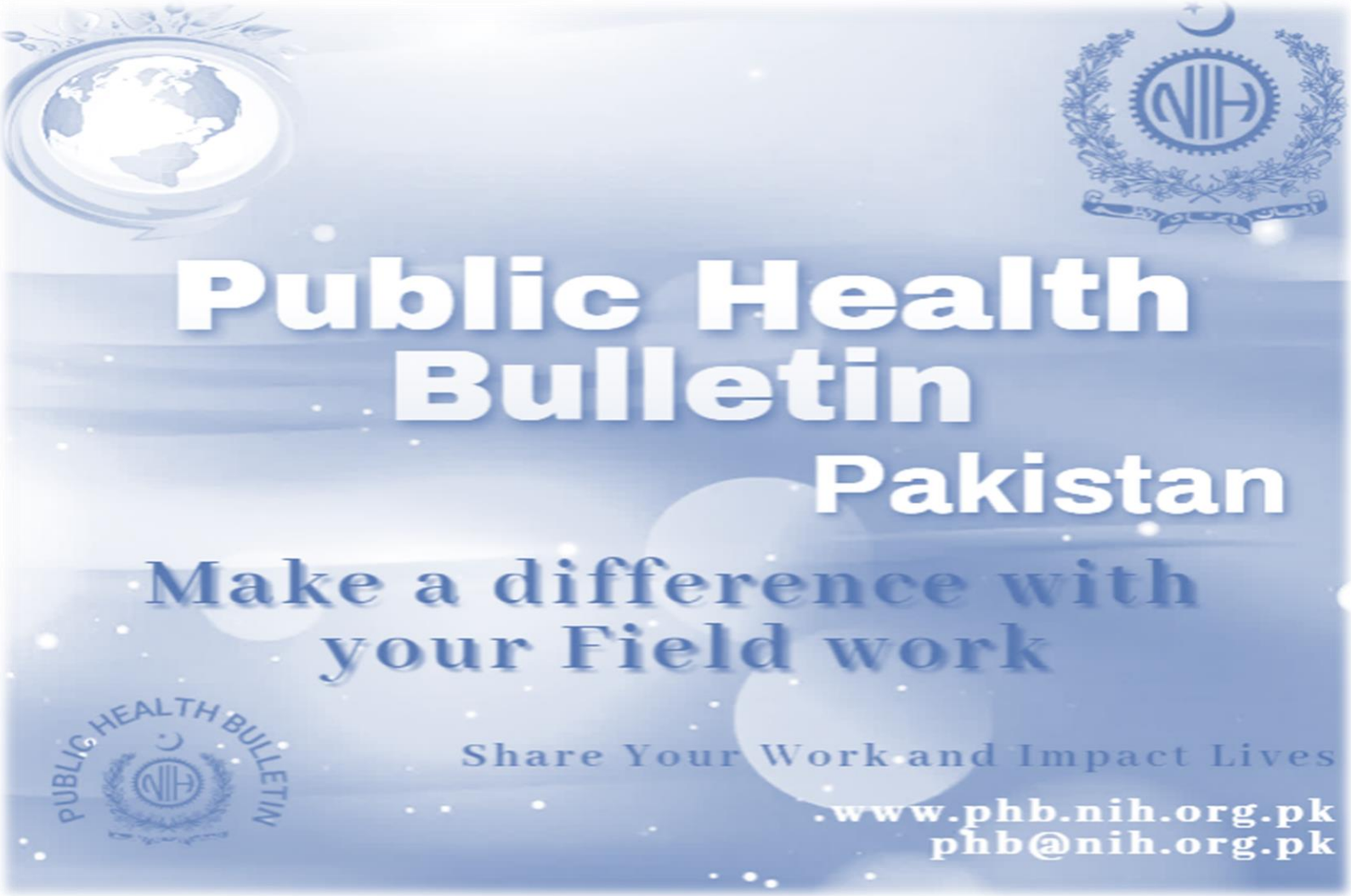
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin is your go-to resource for disease trends, outbreak alerts, and crucial public health information. By reading and sharing this bulletin, you can help increase awareness and promote preventive measures within your community.



Public Health Bulletin - Pakistan, Week 27, 2024

Pakistan's Public Health Bulletin has evolved far beyond its initial purpose as a simple list of illnesses. Today, it serves as a powerful resource, empowering both healthcare professionals and citizens with a wealth of public health information.

This comprehensive document delves deeply into prevalent diseases such as malaria, influenza, tuberculosis, and childhood respiratory infections. But its reach extends far wider, actively monitoring a broad spectrum of health concerns including diarrhea, dog bites, hepatitis, typhoid, and even potential cholera outbreaks. This critical data serves as the cornerstone for targeted prevention plans, enabling stakeholders to proactively address emerging health threats before they become widespread.

Think of the Bulletin as an early warning system for diseases. By meticulously tracking disease prevalence, it identifies trends that might otherwise go unnoticed. This allows for swift public health interventions, potentially stopping the spread of illnesses like polio and brucellosis before they erupt into major outbreaks.

The Bulletin goes beyond just presenting numbers. It offers insightful reports from field activities, as exemplified by this week's edition featuring reports on building stronger vaccination programs, preparing for floods in Punjab, and investigating a recent rise in children's HIV cases in Sindh.

The Public Health Bulletin goes beyond informing, fostering knowledge sharing through a dedicated Knowledge Hub section (featuring "The Untold Story: Human Papilloma Virus (HPV) and Its Impact on Public Health" this week). It also tackles real-world issues, like monsoon preparedness with a report on Rawalpindi's anti-dengue campaign, and the importance of adult immunization through a featured commentary.

By equipping everyone with knowledge, the Public Health Bulletin empowers Pakistanis to build a healthier nation.

Sincerely,
The Chief Editor

- *During week 27, 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).*
- *Sixteen cases of AFP reported from KP, seven each from Punjab and Sindh, six from AJK and one from Balochistan. All are suspected cases and need field verification.*
- *Eleven suspected cases of HIV/ AIDS reported from Punjab, seven from Sindh and one from Balochistan. Field investigation required to verify the cases.*
- *Two cases of Brucellosis reported from KP. These are suspected cases and require field verification.*
- *Two suspected cases of CCHF reported from Punjab. Field investigation required to verify the cases.*
- *There is a decreasing trend observed for AD (Non-cholera), ILI, TB, ALRI <5 years, B. Diarrhea, dog bite, VH (B, C & D) and Typhoid cases this week.*

IDSR compliance attributes

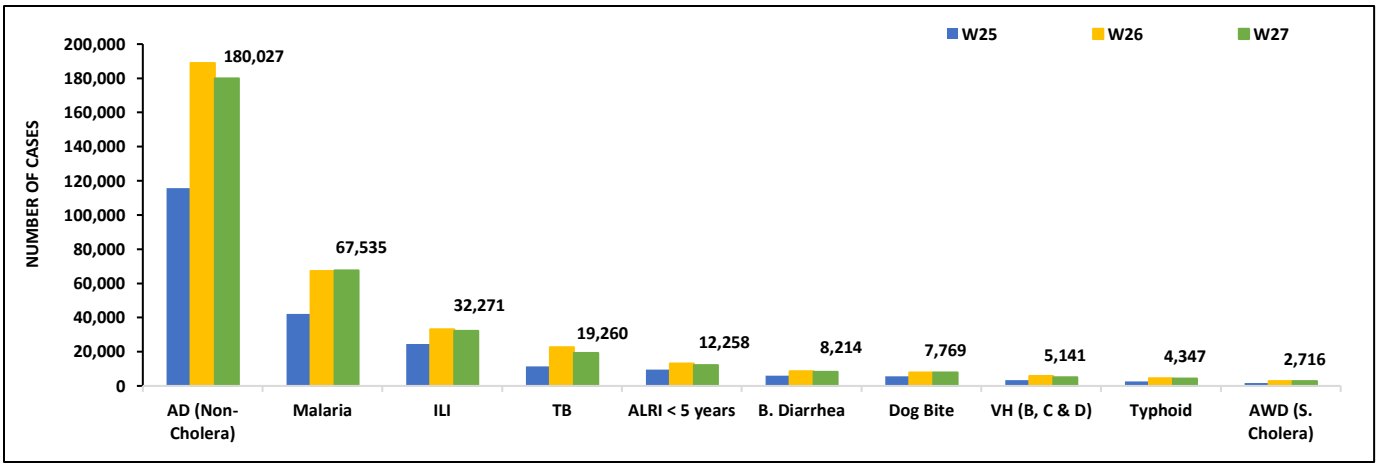
- *The national compliance rate for IDSR reporting in 149 implemented districts* is 85%
- *Gilgit Baltistan and Sindh are the top reporting regions with a compliance rate of 99% and 95%, followed by AJK 94% and Balochistan 84%*
- *The lowest compliance rate was observed in KPK.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	*2350*	*1700*	*72*
Azad Jammu Kashmir	*382*	*360*	*94*
Islamabad Capital Territory	*35*	*27*	*77*
Balochistan	*1206*	*1014*	*84*
Gilgit Baltistan	*374*	*371*	*99*
Sindh	*2085*	*1991*	*95*
National	*6432*	*5463*	*85*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 27, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	2,537	8,337	1963	347	28,274	92,365	46,204	180,027
Malaria	40	5,330	0	2	5,781	2,989	53,393	67,535
ILI	1147	6,211	339	633	3,268	3	20,670	32,271
TB	63	105	92	2	418	8,823	9,757	19,260
ALRI < 5 years	802	1480	512	0	1,222	599	7,643	12,258
B.Diarrhea	125	2044	138	2	1,543	949	3,413	8,214
Dog Bite	99	128	1	0	446	5,150	1,945	7,769
VH (B, C & D)	13	99	1	0	106	0	4,922	5,141
Typhoid	23	766	97	3	702	1,649	1,107	4,347
AWD (S. Cholera)	26	314	189	7	202	1,960	18	2,716
SARI	241	527	206	1	1,023	0	84	2,082
Measles	24	33	12	2	299	937	92	1,399
Dengue	1	53	0	0	16	690	83	843
AVH (A&E)	38	39	0	0	301	0	398	776
CL	0	120	0	0	248	1	1	370
Mumps	13	68	8	0	52	0	186	327
VL	0	5	0	0	9	0	0	14
Chickenpox/ Varicella	10	9	22	6	68	47	38	200
Gonorrhea	0	98	0	0	0	0	18	116
Rubella (CRS)	0	0	0	0	0	3	105	108
Pertussis	0	48	6	0	7	0	0	61
Meningitis	2	8	1	0	2	21	8	42
AFP	6	1	0	0	16	7	7	37
Chikungunya	0	0	0	0	0	0	30	30
HIV/AIDS	0	1	0	0	0	11	7	19
Syphilis	0	0	0	0	0	0	20	20
Leprosy	0	3	0	0	2	0	8	13
Brucellosis	0	0	0	0	2	0	0	2
Diphtheria (Probable)	0	4	0	0	3	0	0	7
CCHF	0	0	0	0	0	2	0	2

Figure 1: Most frequently reported suspected cases during week 27, Pakistan.



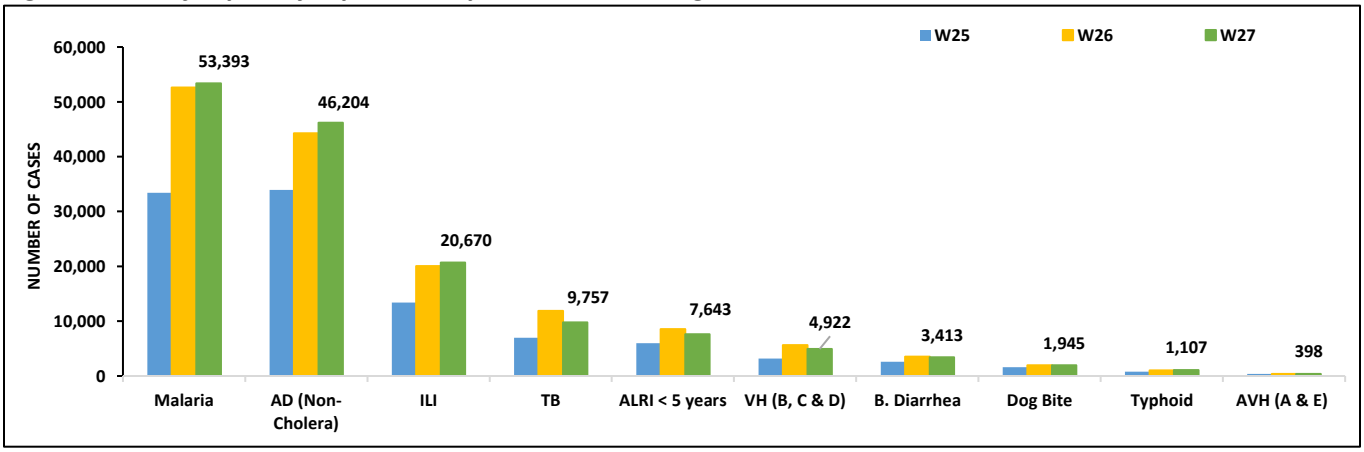
Sindh

- 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 Badin, Dadu and Khairpur.
- Seven cases of AFP and Seven suspected cases of HIV/ AIDS reported from Sindh. All are suspected cases and need field verification.
- There is an increasing trend observed for Malaria, AD (Non-Cholera), ILI, Typhoid and AVH (A & E) cases while a decreasing trend observed for TB, ALRI<5 Years, VH (B, C, D), B. Diarrhea and dog bite cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 27, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	3,756	3,229	345	659	474	104	224	63	83	14
Dadu	3,821	2,808	150	394	711	38	457	145	107	3
Ghotki	1,686	1,214	0	271	281	372	123	211	0	4
Hyderabad	253	1,672	1,477	34	58	65	0	0	14	0
Jacobabad	707	794	299	107	382	162	139	149	48	0
Jamshoro	1,518	2,376	73	298	146	170	114	26	45	3
Kamber	3,672	2,149	0	760	224	227	159	147	26	0
Karachi Central	8	842	390	6	1	7	1	0	86	4
Karachi East	56	377	146	8	21	0	3	4	8	1
Karachi Keamari	4	353	160	0	30	0	0	0	3	12
Karachi Korangi	50	307	48	4	1	0	2	0	5	2
Karachi Malir	360	1,872	3,036	120	243	52	69	50	43	22
Karachi South	44	109	13	0	0	0	0	0	0	0
Karachi West	141	1,047	1,746	173	296	138	50	137	34	22
Kashmore	1,331	450	644	230	114	20	61	166	5	0
Khairpur	5,272	2,587	4,044	930	767	138	361	129	171	5
Larkana	5,418	1,915	1	773	211	101	324	21	22	4
Matiari	1,572	2,082	4	512	153	318	66	27	8	4
Mirpurkhas	2,156	2,626	2,359	550	441	141	261	40	81	5
Naushero Feroze	1,260	962	693	330	179	77	120	149	85	0
Sanghar	2,744	1,348	3	979	311	975	30	142	32	1
Shaheed Benazirabad	1,616	2,068	0	355	250	92	57	108	98	1
Shikarpur	1,930	1,263	1	192	76	757	120	50	3	0
Sujawal	1,863	1,524	0	68	106	7	54	29	4	6
Sukkur	1,939	1,282	1,096	323	181	37	143	23	3	0
Tando Allahyar	1,590	1,500	562	431	188	478	137	56	18	5
Tando Muhammad Khan	1,544	1,335	0	434	143	60	72	0	0	1
Tharparkar	2,660	2,220	1,479	481	739	235	120	2	38	48
Thatta	2,421	2,359	1,901	23	465	114	85	71	11	227
Umerkot	2,001	1,534	0	312	451	37	61	0	26	4
Total	53,393	46,204	20,670	9,757	7,643	4,922	3,413	1,945	1,107	398

Figure 2: Most frequently reported suspected cases during week 27 Sindh



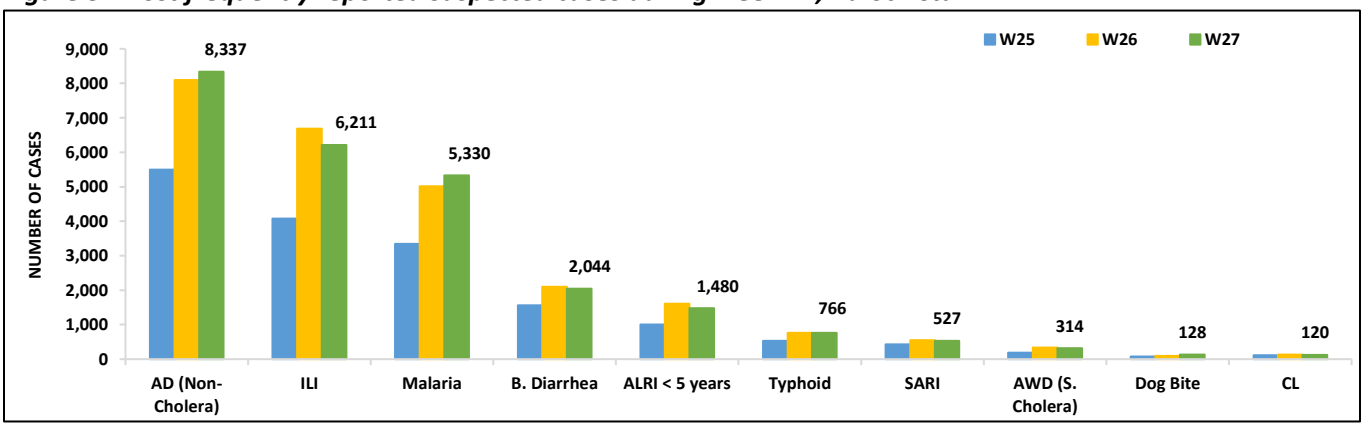
Balochistan

- AD (Non-Cholera), ILI, Malaria, B. Diarrhea, ALRI <5 years, Typhoid, SARI, AWD (S. Cholera), dog bite and CL cases were the most frequently reported diseases from Balochistan province.
- AD (Non-Cholera) cases are mostly reported from Hub, Usta Muhammad and Quetta while ILI cases are mostly reported from Kalat, Quetta and Duki.
- AD (Non-Cholera), Malaria and dog bite cases showed an increasing trend while ILI, B. Diarrhea, ALRI <5 years, SARI, AWD (S. Cholera) and CL cases showed a decreasing trend this week.
- One case of AFP and One suspected case of HIV/ AIDS reported from Balochistan. It needs field verification.

Table 3: District wise distribution of most frequently reported suspected cases during week 27, Balochistan

Districts	AD Non-Cholera)	ILI	Malaria	B. Diarrhea	ALRI < 5 years	Typhoid	SARI	AWD (S.Cholera)	Dog Bite	CL
Awaran	7	50	27	16	3	4	3	4	0	0
Barkhan	108	41	53	8	7	34	0	8	8	0
Chagai	150	184	60	54	0	18	0	8	1	0
Chaman	206	209	99	131	7	46	21	1	1	10
Dera Bugti	82	36	163	48	18	41	21	0	0	0
Duki	456	725	193	84	24	28	NR	12	NR	NR
Gwadar	74	27	68	76	135	0	0	2	4	0
Harnai	315	87	278	57	9	8	0	0	22	0
Hub	725	28	976	109	35	12	13	0	16	3
Jaffarabad	322	256	312	10	41	1	5	6	19	0
Jhal Magsi	61	1	56	12	14	35	4	0	0	0
Kalat	510	963	506	117	131	NR	2	2	1	NR
Kech (Turbat)	168	269	59	42	3	7	0	9	0	0
Kharan	267	282	156	100	20	37	38	4	NR	3
Khuzdar	218	92	37	115	16	59	25	39	3	17
Killa Abdullah	304	2	216	136	139	43	12	3	0	2
Killa Saifullah	230	277	180	134	11	45	54	4	NR	2
Kohlu	376	72	229	17	61	3	2	0	4	0
Lasbella	214	242	75	49	27	26	92	0	5	0
Loralai	193	129	90	76	52	21	22	11	14	0
Mastung	25	7	51	9	0	8	0	8	0	0
Naseerabad	283	5	148	4	32	44	3	0	5	12
Nushki	266	5	88	43	0	0	0	2	0	0
Panjgur	191	79	126	29	64	9	17	58	0	1
Pishin	291	210	36	102	30	25	10	43	1	15
Quetta	580	941	31	110	97	84	30	56	3	29
Sherani	50	72	20	18	14	16	19	4	0	18
Sibi	45	43	50	4	11	11	12	5	0	1
Sohbat pur	258	11	298	79	113	28	15	2	8	2
Surab	48	179	90	0	0	24	0	0	0	0
Usta Muhammad	724	67	356	48	80	12	16	0	5	3
Washuk	149	176	42	57	4	6	14	0	0	2
Zhob	178	162	83	46	239	11	57	1	0	0
Ziarat	145	223	49	53	21	13	4	16	7	0
Total	8,337	6,211	5,330	2,044	1,480	766	527	314	128	120

Figure 3: Most frequently reported suspected cases during week 27, Balochistan

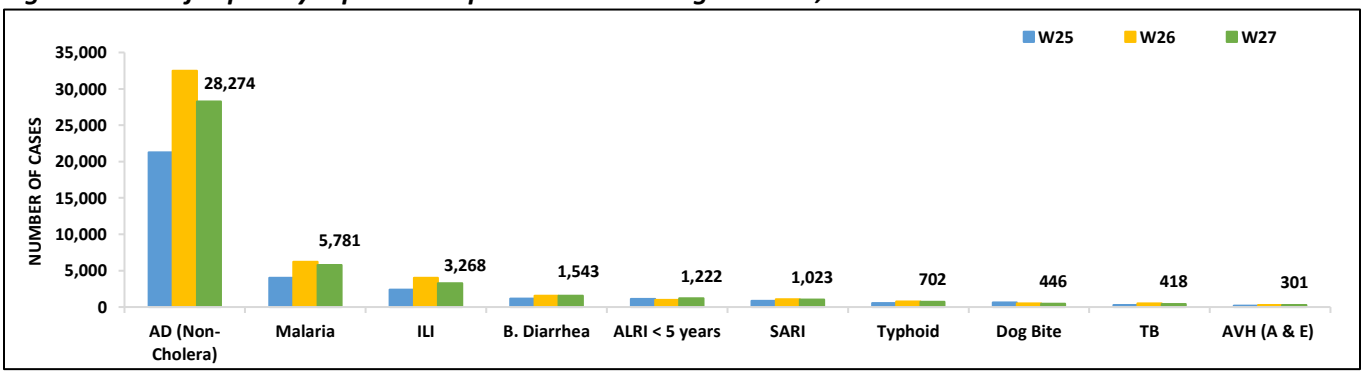


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, B. Diarrhea, ALRI<5 Years, SARI, Typhoid, dog bite, TB and AVH (A & E) cases.
- AD (Non-Cholera), Malaria, ILI, SARI, Typhoid, dog bite and TB cases showed a decreasing trend this week.
- Sixteen cases of AFP and Two suspected cases of Brucellosis reported from KP. All are suspected cases and need field verification.

Table 4: District wise distribution of most frequently reported suspected cases during week 27, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B.Diarrhea	ALRI <5 Years	SARI	Typhoid	Dog Bite	TB	AVH (A&E)
Abbottabad	937	12	33	6	9	4	20	2	19	1
Bajaur	841	153	70	131	152	112	8	36	16	48
Bannu	795	1,333	0	48	17	21	78	4	20	18
Battagram	169	0	280	0	0	0	0	0	0	0
Buner	673	422	0	0	0	0	3	7	1	0
Charsadda	1572	181	290	197	125	13	79	6	3	46
Chitral Lower	669	18	33	36	15	21	14	6	6	2
Chitral Upper	184	5	20	4	6	9	18	2	2	2
D.I. Khan	1208	261	0	26	14	0	1	3	40	0
Dir Lower	1842	178	0	95	96	0	67	21	7	4
Dir Upper	581	15	66	9	7	0	9	0	23	0
Hangu	70	12	0	11	10	0	0	1	3	0
Haripur	1073	22	85	25	42	8	20	16	25	77
Karak	248	149	29	0	10	0	0	16	5	0
Khyber	328	235	16	79	33	3	45	27	9	8
Kohat	280	112	2	0	8	0	1	13	5	0
Kohistan Lower	154	8	13	12	3	3	0	2	0	0
Kohistan Upper	482	24	40	50	24	0	17	0	8	0
Kolai Palas	102	11	9	10	3	3	6	0	0	0
L & C Kurram	88	27	67	14	1	12	9	5	1	0
Lakki Marwat	609	191	5	19	1	0	4	33	10	0
Malakand	1083	41	18	220	28	12	18	0	4	26
Mansehra	1,082	1	284	14	16	82	0	0	0	0
Mardan	678	17	0	21	206	0	0	53	7	0
Mohmand	132	174	85	51	2	65	11	8	2	0
North Waziristan	60	10	0	1	0	18	2	0	0	2
Nowshera	2,302	89	23	39	3	6	11	16	11	4
Orakzai	56	35	8	12	3	5	11	0	0	0
Peshawar	3,355	40	540	192	69	64	82	19	29	10
SD Peshawar	3	0	0	0	0	0	0	0	0	0
SD Tank	19	35	2	2	0	0	3	0	0	0
Shangla	1,265	1,138	11	21	35	2	16	34	80	5
SWA	145	125	172	28	54	94	55	14	2	0
Swabi	1,470	74	561	18	189	26	27	65	58	24
Swat	2,830	60	61	41	29	26	1	27	11	19
Tank	522	359	203	2	0	0	34	0	7	0
Tor Ghar	129	147	0	29	0	14	9	0	0	5
Upper Kurram	238	67	242	80	12	400	23	10	4	0
Total	28,274	5,781	3,268	1,543	1,222	1,023	702	446	418	301

Figure 4: Most frequently reported suspected cases during week 27, KP



ICT, AJK & GB

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

AJK: AD (Non-Cholera) cases were maximum followed by ILI, ALRI <5 years, SARI, B. Diarrhea, dog bite, TB, Malaria, AVH (A & E) and AWD (S. Cholera) cases. An increasing trend observed for AD (Non-Cholera), SARI and B. Diarrhea cases while a decreasing trend observed for ILI, ALRI <5 years, dog bite, TB, Malaria, AVH (A & E) and AWD (S. Cholera) cases this week. Six cases of AFP reported from AJK. All 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, AWD (S. Cholera), B. Diarrhea, Typhoid and TB cases. Increasing trend observed for AD (Non-Cholera), ALRI <5 Years, ILI, SARI, AWD (S. Cholera) and TB cases this week.

Figure 5: Most frequently reported suspected cases during week 27, ICT

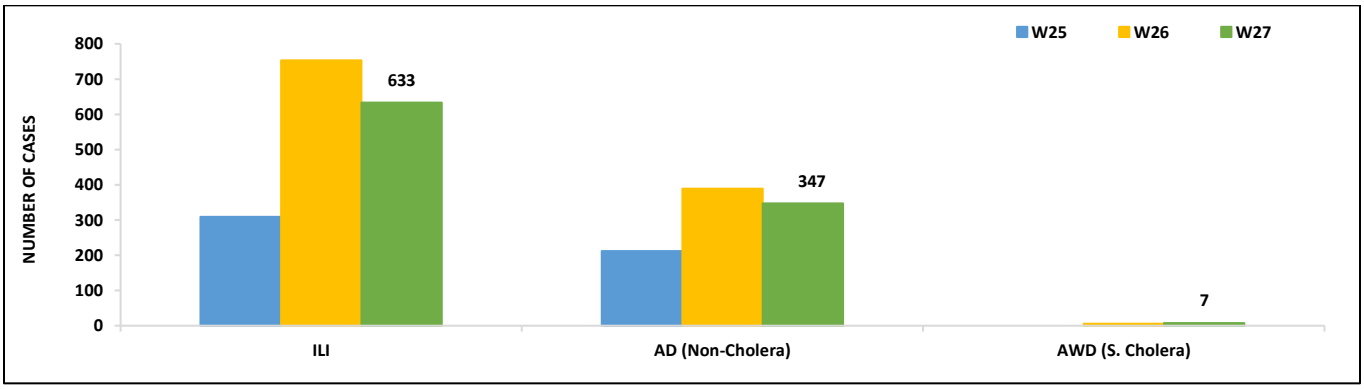


Figure 6: Week wise reported suspected cases of ILI, ICT

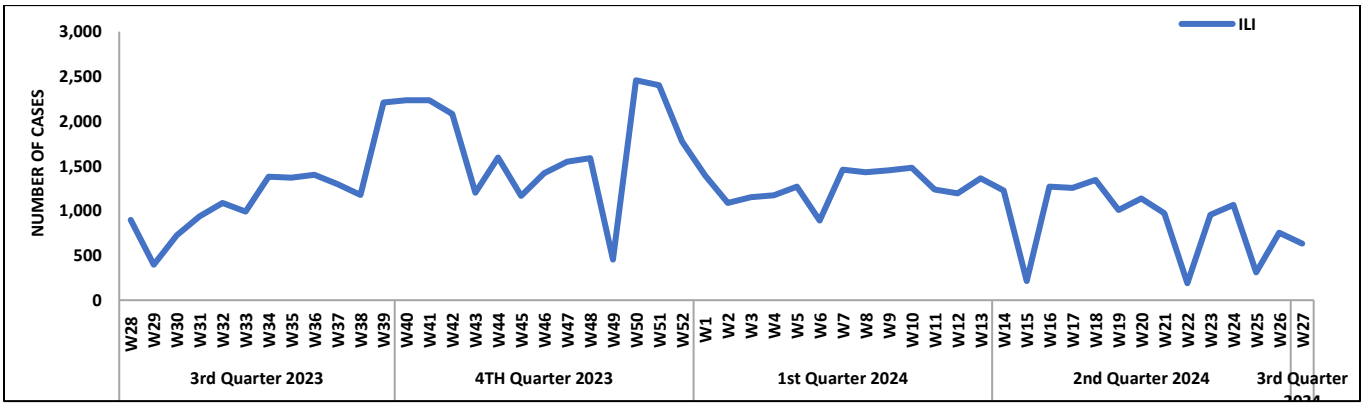


Figure 7: Most frequently reported suspected cases during week 27, AJK

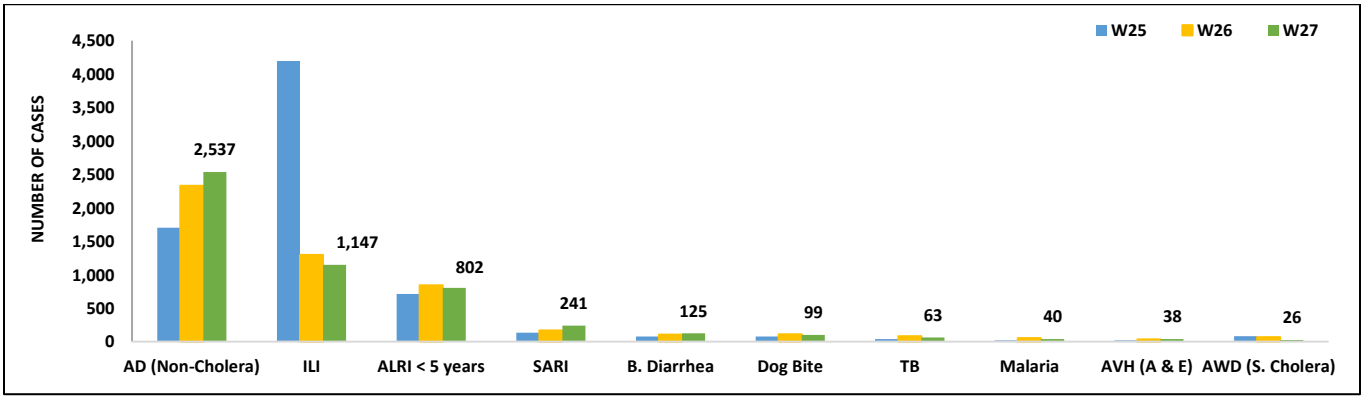


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

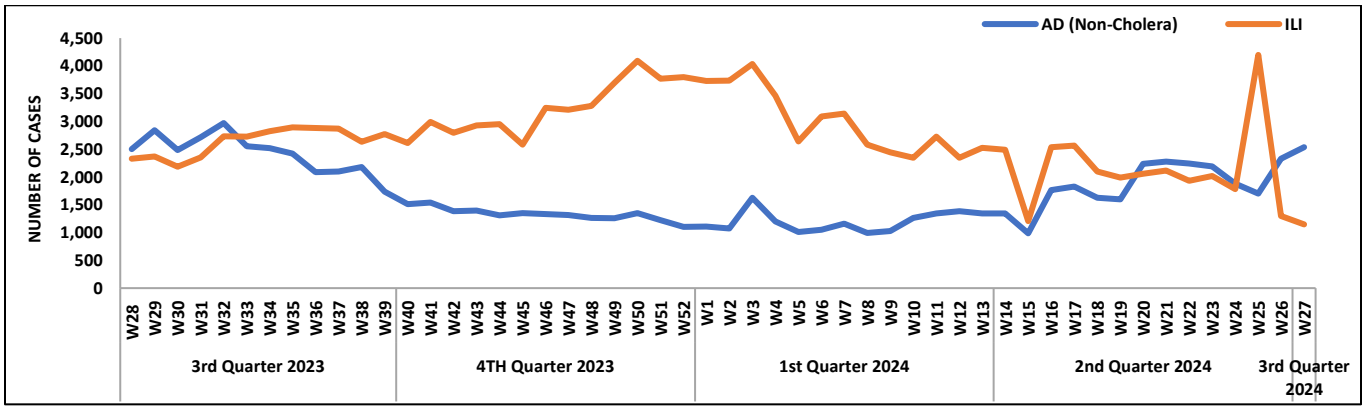


Figure 9: Most frequent cases reported during Week 27, GB

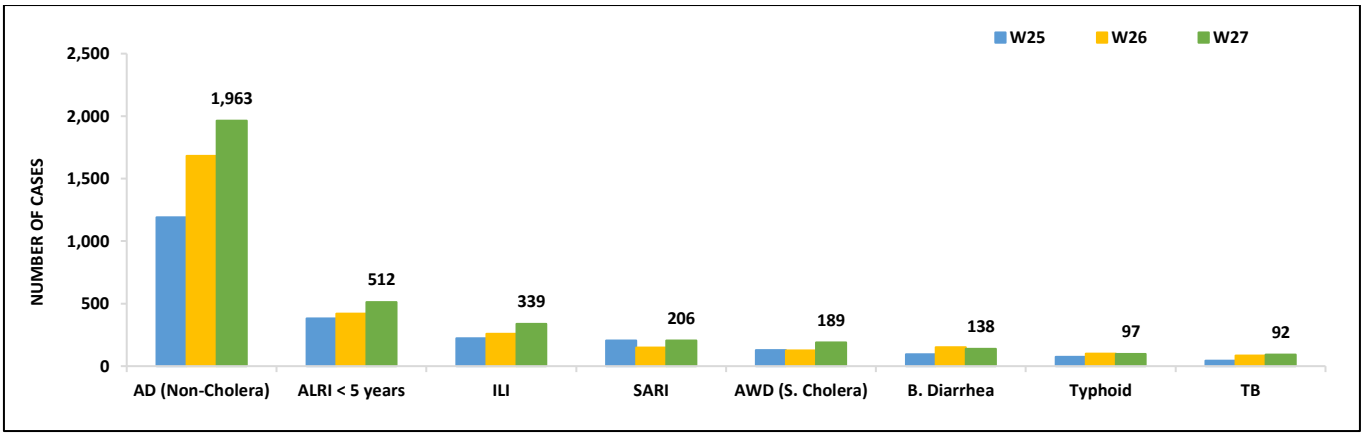
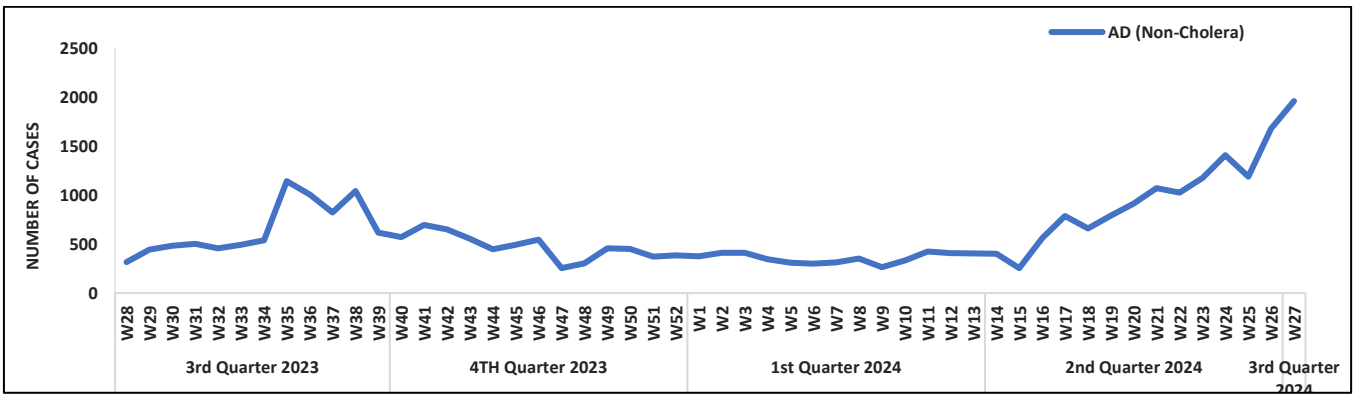


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



Punjab

- AD (Non-Cholera) cases were maximum followed by TB, dog bite, Malaria, AWD (S. Cholera), Typhoid, B. Diarrhea, Measles, Dengue and ALRI<5 Years cases.
- AD (Non-Cholera), TB, dog bite, Malaria, AWD (S. Cholera), Typhoid, B. Diarrhea, Measles, Dengue and ALRI<5 Years cases showed a decreasing trend this week.
- Eleven suspected cases of HIV/ AIDS, seven cases of AFP and Two suspected cases of CCHF reported from Punjab. Field investigation

Figure 11: Most frequently reported suspected cases during week 27, Punjab.

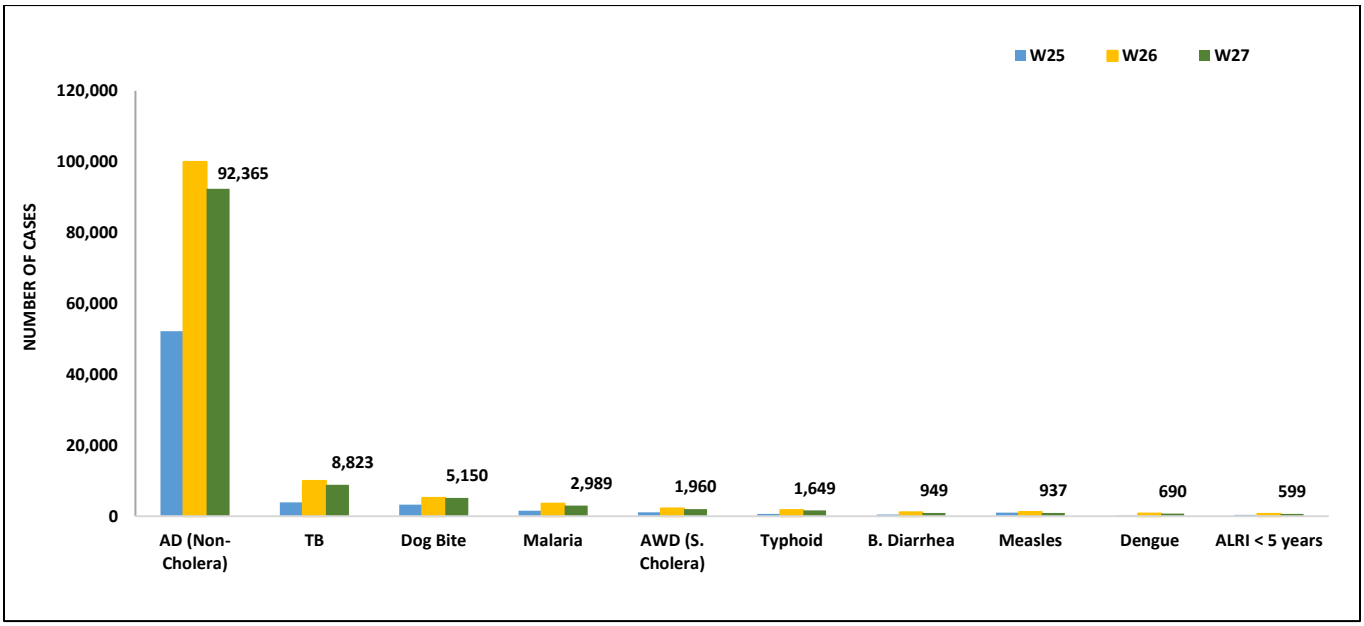


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 27

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)	3	0	-	-	2	1	-	-	-	-
AD (Non-Cholera)	99	0	-	-	-	-	-	-	-	-
Malaria	2,731	115	-	-	-	-	-	-	-	-
CCHF	-	-	8	1	8	0	1	0	-	-
Dengue	820	37	-	-	3	3	4	0	-	-
VH (B)	3,473	82	173	130	-	-	-	-	22	8
VH (C)	2,978	181	179	54	-	-	-	-	-	-
VH (A&E)	56	0	-	-	-	-	-	-	-	-
Covid-19	-	-	23	0	-	-	6	0	35	0
HIV	244	0	-	-	-	-	-	-	-	-
Influenza A	0	0	0	0	0	0	30	0	0	0
TB	54	0	-	-	-	-	-	-	-	-
Syphilis	149	0	-	-	-	-	-	-	-	-
Typhoid	580	11	-	-	-	-	-	-	-	-

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 27, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	105	95%
	Bannu	239	128	54%
	Battagram	63	19	30%
	Buner	34	27	79%
	Bajaur	44	34	77%
	Charsadda	59	55	93%
	Chitral Upper	34	28	82%
	Chitral Lower	35	34	97%
	D.I. Khan	114	109	96%
	Dir Lower	74	73	99%
	Dir Upper	53	36	68%
	Hangu	22	18	82%
	Haripur	72	63	88%
	Karak	35	35	100%
	Khyber	52	17	33%
	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	42	25	60%
	Upper Kurram	41	32	78%
	Malakand	42	32	76%
	Mansehra	136	90	66%
	Mardan	80	74	93%
	Nowshera	55	51	93%
	North Waziristan	12	4	33%
	Peshawar	151	124	82%
	Shangla	39	26	67%
	Swabi	63	61	97%
	Swat	77	69	90%
	South Waziristan	134	53	40%
	Tank	34	32	94%
	Torghar	14	14	100%
	Mohmand	86	37	43%
	SD Peshawar	5	1	20%
	SD Tank	58	6	10%
	Orakzai	68	16	24%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%
	Haveli	39	39	100%

Azad Jammu Kashmir	Bagh	40	40	100%
	Neelum	39	17	44%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	14	6	43%
Balochistan	Gwadar	25	25	100%
	Kech	40	40	100%
	Khuzdar	74	41	55%
	Killa Abdullah	26	19	73%
	Lasbella	55	55	100%
	Pishin	69	21	30%
	Quetta	43	29	67%
	Sibi	36	26	72%
	Zhob	39	29	74%
	Jaffarabad	16	16	100%
	Naserabad	32	31	97%
	Kharan	30	30	100%
	Sherani	15	15	100%
	Kohlu	75	57	76%
	Chagi	35	24	69%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	26	26	100%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	45	100%
	Loralai	33	32	97%
	Killa Saifullah	28	27	96%
	Ziarat	29	28	97%
	Duki	31	25	81%
	Nushki	32	29	91%
	Dera Bugti	45	34	76%
	Washuk	46	24	52%
	Panjgur	38	16	42%
	Awaran	23	7	30%
	Chaman	25	23	92%
	Barkhan	20	19	95%
	Hub	33	33	100%
	Musakhel	41	5	12%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	31	97%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	39	98%
	Diamer	62	61	98%
	Astore	54	54	100%

	Shigar	27	27	100%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	58	79%
	Ghotki	64	63	98%
	Umerkot	43	43	100%
	Naushahro Feroze	107	96	90%
	Tharparkar	282	246	87%
	Shikarpur	59	59	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	37	100%
	Karachi-Kemari	18	14	78%
	Karachi-Central	11	7	64%
	Karachi-Korangi	18	18	100%
	Karachi-South	4	4	100%
	Sujawal	54	54	100%
	Mirpur Khas	106	103	97%
	Badin	124	120	97%
	Sukkur	63	61	97%
	Dadu	88	86	98%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	163	96%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	70	70	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	122	122	100%

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Building Stronger Immunization Programs: The FETP-NSTOP Initiative.

A groundbreaking collaboration between the Field Epidemiology Training Program (FETP), the National Stop Transmission of Polio (NSTOP) program, the US Centers for Disease Control and Prevention (US-CDC), Integralglobal, and the National Institutes of Health (NIH) is making strides in strengthening Pakistan's immunization efforts. The FETP-NSTOP Immunization Course is a targeted program designed to equip district EPI (Expanded Program on Immunization) coordinators and focal persons with the knowledge and skills they need to effectively manage and improve immunization coverage.

This unique initiative recently saw its first cohort complete a crucial training component: an immunization coverage survey conducted in Swat district. This wasn't just a theoretical exercise; participants actively engaged in the data collection process firsthand. By going into the field and surveying communities, they gained invaluable practical experience. This experience is essential for understanding the real-world challenges of vaccine access and uptake.

The data collected during this survey will be instrumental in developing targeted interventions to ensure that all children in Swat have access to life-saving vaccines. The survey will identify areas with low coverage rates, allowing public health officials to pinpoint specific populations or communities that need additional resources or outreach efforts. This targeted approach is far more effective than a blanket strategy, and it ensures that vaccines reach the children who need them most.

The FETP-NSTOP program represents a significant step forward in Pakistan's commitment to achieving and maintaining high immunization rates. By empowering district-level personnel with the skills and knowledge gained through this course, the program equips them to be the driving force behind stronger immunization programs in their districts. This collaborative effort lays the foundation for a more robust and efficient immunization system at the district level, which is critical for ultimately protecting children across the country from preventable diseases.

Prioritizing Public Health: A Collaborative Response to Impending Floods in Punjab.

In anticipation of potential flooding impacting Punjab, Pakistan, the Directorate General Health Services convened a critical meeting of its Technical Working Group. This gathering, held in Lahore, aimed to finalize comprehensive contingency plans to safeguard public health in the event of an emergency. Dr. Muhammad Ilyas Gondal, Director General of Health Services Punjab, presided over the meeting, underscoring the department's commitment to a proactive response.

Demonstrating Interagency Collaboration

The meeting served as a testament to the collective effort required for effective flood response. A diverse group of stakeholders participated, including senior officials from the Health Department like Additional Secretary Technical, Director CDC, Director EPI Punjab, and Director MIS. Additionally, representatives from the World Health Organization,

Punjab Disaster Management Authority, Department of Meteorology, UNICEF and UNFPA were present. This interagency collaboration underscored the critical role of coordinated efforts in mitigating the potential health risks associated with floods.

Strengthening Preparedness Measures

Dr. Yadallah, Director CDC, presented a detailed briefing on the potential flood situation and the comprehensive preparedness measures undertaken by the Health Department. These measures included:

- **Prepositioned Resources:** Adequate stocks of essential medicines, medical supplies, and equipment have been strategically placed in flood-prone areas, ensuring immediate access to vital resources during a crisis.

- **Mobile Medical Teams:** Highly trained and equipped mobile medical teams stand ready for deployment to areas most severely impacted by flooding. Their swift response will be crucial in providing lifesaving healthcare services.

- **Communication and Coordination:** A robust communication and coordination mechanism has been meticulously established. This ensures the seamless flow of information and facilitates a unified response across all concerned agencies.

- **Healthcare Worker Training:** Healthcare workers are being actively trained on flood-related health risks and management protocols. Equipping them with the necessary knowledge and expertise allows them to effectively respond to the needs of those affected by flooding.

- **Public Awareness Campaigns:** Engaging with the public through targeted public awareness campaigns is paramount. Disseminating vital information on preventive measures and self-care during floods empowers communities to take necessary precautions and protect their health.

Looking Ahead: A Unified Response

The meeting concluded with a renewed commitment from all participants to work in unison to mitigate the threats posed by potential flooding. This proactive and collaborative approach prioritizing public health is essential for ensuring the safety and well-being of citizens in Punjab. The Health Department, through its extensive preparations, stands ready to provide timely and comprehensive healthcare services in the event of any emergencies. This collaborative effort between the Health Department and other stakeholders serves as a model for effective disaster preparedness and response.

Notes from field activities

Urgent Public Health Investigation: HIV Cases in Children, Mirpurkhas District, Sindh, Pakistan. June, 2024

Dr. Fahad Memon
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Sindh

Introduction

This report details the initial findings of an investigation into a recent surge of HIV cases among children in Mirpurkhas District, Sindh, Pakistan. The investigation was conducted by the Provincial Disease Surveillance and Response Unit (PDSRU) at the Directorate General Health Services Sindh (DGHSS) following notification of 29 cases on June 22nd, 2024.

Investigation Objectives

The investigation aimed to:

1. **To Verify** the sudden increase in reported HIV cases.
2. **To Determine** the extent of the outbreak.
3. **To Identify** potential risk factors associated with the outbreak.
4. **To Recommend** preventive and control measures.

Methodology

The investigation team, deployed from June 23rd to 29th, 2024, utilized a multi-pronged approach to gather comprehensive data and understand the outbreak. This included:

- **Active Case Finding:** Field teams conducted thorough investigations, visiting the homes of all reported cases. Additionally, hospital records were meticulously reviewed to identify any potential missed cases.
- **Standardized Interviews:** Face-to-face interviews were conducted with the caregivers of each case. A pre-tested questionnaire ensured consistency and facilitated the collection of vital information about potential risk factors and exposure history.
- **Data Analysis:** The collected data was rigorously analyzed. This involved calculating frequencies to understand the distribution of cases by factors like age and location. Attack rates, which measure the proportion of a population affected within a specific timeframe, were also calculated to assess the outbreak's severity.
- **Laboratory Confirmation:** Following WHO protocols, blood samples were collected from both infected children and their close contacts. Laboratory testing with these protocols ensured accurate confirmation of HIV infection status.

Results

The initial investigation into the recent surge of HIV cases in Mirpurkhas District, Sindh, Pakistan, yielded concerning results. Field verification visits identified a discrepancy, with two initially positive tests ultimately returning negative after confirmatory testing. This brought the confirmed case total to 27.

The temporal distribution of these cases revealed a concerning trend, with the number of HIV infections steadily increasing over time. This culminated in a significant spike in June (n=8) compared to just one case identified in January. Children aged 6-11 months constituted the highest proportion of cases (n=9) and, tragically, deaths (n=2). This suggests potential mother-to-child transmission or unsafe medical practices during infancy. The highest number of cases originated from MPK 06 (n=5), followed by Mirpur Old (n=3). Identifying these hotspots within the district is crucial for targeted interventions.

The investigation into potential sources of infection revealed concerning practices. Among confirmed cases, all reported a history of:

- Reusing injectable devices.
- Visiting the pediatric ward at the Civil Hospital Mirpurkhas.
- Visits to private clinics and other hospitals

Furthermore, family contact screening conducted by CDC-1 on mothers, fathers, and siblings of each case is ongoing (details in Table 4, not shown here).

Field observations corroborated concerns about inadequate infection prevention and control practices in both hospitals and blood banks. Additionally, substandard blood screening mechanisms were identified at blood banks both within and outside the Civil Hospital Mirpurkhas. There were also concerns regarding a specific blood bank with compromised screening practices. Finally, inadequate data management at the ART center at the Civil Hospital Mirpurkhas further complicates efforts to track and manage the outbreak.

Recommendations

To prevent further transmission and control the outbreak, the following recommendations are made:

- **Strict adherence to WHO infection prevention and control measures** in hospitals and blood banks.

- **Blood screening according to Sindh Blood Transfusion Authority (SBTA) protocols** before transfusions. Regular monitoring of blood banks for SBTA guideline compliance.
- **Implementation of regular HIV screening programs** in high-risk groups and areas.
- **Enforcement of anti-quackery measures** through the Sindh Health Care Commission (SHCC) to combat unlicensed medical practices.
- **Improved coordination** between the Provincial Public Health Institute (PPHI), CDC-1, and District Health Officer (DHO) for timely identification of future outbreaks.

Next Steps

The PDSRU will continue its investigation and provide a comprehensive final report with detailed findings and recommendations.

Conclusion:

This outbreak serves as a stark reminder of the critical need for several public health interventions.

Firstly, robust infection prevention and control practices (IPC) must be implemented and rigorously enforced within healthcare facilities. This includes measures like proper hand hygiene, sterile equipment use, and safe sharps disposal.

Secondly, proper blood screening procedures are essential to prevent the transmission of bloodborne pathogens like HIV. This necessitates ensuring blood banks and healthcare facilities utilize reliable testing methods and maintain a meticulous blood screening process.

Finally, targeted HIV screening programs are crucial for identifying and managing potential outbreaks. These programs should focus on high-risk groups and geographical locations with elevated infection rates. By prioritizing these interventions outlined in this report, we can effectively control the current outbreak, prevent future occurrences, and safeguard public health from the devastating consequences of HIV transmission.

Letter to Editor

Rawalpindi District Health Authority Spearheads Comprehensive Anti-Dengue Campaign in Response to Monsoon Season

Dr. Muhammad Sajjad
DSC (EP&C)
DHA, Rawalpindi

In recognition of the impending monsoon season, a period that historically witnesses a surge in the Aedes mosquito population, the District Health Authority (DHA) of Rawalpindi has strategically intensified its anti-dengue activities. This proactive and multi-pronged approach underscores the DHA's unwavering commitment to safeguarding public health and minimizing the risk of widespread dengue outbreaks within the district.

A pivotal strategy within this campaign involved a recent meeting, convened under the leadership of District Health Officer (DHO) Dr. Ehsan Ghani. This meeting served as a critical forum for a comprehensive review of anti-dengue measures specifically within Rawal Town. Dr. Ghani directly addressed the Union Council (UC) in-charges, emphasizing the paramount importance of adhering to established Standard Operating Procedures (SOPs) for dengue prevention and control. His directive underscores the necessity for unwavering vigilance and the strict implementation of these protocols throughout the monsoon season to effectively combat the potential rise in dengue cases.

Further solidifying the DHA's commitment to a proactive approach was the recent training program organized for its health workers. This program, led by a team of entomologists – scientists specializing in the study of insects, particularly mosquitoes – focused on equipping participants with the latest knowledge and best practices pertaining to anti-dengue interventions. The program's curriculum

encompassed the biology and behavior of Aedes mosquitoes, the primary vector for dengue transmission, along with the most effective methods for population control and source reduction. The program's significance was further amplified by the participation of key figures within the DHA, including CEO District Health Authority Rawalpindi Dr. Muhammad Asif Khan, DHO Dr. Ehsan Ghani, and DDHO Dr. Javed Iqbal Soomro. Their involvement in reviewing the training program underscores the leadership's dedication to ensuring health workers possess the necessary expertise to effectively execute anti-dengue efforts throughout the district.

By prioritizing public health and taking decisive action through a combination of enforcing SOPs, targeted training for health workers, and ongoing vigilance, the Rawalpindi DHA demonstrates its unwavering commitment to mitigating the threat of dengue fever. This comprehensive and proactive campaign serves as a model for other districts facing similar challenges and highlights the significance of preventative measures in safeguarding the well-being of citizens during the monsoon season.

Commentary

Expanding the Legacy of Vaccination through Adult Immunization for a Stronger Public Health

Dr. Waqar Ahmed
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Safetynet

Vaccines are a lynchpin of modern public health, demonstrably reducing the burden of infectious diseases for over a century. Its impact has been transformative, saving countless lives and preventing debilitating illnesses that once ravaged humanity. This commentary explores the undeniable importance of vaccination, particularly for adults, in safeguarding individuals and communities from preventable illnesses.

A Century of Defense, A Call for Unwavering Commitment:

The triumph of vaccines is undeniable. For over a century, they've acted as a shield against infectious diseases, demonstrably reducing the burden they placed on individuals and healthcare systems alike. Yet, the story doesn't end there. The emergence of novel pathogens, like COVID-19, serves as a stark reminder that the fight against infectious diseases is a continuous one. To maintain the upper hand, we must remain unwavering in our commitment to three key areas:

Firstly, robust surveillance systems are paramount. These systems, coupled with strong global collaboration, allow for the early detection and rapid response to emerging threats. Imagine a global network of sentinels, constantly scanning for signs of new pathogens. This early detection allows for quicker development and deployment of vaccines, potentially mitigating outbreaks before they gain momentum.

Secondly, unwavering investment in research and development (R&D) is crucial. This involves exploring cutting-edge technologies that could accelerate vaccine production or create more broad-spectrum vaccines. Expanding vaccine platforms, the underlying technologies upon which vaccines are built, allows for faster adaptation to new threats. Additionally, fostering collaboration between scientists and public health experts is essential to translate scientific breakthroughs into real-world solutions.

Finally, ensuring equitable access to immunization programs for all age groups, particularly adults whose childhood immunities may have waned, is critical. This requires addressing vaccine hesitancy through effective communication and education campaigns. Additionally, improving healthcare infrastructure in underserved communities allows for easier access to vaccinations. By promoting comprehensive immunization programs, we can

create a population-wide shield against infectious diseases.

Why Adults Need to Stay Up-to-Date on Vaccinations:

Unlike a suit of armor, the protection offered by some vaccines isn't permanent. Over time, the body's immune response can weaken, making booster shots essential to maintain a strong defense against preventable diseases. This is especially crucial for adults. Childhood vaccinations may have waned, leaving them vulnerable to illnesses they once fought off easily. Additionally, adults face new challenges. Exposure to novel pathogens or a weakened immune system due to age or chronic health conditions can put them at greater risk.

Fortunately, a simple visit to a healthcare provider can identify any missed vaccinations or the need for boosters. This proactive approach safeguards not only yourself, but also those around you. By staying up-to-date on recommended vaccinations, you contribute to a collective immunity, creating a shield that protects the broader community, especially vulnerable populations who may not be able to be vaccinated themselves. So, think of adult vaccinations not just as personal protection, but as an act of community responsibility.

Vaccination: A Multi-Layered Defense for Individuals and Communities

Vaccines are the ultimate multi-layered defense system, safeguarding both individuals and communities from preventable illnesses. They work like a brilliant training program for the body's immune system. By introducing weakened or inactive forms of a virus or bacteria, vaccines stimulate the production of antibodies, specialized proteins that recognize and fight off those specific invaders. This not only protects the vaccinated individual from getting sick, but it also creates a phenomenon known as herd immunity.

Herd immunity is a powerful concept. Imagine a community where a large portion of the population is vaccinated. When a new infection enters the community, it has a much harder time spreading. The high number of vaccinated individuals effectively acts as a firewall, hindering the pathogen's ability to find susceptible hosts and multiply. This creates a crucial layer of protection for those who cannot be vaccinated themselves, such as young children, the elderly, or individuals with compromised immune systems. In essence, by getting vaccinated, you're not just protecting yourself, you're contributing to a collective shield that safeguards the entire community. It's a win-win situation for public health.

Beyond the Initial Disease: Preventing Serious Complications

Vaccines offer a powerful shield against a multitude of threats, extending far beyond just preventing the initial illness. While some vaccine-preventable diseases may seem mild, they can have serious hidden consequences down the line. Vaccination not only protects you from the initial infection, but also from these potential repercussions.

Take the seasonal influenza vaccine for example. While it shields you from the typical flu symptoms, it also significantly reduces the risk of hospitalization or death if you do get sick. This is especially crucial for those with chronic health conditions, as the flu can trigger complications like pneumonia, heart attacks, or strokes. Similarly, Hepatitis B, a potentially fatal liver infection, has no cure. However, vaccination effectively prevents infection altogether, stopping it from causing chronic liver damage or even cancer.

The benefits of HPV vaccination go even further. By protecting against the human papillomavirus, a leading cause of cervical cancer and other cancers in women, HPV vaccination offers a multi-layered defense. It's a proactive approach to preventing a range of illnesses, safeguarding not just your present health but your future well-being as well. In essence, vaccination is an investment in a

healthier you, protecting you from the initial disease, its potential complications, and even the risk of transmitting it to others.

Vaccine Safety: A Top Priority, Continuously Monitored

Vaccine safety is a top priority, and a cornerstone of public trust in vaccination programs. Rigorous safety protocols are in place to ensure the vaccines we receive are both effective and well-tolerated. The Centers for Disease Control and Prevention (CDC), alongside other leading experts, meticulously review vast amounts of safety data before recommending any vaccine. This meticulous evaluation doesn't stop after approval; robust monitoring systems are in place to continuously assess vaccine safety in real-world use. While some people may experience mild, short-lived side effects like fever, fatigue, or soreness at the injection site, these are typically temporary and resolve on their own. Importantly, serious or long-lasting side effects are exceptionally rare, and vaccine safety remains under constant evaluation by scientific and public health institutions. This ongoing commitment to safety ensures that vaccines continue to be one of the most effective and safe tools in our public health arsenal.

Conclusion:

Vaccination stands as a cornerstone of public health worldwide, and Pakistan is no exception. Its effectiveness in preventing serious diseases, coupled with a strong safety profile, solidifies its importance, particularly for adults.

By embracing vaccination programs and prioritizing adult immunization, Pakistan can create a healthier future for its citizens. This requires a multi-pronged approach. Firstly, promoting vaccine education and addressing vaccine hesitancy are crucial. Equipping communities with accurate information about the benefits and safety of vaccines can dispel myths and encourage widespread acceptance. Secondly, ensuring equitable access to recommended vaccinations for all adults is essential. This involves strengthening healthcare infrastructure, particularly in underserved areas, to remove barriers to vaccination. Finally, fostering collaboration between healthcare professionals, community leaders, and public health institutions can create a unified front in promoting adult immunization programs.

In conclusion, by prioritizing adult vaccination, Pakistan can harness the power of vaccines to protect individuals, communities, and future generations from the devastating consequences of preventable diseases. This commitment to public health will not only safeguard the well-being of its citizens but also pave the way for a healthier and more prosperous future for all.

Knowledge Hub

The Untold Story: Human Papilloma Virus (HPV) and Its Impact on Public Health

The human papillomavirus (HPV) represents a large and diverse family of viruses, encompassing over 200 identified strains. However, the health impact of these strains varies considerably. While some HPV types cause benign cutaneous lesions, commonly known as skin warts, others pose a more serious threat. Specific HPV genotypes are linked to a significant proportion of cervical cancer cases, along with various other cancers in both men and women. Despite the substantial public health burden associated with oncogenic (cancer-causing) HPV strains, this viral infection often remains asymptomatic, leading to underdiagnosis and delayed intervention. Therefore, a comprehensive understanding of HPV's diverse roles and its impact on public health is crucial for developing effective prevention and control strategies.

HPV: A Widespread Infection

HPV is the most common sexually transmitted infection (STI) globally. Nearly everyone who is sexually active will come into contact with HPV

at some point in their lives. The good news is that most HPV infections clear up on their own within a few years. However, in some cases, persistent infection with certain high-risk HPV types can lead to precancerous lesions and eventually cancer.

HPV and Cervical Cancer

Cervical cancer is a preventable disease that disproportionately affects women. In fact, nearly all cases of cervical cancer (over 90%) are caused by persistent infection with high-risk HPV types. These strains can alter the normal growth of cervical cells, leading to precancerous lesions that, if left untreated, can progress to cervical cancer over time. The insidious nature of HPV infection often means there are no early symptoms, highlighting the importance of routine cervical cancer screening for early detection and treatment of precancerous lesions.

HPV and Other Cancers

Beyond its well-established association with cervical cancer, human papillomavirus (HPV) infection is implicated in the development of several other malignancies. These include vulvar and vaginal cancer, targeting the birth canal; penile cancer; and anal cancer. Notably, HPV is also linked to oropharyngeal cancer, a cancer of the back of the throat encompassing the base of the tongue and tonsils. This diverse range of HPV-associated cancers underscores the significant public health burden attributable to this viral infection.

Vaccination: A Powerful Weapon

The good news is that we have a powerful weapon against HPV – vaccination. The HPV vaccine is safe and effective in preventing infection with the most common high-risk HPV types responsible for most cervical cancers and other HPV-related cancers. Vaccination is recommended for both girls and boys at the ages of 11 or 12 years old, with catch-up vaccination available up to age 26 for females and 45 for males.

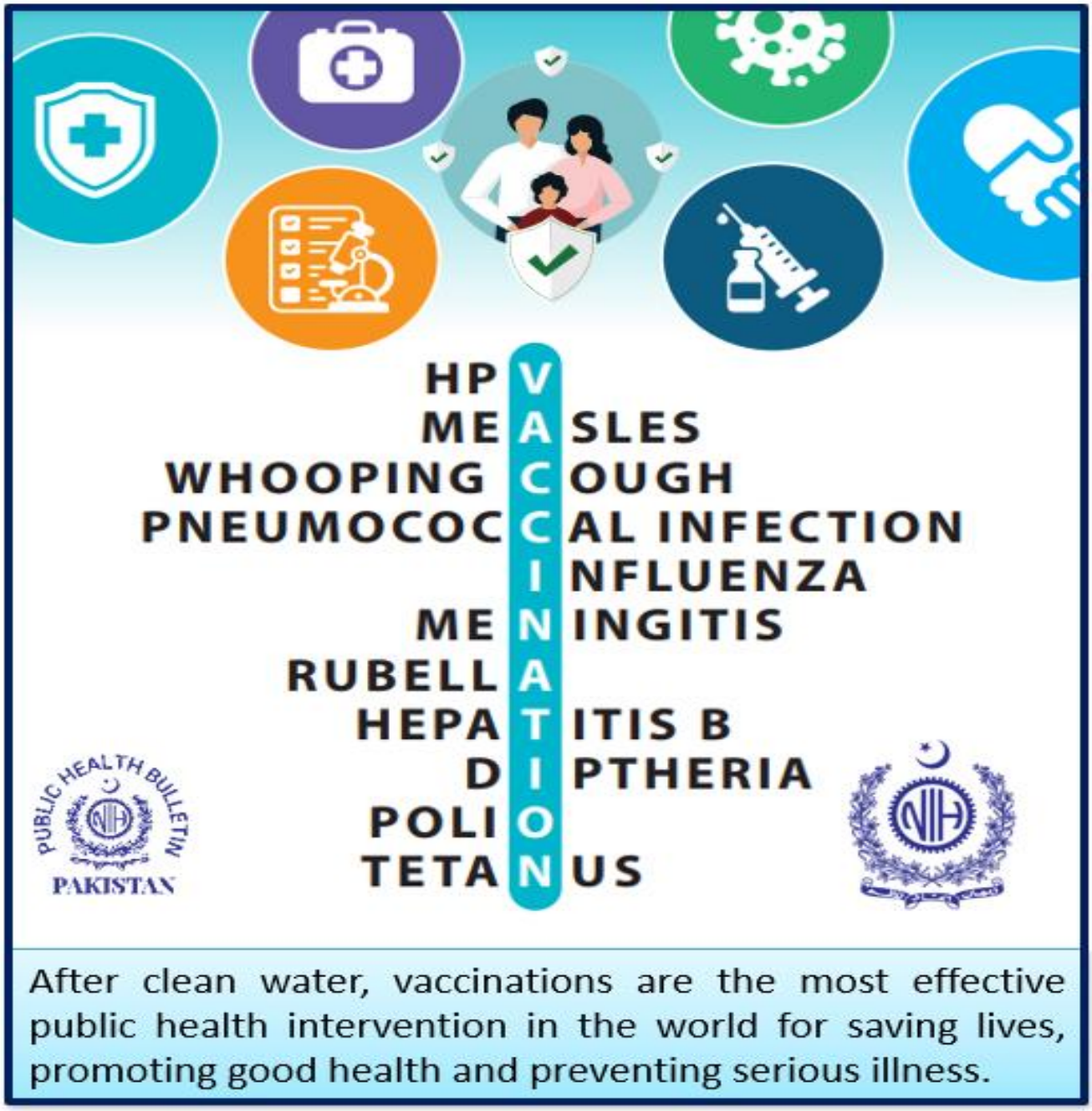
Beyond Vaccination: A Multi-Pronged Approach

While vaccination is a critical tool, it's not the only solution. A multi-pronged approach is needed to effectively combat HPV and its associated cancers. This includes:

- **Routine Cervical Cancer Screening:** Regular Pap smears and HPV testing can detect precancerous lesions early, allowing for treatment before they develop into cancer.
- **Safe Sex Practices:** Consistent condom use can reduce the risk of HPV transmission.
- **Public Health Education:** Raising awareness about HPV transmission, prevention strategies, and the importance of vaccination is crucial for empowering individuals to protect their health.

Conclusion

HPV is a common but often silent threat. By understanding its role in public health and embracing a combination of vaccination, safe sex practices, and regular cancer screening, we can significantly reduce the burden of HPV-related cancers. Let's work together to create a future where HPV is a story of prevention, not a cause for concern.



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