PUBLIC HEALTH BULLETIN-PAKISTAN

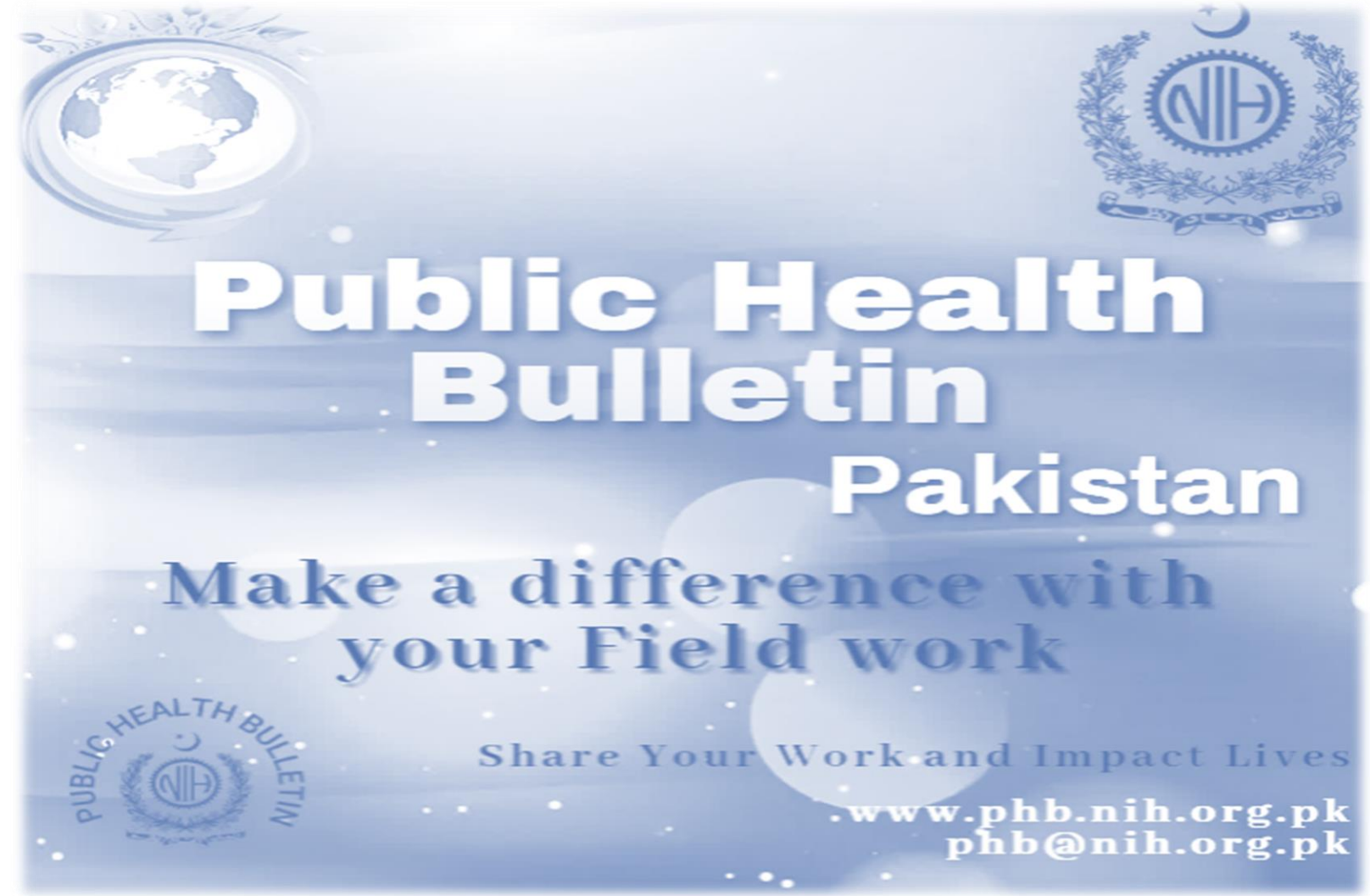
Vol. 4 / Week 03
30th Jan 2024

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 03, 2024

This week's bulletin reveals critical trends and insights relevant to public health in Pakistan:

The latest edition of the public health bulletin for Pakistan reveals concerning trends and valuable insights regarding the nation's health landscape. This week has witnessed a significant increase in reported cases of Acute Diarrhea (Non-Cholera), Influenza-like Illness (ILI), and Malaria, warranting heightened public health vigilance and immediate action. Additionally, suspected cases of Pertussis and Brucellosis in Balochistan require close monitoring and thorough field investigation, as all reported cases currently lack confirmed diagnoses.

This edition of the bulletin further emphasizes the pivotal role of the Public Health Bulletin (PHB) Pakistan as a sentinel for the nation's health. It features a comprehensive surveillance summary for Vaccine-Preventable Diseases in Rawalpindi District, along with an update on the ongoing Measles outbreak response and immunization efforts in the same region. Additionally, the Director of the local Hepatitis program shares the achievements of a pilot project conducted in 2023, aiming to eliminate viral hepatitis. Recognizing the importance of individual empowerment in disease control, the editor concludes with an insightful update on the global public health challenge posed by viral hepatitis.

Sincerely,

The Chief Editor

- *During week 3, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, VH (B, C & D), Typhoid, SARI, B. Diarrhea and dog bite.*
- *Sixteen cases of AFP reported from KP and nine from Sindh. All are suspected cases and need field verification.*
- *Baluchistan saw a rise in suspected cases of pertussis and brucellosis during week 3, with 117 and 15 cases reported, respectively. Field investigation is required to confirm the cases.*

IDSR compliance attributes

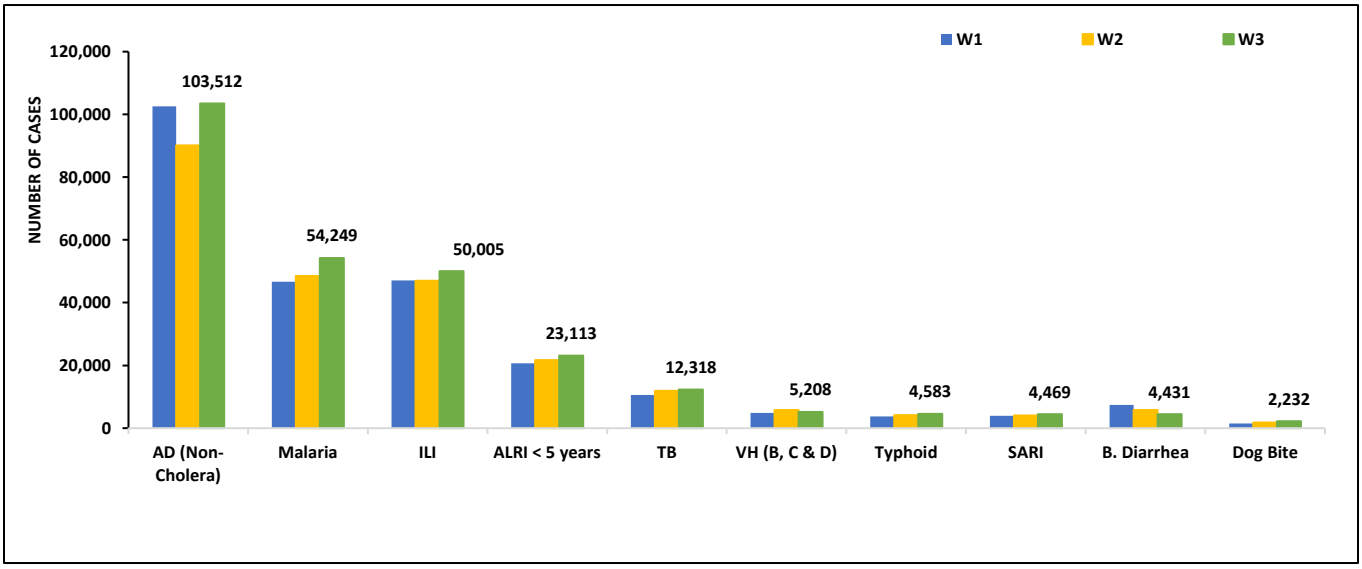
- *The national compliance rate for IDSR reporting in 124 implemented districts* is 74%
- *Gilgit Baltistan and Sindh are the top reporting regions with a compliance rate of 91% followed by AJK 87% and ICT 80%*
- *The lowest compliance rate was observed in KPK.*

Region	**Expected Reports**	**Received Reports**	**Compliance (%)**
Khyber Pakhtunkhwa	*2750*	*1552*	*56*
Azad Jammu Kashmir	*382*	*334*	*87*
Islamabad Capital Territory	*70*	*56*	*80*
Balochistan	*1179*	*892*	*76*
Gilgit Baltistan	*390*	*352*	*91*
Sindh	*2088*	*1900*	*91*
National	*6859*	*5086*	*74*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 03, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,621	5,593	413	172	10,960	53,122	31,631	103,512
Malaria	66	5,065	0	1	2,836	2,829	43,452	54,249
ILI	4,037	10,608	580	1,152	6,473	108	27,047	50,005
ALRI < 5 years	1,919	2,648	916	6	2,706	NR	14,918	23,113
TB	82	93	58	12	315	NR	11,758	12,318
VH (B, C & D)	18	150	1	0	63	NR	4,976	5,208
Typhoid	41	818	51	0	454	2,246	973	4,583
SARI	550	1,396	350	0	1,784	NR	389	4469
B. Diarrhea	83	1,155	46	7	465	1,259	2,675	4,431
Dog Bite	25	80	0	0	160	NR	1,967	2,232
AVH(A&E)	47	11	6	0	138	NR	743	945
Mumps	27	92	9	0	96	NR	328	552
Measles	4	62	8	0	367	NR	83	524
CL	2	177	0	0	233	24	5	441
AWD (S. Cholera)	22	119	75	0	36	NR	22	274
Chickenpox/ Varicella	5	17	7	1	93	46	61	230
Pertussis	2	117	6	0	40	NR	7	172
Gonorrhea	1	84	1	0	16	1	41	144
Dengue	2	2	0	0	2	NR	93	99
Syphilis	0	28	0	0	0	3	19	50
Meningitis	22	0	0	0	2	NR	24	48
AFP	4	1	0	0	16	NR	9	30
Brucellosis	0	15	0	0	2	NR	0	17
VL	1	7	0	0	5	NR	0	13
NT	0	0	0	0	11	NR	2	13
Diphtheria (Probable)	0	1	0	0	10	NR	0	11
HIV/AIDS	0	0	0	0	2	NR	3	5
Rubella (CRS)	0	2	0	0	0	NR	1	3
Chikungunya	0	0	0	0	0	NR	2	2

Figure 1: Most frequently reported suspected cases during week 03, Pakistan.



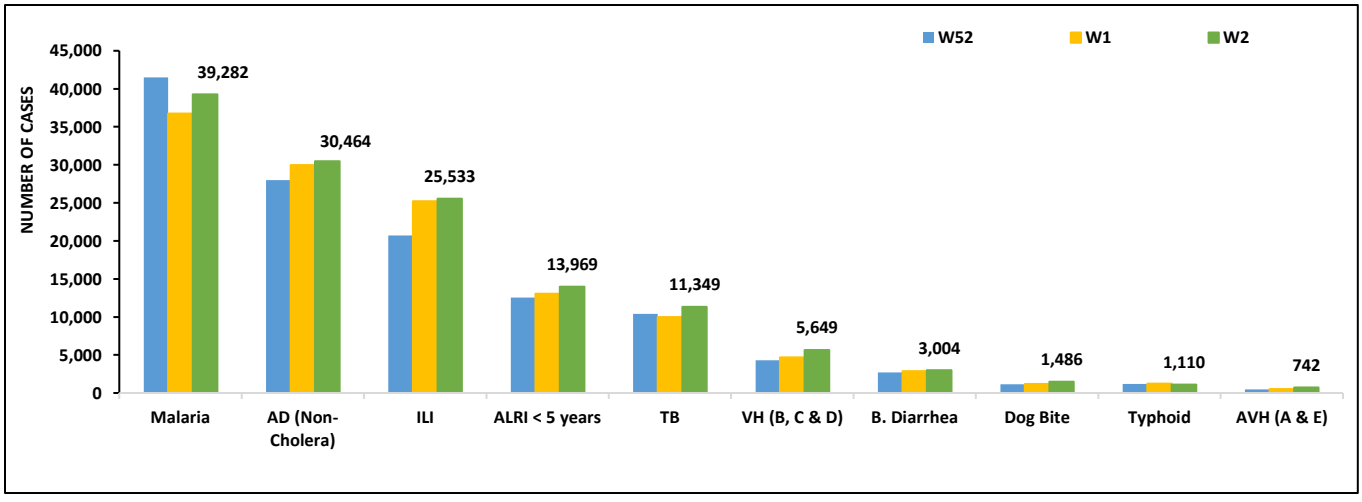
Sindh

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

Table 2: District wise distribution of most frequently reported suspected cases during week 03, Sindh

DISTRICTS	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH(A&E)
Badin	2,024	1,932	501	775	845	285	159	81	37	3
Dadu	3,499	2,021	197	1,369	470	11	304	91	156	14
Ghotki	264	446	0	610	192	219	78	219	0	2
Hyderabad	172	862	614	97	132	48	38	0	14	0
Jacobabad	1,540	615	690	824	216	217	88	198	20	0
Jamshoro	2,120	1,068	64	326	313	96	56	19	73	7
Kamber	2,796	1,377	0	496	815	178	139	78	15	0
Karachi Central	59	1,082	2,365	214	606	427	24	0	71	5
Karachi East	96	673	460	70	12	1	5	3	9	0
Karachi Keamari	4	265	120	41	0	0	1	0	4	3
Karachi Korangi	92	383	117	6	9	0	3	0	2	0
Karachi Malir	44	715	2,049	275	22	18	57	37	27	2
Karachi South	39	90	2	1	0	0	0	0	0	0
Karachi West	228	923	1,416	391	217	202	63	138	63	49
Kashmore	1,612	479	794	356	286	27	49	193	3	0
Khairpur	4,464	2,200	4,614	1,363	1033	142	350	129	148	1
Larkana	5,316	1,335	6	743	680	158	197	0	4	0
Matiari	1,083	1,194	40	694	652	489	66	30	11	0
Mirpurkhas	2,553	1,982	4,224	834	691	495	97	101	12	3
Naushero Feroze	802	602	1,059	172	369	84	33	106	57	0
Sanghar	2,654	1,538	2	542	1320	682	37	115	25	3
Shaheed Benazirabad	1,453	1,683	0	581	295	132	82	109	115	0
Shikarpur	1,950	844	9	222	34	125	117	161	2	0
Sujawal	590	643	0	90	58	28	15	21	1	16
Sukkur	1,711	1,016	2,358	425	535	242	181	41	3	0
Tando Allahyar	1,054	769	499	389	418	186	95	10	7	1
Tando Muhammad Khan	746	586	43	266	535	96	62	1	4	0
Tharparkar	2,083	2,007	3,079	1,388	520	94	128	3	30	100
Thatta	1,294	1,255	1,725	649	43	118	77	83	13	529
Umerkot	1,110	1,046	0	709	440	176	74	0	47	5
Total	43,452	31,631	27,047	14,918	11,758	4,976	2,675	1,967	973	743

Figure 2: Most frequently reported suspected cases during week 03 Sindh



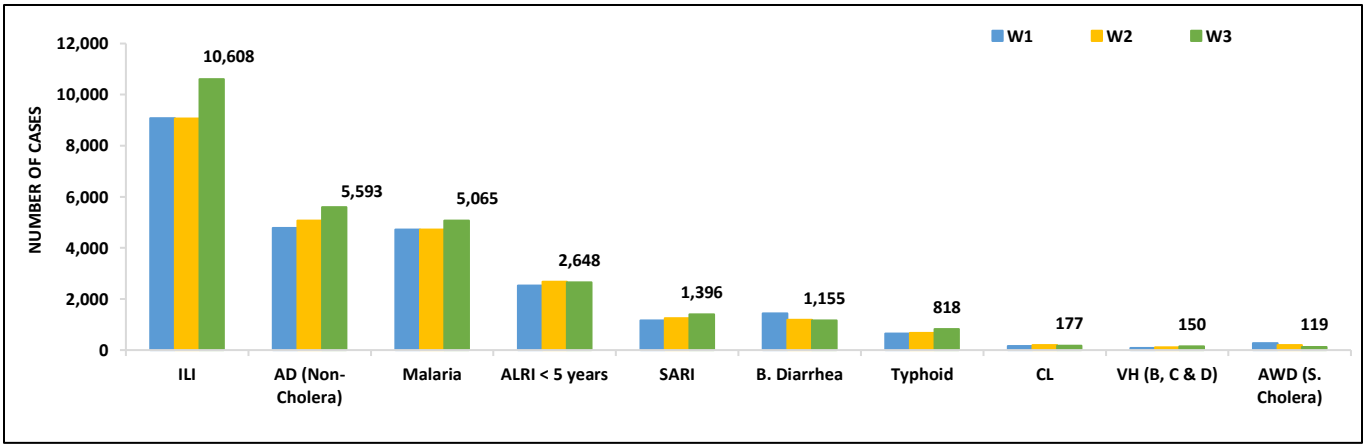
Balochistan

- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, SARI, B. Diarrhea, Typhoid, CL, VH (B, C & D) and AWD (S. Cholera) were the most frequently reported diseases from Balochistan province.
- ILI, AD (Non-Cholera) and Malaria cases showed an increasing trend this week.
- One hundred and seventeen cases of Pertussis reported from Balochistan. Field investigation is required to confirm the cases.

Table 3: District wise distribution of most frequently reported suspected cases during week 03, Balochistan

Districts	ILI	AD Non-Cholera)	Malaria	ALRI < 5 years	SARI	B. Diarrhea	Typhoid	CL	VH(B,C&D)	AWD (S.Cholera)
Awaran	52	33	40	1	4	14	3	1	1	7
Barkhan	213	160	56	125	9	15	117	0	0	9
Chagai	436	159	19	3	0	67	18	0	0	19
Chaman	284	95	1	8	29	0	45	5	0	15
Dera Bugti	43	49	95	35	11	59	19	0	0	0
Duki	72	111	21	71	39	0	9	4	0	9
Gwadar	645	341	62	38	2	65	44	0	0	0
Harnai	18	86	80	207	0	62	2	0	1	8
Hub	144	275	207	53	75	53	9	1	10	0
Jaffarabad	204	286	547	60	38	59	6	43	39	0
Jhal Magsi	254	333	831	71	6	31	18	0	0	0
Kachhi (Bolan)	61	114	100	22	98	55	43	3	0	0
Kalat	9	23	19	16	8	16	31	2	0	0
Kech (Turbat)	1,439	314	190	98	1	0	2	1	NR	NR
Kharan	414	131	32	3	24	55	3	0	0	0
Khuzdar	156	111	67	8	9	39	7	9	0	0
Killa Saifullah	8	117	123	196	25	39	27	11	0	2
Kohlu	667	232	114	56	157	0	50	3	6	0
Lasbella	107	278	418	104	57	31	7	14	3	0
Loralai	387	151	48	91	141	60	27	0	0	0
Mastung	224	162	28	91	92	60	21	3	3	11
Naseerabad	1	215	386	39	0	23	55	16	48	0
Nushki	48	124	4	0	9	27	0	0	0	2
Panjgur	123	118	130	97	9	55	8	1	0	16
Pishin	190	24	2	30	2	20	5	5	0	0
Quetta	1,268	344	14	77	5	50	18	13	5	6
Sherani	176	69	4	0	170	17	12	0	0	0
Sibi	1,549	227	268	82	131	38	37	37	0	0
Sohbat pur	32	259	560	191	39	0	57	5	6	1
Surab	154	82	36	46	19	9	65	0	3	0
Usta Muhammad	259	301	419	325	36	36	8	0	25	0
Washuk	292	102	54	12	25	0	6	0	0	0
Zhob	284	74	56	337	98	41	13	0	0	0
Ziarat	395	93	34	55	28	59	26	0	0	14
Total	10,608	5,593	5,065	2,648	1,396	1,155	818	177	150	119

Figure 3: Most frequently reported suspected cases during week 03, Balochistan



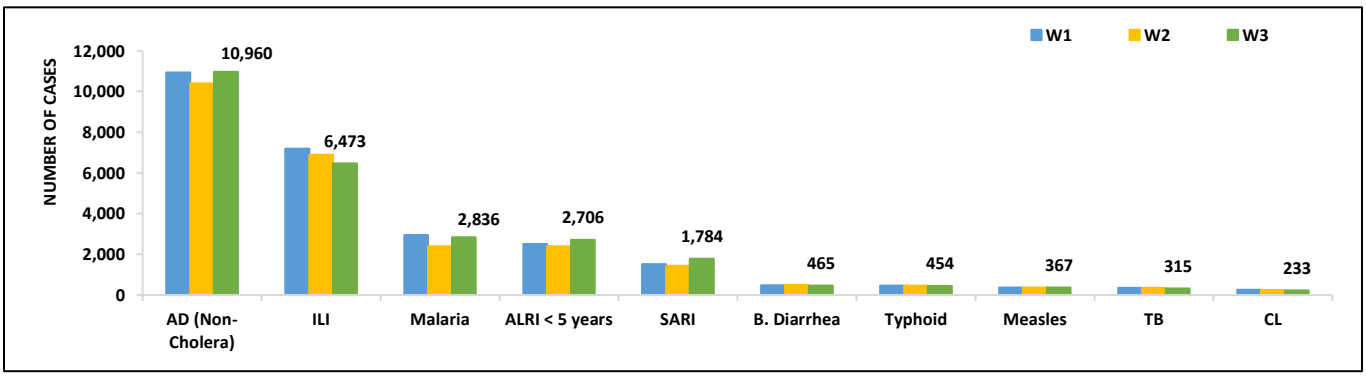
Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, Measles, TB and CL cases.
- AD (Non-Cholera), Malaria, ALRI<5 Years and SARI cases showed an increasing trend this week.
- Sixteen cases of AFP reported from KP this week. All are suspected cases and need field verification.
- High number of CL cases reported from Mohmand and Karak this week. Field investigation required to verify the cases.

Table 4: District wise distribution of most frequently reported suspected cases during week 03, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI <5 Years	SARI	B. Diarrhea	Typhoid	Measles	TB	CL
Abbottabad	301	115	2	21	23	2	5	5	18	0
Bajaur	114	15	25	43	55	8	0	0	0	1
Bannu	580	4	1,070	32	12	18	53	24	23	1
Battagram	55	134	0	0	2	0	0	0	0	0
Buner	221	0	97	71	0	1	0	0	1	0
Charsadda	658	1,096	229	235	122	19	25	10	0	0
Chitral Lower	139	104	4	54	47	11	11	1	10	5
Chitral Upper	71	20	3	11	9	5	18	0	3	0
D.I. Khan	463	0	115	84	35	15	0	68	20	0
Dir Lower	680	4	354	295	2	61	18	21	16	3
Dir Upper	216	226	4	26	5	4	34	10	30	5
Hangu	109	277	226	8	50	6	0	18	8	8
Haripur	675	543	7	179	44	9	19	3	20	0
Karak	161	91	43	19	0	0	5	55	3	38
Khyber	61	161	10	11	0	17	0	9	8	14
Kohat	92	39	23	1	1	0	0	0	0	0
Kohistan Lower	31	0	1	5	0	6	0	3	0	0
Kohistan Upper	151	60	0	3	30	4	0	2	0	0
Kolai Palas	68	0	0	4	18	2	0	0	0	1
L & C Kurram	0	111	0	0	0	4	0	0	0	0
Lakki Marwat	200	1	95	98	2	3	8	3	3	7
Malakand	394	26	17	75	25	62	16	18	3	10
Mansehra	316	463	1	64	85	6	2	2	8	0
Mardan	594	27	17	702	4	16	0	2	10	0
Mohmand	107	96	75	13	31	11	7	1	3	49
Nowshera	621	320	69	20	22	16	2	20	5	32
Orakzai	13	16	16	11	0	2	0	0	0	0
Peshawar	1,537	685	21	207	173	84	49	53	20	23
SD DI Khan	0	0	3	0	0	0	0	0	0	0
SD Peshawar	3	25	2	1	0	3	0	0	0	0
SD Tank	1	0	1	0	0	0	0	0	0	0
Shangla	141	0	117	23	0	0	20	2	42	6
SWA	43	365	48	83	49	12	29	1	0	8
Swabi	535	691	15	228	170	10	17	10	52	0
Swat	1,265	200	10	44	0	18	0	10	3	0
Tank	224	240	102	19	0	1	111	9	4	18
Tor Ghar	57	0	12	1	0	17	1	0	0	4
Upper Kurram	63	318	2	15	768	12	4	7	2	0
Total	10,960	6,473	2,836	2,706	1,784	465	454	367	315	233

Figure 4: Most frequently reported suspected cases during week 03, KP



ICT, AJK & GB

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

AJK: ILI cases were maximum followed by ALRI <5 years, AD (Non-Cholera), SARI, B. Diarrhea, TB, Malaria, AVH (A&E), Typhoid and Mumps cases. Cases of ILI and AD (Non-Cholera) showed an increasing trend in cases this week.

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

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

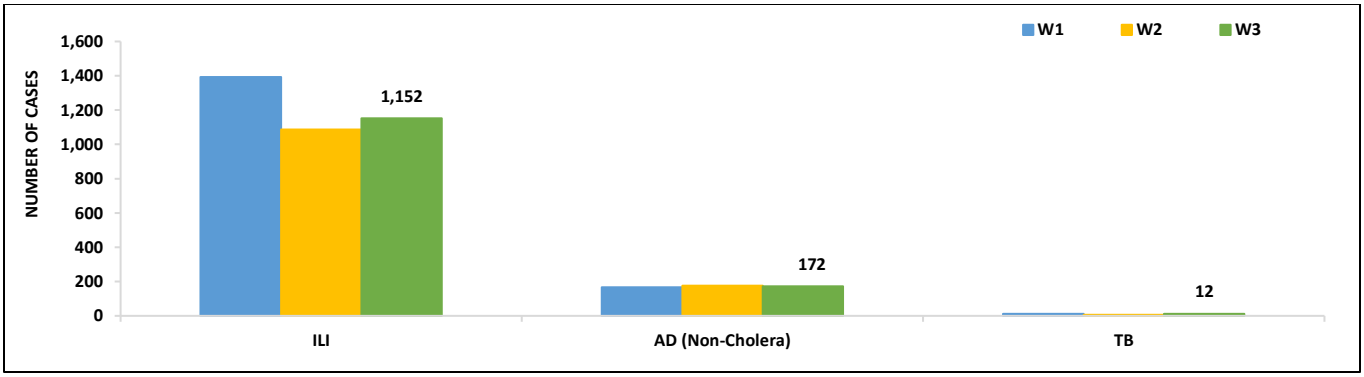


Figure 6: Week wise reported suspected cases of ILI, ICT

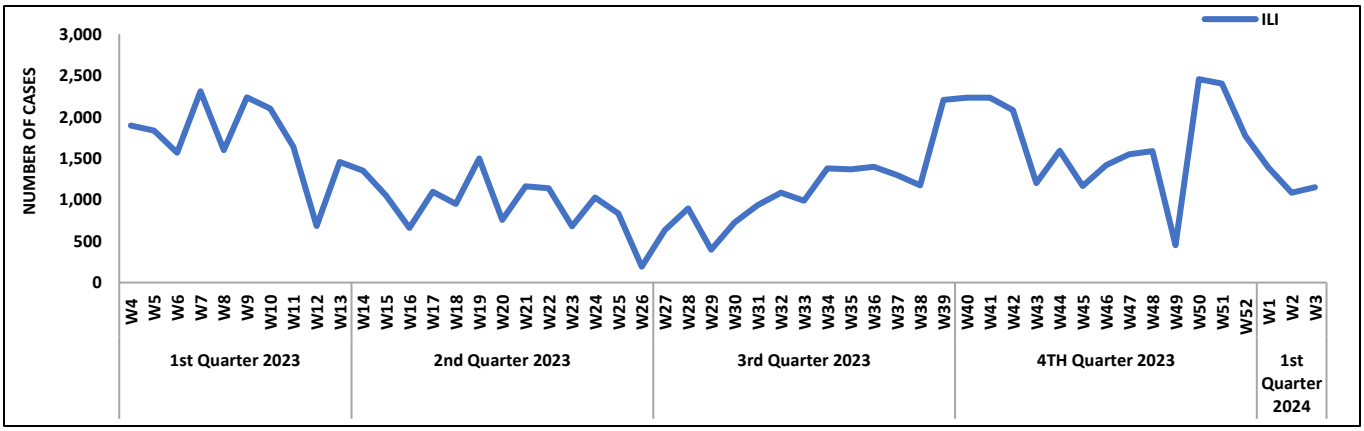


Figure 7: Most frequently reported suspected cases during week 03, AJK

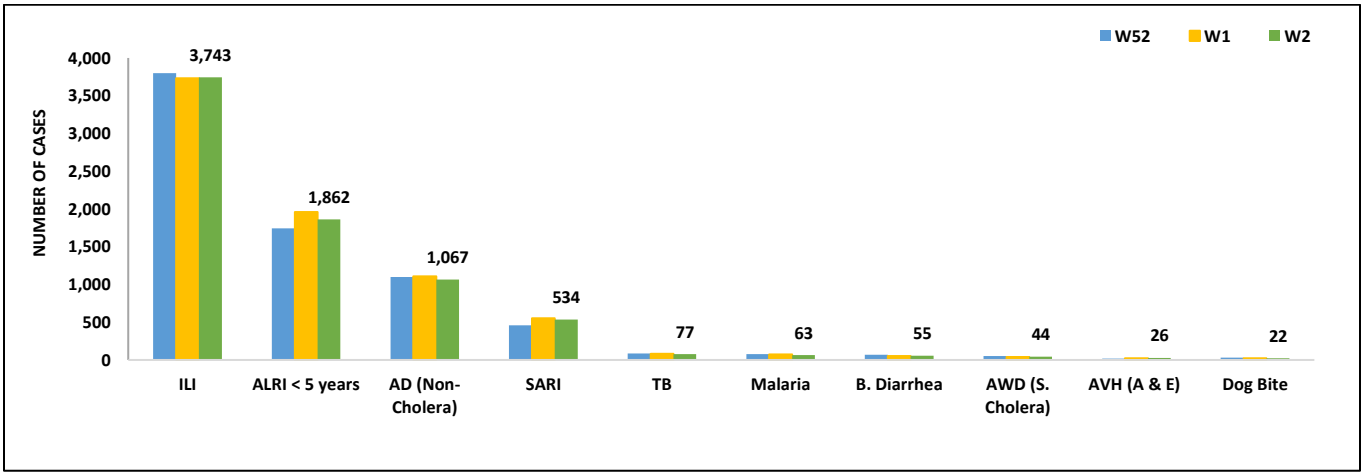


Figure 8: Week wise reported suspected cases of ILI and ALRI<5 years AJK

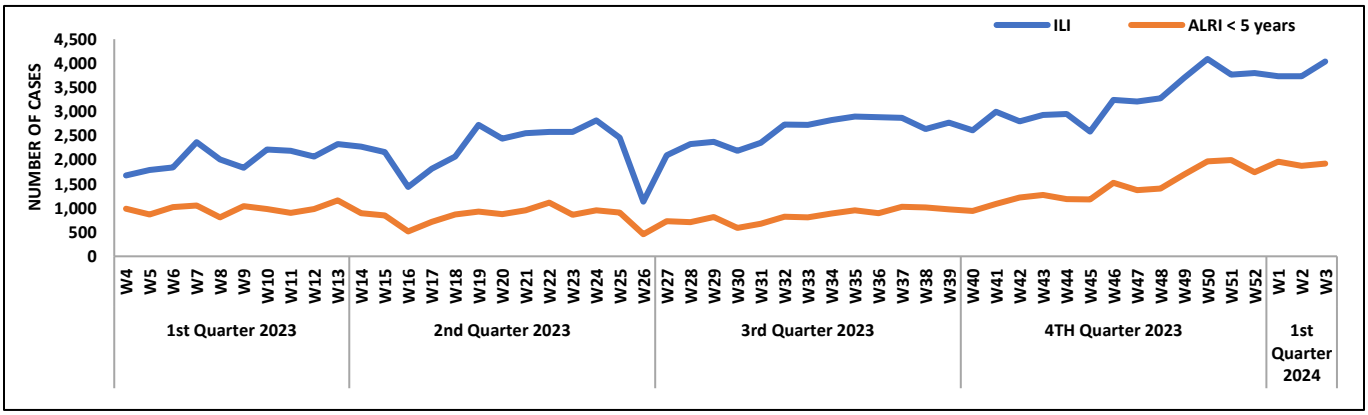


Figure 9: Most frequent cases reported during Wk 03, GB

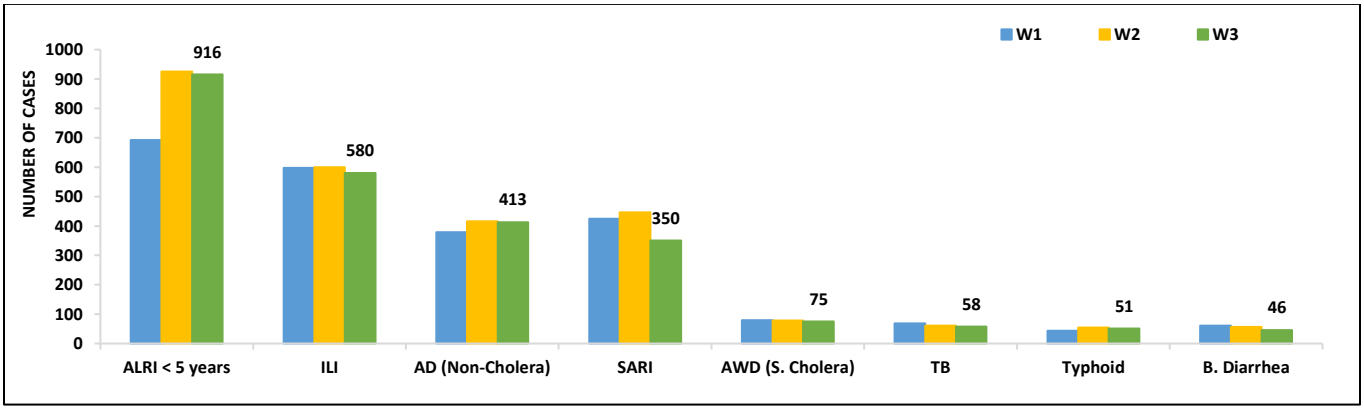
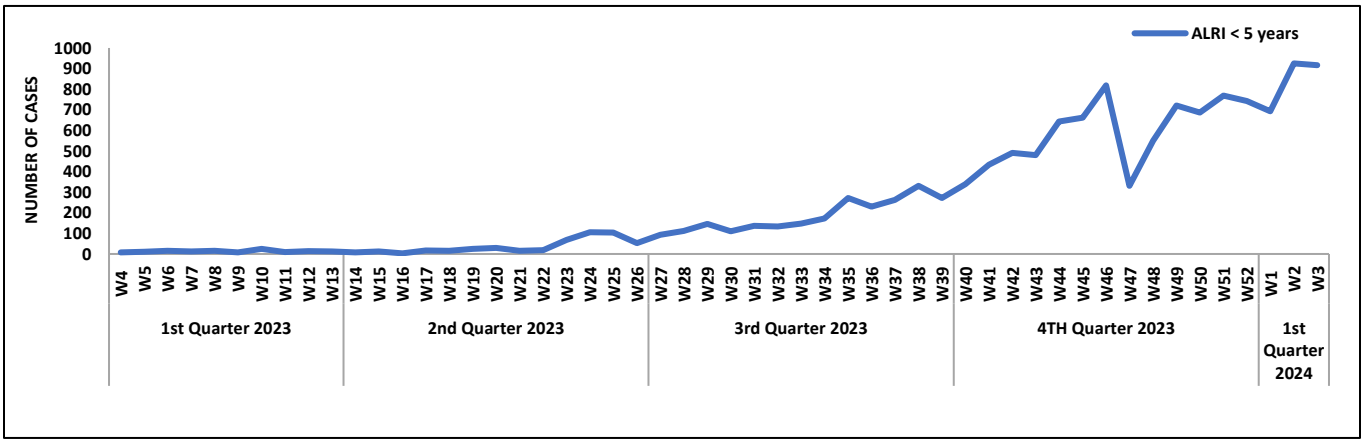


Figure 10: Week wise reported suspected cases of ALRI, GB



Punjab

- Cases of AD (Non-Cholera) were the most frequently reported followed by Malaria, Typhoid, B. Diarrhea, ILI and Chickenpox.

Figure 11: District wise distribution of most frequently reported suspected cases during week 03, Punjab

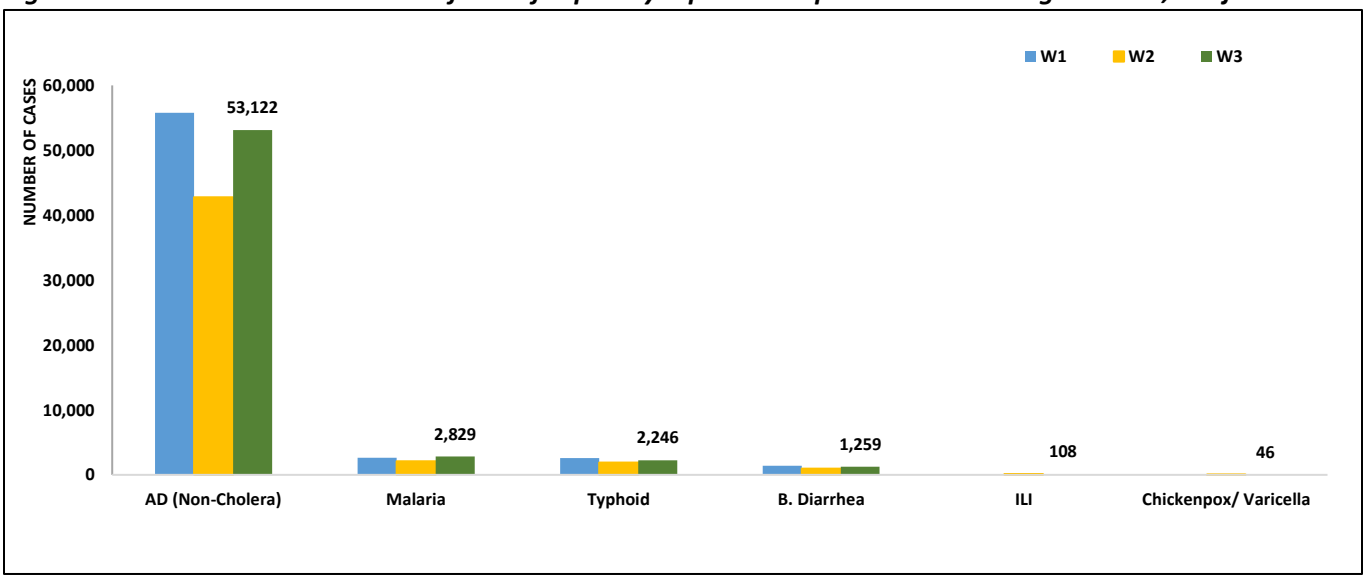


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 03

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)	95	0	-	-	-	-	0	0	-	-
AD (Non-Cholera)	95	0	-	-	-	-	1	0	-	-
Malaria	3,138	401	-	-	-	-	0	0	0	0
CCHF	-	-	15	0	-	-	2	1	-	-
Dengue	34	2	-	-	1	0	1	0	0	0
MPOX	-	-	-	-	-	-	1	1	-	-
VH (B&C)	1254	174	100	59	-	-	59	4	364	2
Typhoid	461	7	-	-	-	-	6	0	-	-
Covid-19	-	-	95	7	8	0	481	0	-	-
HIV	59	3	-	-	-	-	2	0	-	-
Pertussis	-	-	-	-	-	-	3	0	-	-
Diphtheria	-	-	-	-	-	-	14	0	-	-
Influenza A	-	-	-	-	24	3	54	3	-	-
TB	193	1	-	-	-	-	-	-	-	-

IDSR Reports Compliance

- Out OF 125 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 03, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	110	103	94%
	Bannu	234	122	52%
	Battagram	63	18	29%
	Buner	34	25	74%
	Bajaur	44	17	39%
	Charsadda	59	53	90%
	Chitral Upper	34	28	82%
	Chitral Lower	35	34	97%
	D.I. Khan	94	92	98%
	Dir Lower	74	74	100%
	Dir Upper	52	45	87%
	Hangu	22	22	100%
	Haripur	71	60	85%
	Karak	35	32	91%
	Khyber	64	14	22%
	Kohat	61	61	100%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	40	3	8%
	Upper Kurram	42	10	24%
	Malakand	48	37	77%
	Mansehra	136	69	51%
	Mardan	80	76	95%
	Nowshera	55	51	93%
	North Waziristan	380	0	0%
	Peshawar	153	120	78%
	Shangla	65	15	23%
	Swabi	63	60	95%
	Swat	76	70	92%
	South Waziristan	134	41	31%
	Tank	34	32	94%
	Torghar	14	14	100%
	Mohmand	86	25	29%
	SD DI Khan	19	1	5%
	SD Peshawar	5	3	60%
	SD Tank	58	1	2%
	Orakzai	68	14	21%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	45	100%
	Poonch	46	46	100%

Azad Jammu Kashmir	Haveli	39	28	72%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	35	28	80%
	CDA	35	28	80%
Balochistan	Gwadar	25	23	92%
	Kech	39	27	69%
	Khuzdar	20	19	95%
	Killa Abdullah	20	0	0%
	Lasbella	55	55	100%
	Pishin	62	7	11%
	Quetta	43	17	40%
	Sibi	36	34	94%
	Zhob	39	32	82%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	13	87%
	Kohlu	75	71	95%
	Chagi	35	30	86%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	13	37%
	Jhal Magsi	26	23	88%
	Sohbat pur	25	25	100%
	Surab	32	32	100%
	Mastung	45	45	100%
	Loralai	33	26	79%
	Killa Saifullah	28	27	96%
	Ziarat	29	25	86%
	Duki	31	16	52%
	Nushki	32	30	94%
	Dera Bugti	45	18	40%
	Washuk	46	17	37%
	Panjgur	38	19	50%
	Awaran	23	7	30%
	Chaman	24	22	92%
	Barkhan	20	19	95%
	Hub	33	32	97%
	Usta Muhammad	34	33	97%
Gilgit Baltistan	Hunza	32	28	88%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	40	100%
	Diamer	78	47	60%
	Astore	54	54	100%

	Shigar	27	26	96%
	Skardu	52	50	96%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	57	78%
	Ghotki	64	64	100%
	Umerkot	43	39	91%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	251	89%
	Shikarpur	60	60	100%
	Thatta	53	40	75%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	22	96%
	Karachi-West	20	20	100%
	Karachi-Malir	37	15	41%
	Karachi-Kemari	18	6	33%
	Karachi-Central	11	11	100%
	Karachi-Korangi	18	15	83%
	Karachi-South	4	4	100%
	Sujawal	54	53	98%
	Mirpur Khas	106	95	90%
	Badin	127	118	93%
	Sukkur	64	62	97%
	Dadu	90	89	99%
	Sanghar	100	100	100%
	Jacobabad	44	43	98%
	Khairpur	169	161	95%
	Kashmore	59	58	98%
	Matiari	42	40	95%
	Jamshoro	68	68	100%
	Tando Allahyar	54	51	94%
	Tando Muhammad Khan	40	37	93%
	Shaheed Benazirabad	124	121	98%

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Public Health Events and Surveillance Reports
PHB -Pakistan

Public Health Bulletin: A Sentinel of Pakistan's Health

The Public Health Bulletin (PHB) serves as a vital sentinel, vigilantly monitoring and reporting on the health landscape of Pakistan. Issued by the Field Epidemiology & Disease Surveillance Division (FE&DSD) within the National Institute of Health, the PHB acts as a crucial communication channel, disseminating authoritative and timely information regarding priority diseases across the nation's provinces and regions.

Empowering Informed Action:

The PHB empowers health authorities with a comprehensive snapshot of disease prevalence at both provincial and district levels. This granular view, meticulously compiled from data sources like IDSR reporting, evidence-based surveillance, and outbreak investigations, forms the bedrock for informed decision-making. Armed with this knowledge, health officials can effectively implement targeted public health interventions, mitigating the impact of disease outbreaks and safeguarding public health.

Building Capacity, Strengthening Response:

The PHB transcends its role as a mere information conduit. It actively fosters the development of a robust public health workforce by providing a platform for health professionals to hone their skills. Through opportunities to contribute reports on disease alerts, outbreaks, and key public health interventions, the PHB empowers healthcare personnel to become active participants in safeguarding public health.

Scope and Impact:

The PHB's scope extends far beyond mere disease reporting. It paints a vivid picture of the burden of IDSR priority diseases across geographical areas where IDSR is operational. By meticulously tracking seasonal trends, reporting on outbreaks, and offering actionable recommendations for public health interventions, the PHB equips relevant stakeholders with the knowledge and tools necessary to effectively combat public health threats.

This real-time surveillance system fosters a proactive approach to public health. By facilitating timely and effective responses to public health alerts, the PHB empowers local, district, provincial, and national authorities to formulate data-driven policies and programs that prioritize the health and well-being of the Pakistani population.

Objectives:

The PHB's mission is anchored around three core objectives:

- **Communicate the burden of IDSR priority diseases throughout Pakistan**: By providing a clear and concise picture of disease prevalence across the nation, the PHB guides policymakers in allocating resources and prioritizing interventions to address the most pressing public health concerns.

- **Communicate important new findings and suggestions for response to decrease public health threats**: The PHB serves as a platform for disseminating critical insights gleaned from disease surveillance and outbreak investigations. By promptly sharing these findings and actionable recommendations, the PHB empowers stakeholders to implement effective measures that mitigate public health risks.

- **Build national public health capacity to report data to improve public health**: The PHB actively engages health professionals, fostering a culture of data-driven decision-making and strengthening the nation's public health infrastructure. By encouraging and facilitating accurate and timely reporting, the PHB contributes to the continuous improvement of public health surveillance and response systems.

In essence, the Public Health Bulletin stands as a testament to Pakistan's unwavering commitment to safeguarding the health of its citizens. Through its comprehensive data analysis, insightful reporting, and unwavering dedication to capacity building, the PHB empowers stakeholders across all levels to navigate the ever-evolving landscape of public health, ensuring a healthier and brighter future for all

UK Health Security Agency

World Health Organization

USAID

safetynet

Surveillance Summary.

Preventing Disease, Protecting Lives: Surveillance for Vaccine Preventable Diseases in Rawalpindi District, 2023

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Abstract:

Vaccine-preventable diseases (VPDs) remain a significant public health concern, contributing substantially to pediatric morbidity and mortality worldwide. The present study delves into the outcomes of VPD surveillance conducted within Rawalpindi district, Pakistan, throughout 2023. It aims to assess the effectiveness of the implemented surveillance system and identify areas for potential improvement.

Introduction:

The global burden of VPDs necessitates robust surveillance systems to track disease trends and guide targeted public health interventions. This study explores the efficacy of the surveillance system employed within Rawalpindi district, highlighting its role in informing public health actions and safeguarding the community from VPDs.

Methods:

Employing a descriptive approach, the study spanned from January 1st to January 14th, 2024, and was conducted at the District Surveillance and Response Unit in Rawalpindi. Data was meticulously compiled from the district's VPD line list and outbreak response immunization (ORI) records. A comprehensive analysis encompassed demographic characteristics, clinical progression, outcomes, and public health responses associated with all reported VPD cases.

Results:

As of Dec 2023, the VPD surveillance network in Rawalpindi encompasses a total of 210 weekly reporting sites. Notably, these sites achieved both 100% completeness and 98% timeliness in reporting, indicating exceptional adherence to established surveillance protocols.

The analysis revealed the identification of 1,470 suspected measles cases, with laboratory confirmation obtained for 868 measles and 15 rubella cases. Notably, 56% of cases were male, reflecting a male-to-female ratio of 1:1.2. The calculated incidence rates for measles and rubella stood at 143 and 2.5 per million population, respectively. Furthermore, the non-measles, non-rubella reporting rate reached 8.5 per 100,000 population.

Measles surveillance demonstrated robust performance, achieving a positive predictive value (PPV) of 60%, indicating that two out of three individuals identified with suspected measles through the system were ultimately confirmed positive through laboratory testing. Additionally, the system captured a high proportion of actual measles cases, reflected by a 98% case detection rate. Furthermore, all identified measles cases received timely response and management interventions, as evidenced by a 100% case response rate.

Outbreak Response and Vaccination Coverage: In response to 77 identified measles outbreaks, a total of 25,031 children received the MR vaccine during ORI activities, reaching 44,370 households. Additionally, the study identified 20 suspected diphtheria cases, 8 suspected pertussis cases, 21 suspected neonatal tetanus cases, and 31 childhood tuberculosis cases within the study period. ORI activities subsequently ensured vaccination coverage for 280 due and defaulter children across 600 households for diphtheria, 399 for pertussis across 360 households, and 1521 women aged 15-49 for neonatal tetanus across 630 households.

Adverse Events Following Immunization (AEFI) and Mortality: The study reported no AEFI-related fatalities. However, three minor AEFI cases were recorded, two of which were coincidental and one attributed to the vaccine product itself. Regrettably, 31 measles-associated deaths (CFR 1.9%) and 15 neonatal tetanus deaths (CFR 72%) were documented. Additionally, 435 suspected acute flaccid paralysis (AFP) cases were reported and thoroughly investigated, with no laboratory confirmation obtained.

Conclusion:

The VPD surveillance system in Rawalpindi district functions as an ongoing process dedicated to data collection and analysis to inform public health interventions. The identified high incidence of VPDs underscores the need for further enhancement of the surveillance system to ensure more effective tracking and control of these preventable diseases within the district.

A note from Field Activities.

Measles Outbreak Response Immunization and Investigation Report UC Gangal R77, Rawalpindi, Jan 2024

Dr. Ehsan Ghani
DHO (Preventive Services)
Rawalpindi

Introduction:

Two lab-confirmed measles cases were reported within one week in UC No. R77, indicating an outbreak in this area.

Materials and Methods:

Data on confirmed measles cases, vaccination statuses, and mop-up campaign activities were analyzed to assess the scope of the outbreak and evaluate response efforts.

Results:

Both male children were over 15 months of age, fully vaccinated for Measles 1 & 2 verified by EPI Card. The investigation found that the cases had all been in contact with each other. The source of the outbreak was likely a common exposure to a measles-infected person. No other potential cases were identified during the investigation.

An outbreak response immunization campaign was conducted in the UC from Jan 8 to Jan 13, 2024. The target population was 6,500. Covering both residential and urban areas, a total of 2,161 children aged 6 months to less than 24 months and 3,909 children aged 24 months to 59 months were targeted. The coverage percentage reached was 93%, totaling 6,070 children inoculated with MR vaccine. No other Vaccine Preventable Disease (VPD) cases (AFP/Diphtheria/Pertussis) or Adverse Events Following Immunization (AEFI) were reported during the mop-up campaign.

Conclusion:

The measles outbreak in UC No. R77, Gangal, was successfully contained. The mop-up campaign achieved a high coverage rate, and no other cases were reported.

Recommendations:

Continue to monitor the situation for any new cases. Promote vaccination coverage in the community and Educate the community about the importance of vaccination

Letter to the Editor:

Local Hepatitis Elimination & Prevention (LHEAP) Pilot Achievement

Dr. Anser Ishaq
Program Director
LHEAP

The Rawalpindi District Health Authority (DHA) stands at the forefront of public health, tirelessly managing a comprehensive healthcare system. Dedicated to continuous improvement, the DHA expands access to care, bolsters healthcare personnel skills, embraces new technologies, and promotes healthy lifestyles. In July 2023, marking a pivotal moment, the DHA partnered with the Task Force for Global Health (TFGH) and the Coalition for Global Hepatitis Elimination (CGHE) to launch the Local Hepatitis Elimination & Prevention (LHEAP) project. This ambitious initiative aims to eradicate hepatitis B and C in Rawalpindi, paving the way for a healthier and more vibrant community.

Vision and Goals:

Driven by a commitment to robust evidence through operational and implementation research, LHEAP targets both prevention and comprehensive care:

Prevention: Minimizing new hepatitis B infections (including mother-to-child transmission) and curbing the spread of hepatitis C through testing, treatment, and community education.

Diagnosis and Care: Establishing a streamlined system for hepatitis B and C testing and diagnosis at primary healthcare facilities, followed by effective treatment, patient support, and active follow-up for hepatitis C patients.

Equity and Surveillance: Addressing health inequities within the community and strengthening epidemiological surveillance to ensure accurate data for informed decision-making.

Pilot Achievements:

The LHEAP pilot project, implemented in UC-10 of Rawalpindi, yielded promising results:

- 50 Frontline Hepatitis Elimination Workers (FHEWs) trained for door-to-door outreach, laying the groundwork for extensive community engagement.

- Over 10,166 individuals screened for hepatitis B and C, highlighting the previously unseen burden of these diseases.
- Prevalence rates identified at 0.60% for hepatitis B and 1.37% for hepatitis C, providing crucial data for targeted interventions.
- Increased awareness and vaccination: Nearly 2,680 individuals vaccinated for hepatitis B, with 145 new cases identified and linked to care.
- Early detection for mother-to-child transmission: Three pregnant mothers identified as hepatitis B positive, allowing for timely preventive measures.

Challenges and Next Steps:

The pilot phase also encountered some obstacles, recognizing the complex social determinants of health:

- Weak local infrastructure and health systems necessitate capacity building and resource allocation.
- Limited hepatitis awareness demands extensive community education and social mobilization.
- Financial barriers to testing and treatment require innovative solutions for patient support and accessibility.
- Transportation difficulties in remote areas necessitate tailored approaches for equitable healthcare delivery.
- Negative community responses and refusals: Building trust and addressing misinformation remain ongoing priorities.

LHEAP is adapting to these challenges with a multi-pronged approach:

- Enhanced social mobilization: Raising awareness about hepatitis B and C through community campaigns, highlighting the importance of testing and treatment.
- Strengthened surveillance: Field Surveillance Officers and supervisors will address refusals for PCR sampling, ensuring accurate data collection.
- Synergy and collaboration: LHEAP will partner with the Hepatitis Control Program for medicine and logistics, streamlining patient access to crucial resources.
- Local partnerships: Engaging businesses for financial support and leveraging the Red Crescent as a health facility and direct medicine recipient.

Conclusion:

The LHEAP pilot's success marks a significant milestone in Rawalpindi's fight against hepatitis B and C. With a dedicated project team, collaborative partnerships, and a strategic approach to overcome challenges, LHEAP paves the way for the next phase. The journey towards elimination promises a healthier future for Rawalpindi and serves as a beacon of hope for other communities around the world.

Knowledge Hub

Viral Hepatitis: A Global Public Health Challenge

Introduction:

Viral hepatitis, a collective term for liver inflammation caused by five distinct viruses (A, B, C, D, and E), presents a significant public health challenge. Despite its often-silent nature, it can lead to severe complications like cirrhosis, liver failure, and hepatocellular carcinoma (liver cancer). Understanding the different types of viral hepatitis, their transmission routes, prevention strategies, and treatment options is crucial for mitigating the impact of this global epidemic.

Types and Transmission:

- **Hepatitis A**: Primarily transmitted through contaminated food and water, close contact, and fecal-oral route. It typically resolves spontaneously but can be severe in certain individuals.
- **Hepatitis B**: Spreads through bodily fluids like blood, semen, and vaginal secretions. Mother-to-child transmission during childbirth and unsafe healthcare practices are also primary concerns. Chronic infection can lead to cirrhosis and liver cancer.
- **Hepatitis C**: Primarily transmitted through blood-to-blood contact, including sharing needles and syringes. It often progresses silently, leading to chronic liver disease over decades.
- **Hepatitis D**: Requires co-infection with hepatitis B virus and shares similar transmission pathways. It can accelerate the

progression of hepatitis B-related liver damage.

- **Hepatitis E**: Mainly transmitted through contaminated water and sanitation issues. While usually acute and self-limiting, it can be particularly severe for pregnant women.

Prevention and Control:

- Vaccination: Effective vaccines exist for hepatitis A and B, offering substantial protection. Global vaccination programs are crucial for controlling these infections.
- Safe practices: Practicing safe sex, good hygiene, and avoiding contaminated food and water are essential for preventing all types of viral hepatitis.
- Injection safety: Implementing safe injection practices in healthcare settings and discouraging needle sharing among drug users are vital for controlling hepatitis B and C.
- Testing and surveillance: Routine screening for high-risk groups and effective surveillance systems are crucial for early detection and intervention.

Treatment and Management:

- Hepatitis A and E: Often self-limiting, requiring supportive care and symptomatic management.
- Hepatitis B: Antiviral medications can suppress the virus and prevent disease progression. Liver transplantation may be necessary in advanced cases.
- Hepatitis C: Highly effective antiviral therapies can cure the infection in most individuals.

Lifestyle Modifications:

- Healthy diet and exercise: Maintaining a balanced diet and regular physical activity promote overall liver health and can help manage chronic hepatitis.
- Alcohol and smoking cessation: Avoiding alcohol and smoking significantly reduces the risk of liver damage and disease progression.

Conclusion:

Viral hepatitis, though often silent, remains a significant global public health threat. Implementing comprehensive prevention strategies, ensuring access to effective treatment, and promoting healthy lifestyle choices are crucial for controlling this epidemic and improving liver health outcomes for millions worldwide.

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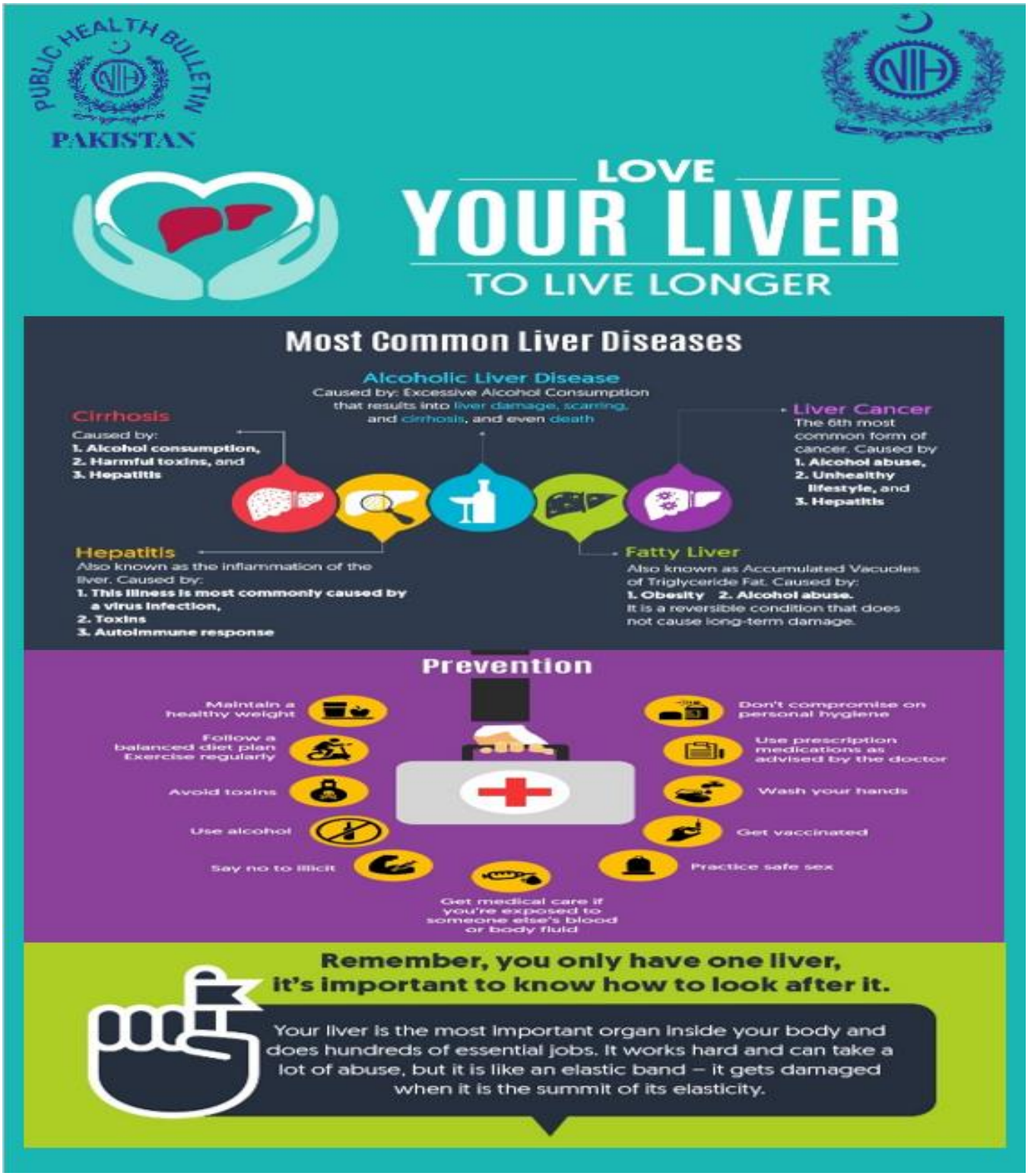

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