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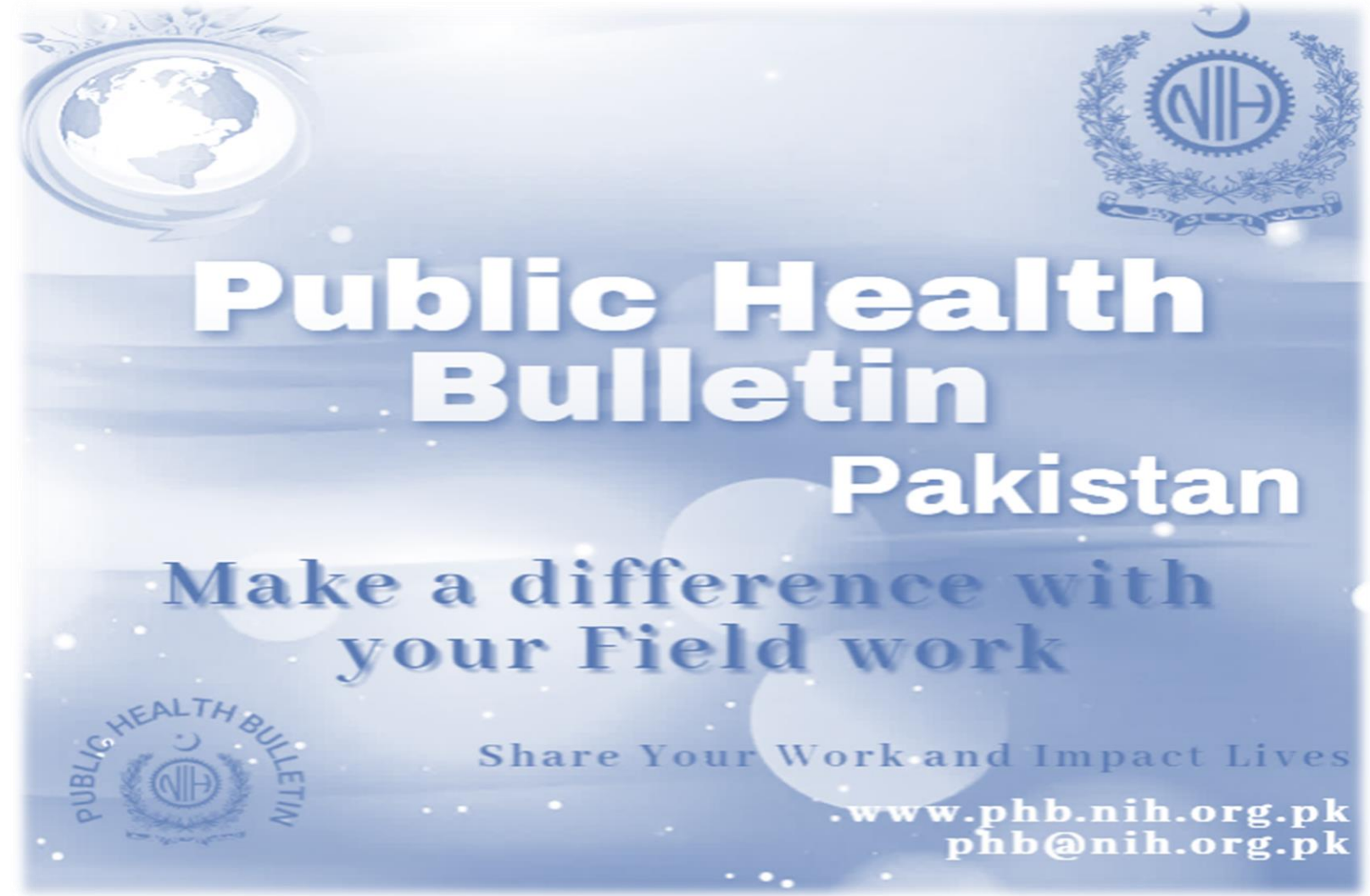
Integrated Disease Surveillance & Response (IDSR) Report

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 15, 2024

Overview

IDSR Reports

Ongoing Events

Field Reports

This week's Public Health Bulletin offers a comprehensive snapshot of Pakistan's current health situation, empowering both healthcare professionals and the public to act. The report provides a detailed breakdown of prevalent illnesses, including acute diarrhea, malaria, and childhood respiratory infections. By tracking trends in diseases like tuberculosis, hepatitis, and even dog bites, it equips stakeholders with valuable information for tailoring preventive measures and addressing critical concerns.

The Bulletin transcends raw data by serving as an early warning system. It flags potential outbreaks, urging immediate investigation of suspected cases of Acute Flaccid Paralysis, HIV/AIDS, and Brucellosis across various provinces. Swift field verification is crucial to contain any potential spread of these diseases.

However, the report also offers encouraging news. Cases of malaria, influenza-like illnesses, childhood respiratory infections, tuberculosis, hepatitis, and dog bites are all exhibiting a downward trend. This positive development may be partly attributed to national holidays around the Eid festivities.

Beyond its core data, the Bulletin delves deeper into key topics. It features reports on the progress and challenges highlighted in the WHO's 2024 Global Hepatitis Report, along with discussions from the Consultative Workshop on Public Health Emergency Management (PHEM) 5-Year Road Map.

Finally, the Knowledge Hub section concludes with "Safeguarding Liver - A World Liver Day Message for Pakistan," providing valuable information on liver health.

The Public Health Bulletin serves as an essential tool for safeguarding Pakistan's health. By staying informed and acting based on its insights, we can collectively build a healthier nation

Sincerely,

The Chief Editor

Overview

- *During week 15, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, B. Diarrhea, VH (B, C & D), Typhoid, dog bite and SARI.*
- *Seven cases of AFP reported from KP and two from Sindh. All are suspected cases and need field verification.*
- *Five suspected cases of HIV/ AIDS reported from Sindh and two from KP. Field investigation required to verify the cases.*
- *Five cases of Brucellosis reported from Balochistan and five from KP. These are suspected cases and require field verification.*
- *There is a decreasing trend observed for Acute Diarrhea (Non-Cholera), Malaria, ILI, ALRI <5 years, TB, B. diarrhea, VH (B, C & D), Typhoid, dog bite and SARI cases this week*

IDSR compliance attributes

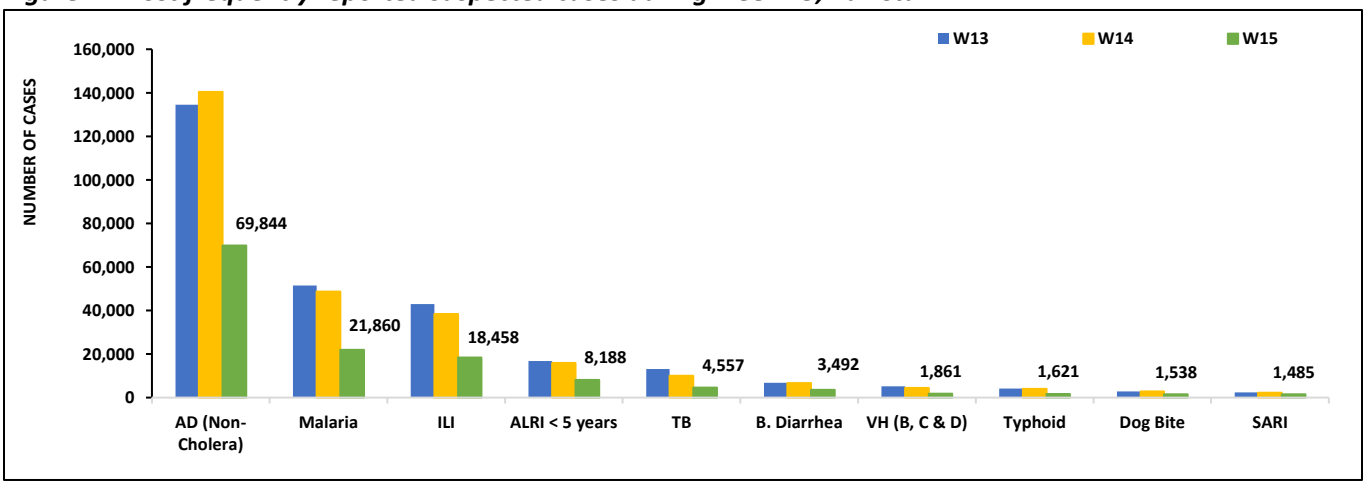
- *The national compliance rate for IDSR reporting in 149 implemented districts* is 74%
- *Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 100% and 96%, followed by Sindh 93% and ICT 83%*
- *The lowest compliance rate was observed in KPK.*

Region	**Expected Reports**	**Received Reports**	**Compliance (%)**
Khyber Pakhtunkhwa	*2740*	*1585*	*58*
Azad Jammu Kashmir	*382*	*367*	*96*
Islamabad Capital Territory	*35*	*29*	*83*
Balochistan	*1220*	*796*	*65*
Gilgit Baltistan	*374*	*374*	*100*
Sindh	*2086*	*1942*	*93*
National	*6837*	*5093*	*74*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during week 15, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	988	2,882	252	89	8,657	35,389	21,587	69,844
Malaria	0	1,799	0	1	1,457	908	17,695	21,860
ILI	1,207	3,029	229	213	2,461	25	11,294	18,458
ALRI < 5 years	662	837	324	4	851	NR	5,510	8,188
TB	19	34	9	0	151	NR	4,344	4,557
B.Diarrhea	29	725	21	0	367	473	1,877	3,492
VH (B, C & D)	5	37	0	0	48	NR	1,771	1,861
Typhoid	7	249	11	0	237	511	606	1,621
Dog Bite	81	175	0	0	174	NR	1,108	1,538
SARI	163	394	115	0	583	NR	230	1,485
AVH (A&E)	7	10	0	0	49	NR	330	396
Measles	9	7	4	0	200	NR	124	344
CL	0	39	0	0	154	4	1	198
AWD (S. Cholera)	17	121	27	0	13	NR	0	178
Mumps	10	25	2	0	31	NR	101	169
Chickenpox/ Varicella	1	3	1	0	28	24	36	93
Pertussis	0	47	0	0	9	NR	3	59
Dengue	0	5	0	0	5	NR	32	42
Gonorrhea	3	22	0	0	7	NR	0	32
Meningitis	1	2	0	0	0	NR	7	10
Brucellosis	0	5	0	0	5	NR	0	10
Chikungunya	0	0	0	0	0	NR	9	9
AFP	0	0	0	0	7	NR	2	9
HIV/AIDS	0	0	0	0	2	NR	5	7
NT	0	0	0	0	7	NR	0	7
Syphilis	0	0	0	0	1	NR	6	7
VL	0	5	0	0	0	NR	0	5
Diphtheria (Probable)	0	1	0	0	1	NR	0	2
Rubella (CRS)	0	1	0	0	0	NR	0	1

Figure 1: Most frequently reported suspected cases during week 15, Pakistan.



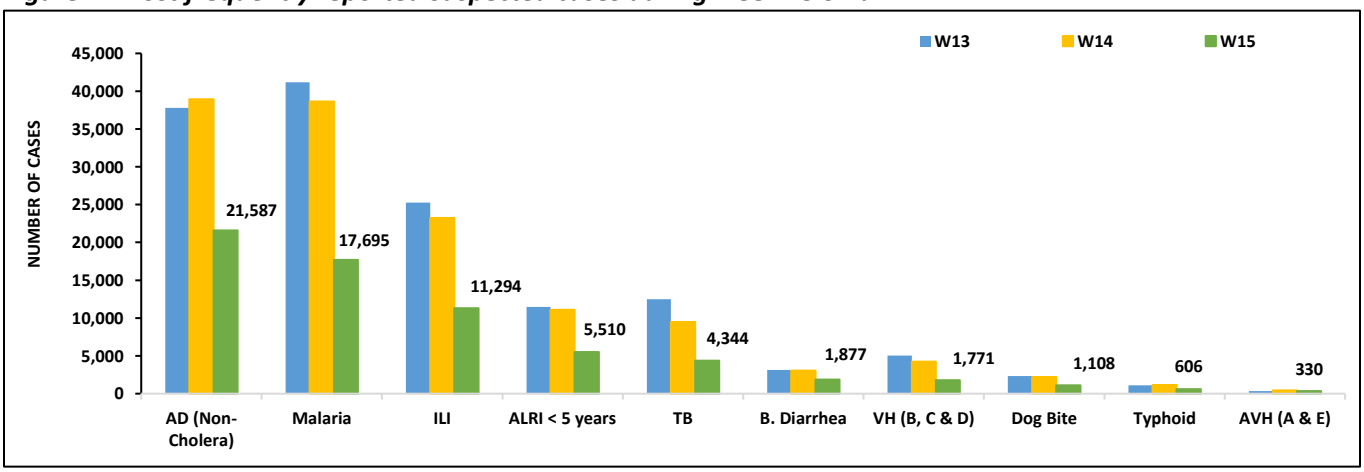
Sindh

- AD (Non-Cholera) cases were maximum followed by Malaria, ILI, ALRI<5 Years, TB, B. Diarrhea, VH (B, C, D), dog bite, Typhoid and AVH (A & E). Malaria cases are from Larkana, Khairpurand Kamber whereas AD (Non-Cholera) cases are mostly from Khairpur, Badin and Thatta.
- Five suspected cases of HIV/ AIDS and Two cases of AFP reported from Sindh. All are suspected cases and need field verification.
- There is a decreasing trend observed in reporting for AD (Non- Cholera), Malaria, ILI, ALRI<5 Years, TB, B. Diarrhea, VH (B, C, D), dog bite and Typhoid cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during week 15, Sindh

Districts	AD (Non-Cholera)	Malaria	ILI	ALRI < 5 years	TB	B. Diarrhea	VH (B, C & D)	Dog Bite	Typhoid	AVH(A&E)
Badin	1,539	987	182	189	248	119	111	66	9	0
Dadu	707	820	55	343	162	175	6	50	65	0
Ghotki	467	226	0	195	98	69	157	101	0	0
Hyderabad	668	90	793	66	75	14	8	0	3	0
Jacobabad	343	192	184	131	32	50	37	22	5	0
Jamshoro	860	759	23	122	145	40	60	9	15	11
Kamber	817	1,289	0	175	373	102	57	69	21	0
Karachi Central	181	0	314	0	2	0	2	0	4	0
Karachi East	156	31	67	37	3	2	0	5	0	0
Karachi Keamari	39	0	15	1	0	0	0	0	0	0
Karachi Korangi	55	5	0	0	1	1	0	0	1	0
Karachi Malir	563	72	1,042	110	7	17	9	33	9	0
Karachi South	18	13	3	0	0	0	0	0	0	0
Karachi West	741	78	1,370	93	87	57	86	80	35	20
Kashmore	212	444	362	83	88	30	27	120	4	0
Khairpur	2,445	2,056	2,115	941	464	460	148	43	230	1
Larkana	975	2,062	5	215	315	137	52	0	3	0
Matiari	1,173	319	4	137	163	60	69	28	5	0
Mirpurkhas	1,186	967	1,163	457	339	78	84	32	16	2
Naushero Feroze	411	590	792	90	241	51	44	57	21	0
Sanghar	805	952	3	195	507	15	272	73	23	2
Shaheed Benazirabad	1,315	705	0	290	141	36	37	135	97	0
Shikarpur	499	649	2	63	52	57	141	45	1	0
Sujawal	892	558	0	347	61	35	0	20	6	60
Sukkur	521	576	582	122	133	78	61	6	1	0
Tando Allahyar	585	488	227	132	219	54	165	19	2	0
Tando Muhammad Khan	477	319	0	84	123	23	25	0	0	0
Tharparkar	1,049	920	683	529	135	58	59	5	13	24
Thatta	1,343	1,163	1,308	155	19	32	45	90	14	210
Umerkot	545	365	0	208	111	27	9	0	3	0
Total	21,587	17,695	11,294	5,510	4,344	1,877	1,771	1,108	606	330

Figure 2: Most frequently reported suspected cases during week 15 Sindh



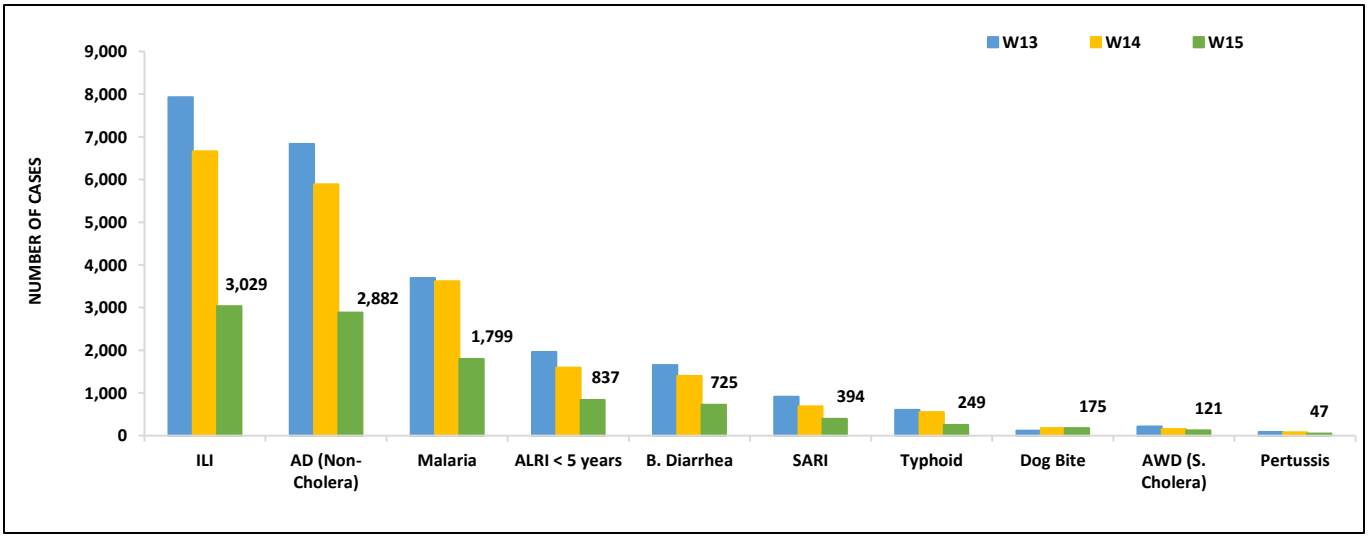
Balochistan

- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, dog bite, AWD (S. Cholera) and TB cases were the most frequently reported diseases from Balochistan province.
- ILI cases are mostly reported from Kech (Turbat), Gwadar and Quetta while AD (Non-Cholera) cases are mostly reported from Kech (Turbat), Gwadar and Jaffarabad.
- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera) and TB cases showed a decreasing trend this week.
- Fourteen cases of AFP and Nine cases of Brucellosis reported from Balochistan this week. All are suspected cases and need field verification.

Table 3: District wise distribution of most frequently reported suspected cases during week 15, Balochistan

Districts	ILI	AD Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	Dog Bite	AWD (S.Cholera)	Pertussis
Awaran	24	1	20	4	6	0	2	0	13	0
Barkhan	47	42	14	36	2	0	23	0	8	0
Chagai	117	126	12	1	43	2	11	1	9	0
Chaman	83	30	0	0	49	3	9	0	0	2
Dera Bugti	55	60	137	41	54	34	24	1	0	2
Gwadar	327	260	18	0	12	0	0	0	0	0
Harnai	15	49	30	87	38	0	0	0	1	0
Hub	13	127	42	12	21	0	3	39	0	0
Jaffarabad	31	96	145	9	19	33	1	27	0	1
Jhal Magsi	103	242	252	18	6	3	13	19	3	9
Kachhi (Bolan)	31	79	55	3	23	43	0	0	11	4
Kalat	3	14	6	5	2	0	9	0	0	0
Kharan	166	79	19	0	49	0	0	0	2	0
Khuzdar	37	52	23	0	30	6	4	1	0	0
Killa Saifullah	0	63	41	72	19	8	1	0	0	0
Kohlu	181	65	42	16	63	51	7	11	7	17
Lasbella	22	127	114	18	8	2	5	1	0	NR
Loralai	150	117	19	20	22	68	14	0	0	0
Mastung	111	113	16	41	28	10	8	0	5	6
Naseerabad	11	177	104	12	7	0	32	68	0	2
Nushki	16	57	1	0	17	1	0	0	7	0
Panjgur	19	76	61	32	19	8	3	0	14	0
Pishin	156	49	1	13	29	3	2	0	0	0
Quetta	276	63	1	3	10	7	9	1	2	0
Sherani	25	0	1	0	1	19	0	0	15	0
Sibi	481	164	173	47	30	26	35	2	19	1
Sohbat pur	12	148	189	139	51	14	22	2	4	1
Surab	173	78	46	10	0	0	0	0	0	0
Usta Muhammad	77	202	152	63	15	5	3	2	1	0
Washuk	136	76	21	3	34	3	3	0	0	0
Zhob	131	50	44	132	18	45	6	0	0	2
Total	3,029	2,882	1,799	837	725	394	249	175	121	47

Figure 3: Most frequently reported suspected cases during week 15, Balochistan



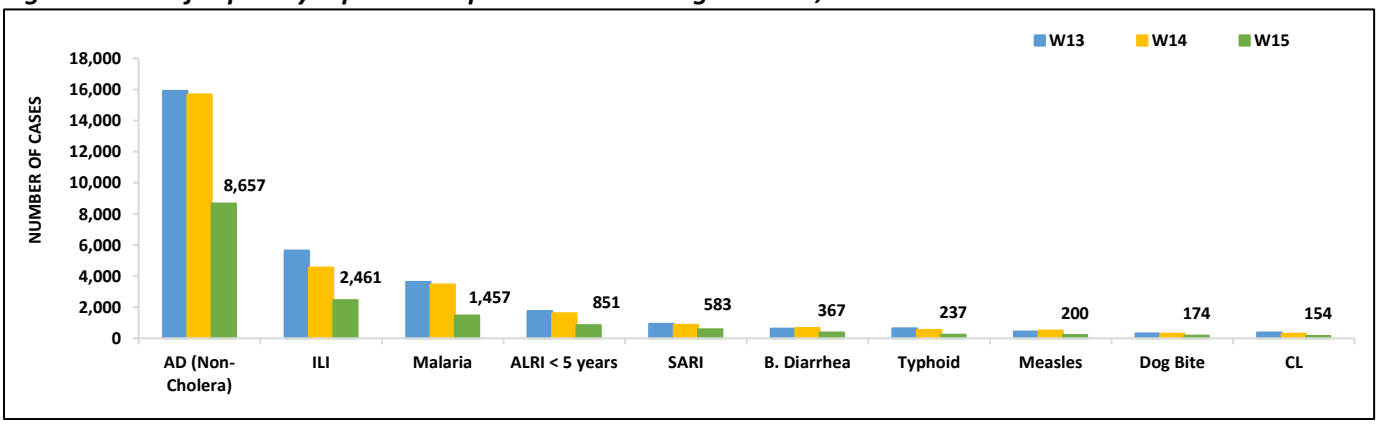
Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, Measles, dog bite and CL cases.
- AD (Non-Cholera), ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, Typhoid, Measles, dog bite and CL cases showed a decreasing trend this week.
- Five cases of Brucellosis, Seven cases of AFP and Two suspected cases of HIV/ AIDS reported from KP. All are suspected cases and need field verification.

Table 4: District wise distribution of most frequently reported suspected cases during week 15, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI <5 Years	SARI	B. Diarrhea	Typhoid	Measles	Dog Bite	CL
Abbottabad	207	37	3	11	13	4	7	5	3	0
Bajaur	204	7	21	55	3	2	1	6	16	4
Bannu	293	1	496	23	9	19	47	3	1	0
Battagram	1	8	0	0	0	0	0	0	0	0
Buner	126	0	61	0	0	0	0	0	14	0
Charsadda	304	285	66	52	21	14	6	3	0	1
Chitral Lower	86	16	2	7	19	13	15	0	2	3
Chitral Upper	21	4	0	2	7	1	8	0	0	0
D.I. Khan	1,423	0	67	17	0	20	0	32	0	0
Dir Lower	369	3	64	58	0	31	3	6	18	0
Dir Upper	140	20	3	9	0	0	32	3	0	4
Hangu	81	96	145	11	6	10	1	5	0	25
Haripur	122	14	0	6	0	0	1	1	0	0
Karak	122	38	30	17	0	0	5	35	18	40
Khyber	42	12	8	5	2	11	4	0	0	1
Kohat	81	43	29	0	8	0	0	0	0	0
Kohistan Lower	31	0	0	3	0	5	0	0	1	2
Kohistan Upper	129	6	0	1	0	1	3	2	3	0
Kolai Palas	24	0	1	0	7	0	4	0	0	0
L & C Kurram	1	0	0	0	0	1	0	0	0	0
Lakki Marwat	273	18	49	14	0	10	2	3	3	0
Malakand	295	0	9	30	24	14	10	0	0	12
Mansehra	332	250	0	119	5	13	8	1	0	0
Mardan	250	3	3	229	0	16	0	1	4	0
Mohmand	111	40	79	5	21	10	2	0	1	29
Nowshera	603	21	8	1	2	9	7	23	1	4
Orakzai	13	10	6	0	0	4	0	0	3	0
Peshawar	980	197	5	23	22	53	24	27	3	15
SD Peshawar	0	0	0	0	0	0	0	0	0	0
SD Tank	23	0	18	0	0	3	0	0	0	0
Shangla	296	0	183	18	0	0	1	4	6	2
SWA	29	7	15	13	7	16	3	0	8	0
Swabi	503	554	14	85	62	5	9	23	3	0
Swat	697	214	5	12	15	45	0	1	48	0
Tank	351	218	37	9	0	0	31	10	0	10
Tor Ghar	30	0	20	0	10	15	2	0	8	2
Upper Kurram	64	339	10	16	320	22	1	6	10	0
Total	8,657	2,461	1,457	851	583	367	237	200	174	154

Figure 4: Most frequently reported suspected cases during week 15, KP



ICT, AJK & GB

ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and ALRI <5 Years. ILI and AD (Non-Cholera) showed an increasing trend in cases this week.

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, dog bite, B. Diarrhea, TB, AWD (S. Cholera), Mumps and Measles cases. Cases of ILI, AD (Non-Cholera), ALRI <5 years, SARI, dog bite, B. Diarrhea and TB showed a decreasing trend this week.

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

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

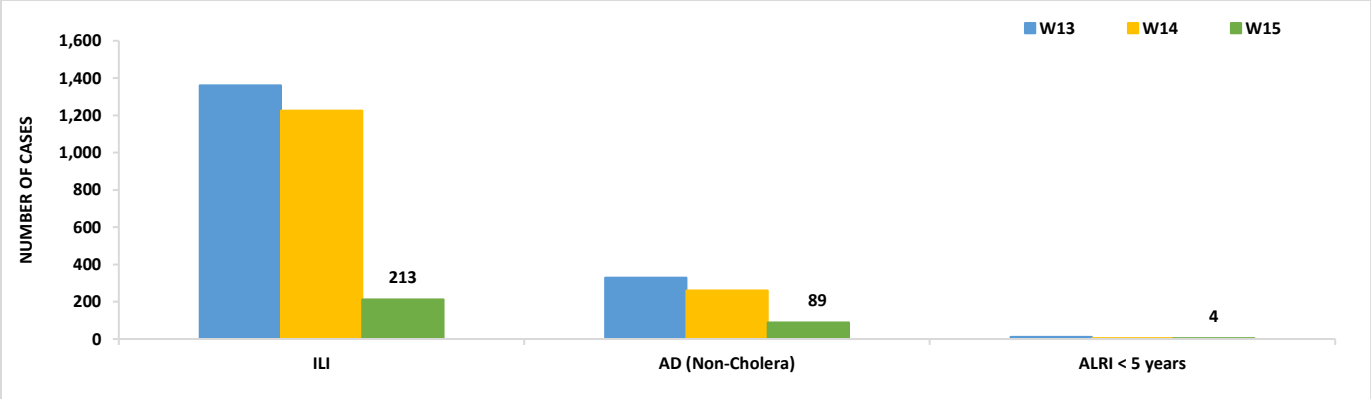


Figure 6: Week wise reported suspected cases of ILI, ICT

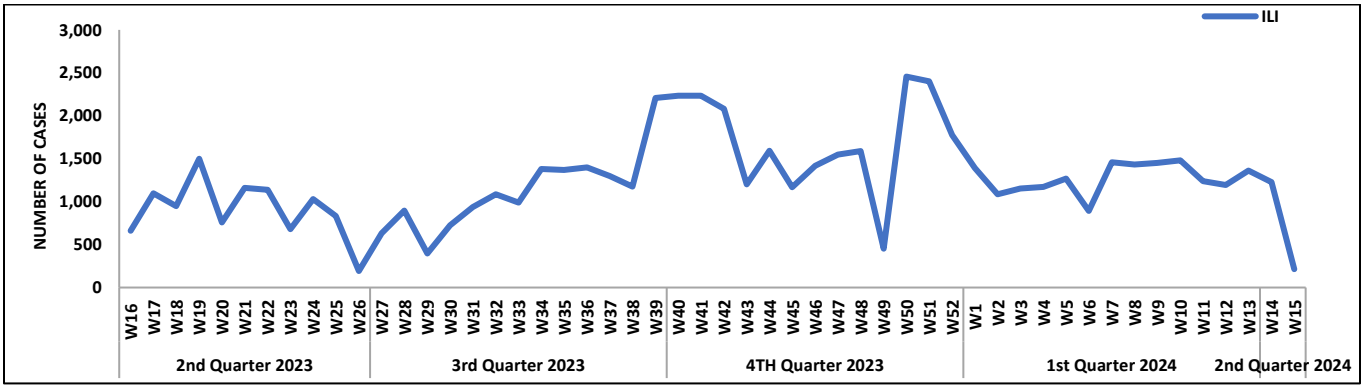


Figure 7: Most frequently reported suspected cases during week 15, AJK

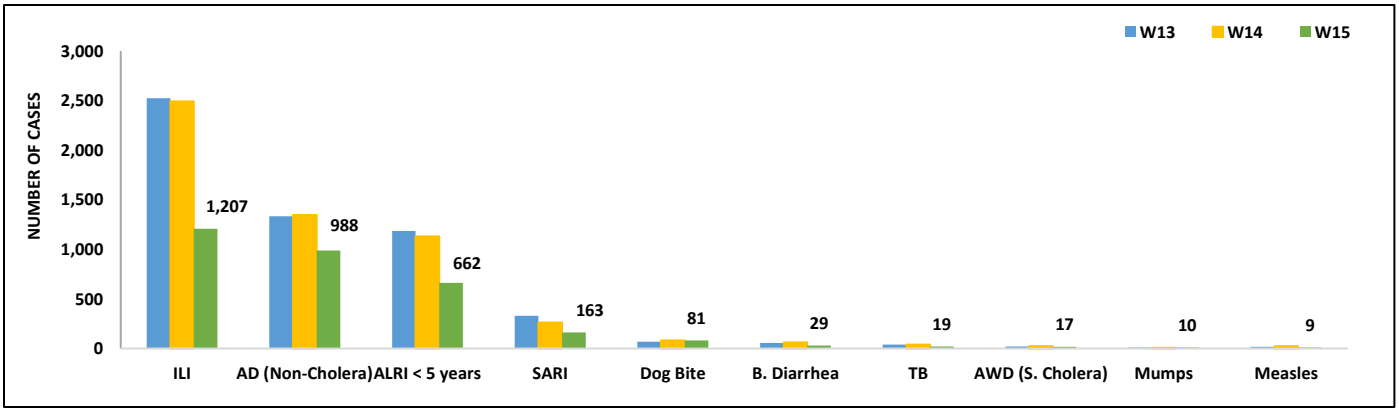


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

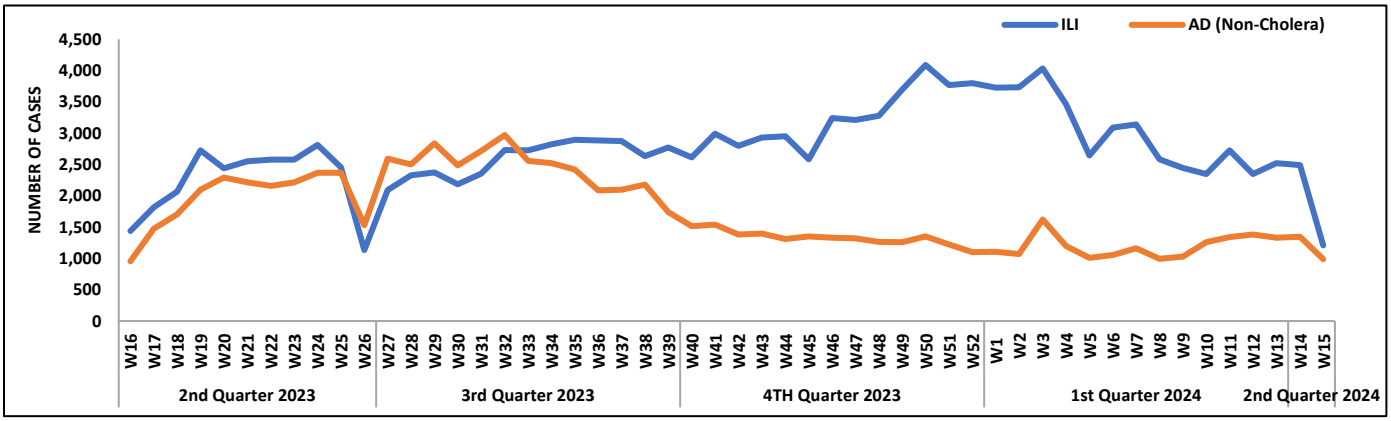


Figure 9: Most frequent cases reported during Week 15, GB

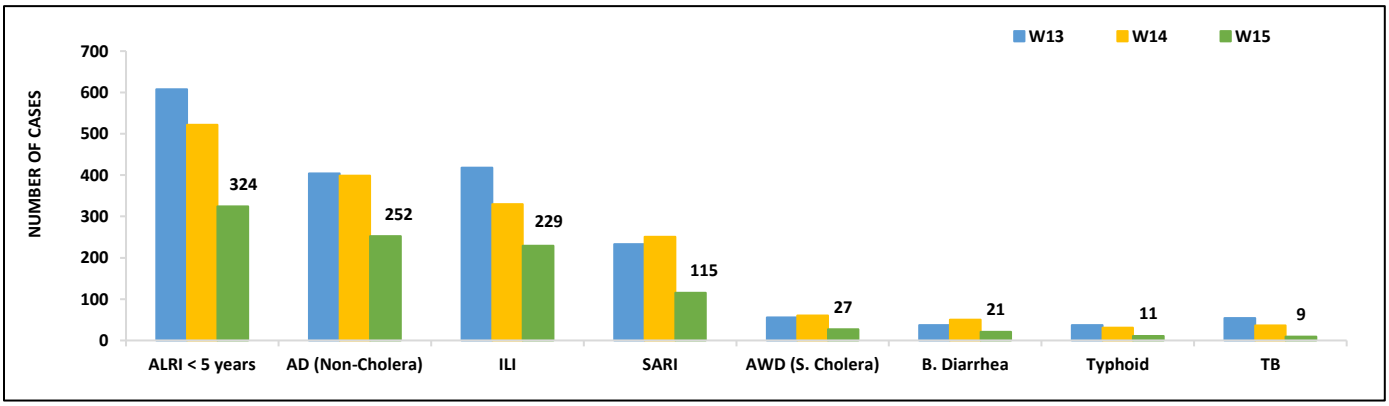
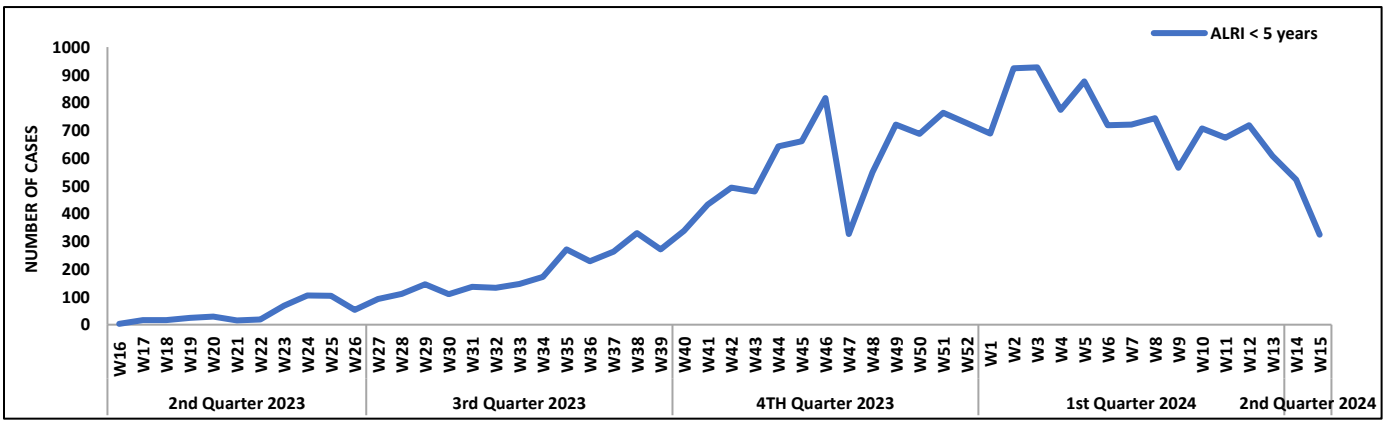


Figure 10: Week wise reported suspected cases of ALRI, GB



Punjab

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

Figure 11: District wise distribution of most frequently reported suspected cases during week 15, Punjab

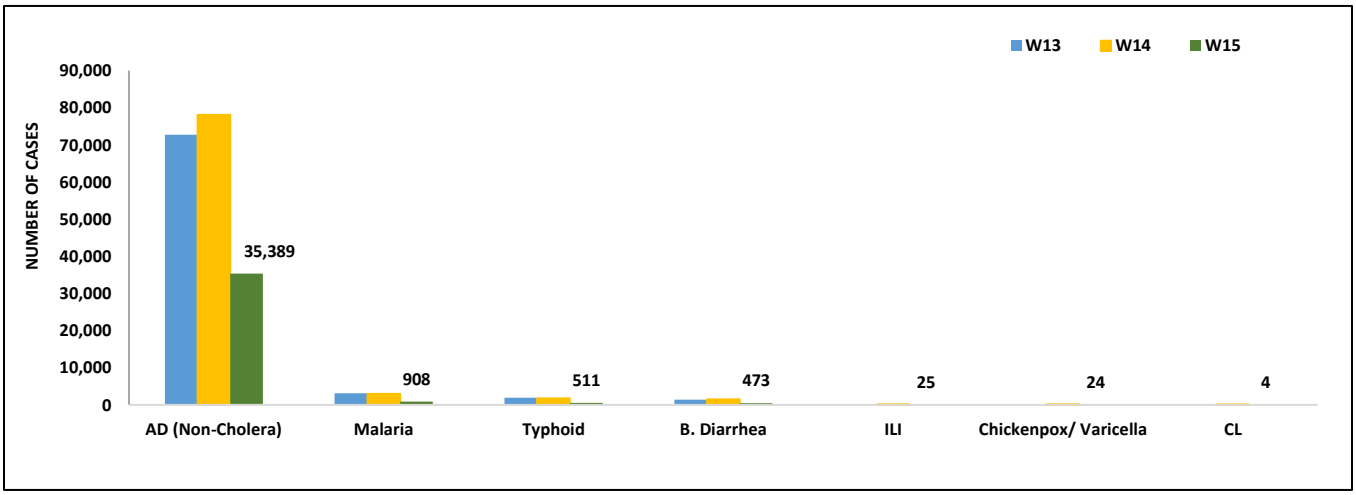


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 15

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)	8	0	-	-		0	0	0	-	-
AD (Non-Cholera)	15	0	-		0	0	0	0	-	-
Malaria	978	28	-	-	0	0	0	0	-	-
CCHF	0	0	2	0	0	0	-	-	-	-
Dengue	209	10	0	0	0	0	-	-	-	-
VH (B)	1,220	29	0	0	0	0	32	0	32	0
VH (C)	1,353	79	0	0	0	0	33	0	32	0
VH (A&E)	0	0	-	-		0	0	0	-	-
Covid-19	0	0	4	0	0	0	-	-	-	-
HIV	53	2	-	-	0	0	2	0	-	-
Diphtheria	0	0	-	-	0	0	3	0	-	-
Influenza A	0	0	0	0	0	0	114	0	0	0
TB	61	1	-	-	0	0	-	-	-	-
Syphilis	21	1	-	-	0	0	0	0	-	-
Pertussis	0	0	-	-	0	0	0	0	-	-
Typhoid	172	1	-	-	0	0	4	2	-	-
Mumps	0	0	-	-	0	0	0	0	-	-
Measles	0	0	-	-	0	0	0	0	-	-

IDSR Reports Compliance

- Out OF 149 IDSR implemented districts, compliance is low from KPK. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSR reporting districts Week 15, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	100	90%
	Bannu	234	130	56%
	Battagram	63	1	2%
	Buner	34	23	68%
	Bajaur	44	28	64%
	Charsadda	59	49	83%
	Chitral Upper	34	20	59%
	Chitral Lower	35	30	86%
	D.I. Khan	114	111	97%
	Dir Lower	74	74	100%
	Dir Upper	52	39	75%
	Hangu	22	21	95%
	Haripur	72	30	42%
	Karak	35	35	100%
	Khyber	64	23	36%
	Kohat	61	61	100%
	Kohistan Lower	11	10	91%
	Kohistan Upper	20	17	85%
	Kolai Palas	10	9	90%
	Lakki Marwat	70	70	100%
	Lower & Central Kurram	40	4	10%
	Upper Kurram	42	22	52%
	Malakand	42	34	81%
	Mansehra	136	86	63%
	Mardan	80	76	95%
	Nowshera	55	54	98%
	North Waziristan	380	0	0%
	Peshawar	151	127	84%
	Shangla	65	14	22%
	Swabi	63	59	94%
	Swat	76	74	97%
	South Waziristan	134	50	37%
	Tank	34	31	91%
	Torghar	14	13	93%
	Mohmand	86	35	41%
	SD Peshawar	5	1	20%
	SD Tank	58	6	10%
	Orakzai	68	18	26%
	Mirpur	37	37	100%
	Bhimber	20	20	100%
	Kotli	60	60	100%
	Muzaffarabad	45	42	93%
	Poonch	46	36	78%
	Haveli	39	38	97%

Azad Jammu Kashmir	Bagh	40	40	100%
	Neelum	39	38	97%
	Jhelum Vellay	29	29	100%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	20	95%
	CDA	14	9	64%
Balochistan	Gwadar	25	24	96%
	Kech	40	0	0%
	Khuzdar	20	19	95%
	Killa Abdullah	20	0	0%
	Lasbella	55	55	100%
	Pishin	62	9	15%
	Quetta	43	11	26%
	Sibi	36	34	94%
	Zhob	39	26	67%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	11	73%
	Kohlu	75	34	45%
	Chagi	35	24	69%
	Kalat	41	40	98%
	Harnai	17	16	94%
	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	23	70%
	Killa Saifullah	28	25	89%
	Ziarat	29	0	0%
	Duki	31	0	0%
	Nushki	32	30	94%
	Dera Bugti	45	28	62%
	Washuk	46	13	28%
	Panjgur	38	17	45%
	Awaran	23	7	30%
	Chaman	24	23	96%
	Barkhan	20	19	95%
	Hub	33	33	100%
	Musakhel	41	0	0%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	20	20	100%
	Ghizer	40	40	100%
	Gilgit	40	39	98%
	Diamer	62	62	100%
	Astore	54	54	100%

	Shigar	27	27	100%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	59	81%
	Ghotki	64	64	100%
	Umerkot	43	35	81%
	Naushahro Feroze	107	62	58%
	Tharparkar	282	234	83%
	Shikarpur	60	60	100%
	Thatta	52	52	100%
	Larkana	67	67	100%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	20	87%
	Karachi-West	20	20	100%
	Karachi-Malir	37	37	100%
	Karachi-Kemari	18	6	33%
	Karachi-Central	11	9	82%
	Karachi-Korangi	18	12	67%
	Karachi-South	4	4	100%
	Sujawal	54	54	100%
	Mirpur Khas	106	105	99%
	Badin	124	121	98%
	Sukkur	64	64	100%
	Dadu	90	87	97%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	168	99%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	68	68	100%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	124	124	100%
Punjab	Bahalwalpur	91	0	0%

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Progress and Challenges: Unveiling the WHO's 2024 Global Hepatitis Report

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Introduction

The World Health Organization's (WHO) 2024 Global Hepatitis Report presents a multifaceted analysis of the current situation. While recent advancements in prevention, diagnosis, and treatment offer a hopeful outlook, the report also underscores a critical reality. Despite the availability of highly effective vaccines, readily accessible cures for hepatitis C, and decreasing treatment costs, the ambitious global target of eliminating viral hepatitis by 2030 remains unachieved.

The public health burden associated with viral hepatitis is significant. Globally, an estimated 304 million individuals live with chronic hepatitis B or C, and tragically, these viruses claim approximately 3,500 lives each day. A substantial obstacle to progress is the large number of people who remain undiagnosed. Furthermore, treatment uptake continues to be insufficient, often due to limitations in policy and access to care. Vaccination coverage, particularly the crucial birth dose vaccination for hepatitis B, also falls short of established targets.

Key Findings of the WHO Global Hepatitis Report 2024:

Rising Mortality:

The report reveals a concerning rise in viral hepatitis deaths, reaching an estimated 1.3 million in 2022 (nearly equal to tuberculosis). This highlights an increasing burden of hepatitis-related cancers. While new infections decline due to prevention measures, millions globally remain chronically infected. Significant regional disparities exist, with Africa facing high new hepatitis B infections and the Western Pacific struggling with low treatment coverage. Urgent action to expand access to prevention and treatment is necessary to save lives, prevent future infections and cancers, and potentially achieve elimination targets by 2030 through increased investment.

Insufficient Progress:

Despite global efforts, progress remains insufficient. Diagnosis and treatment rates are low, especially for Hepatitis B, leaving millions untreated. Vaccination coverage for Hepatitis B is uneven, with some regions falling short of targets. The COVID-19 pandemic further hampered progress. To achieve elimination goals, a significant increase in diagnosis, treatment, and vaccinations is needed, particularly in high-burden countries.

Testing Challenges:

While plans and guidelines for viral hepatitis testing are developed by many countries, implementation varies greatly. Testing availability and uptake remain limited, especially in remote areas. New, simpler testing methods and wider access to diagnostic tools could improve access to care, but require increased testing uptake and funding. National testing strategies exist, but incorporating them into essential diagnostic lists is slow. Despite improvements in quality control and relatively low-test prices, funding shortages restrict wider access. Most countries rely on government funds or out-of-pocket payments, limiting test availability. Decentralization is also limited due to funding, staffing, and policy issues hindering various testing approaches (self-testing, community-based programs) and rapid testing in primary care facilities. There is some progress integrating testing with other health programs for efficiency, but wider access requires overcoming funding, decentralization, and adopting new testing methods.

Limited Treatment Access:

While WHO treatment guidelines are adopted by many countries, access to treatment lags behind. Affordable generic medicines exist, but procurement remains an issue. Prices vary greatly, often exceeding benchmarks, especially for low- and middle-income countries. Patent restrictions further limit access in some cases. While voluntary licensing agreements offer some progress, high-burden countries may be excluded. National guidelines incorporating WHO recommendations may not reflect availability within primary healthcare. Product registration, particularly for children's medication, is slow. Financial barriers

also exist, as many countries do not offer free testing and treatment. Local manufacturing offers hope for affordability and access, but pricing inconsistencies remain across regions.

This report highlights the need for a paradigm shift towards a public health approach. Success stories, like Egypt's achievement of the gold tier status for hepatitis C elimination, offer inspiration. Low- and middle-income countries with high burdens, like Pakistan, China, and India, are well-positioned to learn from such examples and leverage recent policy updates, local production of medicines, and decentralized healthcare models.

Pakistan in the Grip of Hepatitis: A Public Health Crisis

World Health Organization report paints a concerning picture for Pakistan. An estimated 8.8 million people in the country are infected with Hepatitis C, making it the nation with the most widespread prevalence of the disease globally. While Hepatitis B cases are lower at 3.8 million, the burden ranks ninth globally. Furthermore, Pakistan is attributed with a staggering 44% of all new Hepatitis C infections caused by unsafe medical injections. While Pakistan is the world leader according to the WHO report for hepatitis C infections, if the number of hepatitis B and hepatitis C cases are combined, Pakistan ranks fifth in the world, only trailing behind China, India, Indonesia and Nigeria, with around 12.6 million cases reported in 2022. Bangladesh, China, Ethiopia, India, Indonesia, Nigeria, Pakistan, the Philippines, the Russian Federation and Viet Nam, collectively shoulder nearly two-thirds of the global burden of hepatitis B and C.

Achieving universal access to prevention, diagnosis, and treatment in these ten countries by 2025, alongside intensified efforts in the African Region, is essential to get the global response back on track to meet the Sustainable Development Goals, according to the WHO.

Pakistan's Progress in Viral Hepatitis Control: Insights from the WHO 2024 Report

The World Health Organization's 2024 Global Hepatitis Report highlights several encouraging developments in Pakistan's fight against viral hepatitis:

- **National Resource Mobilization:** The report commends Pakistan's program for mobilizing national resources to implement the Prime Minister's initiative for viral hepatitis testing and treatment. This commitment demonstrates a strong national response to this public health challenge.
- **Enhanced Vaccination Rates:** Pakistan has ensured the free availability of the hepatitis B birth dose vaccine in the public sector. This crucial measure contributes towards long-term prevention of hepatitis B transmission.
- **Free Testing and Treatment:** The report acknowledges Pakistan's efforts in providing free hepatitis C testing and treatment services within the public healthcare system. This initiative increases accessibility and promotes early diagnosis and treatment for infected individuals.
- **Local Manufacturing:** Pakistan's inclusion in licensing agreements for hepatitis C medications facilitates local manufacturing of these drugs. This fosters greater affordability and potential self-sufficiency in managing the disease burden. (e.g., "Gilead's licensing agreement for SOF, SOF/VEL, SOF/LED, and SOF/VEL/VOX, Bristol-Myers Squibb and MPP's licensing agreement or patent withdrawal/lapse for DAC, and AbbVie and MPP's licensing agreement for G/P").
- **Cost Leadership:** The report highlights Pakistan's achievement in offering the lowest reported price for hepatitis testing in the region. This exemplifies the country's commitment to providing cost-effective diagnostic services.
- **Affordable Treatment:** Pakistan also boasts the region's lowest treatment costs. The report notes that a 12-week curative treatment for hepatitis C can be as low as US$34 when SOF and DAC are purchased separately from local manufacturers. This affordability plays a critical role in increasing access to treatment for patients.

These findings from the WHO report showcase Pakistan's significant strides in tackling viral hepatitis. By combining national commitment, strategic

partnerships, and cost-effective measures, Pakistan is paving the way for a future with lower disease prevalence and improved public health outcomes.

Consultative Workshop on Public Health Emergency Management (PHEM) 5-Year Road Map.

Introduction:

A vital consultative workshop on developing a 5-year road map for Public Health Emergency Management (PHEM) in Pakistan was held this week at Islamabad. This initiative, spearheaded by the National Institutes of Health (NIH) under the Ministry of National Health Services, Regulations and Coordination (MoNHSR&C), brought together representatives from all provinces and federating units to collaboratively chart the course for strengthening Pakistan's PHEM capabilities.

Inaugural Session and Participation:

The workshop commenced with an inaugural session chaired by Dr. Salman, CEO of NIH. The session was moderated by Mr. Zeeshan Baig. The opening ceremony highlighted the critical importance of Public Health Emergency Management (PHEM) systems in protecting public health during emergencies. The emphasis was on having strong systems in place to effectively respond to crises and safeguard the well-being of the population. The workshop itself was a testament to this commitment. It saw active participation from representatives of all provinces and federating units within the country. This broad engagement demonstrates a collective effort towards building stronger PHEM systems across the nation.

Workshop Activities and Discussions:

Following the inaugural session, Dr. Wasif Malik presented the workshop objective and roadmap framework. This was followed by a series of interactive group work activities, where participants engaged in brainstorming and discussion sessions. The workshop concluded with presentations from each group, outlining their contributions to the development of the 5-year PHEM roadmap.

Stakeholder Engagement:

The workshop fostered a highly interactive and productive environment. Several key stakeholders participated in the discussions, including Deputy Director, MoNHSR&C, JSI-USAID, IHR Focal Person, WHO and Representatives from various development partners

Conclusion:

This consultative workshop represents a significant step forward in strengthening Pakistan's preparedness for public health emergencies. The collaborative approach, involving all provinces and development partners, paves the way for a robust and effective PHEM roadmap for the next five years.

Knowledge Hub

Safeguarding Liver - A World Liver Day Message for Pakistan

Introduction:

On April 19th of each year, World Liver Day serves as a crucial reminder for all citizens of Pakistan to prioritize their liver health. The 2024 theme, "Be vigilant, get regular liver check-ups, and prevent fatty liver diseases," holds particular significance for our nation. This public health bulletin explores the vital role of the liver, the concerning rise of liver disease in Pakistan, and actionable steps individuals can take to safeguard this essential organ.

The Liver: A Silent Sentinel

The liver, often referred to as a "silent hero," tirelessly performs a multitude of critical functions within the body. Acting as a detoxifying filter for our blood, regulating metabolism, and synthesizing essential proteins, the liver is central to overall health. Unfortunately, the importance of liver health is frequently overlooked, leading to a concerning rise in liver diseases across Pakistan.

A Public Health Challenge

Pakistan faces a significant burden of liver disease, with a particularly high prevalence of Hepatitis B and C, estimated to affect over 11 million

individuals annually. Several factors contribute to this public health challenge, including:

- **Dietary Risks**: Unhealthy dietary patterns, often high in saturated fats and lacking in fruits and vegetables, contribute to fatty liver disease.
- **Obesity**: The rising prevalence of obesity in Pakistan is a significant risk factor for liver disease, particularly fatty liver disease.
- **Unsafe Water and Sanitation**: Contaminated water and inadequate sanitation practices can increase the risk of viral hepatitis infection.
- **Limited Healthcare Access**: Unequal access to preventative healthcare and diagnostic testing for liver disease hinders early detection and intervention.
- **Substance Abuse**: Intravenous drug use and excessive alcohol consumption are major risk factors for liver damage.

Spectrum of Liver Disease

These contributing factors can lead to a variety of liver diseases, including:

➢ Viral Hepatitis:

The most common cause of liver disease in Pakistan, viral hepatitis encompasses five main types (A, B, C, D, and E). Hepatitis B and C pose the greatest long-term risk, potentially progressing to chronic liver disease, cirrhosis, and even liver cancer.

- Hepatitis A is spread through contaminated food or water. It can also be spread through close personal contact.
- Hepatitis B is spread through blood, semen, and other bodily fluids. It can also be spread from mother to child during childbirth.
- Hepatitis C is spread through blood. It can also be spread through sharing needles or another injecting drug equipment.
- Hepatitis D can only occur in people who are already infected with hepatitis B. It is spread through blood.
- Hepatitis E is spread through contaminated food or water.

➢ Fatty Liver Disease: Fatty Liver Disease: A Growing Threat to Liver Health

Fatty liver disease (FLD), also known as hepatic steatosis, is a burgeoning public health concern characterized by the abnormal accumulation of excess fat within hepatocytes, the primary functional units of the liver. This condition can silently progress, often presenting without any noticeable symptoms in its early stages. However, if left unchecked, FLD can lead to significant health complications.

Etiology of Fatty Liver Disease:

The precise cause of FLD remains under investigation, but several factors are known to contribute to its development. These include:

- **Obesity:** Individuals with a body mass index (BMI) exceeding 30 are at significantly increased risk for FLD. Excess adipose tissue (body fat) disrupts normal metabolic processes, leading to increased hepatic fat deposition.
- **Unhealthy Dietary Habits:** Excessive consumption of saturated fats, refined carbohydrates, and sugary beverages significantly contributes to FLD. These dietary choices promote lipogenesis (fat synthesis) and hinder lipolysis (fat breakdown) within the liver.
- **Insulin Resistance:** In this condition, the body's cells become less responsive to insulin, a hormone that regulates blood sugar levels. Insulin resistance can lead to increased hepatic fat synthesis and decreased fat export from the liver.
- **Genetic Predisposition:** Certain genetic variations can influence an individual's susceptibility to FLD. While not a direct cause, genetics can play a role in how efficiently the body processes and stores fat.

Clinical Spectrum of Fatty Liver Disease:

FLD encompasses a spectrum of disease severity, ranging from simple steatosis, characterized solely by fat accumulation, to nonalcoholic steatohepatitis (NASH). NASH is a more concerning form of FLD that involves inflammation and liver cell damage alongside fat accumulation. In severe cases, NASH can progress to fibrosis (scarring) of the liver tissue, ultimately leading to cirrhosis, a condition characterized by irreversible loss of liver function.

➢ Cirrhosis:

As a Devastating Sequela of Chronic Liver Disease Cirrhosis represents a severe and often irreversible stage of chronic liver disease characterized by extensive scarring (fibrosis) and distortion of the normal hepatic architecture. This pathological transformation disrupts vital hepatic functions, including detoxification, protein synthesis, and bile production. Cirrhosis can arise from a multitude of etiological factors, each causing progressive injury and subsequent fibrotic response.

➢ Hepatocellular Carcinoma: A Looming Threat in Chronic Liver Disease

Hepatocellular carcinoma (HCC), also known as primary liver cancer, presents a formidable challenge within the spectrum of chronic liver diseases. While classified as a relatively rare malignancy, its potential for lethality necessitates significant attention. This section delves into the concerning aspects of HCC, particularly its association with chronic liver conditions.

The emergence of HCC is intricately linked to chronic liver inflammation and the subsequent development of cirrhosis. Cirrhosis is a pathological state characterized by the replacement of healthy liver tissue with scar tissue, significantly compromising the organ's function. This chronic inflammatory environment fosters uncontrolled cellular proliferation, ultimately leading to the formation of malignant tumors within the liver.

Early Detection and Prevention:

Liver disease can often progress silently in its early stages. However, some warning signs warrant prompt medical attention: fatigue, loss of appetite, abdominal pain or swelling, nausea, and jaundice (yellowing of the skin and eyes). In severe cases, confusion, hallucinations, and bleeding may occur.

The good news is that individuals have significant control over their liver health. Here are steps you can take:

- **Maintain a Healthy Weight:** Regular exercise and a balanced diet are essential for weight management and reducing the risk of fatty liver disease.
- **Prioritize Liver-Friendly Foods:** Focus on consuming fruits, vegetables, whole grains, and lean proteins. Limit saturated and trans fats found in processed foods and fried items.
- **Schedule Regular Check-Ups:** Incorporate liver function tests into your routine health checkups, even if you experience no symptoms.
- **Get Vaccinated:** Vaccinations for Hepatitis A and B can significantly reduce your risk of liver damage from these viruses.
- **Practice Safe Sex:** Use condoms consistently to prevent the transmission of Hepatitis B and C through sexual contact.
- **Avoid Alcohol Consumption:** Complete abstinence is crucial for preventing liver damage.

Conclusion

Prioritizing liver health is an investment in your overall well-being. World Liver Day serves as a powerful call to action. By embracing these simple preventative measures, you can safeguard your liver, prevent disease, and lead a healthier, happier life. Remember, early detection is critical. If you experience any concerning symptoms, consult your healthcare provider immediately.

Public Health Bulletin Pakistan

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