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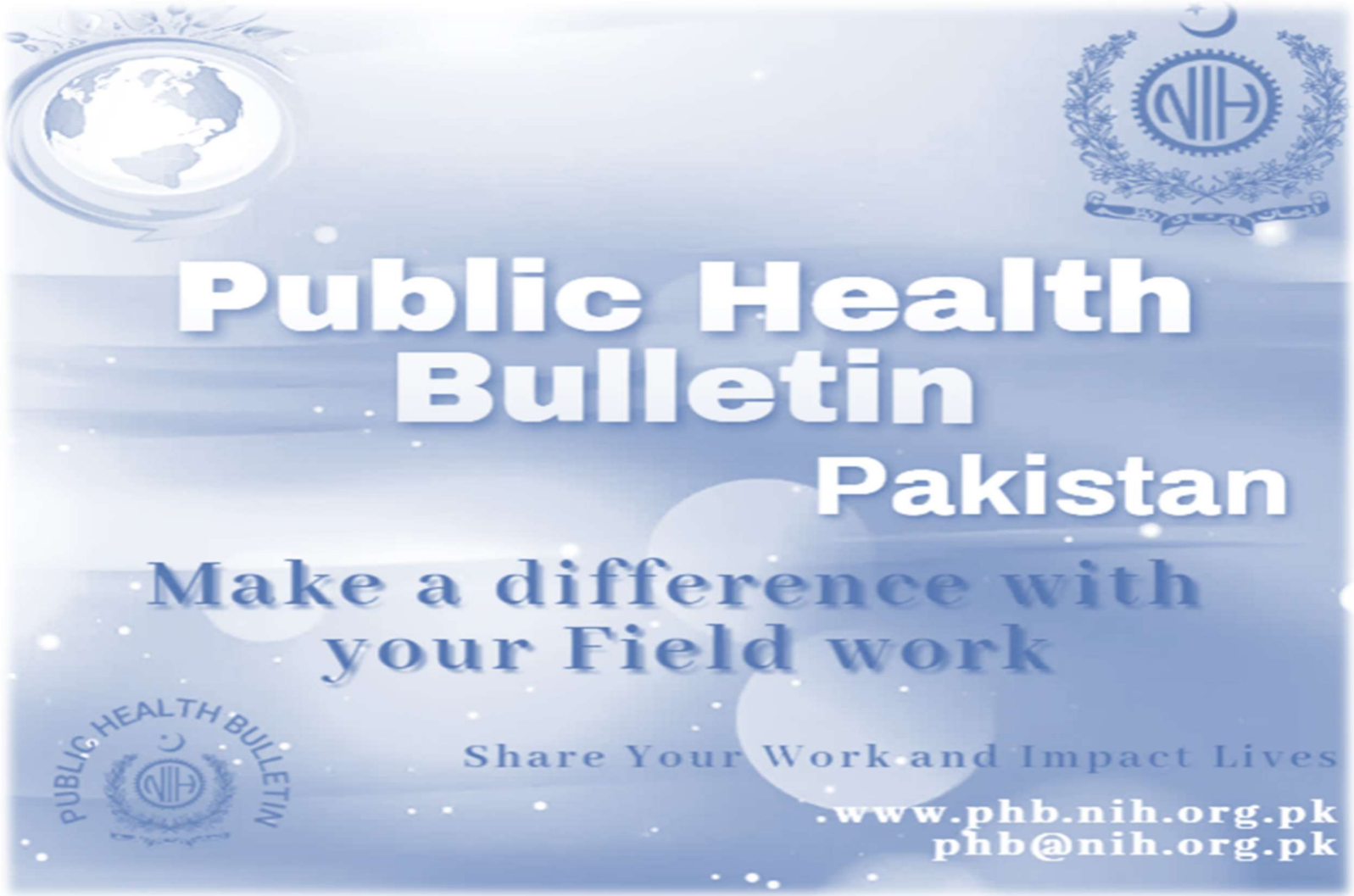
Integrated Disease Surveillance & Response (IDSR) Report

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 34, 2024

Evolving from a basic disease registry, Pakistan's Public Health Bulletin has become an indispensable tool for safeguarding public health. By meticulously tracking disease trends, the Bulletin serves as an early warning system, enabling timely interventions to prevent outbreaks.

Beyond data compilation, this week's bulletin also includes a call of participation in PHB Special Edition, information on Mpox as a Public Health Emergency of International Concern and Pakistan's response, The Indispensable Role of Collaboration in Field Epidemiology, and a knowledge review on Viral Dengue Disease.

Stay well-informed about public health matters. Subscribe to the Weekly Bulletin today! By equipping everyone with knowledge, the Public Health Bulletin empowers Pakistanis to build a healthier nation.

Sincerely,
The Chief Editor

- *During week 34, 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).*
- *Thirty-two cases of AFP reported from KP, nineteen from Punjab, ten from Sindh and seven from AJK. All are suspected cases and need field verification.*
- *Eighteen suspected cases of HIV/ AIDS reported from Punjab, nine from KP and seven from Sindh. Field investigation required to verify the cases.*
- *Twenty-four suspected cases of Brucellosis reported from KP and five from Sindh. Field investigation required to verify the cases.*
- *Two suspected case of CCHF reported from Punjab and one from Sindh. Field investigation required to verify the cases.*
- *There is an increasing trend observed for AD (Non-cholera), Malaria, ILI, TB, B. Diarrhea, dog bite, Typhoid and AWD (S. Cholera) cases this week.*

IDSR compliance attributes

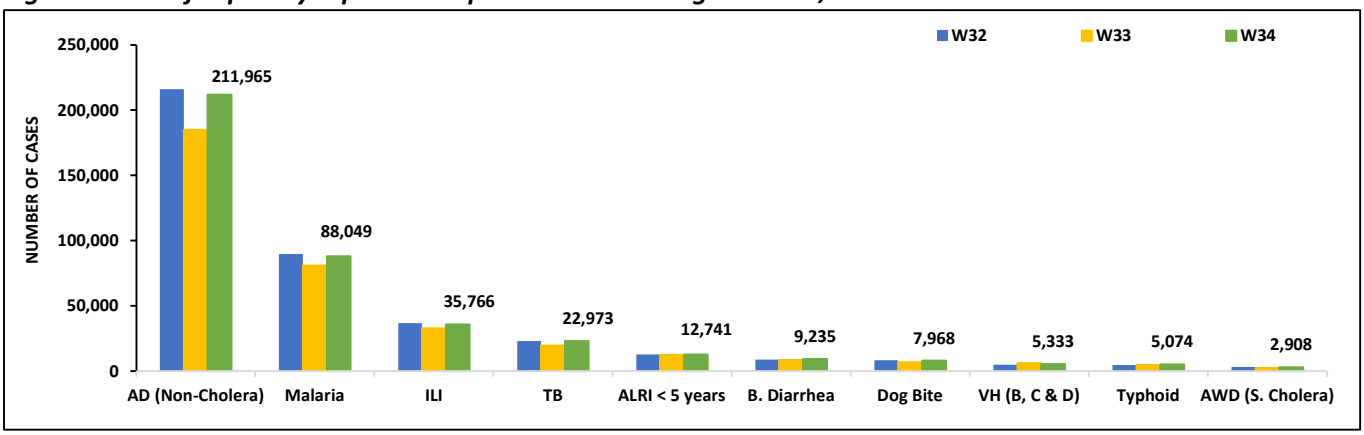
- *The national compliance rate for IDSR reporting in 158 implemented districts* is 83%
- *Gilgit Baltistan and AJK are the top reporting regions with a compliance rate of 98%, followed by Sindh 95% and ICT 83%*
- *The lowest compliance rate was observed in Balochistan.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	*2348*	*1710*	*73*
Azad Jammu Kashmir	*381*	*375*	*98*
Islamabad Capital Territory	*35*	*29*	*83*
Balochistan	*1206*	*878*	*73*
Gilgit Baltistan	*374*	*368*	*98*
Sindh	*2085*	*1980*	*95*
National	*6429*	*5340*	*83*

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 34, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	2,761	6,886	3,751	526	32,879	104,984	60,178	211,965
Malaria	25	4,722	1	7	7,362	3,328	72,604	88,049
ILI	1,424	4,385	501	1,379	3,263	1	24,813	35,766
TB	48	64	117	13	413	10,402	11,916	22,973
ALRI < 5 years	882	1,271	501	1	1,289	718	8,079	12,741
B.Diarrhea	98	1,557	157	8	1,613	905	4,897	9,235
Dog Bite	111	125	1	0	528	5,157	2,046	7,968
VH (B, C & D)	11	97	1	0	141	0	5,083	5,333
Typhoid	39	644	119	2	719	2,359	1,192	5,074
AWD (S. Cholera)	58	321	244	0	109	2,068	108	2,908
SARI	253	466	313	2	566	0	233	1,833
Dengue	1	0	0	0	68	1,352	205	1,626
AVH (A&E)	32	44	4	0	341	0	505	926
Measles	21	40	1	0	211	293	96	662
CL	0	85	0	0	228	1	9	323
Mumps	5	53	3	1	75	0	100	237
Chikungunya	0	0	0	0	0	0	182	182
Chickenpox/ Varicella	9	2	19	0	69	8	24	131
Pertussis	0	83	3	0	9	0	13	108
Gonorrhea	0	89	0	0	7	0	11	107
AFP	7	0	0	0	32	19	10	68
Meningitis	6	4	0	0	16	29	5	60
HIV/AIDS	0	0	0	0	9	18	7	34
Brucellosis	0	0	0	0	24	0	5	29
Rubella (CRS)	0	19	0	0	0	0	0	19
Syphilis	0	0	0	0	0	0	12	12
VL	0	2	0	0	0	0	8	10
Diphtheria (Probable)	0	3	1	0	1	3	1	9
NT	0	0	0	0	6	1	0	7
CCHF	0	0	0	0	0	2	1	3

Figure 1: Most frequently reported suspected cases during Week 34, Pakistan.



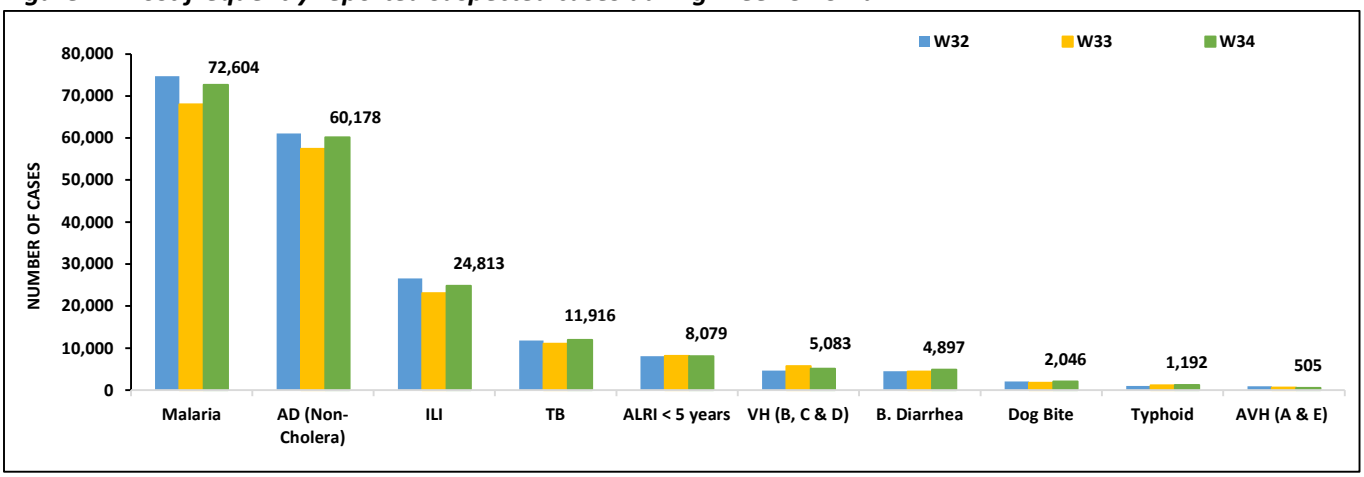
Sindh

- 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 Badin, Larkana and Khairpur whereas AD (Non-Cholera) cases are from Badin, Mirpurkhas and Khairpur.
- Ten cases of AFP, Seven suspected cases of HIV/ AIDS, Five suspected cases of Brucellosis, One suspected case of CCHF reported from Sindh. All are suspected cases, Field investigation required to verify the case.
- There is an increasing trend observed for Malaria, AD (Non-Cholera), ILI, TB, B. Diarrhea, dog bite and Typhoid cases this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 34, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	TB	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Dog Bite	Typhoid	AVH (A&E)
Badin	8,031	4,688	690	853	598	338	403	79	103	15
Dadu	3,818	3,397	241	435	622	24	478	226	117	18
Ghotki	2,129	2,237	0	366	402	421	145	177	0	5
Hyderabad	288	2,292	1,737	73	99	63	0	0	11	0
Jacobabad	733	944	377	115	333	143	179	139	49	2
Jamshoro	1,840	2,482	79	415	175	278	117	65	38	16
Kamber	4,929	2,263	5	793	245	117	208	159	16	0
Karachi Central	98	1,277	1,601	282	18	57	17	26	122	4
Karachi East	60	562	297	9	38	0	6	4	6	0
Karachi Keamari	2	289	130	0	31	0	2	0	1	2
Karachi Korangi	50	407	0	19	1	8	5	0	0	2
Karachi Malir	425	2,159	2,770	130	260	64	103	32	40	12
Karachi South	42	64	0	0	0	0	0	0	0	0
Karachi West	156	799	1,162	101	183	73	33	41	27	9
Kashmore	1,514	614	285	262	165	34	90	176	6	0
Khairpur	5,754	3,502	4,554	1061	910	258	449	140	230	39
Larkana	6,751	2,608	0	892	220	114	691	17	24	0
Matiari	1,783	2,016	4	558	172	352	89	26	10	10
Mirpurkhas	5,365	3,761	3,152	829	614	164	201	47	25	3
Naushero Feroze	2,255	1,720	1,171	494	348	21	182	240	127	0
Sanghar	3,614	1,561	29	1043	353	978	39	40	24	3
Shaheed Benazirabad	2,124	2,399	18	450	181	80	103	101	105	1
Shikarpur	2,898	1,461	2	220	110	803	215	81	6	0
Sujawal	2,468	3,015	0	110	88	0	204	30	0	92
Sukkur	2,678	1,582	1,704	565	231	92	183	43	12	0
Tando Allahyar	2,783	1,670	269	478	229	386	234	41	10	0
Tando Muhammad Khan	2,496	1,810	0	547	209	14	175	0	1	1
Tharparkar	3,236	3,474	1,588	406	619	84	231	4	39	37
Thatta	2,069	2,669	2,948	31	256	83	36	112	15	231
Umerkot	2,215	2,456	0	379	369	34	79	0	28	3
Total	72,604	60,178	24,813	11,916	8,079	5,083	4,897	2,046	1,192	505

Figure 2: Most frequently reported suspected cases during Week 34 Sindh



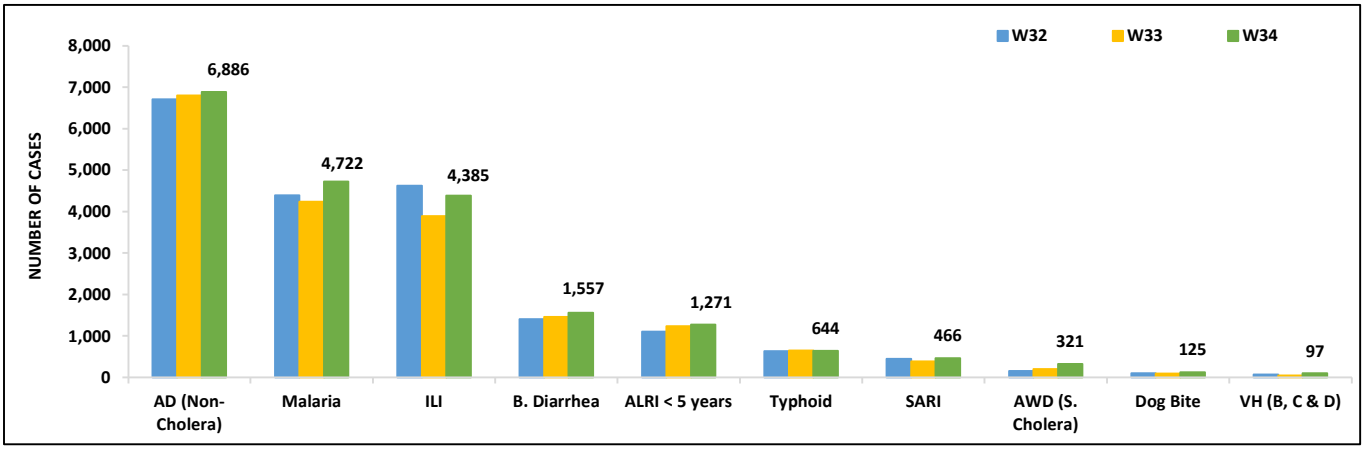
Balochistan

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

Table 3: District wise distribution of most frequently reported suspected cases during Week 34, Balochistan

Districts	AD Non-Cholera)	Malaria	ILI	B. Diarrhea	ALRI < 5 years	Typhoid	SARI	AWD (S.Cholera)	TB	CL
Awaran	20	32	75	15	2	4	4	17	0	1
Barkhan	104	132	76	8	26	23	0	10	1	0
Chagai	141	51	217	51	1	16	1	21	2	2
Chaman	219	49	144	83	19	17	32	12	0	0
Dera Bugti	87	141	44	43	6	23	0	0	0	0
Duki	136	41	75	66	20	9	12	8	10	1
Harnai	79	77	11	59	130	0	0	7	3	2
Hub	102	77	31	13	3	0	0	0	0	0
Jaffarabad	472	856	77	53	32	10	10	3	30	48
Jhal Magsi	145	105	239	0	1	20	0	0	12	0
Kalat	56	59	2	8	16	32	0	0	0	0
Kharan	162	51	381	52	0	4	4	0	0	0
Khuzdar	357	305	447	105	15	33	22	27	0	0
Killa Abdullah	244	40	83	89	23	61	27	2	3	0
Killa Saifullah	237	191	3	58	69	18	0	35	1	0
Kohlu	186	155	220	91	16	49	61	1	NR	2
Lasbella	566	388	100	25	92	5	7	3	4	0
Loralai	259	69	344	50	44	25	76	2	10	1
Mastung	300	141	105	51	50	31	19	7	10	15
Musakhel	19	116	9	5	0	3	0	7	3	1
Naseerabad	282	150	0	17	11	51	3	0	22	0
Nushki	169	31	5	32	0	0	0	0	0	0
Panjgur	260	278	117	59	124	18	32	43	0	0
Pishin	164	18	155	92	12	8	17	62	0	0
Quetta	195	17	294	57	4	39	18	26	0	0
Sherani	25	3	50	12	6	3	3	0	0	0
Sibi	127	128	137	8	28	22	36	8	1	0
Sohbat pur	275	195	13	66	96	23	4	0	0	9
Surab	55	70	56	1	1	0	2	0	0	0
Usta Muhammad	874	364	94	85	94	14	2	0	6	15
Washuk	234	108	390	102	11	9	8	6	3	0
Zhob	187	145	207	52	305	44	64	0	0	0
Ziarat	148	139	184	49	14	30	2	14	4	0
Total	6,886	4,722	4,385	1,557	1,271	644	466	321	125	97

Figure 3: Most frequently reported suspected cases during Week 34, Balochistan

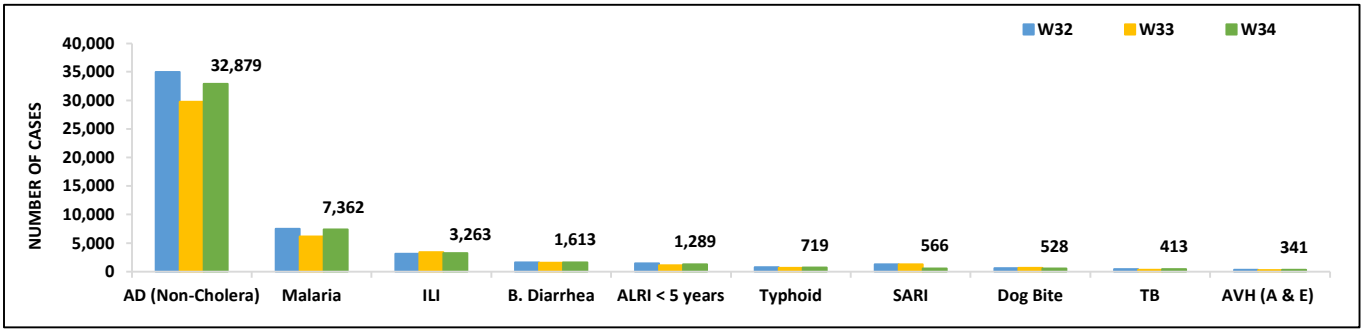


- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, B. Diarrhea, ALRI<5 Years, Typhoid, SARI, dog bite, TB and AVH (A & E) cases.
- AD (Non-Cholera), Malaria, B. Diarrhea, ALRI<5 Years, Typhoid, TB and AVH (A & E) cases showed an increasing trend while ILI, SARI and dog bite cases showed a decreasing trend this week.
- Thirty-two cases of AFP,Nine suspected cases of HIV/ AIDS, Twenty-four 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 34, KP

Districts	AD (Non-Cholera)	Malaria	ILI	B.Diarrhea	SARI	ALRI <5 Years	Typhoid	Dog Bite	TB	AVH (A&E)
Abbottabad	1,259	22	69	12	30	49	0	5	11	4
Bajaur	1,413	342	14	128	317	7	48	33	16	78
Bannu	858	1,254	14	36	16	87	0	0	14	0
Battagram	273	5	517	0	0	0	0	0	0	0
Buner	367	296	0	0	0	2	0	0	2	0
Charsadda	662	297	415	24	41	56	0	1	2	16
Chitral Lower	836	25	84	52	28	7	31	5	5	1
Chitral Upper	279	6	11	7	5	22	12	0	1	6
D.I. Khan	1,249	408	0	20	4	0	0	20	50	0
Dir Lower	2,188	183	1	124	115	51	0	36	8	9
Dir Upper	1,468	22	110	20	18	5	0	0	22	2
Hangu	81	226	4	12	57	0	0	0	0	0
Haripur	1,100	31	52	10	29	18	9	4	36	35
Karak	287	160	34	0	11	8	0	5	8	0
Khyber	469	352	0	136	11	48	32	28	11	18
Kohat	615	209	47	20	9	27	1	1	5	0
Kohistan Lower	133	4	1	12	2	0	0	1	0	0
Kohistan Upper	428	28	20	27	22	10	10	1	1	3
Kolai Palas	101	6	35	5	1	2	4	0	1	1
L & C Kurram	45	19	66	17	0	1	1	0	0	0
Lakki Marwat	768	243	0	16	11	12	0	36	9	0
Malakand	1,270	87	35	238	27	27	14	0	2	40
Mansehra	897	0	212	8	5	13	100	0	4	0
Mardan	892	35	0	14	286	0	0	16	7	0
Mohmand	232	264	99	67	9	11	102	22	2	3
North Waziristan	30	13	0	4	0	1	0	0	0	3
Nowshera	2,090	118	4	32	33	13	4	7	8	4
Orakzai	15	36	0	4	0	0	0	0	0	0
Peshawar	3,580	76	624	146	26	105	29	8	23	41
SD Peshawar	18	3	0	0	0	0	0	0	0	0
SD Tank	7	42	2	1	0	1	0	0	0	0
Shangla	2,212	1,685	0	34	14	8	0	59	74	3
SWA	96	184	132	24	29	12	57	1	4	0
Swabi	1,989	109	391	56	48	45	64	186	49	53
Swat	4,151	60	147	239	68	36	32	49	24	19
Tank	264	294	12	0	9	24	0	0	12	0
Tor Ghar	118	188	0	42	0	6	11	0	0	2
Upper Kurram	139	30	111	26	8	5	5	4	2	0
Total	32,879	7,362	3,263	1,613	1,289	719	566	528	413	341

Figure 4: Most frequently reported suspected cases during Week 34, KP



ICT, AJK & GB

ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and TB.ILI, AD (Non-Cholera) and TB cases showed an increasing trend this week. *AJK:* AD (Non-Cholera) cases were maximum followed by ILI, ALRI <5 years, SARI, dog bite, B. Diarrhea, AWD (S. Cholera), TB, Typhoid and AVH (A & E) cases. An increasing trend observed for AD (Non-Cholera), ILI, SARI and dog bite cases while a decreasing trend observed for ALRI <5 years, B. Diarrhea, AWD (S. Cholera), TB, Typhoid and AVH (A & E) cases this week. Seven suspected cases of AFP reported from AJK. Field investigation required to verify the cases. *GB:* AD (Non-Cholera) cases were the most frequently reported diseases followed by ILI, ALRI <5 Years, SARI, AWD (S. Cholera), B. Diarrhea, Typhoid and TB cases. An increasing trend observed for AD (Non-Cholera), ILI, ALRI <5 Years, SARI, AWD (S. Cholera), Typhoid and TB cases this week.

Figure 5: Most frequently reported suspected cases during Week 34, ICT

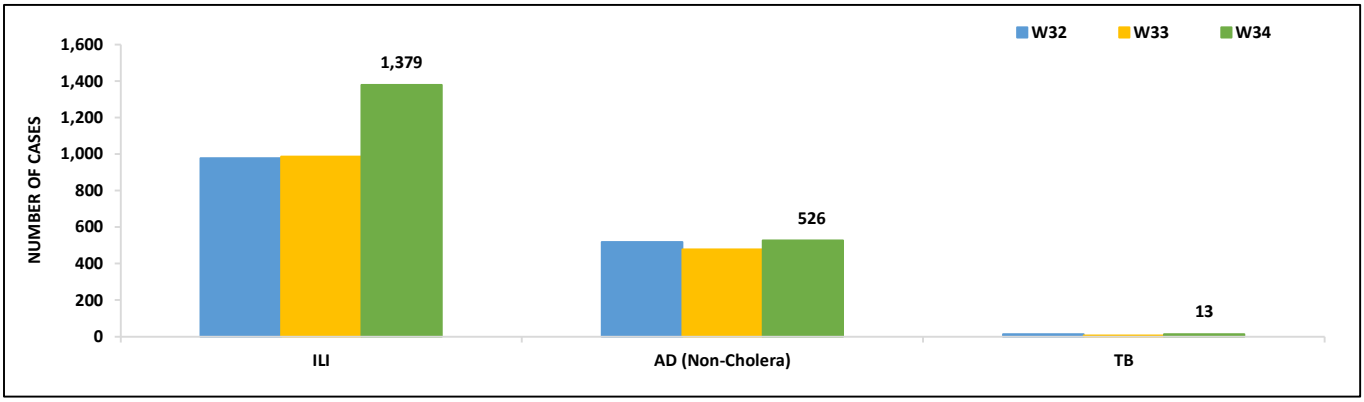


Figure 6: Week wise reported suspected cases of ILI, ICT

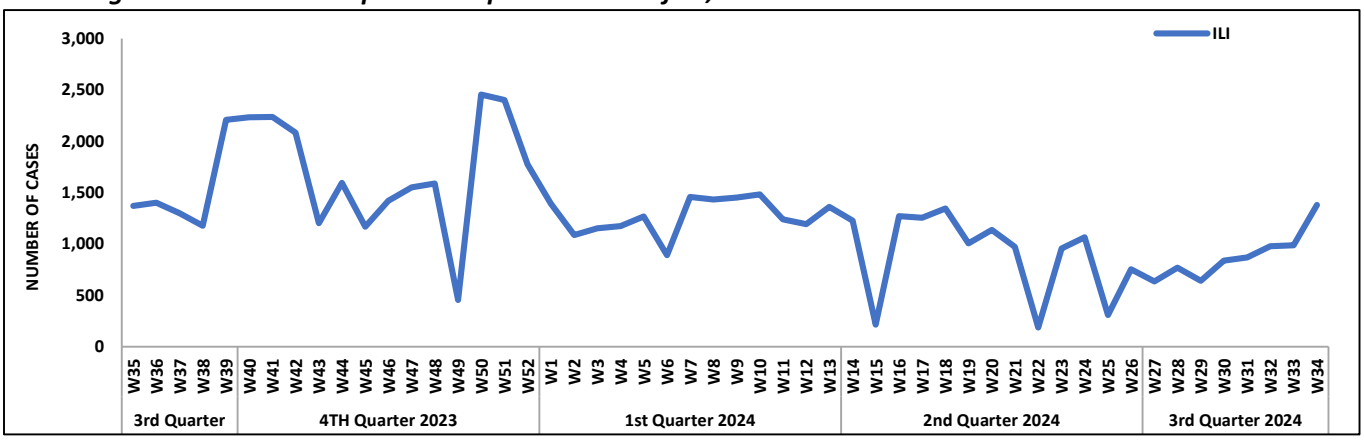


Figure 7: Most frequently reported suspected cases during Week 34, AJK

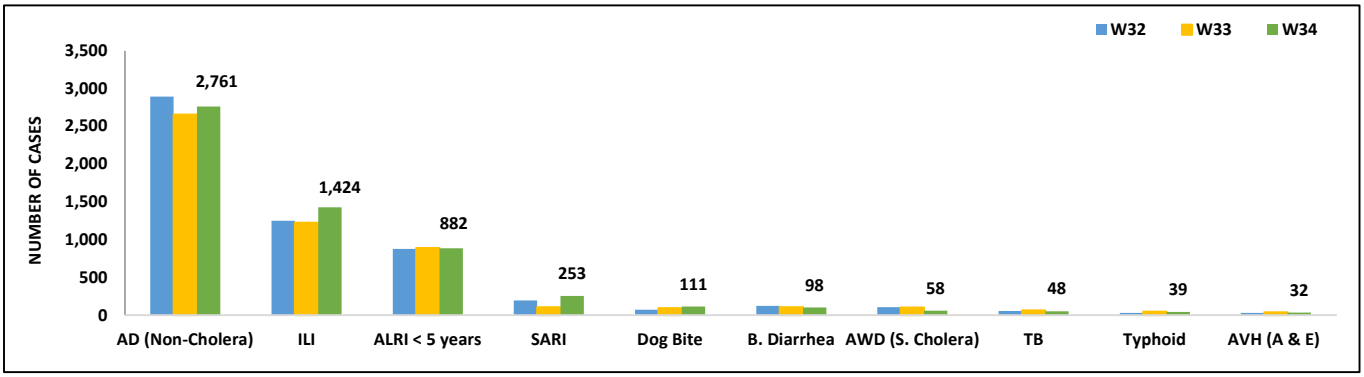


Figure 8: Week wise reported suspected cases of ILI and AD (Non-Cholera) AJK

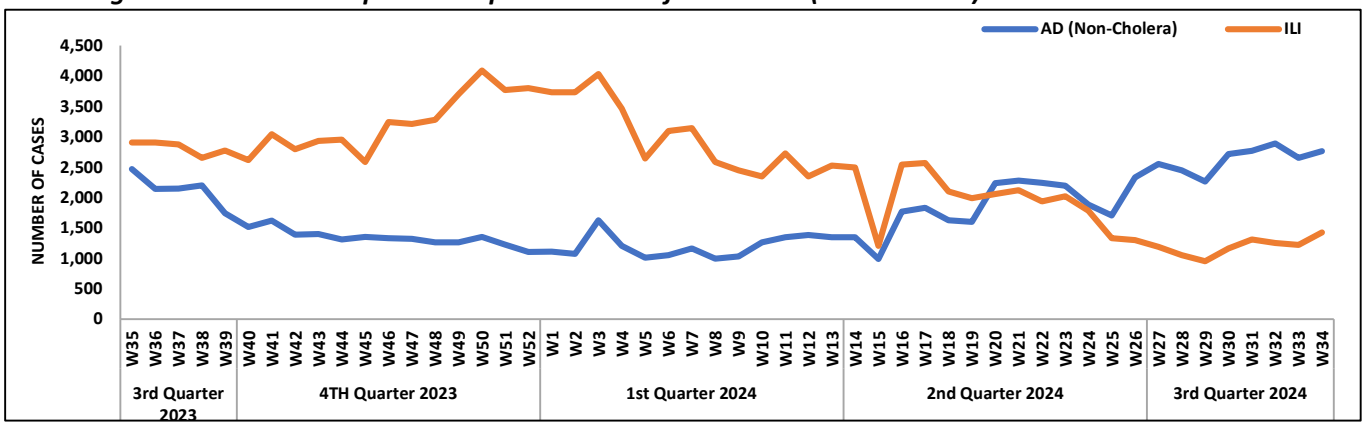


Figure 9: Most frequent cases reported during Week 34, GB

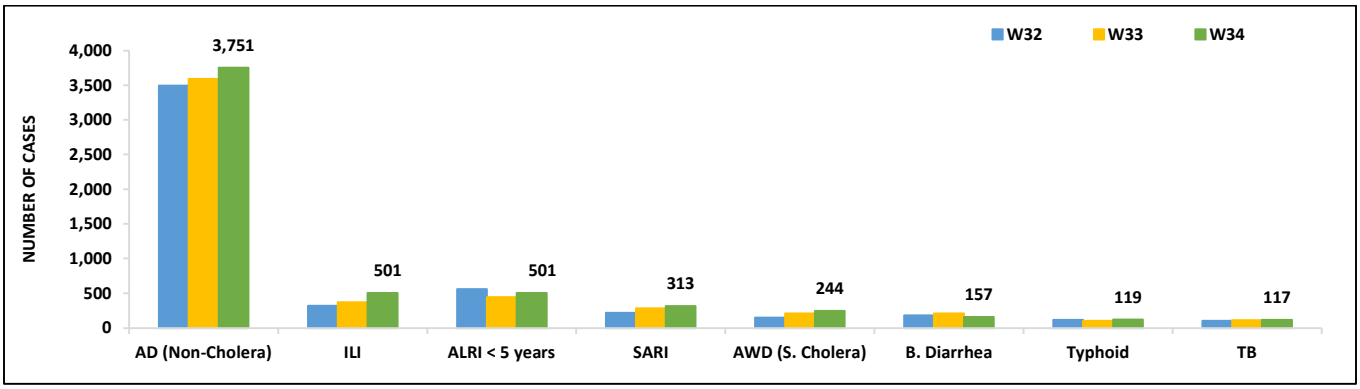
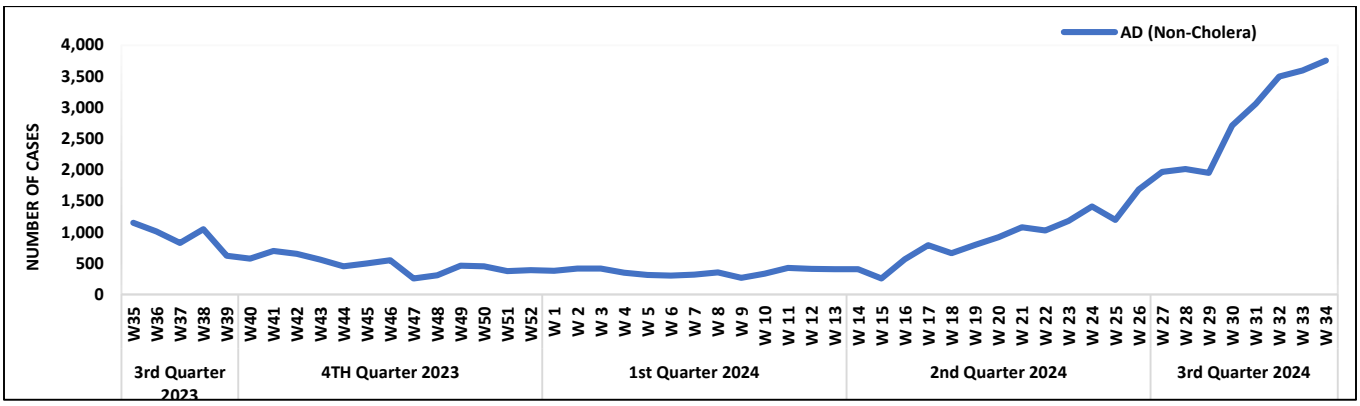


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



Punjab

- *AD (Non-Cholera) cases were maximum followed by TB, dog bite, Malaria, Typhoid, AWD (S. Cholera), Dengue, B. Diarrhea, ALRI<5 Years and Measles cases.*
- *AD (Non-Cholera), TB, dog bite, Malaria, Typhoid, AWD (S. Cholera) and Dengue cases showed an increasing trend while B. Diarrhea, ALRI<5 Years and Measles cases showed a decreasing trend this week.*
- *Nineteen cases of AFP, Eighteen suspected cases of HIV/ AIDS, Two suspected case of CCHF All are suspected cases and need field verification.*

Figure 11: Most frequently reported suspected cases during Week 34, Punjab.

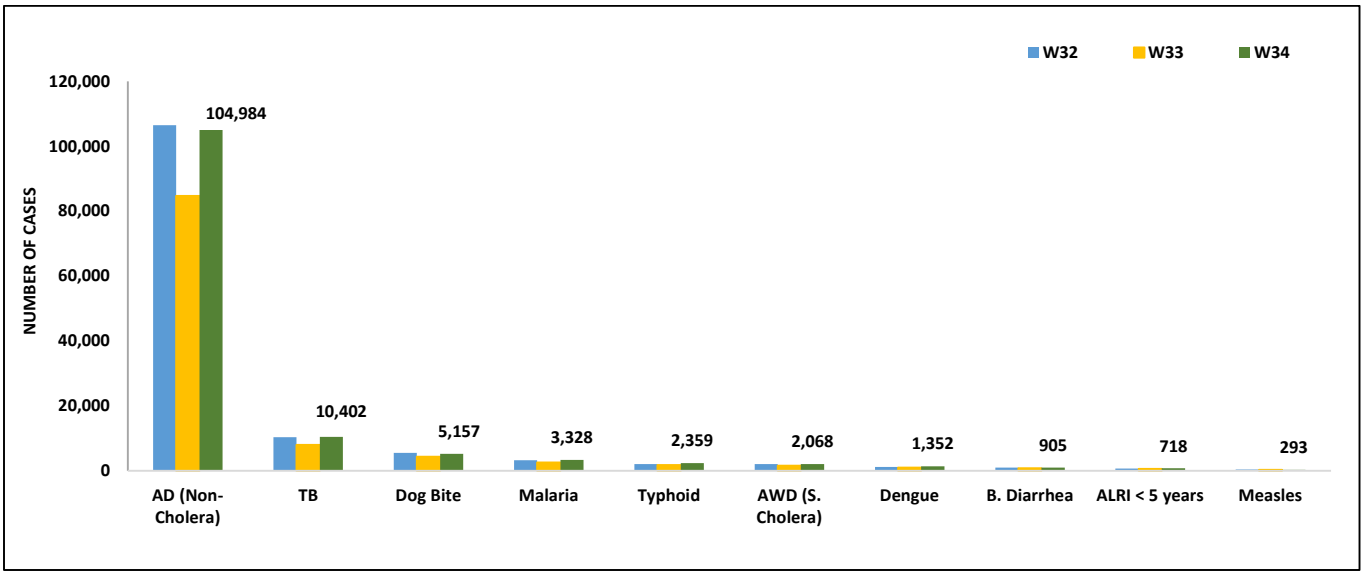


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 34

Diseases	Sindh		Balochistan		KPK		ISL		GB		Punjab		AJK	
	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos
AWD (S. Cholera)	8	0	-	-	11	1	6	0	-	-	-	-	-	-
AD (Non-Cholera)	82	1	-	-	-	-	-	-	-	-	-	-	-	-
Malaria	1,166	90	-	-	-	-	-	-	-	-	-	-	-	-
CCHF	-	-	-	-	1	0	4	0	-	-	-	-	-	-
Dengue	879	30	-	-	-	-	9	0	-	-	-	-	-	-
VH (B)	2,747	56	-	-	-	-	-	-	186	8	-	-	-	-
VH (C)	2,781	254	-	-	-	-	-	-	152	0	-	-	-	-
VH (A&E)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Covid-19	-	-	-	-	2	0	-	-	35	0	-	-	-	-
HIV	32	0	-	-	-	-	-	-	-	-	-	-	-	-
Influenza A	0	0	0	0	3	0	30	0	0	0	0	0	-	-
TB	18	0	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	26	0	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid	481	1	-	-	-	-	13	2	-	-	-	-	-	-
Diptheria (Probabale)	-	-	-	-	3	0	5	0	-	-	-	-	-	-
Pertussis	-	-	-	-	-	-	1	0	-	-	-	-	-	-
M-POX	-	-	-	-	38	1	8	0	-	-	-	-	-	-
Chickenpox/ Varicella	-	-	-	-	-	-	1	0	-	-	-	-	-	-
Chikungunya	-	-	-	-	-	-	1	0	-	-	-	-	-	-
*Measles	82	41	11	6	311	138	7	4	3	0	369	113	29	9
*Rubella	82	1	-	-	311	10	-	-	-	-	369	4	-	-

*Nation reference lab at NIH Islamabad performs measles/rubella testing. Reporting from the lab to IDSR has begun this week.

IDSR Reports Compliance

- Out OF 158 IDSR implemented districts, compliance is low from KP and Balochistan districts. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSR reporting districts Week 34, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	105	54%
	Bannu	239	139	58%
	Battagram	63	18	29%
	Buner	34	32	94%
	Bajaur	44	37	84%
	Charsadda	59	55	93%
	Chitral Upper	34	28	82%
	Chitral Lower	35	35	100%
	D.I. Khan	114	105	92%
	Dir Lower	74	74	100%
	Dir Upper	53	45	85%
	Hangu	22	15	68%
	Haripur	72	64	89%
	Karak	35	35	100%
	Khyber	52	18	35%
	Kohat	61	61	100%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	68	97%
	Lower & Central Kurram	42	18	43%
	Upper Kurram	41	32	78%
	Malakand	42	36	86%
	Mansehra	136	91	67%
	Mardan	80	74	93%
	Nowshera	55	51	93%
	North Waziristan	12	3	25%
	Peshawar	151	105	70%
	Shangla	37	35	95%
	Swabi	63	59	94%
	Swat	77	73	95%
	South Waziristan	134	53	40%
	Tank	34	33	97%
	Torghar	14	13	93%
	Mohmand	86	41	48%
	SD Peshawar	5	1	20%
	SD Tank	58	7	12%
	Orakzai	68	10	15%
	Mirpur	36	36	100%
	Bhimber	20	19	95%
	Kotli	60	59	98%
	Muzaffarabad	45	44	98%
	Poonch	46	46	100%
	Haveli	39	38	97%

Azad Jammu Kashmir	Bagh	40	39	98%
	Neelum	39	39	100%
	Jhelum Vellay	29	28	97%
	Sudhnooti	27	27	100%
Islamabad Capital Territory	ICT	21	21	100%
	CDA	15	8	53%
Balochistan	Gwadar	25	0	0%
	Kech	44	0	0%
	Khuzdar	74	58	78%
	Killa Abdullah	26	20	77%
	Lasbella	55	55	100%
	Pishin	69	12	17%
	Quetta	39	11	28%
	Sibi	36	30	83%
	Zhob	39	31	79%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	4	27%
	Kohlu	75	43	57%
	Chagi	35	27	77%
	Kalat	41	40	98%
	Harnai	17	16	94%
	Kachhi (Bolan)	35	35	100%
	Jhal Magsi	28	14	50%
	Sohbat pur	25	25	100%
	Surab	32	14	44%
	Mastung	45	41	91%
	Loralai	33	31	94%
	Killa Saifullah	28	26	93%
	Ziarat	29	20	69%
	Duki	31	24	77%
	Nushki	32	29	91%
	Dera Bugti	45	33	73%
	Washuk	46	31	67%
	Panjgur	38	28	74%
	Awaran	23	7	30%
	Chaman	25	23	92%
	Barkhan	20	20	100%
	Hub	33	12	36%
	Musakhel	41	6	15%
	Usta Muhammad	34	34	100%
Gilgit Baltistan	Hunza	32	32	100%
	Nagar	20	17	85%
	Ghizer	40	40	100%
	Gilgit	40	39	98%
	Diamer	62	61	98%
	Astore	54	54	100%

	Shigar	27	26	96%
	Skardu	52	52	100%
	Ganche	29	29	100%
	Kharmang	18	18	100%
Sindh	Hyderabad	73	66	90%
	Ghotki	64	64	100%
	Umerkot	43	43	100%
	Naushahro Feroze	107	88	82%
	Tharparkar	282	242	86%
	Shikarpur	59	59	100%
	Thatta	52	50	96%
	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	13	72%
	Karachi-Central	11	11	100%
	Karachi-Korangi	18	18	100%
	Karachi-South	4	4	100%
	Sujawal	54	52	96%
	Mirpur Khas	106	103	97%
	Badin	124	115	93%
	Sukkur	63	61	97%
	Dadu	88	88	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	169	168	99%
	Kashmore	59	56	95%
	Matiari	42	39	93%
	Jamshoro	72	67	93%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	40	40	100%
	Shaheed Benazirabad	122	120	98%

Table 7: IDSR reporting Tertiary care hospital Week 34, 2024

AJK	Mirpur	1	1	100%
	Muzaffarabad	1	1	100%
	Poonch	1	1	100%
Sindh	Karachi-South	1	1	100%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%

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Public Health Bulletin-Pakistan: Special Edition World Field Epidemiology Day.

Dear Esteemed Health Managers, Field Epidemiologists, Surveillance Coordinators, and Data Collection and Dissemination Teams,

We extend a warm invitation to you to join us in commemorating World Field Epidemiology Day on **September 7, 2024**. This year's theme, "**Collaboration is Essential to Field Epidemiology**," underscores the critical role of teamwork in safeguarding public health.

Field epidemiology, the on-the-ground application of epidemiological principles and methods for disease investigation and control, is a cornerstone of public health. It plays a vital role in preventing and controlling infectious disease outbreaks, protecting our communities.

The theme for World Field Epidemiology Day 2024 is particularly significant as it emphasizes the importance of collaboration. Collaboration is essential for effective field epidemiology. By enhancing data collection, facilitating outbreak response, improving surveillance, enabling risk assessment, and strengthening global health security, collaboration proves indispensable. Diverse expertise, shared resources, and coordinated efforts lead to more comprehensive, timely, and effective public health actions. As global health challenges evolve, fostering collaboration remains crucial for protecting and promoting public health worldwide.

We encourage you to actively participate in celebrating World Field Epidemiology Day and promoting diversity, equity, and inclusion within the field. Here are a few suggestions for engagement:

- **Share your Expertise:** We invite contributions of field work images and stories (submit to phb@nih.org.pk) to showcase the impactful work undertaken by PHB-Pakistan.
- **Raise Awareness:** Compose a blog post or article highlighting the significance of field epidemiology and ways to strengthen collaboration within the field.
- **Champion Diversity:** Initiate discussions with your colleagues and networks about the importance of fostering diversity, equity, and inclusion within field epidemiology.
- **Organize or Attend Events:** Consider participating in or hosting workshops and events centered on the theme of collaboration in field epidemiology.

By working together, we can build a strong case for increased support and investment in field epidemiology, ultimately contributing to a healthier and more secure world.

We look forward to your active participation in celebrating World Field Epidemiology Day!

NIH Launches SOPs for National Rapid Response Program in Pakistan

The National Institutes of Health (NIH) has taken a significant step towards enhancing the nation's public health preparedness by officially launching Standard Operating Procedures (SOPs) within the framework of the National Rapid Response Program in Pakistan. These SOPs are meticulously designed to provide clear, actionable guidelines for

the swift deployment of healthcare resources and personnel in the face of diverse public health emergencies, including infectious disease outbreaks, natural disasters, or other unforeseen health threats.

The implementation of these SOPs marks a crucial milestone in Pakistan's efforts to strengthen its public health infrastructure and ensure a coordinated and effective response to critical health challenges. By establishing standardized protocols, the NIH aims to streamline decision-making processes, improve communication among stakeholders, and expedite the delivery of essential healthcare services to affected populations.

The SOPs encompass a wide range of critical aspects, including:

- **Incident Command System:** A standardized framework for managing emergency response operations, ensuring efficient coordination and communication among various agencies and personnel.
- **Risk Assessment and Prioritization:** A systematic approach to identifying potential public health threats, assessing their severity, and prioritizing response efforts accordingly.
- **Resource Allocation and Mobilization:** Guidelines for the efficient allocation and mobilization of healthcare resources, such as medical supplies, equipment, and personnel, to meet the needs of affected communities.
- **Public Communication and Engagement:** Strategies for disseminating accurate and timely information to the public, fostering public trust, and promoting community participation in prevention and response efforts.
- **Surveillance and Monitoring:** Systems for tracking disease outbreaks, identifying emerging health threats, and monitoring the effectiveness of response measures.
- **Evaluation and Learning:** Mechanisms for evaluating the performance of the response system and identifying areas for improvement, ensuring continuous learning and adaptation.

The development of these SOPs was a collaborative effort involving a diverse group of stakeholders, including public health experts, healthcare providers, government officials, and representatives from civil society organizations. By drawing upon their collective expertise and experience, the NIH was able to create a comprehensive and practical framework that addresses the unique challenges and needs of Pakistan's public health system.

The successful implementation of the National Rapid Response Program and its associated SOPs will be instrumental in safeguarding the health and well-being of Pakistan's population. By enhancing the nation's capacity to respond effectively to public health emergencies, these initiatives will help to mitigate the impact of disease outbreaks, natural disasters, and other health threats.

Mpox Update: Pakistan's Vigilance Amidst Global Resurgence.

The recent resurgence of Clade I Mpox prompted the World Health Organization (WHO) to declare it a Public Health Emergency of International Concern (PHEIC) on August 14, 2024.

The current situation underscores the necessity for heightened vigilance and proactive public health measures to prevent the potential spread of Mpox within the country. While no local transmission have been confirmed so far, the presence of suspected cases and the ongoing international outbreak necessitate robust preventive strategies. Health authorities are focusing on enhancing surveillance, strengthening airport screening processes, and increasing public awareness to mitigate the risk of an outbreak. These measures aim to protect public health and ensure that Pakistan remains vigilant in the face of this emerging infectious threat.

Pakistan has reported a total of 14 Mpox cases, out of them 5 cases are in 2024 after Mpox is declared a Public Health Emergency of international concern (PHEIC).All confirmed infections have been identified as belonging to the Mpox-Clade IIb variant however, no indigenous transmission has been documented within Pakistan to date.

NIH Pakistan's Ongoing Efforts to Combat Mpox

To effectively manage the outbreak, the National Command and Operations Centre (NCOC) NIH conducts daily meetings to evaluate the situation, analyze data, and develop recommendations. Provincial directives have established referral hospitals and quarantine centers, while hospitals nationwide have implemented stringent infection control measures. Furthermore, public health laboratories are on high alert for testing.

NIH Pakistan has strengthened its surveillance infrastructure to rapidly identify and monitor Mpox cases, facilitating prompt interventions. Additionally, the organization has launched awareness campaigns to educate the public about Mpox symptoms, transmission, and prevention measures. These materials are readily accessible on the NIH webpage and social media platforms.

As part of its comprehensive response, the country is planning to procure Mpox vaccines, prioritizing high-risk groups.

The Indispensable Role of Collaboration in Field Epidemiology

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Field epidemiology is a critical discipline in public health, focusing on the study of disease patterns, causes, and effects in populations. The complexity and interconnectedness of modern public health challenges necessitate a collaborative approach. Collaboration in field epidemiology enhances data collection and analysis, facilitates efficient outbreak response, improves disease surveillance, enables effective risk assessment and mitigation, and strengthens global health security. This essay explores these aspects to illustrate the indispensable role of collaboration in field epidemiology.

1. Enhanced Data Collection and Analysis

Collaboration in field epidemiology significantly improves data collection and analysis. The involvement of diverse professionals, including epidemiologists, laboratory scientists, clinicians, and public health professionals, brings complementary expertise to the table. This multidisciplinary approach ensures that data is collected and analyzed from various perspectives, leading to a more comprehensive understanding of health issues.

The combined expertise of epidemiologists, laboratory scientists, clinicians, and public health professionals provides a holistic view of health issues. Epidemiologists can design effective surveillance systems and analyze data, laboratory scientists can conduct accurate testing, clinicians can provide valuable clinical observations, and public health professionals can ensure data quality and consistency.

Shared methodologies and standards among collaborating entities enhance data quality. Consistent and reliable data are crucial for accurate epidemiological investigations. By adhering to common protocols, collaborators ensure that data is comparable across different studies and regions, thus enhancing its utility.

Collaboration across institutions and geographic boundaries allows for a broader scope of data

collection, providing a more detailed picture of disease distribution and trends. This expanded coverage is essential for identifying and addressing health disparities and emerging threats.

By combining data from various sources, collaborators can gain a more comprehensive understanding of health issues. For example, combining epidemiological data with laboratory results and clinical observations can provide a more complete picture of the disease burden and its impact on individuals and communities.

2. Efficient Outbreak Response Through Collaboration

Timely and effective outbreak response is another critical area where collaboration proves indispensable. Rapid information sharing between health departments, healthcare providers, and public health laboratories is vital for the swift identification and containment of outbreaks. Collaborative networks facilitate the quick dissemination of information, enabling immediate action.

Collaborative networks enable the rapid sharing of information about suspected outbreaks, facilitating early detection and containment. By promptly notifying relevant authorities and healthcare providers, collaborative networks can help to prevent the further spread of disease.

Timely communication between health departments, healthcare providers, and public health laboratories allows for immediate implementation of response measures, such as case isolation and contact tracing. This helps to contain the outbreak and prevent the transmission of the disease to others.

Collaborative efforts facilitate the pooling of resources, such as personnel, equipment, and supplies, ensuring that outbreak response efforts are well-supported. By sharing resources, public health agencies can maximize their effectiveness and efficiency in responding to outbreaks.

This collective approach maximizes the efficient use of available resources, reducing duplication and wastage. By coordinating resource allocation, public health agencies can ensure that resources are used where they are most needed and that there is no unnecessary duplication of efforts.

Collaboration ensures a coordinated approach to interventions, such as case isolation, contact tracing, and vaccination campaigns. This minimizes gaps and overlaps in response activities, enhancing the overall effectiveness of public health measures.

By working together, public health agencies can ensure that interventions are implemented consistently and efficiently, maximizing their impact. Collaborative efforts can also help to address challenges and obstacles that may arise during the response, ensuring that interventions are effective and timely.

3. Improved Disease Surveillance

Effective disease surveillance relies heavily on collaboration. Early detection of emerging disease threats is possible when healthcare providers and public health agencies work together. This collaborative vigilance ensures that potential outbreaks are identified and addressed before they escalate.

- **Early Detection and Prevention:**

Collaborative efforts can lead to the development and implementation of more robust surveillance systems, which can help to identify emerging disease threats at an early stage. By leveraging the expertise and resources of various stakeholders, public health agencies can create surveillance systems that are more comprehensive, sensitive, and responsive.

By working together, healthcare providers and public health agencies can respond more quickly to outbreaks, preventing their spread and minimizing their impact. Collaboration facilitates the sharing of information, coordination of efforts, and efficient

allocation of resources, ensuring a timely and effective response to disease outbreaks.

- **Robust Surveillance Systems and Effective Monitoring:**

Collaborative efforts contribute to the development and maintenance of robust surveillance systems. By sharing expertise and resources, collaborators can create surveillance infrastructures that are more resilient and responsive. This includes the development of standardized data collection methods, the use of advanced technologies, and the training of surveillance personnel.

Surveillance systems that are based on collaboration can more effectively monitor disease trends and identify outbreaks. By sharing data and insights across jurisdictions, public health agencies can identify emerging trends, detect outbreaks early, and track the progress of disease control efforts.

- **Data Sharing and Comprehensive Understanding:**

Data sharing across jurisdictions is vital for understanding regional and global disease patterns. Collaborative networks enable the flow of surveillance data, providing a comprehensive view of disease dynamics. This shared information is essential for identifying emerging threats, tracking the spread of diseases, and developing effective prevention and control strategies.

By understanding disease trends and patterns, public health officials can make more informed decisions about resource allocation, prevention strategies, and response efforts. Collaborative data sharing facilitates the development of evidence-based policies and interventions.

4. Effective Risk Assessment and Mitigation Through Collaboration

Collaboration enhances the assessment of disease risks and the development of mitigation strategies. Shared knowledge between epidemiologists, risk assessors, and public health experts leads to a more thorough understanding of health risks. This comprehensive assessment informs the creation of effective mitigation measures.

- **Enhanced Risk Assessment and Effective Mitigation:**

Collaboration among epidemiologists, risk assessors, and public health experts brings diverse perspectives and knowledge to the table. This shared expertise allows for a more comprehensive assessment of disease risks, including identifying potential vulnerabilities, assessing the likelihood of disease outbreaks, and evaluating the potential impact of these outbreaks on public health.

By combining their expertise, collaborators can develop more effective mitigation strategies that address the specific needs and circumstances of a particular population. This involves considering factors such as the population's demographics, cultural norms, and socioeconomic conditions.

- **Informed Decision-Making and Effective Interventions:**

Collaboration facilitates the sharing of evidence and expertise, supporting informed decision-making by public health officials. By relying on the best available data and practices, public health agencies can develop and implement interventions that are more likely to be effective and efficient.

Collaboration with community leaders and stakeholders ensures that public health interventions are culturally appropriate and accepted. Engaging the community fosters trust and cooperation, which are essential for effective public health action.

- **Community Engagement and Successful Interventions:**

By working with community leaders and stakeholders, public health agencies can ensure that interventions are tailored to the specific needs and

cultural norms of the community. This can help to increase the acceptability and effectiveness of interventions.

Community engagement can also foster trust and cooperation, which are essential for the success of public health interventions. When communities feel involved and invested in the process, they are more likely to support and participate in interventions.

5. The Indispensable Role of Collaboration in Global Health Security

In the context of global health security, international collaboration is indispensable. Addressing global health threats, such as pandemics and emerging infectious diseases, requires coordinated efforts across countries and international health organizations. Collaborative networks facilitate the sharing of epidemiological data and best practices, enabling a unified global response.

- **Global Health Threats and Collaborative Responses:**

Addressing global health threats requires a coordinated response from the international community. Collaborative networks provide a platform for countries and international health organizations to share information, resources, and expertise. This enables a unified approach to addressing common challenges and ensures that resources are allocated efficiently.

The sharing of epidemiological data and best practices is essential for understanding and addressing global health threats. Collaborative networks facilitate the dissemination of information, ensuring that all countries have access to the latest knowledge and tools. This helps to identify emerging threats, track the spread of diseases, and develop effective prevention and control strategies.

- **Capacity Building in Low- and Middle-Income Countries:**

Capacity building in low- and middle-income countries is another critical aspect of global health security. Collaborative efforts support the development of field epidemiology and public health infrastructure in these regions. By strengthening local capacity, countries can more effectively detect, respond to, and prevent disease outbreaks. This helps to reduce the global burden of disease and improve health outcomes.

Capacity building contributes to global health equity by ensuring that all countries have the necessary resources and expertise to protect their populations from health threats. This helps to reduce health disparities and promote global health justice.

Collaboration is the cornerstone of effective field epidemiology. By enhancing data collection and analysis, facilitating efficient outbreak response, improving disease surveillance, enabling effective risk assessment and mitigation, and strengthening global health security, collaboration proves to be indispensable.

The diverse expertise, shared resources, and coordinated efforts of collaborators lead to more comprehensive, timely, and effective public health actions. As global health challenges continue to evolve, fostering collaboration in field epidemiology remains essential for protecting and promoting public health worldwide

Knowledge hub

Dengue Crisis: A Call to Action for Pakistan's Public Health Response

The year 2024 has seen an unprecedented surge in dengue cases globally, marking it as the worst year on record for this vector-borne disease. As of July 23, over 10 million dengue cases have been reported across 176 countries, with the highest burden observed in the Americas. This alarming situation is further compounded by the more than 24,000 severe cases and 6,508 deaths reported, surpassing the figures from 2023, which was itself a record year. (WHO/PAHO: Dengue Update, 2024)

These statistics underscore the growing significance of dengue, a viral disease caused by four serologically related viruses, as a major global health threat.

The Growing Burden of Dengue in Pakistan

In Pakistan, the dengue burden has mirrored global trends, with a dramatic increase in cases over the past two decades. This rise has likely been underestimated due to underreporting and diagnostic challenges. Dengue is the only infectious disease with an annually rising mortality rate, and the case fatality rate escalates during outbreaks, highlighting the disease's severity. The WHO has classified dengue as a Grade 3 emergency, necessitating significant international and national responses. With the monsoon season approaching, Pakistan is likely to witness a further increase in dengue cases, exacerbating the already critical public health situation.

Contributing Factors: Urbanization, Climate Change, and Mobility

- **Climate Change:** Rising temperatures and changes in precipitation patterns have created favorable conditions for mosquito breeding and virus transmission.
- **Urbanization and Population Growth:** Rapid urbanization and population growth in tropical and subtropical regions have increased human-mosquito contact.
- **Increased Travel and Trade:** Globalization and increased travel have facilitated the spread of dengue virus to new areas.

The Situation in Pakistan: Challenges and Concerns

In Pakistan, dengue poses unique challenges due to limited clinical experience, underreporting of cases, and significant funding constraints that hinder effective preparedness and response efforts. The country's healthcare infrastructure is often overwhelmed during dengue outbreaks, and the lack of consistent and adequate funding for dengue control exacerbates the problem. The seasonal and periodic nature of dengue outbreaks in Pakistan often leads to reactive measures, which are implemented too late to be fully effective.

Need for Strategic Planning and Integrated Approaches

To effectively manage dengue in Pakistan, there is a need for a strategic shift from reactive, ad-hoc responses to a more sustained, long-term, and integrated approach. This includes increased funding for comprehensive dengue control programs that encompass prevention, management, treatment, and effective surveillance. Integrating dengue prevention into urban planning is crucial, particularly in rapidly growing urban areas. Moreover, the development and deployment of new dengue control technologies, such as vaccines, offer promise for reducing the incidence of outbreaks, although their impact on overall control may be limited.

Recommendations for Pakistan: A Call for Action

To address the escalating threat of dengue in Pakistan, it is essential to mobilize national and international resources and attention. A WHO resolution on dengue, proposed ahead of the 2025

WHO Executive Board Meeting, could be a critical step in securing the commitment of member states, including Pakistan, to address this growing problem.

Furthermore, community-level initiatives that promote sustainable behavior change can have lasting positive effects on health outcomes. These initiatives could also benefit the control of other arboviruses, such as chikungunya, which share the same vector. A coordinated, multipronged approach involving various sectors is essential for controlling and eventually reversing the spread of dengue in Pakistan. Addressing the dengue crisis requires a multi-faceted approach:

- **Vector Control:** Implementing effective vector control measures, such as larvicides, adulticides, and environmental management, to reduce mosquito populations.
- **Early Diagnosis and Treatment:** Ensuring timely diagnosis and access to appropriate treatment, including supportive care and antiviral drugs.
- **Surveillance and Response:** Strengthening surveillance systems to detect and respond to outbreaks promptly.
- **Community Engagement:** Empowering communities to participate in dengue prevention and control efforts.
- **Climate Change Adaptation:** Integrating dengue prevention and control into broader climate change adaptation strategies.
- **Research and Development:** Investing in research to develop new vaccines, diagnostic tools, and therapeutic interventions.

Conclusion

The dengue epidemic in Pakistan, as part of the global surge in 2024, presents a significant public health challenge that requires immediate and sustained attention. Addressing the immediate threat of current outbreaks, while simultaneously tackling long-term drivers such as climate change, urbanization, and increased mobility, necessitates a comprehensive and multidisciplinary response.


World
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7 SEPTEMBER
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upcoming
Public Health Bulletin-Pakistan: Vol 4, Issue 35
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