

# Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control  
National Institute of Health, Islamabad

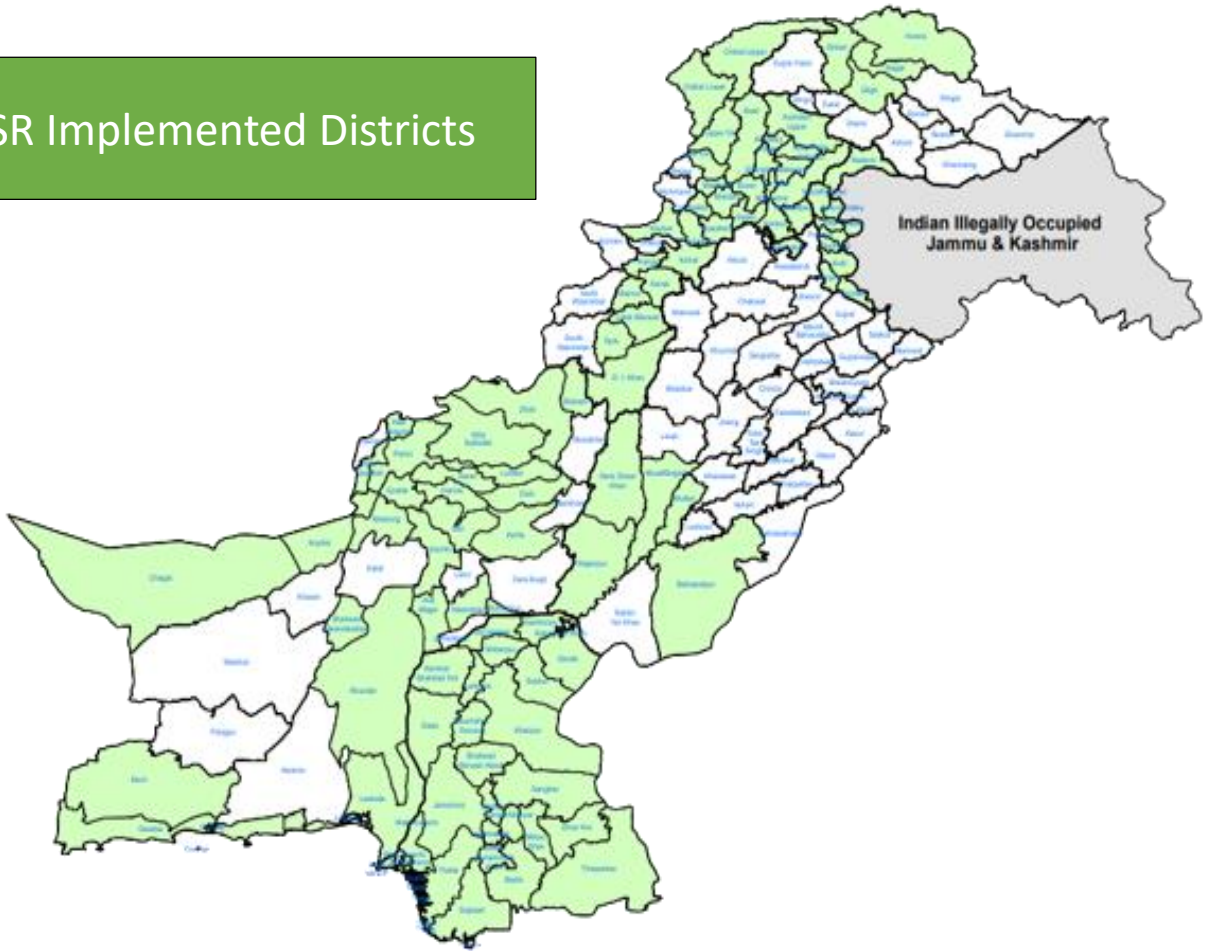
PAKISTAN

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



- Welcome to the Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin! This bulletin is a platform for sharing vital information on disease surveillance and response activities in our community.
- The weekly bulletin will provide an overview of disease trends, outbreak alerts, and other important information related to public health. By sharing this information, we hope to increase awareness and promote preventive measures to protect the health of our community.
- We encourage you to read the bulletin and share it with your colleagues, family, and friends. Together, we can work towards a healthier community.

IDSR Implemented Districts



*Overview*

*IDSR Reports*

*Ongoing Events*

*Field Reports*

## Welcome to the Integrated Disease Surveillance & Response (IDSR)

The IDSR program aims to improve the health of the population by detecting and responding to disease outbreaks in a timely manner. The program collects data from health facilities, laboratories, and other sources to monitor disease trends and identify outbreaks. The weekly bulletin provides an overview of disease trends, outbreak alerts, and other important information related to public health. By sharing this information, we hope to increase awareness and promote preventive measures to protect the health of our community. We encourage you to read the bulletin and share it with your colleagues, family, and friends. Together, we can work towards a healthier community.

This bulletin is a platform for sharing vital information on disease surveillance and response activities in our community. This Weekly Bulletin focuses on public health emergencies occurring in Pakistan. This week's articles cover:

- Acute Diarrhea (Non Cholera) disease
- Malaria disease in Sindh and Baluchistan

For each of these events, a brief description, followed by public health measures implemented and an interpretation of the situation is provided. A table is provided at the end of the bulletin with information on all new and ongoing public health events currently being monitored in the region, as well as recent events that have been controlled and closed.

The following types of articles will be published in the PHB, Pakistan:

- 1) Surveillance Summary Reports
- 2) Outbreak investigation reports
- 3) Notes from the field.

- During week 23, the most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, B. Diarrhea, VH (B, C, D), SARI, Typhoid, dog bites and AVH (A & E).
- This week, there is rise in AD and Malaria cases whereas cases of ALRI <5 years declined.
- Cases of AVH (A&E) are reported from Sindh and KPK and required epidemiological investigations to find out the source.
- HIV/ AIDS cases reported from Sindh this week are follow up cases however, for 02 cases from KPK, field investigation is in progress.

<i>Diseases</i>	<i>Province</i>	<i>District</i>	<i>Health Facility</i>	<i>No. of cases</i>
<i>AWD</i>	<b>SINDH</b>	Sanghar	Civil Surgeon hospital Umerkot	16
		Umerkot	Civil Surgeon DHQ Umerkot RHC Hyder Farm THQ hospital Kunri THQ hospital Samro	236 101 180 139
	<b>Balochistan</b>	Mastung	BHU Ash khan Rodani Ghous Bakhsh Rehsani Hospital DHQ, Hospital Mastung	36 50 15
		Duki	BHU Tajaan	08
	<b>KPK</b>	Buner	BHU Nanser	46
			BHU Bangirai BHU Toorwarsak CD Bagra	81 63 65
<i>ILI</i>	<b>SINDH</b>	Karachi Kemari	Asif Colony	140
		Naushero Feroze	RHC Mehrab Pur	198
<i>HIV/AIDS</i>	<b>KPK</b>	Swat	BHU Mian Kalay	02
	<b>SINDH</b>	Sakkar	GMC hospital Sukkar	08
<i>Bloody Diarrhea</i>	<b>KPK</b>	Mardan	Type-D Hospital Shahbaz Garhi BHU Parkho Dheri Type-D Hospital Toru	40 15 13
<i>Brucellosis</i>	<b>KPK</b>	Swat	BHU Drushkhela	10
<i>Meningitis</i>	<b>SINDH</b>	Sanghar	BHU Gujri	35
<i>Anthrax</i>	<b>SINDH</b>	Jamshoro	BHU Bubak	08

All are suspected cases and need field verification.



# Overview

## IDSR compliance attributes

- The national compliance rate for IDSR reporting in 125 implemented districts is 68%.
- The highest compliance rate is in Gilgit Baltistan, where 100% of the expected reports were received.
- The lowest compliance rate is in Islamabad Capital Territory, where only 37% of the expected reports were received.
- Overall, the IDSR reporting compliance rate is good, but there is still room for improvement.
- *The lowest compliance rate in Islamabad Capital Territory suggests that there may be some challenges in this region that need to be addressed*

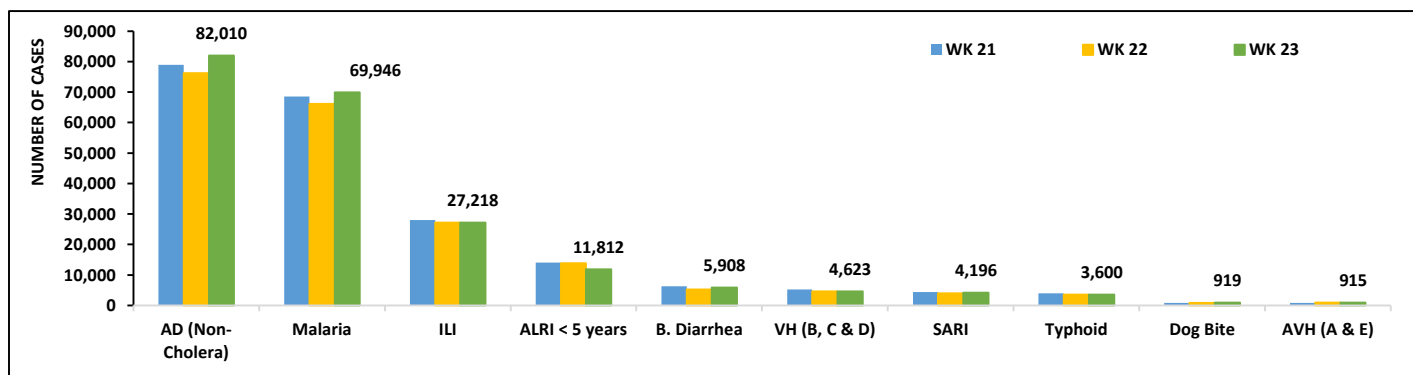
Region	Expected Reports	Received Reports	Compliance(%)
<b>Khyber Pakhtunkhwa</b>	1570	1172	75
<b>Azad Jammu Kashmir</b>	440	294	67
<b>Islamabad Capital Territory</b>	27	10	37
<b>Balochistan</b>	1070	425	40
<b>Gilgit Baltistan</b>	31	31	100
<b>Sindh</b>	1901	1512	80
<b>National</b>	5039	3444	68



**Table 1: Province/Area wise distribution of most frequently reported cases during week 23, Pakistan.**

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,846	6,507	45	296	29,283	1,298	42,735	82,010
Malaria	134	8,982	0	1	5,913	NR	54,916	69,946
ILI	2,269	3,586	24	591	7,022	289	13,437	27,218
ALRI < 5 years	686	1,691	28	1	1630	NR	7,776	11,812
B. Diarrhea	80	1,829	3	10	988	NR	2,998	5,908
VH (B, C & D)	9	136	0	0	188	NR	4,290	4,623
SARI	411	1,152	16	0	2370	NR	247	4,196
Typhoid	38	1,110	3	1	924	NR	1,524	3,600
Dog Bite	30	78	0	0	217	NR	594	919
AVH (A & E)	23	18	1	0	291	NR	582	915
Mumps	85	103	2	1	163	NR	492	846
CL	1	94	0	0	687	NR	2	784
AWD (S. Cholera)	62	439	4	18	51	0	55	629
Measles	22	38	0	1	269	NR	51	381
Chickenpox/ Varicella	16	46	0	10	147	NR	86	305
Pertussis	3	245	0	0	7	NR	0	255
Gonorrhea	0	147	0	0	4	NR	52	203
Dengue	1	41	0	0	19	NR	83	144
VL	0	17	0	0	57	NR	0	74
Meningitis	1	6	0	0	4	NR	47	58
AFP	4	1	0	0	21	NR	9	35
Brucellosis	0	8	0	0	19	NR	0	27
Anthrax	0	0	0	0	0	NR	0	0
Syphilis	0	4	0	0	11	NR	2	17
Leprosy	2	7	0	0	0	NR	4	13
CCHF	0	13	0	0	0	NR	0	13
HIV/AIDS	1	0	0	0	2	NR	9	12
NT	0	1	0	0	4	NR	0	5
Chikungunya	0	2	0	0	1	NR	1	4
Diphtheria (Probable)	0	0	0	0	1	NR	1	2
Rubella (CRS)	0	1	0	0	0	NR	1	2

**Figure 1: Most frequently reported suspected cases during week 23, Pakistan**



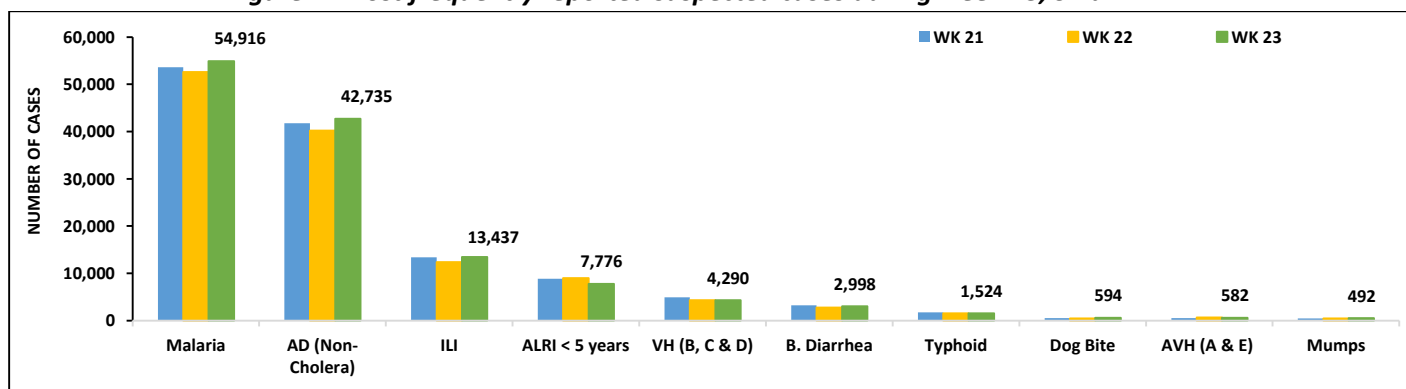
- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, dog bite, AVH (A&E) and Mumps.
- An increase in cases observed for Malaria, AD (Non-Cholera) and ILI this week.
- Cases of B. Diarrhea reported in high numbers from Dadu, Khairpur, Larkana, Kamber and need field investigation to control further spread of illnesses.

**Table 2: District wise**

**distribution of most frequently reported suspected cases during week 23, Sindh**

DISTRICTS	AD (Non-Cholera)	Malaria	ILI	ALRI < 5 years	B. Diarrhea	Typhoid	SARI	Measles	VH (B, C & D)	Dengue	Dog Bite
Badin	3,013	3,343	92	458	159	53	0	4	231	0	111
Dadu	3,668	3,980	0	776	421	130	2	0	0	0	0
Ghotki	1,076	876	0	452	96	33	0	3	338	0	0
Hyderabad	1,579	185	76	21	3	33	0	3	82	0	0
Jacobabad	910	1,472	26	423	104	15	0	1	151	0	35
Jamshoro	275	664	0	84	22	34	0	9	5	0	6
Kamber	2,457	6,020	0	352	148	10	0	1	103	0	0
Karachi Central	1,211	86	1,226	32	83	159	5	10	122	7	0
Karachi East	250	65	57	19	2	0	9	0	0	6	1
Karachi Keamari	459	3	173	22	0	3	0	1	0	0	0
Karachi Korangi	303	70	0	3	6	2	9	1	0	8	0
Karachi Malir	1,187	93	1,282	345	24	30	23	0	25	0	11
Karachi South	106	29	0	0	1	1	0	0	0	0	0
Karachi West	601	62	389	193	27	21	33	0	13	16	28
Kashmore	532	1,468	170	214	49	14	0	0	46	0	15
Khairpur	2,574	3,439	169	662	333	170	0	0	160	0	25
Larkana	1,931	9,361	0	184	239	13	2	0	167	0	0
Matiari	1,763	1,003	0	191	85	63	11	0	239	5	25
Mirpurkhas	2,842	3,034	3,055	480	70	45	15	0	52	0	1
Naushero Feroze	1,166	1,286	539	270	47	145	0	0	238	0	17
Sanghar	2,754	1,744	181	533	184	146	27	3	1,113	0	167
Shaheed Benazirabad	2,108	1,903	5	371	83	202	0	0	128	0	0
Shikarpur	1,216	1,423	0	92	140	1	10	1	153	0	0
Sujawal	290	308	0	124	30	23	0	0	0	0	0
Sukkur	1,862	2,580	1,723	301	203	15	0	0	357	0	0
Tando Allahyar	2,010	820	707	180	124	52	0	2	94	0	29
Tando Muhammad Khan	413	399	0	48	18	2	0	0	36	0	38
Tharparkar	1,145	1,890	1,278	371	108	27	41	6	78	41	7
Thatta	1,476	3,109	1,476	293	139	23	41	3	220	0	78
Umerkot	1,558	4,201	813	282	50	59	19	3	139	0	0
<b>Total</b>	<b>42,735</b>	<b>54,916</b>	<b>13,437</b>	<b>7,776</b>	<b>2,998</b>	<b>1,524</b>	<b>247</b>	<b>51</b>	<b>4,290</b>	<b>83</b>	<b>594</b>

**Figure 2: Most frequently reported suspected cases during week 23, Sindh**

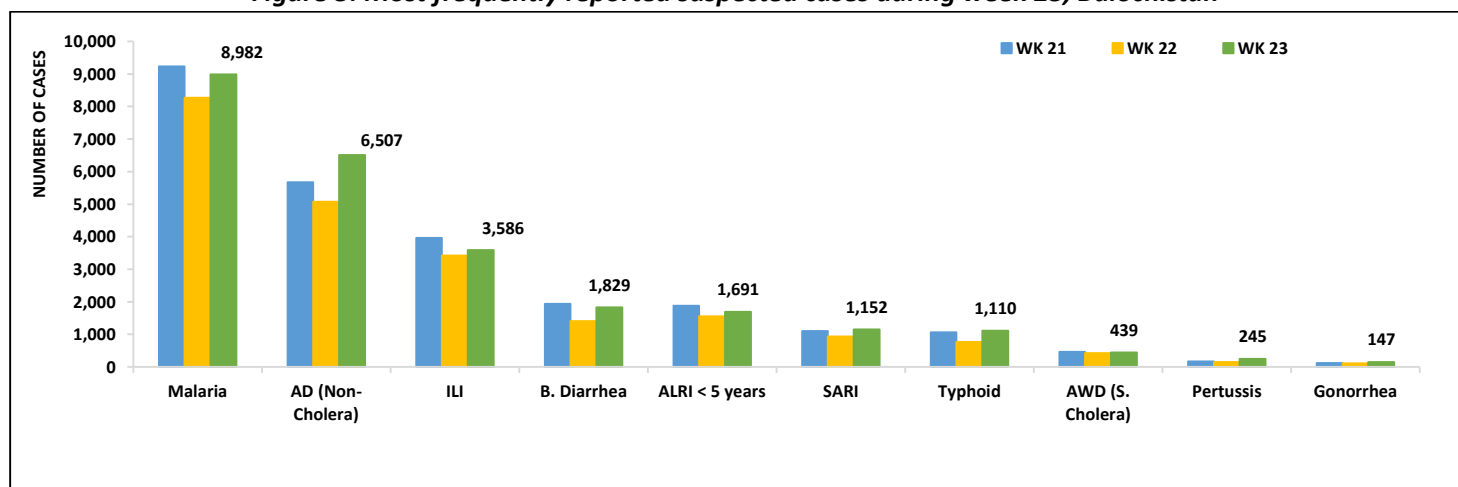


- Malaria, AD (Non-Cholera), ILI, B. Diarrhea, ALRI <5 years, SARI, Typhoid, AWD (S. Cholera), Pertussis and Gonorrhoea were the most frequently reported diseases from Balochistan province.
- An upward trend observed for cases of AD and Malaria this week whereas ILI remains same.
- Cases of Cutaneous Leishmaniasis reported from Killa Saifullah and Mastung and demand urgent field investigation to identify new cases.

**Table 3: District wise distribution of most frequently reported suspected cases during week 23, Balochistan**

Districts	ILI	Malaria	AD (Non-Cholera)	ALRI < 5 years	SARI	B. Diarrhea	Typhoid	CL	Dog Bite	AWD (S. Cholera)
Chagai	229	23	145	0	0	61	32	0	0	13
Duki	41	92	192	22	24	98	19	2	0	62
Harnai	0	100	303	324	0	106	13	0	3	33
Jaffarabad	105	1,404	720	91	60	105	315	0	4	0
Jhal Magsi	0	974	340	60	0	12	36	1	5	32
Kachhi (Bolan)	1	179	135	18	0	12	44	0	0	2
Kalat	21	21	26	8	0	24	20	3	0	0
Kech (Turbat)	575	457	311	72	3	76	1	0	0	3
Kharan	184	169	139	0	0	72	6	0	0	0
Khuzdar	154	225	188	2	12	47	13	0	0	0
Killa Saifullah	3	258	288	146	3	103	36	20	0	7
Kohlu	111	118	66	13	28	49	22	1	0	10
Lasbella	77	953	705	132	383	97	30	4	12	2
Loralai	274	91	297	49	152	83	48	0	0	7
Mastung	325	165	414	159	228	247	104	30	27	149
Musa Khail	29	150	25	1	0	13	16	0	1	13
Naseerabad	2	681	212	7	2	13	59	0	4	0
Nushki	0	123	231	0	7	67	2	0	0	19
Pishin	180	19	139	45	0	88	16	8	3	0
Quetta	759	27	495	54	19	93	45	6	0	40
Sherani	33	16	15	4	2	9	4	6	0	0
Sibi	207	580	204	23	26	47	94	5	13	30
Sohbat pur	7	1,962	402	110	144	160	96	7	5	0
SURAB	2	9	13	0	0	0	1	0	0	0
Zhob	137	112	181	314	57	76	11	0	0	9
Ziarat	130	74	321	37	2	71	27	1	1	8
<b>Total</b>	<b>3,586</b>	<b>8,982</b>	<b>6,507</b>	<b>1,691</b>	<b>1,152</b>	<b>1,829</b>	<b>1,110</b>	<b>94</b>	<b>78</b>	<b>439</b>

**Figure 3: Most frequently reported suspected cases during week 23, Balochistan**

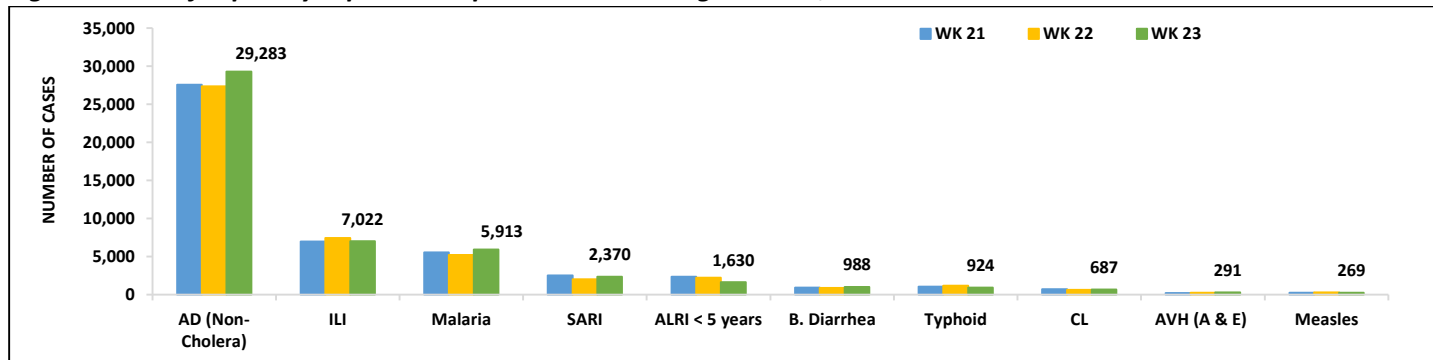


- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, SARI, ALRI<5 Years, B. Diarrhea, Typhoid, CL, AVH (A&E) and Measles.
- AD showed an acute upward trend in cases this week whereas ILI and Malaria remained the same.
- Typhoid cases are reported from Mansehra, Swat and Dir lower which require verification.

**Table 4: District wise distribution of most frequently reported suspected cases during week 23, KP**

Diseases	AD (Non-Cholera)	Malaria	ILI	SARI	ALRI < 5 years	B. Diarrhea	Typhoid	Dog Bite	AWD (S. Cholera)	AVH (A & E)
Abbottabad	647	2	8	14	3	0	13	2	0	0
Bannu	418	925	202	0	0	9	27	0	0	0
Battagram	309	79	636	2	10	0	1	3	0	3
Buner	756	590	0	0	0	9	14	13	0	1
Charsadda	1,718	31	246	27	6	0	2	0	0	0
Chitral Lower	671	4	132	1,022	3	0	3	11	0	4
Chitral Upper	77	3	0	194	1	0	12	1	0	1
D.I. Khan	1,142	392	0	18	34	34	3	14	0	0
Dir Lower	2,013	723	122	164	220	148	80	29	0	102
Dir Upper	713	5	61	0	85	38	36	0	0	7
Hangu	534	434	666	173	0	56	23	1	0	2
Haripur	1,719	23	417	4	200	3	38	4	0	45
Karak	525	114	108	20	13	1	3	12	0	0
Khyber	15	31	133	0	1	2	0	0	0	1
Kohat	53	21	26	4	3	0	1	2	0	0
Kohistan Lower	81	2	0	255	0	44	0	2	12	0
Kohistan Upper	576	1	87	27	4	23	27	0	0	0
Kolai Palas	71	5	0	11	9	14	0	0	12	17
Lakki Marwat	599	1,371	0	0	10	22	25	0	0	0
Malakand	1,447	46	60	33	68	109	34	0	0	23
Mansehra	917	5	1,092	72	111	35	135	0	2	6
Mardan	1,855	58	763	122	428	100	0	0	0	2
Nowshera	2,269	100	81	17	2	62	43	2	3	8
Peshawar	3,192	46	1,031	7	99	198	111	4	8	16
Shangla	704	520	0	0	4	1	26	74	3	1
Swabi	2,317	50	790	152	178	23	63	1	1	43
Swat	3,493	71	358	0	128	26	170	33	0	9
Tank	337	126	3	0	0	3	1	0	0	0
Tor Ghar	115	135	0	32	10	28	33	9	10	0
<b>Total</b>	<b>29,283</b>	<b>5,913</b>	<b>7,022</b>	<b>2,370</b>	<b>1,630</b>	<b>988</b>	<b>924</b>	<b>217</b>	<b>51</b>	<b>291</b>

**Figure 4: Most frequently reported suspected cases during week 23, KP**





- **ICT** The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera), AWD (S. Cholera), B. Diarrhea and Chickenpox. ILI cases showed decline trend in cases this week.
- **AJK** ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, Malaria, Mumps, B. Diarrhea, AWD (S. Cholera), Typhoid and dog bite. Both ILI and ALRI <5 years' cases showed a downward trend in cases this week.
- **GB**. ALRI<5 years' cases were maximum followed by AD (Non. Cholera) and SARI. ALRI <5 years' cases showed slight upward trend in cases this week.

Figure 5: Most frequently reported suspected cases during week 23, ICT

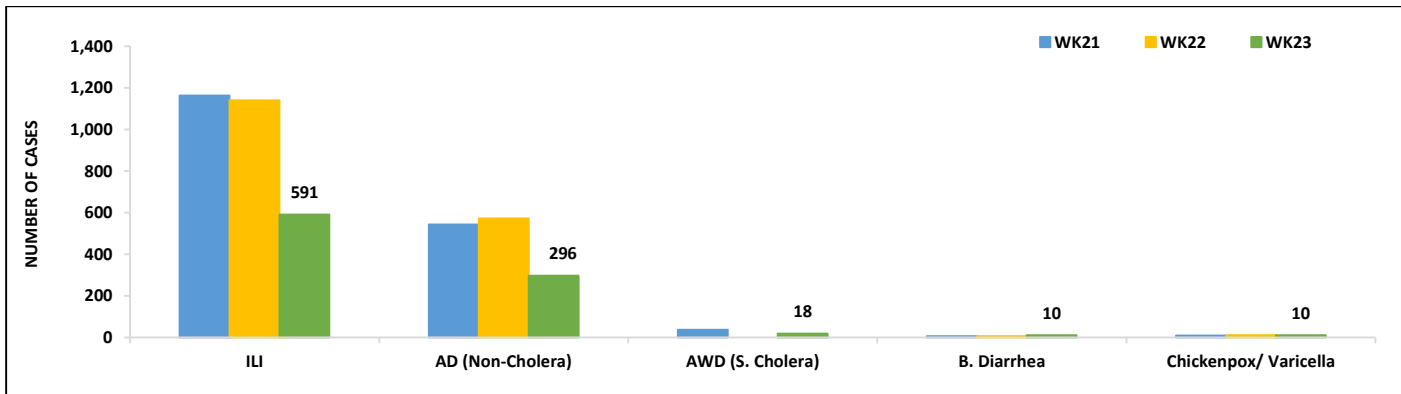


Figure 6: Week wise reported suspected cases of ILI, ICT

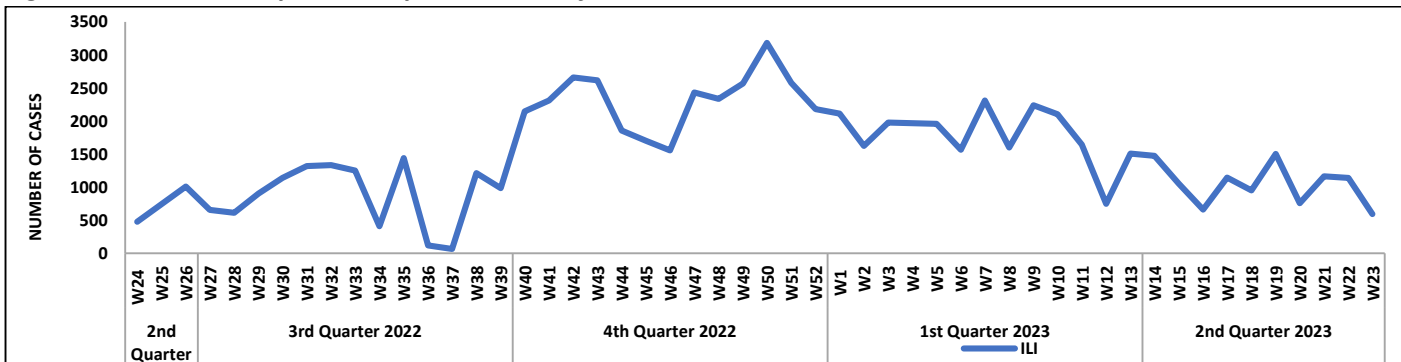
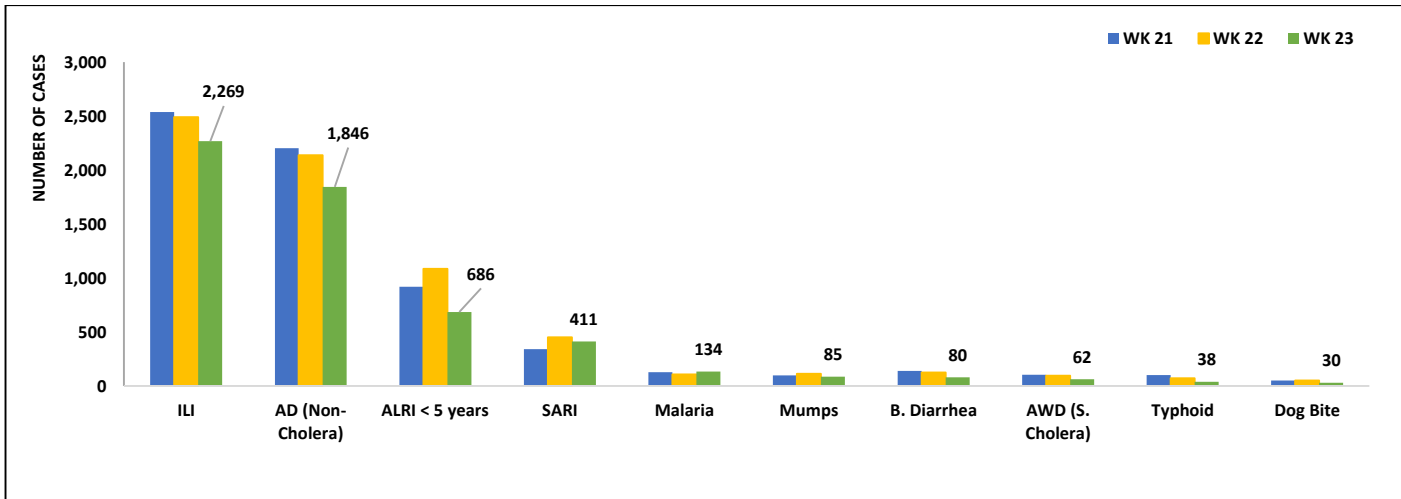
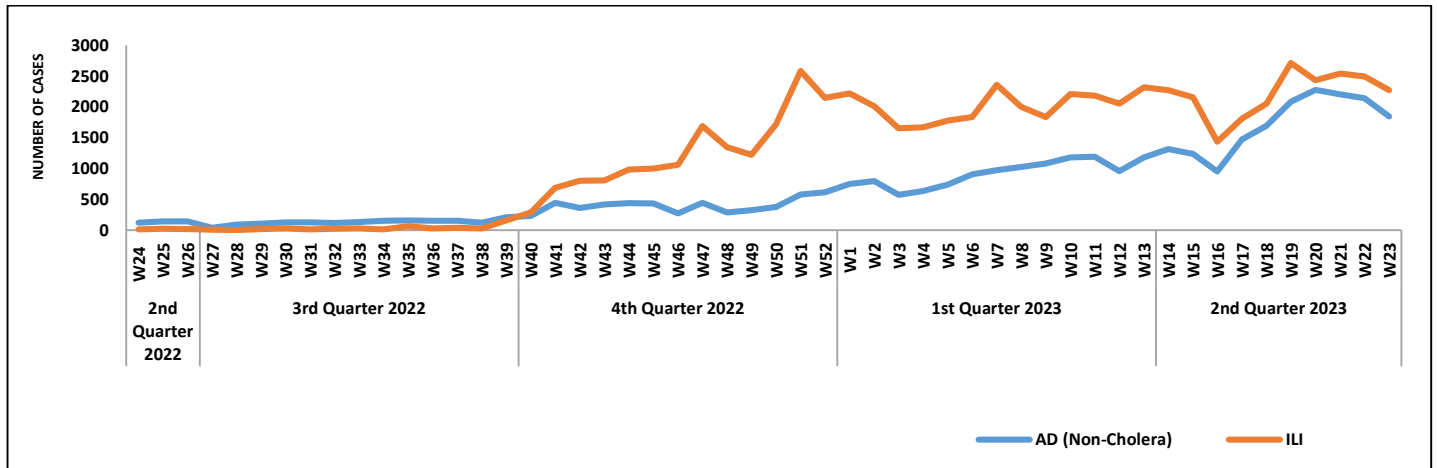


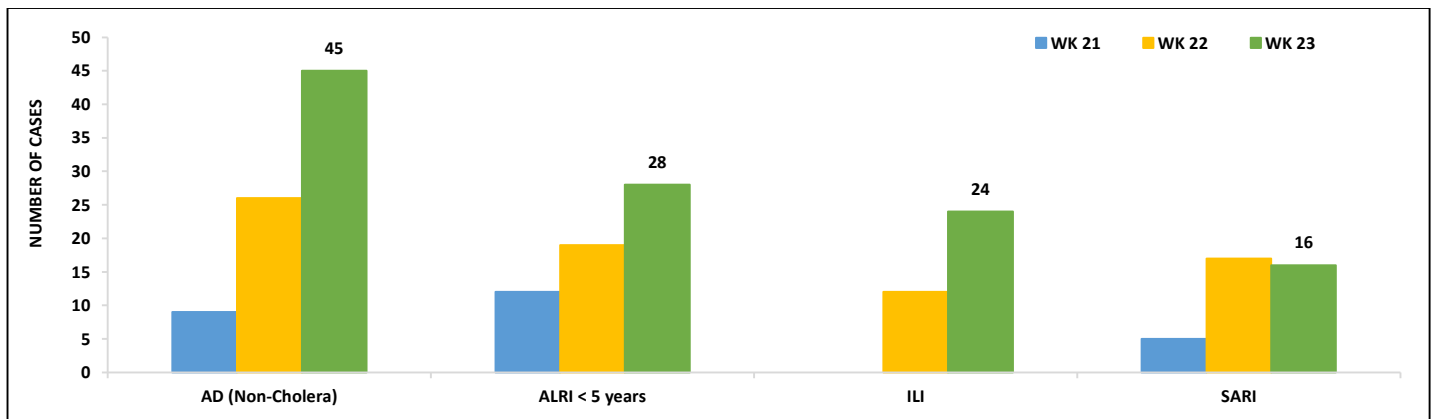
Figure 7: Most frequently reported suspected cases during week 23, AJK



**Figure 8: Week wise reported suspected cases of AD (Non-Cholera) and ALRI <5 years, AJK**

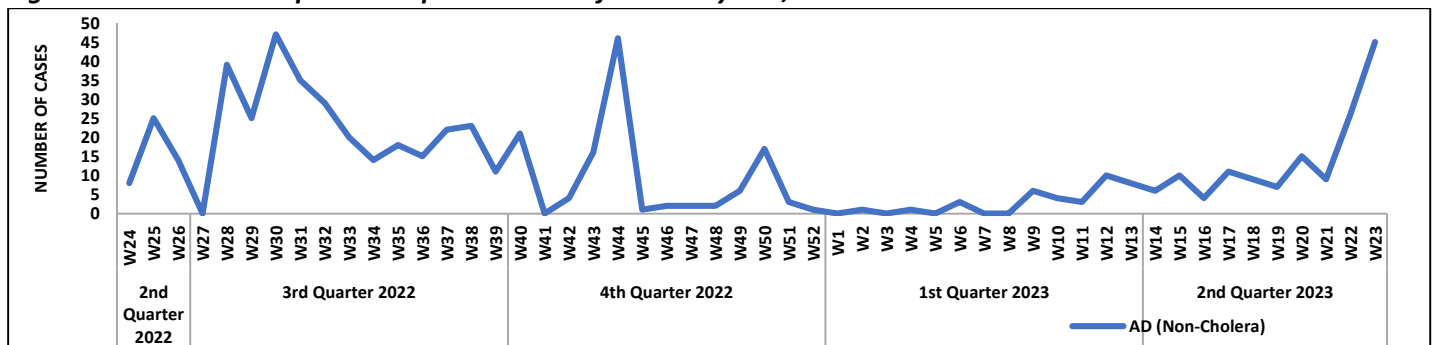


**Figure 9: Most frequent cases reported during WK 23, GB**



X

**Figure 10: Week wise reported suspected cases of ALRI <5 years, GB**



## Laboratory Confirmed Cases

**Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi week 23**

Diseases	Sindh	KP	Balochistan	Punjab	Gilgit
Acute Watery Diarrhea (S. Cholera)	0	-	-	-	-
Malaria	210	-	-	-	0
Dengue	24	-	-	-	-
Acute Viral Hepatitis(A)	-	-	-	-	-
Acute Viral Hepatitis(B)	102	-	-	-	1
Acute Viral Hepatitis(C)	258	-	10	-	3
Acute Viral Hepatitis(E)	58	-	-	-	-
Covid-19	4	-	0	0	-
Typhoid	-	8	-	-	-



**Table 6: IDSR reporting districts**

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Agreed Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	110	110	100	91%
	Bannu	92	92	60	65%
	Battagram	43	43	22	51%
	Buner	34	34	28	82%
	Charsadda	61	61	51	84%
	Chitral Upper	33	33	8	24%
	Chitral Lower	35	35	32	91%
	D.I. Khan	89	89	66	74%
	Dir Lower	75	75	60	80%
	Dir Upper	55	55	44	80%
	Hangu	22	22	22	100%
	Haripur	69	69	60	87%
	Karak	34	34	34	100%
	Khyber	40	40	5	13%
	Kohat	59	59	59	100%
	Kohistan Lower	11	11	8	73%
	Kohistan Upper	20	20	19	95%
	Kolai Palas	10	10	10	100%
	Lakki Marwat	49	49	49	100%
	Malakand	42	42	35	83%
	Mansehra	133	133	68	51%
	Mardan	84	84	55	65%
	Nowshera	52	52	52	100%
	Peshawar	101	101	87	86%
	Shangla	36	36	9	25%
	Swabi	60	60	54	90%
Swat	77	77	69	90%	
Tank	34	34	31	91%	
Torghar	10	10	10	100%	
Azad Jammu Kashmir	Mirpur	37	37	34	100%
	Bhimber	20	20	18	90%
	Kotli	60	60	31	52%
	Muzaffarabad	43	43	43	100%
	Poonch	46	46	46	100%
	Haveli	43	43	10	23%
	Bagh	41	41	20	49%
	Neelum	33	33	32	97%
Jhelum Vellay	49	49	27	55%	



	Sudhnooti	68	68	26	38%
Islamabad Capital Territory	ICT	18	18	12	67%
	CDA	9	9	4	44%
Balochistan	Gwadar	24	24	2	8%
	Kech	78	44	31	70%
	Khuzdar	136	20	17	85%
	Killa Abdullah	50	32	0	0%
	Lasbella	85	85	80	94%
	Pishin	118	23	9	39%
	Quetta	77	22	16	73%
	Sibi	42	42	21	50%
	Zhob	37	37	25	68%
	Jaffarabad	47	47	30	64%
	Naserabad	45	45	37	82%
	kharan	32	32	27	84%
	sherani	32	32	4	13%
	kohlu	75	75	20	27%
	Chagi	65	65	20	31%
	kalat	65	65	11	17%
	Musa khail	68	68	7	10%
	Harnai	36	36	17	47%
	Kachhi (Bolan)	35	35	11	31%
	Jhal Magsi	39	39	22	56%
	Sohbat pur	26	26	24	92%
	Surab	33	33	2	6%
	Mastung	45	45	27	60%
	Loralai	25	25	23	92%
	Killa Saifullah	31	31	24	77%
	Ziarat	42	42	15	36%
Duki	31	31	28	90%	
Gilgit Baltistan	Hunza	31	31	29	94%
	Ghizer	62	62	18	29%
Sindh	Hyderabad	63	63	25	40%
	Ghotki	65	65	65	100%
	Umerkot	98	43	43	100%
	Naushahro Feroze	120	52	27	52%
	Tharparkar	292	100	94	94%
	Shikarpur	64	64	60	94%
	Thatta	53	53	50	94%
	Larkana	67	67	67	100%
	Kamber Shadadkot	71	71	71	100%
	Karachi-East	14	14	11	79%
	Karachi-West	20	20	19	95%
	Karachi-Malir	37	37	9	24%
	Karachi-Kemari	17	17	12	71%
	Karachi-Central	12	12	10	83%



Karachi-Korangi	17	17	12	71%
Karachi-South	4	4	2	50%
Sujawal	31	31	30	97%
Mirpur Khas	124	124	103	83%
Badin	144	144	110	76%
Sukkur	65	65	64	98%
Dadu	90	90	89	99%
Sanghar	101	101	97	96%
Jacobabad	54	54	36	67%
Khairpur	203	203	162	80%
kashmore	59	59	55	93%
Matiari	42	42	40	95%
Jamshoro	70	70	20	29%
Tando Allahyar	54	54	48	89%
Tando Muhammad Khan	41	41	11	27%
Shaheed Benazirabad	124	124	122	98%



**Acceptability:** The Public Health Bulletin (PHB) Pakistan publishes information that is useful for community, public health officials, researchers, policy and decision makers. Outbreak investigation and surveillance summary reports with appropriate public health recommendations are the crux of this bulletin.

**Novelty:** Bulletin will not contain any previously published work.

**Quality:** The content of the reports should follow the standard scientific writing style criteria. Appropriate methodology for data collection and analyses should be used.

**Timeliness:** Data from outbreaks should not be older than six months at time of submission while surveillance data should not be older than three years.

**Comprehensibility:** Language should be appropriate and plain with concise description and avoiding use of acronyms and abbreviations

## TYPES OF ARTICLES

The following types of articles are published in the PHB, Pakistan:

1. Surveillance Summary Reports
2. Outbreak investigation reports
3. Notes from the field

In this issue of bulletin, we will discuss Surveillance summary reports:

### *Surveillance summary reports*

Surveillance summary reports display the patterns and trends of disease occurrence in a population based on the descriptive analysis of surveillance data. The purpose of surveillance data and surveillance summary reports is to inform those who are responsible so they can take appropriate action and to show those who collect raw data that their work is useful and will be used to inform policy or program activities. The following sequence with corresponding context should be taken into consideration:

**a. Introduction:** This should include rationale or objectives for surveillance of the disease/health related event/condition, background statistics that cover relevant facts about incidence, prevalence, mortality, morbidity, potential to cause outbreaks or epidemics, burden to medical system, etc. Moreover, this section should describe the area or district/department where the surveillance analysis was carried out, population under surveillance, key

data about the area/region and the environment (depending on the disease under surveillance). Current public health scenario regarding the disease under surveillance along with the surveillance system in combating disease or condition. A thorough literature search should be conducted for compiling the before mentioned information.

**b. Method:** This section elaborates regarding the data sources, the distribution of the population by age, sex, and location for subsequent calculation of rates, the definition of health events, description of database cleaning and the process to confirm that the variables are appropriately coded and categorized, statistical methods used, surveillance data collection instruments and variables used

**c. Results:** This section should present study findings in quantitative form comprising of clinical features (e.g. common symptoms), positivity rate, hospitalization rate and case fatality rate of the disease/health related event under surveillance. Distribution of disease/health related event in terms of time (trends over year, month, week or other appropriate interval for observing changes in pattern of disease), place (geographic area) and person (age, sex, other related socio-demographic variables) should also be the part of this section. Any other salient features or significant risk factors if present can be portrayed here.

**d. Discussion:** This section is the description of quantitative data mentioned in results section. This is the interpretation of the observed patterns to identify problems or areas that require further epidemiologic investigation or public health action. Patterns could be short- and long-term trends along with place and person wise characteristics. Use caution while interpreting non-modifiable risk factors and recommend changes to only modifiable risk factors (for e.g. risk of obesity increases with age so recommendation should be increase in physical activity or improve diet among elderly population) Limitations of the study and public health impact should also be included in this section under sub-headings.

**e. Summary box:** A summary box tells the reader about the importance of the topic, significant findings and their public health impact. Authors should answer the following in one or two sentences for each;

- What is already known about this topic?
- What is added by this report?



- What are the implications for public health practice?

These answers contain the key public health message as well as the justification for the publication. Total words limit should be not more than 75-100 words.

*Risk Factors of Malaria During Floods in Union Council Harrand, Tehsil Jampur, And District Rajanpur, Punjab, Pakistan. 2022*

*Dr. Saleh, District Surveillance Coordinator, Rahim Yar Khan*

In September, Rajanpur district reported 577 malaria cases, prompting a study to determine risk and protective factors in flood-affected areas. House-to-house surveys were conducted in October, identifying 112 malaria cases with an attack rate of 22.0/10,000. The affected age group was mostly 15-49 years (62%). Factors increasing infection odds included stagnant water near houses (OR 6.566), open water containers (OR 2.03), and grassy lawns (OR 1.35). Protective aspects were insecticidal sprays (OR 0.39) and bed nets (OR 0.18). Stagnant water, grassy lawns, and open water containers play a key role in malaria transmission. Using preventive measures like bed nets, insecticidal sprays, and early reporting can reduce malaria incidence.

WHAT IS KNOWN	WHAT IS ADDED	HEALTH IMPLICATIONS
<ul style="list-style-type: none"> <li>•Floods raises the risk of vector-borne diseases</li> </ul>	<ul style="list-style-type: none"> <li>•Stagnant water near homes, un kept lawns, and open containers breed malaria-carrying mosquitoes.</li> </ul>	<ul style="list-style-type: none"> <li>•Utilizing bed nets, insecticides, and early reporting can effectively lower malaria cases.</li> </ul>

*A note from the Field working...*

*Punjab Rawalpindi*

Punjab on Sunday wrapped up special polio eradication campaign in its last three remaining districts including Lahore, Rawalpindi and Faisalabad. On a sweltering hot day where temperatures soared past 40°C, polio workers swept streets and houses to vaccinate thousands of leftover children on the last day of the campaign vaccinating more than 4.6 million children of three mega district during the drive.

Dr. Ehsan Ghani, the District Health Officer, has called on parents to collaborate with the Polio teams in order to eradicate Polio from Pakistan as soon as possible. He emphasized that such cooperation is essential in order to reach that goal.





*Outbreak Investigation Report -  
Suspected cutaneous  
leishmaniosis Cases at Civil  
Hospital Khewra, District Jhelum  
Punjab (23-05-2023 to 31-05-  
2023)*

**Introduction**

An outbreak of suspected cutaneous leishmaniosis suspect cases was reported at the Civil Hospital Khewra on 23-05-2023. The District Disease Surveillance and Response Unit (DDSRU) was alerted, and immediate action was taken to respond to the situation.

**2. Investigation Timeline and Activities**

- I. 23-05-2023 - Five suspect cases were reported from Civil Hospital Khewra.
- II. 24-05-2023 - Focal Person DDSRU, along with their team, visited the area and conducted active surveillance. Out of the surveyed area, 48 suspected cases were found; 13 old and 37 new cases.
- III. 24-05-2023 - DDHO PD Khan arranged for medication and initiated treatment of all identified cases.
- IV. 30-05-2023 - Dr. Zubair, Dermatologist DHQH Jhelum, visited the affected Union Councils (UCs) in Khewra and reviewed all cases. His assessment indicated that no case required hospital admission at that time.
- V. 31-05-2023 - The District Entomologist and team visited Dhok Padhal UC Kohali Sohawa where they investigated two lab-confirmed cases and discovered two more EPI-linked cases in the same household.



**3. Observations and Findings**

The active surveillance conducted by DDSRU identified a significant number of suspected cases in the affected area, highlighting the need for prompt intervention. Treatment was initiated within a day of receiving initial reports from Civil Hospital Khewra, which demonstrates an efficient response mechanism.



## Leishmaniasis

### Key Facts about Leishmaniasis

- ✓ Leishmaniasis is a group of diseases caused by protozoan parasites from the genus *Leishmania*.
- ✓ The parasites are transmitted by the bite of infected female sandflies.
- ✓ There are three main forms of leishmaniasis:
- ✓ cutaneous leishmaniasis (CL) is the most common form, and it causes skin sores.
- ✓ visceral leishmaniasis (VL) is the most severe form, and it can be fatal if left untreated.
- ✓ Mucocutaneous Leishmaniasis (MCL) is a rare form, and it affects the mucous membranes of the nose, mouth, and throat.
- ✓ Leishmaniasis is a neglected tropical disease (NTD), which means that it affects some of the world's poorest people.
- ✓ There is no vaccine for leishmaniasis, but there are effective treatments available.
- ✓ The best way to prevent leishmaniasis is to avoid sandfly bites.



File picture: Sand fly

### Preventive Measures

There are a number of preventive measures that can be taken to reduce the risk of being bitten.

#### Personal protective measures:

- Avoid outdoor activities, especially from dusk to dawn, when sand flies are most active.
- Wear long-sleeved shirts, long pants, and socks when outdoors.
- Tuck your shirt into your pants and your pants into your socks.
- Apply insect repellent to exposed skin and under the ends of sleeves and pant legs. The most effective repellents generally are those that contain the chemical DEET (N,N-diethyl metatoluamide).
- Use permethrin-treated clothing and bed nets.

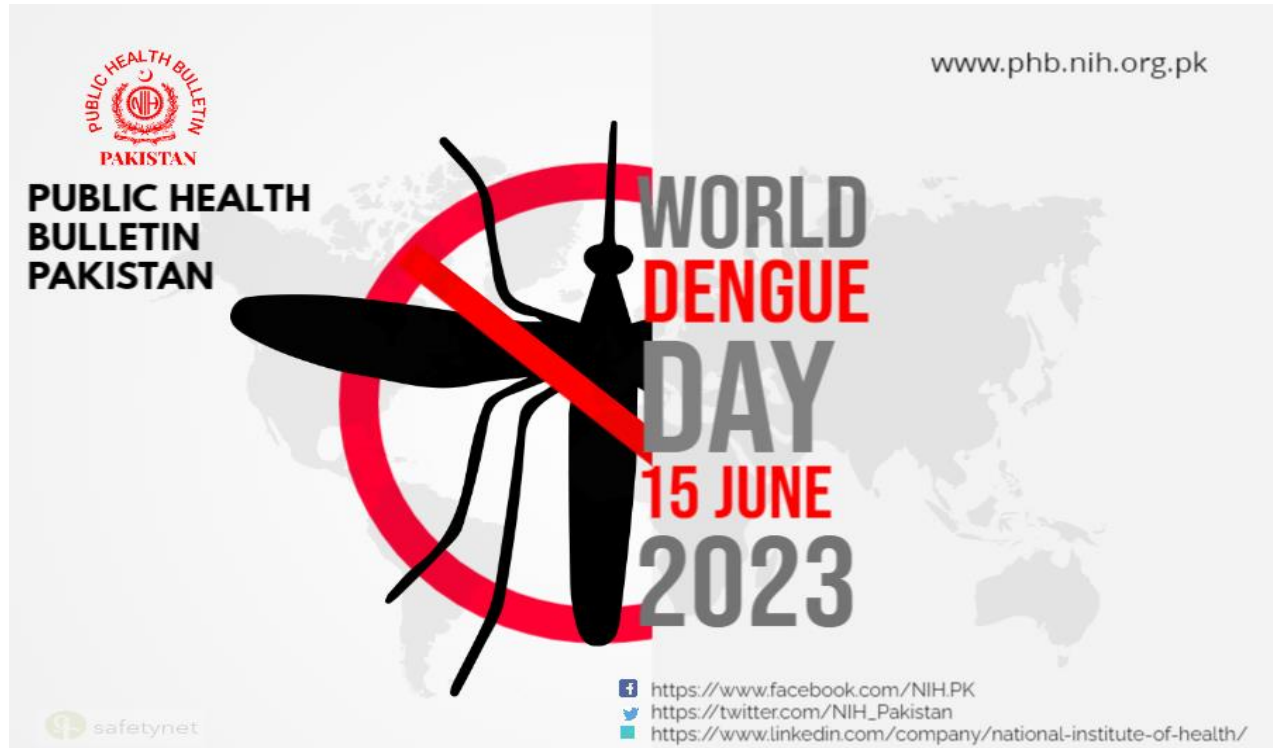
#### Environmental control measures:

- Eliminate sand fly breeding sites. This includes removing any standing water around your home, such as in birdbaths, flowerpots, or gutters.
- Repair holes in screens on windows and doors.
- Seal cracks and crevices in walls and foundations.

#### Vector control measures:

- Spray your home and yard with insecticides.
- Use insecticide-treated bed nets.

## Message on world dengue day



### World Dengue Day

Dengue is a mosquito-borne illness that is a major public health problem in many parts of the world, including Pakistan. On World Dengue Day, we raise awareness of this disease and its prevention.

### What is dengue?

Dengue is caused by a virus that is transmitted by the *Aedes aegypti* mosquito. The symptoms of dengue can include fever, headache, muscle pain, joint pain, rash, and vomiting. In some cases, dengue can be fatal.

### How to prevent dengue

There is no vaccine for dengue, but there are ways to prevent it. These include:

- Avoiding mosquito bites: This can be done by using insect repellent, wearing long sleeves and pants, and staying indoors during peak mosquito hours (dawn and dusk).
- Eliminating mosquito breeding sites: Mosquitoes breed in stagnant water, so it is important to eliminate any sources of standing water around your home. This includes things like buckets, tires, and flowerpots.

### What to do if you think you have dengue

If you think you have dengue, it is important to see a doctor right away. There is no specific treatment for dengue, but the doctor can help to manage your symptoms.

World Dengue Day is an opportunity to raise awareness of this disease and its prevention. By working together, we can help to protect ourselves and our families from dengue.

	<a href="https://phb.nih.org.pk/">https://phb.nih.org.pk/</a>		<a href="https://twitter.com/NIH_Pakistan">https://twitter.com/NIH_Pakistan</a>
	<a href="mailto:idsr-pak@nih.org.pk">idsr-pak@nih.org.pk</a>		<a href="https://www.facebook.com/NIH.PK/">https://www.facebook.com/NIH.PK/</a>

