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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.

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Preface

The Weekly Public Health Bulletin-Pakistan provides an overview of the most important public health events that occurred during week 36 of 2023. During this week, the most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, B. Diarrhea, Typhoid, VH (B & C), SARI, dog bite and AVH (A&E).

Of particular concern is the increase in cases of ILI and SARI Sindh, KPK and Balochistan. These diseases are highly contagious and can be serious, especially for young children and the elderly. We urge the public to take steps to protect themselves from these diseases, such as washing their hands frequently, avoiding contact with sick people, and getting vaccinated against the flu.

We would also like to draw attention to the eight cases of CCHF reported from Balochistan. CCHF is a serious viral disease that can be fatal. We are working to verify these cases and to take steps to prevent further transmission. In the meantime, we urge the public to be aware of the symptoms of CCHF and to seek medical attention immediately if they experience any of these symptoms.

The PHB team would like to express its sincere gratitude to all of the health workers who have contributed to the reporting of these cases. Your work is essential to protecting the health of the public. We would also like to remind the public to stay vigilant and to seek medical attention immediately if they experience any symptoms of these diseases.

Working together, we can protect the health of our communities

Sincerely,
The Chief Editor

- *During week 36, most frequent reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, B. Diarrhea, Typhoid, VH (B & C), SARI, dog bite and AVH (A&E).*
- *Eight cases of CCHF reported from Balochistan. All are suspected cases and need field verification.*
- *There is overall an increase in cases of ILI and SARI Sindh, KPK and Balochistan. Field investigation required to verify cases*

IDSR compliance attributes

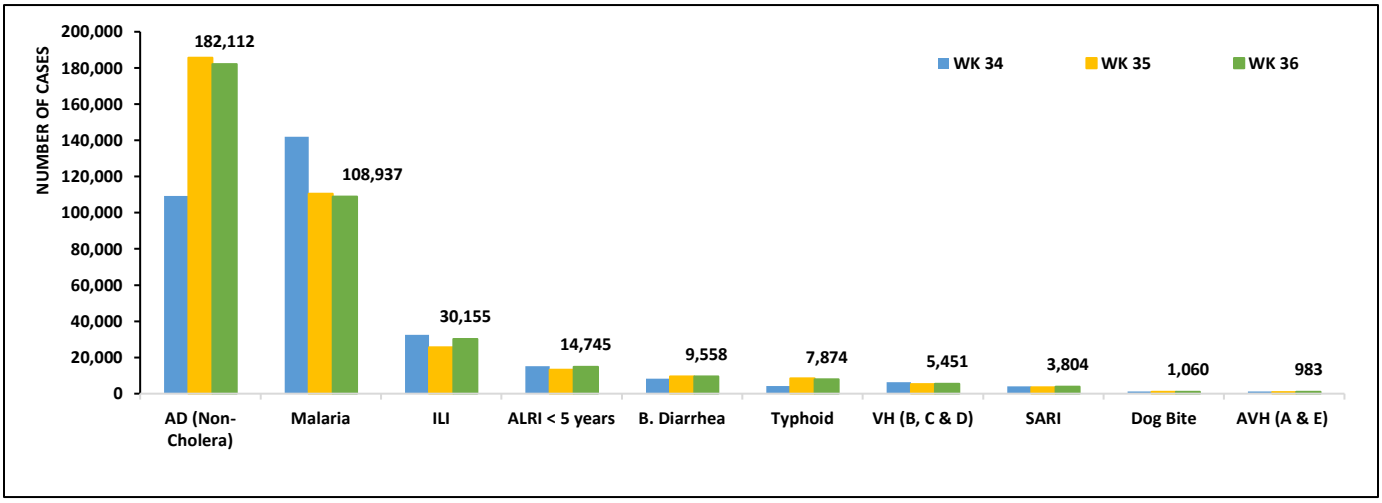
- *The national compliance rate for IDSR reporting in 113 implemented districts* is 78%
- *ICT and Sindh are the top reporting region with a compliance rate of 100% and 93% followed by AJK 92% and Khyber Pakhtunkhwa with 73%*
- *The lowest compliance rate was observed in Gilgit Baltistan.*

Region	**Expected Reports**	**Received Reports**	**Compliance (%)**
Khyber Pakhtunkhwa	1776	1276	72
Azad Jammu Kashmir	375	345	92
Islamabad Capital Territory	27	27	100
Balochistan	1297	675	52
Gilgit Baltistan	433	56	13
Sindh	1834	1687	92
National	5742	4066	71

Table 1: Province/Area wise distribution of most frequently reported cases during week 36, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,870	7,232	281	179	28,544	96775	47,231	182,112
Malaria	120	8,445	1	4	7,188	4,747	88,430	108,935
ILI	2587	5,389	72	449	4,585	253	16,820	30,155
ALRI < 5 years	864	2007	49	0	1,078	7	10740	14,745
B. Diarrhea	193	1797	24	1	1139	2,716	3,688	9,558
Typhoid	53	886	14	2	1137	4,214	1,568	7,874
VH (B, C & D)	12	94	0	0	268	NR	5077	5,451
SARI	357	907	81	0	1614	NR	845	3,572
Dog Bite	65	123	0	0	198	NR	674	1,060
AVH (A & E)	27	11	3	0	407	1	534	983
Mumps	79	62	8	0	125	NR	274	548
Chickenpox/ Varicella	13	7	7	0	434	65	7	533
Measles	8	14	4	1	158	NR	37	222
AWD (S. Cholera)	71	176	48	0	105	NR	04	405
CL	37	108	0	0	322	24	8	499
Gonorrhea	0	113	0	0	0	3	47	163
Dengue	1	4	0	0	107	1	44	157
Pertussis	6	47	3	0	38	NR	2	96
Syphilis	2	7	1	0	1	11	42	64
AFP	0	2	0	0	16	NR	23	41
Leprosy	0	19	0	0	17	NR	0	36
Diphtheria (Probable)	1	15	0	0	6	NR	0	22
Meningitis	7	1	0	0	6	NR	13	27
NT	3	0	0	0	21	NR	2	26
Brucellosis	0	12	1	0	0	NR	4	17
HIV/AIDS	3	1	0	0	9	NR	6	19
VL	8	8	0	0	1	NR	0	17
CCHF	0	0	0	0	0	NR	0	0
Chikungunya	0	0	1	0	0	NR	4	5
Anthrax	0	0	0	0	0	NR	0	0
Rubella (CRS)	1	0	0	0	0	NR	0	1

Figure 1: Most frequently reported suspected cases during week 36, Pakistan



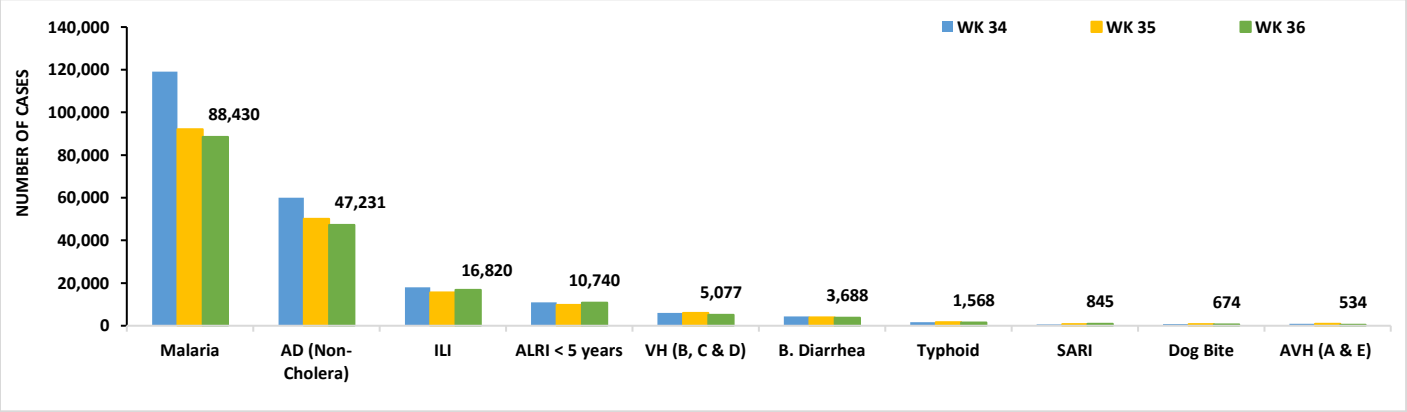
Sindh

- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, SARI, dog bite and AVH (A&E).
- Malaria, AD showed downward trend in cases this week whereas ILI cases remained static.
- This week Badin and Dadu districts reported high numbers of AD (Non-Cholera) cases whereas B. Diarrhea mostly reported from Khairpur and Larkana. All are suspected cases and need verification of cases.
- Four twenty three cases of AVH (A&E) reported from district Thatta only. Field investigation is required to identify the source to control the spread of disease.

Table 2: District wise distribution of most frequently reported suspected cases during week 36, Sindh

DISTRICTS	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	VH (B, C & D)	B. Diarrhea	Typhoid	SARI	Dog Bite	AVH (A & E)
Badin	7,025	3,603	297	673	331	219	106	0	68	6
Dadu	5,215	3,118	208	1,103	7	427	158	8	0	6
Ghotki	1,682	1,081	0	226	459	127	2	0	0	0
Hyderabad	566	1,997	589	114	79	39	8	0	0	1
Jacobabad	2,389	1,695	125	1,488	377	208	18	0	15	2
Jamshoro	1,777	1,988	467	304	190	155	127	24	18	6
Kamber	6,463	2,114	0	402	82	179	14	0	0	0
Karachi Central	168	1,382	1,722	177	266	105	151	0	0	23
Karachi East	164	654	87	0	3	8	8	0	9	6
Karachi Keamari	12	382	240	30	0	1	2	0	0	3
Karachi Korangi	77	302	0	1	1	3	3	0	0	0
Karachi Malir	197	1,290	2,267	339	27	49	23	7	4	5
Karachi South	38	120	0	0	0	0	3	0	0	0
Karachi West	126	815	612	122	16	37	35	33	37	8
Kashmore	2,760	768	451	246	103	127	12	0	0	0
Khairpur	6,105	2,958	1,418	778	311	332	204	275	24	6
Larkana	13,612	2,413	0	467	159	354	9	0	0	0
Matiari	1,807	2,017	29	488	408	71	20	1	23	5
Mirpurkhas	7,112	2,381	2,526	334	261	113	51	319	17	8
Naushero Feroze	2,380	1,681	369	169	90	57	82	0	71	0
Sanghar	4,044	2,071	103	606	873	91	128	135	218	3
Shaheed Benazirabad	2,269	2,233	0	484	144	102	269	0	0	0
Shikarpur	1,488	1,529	1	108	81	132	4	5	64	0
Sujawal	1,801	392	0	90	0	43	0	0	0	0
Sukkur	3,599	2,027	1,994	425	259	236	12	0	0	0
Tando Allahyar	2,039	1,338	567	274	251	144	15	0	22	4
Tando Muhammad Khan	782	350	0	60	44	26	0	0	1	0
Tharparkar	3,007	1,219	1,513	613	62	87	31	16	0	18
Thatta	4,717	1,718	1,235	298	131	88	23	18	83	423
Umerkot	5,009	1,595	0	321	62	128	50	4	0	1
Total	88,430	47,231	16,820	10,740	5,077	3,688	1,568	845	674	534

Figure 2: Most frequently reported suspected cases during week 36, Sindh



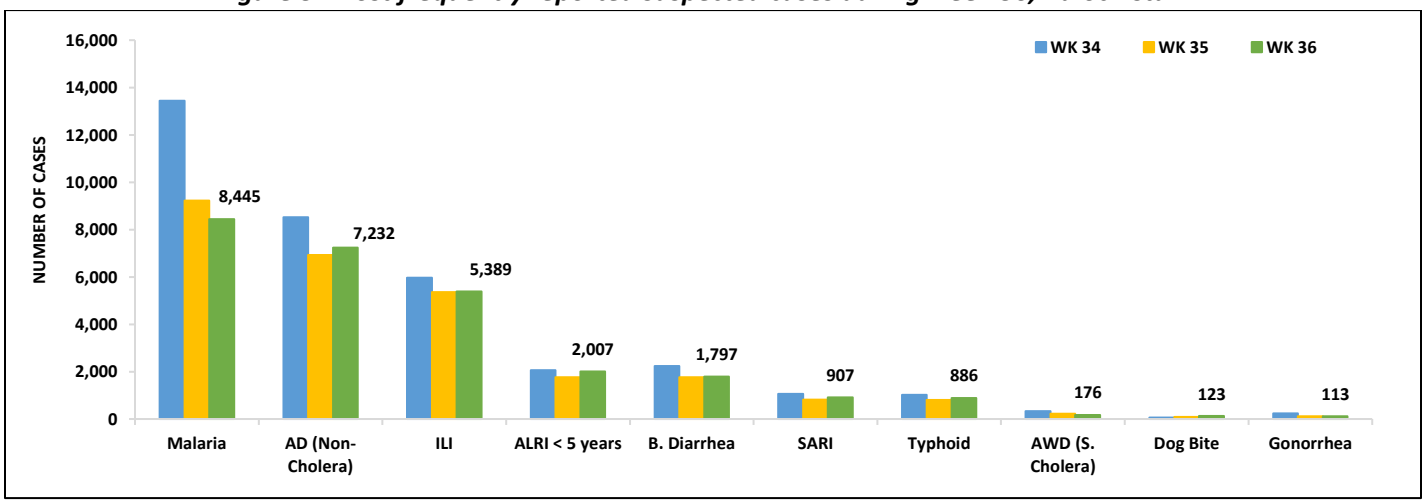
Balochistan

- Malaria, AD (Non-Cholera), ILI, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), dog bite and Gonorrhea were the most frequently reported diseases from Balochistan province.
- Trend for ILI and Malaria declined whereas for AD cases a slight surge in cases noted this week.
- Cases of gonorrhea reported in increased numbers from Mastung and Sohrab districts. All are suspected cases and need field investigation to verify the cases.
- SARI cases reported in high numbers from Killa Saifullah, Loralai and Sohbatpur and need to be verify the cases.

Table 3: District wise distribution of most frequently reported suspected cases during week 36, Balochistan

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	AWD (S. Cholera)	Dog Bite	Gonorrhea
Chagai	16	186	270	0	62	0	40	18	0	2
Chaman	10	95	89	0	24	13	7	8	5	0
Dera Bugti	367	41	12	17	29	16	15	6	0	0
Duki	55	94	55	15	63	27	13	15	0	0
Gwadar	239	393	806	38	83	Nr	25	NR	NR	NR
Harnai	76	85	18	206	111	0	11	1	3	0
Hub	366	394	106	15	90	88	4	0	0	0
Jaffarabad	486	269	80	29	85	10	9	0	0	0
Jhal Magsi	669	458	91	41	27	0	8	3	14	0
Kachhi (Bolan)	136	119	44	6	31	43	55	8	0	0
Kalat	43	35	14	10	20	0	11	0	0	4
Kech (Turbat)	489	377	674	125	38	4	0	0	0	0
Kharan	76	161	275	0	57	0	7	10	0	4
Khuzdar	70	85	73	6	62	1	15	1	NR	12
Killa Saifullah	417	301	0	183	119	148	39	8	0	0
Kohlu	112	58	178	21	76	35	38	6	1	1
Lasbella	1,006	700	115	502	15	59	22	0	8	0
Loralai	105	256	375	83	74	122	33	6	0	0
Mastung	265	564	151	39	110	77	135	24	4	41
Naseerabad	430	222	0	7	16	10	17	0	27	0
Nushki	107	210	0	0	91	0	0	11	0	1
Panjgur	161	97	21	13	16	0	25	15	0	3
Quetta	24	400	929	34	133	29	36	15	0	0
Sherani	11	6	10	0	4	0	2	0	0	0
Sibi	209	118	440	18	42	30	30	7	0	2
Sohbat pur	1,106	517	39	169	142	123	112	2	0	0
SURAB	181	13	190	0	37	27	106	0	58	31
Usta Muhammad	942	747	127	227	58	7	59	0	3	11
Washuk	67	110	113	0	37	0	0	0	0	1
Zhob	204	121	94	203	45	38	12	12	0	0
Total	8,445	7,232	5,389	2,007	1,797	907	886	176	123	113

Figure 3: Most frequently reported suspected cases during week 36, Balochistan



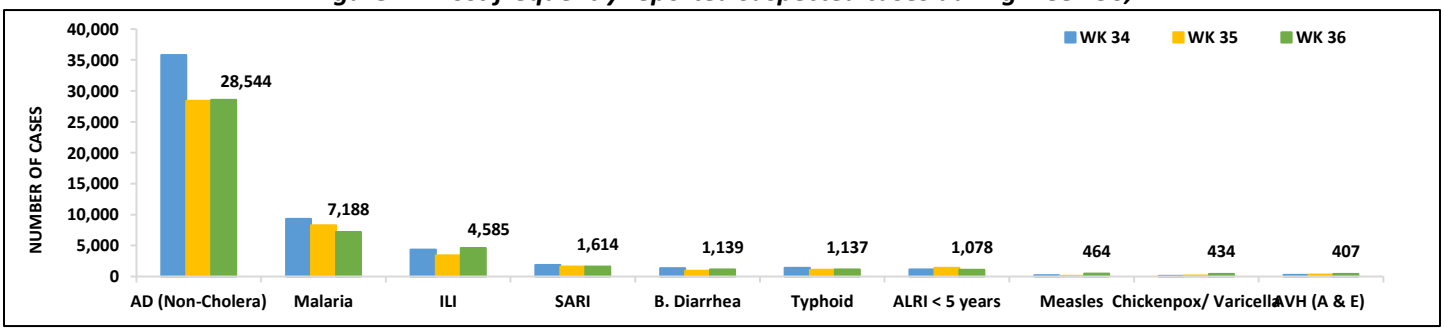
Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by Malaria, ILI, SARI, ALRI<5 Years, B. Diarrhea, Typhoid, ALRI < 5 years, Measles Chickenpox and AVH (A&E) cases.
- There is a sharp decline in AD cases whereas ILI and Malaria cases also showed downward trend.
- Chickenpox cases reported in high numbers from These are suspected cases and a field investigation is required to verify cases.
- Chitral Lower and Kohistan Lower reported cases of SARI which need to be differentiated from COVID-19.

Table 4: District wise distribution of most frequently reported suspected cases during week 36, KP

Districts	AD (Non-Cholera)	Malaria	ILI	SARI	B. Diarrhea	Typhoid	ALRI <5 Years	Measles	Chickenpox/ Varicella	AVH (A & E)
Abbottabad	598	4	18	12	2	17	4	1	2	0
Bajaur	386	194	55	3	62	1	9	1	0	0
Bannu	777	1,309	37	0	5	42	0	3	4	3
Buner	540	418	0	0	6	10	47	0	4	0
Charsadda	1,519	157	309	32	0	0	3	0	0	0
Chitral Lower	446	19	119	461	16	17	8	5	153	6
Chitral Upper	98	7	0	173	0	15	0	0	182	0
D.I. Khan	939	524	21	34	19	2	14	9	1	0
Dir Lower	2,175	935	5	0	190	73	141	10	12	45
Dir Upper	1,508	18	26	2	45	18	58	4	0	7
Hangu	274	681	239	33	46	25	3	0	0	7
Haripur	1,297	123	683	0	11	81	180	1	8	74
Karak	321	274	66	20	2	8	6	8	0	0
Khyber	12	138	15	0	5	0	0	0	0	3
Kohat	74	45	0	0	0	1	1	4	0	0
Kohistan Lower	109	4	0	214	20	0	0	2	0	0
Kohistan Upper	355	1	62	19	14	31	1	4	0	0
Kolai Palas	140	4	0	0	13	0	8	0	0	0
L & C Kurram	68	59	164	0	11	6	0	2	0	0
Lakki Marwat	648	361	0	0	10	10	20	2	0	0
Malakand	740	36	33	16	89	26	29	22	6	26
Mansehra	516	2	328	53	14	15	20	5	3	0
Mardan	1,276	41	115	0	42	0	98	3	9	39
Mohmand	NR	NR	NR	NR	NR	NR	NR	50	NR	NR
Nowshera	1,877	209	5	18	37	31	5	8	1	7
Peshawar	3,866	173	827	33	175	181	67	35	12	25
Shangla	884	366	0	0	0	34	2	10	0	0
SWA	198	178	57	78	75	49	79	248	3	26
Swabi	1,615	91	682	9	28	32	82	13	23	25
Swat	4,448	76	212	0	137	2	117	2	6	75
Tank	479	489	0	0	6	71	29	0	0	0
Tor Ghar	110	204	0	22	22	21	0	0	0	1
Upper Kurram	251	48	507	382	37	318	47	12	5	38
Total	28,544	7,188	4,585	1,614	1,139	1,137	1,078	464	434	407

Figure 4: Most frequently reported suspected cases during week 36, KP



ICT, AJK & GB

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

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, Malaria, B. Diarrhea, Mumps, dog bite, AWD (S. Cholera) and Typhoid. Both ILI and AD cases showed downward trend in cases this week.

GB: AD (Non. Cholera) cases were maximum followed by ILI, ALRI<5 years, SARI and ALRI < 5 years. Diarrhea and Mumps. AD (Non-Cholera) showed a sharp rise in trend this week.

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

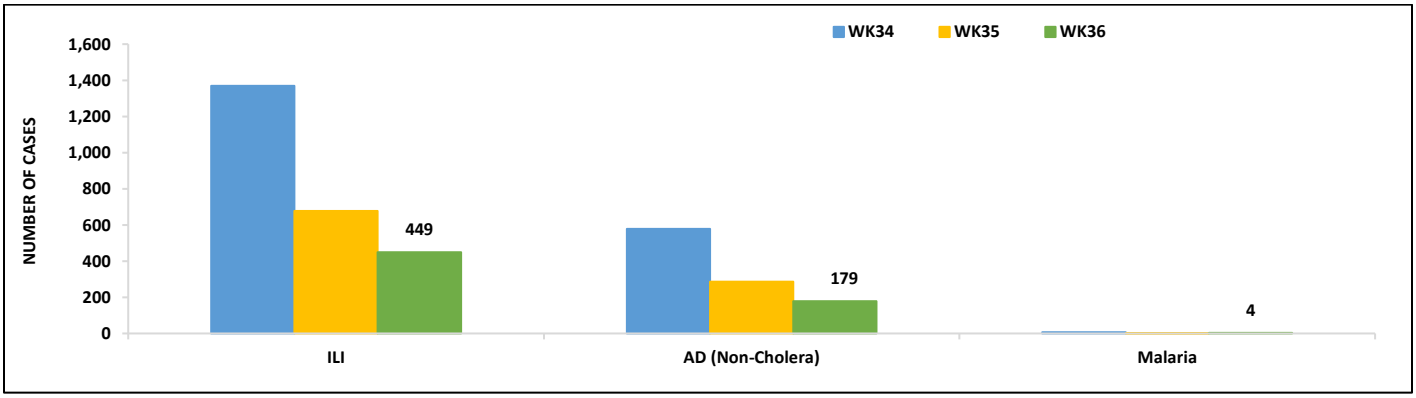


Figure 6: Week wise reported suspected cases of ILI, ICT

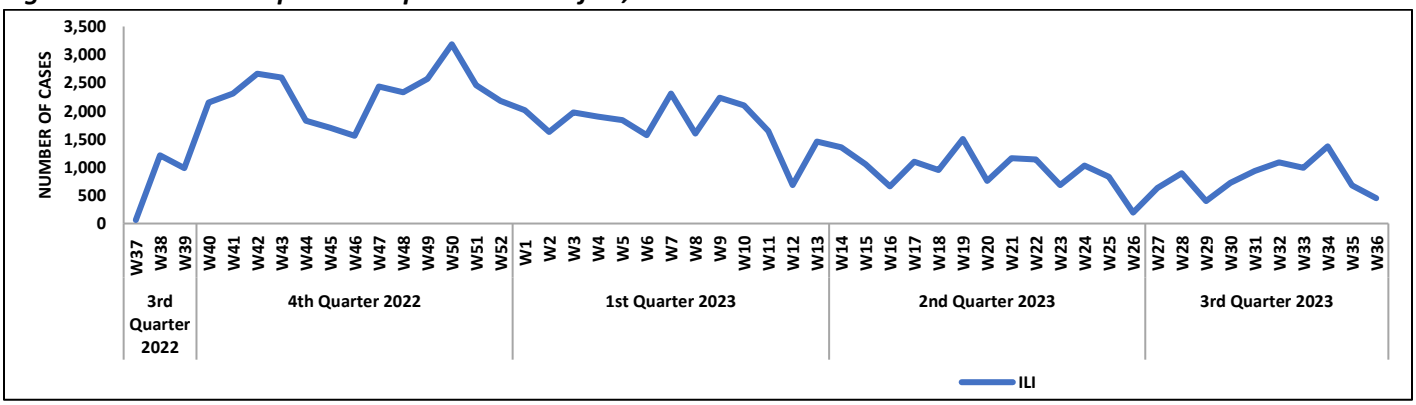


Figure 7: Most frequently reported suspected cases during week 36, AJK

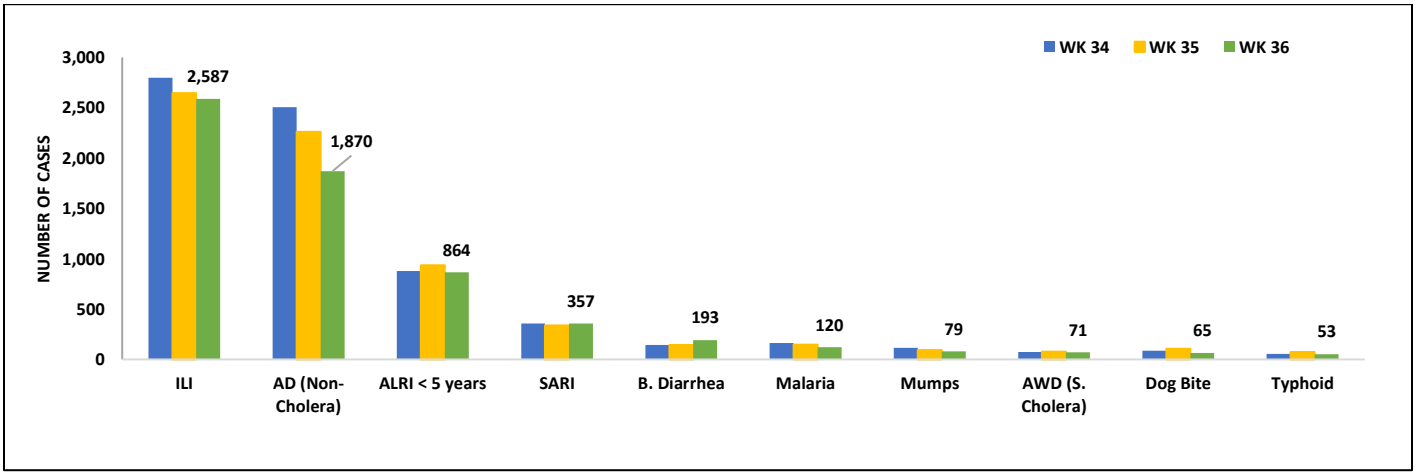


Figure 8: Week wise reported suspected cases of AD (Non-Cholera) and ILI, AJK

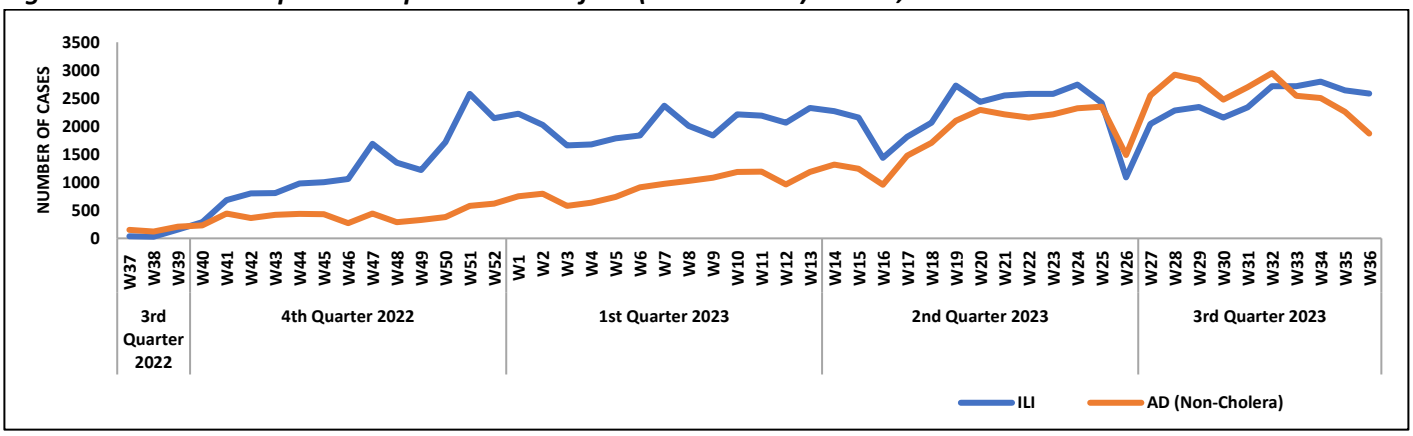


Figure 9: Most frequent cases reported during WK 36, GB

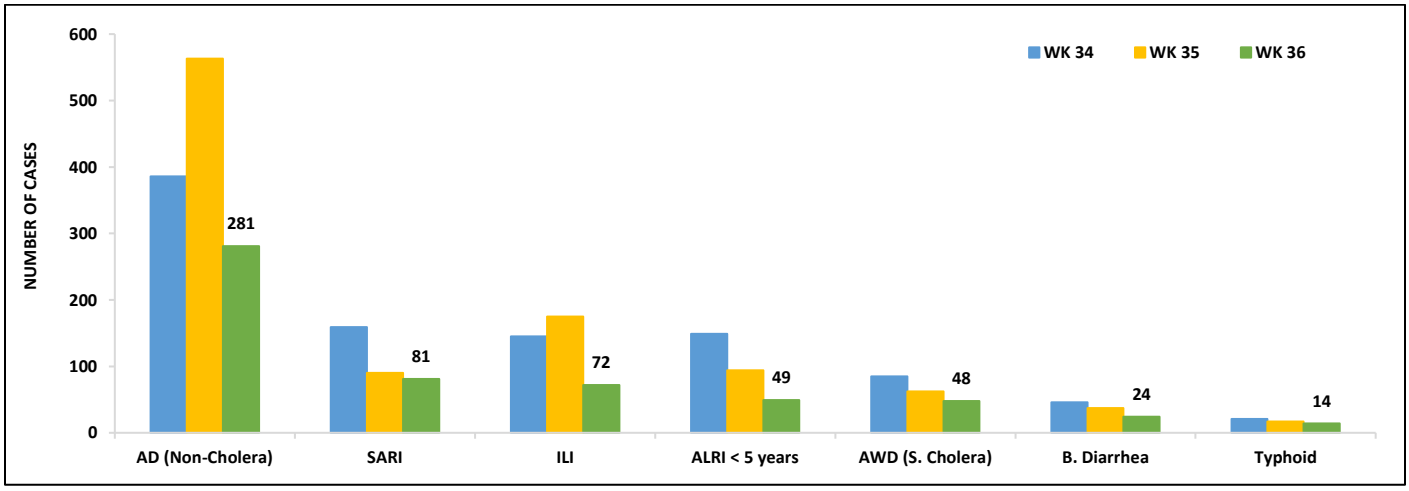
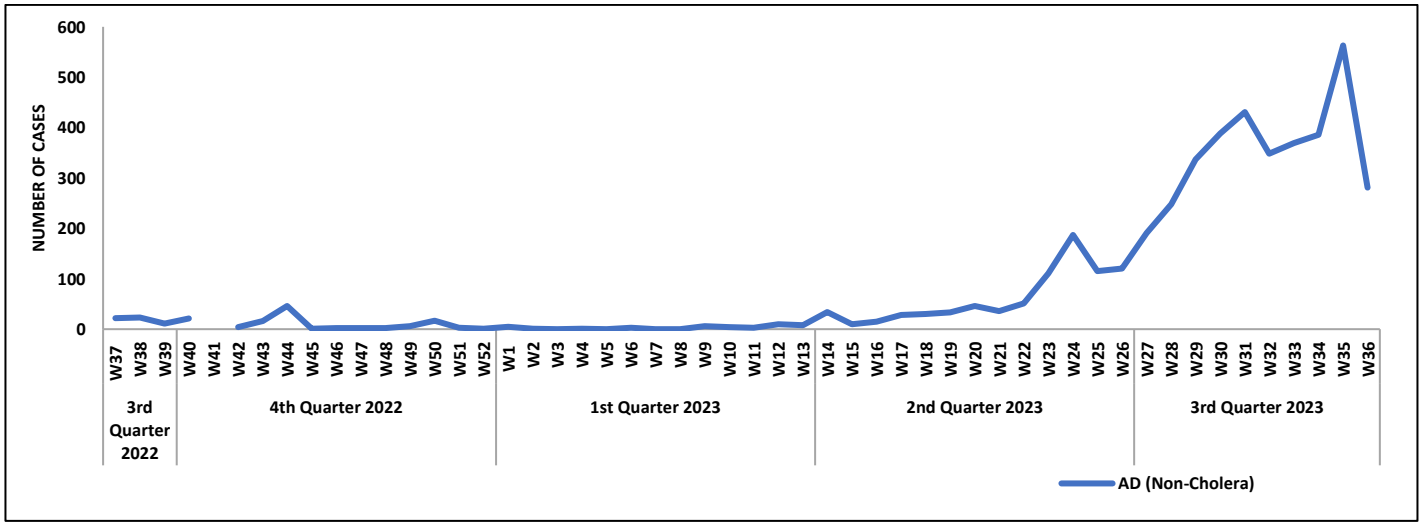


Figure 10: Week wise reported suspected cases of AD (Non-Cholera), GB



Punjab

- AD (Non. Cholera) cases were most frequent followed by Malaria and Typhoid.
- Diarrhea cases were reported in high numbers from Lahore, Faisalabad, Rawalpindi and Gujranwala. All are suspected cases and need verification.

Figure 11: District wise distribution of most frequently reported suspected cases during week 36, Punjab

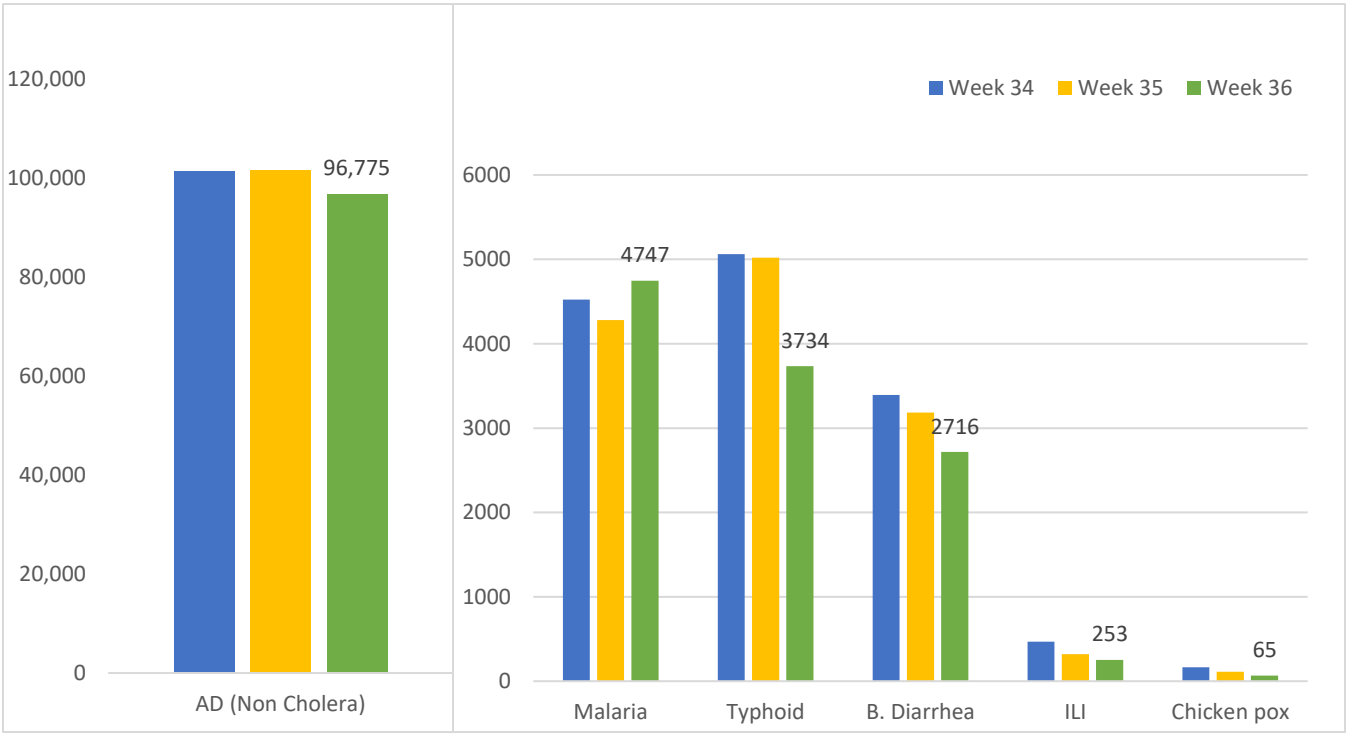


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 36

Diseases	Sindh	Balochistan	Punjab	KPK	ISL	Gilgit
Acute Watery Diarrhoea (S. Cholera)	0	-	-	-	-	-
Acute diarrhea(non-cholera)	0	-	0	-	-	-
Malaria	337	-	-	-	-	-
CCHF	-	1	-	0	-	0
Dengue	24	0	-	-	-	16
Acute Viral Hepatitis(A)	0	-	-	-	-	-
Acute Viral Hepatitis(B)	71	-	-	-	3	-
Acute Viral Hepatitis(C)	160	26	0	-	-	-
Acute Viral Hepatitis(E)	1	-	-	-	-	-
Typhoid	6	-	-	2	-	-
Covid 19	-	1	-	1	1	3

IDSR Reports Compliance

- Out OF 120 IDSR implemented districts, compliance is low from Balochistan districts. Green color showing >50% compliance while red color is <50% compliance

Table 6: IDSR reporting districts Week 36

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	101	92%
	Bannu	92	92	74	80%
	Battagram	43	43	0	0%
	Buner	34	34	27	79%
	Bajaur	44	44	26	59%
	Charsadda	61	61	49	80%
	Chitral Upper	33	33	8	24%
	Chitral Lower	35	35	27	77%
	D.I. Khan	89	89	70	79%
	Dir Lower	75	75	74	99%
	Dir Upper	55	55	42	76%
	Hangu	22	22	22	100%
	Haripur	69	69	58	84%
	Karak	34	34	34	100%
	Khyber	40	40	1	3%
	Kohat	59	59	59	100%
	Kohistan Lower	11	11	11	100%
	Kohistan Upper	20	20	19	95%
	Kolai Palas	10	10	10	100%
	Lakki Marwat	49	49	49	100%
	Lower & Central Kurram	40	40	13	33%
	Upper Kurram	42	42	13	31%
	Malakand	42	42	32	76%
	Mansehra	133	133	47	35%
	Mardan	84	84	47	56%
	Nowshera	52	52	51	98%
	North Waziristan	21	21	4	19%
	Peshawar	101	101	101	100%
	Shangla	36	36	5	14%
	Swabi	60	60	60	100%
	Swat	77	77	70	91%
	South Waziristan	58	58	30	52%
	Tank	34	34	31	91%
	Torghar	11	11	11	100%
Azad Jammu Kashmir	Mirpur	37	37	35	100%
	Bhimber	20	20	16	80%
	Kotli	60	60	58	97%
	Muzaffarabad	43	43	39	91%
	Poonch	46	46	46	100%
	Haveli	34	34	29	85%
	Bagh	40	40	36	90%
	Neelum	39	39	33	85%
	Jhelum Vellay	29	29	27	93%
	Sudhnooti	27	27	26	96%

Islamabad Capital Territory	ICT	18	18	18	100%
	CDA	9	9	9	100%
Balochistan	Gwadar	24	24	22	92%
	Kech	78	44	26	59%
	Khuzdar	136	20	13	65%
	Killa Abdullah	50	32	0	0%
	Lasbella	85	85	55	65%
	Pishin	118	23	0	0%
	Quetta	77	22	17	77%
	Sibi	42	42	16	38%
	Zhob	37	37	29	78%
	Jaffarabad	47	47	16	34%
	Naserabad	37	37	27	73%
	Kharan	32	32	28	88%
	Sherani	32	32	2	6%
	Kohlu	75	75	21	28%
	Chagi	35	35	27	77%
	Kalat	65	65	9	14%
	Musa khail	68	68	0	0%
	Harnai	18	18	17	94%
	Kachhi (Bolan)	35	35	13	37%
	Jhal Magsi	39	39	26	67%
	Sohbat pur	25	25	24	96%
	Surab	33	33	29	88%
	Mastung	45	45	45	100%
	Loralai	26	26	26	100%
	Killa Saifullah	31	31	26	84%
	Ziarat	42	42	0	0%
	Duki	31	31	21	68%
	Nushki	32	32	30	94%
	Dera Bugti	45	45	22	49%
	Washuk	25	25	11	44%
	Panjgur	38	38	7	18%
	Awaran	23	23	0	0%
	Chaman	22	22	10	45%
	Hub	33	33	33	100%
	Usta Muhammad	34	34	27	79%
Gilgit Baltistan	Hunza	31	31	30	97%
	Nagar	6	6	0	0%
	Ghizer	62	62	0	0%
	Gilgit	48	48	9	0%
	Diamer	79	79	1	1%
	Astore	53	53	0	0%
	Shigar	24	24	8	33%
	Skardu	51	51	7	14%
	Ganche	79	79	1	1%
	Hyderabad	71	71	35	49%
	Ghotki	65	65	64	98%
	Umerkot	98	43	43	100%

Sindh	Naushahro Feroze	68	68	62	91%
	Tharparkar	278	100	97	97%
	Shikarpur	60	60	60	100%
	Thatta	53	53	51	96%
	Larkana	67	67	67	100%
	Kamber Shadadkot	71	71	70	99%
	Karachi-East	14	14	10	71%
	Karachi-West	20	20	20	100%
	Karachi-Malir	37	37	26	70%
	Karachi-Kemari	17	17	11	65%
	Karachi-Central	11	11	10	91%
	Karachi-Korangi	18	18	12	67%
	Karachi-South	4	4	4	100%
	Sujawal	31	31	31	100%
	Mirpur Khas	104	104	105	105%
	Badin	124	124	111	90%
	Sukkur	64	64	64	100%
	Dadu	90	90	90	100%
	Sanghar	101	101	97	96%
	Jacobabad	43	43	43	100%
	Khairpur	168	168	151	90%
	Kashmore	59	59	59	100%
	Matiari	42	42	42	100%
	Jamshoro	70	70	65	93%
	Tando Allahyar	54	54	54	100%
	Tando Muhammad Khan	41	41	9	22%
	Shaheed Benazirabad	124	124	124	100%

Public Health Bulletin-Pakistan: Vol 3, Issue 36

Public Health bulletin Pakistan.

The Pakistan Public Health Bulletin (PHB) made significant progress during the quarter in improving data reporting, dissemination of surveillance information, and audience engagement. These accomplishments will help to ensure that the PHB remains a valuable resource for public health professionals and stakeholders in Pakistan.

Key Achievements

- **Improved data reporting**: Provincial surveillance teams received technical assistance to improve data reporting from district to provincial and national levels. A monitoring dashboard was implemented, utilizing historical data for trend analysis and alert indicators establishment.
- **Enhanced dissemination of surveillance information:** The National Institute of Health (NIH) supported the dissemination of surveillance information to provincial health departments and other stakeholders, enhancing the epidemiological bulletin's standards, content, and format across all levels.
- **Strengthened public health data analysis capabilities:** Provincial surveillance teams participated in regular teleconference sessions to strengthen their public health data analysis capabilities and effectively utilize PHB surveillance information at local and district levels.
- **Timely, accurate, and relevant content:** The PHB delivered timely, accurate, and relevant content, adhering to editorial standards in support of its mission.
- **Comprehensive plan for audience engagement:** A comprehensive plan outlining strategy for audience engagement, retention, visibility expansion, and readership growth are being developed.
- **Effective collaboration with stakeholders and partners**: Effective collaboration with various stakeholders and partners facilitated the bulletin's broader reach and increased its impact.
- **Quality control and optimization of editorial processes**: Senior and Associate editors diligently ensured quality control, timeliness, evaluation, and optimization of editorial processes. Bulletin development, review, and publication were executed punctually.
- **Management of the review process**: Management of the review process for surveillance publications involved addressing feedback accordingly. Disease trends were monitored; disease alerts and outbreaks identified; health departments engaged for response conduction; report submissions acquired for inclusion in the bulletin.
- **Website maintenance and updates:** The Pakistan Public Health Bulletin website was supervised and kept up-to-date.
- **Timely dissemination of the bulletin:** Timely dissemination of the bulletin via email to an updated contact list ensured stakeholder engagement.

These accomplishments demonstrate the PHB's commitment to providing high-quality public health information to its stakeholders. The PHB is an essential resource for public health professionals and stakeholders in Pakistan, and its continued progress will help to ensure that the country has the data and information it needs to protect and promote the health of its citizens.

A note from Field Activities.

Chickenpox Outbreak Investigation at Upper Chitral Aug-Sep 2023

Source: DHIS-2 Reports
https://dhis2.nih.org.pk/dhis-web-event-reports/

Introduction:

Chickenpox is a highly contagious viral infection caused by the varicella-zoster virus (VZV). It is most common in children, but can also occur in adults. Chickenpox is characterized by a rash that begins as red spots and develops into blisters filled with fluid. The blisters eventually break open and crust over.

Chickenpox is usually mild, but can be severe in young children and adults with weakened immune systems.

Background:

On 24th Aug 2023, the first suspected case of chickenpox was reported from Raman, Harchin of Upper-Chitral. A surge of 25 cases appeared on 28th Aug 2023 from different areas of Upper-Chitral. The cases were increasing, therefore Director Public Health, KP directed Dr. Ahmed Dawar Afridi (Fellow FETP 14th Cohort) and Dr. Tahir (Fellow FETP 15th Cohort) to investigate the outbreak. the team arrived at Upper Chitral and organized a team to control the outbreak and actively search for unreported cases.

Objective:

The objective of this investigation was to assess the magnitude of the chickenpox outbreak in Upper Chitral, Pakistan, suggest and implement control measures and to recommend measures to prevent future outbreaks.

Methodology:

A descriptive study was conducted from 10th August to 15th September 2023. Data was collected through structured questionnaires, active case search, and screening of health facility records.

Case Definition:

A suspected case of chickenpox was defined as any resident of Upper Chitral who developed an illness with acute onset of diffuse (generalized) maculo-papular rash without other apparent cause from or after 10th August 2023. A probable case was defined as a case that met the clinical case definition but was not laboratory-confirmed nor epidemiologically linked to another probable or confirmed case. A confirmed case was defined as a case that met the clinical case definition and was laboratory confirmed or was epidemiologically linked to a confirmed or a probable case.

Results:

A total of 229 cases of chickenpox were reported during the outbreak period. The most affected age group was 0-10 years (n=129). Males were affected more (53%, n=121) than females (47%, n=108). The highest number of cases were reported from Sorelaspur (n=67) followed by Herchin (n=61). Fever and rash were reported in 100% of the cases. The highest attack rate of chickenpox was calculated in Herchin (2.06) followed by Sor Laspur (1.88). Overall attack rate of the district was 0.11.

Conclusion:

The chickenpox outbreak in Upper Chitral was a significant public health event. The outbreak was controlled through a combination of active case finding, isolation of cases, and mass vaccination. However, there is a need to strengthen the public health system in Upper Chitral to prevent future outbreaks. This investigation identified a number of gaps in the public health system that contributed to the chickenpox outbreak in Upper Chitral. These gaps included:

- Lack of a dedicated public health coordinator
- Limited number of doctors in the district and Non-availability of pediatrician and skin specialist
- Weak LHW reporting and surveillance
- Lack of isolation centers
- Non-availability of anti-viral medications
- Transportation challenges for sending samples to the provincial laboratory

Recommendations:

To prevent future outbreaks of chickenpox in Upper Chitral, it is recommended to:

- Nominate/provide a separate Public Health coordinator to perform swift and timely activities.
- Organize mass vaccination for chickenpox in Upper Chitral.
- Nominate and organize isolation centers.
- Provide anti-viral medications from the provincial office to Upper Chitral.
- Provide samples transportation facilitation by the DHO Upper Chitral.
- Isolate the areas having cases to avoid spread to unaffected UCs.

In addition to these recommendations, it is also important to strengthen the public health system in Upper Chitral. This can be done by increasing the number of healthcare workers, providing them with adequate training, and ensuring that they have access to the necessary resources.

UK Health Security Agency
World Health Organization
USAID
safetynet

A note from Field Activities.

Dengue Surveillance Activities in District Rawalpindi.

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Dengue surveillance is the process of collecting and analyzing data on dengue fever cases and vectors in order to detect and respond to outbreaks. This is an essential public health activity, as dengue fever is a serious and potentially deadly disease.

In District Rawalpindi, dengue surveillance activities are coordinated by the District Health Department. The Health Department has a network of surveillance sites throughout the district, where data on dengue fever cases and vectors is collected. This data is then used to identify areas where the virus is spreading rapidly and to target interventions to those areas.

Some of the key dengue surveillance activities carried out in District Rawalpindi include:

- Case surveillance: The Health Department tracks all reported cases of dengue fever in the district. This information is used to monitor the trends of the disease and to identify areas where there is a surge in cases.
- Vector surveillance: The Health Department also monitors the population of Aedes aegypti mosquitoes, which are the primary vectors of dengue fever. This information is used to identify areas where the risk of transmission is high and to target vector control measures to those areas.
- Environmental surveillance: The Health Department also monitors the environment for factors that can contribute to the spread of dengue fever, such as poor sanitation and inadequate drainage. This information is used to develop and implement interventions to reduce the risk of transmission.

The data collected through dengue surveillance activities is used to inform a variety of public health interventions, including:

- Vector control: The Health Department implements a variety of vector control measures to reduce the population of Aedes aegypti mosquitoes, such as source reduction, larvicide, and adulticide activities.
- Public education and awareness: The Health Department educates the public about dengue fever and how to prevent it. This includes messages about mosquito control, personal protection measures, and early warning signs and symptoms of dengue fever.
- Case management: The Health Department provides free treatment to all dengue fever patients at public hospitals and clinics.

Dengue Surveillance Activities in 2023

In 2023, the District Health Department of Rawalpindi has reported a total of 694 confirmed cases of dengue fever. Of these, 434 patients have been discharged, 84 patients are admitted to the hospital, 6 patients are in critical condition, and no deaths have been reported.

District Health Department Rawalpindi has been actively searching for mosquito breeding grounds during the current dengue outbreak. In total, the surveillance team has inspected 1,939,180 spots and 5,034,040 houses, finding mosquito larvae in 6,513 spots and 36,708 houses, respectively.

These statistics indicate that the District Health Department Rawalpindi is taking a proactive and comprehensive approach to vector control, which is essential for preventing dengue outbreaks. However, the number of positive spots and houses does not necessarily reflect the number of mosquito present, as some locations may have a large number of mosquitoes while others may only have a few. Nonetheless, the fact that so many spots and houses

were found to have mosquito larvae suggests that the district still has a sizable mosquito population.

During 2023, the R-79-Dhoke Munshee area in District Rawalpindi experienced a significant dengue fever outbreak, with 105 cases reported. This was the highest number of cases in the district, and it is particularly concerning given the focused preventive activities in the area. Other areas in the district, including R-81-Kotha Kallan, CTC-5, Rehmatabad, and CTC-10, also reported a high number of cases, with 59, 38, 10, and 9 cases, respectively. Factors that are contributing to the high number of cases in these areas and the transmission of the disease include the presence of a large population of mosquitoes, poor sanitation and hygiene conditions, overcrowding, lack of access to water and improper water storage for household.

Dengue fever is a serious disease that can be fatal if not treated promptly. It is emphasized to the residents of the affected areas by the surveillance teams to take steps to protect themselves from mosquito bites, such as using mosquito repellent and wearing long sleeves and pants when outdoors. Residents are also made aware of the signs and symptoms of dengue fever and seek medical attention immediately if they experience any of these symptoms.

The District Health Department Rawalpindi is taking steps to control the dengue fever outbreak in the affected areas. These steps include vector control measures, such as spraying for mosquitoes and removing mosquito breeding grounds, as well as public education and awareness campaigns. The department is also providing free treatment for dengue fever patients at public hospitals and clinics.

It is important for the community to cooperate with the District Health Department Rawalpindi to control the dengue fever outbreak. By taking steps to protect themselves from mosquito bites and seeking medical attention promptly if they experience any symptoms of dengue fever, community members can help to reduce the number of cases and deaths from this disease.

Knowledge Hub

One Health: A Collaborative Approach to Protecting Human, Animal, and Environmental Health

One Health is a collaborative, multidisciplinary approach to achieving optimal health outcomes by recognizing the interconnectedness between people, animals, and ecosystems. It is a holistic approach to health that addresses the complex challenges facing humanity today, such as zoonotic diseases, antimicrobial resistance, and climate change.

One Health brings together experts from diverse fields, including human medicine, veterinary medicine, environmental science, and public health, to work together to identify and address the root causes of health challenges. This approach is essential for protecting the health of people, animals, and the environment, and for creating a healthier future for all.

Here are some examples of how the One Health approach is being used:

- Zoonosis prevention: One Health approaches are being used to prevent the spread of zoonotic diseases, such as rabies, avian influenza, and COVID-19. This includes working to improve animal health and welfare, reduce contact between people and animals, and develop new vaccines and diagnostics.
- Antimicrobial resistance: One Health approaches are also being used to address the growing problem of antimicrobial resistance. This includes working to reduce the overuse of antibiotics in both human and veterinary medicine, and developing new strategies to prevent and treat infections without antibiotics.
- Climate change and health: One Health approaches are being used to address the health impacts of climate change, such as vector-borne diseases, food insecurity, and extreme weather events. This includes working to develop and implement adaptation strategies to protect human and animal health from the effects of climate change.

Individuals and communities can play an important role in supporting the One Health approach by taking the following steps:

- Practicing good hygiene, such as washing hands regularly and covering mouth and nose when coughing or sneezing.
- Vaccinating pets against common diseases.
- Avoiding contact with wild animals.
- Supporting sustainable farming practices.
- Staying informed about the health impacts of climate change and taking steps to protect themselves and their communities.

By working together, we can create a healthier future for people, animals, and the environment.

Image Courtesy: ETIO Public Health

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