Integrated Disease Surveillance & Response (IDSR) Report
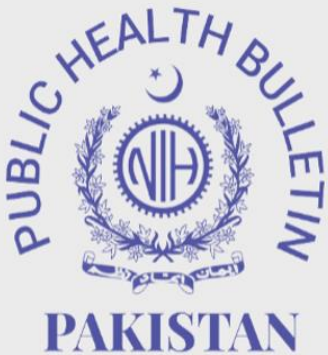
Center of Disease Control
National Institute of Health, Islamabad

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

- The Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin provides an overview of disease trends, outbreak alerts, and other important public health information. We hope to increase awareness and promote preventive measures by sharing this information.

- We encourage you to read the bulletin and share it with your colleagues, family, and friends. Together, we can work towards a healthier community.

PUBLIC HEALTH BULLETIN
PAKISTAN

OUR TIME WITH ANTIBIOTICS IS RUNNING OUT

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Greetings
Team PHB-Pakistan

Preface

Stay informed and stay ahead with the Weekly Public Health Bulletin-Pakistan!

Discover the latest disease trends, outbreak alerts, and crucial public health data in one comprehensive issue. In this week's edition, we delve into the most prevalent reported cases, including acute diarrhea, malaria, influenza-like illness, and more.

Be updated on the overall decrease in disease cases from IDSR districts during week 25 while also gaining insights into the increased number of reported mumps and HIV/AIDS cases.

Furthermore, our response section features reports on significant immunization drives, such as the measles outbreak immunization drive in Punjab. Learn about XDR typhoid cases in KPK and neonatal tetanus from Rawalpindi Punjab, for a complete understanding of current health concerns.

As a bonus, this week's bulletin includes a knowledge review on CCHF disease and closing remarks on international group B strep disease awareness month. Don't miss out on this valuable resource for staying well-informed about public health matters. Subscribe to the Weekly Bulletin today!

Sincerely,
The Chief Editor

- During Week 25, the most common reported cases were acute diarrhea (non-cholera), followed by malaria, influenza-like illness (ILI), acute lower respiratory infection (ALRI) in children under 5 years old, bacterial diarrhea, severe acute respiratory infection (SARI), viral hepatitis (B, C, and D), typhoid fever, cholera, and mumps.

- In week 25, number of suspected cases reported in Disease Surveillance and Response (IDSR) system has been decreased as compared to last two weeks.

- Among Vaccine-preventable diseases (VPDs) a total of 668 suspected cases of mumps were reported, mainly from Sindh, Azad Jammu and Kashmir (AJK), and Khyber Pakhtunkhwa (KPK). All of these cases needs to be verified.

- The suspected cases of HIV/AIDS have been reported from Sindh and KPK. Field investigations are underway and blood samples are being collected.

All are suspected cases and need field verification.

Data collection — Analysis — Sharing — Reporting — Warehousing

Overview
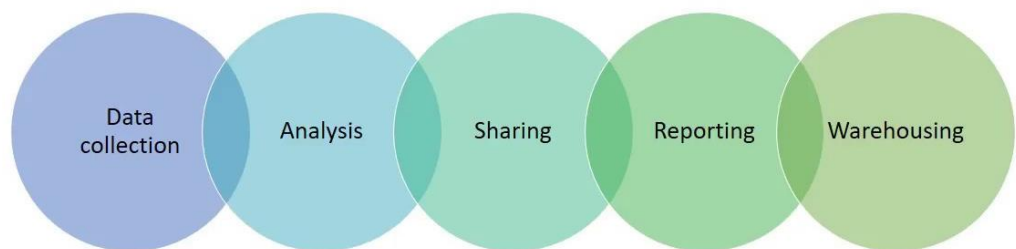
IDSR compliance attributes

- The national compliance rate for IDSR reporting in 125 implemented districts has increased from 68% to 75% for this week. The *overall compliance rate is good, but there is still need for improvement.*

- Islamabad Capital Territory is the only region with a compliance rate of 100% followed by Sindh province with 83%.

- The lowest compliance rate was observed in Balochistan province and Gilgit Baltistan.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	1570	1217	78
Azad Jammu Kashmir	397	306	77
Islamabad Capital Territory	18	18	100
Balochistan	1160	694	60
Gilgit Baltistan	93	42	45
Sindh	1901	1586	83
National	5139	3863	75

Pakistan

Table 1: Province/Area wise distribution of most frequently reported cases during week 25, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
ILI	2,313	4,832	45	756	5,193	NR	12,454	25,593
AD (Non-Cholera)	2,140	7,964	54	398	26,921	NR	43,608	81,085
Malaria	119	8,969	0	3	5,816	NR	56,112	71,019
B. Diarrhea	110	1,879	4	13	947	NR	2,931	5,884
Typhoid	49	1,452	8	2	1006	NR	1,722	4,239
SARI	427	932	51	0	1827	NR	368	3,605
ALRI < 5 years	842	2,158	51	2	1373	NR	8,973	13,399
CL	3	108	0	0	571	NR	0	682
AWD (S. Cholera)	111	494	12	0	56	NR	25	698
Measles	29	73	0	2	243	NR	40	387
Dog Bite	61	160	0	0	158	NR	584	963
Dengue	0	44	0	0	8	NR	41	93
VH (B, C & D)	10	124	0	0	86	NR	4,345	4,565
Gonorrhea	0	80	0	0	3	NR	39	122
Pertussis	6	162	0	0	8	NR	15	191
VL	0	23	0	0	0	NR	1	24
NT	1	0	0	0	4	NR	0	5
Mumps	109	153	8	3	115	NR	553	941
AFP	3	1	0	0	21	NR	12	37
Chickenpox/ Varicella	15	47	5	4	170	NR	53	294
AVH (A & E)	27	36	5	0	322	NR	585	975
Meningitis	0	6	0	0	1	NR	5	12
Syphilis	0	10	0	0	0	NR	4	14
Leprosy	0	11	0	0	15	NR	1	27
Diphtheria (Probable)	1	13	1	0	1	NR	0	16
Chikungunya	0	1	0	0	0	NR	0	1
Anthrax	0	16	0	0	0	NR	0	16
Brucellosis	0	25	0	0	15	NR	0	40
CCHF	0	0	0	0	0	NR	0	0
Rubella (CRS)	0	1	0	0	0	NR	0	1
HIV/AIDS	0	0	0	0	1	NR	6	7

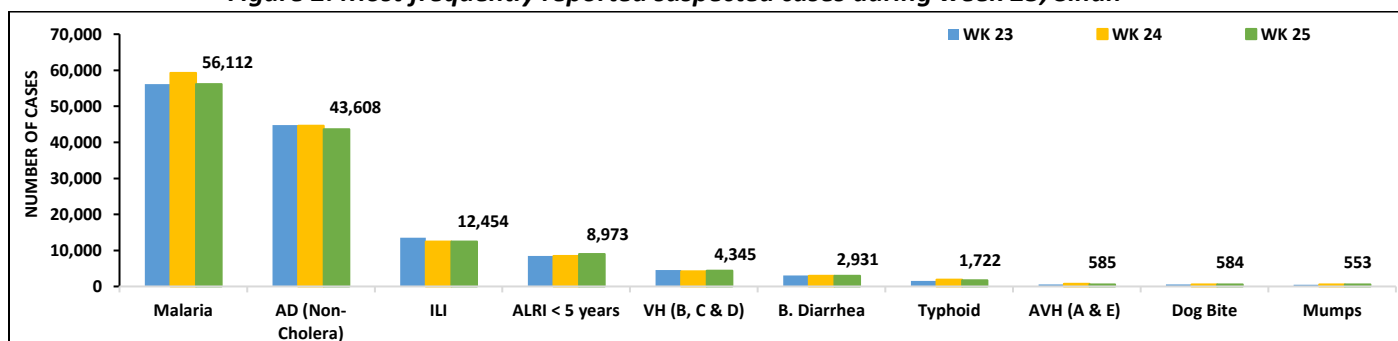*Figure 1: Most frequently reported suspected cases during week 25, Pakistan*
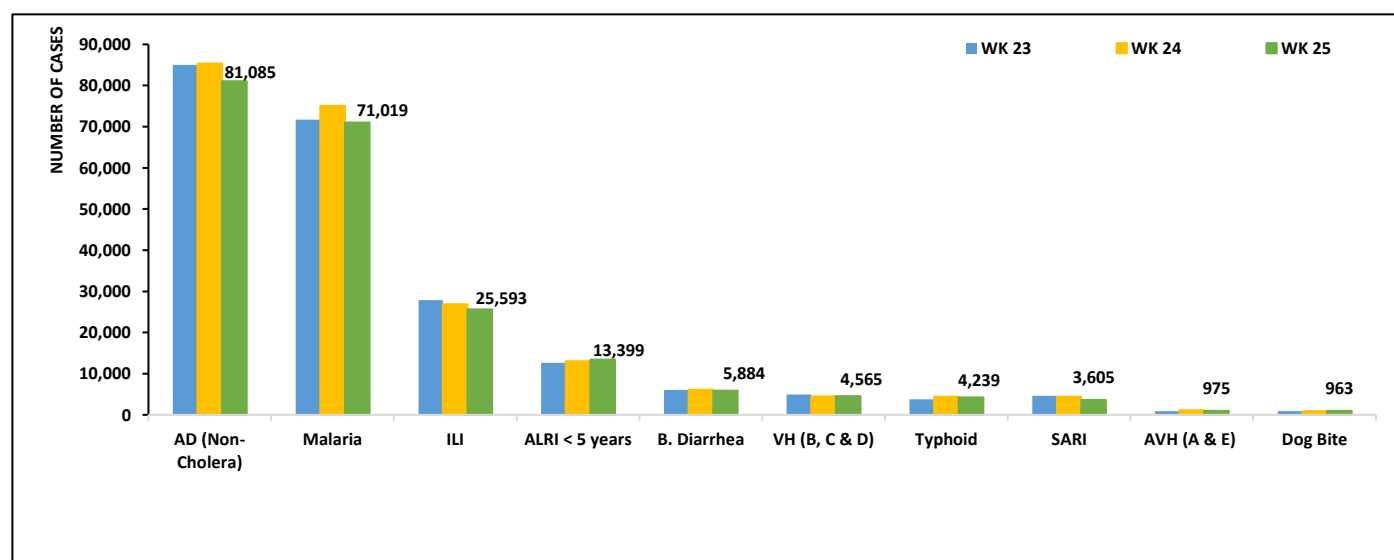
- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, VH (B, C, D), B. Diarrhea, Typhoid, SARI, dog bite and Mumps.
- There is decline in all cases reported this week from Sindh province.
- Malaria cases are from Kamber, Larkana, Umerkot and Sanghar whereas AD cases are mostly from Badin, Dadu, Sanghar, Khairpur and Shaheed Banazirabad.
- Cases of VH (B, C,D) are on rise and mostly reported from Matiari and Sanghar. Epidemiological investigations are required to verify cases and to control the disease.

Table 2: District wise distribution of most frequently reported suspected cases during week 25, Sindh

DISTRICTS	AD (Non-Cholera)	Malaria	ILI	ALRI < 5 years	B. Diarrhea	Typhoid	SARI	Measles	VH (B, C & D)	Dengue	Dog Bite
Badin	2,636	2,894	99	565	152	44	0	5	102	0	75
Dadu	3,768	4,251	80	886	232	241	35	2	0	0	0
Ghotki	1,035	843	0	327	117	34	0	3	362	0	0
Hyderabad	1,818	404	356	39	11	31	1	5	58	0	0
Jacobabad	2,006	1,299	20	1,136	174	12	1	3	187	0	62
Jamshoro	92	112	0	6	3	5	0	0	0	0	0
Kamber	2,258	6,058	0	245	131	13	0	0	57	0	0
Karachi Central	1,260	87	1,347	12	32	123	0	4	170	3	1
Karachi East	281	51	67	1	9	5	0	1	0	15	0
Karachi Keamari	416	7	184	23	2	5	0	0	0	0	0
Karachi Korangi	323	71	14	0	7	2	0	1	0	6	0
Karachi Malir	1,255	75	1,114	373	53	33	77	0	21	1	6
Karachi South	106	29	0	0	1	0	0	0	0	0	0
Karachi West	619	86	421	191	46	21	47	1	24	11	33
Kashmore	634	1,705	283	213	78	13	6	0	56	0	3
Khairpur	2,729	4,260	323	680	332	247	65	0	139	0	31
Larkana	1,977	9,281	0	204	230	18	2	0	542	0	0
Matiari	1,807	1,126	0	163	110	75	19	1	504	5	16
Mirpurkhas	2,861	3,174	2,722	310	110	37	39	0	73	0	2
Naushero Feroze	1,929	1,925	897	719	81	252	0	0	57	0	25
Sanghar	2,391	1,739	99	507	131	77	22	2	727	0	173
Shaheed Benazirabad	2,152	1,819	32	378	90	287	0	1	158	0	0
Shikarpur	1,212	1,302	0	145	101	4	0	3	174	0	0
Sujawal	608	669	0	66	18	0	0	0	0	0	0
Sukkur	1,835	2,703	1,628	339	236	14	1	5	416	0	0
Tando Allahyar	1,030	1,077	304	178	93	25	1	0	190	0	48
Tando Muhammad Khan	411	365	0	58	22	1	0	0	22	0	48
Tharparkar	1,222	1,918	1,288	358	96	23	0	0	47	0	0
Thatta	1,553	2,838	1,176	322	176	26	22	1	131	0	61
Umerkot	1,384	3,944	0	529	57	54	30	2	128	0	0
Total	43,608	56,112	12,454	8,973	2,931	1,722	368	40	4,345	41	584

*Figure 2: Most frequently reported suspected cases during week 25, Sindh*

Balochistan

- Malaria, AD (Non-Cholera), ILI, ALRI <5 years, B. Diarrhea, SARI, Typhoid, AWD (S. Cholera), Pertussis and Gonorrhea were the most frequently reported diseases from Balochistan province.
- Cases of ILI, AD and Malaria showed a decline trend this week.
- This week AWD (S. Cholera) cases are reported in high numbers from Mastug and Quetta districts, all are suspected cases and demand urgent field investigation...

Table3: District wise distribution of most frequently reported suspected cases during week 25, Balochistan

Districts	ILI	Malaria	AD (Non-Cholera)	ALRI < 5 years	SARI	B. Diarrhea	Typhoid	CL	Dog Bite	AWD (S. Cholera)
Awaran	38	474	63	30	20	48	27	3	1	47
Chagai	248	40	145	0	0	50	23	0	0	8
Duki	87	135	195	30	62	113	25	7	0	54
Gwadar	434	152	328	52	2	70	57	1	3	NR
Harnai	14	128	398	452	0	97	8	0	1	27
Jaffarabad	168	2,465	1,423	180	89	160	628	9	14	0
Jhal Magsi	0	869	353	49	4	19	18	0	32	14
Kachhi (Bolan)	20	129	139	8	26	10	58	0	0	0
Kalat	16	18	30	16	0	11	4	0	0	0
Kech (Turbat)	787	456	478	78	3	83	4	0	0	6
Kharan	176	149	123	0	0	76	7	0	0	2
Khuzdar	128	185	143	0	11	54	13	1	0	4
Killa Abdullah	21	0	26	0	16	1	0	9	0	2
Killa Saifullah	2	256	283	118	15	103	52	23	0	28
Kohlu	110	114	85	15	34	68	35	2	0	2
Lasbella	96	952	768	180	279	113	34	5	45	1
Loralai	271	67	230	41	111	87	36	0	0	3
Mastung	536	269	798	313	96	107	74	17	27	45
Musa Khail	85	245	74	9	1	22	25	0	6	30
Naseerabad	0	700	200	2	0	12	63	0	2	6
Nushki	0	152	214	0	13	87	0	0	0	40
Panjgur	85	207	207	88	1	53	42	3	0	14
Pishin	87	20	175	21	0	117	22	8	3	0
Quetta	822	27	423	44	13	123	46	9	0	88
Sherani	22	17	13	2	3	13	11	4	0	0
Sibi	84	450	198	32	25	35	76	3	21	26
SURAB	0	4	8	0	0	0	2	0	0	0
Washuk	173	124	113	8	40	30	27	4	0	9
Zhob	130	127	204	357	58	85	21	0	0	1
Ziarat	192	38	127	33	10	32	14	0	5	37
Total	4,832	8,969	7,964	2,158	932	1,879	1,452	108	160	494

Figure 3: Most frequently reported suspected cases during week 25, Balochistan

Khyber Pakhtunkhwa
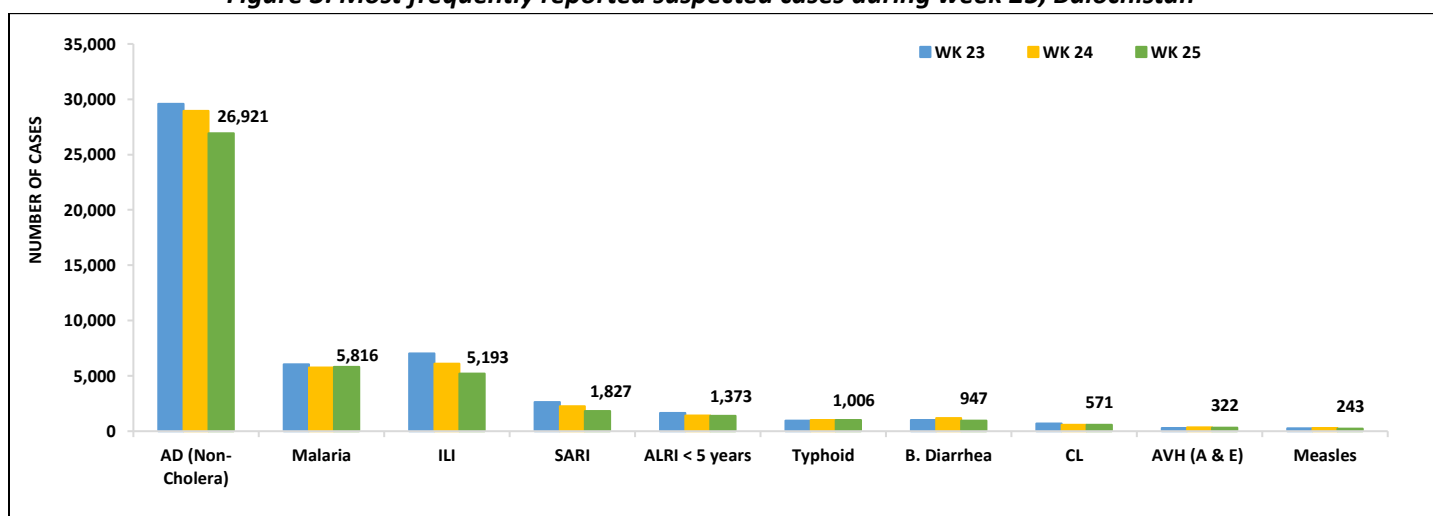
- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, SARI, ALRI<5 Years, Typhoid, B. Diarrhea, CL, AVH (A&E) and Measles cases.
- AD showed downward trend in cases this week whereas ILI and Malaria has upward trend.
- Cases of B. Diarrhea were mostly reported from Peshawar and Dir Lower. Further, 15 cases of suspected Cholera reported from Kohistan Upper.

Table 4: District wise distribution of most frequently reported suspected cases during week 25, KP

Diseases	AD (Non-Cholera)	Malaria	ILI	SARI	ALRI < 5 years	B. Diarrhea	Typhoid	Dog Bite	AWD (S. Cholera)	AVH (A & E)
Abbottabad	668	1	10	6	2	3	12	2	0	0
Bannu	623	1,014	77	0	6	10	40	0	0	0
Battagram	292	43	513	0	0	0	1	23	0	4
Buner	614	640	0	0	0	36	16	3	0	0
Charsadda	1,222	75	159	32	10	0	0	0	0	0
Chitral Lower	663	9	70	561	0	0	4	9	0	0
Chitral Upper	152	6	2	192	0	0	20	1	0	0
D.I. Khan	1,034	465	26	41	19	19	22	40	0	0
Dir Lower	2,058	825	171	209	228	154	88	22	0	135
Dir Upper	725	7	40	0	27	37	42	0	0	9
Hangu	293	210	409	173	9	16	20	1	0	18
Haripur	1,385	47	259	25	54	10	57	0	0	52
Karak	444	94	65	16	21	1	8	13	4	0
Khyber	10	13	72	2	1	7	6	0	0	1
Kohat	62	32	26	2	1	0	0	4	8	0
Kohistan Lower	75	4	0	189	10	18	0	0	1	0
Kohistan Upper	426	0	44	51	0	28	78	0	1	0
Kolai Palas	91	3	0	10	8	16	0	0	9	0
L & C Kurram	25	20	72	0	0	2	1	2	0	0
Lakki Marwat	719	1,140	0	0	20	16	25	0	0	0
Malakand	1,919	92	34	21	92	132	10	1	0	13
Mansehra	1,026	84	648	50	86	24	139	0	19	10
Mardan	1,184	36	594	20	231	47	6	2	2	2
Nowshera	1,560	39	64	9	6	44	16	0	0	7
Peshawar	2,924	76	818	39	266	216	128	6	0	13
Shangla	354	386	0	4	2	1	14	10	11	0
Swabi	1,931	38	958	70	210	24	51	1	0	38
Swat	4,060	49	62	86	62	35	185	7	0	19
Tank	279	224	0	0	0	23	5	0	0	0
Tor Ghar	103	144	0	19	2	28	12	11	1	1
Total	26,921	5,816	5,193	1,827	1,373	947	1,006	158	56	322

Figure 4: Most frequently reported suspected cases during week 25, KP
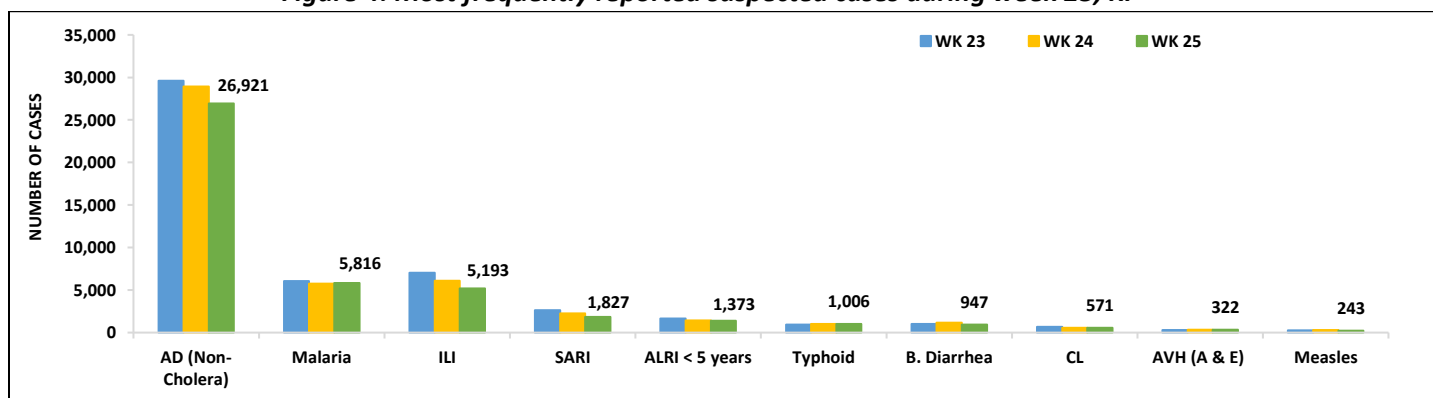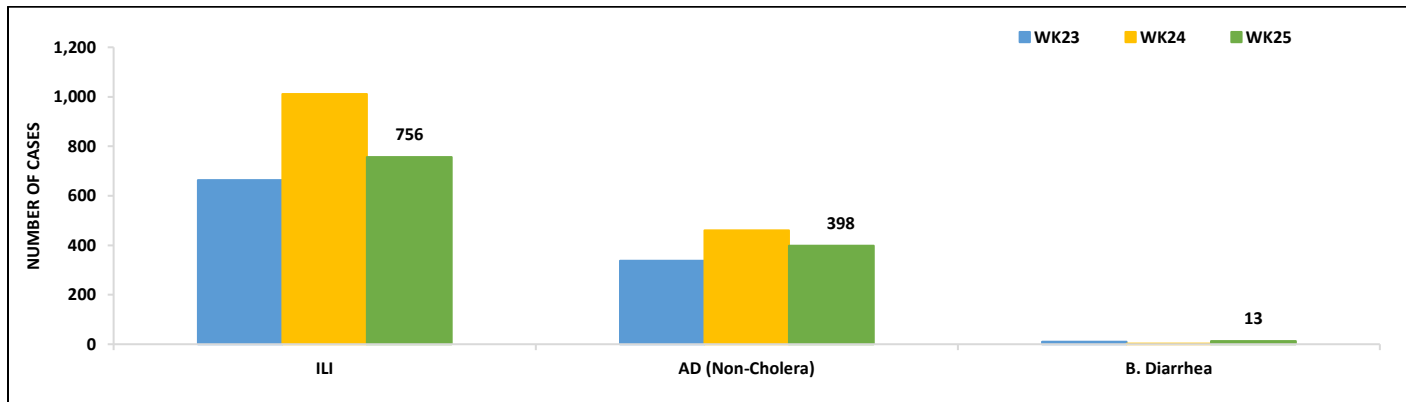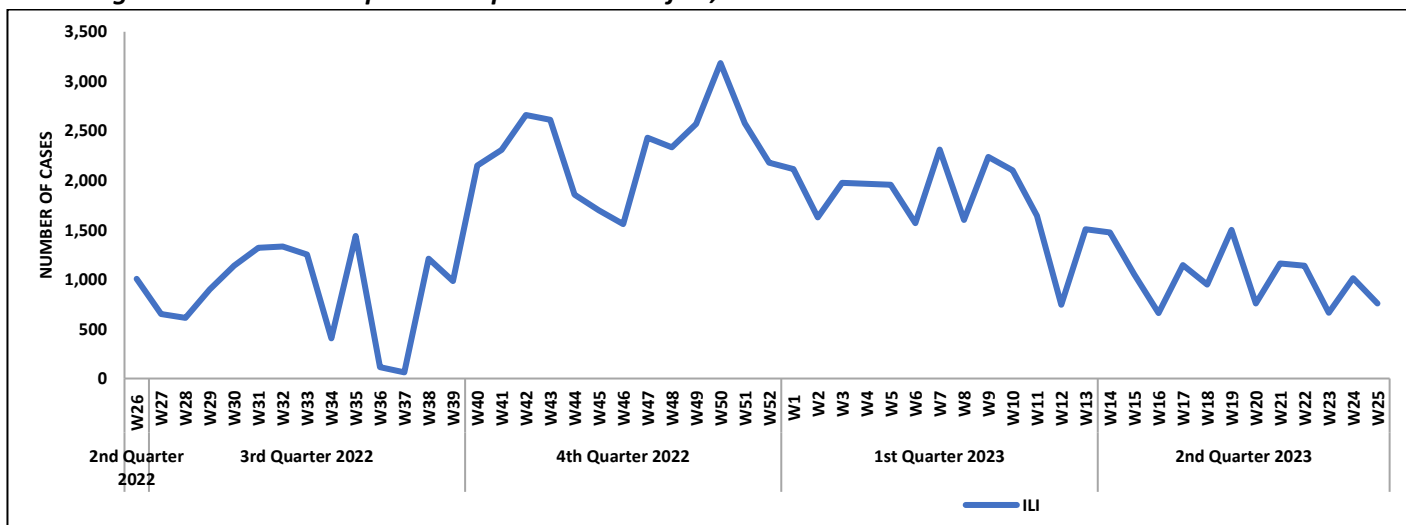
- **ICT**: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera). ILI cases showed steady trend in cases this week.

  AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, B. Diarrhea, Mumps, AWD (S. Cholera), Malaria, CL and Typhoid. 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 25, ICT

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

Figure 7: Most frequently reported suspected cases during week 25, AJK
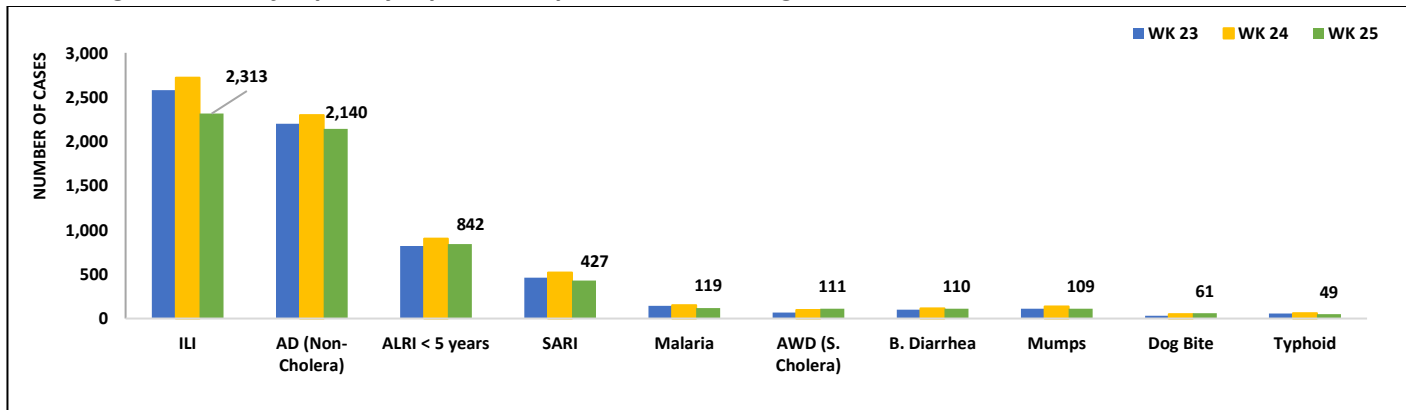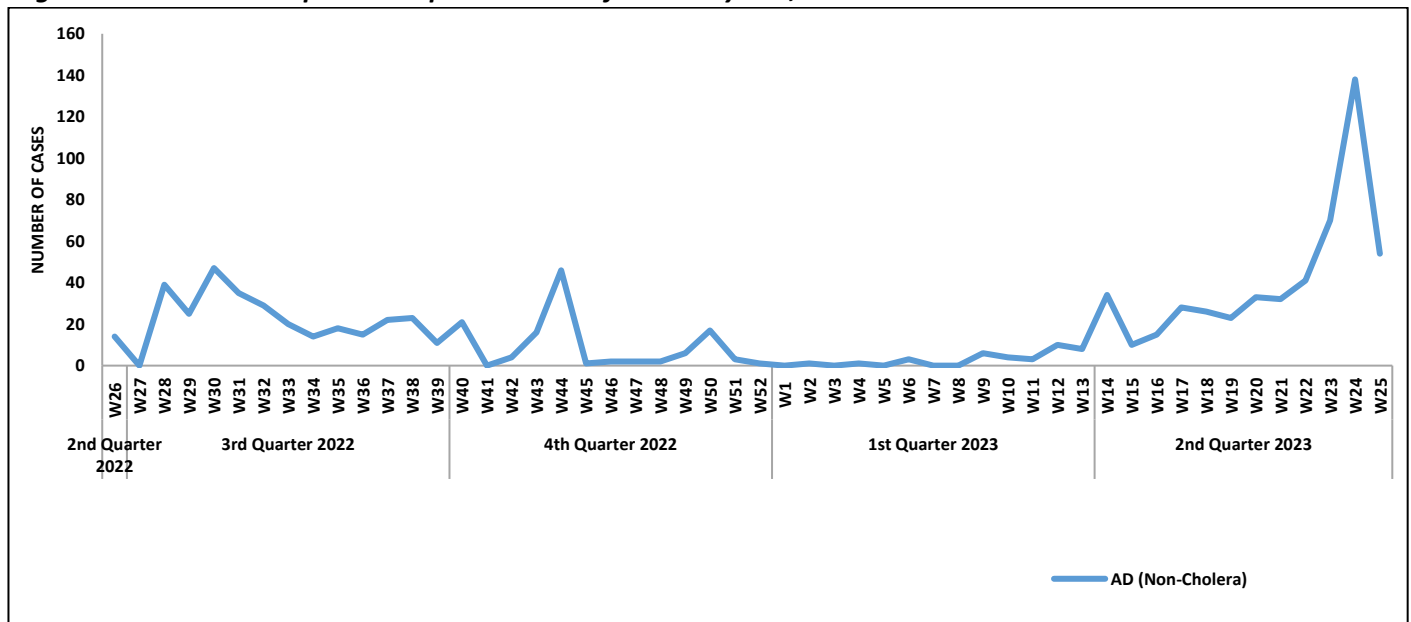
Figure 8: Week wise reported suspected cases of AD (Non-Cholera) and ALRI <5 years, AJK
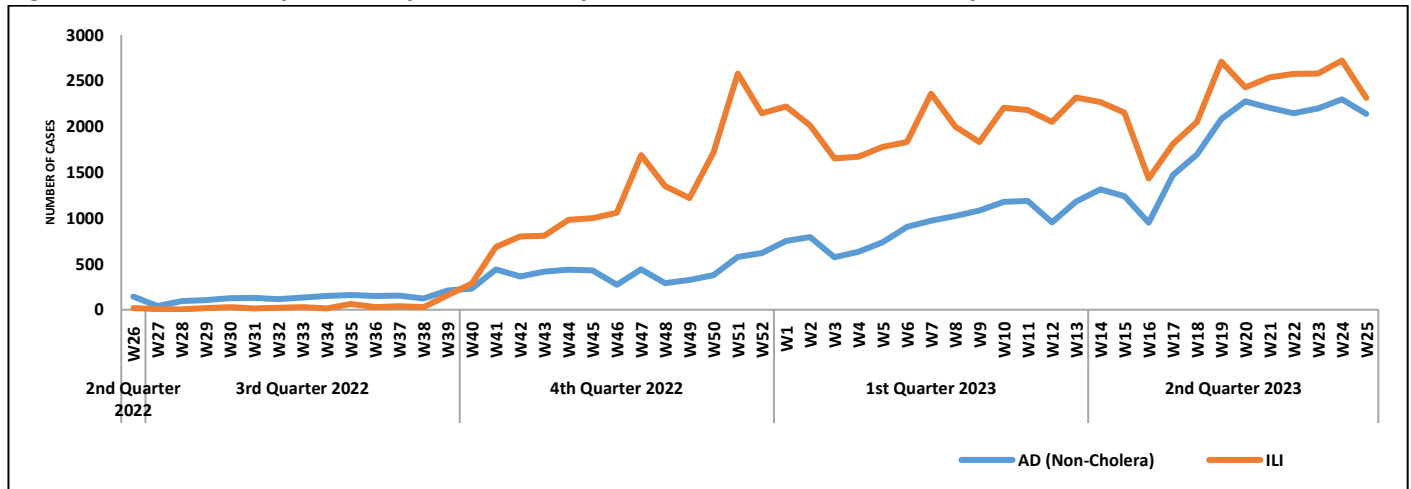
Figure 9: Most frequent cases reported during WK 25, GB
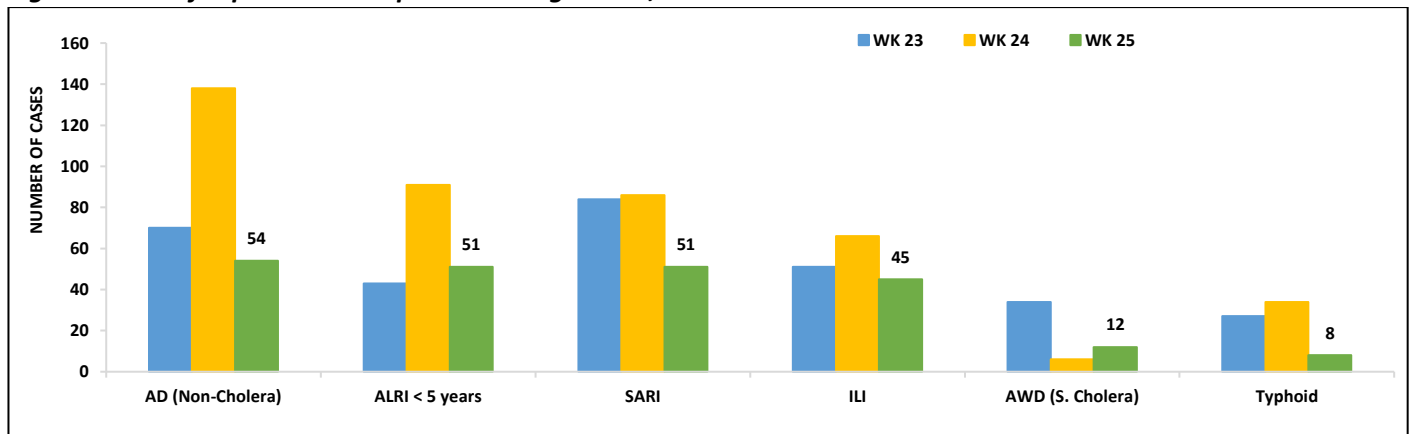
Figure 10: Week wise reported suspected cases of ALRI < 5 years, GB

Laboratory Confirmed Cases

Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epi week 25

Diseases	Sindh	KP	Balochistan	Punjab	Gilgit
Acute Watery Diarrhoea (S. Cholera)	3	-	-	-	-
Acute diarrhea(non-cholera)	2	-	-	-	-
Malaria	216	-	-	-	1
Dengue	18	-	-	-	-
Acute Viral Hepatitis(A)	1	1	-	-	-
Acute Viral Hepatitis(B)	95	-	-	-	1
Acute Viral Hepatitis(C)	142	-	4	-	-
Acute Viral Hepatitis(E)	14	-	-	-	-
Covid-19	0	-	0	0	-

IDSR Reports Compliance

Table 6: IDSR reporting districts Week 25

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	63	68%
	Battagram	43	43	11	26%
	Buner	34	34	29	85%
	Charsadda	61	61	50	82%
	Chitral Upper	33	33	9	27%
	Chitral Lower	35	35	29	83%
	D.I. Khan	89	89	72	81%
	Dir Lower	75	75	72	96%
	Dir Upper	55	55	39	71%
	Hangu	22	22	21	95%
	Haripur	69	69	61	88%
	Karak	34	34	34	100%
	Khyber	40	40	5	13%
	Kohat	59	59	58	98%
	Kohistan Lower	11	11	11	100%
	Kohistan Upper	20	20	20	100%
	Kolai Palas	10	10	10	100%
	Lakki Marwat	49	49	49	100%
	Malakand	42	42	33	79%
	Mansehra	133	133	78	59%
	Mardan	84	84	51	61%
	Nowshera	52	52	51	98%
	Peshawar	101	101	85	84%
	Shangla	36	36	6	17%
	Swabi	60	60	57	95%
	Swat	77	77	72	94%
	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	48	80%
	Muzaffarabad	43	43	43	100%
	Poonch	46	46	45	98%
	Bagh	41	41	29	71%
	Neelum	33	33	33	100%
	Jhelum Vellay	49	49	29	59%
	Sudhnooti	68	68	27	40%
Islamabad Capital Territory	ICT	18	18	18	100%
Balochistan	Gwadar	24	24	22	92%
	Kech	78	44	37	84%
	Khuzdar	136	20	17	85%
	Killa Abdullah	50	32	2	6%
	Lasbella	85	85	85	100%
	Pishin	118	23	9	39%
	Quetta	77	22	16	73%
	Sibi	42	42	22	52%
	Zhob	37	37	28	76%
	Jaffarabad	47	47	47	100%
	Naserabad	45	45	37	82%
	kharan	32	32	28	88%
	sherani	32	32	4	13%
	kohlu	75	75	20	27%

	Chagi	65	65	22	34%
	kalat	65	65	8	12%
	Musa khail	68	68	16	24%
	Harnai	36	36	17	47%
	Kachhi (Bolan)	35	35	13	37%
	Jhal Magsi	39	39	26	67%
	Mastung	45	45	42	93%
	Loralai	25	25	24	96%
	Killa Saifullah	31	31	26	84%
	Ziarat	42	42	11	26%
	Duki	31	31	30	97%
	Nushki	32	32	29	91%
	Washuk	25	25	14	56%
	Panjgur	38	38	24	63%
	Awaran	23	23	18	78%
Gilgit Baltistan	Hunza	31	31	31	100%
	Ghizer	62	62	11	18%
	Hyderabad	63	63	24	38%
	Ghotki	65	65	65	100%
	Umerkot	98	43	42	98%
	Naushahro Feroze	120	52	50	96%
	Tharparkar	292	100	97	97%
	Shikarpur	64	64	60	94%
	Thatta	53	53	52	98%
	Larkana	67	67	67	100%
	Kamber Shadadkot	71	71	70	99%
	Karachi-East	14	14	11	79%
	Karachi-West	20	20	20	100%
	Karachi-Malir	37	37	16	43%
	Karachi-Kemari	17	17	7	41%
	Karachi-Central	12	12	9	75%
	Karachi-Korangi	17	17	8	47%
Sindh	Karachi-South	4	4	2	50%
	Sujawal	31	31	31	100%
	Mirpur Khas	124	124	104	84%
	Badin	144	144	107	74%
	Sukkur	65	65	64	98%
	Dadu	90	90	87	97%
	Sanghar	101	101	100	99%
	Jacobabad	54	54	40	74%
	Khairpur	203	203	164	81%
	kashmore	59	59	59	100%
	Matiari	42	42	38	90%
	Jamshoro	70	70	10	14%
	Tando Allahyar	54	54	47	87%
	Tando Muhammad Khan	41	41	11	27%
	Shaheed Benazirabad	124	124	124	100%

Public Health Bulletin (PHB) Pakistan
Author Submission Checklist and Submission Formats

Text:

Always use a new Microsoft Word document to create your article. Do not use a previously created Word document as the basis (i.e., a template) for your article. All previous articles have underlying (often irremovable) coding that interferes with processing; making your article unusable. Maximum length of articles depends upon article type and excludes title, reported by, footnotes, references, and acknowledgments. Surveillance summary and outbreak investigation reports should not exceed 3,500 words in the main body of the text. Use of subheadings in the main body of the text is recommended. Illustrations are encouraged.

Report laboratory and epidemiologic results within a public health perspective. Explain the value of the reports in public health terms and place the findings in a larger perspective (i.e. "Here is what we found, and here is what the findings mean")

References and Endnotes:

Keep references preferably up to forty (40) with the most relevant and latest one. These are numbered in the order in which they are cited, first through the text, then through the figure and finally through the table legends.

Place citation numbers for references and endnotes within parentheses, italicized: (18, 19) (18-20) (18, 20-22). There should be only one reference list covering citations in the paper.

Each reference should have a unique number; do not combine references or embed references in notes. Any references to in-press manuscripts at the time of submission should be given a number in the text and placed, in correct sequence, in the references and notes.

Use Endnotes for information aimed at the specialist (e.g., procedures) or to provide definitions or further information to the general reader that are not essential to the data or arguments. Notes can cite other references (by number). Journal article references should be complete, including the full list of authors, the full titles, and the inclusive pagination. Titles are displayed in the online HTML version, but not in the print or the PDF versions of papers.

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 Notes from the field

Notes from the field:

These are abbreviated reports intended to advise target audience of ongoing or recent events of concern to the public health community without waiting for development of a Full Report. Events of concern include outbreaks, unusual disease clusters, poisoning and notable public health-related case reports. These reports may contain preliminary results and hypotheses regarding risk factors and exposures. No definitive conclusions need to be presented in these notes.

a. Format: The ideal length of the text is 500 words. Longer submission might be accepted but the justification for exceeding the 500- word limit should be discussed with the managing editor before submission. Notes from the field should contain a brief introduction describing the onset of the event and when and how it was identified, followed by description of the investigation, magnitude, and extent of the event (eg, number of known cases or geographical occurrence), outcomes (e.g., hospitalizations or deaths), and any preliminary conclusions. Public health actions that have been taken to control the current situation and recommendations given to the concerned authorities for preventing recurrences in future should be incorporated in the notes as well. Contributors should check previously published articles similar to their proposed submission to determine its optimal format and structure.

b. Tables and figures. One table, one figure and one summary box will be included particularly if text could be shortened.

c. References: These should be kept relevant and the latest one. (See details in Author submission checklist and submission formats)

d. Criteria for authors: Because these reports are abbreviated, attribution should be strictly limited to those persons or organizations responsible for writing the report or to whom public inquiries should be directed.

Measles/Rubella Outbreak Case Response Investigation and vaccination Campaign in District Lahore, 19th-24th June, 2023

Report by:
Dr. M Mohsan Watto,
Epidemiologist MIS Punjab

Background:

On 19th June 2023, Measles outbreak case response campaign for children aged 6 month upto 5 years was carried out in 10 districts of Punjab including Gujranawala, Hafizabad, Jhang, Kasur, Lahore, Narrowal, Rawalpindi, Sheikhupura, Sialkot and TT Singh. In response to this, Director General Health Services constituted a team comprising of Epidemiologist/Additional Director Health Services (ADHS) MIS Punjab, Medical Officer (MO) EPI, and Director General Health Management team Punjab. Objectives of the field visit and outbreak investigation were to determine the magnitude of outbreak, to explore the risk factors and to formulate recommendations for prevention and control.

Methodology:

Field visit Setting: The Measles/Rubella (MR) Outbreak Case Response Campaign in District Lahore Punjab.

Duration: The field visit was conducted from 19-24th June 2023.

Case Definition: Sudden onset of fever and maculopapular rash and any one of the following signs and symptoms of cough, coryza and conjunctivitis with laboratory confirmation" presenting between 1st January, 2023 to 19th June 2023 in a resident of District Lahore.

Active case finding was carried out in the respective union council and surrounding vicinity. The data was collected using a semi-structured questionnaire from house to house-active case finding search. Pre-tested questionnaire was adopted to collect demographic, clinical, Vaccination history and risk factor information. Hospital records and vaccination cards were also reviewed. Descriptive analysis was done on Epi Info 7.0®. Data was presented in the form of tables, charts and graphs.

Results:

Total 1140 Suspected cases and 495 confirmed cases were identified in the district Lahore by district line listing and active case finding. Town wise geographical distribution of cases was as below

Union Council wise distribution of Suspected / Confirmed Measles / Rubella Cases in District Lahore from 1 Jan to 19 June 2023
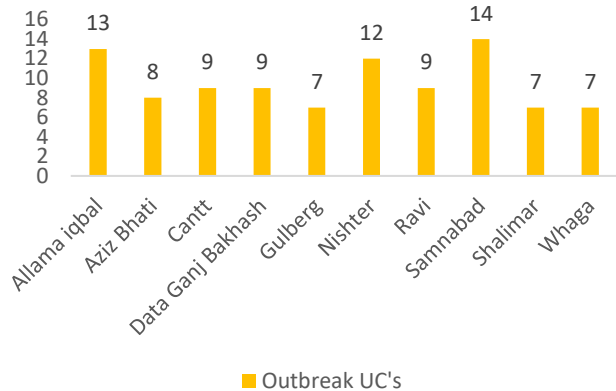
Most of the cases were reported from Samanabad town (265) followed by Allama Iqbal town (123)

Suspected / Confirmed Measles / Rubella Cases in District Lahore from 1 Jan to 19 June 2023
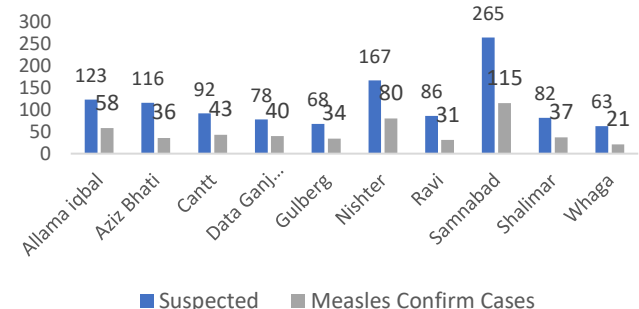
In response to the outbreak, a response immunization was organized with the support of Directorate General Health Services, Punjab. A response immunization involving 989,491 children from 6 to 59 was implemented and overall coverage of 99% (range: 95% - 105%) was achieved.

Measles / Rubella Outbreak Cases Response Campaign from 19-24 June 2023				
District	Total UCs	Cumulative 6 days target	Target Children Vaccinated 6-59 Months	%
Lahore	80	1,002,923	989,491	99%

WHAT IS KNOWN	WHAT IS ADDED	HEALTH IMPLICATIONS
• Measles is a highly contagious viral illness that can cause serious complications, including pneumonia, encephalitis, and death. • Measles vaccine is one of the safest and most effective vaccines available.	• Total covered UC's in Lahore are 80 & Cumulative 6 days target was **1,002,923** out of which 989,491 Target Children Vaccinated 6-59 Months which is around 99%	• *Measles outbreak in Lahore, was largely due to increased susceptible children in the community.* • *Policy level interventions are needed to address the gaps in surveillance and routine immunization*

CONCLUSION:

The investigator reported that measles outbreak in Union Councils, Tehsil & District Lahore, was largely due to increased susceptible children in the community. The susceptible children were unvaccinated which are highly at risk might be the probable cause of outbreak in the affected Union Council and the surrounding vicinity. Lack of effective monitoring mechanisms and VPD surveillance together also lead to such a massive outbreak.

Recommendations

Mop-up activities by DHMT must be done in the affected Union Councils and surrounding vicinity of in the Union Council, Vitamin A shall be given to all the eligible children. Further it is highly recommended and advised to district team to established a health camp in union councils and surroundings in which the supplementary and routine immunization activities must be expedite to prevent future outbreaks and other VPDs and there should be strong surveillance activities accompanied monitoring and supervision by DHMT. Policy level interventions are needed to address the gaps in surveillance and routine immunization if such outbreaks are to be prevented in the future

Response Report of UC Babuzai on Fever of Unknown Origin (FUO)

Reported by:
District Health officer Mardan, KPK

Introduction

A fever of unknown origin (FUO) outbreak has been reported in UC Babuzai, District Mardan, Pakistan. The outbreak began on June 13, 2023, and as of June 26, 2023, a total of 41 cases have been reported. The cases are all from UC Babuzai, and the majority of the patients are children.

Methods

The District Health Department team conducted the investigation. The team visited the homes of the patients, interviewed them, and collected blood samples. The blood samples were tested for Salmonella Typhi, the bacteria that causes typhoid fever.

Results

Of the 41 blood samples, 06 were found positive for Salmonella Typhi. All positive patients were diagnosed with XDR typhoid. The remaining 35 blood samples were negative for Salmonella Typhi.

Discussion

The probable source of the outbreak is the water contamination in pipelines connected with a local spring. The residents of UC Babuzai for drinking and

cooking use the water from this spring. The water samples that were collected from the spring were tested for Salmonella Bacteria, and the results are still pending.

Classification	Case Definition
Non-resistant Typhoid fever	Typhoid fever caused by *Salmonella* Typhi and/or *Salmonella* Paratyphi A, B or C strains which are sensitive to first-line drugs[1] and third generation cephalosporins[2], with or without resistance to second-line drugs[3].
Multi-drug resistant (MDR) Typhoid fever	Typhoid fever caused by *Salmonella* Typhi and/or *Salmonella* Paratyphi A, B or C strains which are resistant to the first-line recommended drugs for treatment, with or without resistance to second-line drugs.
Extensive Drug Resistant (XDR) Typhoid fever	Typhoid fever caused by *Salmonella* Typhi strain which are resistant to all the recommended antibiotics for typhoid fever[4].

1. Chloramphenicol, ampicillin, trimethoprim
2. Cefixime, Ceftriaxone.
3. Fluoroquinolones
4. First and second-line drugs and third generation cephalosporin

Conclusion

The District Health Department team is taking the following actions to control the outbreak:

- Providing health education to the local community on clean drinking water and personal hygiene practices.
- Disseminating information regarding the prevention of enteric fever through Jummah sermons and elders of the community.
- Meeting with District Health Department team, District Administration and local elders in which sign, symptoms and preventive measures were thoroughly explained.
- Directing the Public Health Engineering Department to clean the water reservoirs of UC Babuzai.
- Providing AquaTabs to effected families.
- Increasing the number of samplings for Salmonella Typhi.

Way Forward

The District Health Department team will continue to monitor the outbreak and take all necessary measures to control it. The team will also work with the Public Health Engineering Department to ensure that the water supply in UC Babuzai is safe to drink.

Outbreak Investigation Report on Neonatal Tetanus in Rawalpindi, 2023

Reported by:
Dr. Ehsan Ghani, DHO (Preventive Services), Rawalpindi, Punjab

Introduction

Neonatal tetanus is a severe illness that can be fatal for newborns. It is caused by a bacterium called Clostridium tetani, which can live in soil and dust. The bacterium enters the body through a break in the skin, such as a cut or tear. Once inside the body, the bacterium produces a toxin that causes muscle spasms. These spasms can be so severe that they can cause death.

A recent outbreak of neonatal tetanus in Rawalpindi has raised concerns and warrants an investigation. This report describes the findings of the outbreak investigation on neonatal tetanus cases in Rawalpindi.

Methods

A retrospective review of 20 cases of neonatal tetanus during the outbreak period was conducted. The data collected included demographic information (age and gender), mortality, and type of health professional attending the delivery, place of delivery, instrument used for cutting the umbilical cord, and maternal vaccination status.

Results

A total of 20 cases of neonatal tetanus were reported. The mean age of the affected neonates was 7 days with a standard deviation of 2.26 days. Among the cases, 15 (75%) were male and 5 (25%) were female. Of the total cases reported, 14 (70%) died. In 15 (75%) of the cases, delivery was attended by a dai, whereas a doctor attended only 5 (25%) cases. Home delivery was reported for 14 (70%) cases while hospital deliveries accounted for the remaining 6 (30%). In 14 (70%) cases, a blade was used to cut the umbilical cord, while scissors were used in 6 (30%) cases. Maternal vaccination against tetanus was reported in only three (15%) mothers; the remaining 17 (85%) had not received a tetanus vaccine.

Discussion

The results of this investigation suggest that the recent outbreak of neonatal tetanus in Rawalpindi

was likely caused by a combination of factors, including:

- Low maternal vaccination coverage against tetanus.
- Inadequate hygiene practices during childbirth, such as cutting the umbilical cord with an unsterilized blade.
- Delivery at home by traditional birth attendants who may not have been trained in safe delivery practices.

To prevent future outbreaks of neonatal tetanus, it is important to:

- Increase maternal vaccination coverage against tetanus.
- Promote safe delivery practices, such as cutting the umbilical cord with a sterile blade and washing hands with soap and water before and after delivery.
- Provide training to traditional birth attendants on safe delivery practices.

Conclusion

This outbreak investigation report has identified a number of factors that may have contributed to the recent outbreak of neonatal tetanus in Rawalpindi. By taking steps to address these factors, we can help to prevent future outbreaks and save the lives of children.

What is CCHF?

Crimean-Congo hemorrhagic fever (CCHF) is a viral illness that can be fatal. It is caused by a virus called Crimean-Congo hemorrhagic fever virus (CCHFV), which is spread to humans through contact with the blood or tissues of infected animals, such as livestock (e.g., sheep, goats, cattle), ticks, or humans.

Symptoms of CCHF

The symptoms of CCHF typically appear 2 to 14 days after infection. They can include fever, headache, muscle pain, backache, fatigue, sore throat, and gastrointestinal symptoms such as nausea, vomiting, and diarrhea. In some cases, patients may also experience bleeding from the eyes, nose, gums, or other orifices.

Treatment for CCHF

There is no specific treatment for CCHF. Treatment is supportive and may include measures such as providing fluids, oxygen, and medications to manage symptoms.

Prevention of CCHF

The best way to prevent CCHF is to avoid contact with infected animals and ticks. This can be done by:

- Avoiding contact with livestock, especially during birthing and slaughtering.
- Wearing protective clothing when working with livestock or in areas where ticks are common.
- Using insect repellent when outdoors in areas where ticks are common.
- Checking for ticks after being outdoors and removing any ticks that are found.
- Getting vaccinated against CCHF.

Health education and public awareness message

CCHF is a serious illness that can be fatal. However, it can be prevented by taking steps to avoid contact with infected animals and ticks. Here are some important messages to raise public awareness about CCHF:

- CCHF is a viral illness that can be spread to humans through contact with the blood or tissues of infected animals, such as livestock (e.g., sheep, goats, cattle), ticks, or humans.
- The symptoms of CCHF typically appear 2 to 14 days after infection and can include fever, headache, muscle pain, backache, fatigue, sore throat, and gastrointestinal symptoms such as nausea, vomiting, and diarrhea. In some cases, patients may also experience bleeding from the eyes, nose, gums, or other orifices.
- There is no specific treatment for CCHF. Treatment is supportive and may include measures such as providing fluids, oxygen, and medications to manage symptoms.
- The best way to prevent CCHF is to avoid contact with infected animals and ticks. This can be done by wearing protective clothing, using insect repellent, checking for ticks after being outdoors, and getting vaccinated against CCHF.

If you think you may have been exposed to CCHF, it is important to seek medical attention immediately.

File picture of Hyaloma Tick
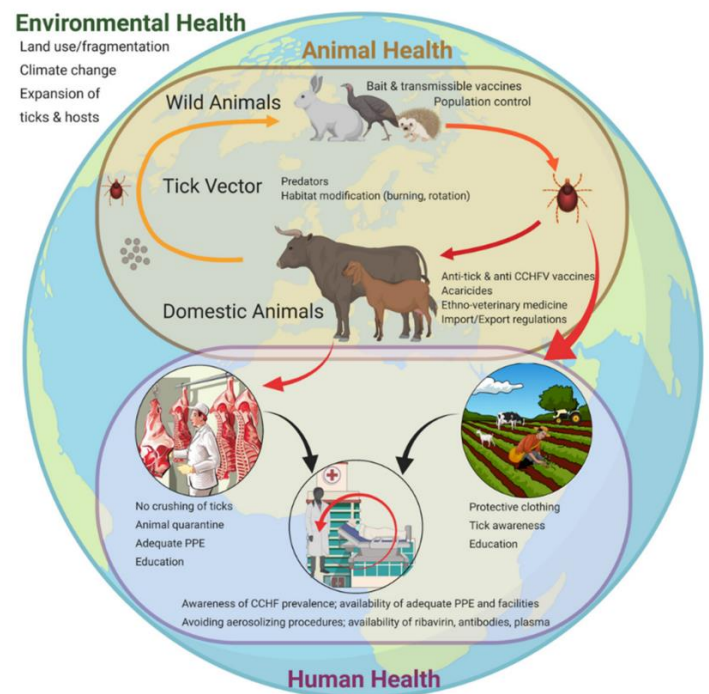
Help Protect Your Baby from Group B Strep

Group B Streptococcus (GBS) bacteria are the leading cause of bacteremia, sepsis, pneumonia, and meningitis in newborns

Body temperature
- Fever or low or unstable temperature
- Hands and feet may still feel cold even with a fever

Eating Habits
- Feeds poorly or refuses to eat
- Not waking for feedings

Sleeping Habits
- Sleeping too much
- Difficulty being aroused

Breathing
- Fast, slow, or difficult breathing

(Note: Being unable to latch can be a sign of breathing difficulties)

Sounds
- High-pitched cry
- Shrill moaning
- Whimpering
- Inconsolable crying
- Constant grunting or moaning as if constipated or in distress

Behavior
- Marked irritability
- Projectile vomiting
- Reacting as if skin is tender when touched
- Listless
- Floppy
- Not moving an arm or leg
- Blank stare
- Body stiffening
- Uncontrollable jerking

Appearance of skin
- Blue, gray, or pale skin due to lack of oxygen
- Blotchy or red skin
- Tense or bulgy spot on top of head (fontanel)
- Infection (pus and/or red skin) at base of umbilical cord or in puncture on head from an internal fetal monitor

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July is International Group B strep disease Awareness Month!

➢ About 1 in 4 pregnant women "carry" or are "colonized" with group B strep

➢ There are three types of perinatal Group B Strep disease, each with their own prevention challenges:

✓ Prenatal-onset (before birth)
✓ Early-onset (EOS first 6 days of life)
✓ Late-onset (7 days of age through usually 3 months of age)

➢ *GROUP B STREP DISEASE is a leading cause of sepsis and meningitis in newborns according to the U.S Centers for Disease Control and Prevention (CDC)*

➢ It is now recommended as standard of care in several countries for all pregnant women to be routinely tested for Group B strep disease with a vaginal/rectal swab test during the 36th or 37th week during **each** pregnancy unless their urine already cultured positive in the current pregnancy

➢ Group B strep disease colonization is transient which means that a woman could test negative, but be colonized later in pregnancy and vice versa

➢ Group B strep disease is a fast-acting type of bacteria so it is imperative that **everyone** who takes care of baby knows the symptoms of possible Group B strep disease infection in babies and how to respond it.

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