

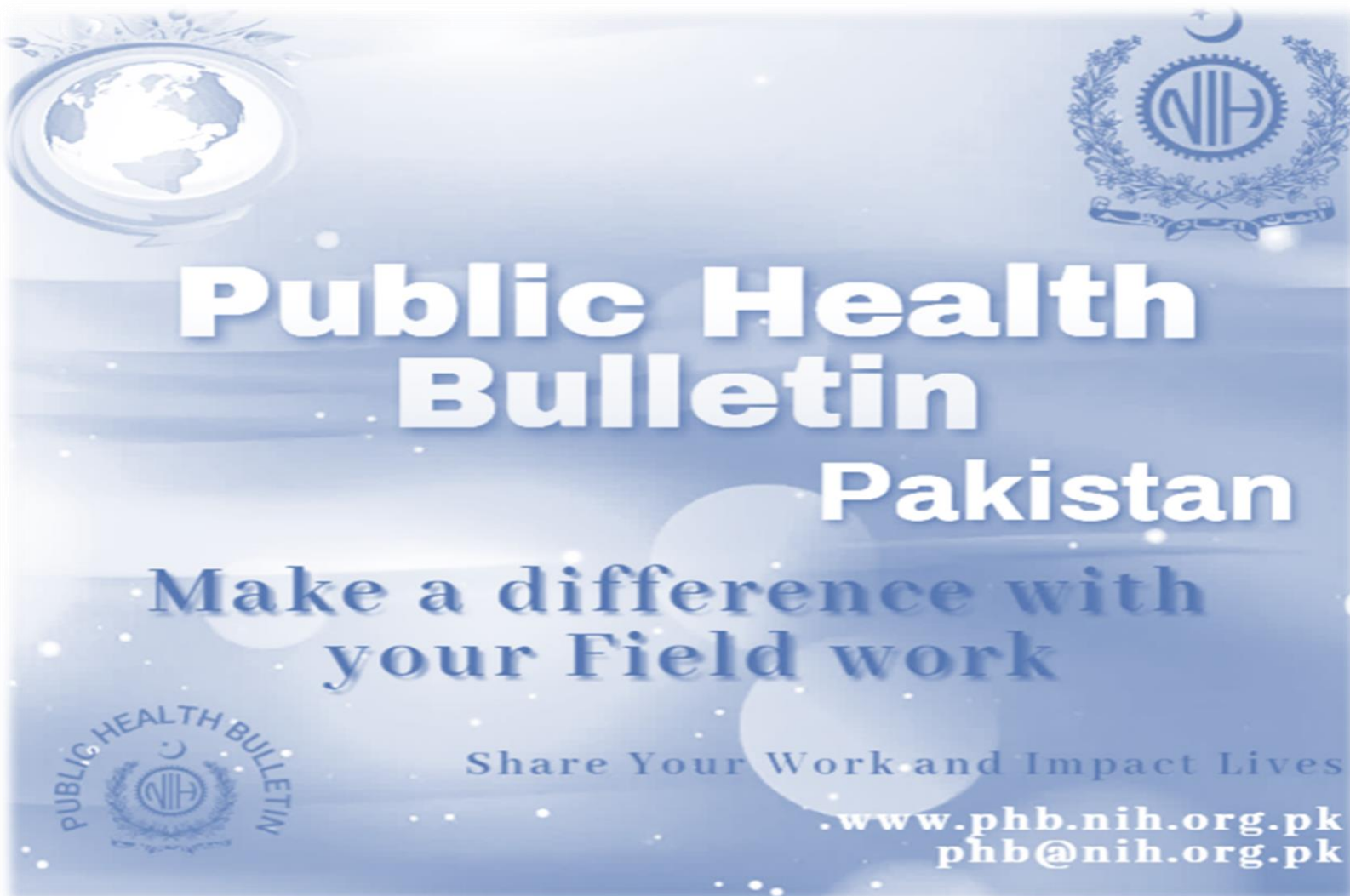
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

Vol. 5 | Week 10
03rd MAR – 09th MAR
28th March, 2025

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.



Overview

IDSR Reports

Public Health Bulletin - Pakistan, Week 10, 2025

Ongoing Events

Field Reports

The Public Health Bulletin (PHB) provides timely, reliable, and actionable health information to the public and professionals. It disseminates key IDSR data, outbreak reports, and seasonal trends, along with actionable public health recommendations. Its content is carefully curated for relevance to Pakistan's priorities, excluding misinformation. The PHB also proactively addresses health misinformation on social media and aims to be a trusted resource for informed public health decision-making.

This Weeks Highlights include;

- *Letter to Editor on Climate Change and Shifting Risks*
- *Outbreak Investigation of Pertussis in Valma District, Pishin – March 2025*
- *Knowledge hub on Crimean-Congo Hemorrhagic Fever*

By transforming complex health data into actionable intelligence, the Public Health Bulletin continues to be an indispensable tool in our collective journey toward a healthier Pakistan.

Subscribe to the Weekly Bulletin today at <http://www.phb.nih.org.pk/>

Stay informed. Stay prepared. Stay healthy.

*Sincerely,
The Chief Editor*

- During Week 10, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, TB, ALRI <5 years, dog bite, B. Diarrhea, VH (B, C & D), Typhoid and SARI.
- Twenty-seven cases of AFP reported from Punjab, fifteen from KP, nine from Sindh, three from AJK and one from Balochistan.
- Twenty-one suspected cases of HIV/ AIDS reported from Punjab, four from KP and two each from Sindh and Balochistan.
- Five suspected cases of Brucellosis reported from KP.
- Among VPDs, there is an increase in number of cases of Measles, Mumps, Chickenpox and Pertussis this week.
- Among respiratory diseases, there is an increase in number of cases of SARI this week.
- Among food/ water-borne diseases, there is an increase in number of cases of B. Diarrhea this week.
- Among vector-borne diseases, there is an increase in number of cases of Malaria this week.
- Among STDs, there is an increase in number of cases of HIV/AIDs this week
- Among other diseases, there is an increase in number of cases of dog bite this week.
- Field investigation is required for verification of the alerts and for prevention and control of the outbreaks.

IDSR compliance attributes

- The national compliance rate for IDSR reporting in 158 implemented districts is 82%
- Sindh is the top reporting regions with a compliance rate of 97%, followed by AJK 94%, GB 93% and ISB 81%.
- The lowest compliance rate was observed in KP 74% and Balochistan 66%.

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2315	1707	74
Azad Jammu Kashmir	404	378	94
Islamabad Capital Territory	36	29	81
Balochistan	1307	865	66
Gilgit Baltistan	405	376	93
Sindh	2098	2034	97
National	6565	5389	82

Public Health Actions

Federal, Provincial, Regional Health Departments and relevant programs may consider following public health actions to prevent and control diseases.

Typhoid

- **Enhance Case Detection and Reporting:** Strengthen typhoid surveillance within the Integrated Disease Surveillance and Response (IDSR) system by training healthcare providers on standard case definitions, timely notification, and outbreak detection, particularly in high-burden and underserved areas.
- **Improve Laboratory Diagnosis:** Expand laboratory diagnostic capacity for typhoid by supporting culture and sensitivity testing for MDR and XDR typhoid at district and provincial levels to confirm cases and guide antimicrobial stewardship.
- **Promote Water, Sanitation, and Hygiene (WASH):** Collaborate with relevant sectors to ensure access to safe drinking water, improve sanitation infrastructure, and promote hygiene practices, especially hand washing with soap.
- **Implement Vaccination Strategies:** Support the scale-up of Typhoid Conjugate Vaccine (TCV) through routine immunization and targeted campaigns in high-risk populations.
- **Raise Community Awareness:** Develop culturally appropriate health education campaigns to inform communities about transmission routes, preventive behaviors (e.g., safe food handling and hygiene), and the importance of early care-seeking.

Acute Viral Hepatitis (A & E)

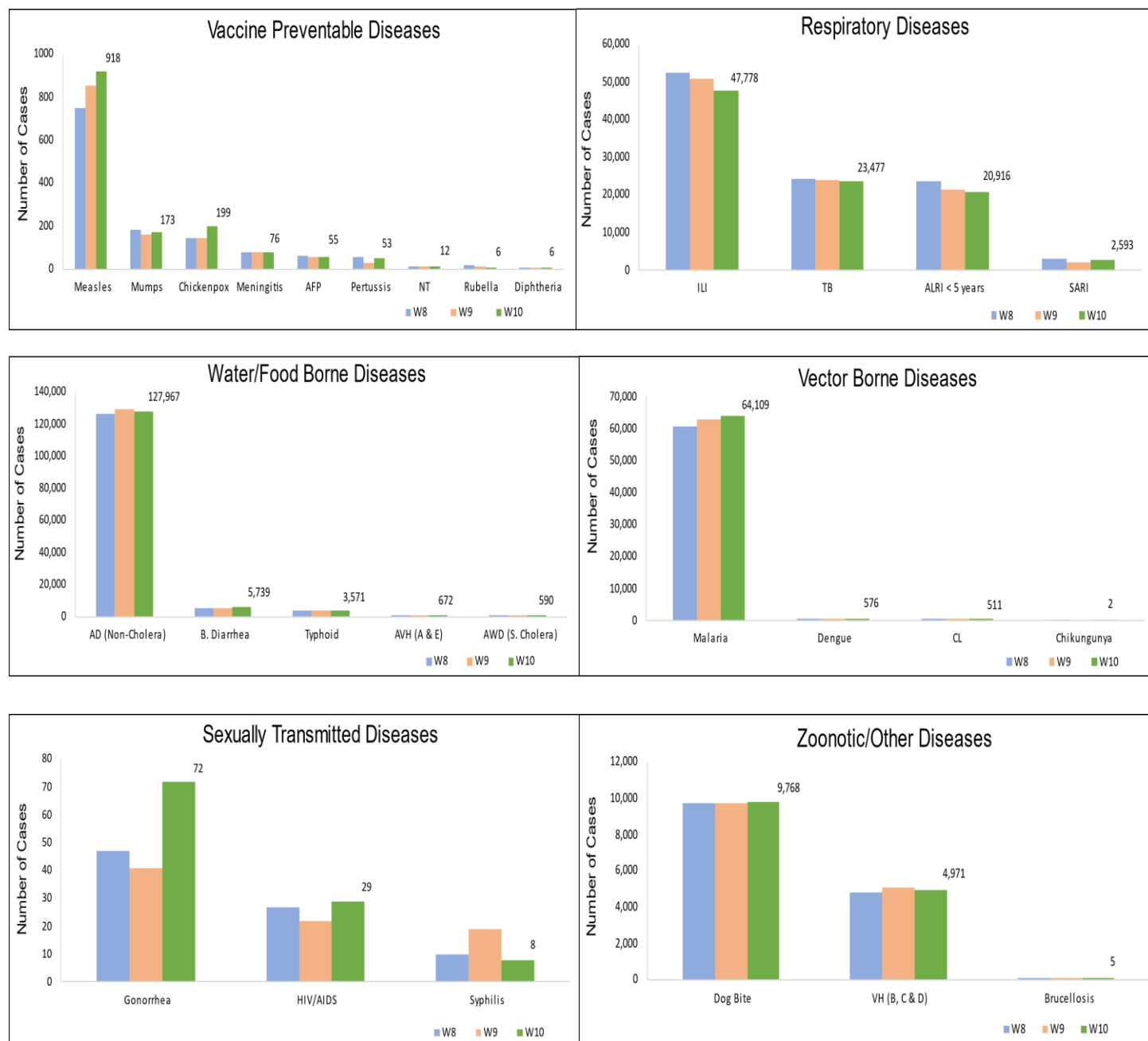
- **Enhance Case Detection and Reporting:** Strengthen hepatitis A and E surveillance in the IDSR system by training health personnel to recognize symptoms and ensure timely reporting, especially during seasonal peaks or in outbreak-prone areas.
- **Strengthen Laboratory Confirmation:** Improve diagnostic capacity by ensuring availability of rapid and confirmatory tests (e.g., IgM for HAV/HEV) at regional laboratories to facilitate timely outbreak response.
- **Improve WASH Infrastructure:** Coordinate with municipal and rural development authorities to upgrade water supply systems, prevent sewage contamination, and promote latrine use to interrupt fecal-oral transmission.
- **Engage in Risk Communication:** Design and disseminate targeted messages through community channels to raise awareness about safe drinking water, personal hygiene, food safety, and the risks of consuming contaminated water or raw produce



Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 10, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	999	5,695	506	239	17,234	61,568	41,726	127,967
Malaria	0	3,822	0	0	2,985	2,185	55,117	64,109
ILI	1,786	7,766	412	960	5,630	0	31,224	47,778
TB	40	151	49	9	299	11,379	11,550	23,477
ALRI < 5 years	949	2,229	961	19	1,346	2,155	13,257	20,916
Dog Bite	135	146	11	0	727	5,261	3,488	9,768
B. Diarrhea	30	1,154	50	1	876	517	3,111	5,739
VH (B, C & D)	15	125	2	0	105	0	4,724	4,971
Typhoid	18	406	90	0	452	1,560	1,045	3,571
SARI	151	998	191	2	985	0	266	2,593
Measles	11	46	7	1	416	337	100	918
AVH (A & E)	11	2	3	0	212	0	444	672
AWD (S. Cholera)	2	103	11	0	44	420	10	590
Dengue	0	0	0	0	1	550	25	576
CL	0	78	0	0	430	3	0	511
Chickenpox/ Varicella	0	15	2	4	52	11	115	199
Mumps	7	19	3	0	78	3	63	173
Meningitis	2	0	0	0	10	50	14	76
Gonorrhea	0	42	0	0	13	0	17	72
AFP	3	1	0	0	15	27	9	55
Pertussis	0	39	6	0	3	0	5	53
HIV/AIDS	0	2	0	0	4	21	2	29
NT	0	0	0	0	9	3	0	12
Syphilis	0	1	0	0	0	0	7	8
Diphtheria	0	0	0	0	4	2	0	6
Rubella	0	0	0	0	0	6	0	6
Brucellosis	0	0	0	0	5	0	0	5
Chikungunya	0	0	0	0	0	0	2	2

Figure 1: Most frequently reported suspected cases during Week 10, Pakistan.



- Malaria cases were maximum followed by AD (Non-Cholera), ILI, ALRI<5 Years, TB, VH (B, C, D), dog bite, B. Diarrhea, Typhoid and AVH (A & E).
- Malaria cases are mostly from Khairpur, Larkana and Sanghar whereas AD (Non-Cholera) cases are from Dadu, Mirpurkhas and Khairpur.
- Nine cases of AFP reported from Sindh. All are suspected cases and need field verification.
- Two suspected cases of HIV/ AIDS reported from Sindh. Field investigation required to verify the cases.
- There is an increase in number of cases of Malaria, AD (Non-Cholera), dog bite, Typhoid, Chickenpox and Measles while a decline in number of cases of ILI, ALRI<5 Years, TB and VH (B, C, D) this week.

Table 2: District wise distribution of most frequently reported suspected cases during Week 10, Sindh

Districts	Malaria	AD (Non-Cholera)	ILI	ALRI < 5 years	TB	VH (B, C & D)	Dog Bite	B. Diarrhea	Typhoid	AVH (A & E)
Badin	2,648	2,500	961	467	780	286	143	176	45	0
Dadu	3,743	3,254	514	1,678	439	65	400	424	117	67
Ghotki	818	547	82	569	197	139	182	32	1	0
Hyderabad	808	2,113	2,158	162	247	71	54	23	9	5
Jacobabad	827	740	713	496	127	281	247	84	39	1
Jamshoro	2,332	1,462	133	436	588	299	107	156	47	4
Kamber	3,725	1,578	0	331	853	125	307	127	23	0
Karachi Central	4	653	1,044	14	17	7	0	4	99	7
Karachi East	21	443	393	32	9	5	22	9	1	0
Karachi Keamari	11	362	390	51	8	0	5	2	3	0
Karachi Korangi	65	347	1	2	8	0	0	2	3	0
Karachi Malir	188	1,327	2,606	217	60	11	41	42	15	4
Karachi South	0	73	2	0	0	0	0	0	0	0
Karachi West	303	863	1,120	185	85	39	128	25	25	2
Kashmore	1,878	381	766	157	189	29	103	39	1	0
Khairpur	5,099	2,545	6,588	1,308	1,102	230	282	306	219	3
Larkana	5,024	1,463	96	534	910	74	47	251	7	7
Matlari	2,820	1,606	3	525	577	450	56	45	5	0
Mirpurkhas	2,458	3,152	3,643	613	733	271	131	95	9	3
Naushero Feroze	1,492	1,154	1,327	449	351	36	277	149	55	0
Sanghar	4,249	1,880	55	662	1,078	1,001	203	112	50	4
Shaheed Benazirabad	1,948	1,601	5	232	270	100	148	81	90	0
Shikarpur	2,526	1,117	4	264	288	372	246	141	2	1
Sujawal	1,198	1,398	0	316	216	72	69	99	8	15
Sukkur	1,776	1,228	2,241	556	403	96	103	131	4	0
Tando Allahyar	2,189	1,316	1,769	237	548	408	63	111	11	1
Tando Muhammad Khan	781	1,167	47	263	570	1	25	116	51	0
Tharparkar	3,209	2,274	2,371	1,204	536	100	1	150	54	30
Thatta	1,467	1,657	2,192	677	60	92	98	54	27	290
Umerkot	1,510	1,525	0	620	301	64	0	125	25	0
Total	55,117	41,726	31,224	13,257	11,550	4,724	3,488	3,111	1,045	444

Figure 2: Most frequently reported suspected cases during Week 10 Sindh

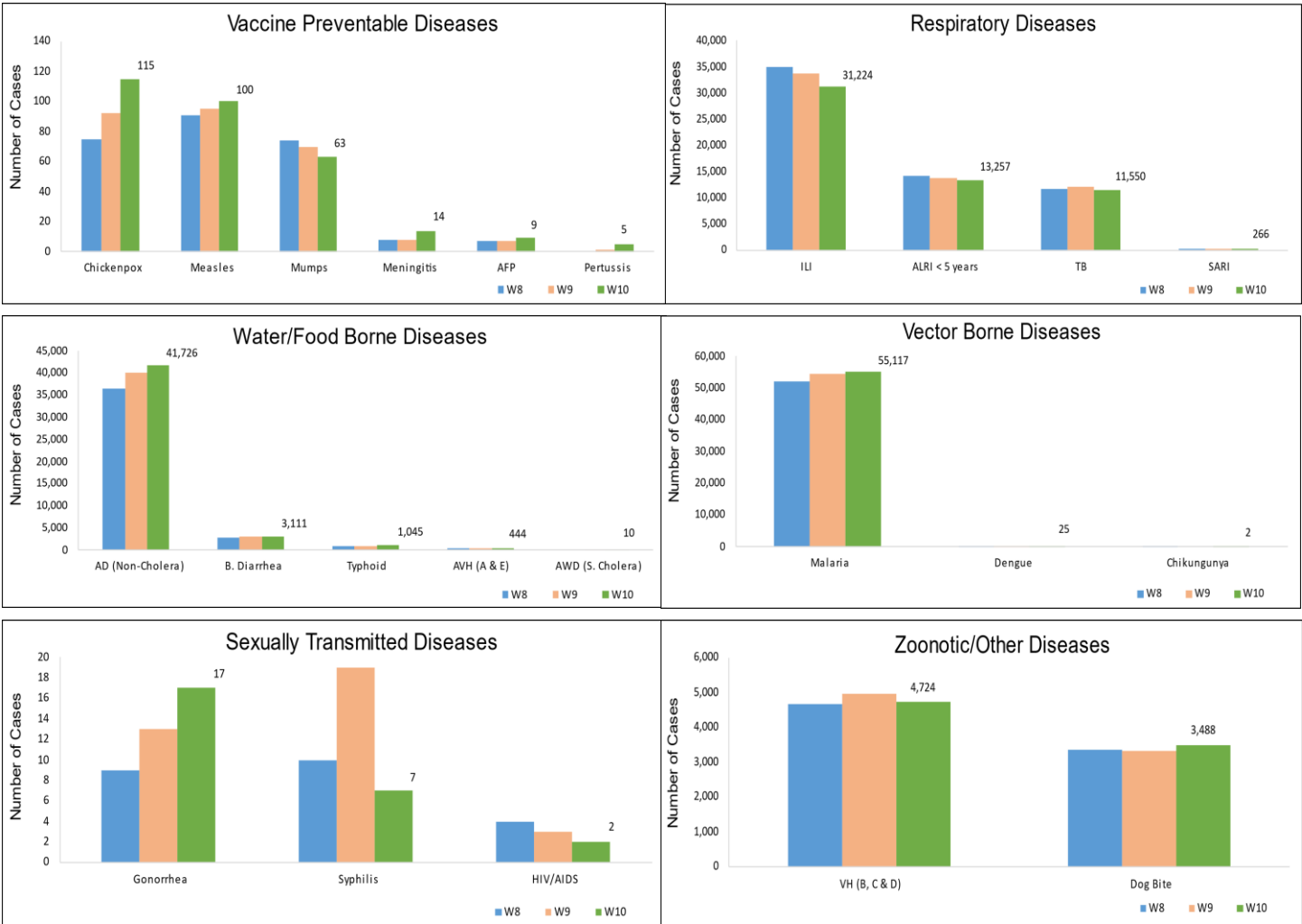
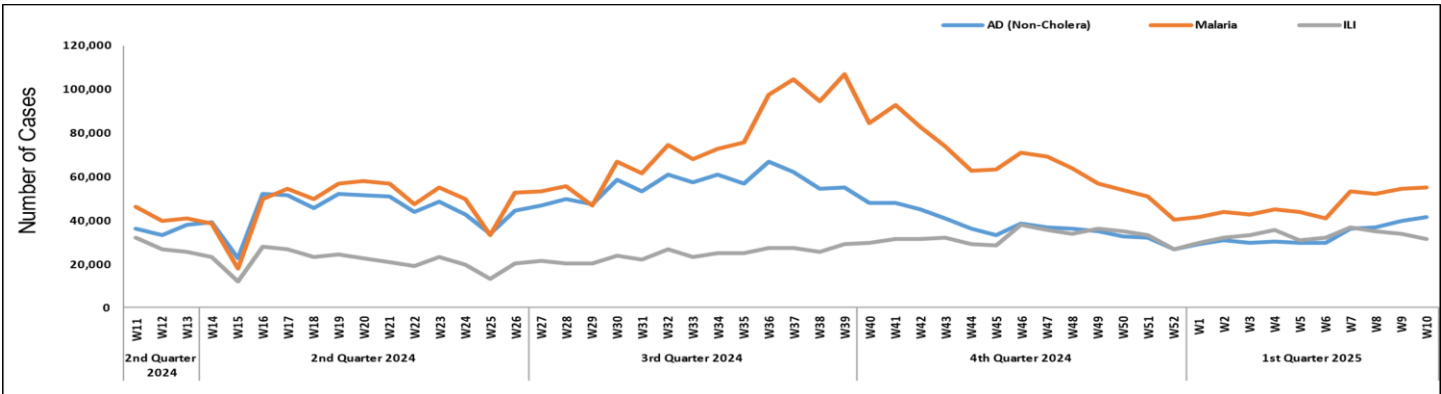


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, TB, dog bite and VH (B, C & D) cases were the most frequently reported diseases from Balochistan province.
- ILI cases are mostly reported from Quetta, Gwadar and Kech (Turbat) while AD (Non-Cholera) cases are mostly reported from Usta Muhammad, Quetta and Jaffarabad.
- Two suspected cases of HIV/ AIDS reported from Balochistan. Field investigation required to verify the cases.
- One case of AFP reported from Balochistan. It is suspected case and needs field verification.

Table 3: District wise distribution of most frequently reported suspected cases during Week 10, Balochistan

Districts	ILI	AD (Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	TB	Dog Bite	VH (B, C & D)
Barkhan	8	12	5	1	0	0	9	9	10	0
Chagai	191	92	11	0	36	0	9	0	0	0
Dera Bugti	60	70	46	49	8	0	0	0	0	0
Gwadar	967	283	130	18	26	0	8	1	1	2
Hub	24	170	94	25	12	3	3	1	2	0
Jaffarabad	187	424	683	55	90	14	9	88	33	51
Jhal Magsi	627	381	719	264	1	2	23	5	12	0
Kachhi (Bolan)	67	128	107	29	38	136	23	0	0	0
Kalat	2	11	7	9	3	0	21	0	0	0
Kech (Turbat)	671	363	325	42	55	3	NR	2	NR	NR
Kharan	399	77	7	0	44	20	2	0	0	0
Khuzdar	297	214	63	NR	85	29	25	NR	NR	NR
Killa Abdullah	69	58	14	23	20	58	16	4	7	0
Killa Saifullah	2	138	234	217	84	49	14	0	0	0
Kohlu	398	204	98	11	58	74	53	NR	NR	NR
Lasbella	88	390	283	86	51	10	7	0	21	1
Loralai	309	125	16	36	32	84	7	0	6	0
Mastung	99	108	50	119	46	21	11	9	11	10
Naseerabad	33	337	201	26	11	44	65	8	10	36
Nushki	11	133	6	21	32	9	0	0	0	0
Panjgur	91	166	90	138	33	3	9	0	0	0
Pishin	654	224	18	101	90	74	25	1	0	2
Quetta	1,124	452	14	230	55	73	15	0	0	0
Sherani	22	8	6	1	1	28	1	0	0	0
Sibi	203	111	36	44	8	35	5	2	0	0
Sohbat pur	96	154	203	125	38	27	17	4	3	4
Surab	134	48	10	0	0	0	0	0	0	0
Usta Muhammad	232	489	190	197	62	19	4	0	19	19
Washuk	354	150	121	5	73	10	7	0	0	0
Zhob	225	88	16	333	29	169	13	17	0	0
Ziarat	122	87	19	24	33	4	5	0	11	0
Total	7,766	5,695	3,822	2,229	1,154	998	406	151	146	125

Figure 4: Most frequently reported suspected cases during Week 10, Balochistan

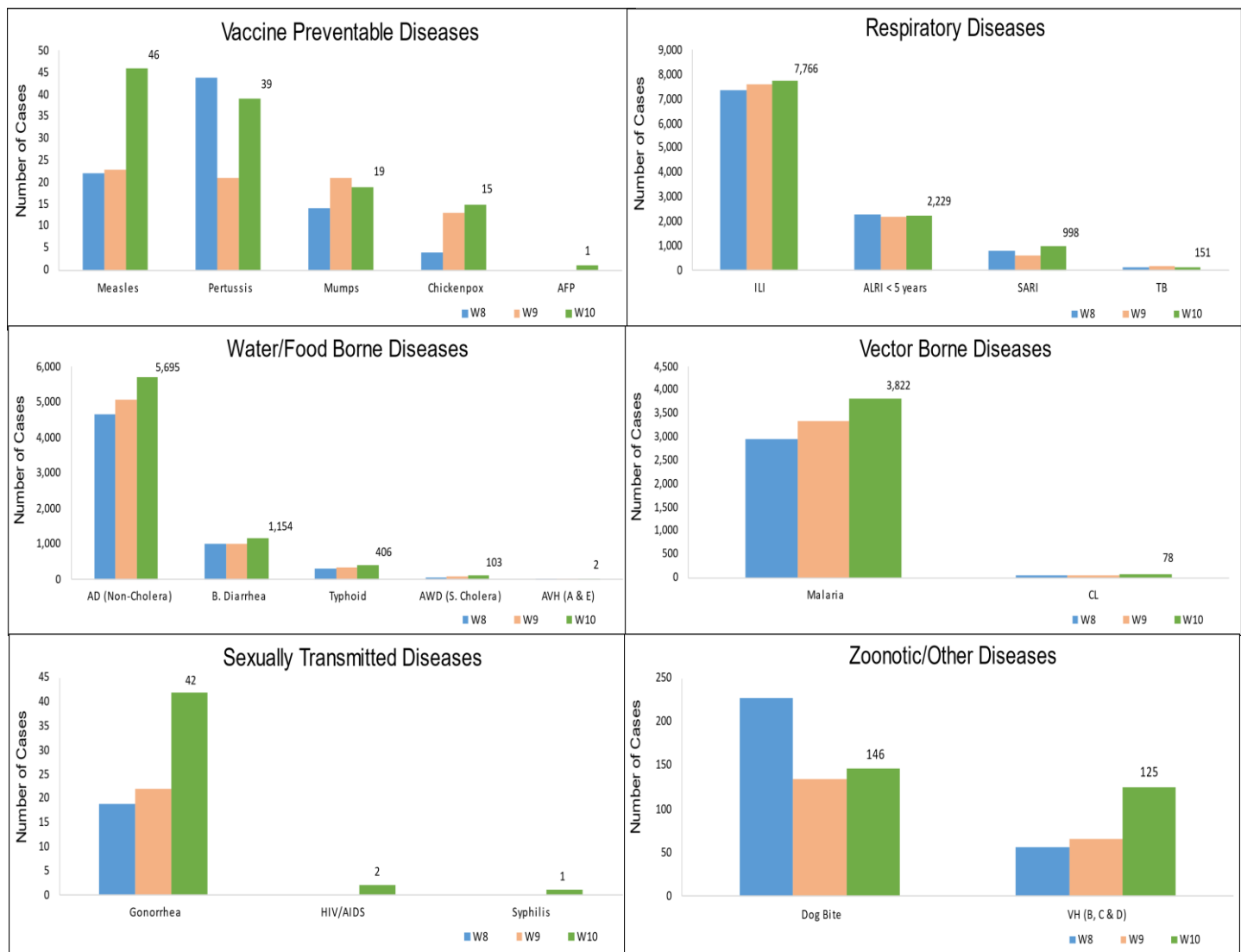
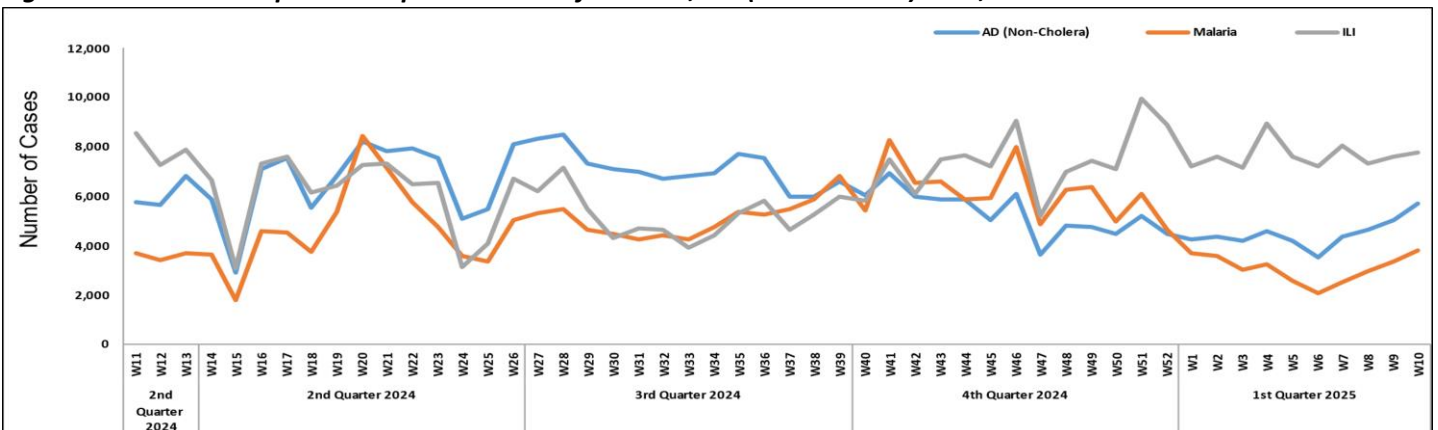


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, ALRI<5 Years, SARI, B. Diarrhea, dog bite, Typhoid, CL and Measles cases.
- AD (Non-Cholera), ILI, Malaria, ALRI<5 Years, Typhoid and Measles cases showed a decline in number while SARI, dog bite, Mumps and Chickenpox cases showed an increase in number this week.
- Fifteen cases of AFP reported from KP. All are suspected cases and need field verification.
- Four cases of HIV/AIDs reported from KP. Field investigation is required.
- Five suspected cases of Brucellosis reported from KP. They require field verification.

Table 4: District wise distribution of most frequently reported suspected cases during Week 10, KP

Districts	AD (Non-Cholera)	ILI	Malaria	ALRI < 5 years	SARI	B. Diarrhea	Dog Bite	Typhoid	CL	Measles
Abbottabad	492	115	0	16	3	60	73	28	0	2
Bajaur	390	88	132	26	85	67	79	7	25	22
Bannu	613	2	1,276	19	7	24	2	74	0	42
Battagram	138	509	6	4		3	6	2	3	9
Buner	187	0	220	2	0	0	13	0	0	1
Charsadda	1,403	1,730	307	407	284	77	7	52	0	55
Chitral Lower	288	106	6	18	24	28	10	4	0	4
Chitral Upper	55	6	2	16	5	5	2	7	0	0
D.I. Khan	1,255	0	88	53	0	14	19	3	2	102
Dir Lower	857	1	94	16	0	59	61	24	0	11
Dir Upper	524	100	2	17	0	1	10	0	0	3
Hangu	155	267	112	16	17	20	6	6	38	0
Haripur	564	301	0	92	30	0	18	5	0	3
Karak	344	65	46	90	54	15	53	4	156	0
Khyber	698	38	85	93	35	173	48	95	102	15
Kohat	488	15	33	6	0	28	15	9	15	3
Kohistan Lower	84	0	0	2	5	8	0	2	0	0
Kohistan Upper	201	14	3	4	2	29	2	3	1	5
Kolai Palas	74	10	0	4	1	2	0	3	0	0
L & C Kurram	4	9	0	0	0	5	0	2	0	0
Lakki Marwat	611	11	122	5	0	30	33	9	0	9
Mansehra	627	320	0	0	0	4	0	4	0	0
Mardan	112	0	3	30	0	0	45	6	0	12
Mohmand	119	189	87	6	144	21	20	2	73	7
North Waziristan	31	4	29	7	5	39	1	1	2	17
Nowshera	1,236	55	37	98	13	5	15	18	2	5
Orakzai	76	13	2	1	0	3	0	0	0	0
Peshawar	2,442	425	18	86	32	50	9	25	1	61
SD Tank	16	1	10	0	0	4	0	0	0	0
Shangla	256	0	129	7	0	1	20	11	0	2
South Waziristan (Lower)	9	15	3	2	1	2	0	2	0	0
SWU	18	30	23	2	8	1	0	0	0	1
Swabi	733	649	24	62	41	5	129	23	0	16
Swat	1,326	121	2	89	0	26	5	8	0	6
Tank	647	133	61	32	0	5	4	1	0	3
Tor Ghar	31	0	12	5	33	19	15	2	10	0
Upper Kurram	127	288	11	13	156	43	7	10	0	0
Total	17,234	5,630	2,985	1,346	985	876	727	452	430	416

Figure 6: Most frequently reported suspected cases during Week 10, KP

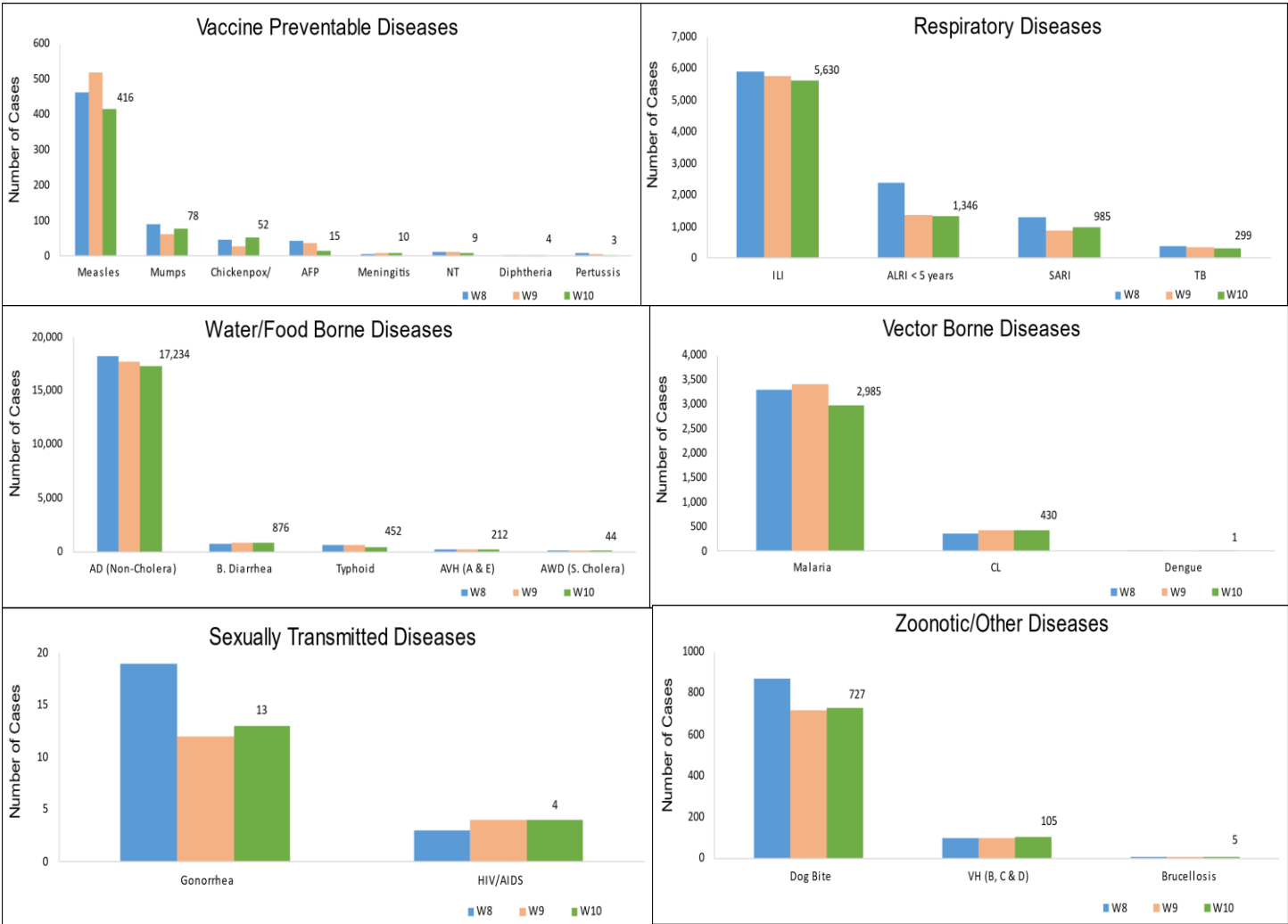
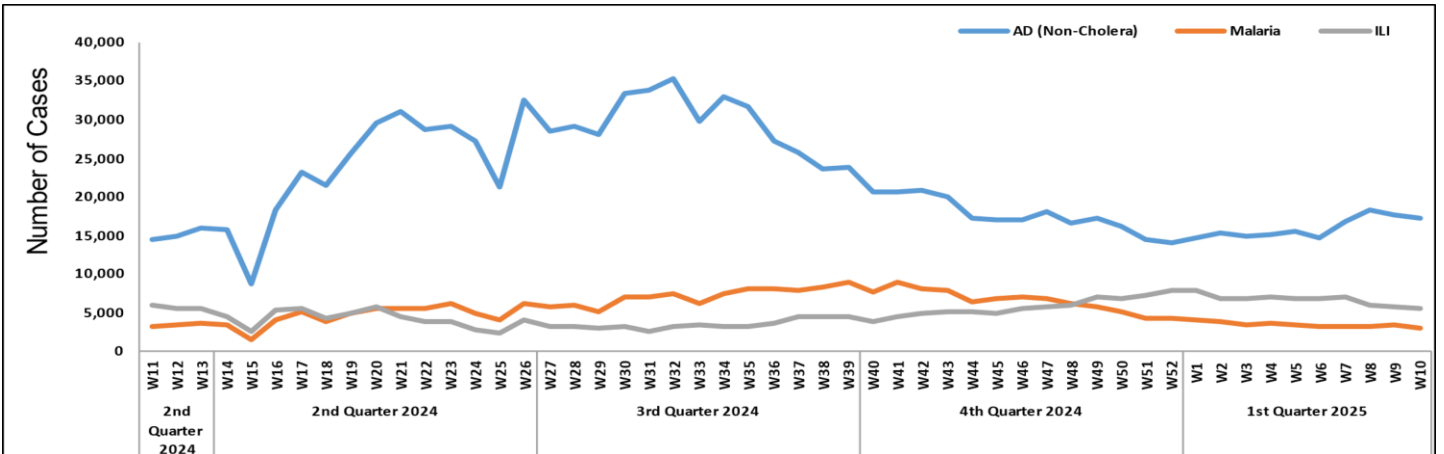


Figure 7: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, KP



- AD (non-cholera) cases were maximum followed by TB, dog bite, Malaria, ALRI<5 Years, Typhoid, Dengue, B. Diarrhea and AWD (S. Cholera) cases.
- AD (non-cholera), dog bite, Malaria, ALRI<5 Years, Dengue and AWD (S. Cholera) showed a decline in number of cases while TB, Measles, AFP and Chickenpox showed an increase in cases this week.
- Twenty-seven suspected cases of AFP reported from Punjab. They require field verification
- Twenty-one cases of HIV/AIDs reported from Punjab. All are suspected cases and need field verification.

Figure 8: Most frequently reported suspected cases during Week 10, Punjab

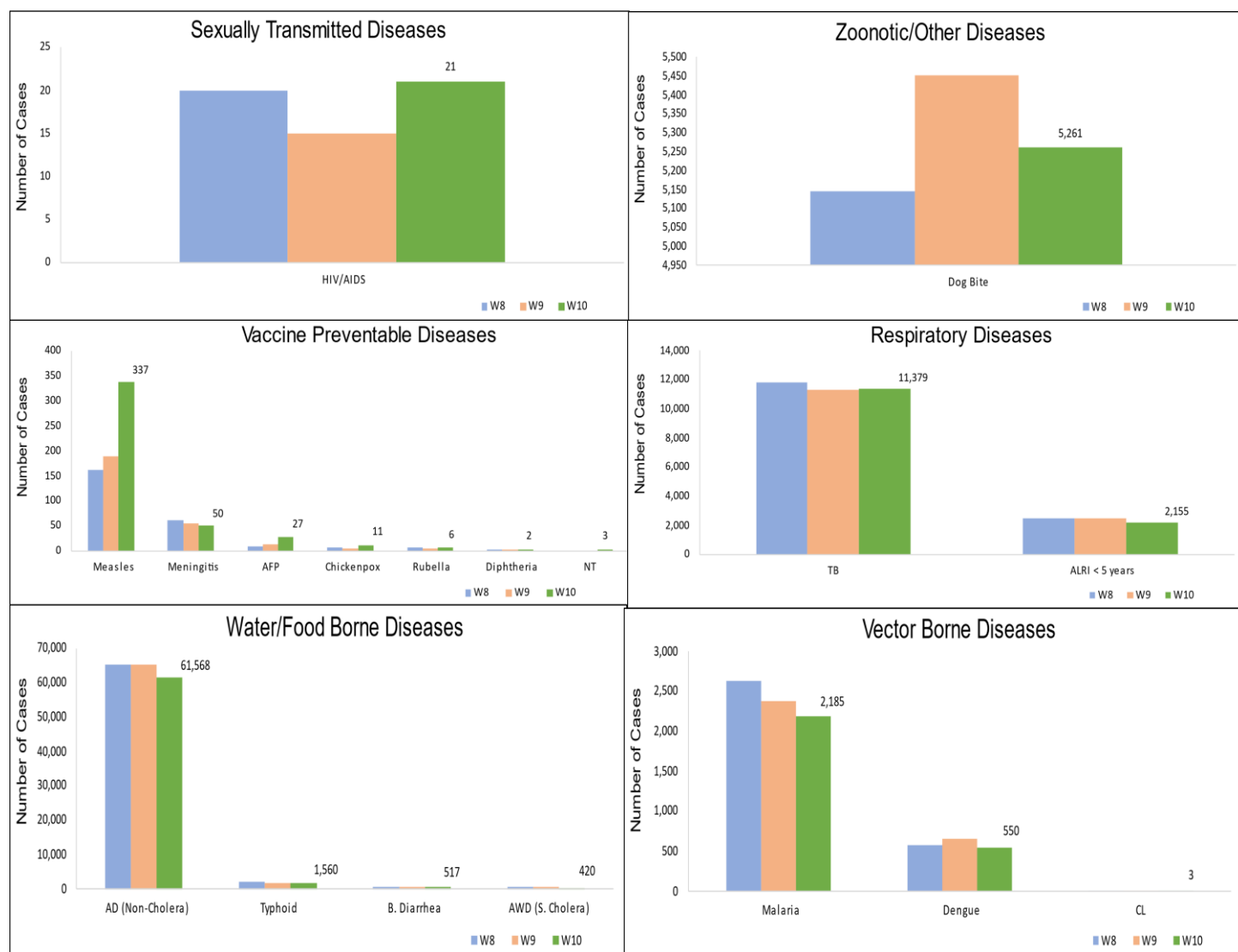
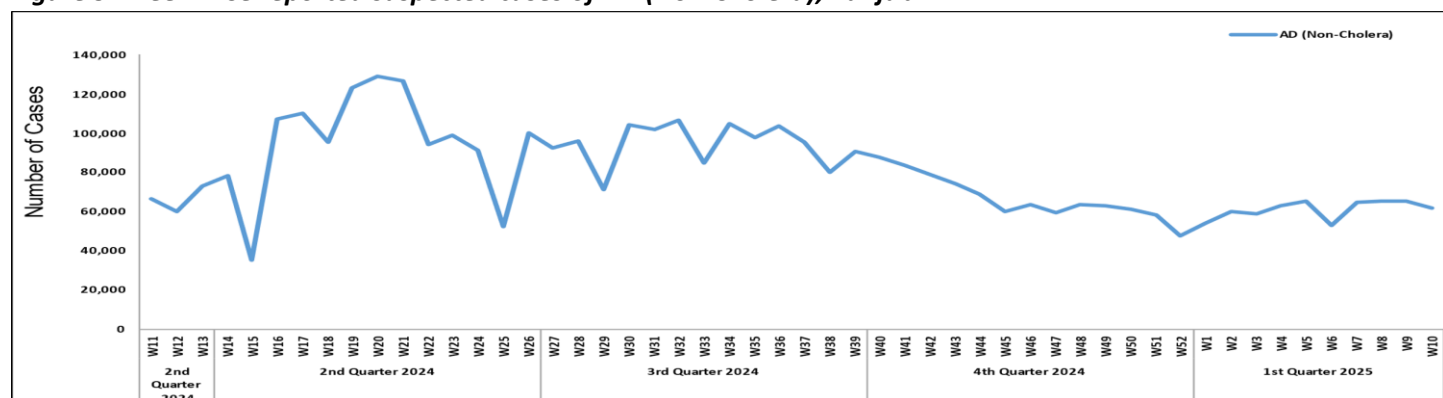


Figure 9: Week wise reported suspected cases of AD (Non-Cholera), Punjab



ICT: The most frequently reported cases from Islamabad were ILI followed by AD (Non-Cholera) and ALRI <5 years. ILI and AD (Non-Cholera) cases showed a decline in number while ALRI <5 years cases showed an increase in number this week.

AJK: ILI cases were maximum followed by AD (Non-Cholera), ALRI <5 years, SARI, dog bite, TB, B. Diarrhea, Typhoid and VH (B, C & D) cases. A decline in cases observed for ILI, ALRI <5 years, SARI and TB while an increase in cases observed for AD (Non-Cholera), dog bite, B. Diarrhea, Typhoid, VH (B, C & D), Mumps and AFP this week. Three cases of AFP reported from AJK. They are suspected cases and need field verification.

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

Figure 10: Most frequently reported suspected cases during Week 10, AJK

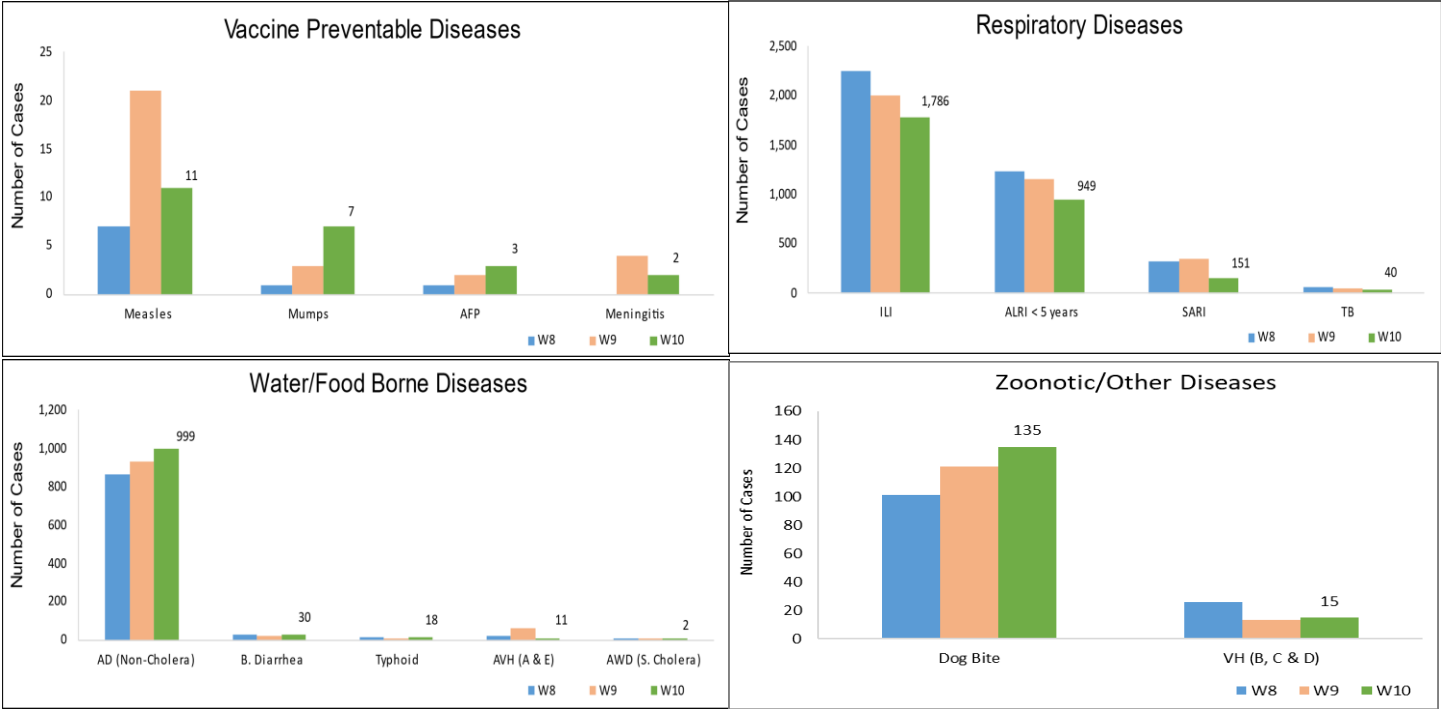


Figure 11: Week wise reported suspected cases of ILI and ARI <5 years, AJK

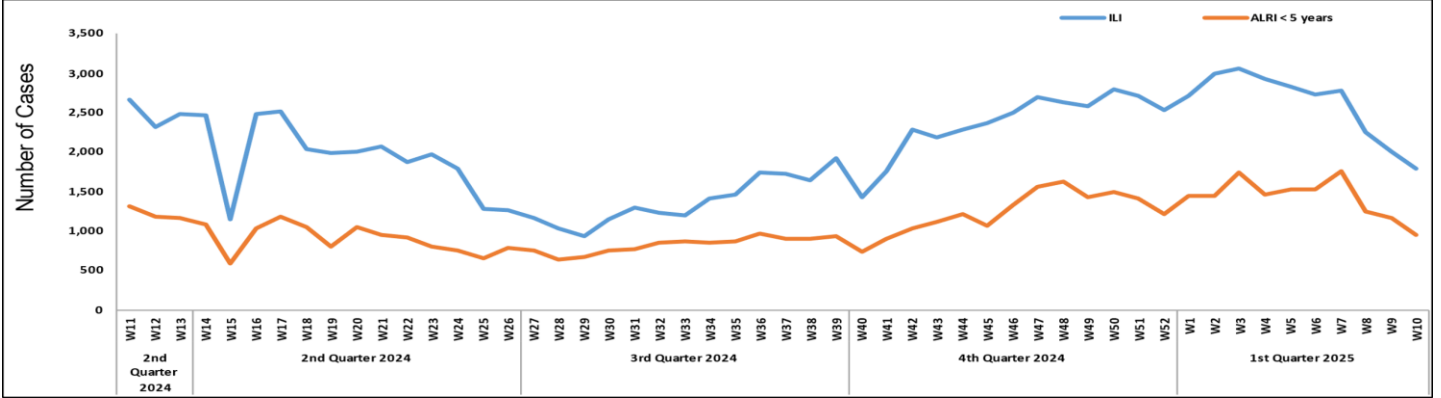


Figure 12: Most frequently reported suspected cases during Week 10, ICT

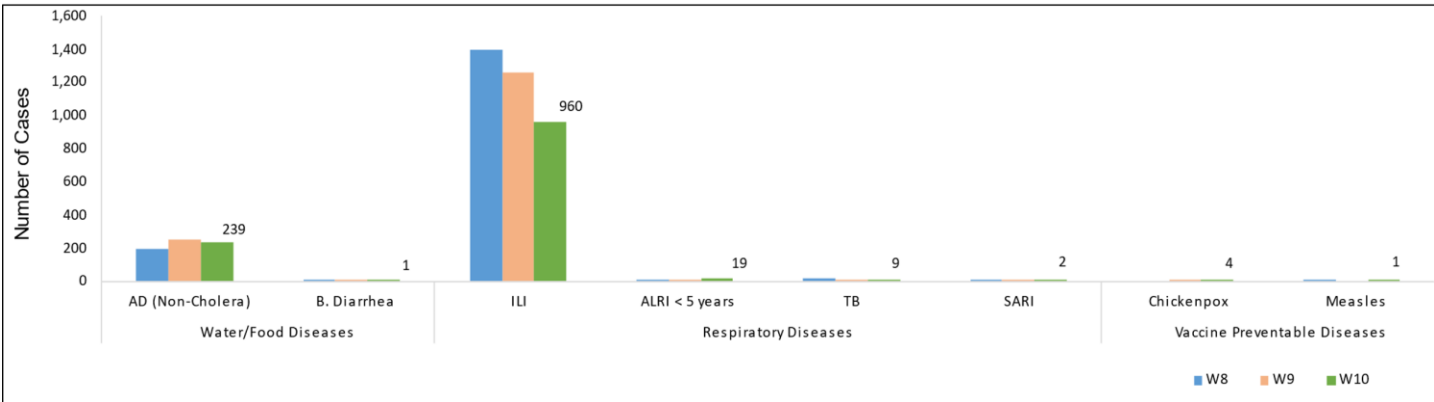


Figure 13: Week wise reported suspected cases of ILI, ICT

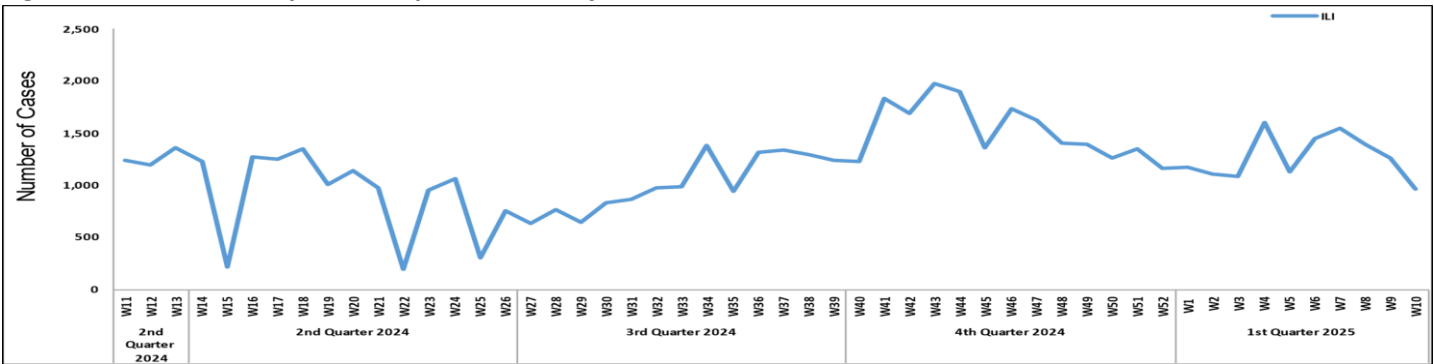


Figure 14: Most frequent cases reported during Week 10, GB

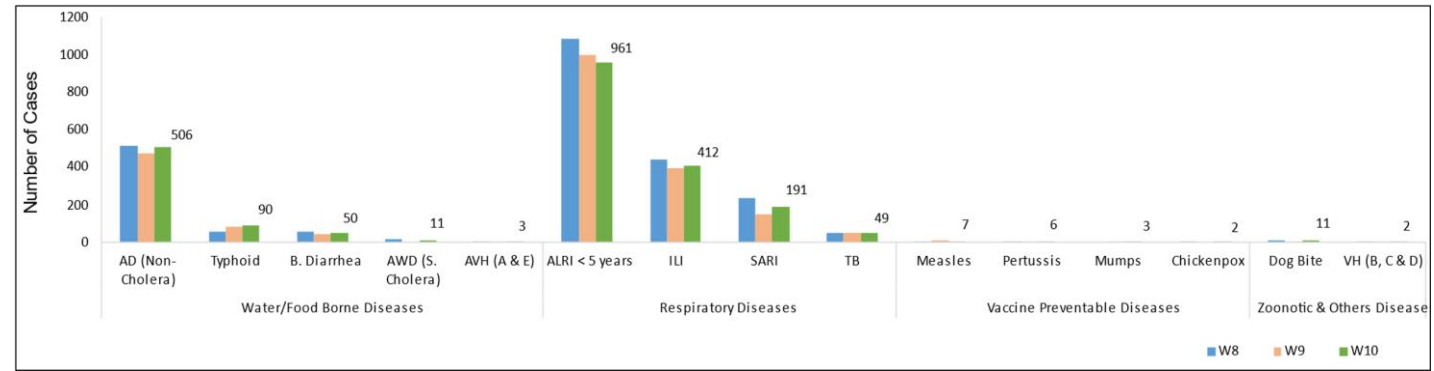


Figure 15: Week wise reported suspected cases of ALRI <5 years, GB

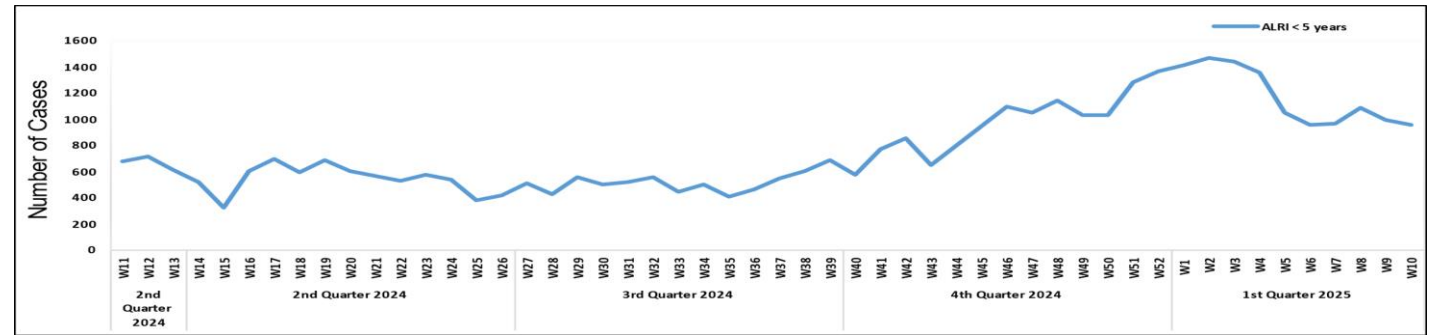


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 10

Diseases		Sindh		Balochistan		KPK		ISL		GB		Punjab		AJK	
		Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos	Total Test	Total Pos
AWD (S. Cholera)		180	1	-	-	-	-	-	-	-	-	-	-	-	-
AD (non-cholera)		294	4	-	-	-	-	-	-	-	-	-	-	-	-
Malaria		12,128	422	-	-	320	3	-	-	-	-	-	-	-	-
CCHF		0	0	2	0	-	-	-	-	-	-	-	-	-	-
Dengue		1,592	55	2	0	5	0	-	-	-	-	-	-	3	0
VH (B)		12,952	480	60	48	419	0	-	-	-	-	-	-	560	4
VH (C)		13,570	1,673	56	23	421	7	-	-	-	-	-	-	564	18
VH (D)		154	46	32	5	-	-	-	-	-	-	-	-	-	-
VH (A)		171	61	-	-	-	-	-	-	-	-	-	-	-	-
VH (E)		87	17	-	-	-	-	-	-	-	-	-	-	-	-
Covid-19		80	0	6	0	1	0	-	-	-	-	-	-	-	-
Chikungunya		22	9	1	0	-	-	-	-	-	-	-	-	-	-
TB		599	84	-	-	16	0	-	-	-	-	-	-	62	5
HIV/ AIDS		4,141	39	-	-	384	0	-	-	-	-	-	-	451	0
Syphilis		1,185	30	-	-	186	0	-	-	-	-	-	-	-	-
B. Diarrhea		154	0	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid		580	21	-	-	-	-	-	-	-	-	-	-	-	-
Diphtheria		6	3	-	-	-	-	-	-	-	-	-	-	-	-
ILI		40	10	5	0	1	0	-	-	-	-	-	-	-	-
Pertussis		1	1	-	-	-	-	-	-	-	-	-	-	-	-
Leishmaniasis (cutaneous)		1	0	-	-	12	2	-	-	-	-	-	-	-	-
Leishmaniasis (Visceral)		0	0	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia (ALRI)		61	25	-	-	-	-	-	-	-	-	-	-	-	-
Measles		253	127	47	31	397	192	13	7	22	15	318	83	58	32
Rubella		253	4	47	1	397	4	13	0	22	0	318	6	58	3
Covid-19	Out of SARI	0	0	0	0	0	0	65	0	0	0	109	0	0	0
	Out of ILI	0	0	0	0	0	0	42	0	0	0	70	0	0	0
Influenza A	Out of SARI	0	0	0	0	0	0	65	2	0	0	109	2	0	0
	Out of ILI	0	0	0	0	0	0	42	0	0	0	70	2	0	0
Influenza B	Out of SARI	0	0	0	0	0	0	65	3	0	0	109	6	0	0
	Out of ILI	0	0	0	0	0	0	42	5	0	0	70	4	0	0
RSV	Out of SARI	0	0	0	0	0	0	65	18	0	0	109	0	0	0
	Out of ILI	0	0	0	0	0	0	42	8	0	0	70	0	0	0

IDSR Reports Compliance

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

Table 6: IDSR reporting districts Week 10, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	104	94%
	Bannu	238	134	56%
	Battagram	59	29	49%
	Buner	34	31	91%
	Bajaur	44	42	95%
	Charsadda	59	59	100%
	Chitral Upper	34	30	88%
	Chitral Lower	35	35	100%
	D.I. Khan	113	113	100%
	Dir Lower	74	73	99%
	Dir Upper	37	31	84%
	Hangu	22	19	86%
	Haripur	72	72	100%
	Karak	36	36	100%
	Khyber	53	42	79%
	Kohat	61	61	100%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	17	85%
	Kolai Palas	10	9	90%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	4	10%
	Upper Kurram	41	32	78%
	Malakand	42	0	0%
	Mansehra	133	104	78%
	Mardan	80	4	5%
	Nowshera	55	54	98%
	North Waziristan	13	7	54%
	Peshawar	155	134	86%
	Shangla	37	31	84%
	Swabi	64	63	98%
	Swat	77	72	94%
	South Waziristan (Upper)	93	36	39%
	South Waziristan (Lower)	42	16	38%
	Tank	34	33	97%
	Torghar	14	14	100%
	Mohmand	68	63	93%
	SD Peshawar	5	0	0%
	SD Tank	58	9	16%
	Orakzai	69	14	20%
	Mirpur	37	37	100%
	Bhimber	42	20	48%
	Kotli	60	60	100%
	Muzaffarabad	45	42	93%



Azad Jammu Kashmir	Poonch	46	46	100%
	Haveli	39	39	100%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Valley	29	28	97%
Islamabad Capital Territory	Sudhnooti	27	27	100%
	ICT	21	21	100%
Balochistan	CDA	15	8	53%
	Gwadar	25	25	100%
	Kech	44	31	70%
	Khuzdar	74	39	53%
	Killa Abdullah	26	17	65%
	Lasbella	55	55	100%
	Pishin	69	40	58%
	Quetta	55	42	76%
	Sibi	36	20	56%
	Zhob	39	32	82%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	28	93%
	Sherani	15	8	53%
	Kohlu	75	44	59%
	Chagi	36	19	53%
	Kalat	41	40	98%
	Harnai	17	0	0%
	Kachhi (Bolan)	35	11	31%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	23	72%
	Mastung	45	45	100%
	Loralai	33	25	76%
	Killa Saifullah	28	26	93%
	Ziarat	29	13	45%
	Duki	31	0	0%
	Nushki	32	29	91%
	Dera Bugti	45	28	62%
	Washuk	46	35	76%
	Panjgur	38	14	37%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	9	45%
	Hub	33	32	97%
	Musakhel	41	0	0%
Gilgit Baltistan	Usta Muhammad	34	34	100%
	Hunza	32	32	100%
	Nagar	25	20	80%
	Ghizer	38	38	100%
	Gilgit	40	40	100%
	Diamer	62	61	98%

	Astore	54	54	100%
	Shigar	27	25	93%
	Skardu	52	52	100%
	Ganche	29	29	100%
Sindh	Kharmang	46	25	54%
	Hyderabad	73	69	95%
	Ghotki	64	64	100%
	Umerkot	43	42	98%
	Naushahro Feroze	107	96	90%
	Tharparkar	276	257	93%
	Shikarpur	61	60	98%
	Thatta	52	52	100%
	Larkana	67	66	99%
	Kamber Shadadkot	71	71	100%
	Karachi-East	24	19	79%
	Karachi-West	20	20	100%
	Karachi-Malir	37	36	97%
	Karachi-Kemari	18	15	83%
	Karachi-Central	12	7	58%
	Karachi-Korangi	18	18	100%
	Karachi-South	6	4	67%
	Sujawal	55	53	96%
	Mirpur Khas	106	104	98%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	90	100%
	Sanghar	100	100	100%
	Jacobabad	44	44	100%
	Khairpur	170	169	99%
	Kashmore	59	59	100%
	Matiari	42	42	100%
	Jamshoro	75	74	99%
	Tando Allahyar	54	54	100%
	Tando Muhammad Khan	41	41	100%
	Shaheed Benazirabad	125	121	97%

Table 7: IDSR reporting Tertiary care hospital Week 10, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
AJK	Mirpur	2	2	100%
	Bhimber	1	1	100%
	Kotli	1	1	100%
	Muzaffarabad	2	2	100%
	Poonch	2	2	100%
	Haveli	1	1	100%
	Bagh	1	1	100%
	Neelum	1	1	100%
	Jhelum Vellay	1	1	100%
	Sudhnooti	1	1	100%
Sindh	Karachi-South	1	0	0%
	Sukkur	1	0	0%
	Shaheed Benazirabad	1	1	100%
	Karachi-East	1	1	100%
	Karachi-Central	1	1	0%

Letter to Editor

Dear Editor,

Climate change is no longer a distant environmental concern, it is a present and intensifying public health emergency. The Intergovernmental Panel on Climate Change (IPCC) and World Health Organization (WHO) now identify climate change as one of the greatest threats to global health in the 21st century. We urge the health community, policymakers, and civil society to reframe the climate crisis as a health crisis demanding immediate and coordinated actions.

Extreme weather events, such as floods, heatwaves, and wildfires, are increasing in frequency and intensity, leading to direct health consequences including injuries, heat-related illnesses, and deaths. Moreover, these events indirectly fuel food insecurity, malnutrition, waterborne diseases, and the displacement of vulnerable populations. Vector-borne diseases like malaria, dengue, and chikungunya are expanding into new geographic areas due to shifting climate patterns, posing new challenges to health systems ill-prepared for such transitions

Pakistan, despite being one of the least contributors to global greenhouse gas emissions, is ranked among the top ten countries most affected by climate change, according to the Global Climate Risk Index. The devastating floods of 2022 displaced millions, damaged over 2,000 health facilities, and led to widespread outbreaks of waterborne diseases. The recent smog crises in major urban centers like Lahore and Faisalabad have had alarming impacts on respiratory health, especially among children and those with pre-existing conditions.

In LMICs like Pakistan, under-resourced health systems face the dual challenge of managing both existing health burdens and emerging climate-related threats. These countries often

lack robust climate-health surveillance and the adaptive capacity to respond effectively to environmental shocks.

To mitigate these risks, Public health must be at the forefront of climate action. Strengthening surveillance systems for climate-sensitive diseases, integrating environmental indicators into health planning, and adopting the One Health approach are critical steps forward. Additionally, health professionals have a unique voice in advocating for policies that promote clean air, sustainable food systems, and active transportation.

It is also recommended that Pakistan's national and provincial health authorities, in collaboration with environmental, agricultural, and disaster management sectors, must prioritize climate change as a public health issue. Sustainable local funding mechanisms and International support must also be aligned to build resilience in the face of this growing threat. The time to act is now. The health of our populations and future generations depends on sustained, and health-centered climate action.

Dr. Hamza Ikram
Scientific Officer
CDC-NIH

Notes from the field:

Outbreak Investigation of Pertussis in Valma District, Pishin – March 2025

Introduction

Pertussis (whooping cough) is a highly contagious respiratory infection caused by *Bordetella pertussis*, primarily affecting infants and young children. Globally, pertussis contributes significantly to childhood morbidity and mortality, particularly in low- and middle-income countries. According to the World Health Organization (WHO), an estimated 151,000 cases



were reported globally in 2018, though actual numbers may be higher due to underreporting [1]. In the Eastern Mediterranean Region, pertussis continues to pose a public health threat in areas with low immunization coverage. Pakistan has witnessed sporadic outbreaks, especially in remote areas with poor healthcare access and immunization gaps. In March 2025, a cluster of pertussis cases was reported in Valma District, Pishin, Balochistan, necessitating an urgent epidemiological investigation.

Objectives

- To assess the magnitude of the pertussis outbreak in Valma District.
- To identify risk factors contributing to disease transmission.
- To implement immediate public health control measures.
- To recommend strategies for preventing future outbreaks.

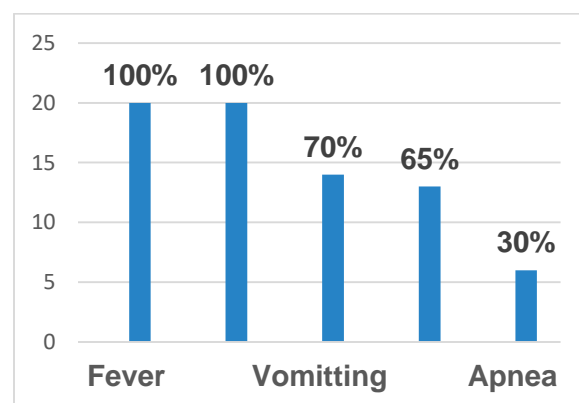
Methods

A descriptive outbreak investigation was conducted in response to the reported cluster of pertussis cases in Valma District, Pishin. The study population consisted of approximately 2,500 individuals residing in the villages of Valma Ragha, Valma Pasta, and Valma Wanak, located in Union Council Ziarat 2, Tooba Kakari. The investigation took place during March 2025. A suspected case was defined as “any resident of valma, district Pishin, exhibiting a paroxysmal cough lasting at least two weeks, with or without post-tussive vomiting or an inspiratory whoop, particularly among unvaccinated children from 1st to 31st March. Data were collected using a semi-structured questionnaire adapted from the Integrated Disease Surveillance and Response (IDSR) case investigation form. The data collection process involved health facility record reviews, active case finding through door-to-door visits, and face-to-face interviews, including verbal autopsies where relevant. Data were analyzed using descriptive statistics that is frequencies and percentages were calculated to understand the distribution of cases by demographic and clinical characteristics

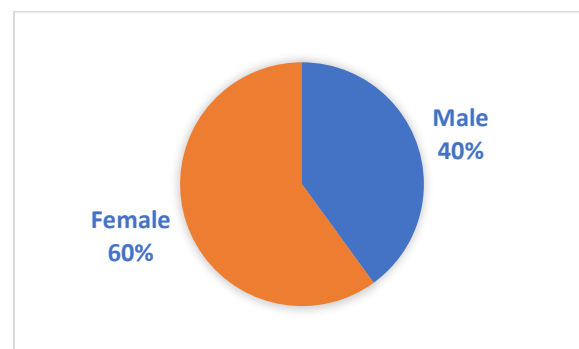
Results

A total of 1 death and 20 pertussis cases were identified during the outbreak, of which 13 were detected through active case finding. The

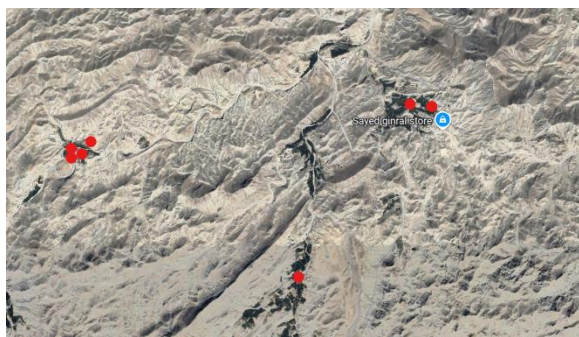
median age of affected individuals was 4 years, with a standard deviation of ± 3.4 . The most affected age group was children aged 3–5 years, accounting for 65% of cases, followed by children under 3 years (20%) and those over 5 years (15%). The gender distribution showed a female predominance, with a male-to-female ratio of 40% to 60%. The overall attack rate in the population was calculated at 3.6%, and the case fatality rate was 5%, with one death reported. All affected children were unvaccinated, having received zero doses of the DTP (diphtheria, tetanus, and pertussis) vaccine. There were no Lady Health Workers (LHWs) operating in the area, and the community exhibited poor health-seeking behavior. Clinical symptoms commonly reported included paroxysmal cough, sneezing, and nasal congestion. The outbreak was geographically confined to the three villages initially reported: Valma Ragha, Valma Pasta, and Valma Wanak.



Clinical features



Gender wise Distribution



Spot Map

Discussion

The outbreak of pertussis in Valma District highlights a classic example of vaccine-preventable disease resurgence in an under-immunized, underserved community. The outbreak suggests a serious lapse in routine immunization services. The complete absence of DTP vaccination among affected children, compounded by the lack of LHW coverage, points toward systemic gaps in primary healthcare delivery in the area.

The higher proportion of female cases could be due to sociocultural norms limiting healthcare access for girls, though further investigation is needed to establish this. The presence of typical pertussis symptoms and preliminary lab findings support the clinical diagnosis. Immediate interventions, including medical camps, mop-up immunization, and community sensitization, helped control the outbreak.

Findings are consistent with other studies where low vaccine coverage has led to pertussis outbreaks in rural settings [2, 3]. Strengthening of the Expanded Program on Immunization (EPI), appointment of community-based health workers, and continuous surveillance are critical to prevent future occurrences.

Conclusion

This outbreak investigation confirmed a pertussis outbreak among children in Valma District, Pishin, predominantly due to zero routine immunization coverage. Key contributing factors included poor health infrastructure, lack of health education, and absence of community health workers. Immediate response measures were effective in controlling the outbreak, but long-term structural improvements are essential.

Recommendations

Immediate Actions:

- Continue mop-up immunization in Valma and adjoining villages.
- Ensure supply of antibiotics (e.g., Azithromycin) and other essential medicines.
- Conduct health education sessions focusing on pertussis symptoms and vaccination benefits.
- Activate enhanced surveillance for vaccine-preventable diseases in the district.

Preventive Measures:

It is recommended to District Health Department to;

- Appoint and train Lady Health Workers (LHWs) to improve health literacy and immunization uptake.
- Strengthen EPI services through regular outreach and monitoring.
- Improve IDSR reporting and early warning systems.
- Ensure follow-up visits by district EPI and surveillance teams.
- Launch community-based behavior change communication (BCC) initiatives.

References

1. World Health Organization. Pertussis. <https://www.who.int/news-room/fact-sheets/detail/pertussis>
2. Khan T, Qazi J. Pertussis resurgence in Pakistan: Are low vaccination rates to blame? *East Mediterr Health J.* 2020;26(4):453–457.
3. Ginsburg AS, et al. Challenges in reducing pertussis incidence in low-income countries. *Lancet Infect Dis.* 2017;17(4):e119–e129.

Knowledge Hub

Crimean-Congo Hemorrhagic Fever

Overview

Crimean-Congo Hemorrhagic Fever (CCHF) is a zoonotic viral disease caused by the Nairovirus from the Bunyaviridae family. It is a tick-borne disease that leads to severe hemorrhagic symptoms in humans, with a case fatality rate ranging from 10% to 40%. CCHF is endemic in Africa, the Balkans, the Middle East, and Asia, including Pakistan, where sporadic outbreaks are reported annually, particularly during the Eid-ul-Adha period due to increased animal contact [1].

Etiology and Transmission

The virus is primarily transmitted through bites from infected Hyalomma ticks, which act as both vectors and reservoirs. Transmission can also occur via direct contact with blood or tissues of infected animals or exposure to blood or body fluids of infected persons, particularly in healthcare settings [2]. Domestic animals such as cattle, goats, and sheep serve as amplifying hosts but remain asymptomatic [3].

Clinical Presentation

The incubation period depends on the mode of transmission. For tick bites, symptoms typically appear within 1–3 days, while exposure via infected blood may result in symptoms within 5–6 days. The disease onset is sudden, with symptoms including fever, myalgia, dizziness, neck pain, backache, headache, and photophobia. In the hemorrhagic phase, patients may exhibit petechiae, ecchymosis, epistaxis, hematemesis, and multi-organ failure, especially if not diagnosed and treated early [1][2].

Diagnosis and Laboratory Testing

Diagnosis is confirmed by detecting CCHF viral RNA using RT-PCR, antigen-capture ELISA, or virus isolation under high biosafety conditions. Serological tests for IgM and IgG antibodies are also used, particularly in later stages of infection or retrospectively [2].

Public Health Importance

CCHF poses a significant occupational hazard to healthcare workers, veterinarians, livestock handlers, and slaughterhouse workers. Due to its potential for healthcare-associated outbreaks, CCHF is classified as a high-priority pathogen by WHO. In countries like Pakistan, public health efforts are directed toward early case detection, isolation, and rapid response, particularly during seasonal high-risk periods [1][3].

Prevention and Control

Prevention hinges on vector control, personal protective measures, and infection prevention and control (IPC) practices in healthcare settings. Recommended strategies include:

- Avoiding tick-infested areas and using tick repellents.
- Wearing protective clothing and gloves when handling animals or their tissues.
- Implementing standard precautions (e.g., gloves, masks, eye protection) in healthcare settings to prevent nosocomial transmission.
- Educating butchers, farmers, and healthcare workers about risk factors and early symptoms.

There is currently no approved vaccine for human use, though research is ongoing [1][2][3].

References

1. **World Health Organization (WHO).** Crimean-Congo Hemorrhagic Fever. 2023. Available at: <https://www.who.int/news-room/fact-sheets/detail/crimean-congo-haemorrhagic-fever>
2. **Centers for Disease Control and Prevention (CDC).** Crimean-Congo Hemorrhagic Fever (CCHF). 2023. Available at: <https://www.cdc.gov/vhf/crimean-congo/index.html>
3. **Public Health Agency of Canada (PHAC).** Pathogen Safety Data Sheet – Crimean-Congo Hemorrhagic Fever Virus. 2022. Available at: <https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/crimean-congo-haemorrhagic-fever-virus.html>





کانگو بخار کیا ہے

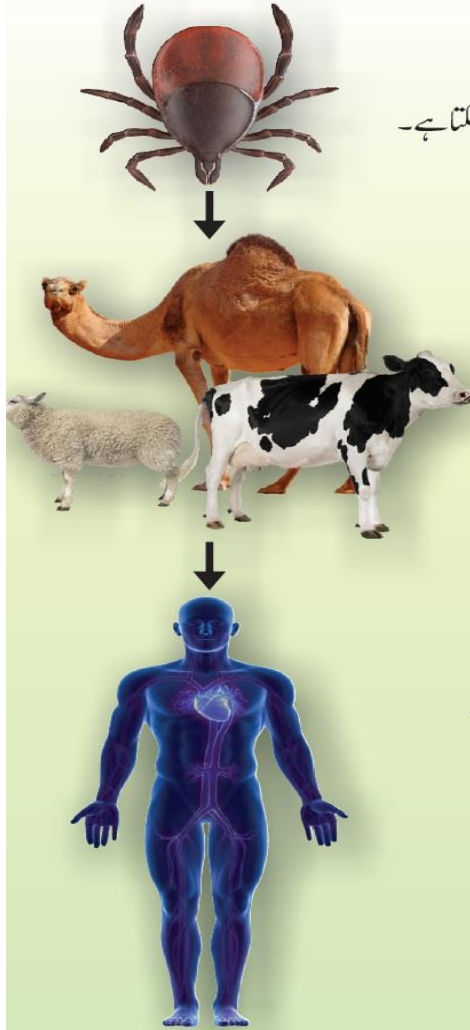


Crimean Congo Hemorrhagic Fever (CCHF) جسے مختصر اکاگو بخار کہا جاتا ہے ایک خطرناک قسم کے وائرس (nairovirus) سے پہلے ہے۔ یہ وائرس زیادہ تر بھیڑ، بکری، گائے، بیل، دنبہ اور اونٹ کی کھال میں چپکی ہوئی چیچڑیوں (Ticks) میں پایا جاتا ہے۔ جب یہ چیچڑی کسی مویشی یا انسان کو کاٹ لے تو پھر یہ وائرس منتشر ہو جاتا ہے۔ اس کے علاوہ یہ وائرس متاثرہ جانور کے خون کے ذریعے بھی پھیل سکتا ہے۔ مثلاً اگر قصاب جانور زخ کرتے ہوئے احتیاط نہیں کرتا اور اس کے ہاتھ پر کٹ لگا جاتا ہے تو اس طرح متاثرہ جانور کے خون سے مخصوص وائرس اس کے جسم میں داخل ہو جائے گا۔ یہ وائرس صرف انسانوں میں بیماری پھیلاتا ہے جبکہ جانوروں میں اس مرض کی کوئی علامت رونما نہیں ہوتی۔ عام طور پر یہ مرض ان علاقوں میں پایا جاتا ہے جہاں بڑی تعداد میں مویشی پالے جاتے ہیں۔ یہ وائرس مریض کے خون، تھوک اور فضلات میں پایا جاتا ہے۔ کانگو بخار سے متاثر ہونے کا خطرہ زیادہ تر ان لوگوں کو ہے جو مویشیوں کے زیادہ قریب رہتے ہیں جیسے مویشیوں کے بیوپاری، زرعی کارکن، قصاب اور جانوروں کے معالج وغیرہ۔ عید الاضحیٰ کے موقع پر کانگو بخار کے پھیلنے کا خدشہ زیادہ ہو جاتا ہے کیونکہ عید پر ملک کے تمام صوبوں سے جانوروں کی نقل و حرکت غیر معمولی طور پر بڑھنے کے ساتھ ساتھ عام لوگوں کا جانوروں سے رابطہ / قربت بھی بڑھ جاتی ہے۔

علامات

اچانک تیز بخار، کمر، پٹھوں، گردن میں درد اور کچھاد، متلی، تھکے، گلے کی سوزش، جسم پر سرخ رنگ کے دھبے۔
موسڑوں، ناک اور اندرونی اعضاء سے خون کا اخراج۔ مندرجہ بالا علامات کی صورت میں فوراً ڈاکٹر سے رجوع کریں۔
اب تک کانگو بخار کی کوئی ویکسین ایجاد نہیں ہوئی لہذا احتیاطی تدابیر اپنا کر اس بیماری سے بچا جاسکتا ہے۔

عوام الناس کے لیے ہدایات



- مویشی منڈی جاتے وقت جگہ رنگ کا پوری آستین والا لباس پہنیں تاکہ ان پر چیچڑی موجودگی کو دیکھا جاسکے۔
- مویشی منڈی سے واپس آکر نہائیں اور کپڑے تبدیل کر لیں۔
- بچوں کو مویشی منڈی لے جانے سے گریز کریں۔
- قربانی کا جانور خریدنے سے پہلے اچھی طرح یقین کر لیں کہ اس کے جسم پر چیچڑیاں نہ ہوں۔
- جانور کو چپک کرتے وقت دستانے استعمال کریں یا چیچڑی پھگڑو (Repellent) لگائیں۔
- اپنے پالتو جانوروں کو چیچڑیوں سے محفوظ رکھنے کیلئے محکمہ لائیو سٹاک کے مشورے سے چیچڑ مار ادویات کا استعمال کریں۔
- جانوروں کو زخ کرتے اور گوشت بناتے وقت دستانوں کا استعمال کریں اور جانوروں کے خون سے خود کو آلودہ ہونے سے بچائیں۔
- زخ شدہ جانور کا خون مکمل طور پر بہہ جانے دیں۔
- جانور زخ کرنے کے بعد خون اور آنکھوں کو احتیاط سے تلف کریں۔
- قربانی کا گوشت دھوئے دستانوں کا استعمال کریں۔
- گوشت کو اچھی طرح پکا کر کھائیں۔
- بیماری کی صورت میں ڈاکٹر سے رجوع کریں۔

طبی عملے کے لیے ہدایات

- کانگو کے مریض کا علاج کرتے وقت ڈاکٹر اور دیگر سٹاف ذاتی حفاظتی اقدامات مثلاً دستانوں، ماسک اور گاؤن کا استعمال یقینی بنائیں۔
- علاج کے دوران مریض کو الگ کمرے (Isolation Room) میں رکھیں۔
- انجیکشن لگاتے وقت مناسب احتیاطی تدابیر اپنائیں اور سرخج / سوئی صحیح طریقے سے تلف کریں۔
- مریض کی موت واقع ہونے کی صورت میں احتیاطی تدابیر کو ملحوظ خاطر رکھ کر تدفین کی جائے۔
- متاثرہ مریض کی زیر استعمال چیزیں مثلاً برتن، کپڑے وغیرہ ضائع کر دیں یا جلادیں۔

محکمہ لائیو سٹاک کیلئے ہدایات

- مویشی منڈیوں میں چیچڑ مار سپرے کو یقینی بنایا جائے۔
- جانوروں کو چپک کرتے وقت دستانے استعمال کریں یا (DEET) لوشن لگائیں۔
- مویشیوں اور ان کے پاؤں کو چیچڑیوں سے محفوظ رکھنے کیلئے صفائی کا خیال رکھیں۔

Field Epidemiology & Disease Surveillance Division (FE&DSD), National Institute of Health, Islamabad, Pakistan

This document can also be accessed at NIH Website www.nih.org.pk - <https://maa.nih.org.pk>

Email: eic.nih@gmail.com, Ph: +92-51-9255237, Fax: +92-51-9255575



National Institute of Health Pakistan



@NIH_Pakistan



<https://phb.nih.org.pk/>



https://twitter.com/NIH_Pakistan



idsr-pak@nih.org.pk



<https://www.facebook.com/NIH.PK/>

