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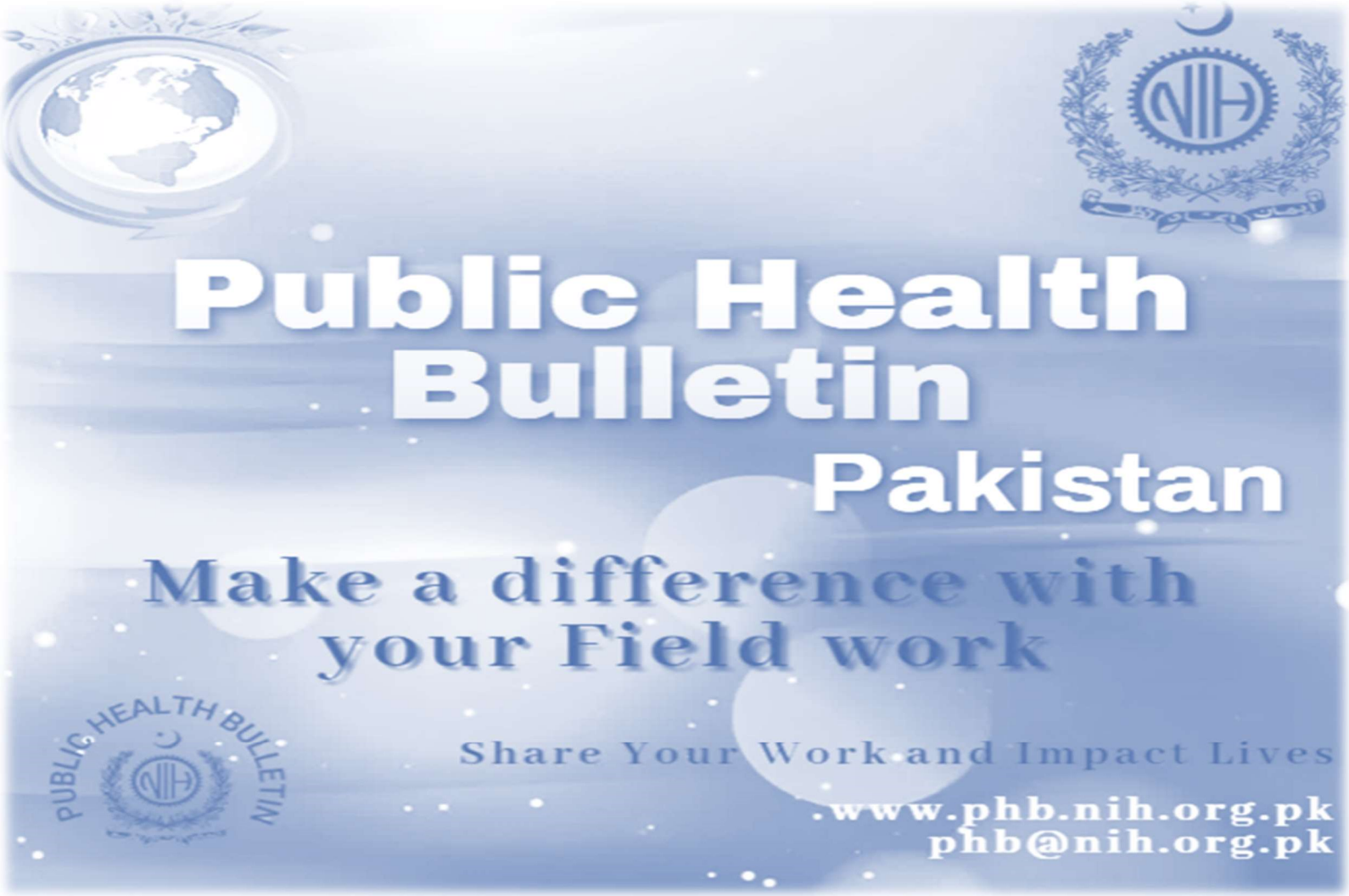
Integrated Disease Surveillance & Response (IDSR) Report

Center of Disease Control
National Institute of Health, Islamabad

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

Integrated Disease Surveillance & Response (IDSR) Weekly Public Health Bulletin is your go-to resource for disease trends, outbreak alerts, and crucial public health information. By reading and sharing this bulletin, you can help increase awareness and promote preventive measures within your community.



Public Health Bulletin - Pakistan, Week 03, 2025

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;

- *Operationalizing One Health in Pakistan: A Multi-sectoral Collaborative Workshop to Establish Federal and Provincial Governance Structures*

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.

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Stay informed. Stay prepared. Stay healthy.

Sincerely,
The Chief Editor

Note: All reported cases in this report are suspected cases

- *During week 03, the most frequently reported cases were of Acute Diarrhea (Non-Cholera) followed by Malaria, ILI, ALRI <5 years, TB, dog bite, B. Diarrhea, VH (B, C & D), SARI and Typhoid.*
- *Twenty-five cases of AFP reported from KP, fifteen from Punjab, five from Sindh and two from AJK.*
- *Fifteen suspected cases of HIV/ AIDS reported from Punjab and three from Sindh.*
- *Eleven suspected cases of Brucellosis reported from KP.*
- *Among VPDs, there is an increase in number of cases of Mumps and Rubella (CRS) this week.*
- *Among respiratory diseases, there is an increase in number of cases of TB and SARI 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 83%*
- *AJK is the top reporting regions with a compliance rate of 94%, followed by GB 93% and Sindh 92%.*
- *The lowest compliance rate was observed in ICT and KP 78% and Balochistan 63%.*

Region	Expected Reports	Received Reports	Compliance (%)
Khyber Pakhtunkhwa	2316	1826	78
Azad Jammu Kashmir	404	381	94
Islamabad Capital Territory	36	27	78
Balochistan	1307	819	63
Gilgit Baltistan	405	376	93
Sindh	2095	1927	92
National	6563	5356	83

Public Health Actions

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

ALRI in children under five years

- **Enhance Surveillance:** Strengthen the surveillance of ALRI cases at public health facilities and incorporate data from private sector as well, especially during flu seasons.
- **Strengthen Lab Systems:** Enhance the capacity of laboratory systems to easily detect the circulating strains in the population.
- **Promote Awareness about Hygiene Practices:** Launch health education campaigns on proper respiratory hygiene (Covering coughs, frequent hand washing) in schools, colleges and universities.
- **Enhance vaccination:** Vaccination in high-risk groups (asthmatics, children < 5) for ALRI is advised.

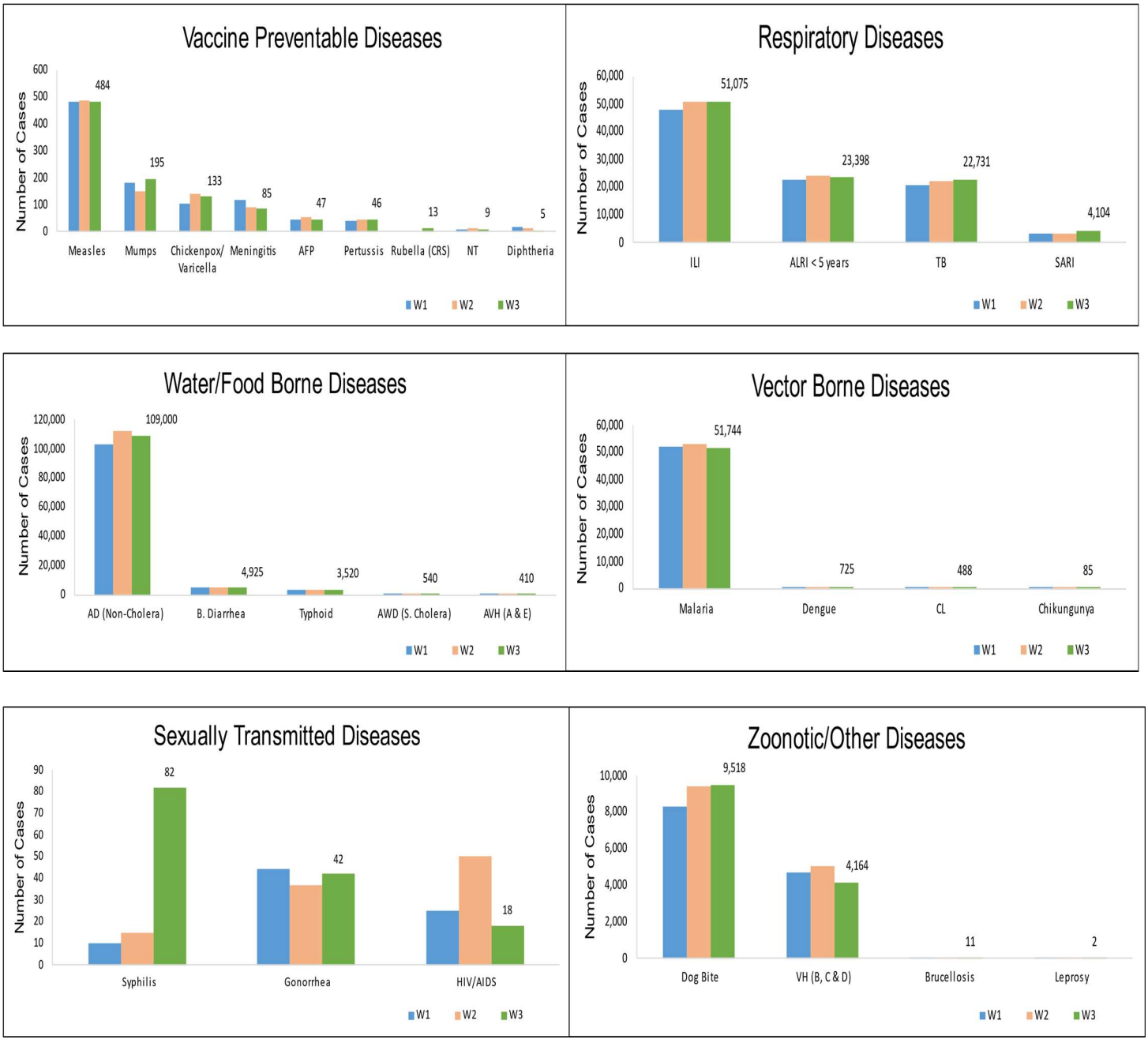
HIV/AIDS

- **Expand HIV Screening and Testing:** Increase access to screening and testing, particularly in high-risk populations.
- **Ensure Access to ART:** Provide immediate access to antiretroviral therapy (ART) for individuals living with HIV and also ensure strict follow ups to decrease non compliance.
- **Strengthen Community Awareness Programs:** Continue community awareness and health education programs, focusing on high-risk populations and areas for prevention of HIV/AIDS, including counseling regarding stigmatization associated with the disease.

Table 1: Province/Area wise distribution of most frequently reported suspected cases during Week 03, Pakistan.

Diseases	AJK	Balochistan	GB	ICT	KP	Punjab	Sindh	Total
AD (Non-Cholera)	1,063	4,060	493	257	14,831	58,783	29,513	109,000
Malaria	0	2,843	0	0	3,449	2,539	42,913	51,744
ILI	3,057	7,094	511	1,090	6,790	5	32,528	51,075
ALRI < 5 years	1,740	2,077	1,438	8	2,193	2,084	13,858	23,398
TB	69	79	65	13	514	10,280	11,711	22,731
Dog Bite	157	178	13	0	851	5,066	3,253	9,518
B. Diarrhea	44	897	51	1	892	445	2,595	4,925
VH (B, C & D)	17	45	5	0	107	0	3,990	4,164
SARI	392	529	300	2	2,676	0	205	4,104
Typhoid	24	333	39	0	610	1,767	747	3,520
Dengue	0	0	0	0	3	689	33	725
AWD (S. Cholera)	7	66	5	0	23	428	11	540
CL	0	58	0	0	423	6	1	488
Measles	14	21	6	0	287	123	33	484
AVH (A & E)	19	2	5	0	212	0	172	410
Mumps	5	44	6	0	66	0	74	195
Chickenpox/ Varicella	3	7	6	0	65	15	37	133
Meningitis	3	0	1	0	5	68	8	85
Chikungunya	0	0	0	0	0	0	85	85
Syphilis	0	0	0	0	0	0	82	82
AFP	2	0	0	0	25	15	5	47
Pertussis	0	34	8	0	3	0	1	46
Gonorrhea	0	20	0	0	15	0	7	42
HIV/AIDS	0	0	0	0	0	15	3	18
Rubella (CRS)	0	0	0	0	0	13	0	13
Brucellosis	0	0	0	0	11	0	0	11
NT	0	0	0	0	9	0	0	9
Diphtheria	0	0	0	0	3	2	0	5
Leprosy	0	0	0	0	2	0	0	2

Figure 1: Most frequently reported suspected cases during Week 03, Pakistan.



Sindh

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

Table 2: District wise distribution of most frequently reported suspected cases during Week 03, Sindh

Districts	Malaria	ILI	AD (Non-Cholera)	ALRI < 5 years	TB	VH (B, C & D)	Dog Bite	B. Diarrhea	Typhoid	SARI
Badin	1,821	2,317	1,655	497	719	221	183	112	10	32
Dadu	3,520	933	1,922	1,687	485	70	353	411	108	10
Ghotki	867	59	485	621	287	101	281	61	2	0
Hyderabad	326	7	952	14	69	64	30	1	5	0
Jacobabad	1,066	906	617	502	160	132	224	98	52	48
Jamshoro	1,698	153	944	505	678	217	79	75	59	0
Kamber	2,998	0	1,261	467	872	116	270	93	18	0
Karachi Central	3	1,240	465	9	9	6	0	4	31	21
Karachi East	44	614	416	71	17	1	19	10	4	0
Karachi Keamari	0	388	421	59	0	0	0	3	0	0
Karachi Korangi	81	10	366	0	10	0	0	5	0	0
Karachi Malir	160	3,281	1,082	246	104	12	24	32	17	0
Karachi South	6	4	90	0	0	0	0	0	0	0
Karachi West	270	1,241	862	207	164	69	32	26	32	7
Kashmore	2,030	609	246	273	256	20	52	66	9	0
Khairpur	3,708	7,423	1,981	1,237	1068	185	230	266	134	9
Larkana	4,665	10	1,340	702	1117	72	43	298	7	0
Matiari	2,246	2	987	469	535	188	82	45	2	0
Mirpurkhas	1,418	3,754	1,931	720	651	141	114	71	12	0
Naushero Feroze	1,940	1,091	941	501	450	47	215	132	45	42
Sanghar	3,704	156	1,661	896	1120	1,367	269	87	43	0
Shaheed Benazirabad	1,345	3	1,221	322	276	107	162	46	94	1
Shikarpur	2,204	6	888	271	295	202	190	135	5	3
Sujawal	570	5	723	141	180	66	62	71	7	0
Sukkur	1,626	1,874	920	810	519	51	105	104	3	0
Tando Allahyar	911	1,594	804	366	461	295	115	100	8	0
Tando Muhammad Khan	314	45	521	213	495	7	21	62	0	0
Tharparkar	1,424	2,136	1,648	1,170	331	89	0	80	15	20
Thatta	846	2,667	933	208	49	30	98	40	10	9
Umerkot	1,102	0	1,230	674	334	114	0	61	15	3
Total	42,913	32,528	29,513	13,858	11,711	3,990	3,253	2,595	747	205

Figure 2: Most frequently reported suspected cases during Week 03 Sindh

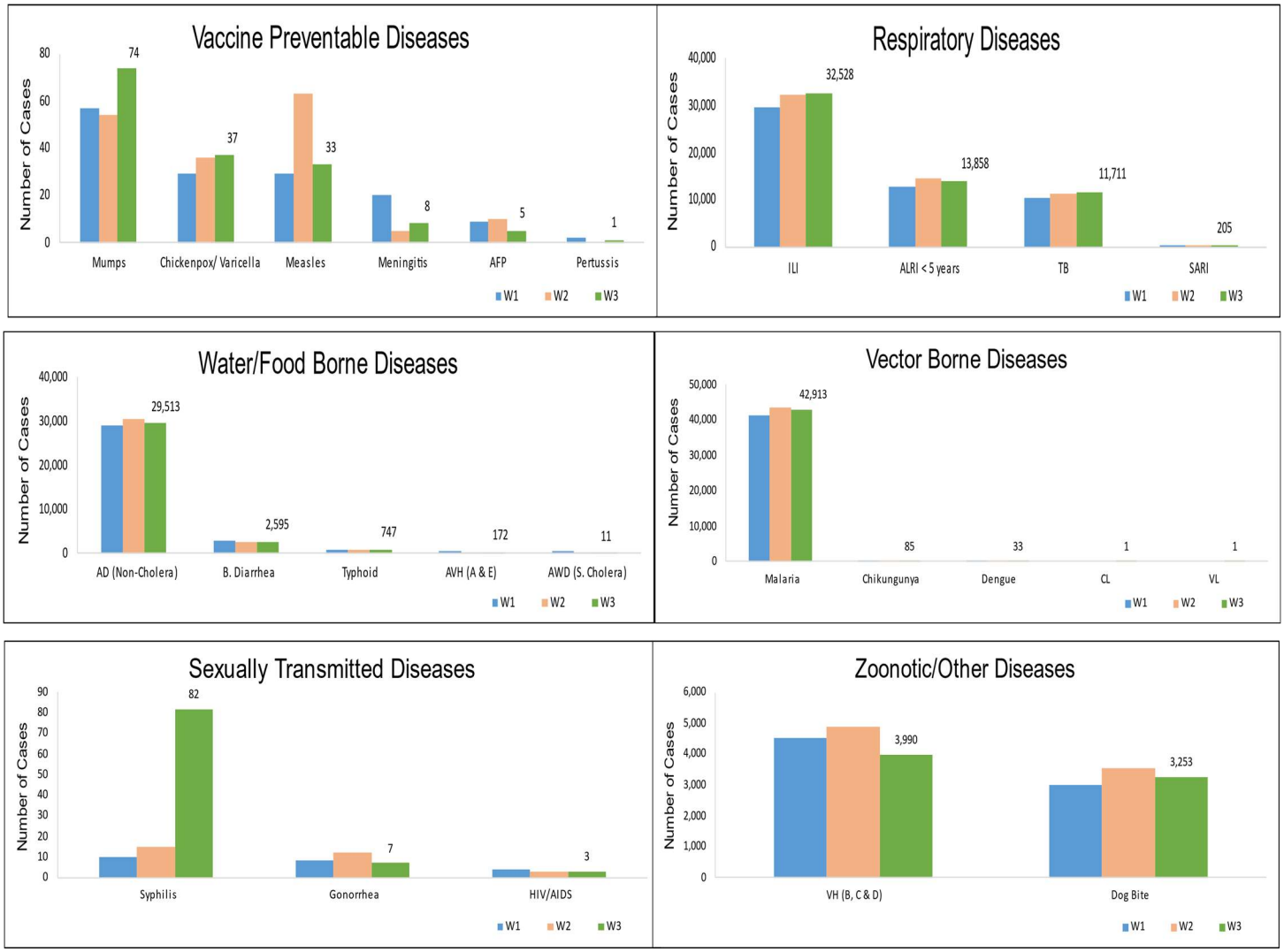
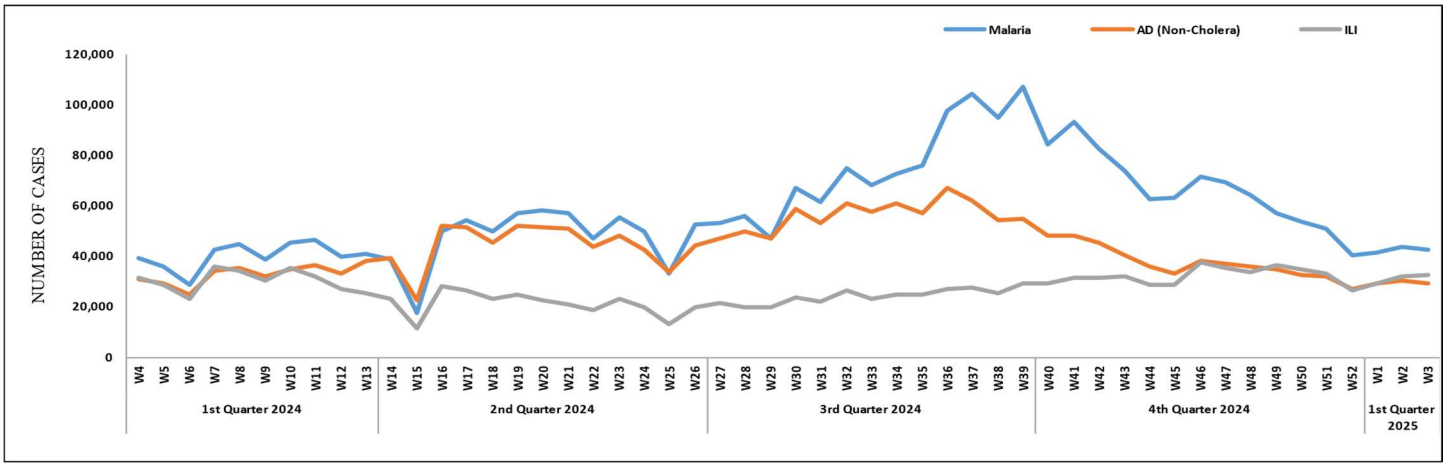


Figure 3: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Sindh



- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, B. Diarrhea, SARI, Typhoid, dog bite, TB and AWD (S. Cholera) cases were the most frequently reported diseases from Balochistan province.
- ILI cases are mostly reported from Quetta, Pishin and Kohlu while AD (Non-Cholera) cases are mostly reported from Gwadar, Kech (Turbat) and Usta Muhammad.
- ILI, AD (Non-Cholera), Malaria, ALRI <5 years, SARI, Typhoid and TB showed a decline in cases this week.

Table 3: District wise distribution of most frequently reported suspected cases during Week 03, Balochistan

Districts	ILI	AD (Non-Cholera)	Malaria	ALRI < 5 years	B. Diarrhea	SARI	Typhoid	Dog Bite	TB	AWD (S. Cholera)
Barkhan	22	55	31	11	0	0	26	8	9	1
Chagai	225	95	18	0	33	0	3	0	0	2
Dera Bugti	87	49	98	88	0	0	0	0	0	0
Gwadar	464	483	238	9	12	2	17	1	0	0
Harnai	21	117	55	216	53	0	0	0	0	0
Jaffarabad	45	13	1	0	6	0	0	0	0	0
Jhal Magsi	381	290	532	297	1	1	13	5	6	0
Kalat	0	19	9	17	6	6	5	0	0	0
Kech (Turbat)	573	334	313	20	50	6	3	NR	0	NR
Kharan	579	78	17	0	46	24	4	0	0	0
Khuzdar	333	174	57	1	72	6	18	0	0	9
Killa Abdullah	82	71	13	22	12	39	4	6	3	16
Killa Saifullah	0	84	97	229	49	28	17	0	0	6
Kohlu	592	184	79	68	59	34	42	1	NR	NR
Lasbella	60	254	371	110	44	8	19	29	2	0
Loralai	460	122	29	44	47	78	18	10	0	0
MusaKhel	48	12	63	16	4	0	2	0	0	8
Naseerabad	28	278	354	54	13	29	65	100	17	0
Nushki	29	125	4	3	50	0	0	0	0	0
Panjgur	36	17	2	19	3	0	0	0	0	0
Pishin	693	178	12	140	62	42	20	2	1	17
Quetta	1,063	324	20	154	53	79	11	5	1	0
Sherani	23	3	0	0	0	22	0	0	0	2
Sibi	81	28	12	7	9	4	3	0	0	2
Surab	172	48	4	0	0	0	0	0	0	0
Usta Muhammad	187	344	282	216	43	22	6	9	0	0
Washuk	437	156	108	NR	45	3	NR	2	NR	NR
Zhob	216	82	17	320	94	91	36	0	40	0
Ziarat	157	43	7	16	31	5	1	0	0	3
Total	7,094	4,060	2,843	2,077	897	529	333	178	79	66

Figure 4: Most frequently reported suspected cases during Week 03, Balochistan

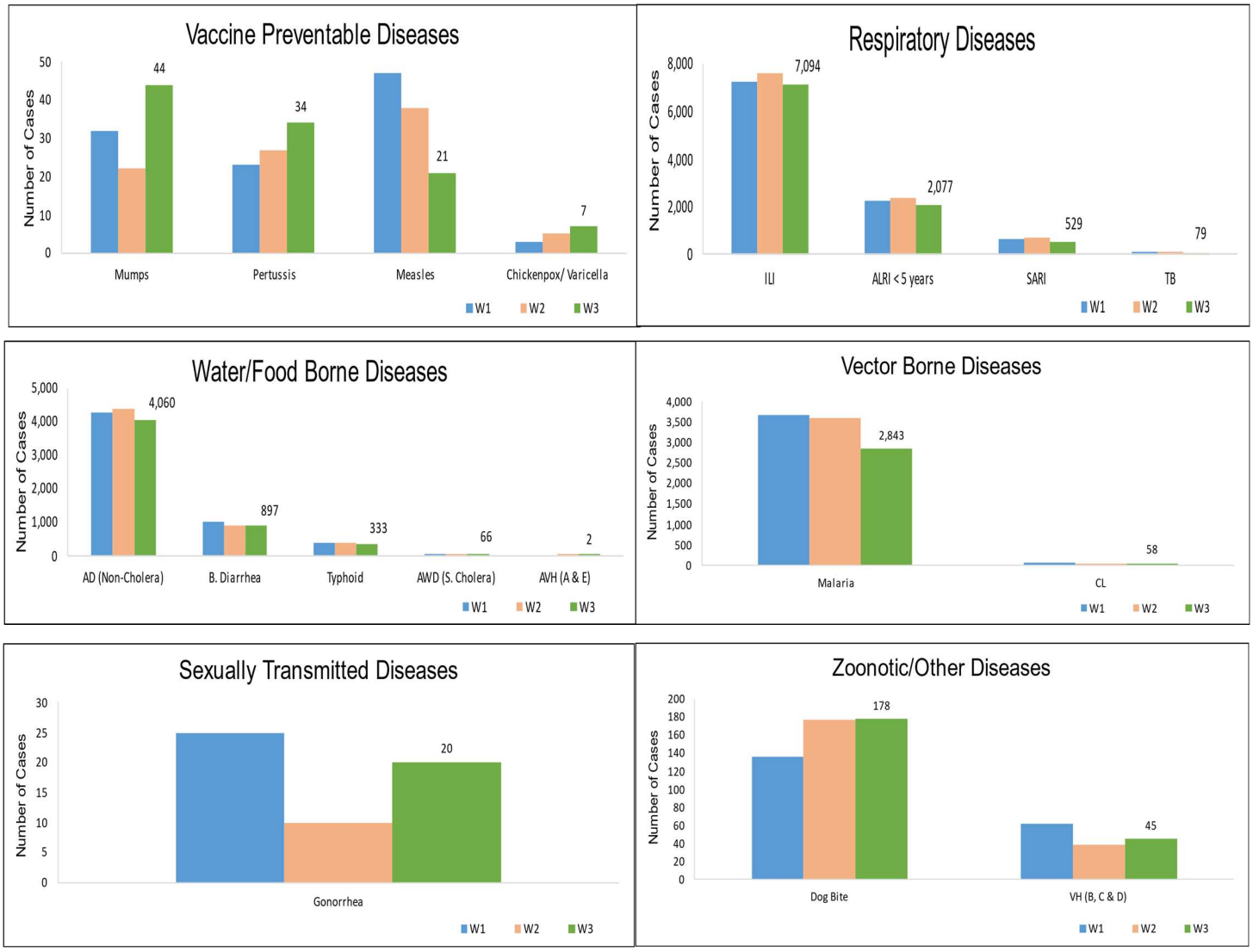
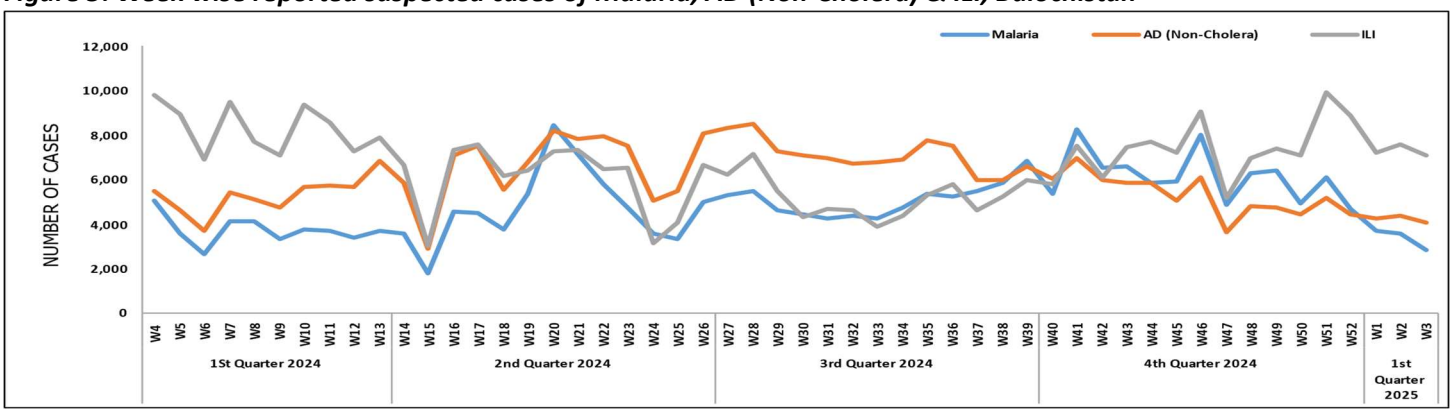


Figure 5: Week wise reported suspected cases of Malaria, AD (Non-Cholera) & ILI, Balochistan



Khyber Pakhtunkhwa

- Cases of AD (Non-Cholera) were maximum followed by ILI, Malaria, SARI, ALRI<5 Years, B. Diarrhea, dog bite, Typhoid, TB and CL cases.
- AD (Non-Cholera), ILI, Malaria and B. Diarrhea cases showed a decline in number while SARI, ALRI<5 Years, dog bite, TB and CL cases showed an increase in number this week.
- Twenty-five cases of AFP reported from KP. All are suspected cases and need field verification.
- Eleven suspected cases of Brucellosis reported from KP. They require field verification.

Table 4: District wise distribution of most frequently reported suspected cases during Week 03, KP

Districts	AD (Non-Cholera)	ILI	Malaria	SARI	ALRI < 5 years	B. Diarrhea	Dog Bite	Typhoid	TB	CL
Abbottabad	402	199	0	8	52	6	99	43	10	0
Bajaur	318	76	102	147	35	74	55	2	7	22
Bannu	597	14	1,325	5	26	30	2	80	18	0
Battagram	138	584	18	NR	8	1	NR	NR	38	NR
Buner	157	0	210	0	0	0	16	1	2	0
Charsadda	1,231	1,524	448	438	632	266	4	80	23	1
Chitral Lower	208	245	4	25	13	8	10	2	3	7
Chitral Upper	67	3	2	3	4	1	4	6	0	0
D.I. Khan	1,006	0	226	0	23	17	6	3	48	0
Dir Lower	913	1	151	0	131	71	53	20	8	3
Dir Upper	480	155	7	13	127	2	15	4	26	8
Hangu	85	161	28	0	0	7	6	1	0	57
Haripur	465	309	3	10	65	0	19	5	140	0
Karak	279	32	67	97	34	10	7	0	2	106
Khyber	300	98	114	58	46	93	24	65	18	76
Kohat	343	75	33	39	9	13	13	6	0	16
Kohistan Lower	51	0	1	0	1	8	1	0	0	0
Kohistan Upper	157	0	5	0	6	12	4	0	0	0
Kolai Palas	46	0	1	3	0	2	0	1	0	0
L & C Kurram	5	7	4	8	0	12	0	0	0	0
Lakki Marwat	539	28	178	0	47	8	54	3	3	1
Malakand	286	27	2	26	44	18	0	19	0	39
Mansehra	373	310	0	905	35	1	0	0	9	0
Mardan	695	0	7	5	116	20	56	12	6	0
Mohmand	109	191	128	166	2	24	26	5	1	71
North Waziristan	49	94	5	13	111	0	20	63	0	11
Nowshera	860	86	28	9	30	7	39	7	10	2
Orakzai	17	33	6	0	1	1	25	0	0	0
Peshawar	1,712	761	34	216	220	107	10	39	19	0
SD Tank	6	2	7	0	0	1	0	0	0	0
Shangla	680	0	118	0	34	5	62	13	56	1
South Waziristan (Lower)	14	226	4	74	7	2	8	10	1	0
SWU	12	13	8	27	2	1	0	0	0	0
Swabi	707	901	48	44	150	4	148	45	43	0
Swat	968	112	5	0	92	16	22	43	7	0
Tank	429	162	105	0	21	5	0	28	12	1
Tor Ghar	49	0	9	15	32	22	35	1	0	1
Upper Kurram	75	361	8	322	37	17	8	3	4	0
Total	14,831	6,790	3,449	2,676	2,193	892	851	610	514	423

Figure 6: Most frequently reported suspected cases during Week 03, KP

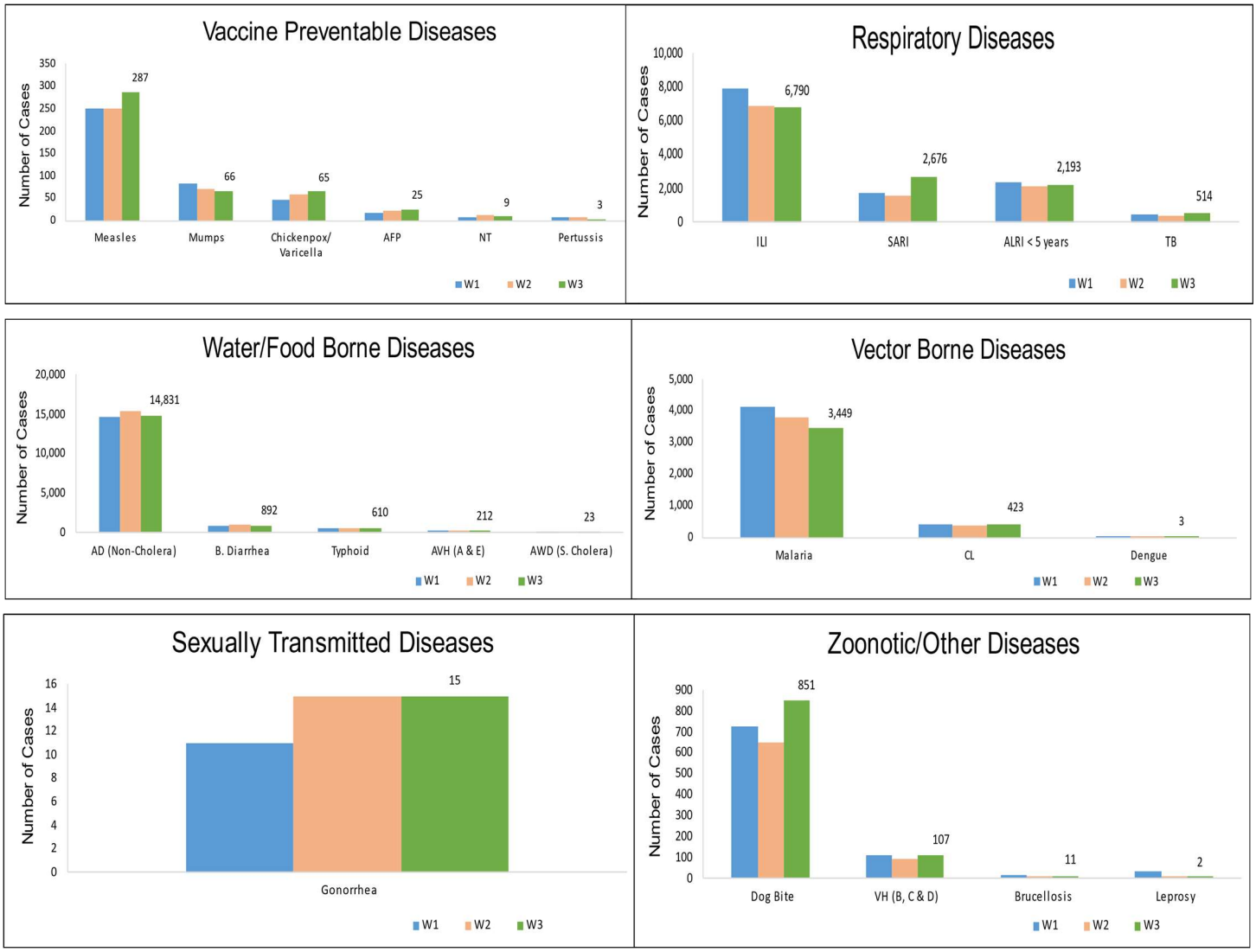
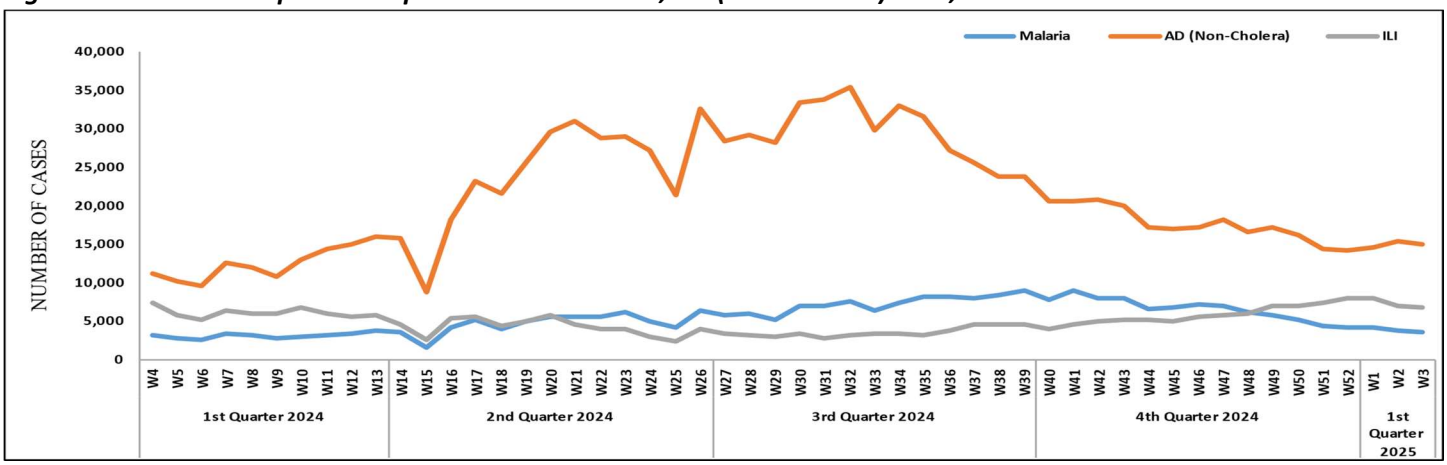


Figure 7: Week wise reported suspected cases Malaria, AD (Non-Cholera) & ILI, KP



Punjab

- 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), TB, Malaria and Dengue showed a decline in number of cases this week.
- Fifteen suspected cases of HIV/ AIDS reported from Punjab. Field investigation required to verify the cases.
- Fifteen cases of AFP reported from Punjab. All are suspected cases and need field verification.

Figure 8: Most frequently reported suspected cases during Week 03, Punjab

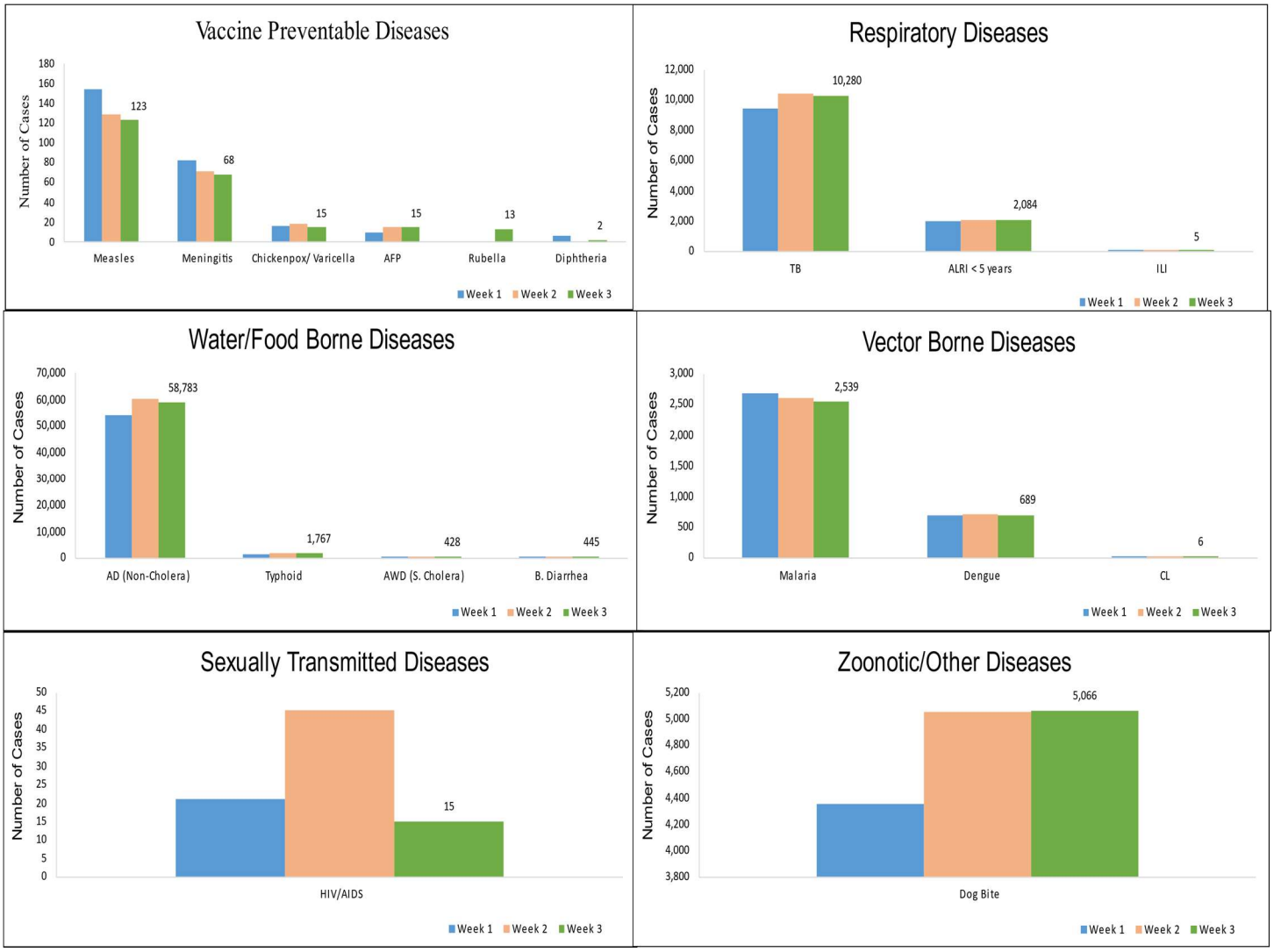
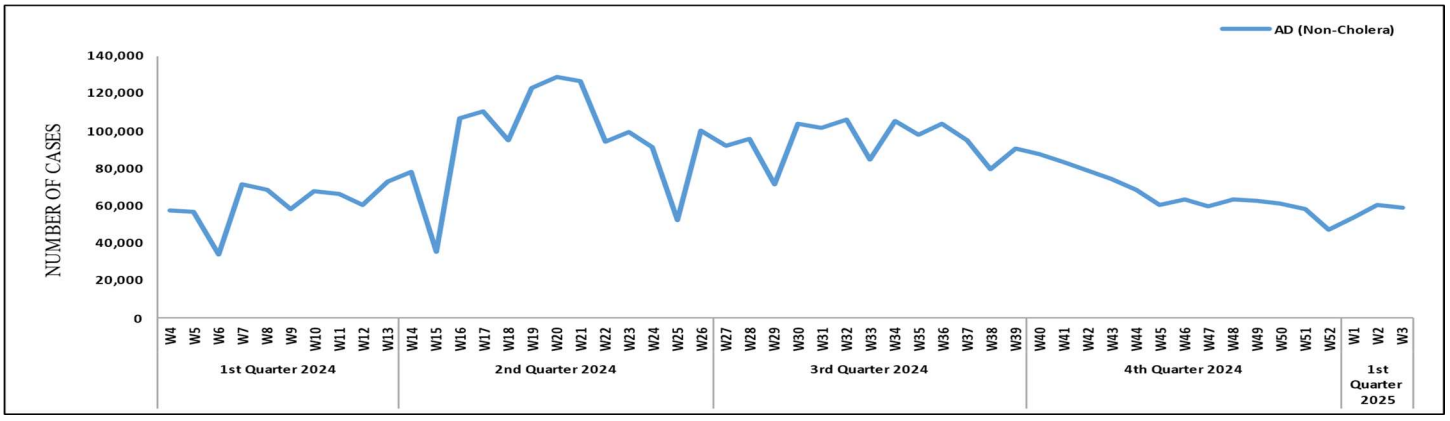


Figure 9: Week wise reported suspected cases of AD (Non-Cholera), Punjab



ICT, AJK & GB

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

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

GB: ALRI <5 Years cases were the most frequently reported diseases followed by ILI, AD (Non-Cholera), SARI, TB, Typhoid and B. Diarrhea cases. An increase in cases observed for ALRI <5 years, ILI, AD (Non-Cholera), SARI, TB, Typhoid and B. Diarrhea this week. Three cases of AFP reported from GB. All are suspected cases and need field verification.

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Figure 10: Most frequently reported suspected cases during Week 03, AJK

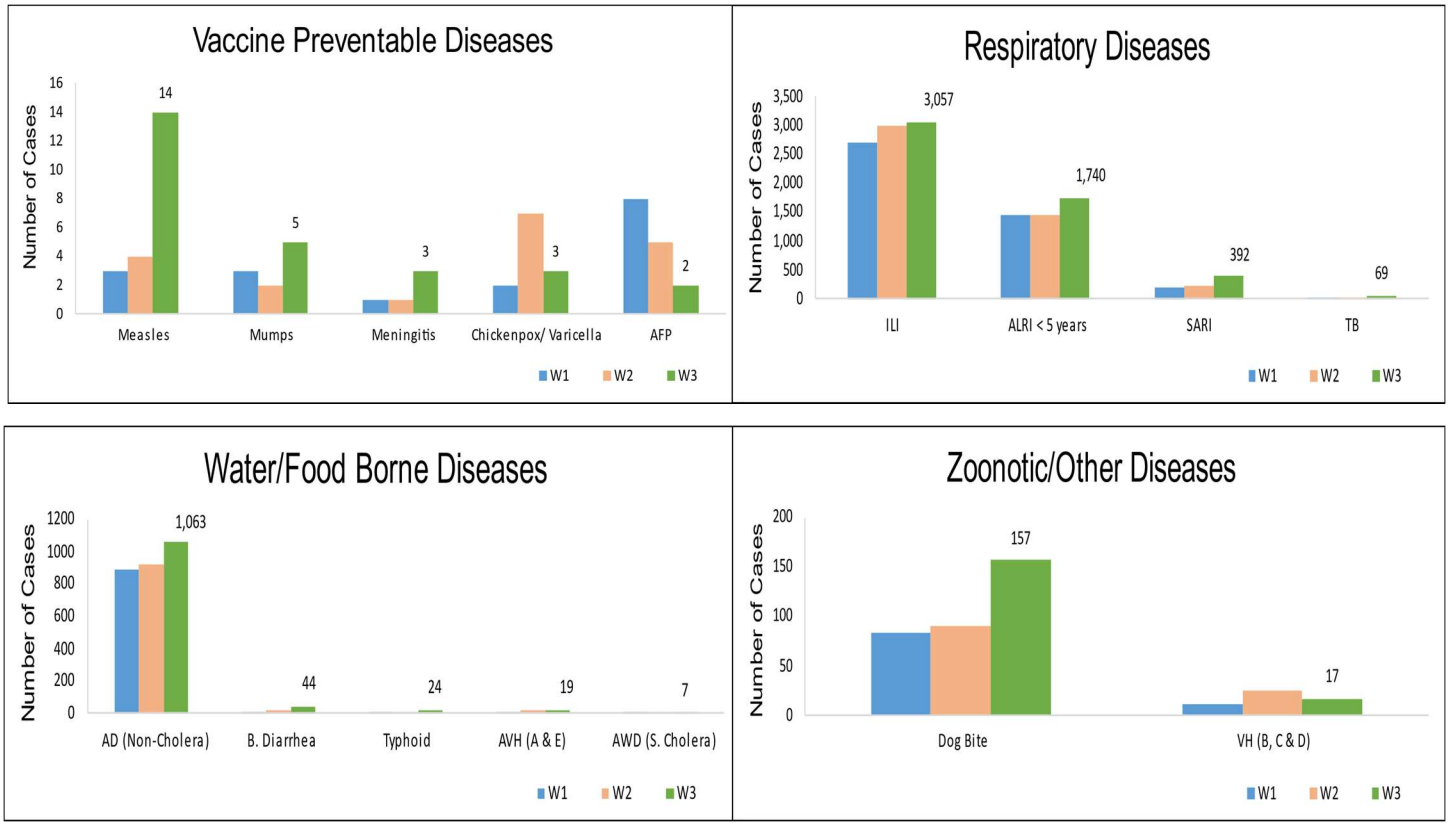


Figure 11: Week wise reported suspected cases of ILI and ARI <5 years, AJK

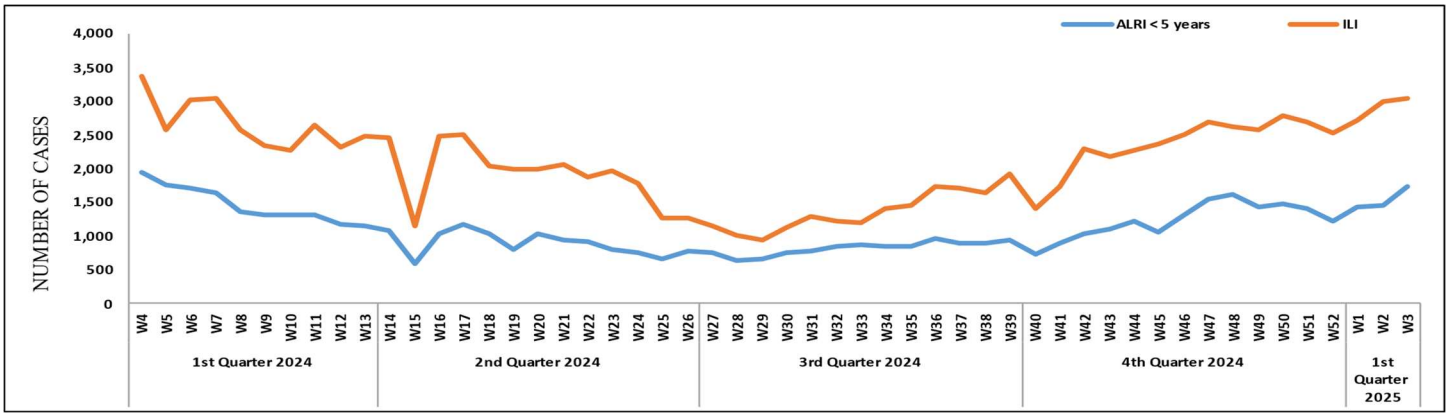


Figure 12: Most frequently reported suspected cases during Week 03, ICT

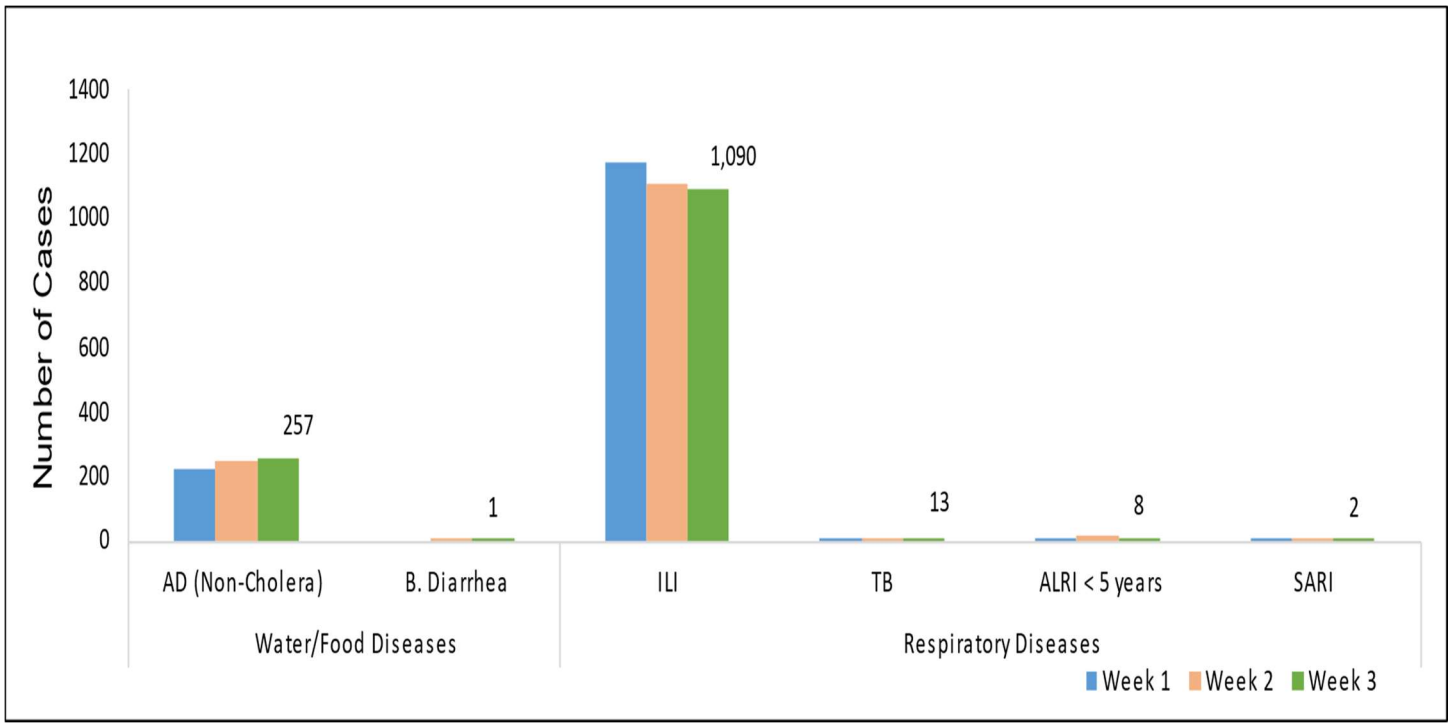


Figure 13: Week wise reported suspected cases of ILI, ICT

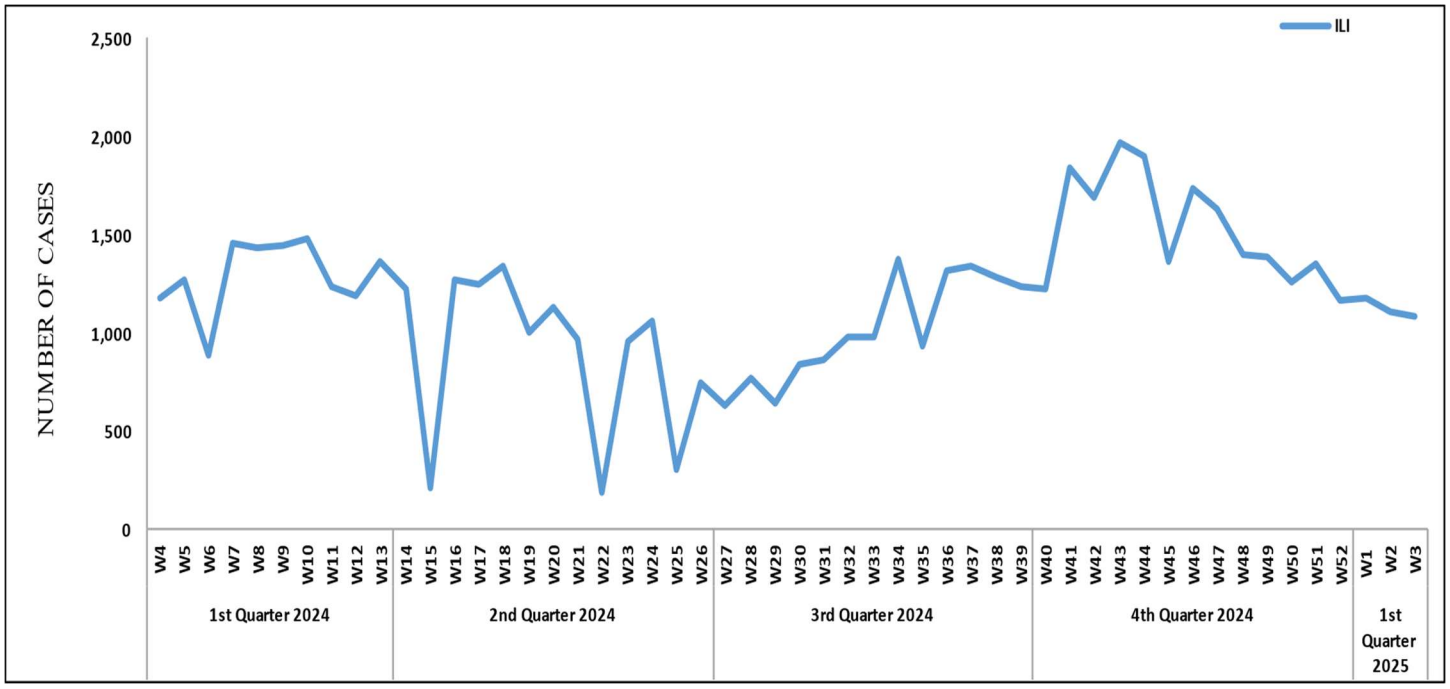


Figure 14: Most frequent cases reported during Week 03, GB

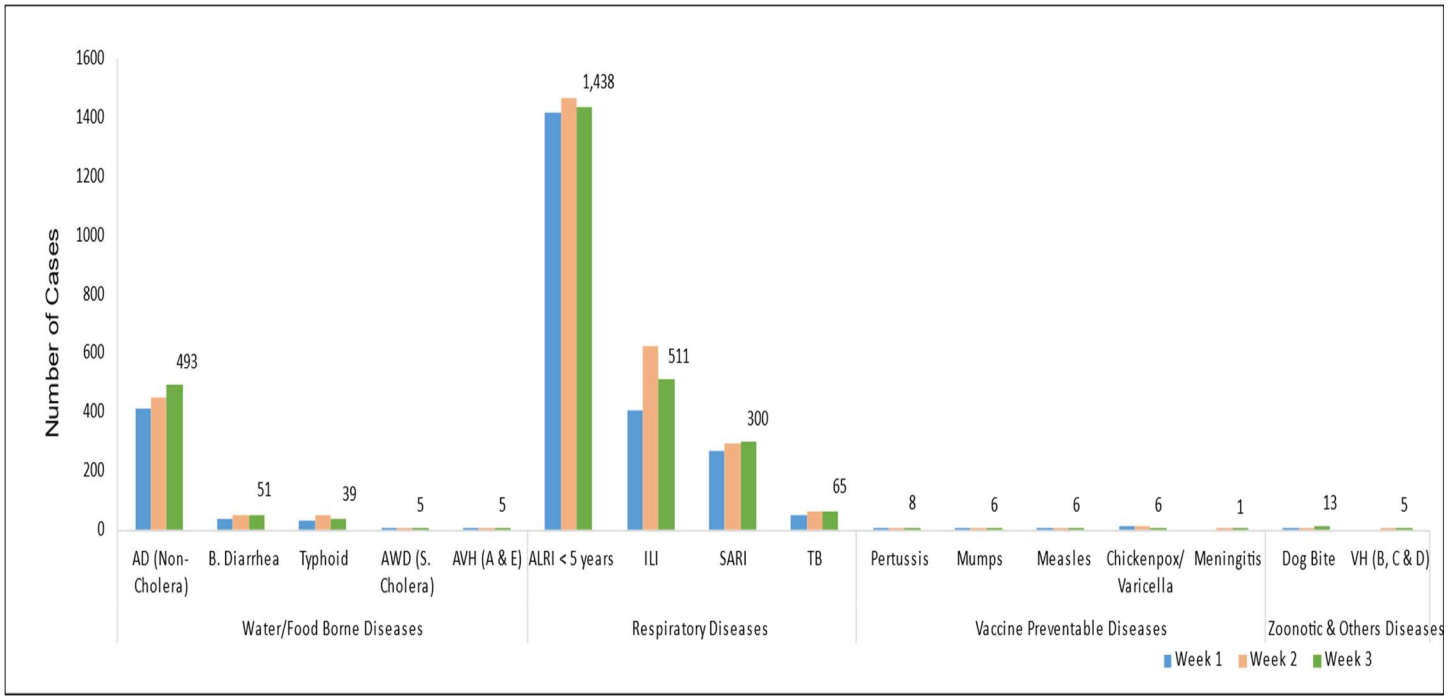


Figure 15: Week wise reported suspected cases of ALRI <5 years, GB

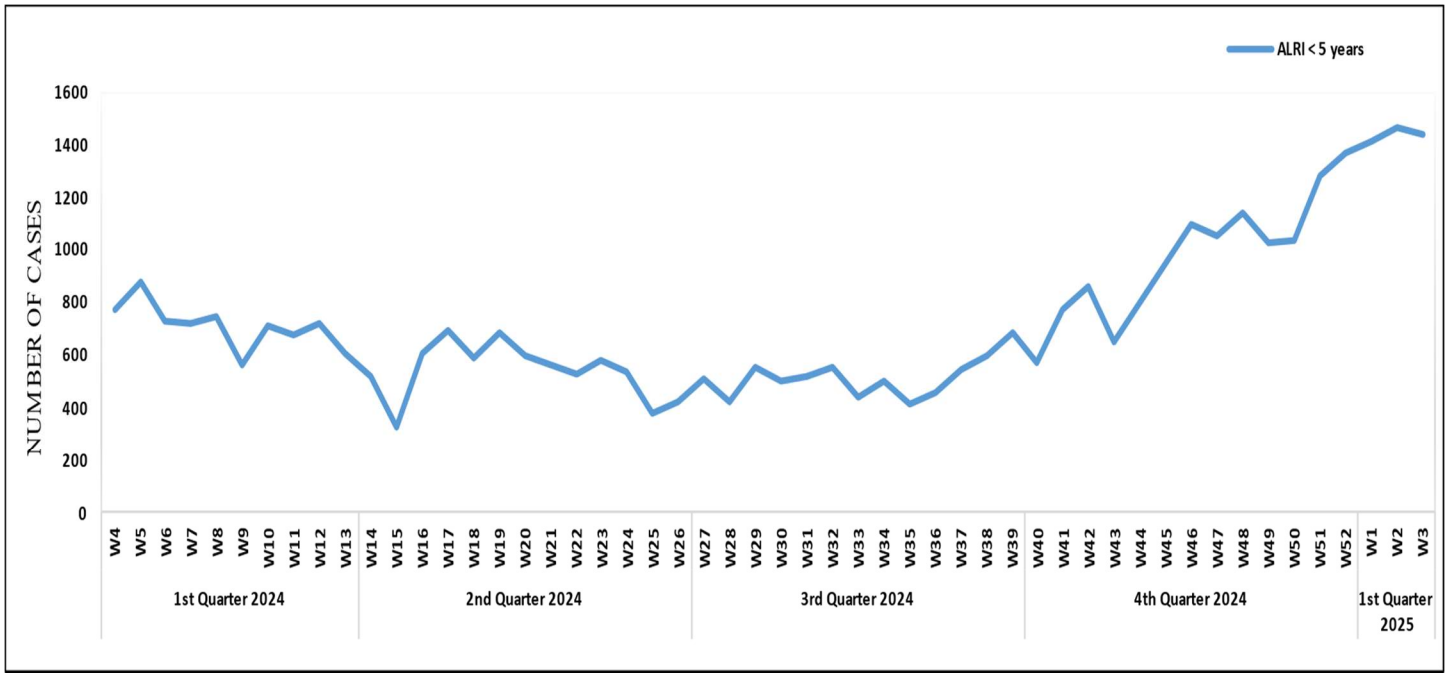


Table 5: Public Health Laboratories confirmed cases of IDSR Priority Diseases during Epid Week 03

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)		-	-	-	-	0	0	-	-	-	-	-	-	-	-
AD (non-cholera)		91	4	-	-	0	0	-	-	-	-	-	-	0	0
Malaria		1,541	139	-	-	1,095	22	-	-	-	-	-	-	52	0
CCHF		-	-	6	0	1	0	-	-	-	-	-	-	-	-
Dengue		466	5	-	-	327	3	3	0	-	-	-	-	4	0
VH (B)		880	60	55	46	3,799	56	-	-	0	0	-	-	717	2
VH (C)		987	95	38	12	3,309	674	-	-	0	0	-	-	719	6
VH (A & E)		0	0	-	-	96	0	-	-	-	-	-	-	30	5
Covid-19		-	-	3	0	119	1	3	0	-	-	-	-	-	-
Chikungunya		3	0	-	-	0	0	-	-	-	-	-	-	-	-
TB		161	20	-	-	144	9	-	-	-	-	-	-	82	6
HIV/ AIDS		235	1	-	-	2,312	8	-	-	-	-	-	-	535	2
Syphilis		156	2	-	-	241	1	-	-	-	-	-	-	30	0
B. Diarrhea		-	-	-	-	0	0	-	-	-	-	-	-	-	-
Typhoid		784	15	-	-	181	5	-	-	-	-	-	-	-	-
Diptheria		-	-	-	-	3	1	-	-	-	-	-	-	-	-
Pertussis		-	-	-	-	0	0	-	-	-	-	-	-	-	-
M-POX		-	-	-	-	69	0	0	0	-	-	-	-	-	-
Leishmaniansis (cutaneous)		-	-	-	-	0	0	-	-	-	-	-	-	-	-
Leishmaniansis (Visceral)		-	-	-	-	4	0	-	-	-	-	-	-	-	-
Pneumonial (ALRI)		-	-	-	-	24	0	-	-	-	-	-	-	-	-
Brucellosis		-	-	-	-	19	0	-	-	-	-	-	-	-	-
Meningitis		-	-	-	-	14	2	-	-	-	-	-	-	-	-
Gonorrhea		20	0	-	-	-	-	-	-	-	-	-	-	-	-
Rubella (CRS)		7	0	-	-	-	-	-	-	-	-	-	-	-	-
Covid-19	Out of SARI	12	0	0	0	42	2	95	0	10	0	386	2	6	0
	Out of ILI	10	0	0	0	2	0	75	1	5	0	300	0	4	0
Influenza A	Out of SARI	12	2	0	0	42	6	95	2	10	0	386	58	6	0
	Out of ILI	10	1	0	0	2	0	75	8	5	1	300	52	4	0
Influenza B	Out of SARI	12	0	0	0	42	0	95	7	10	1	386	62	6	0
	Out of ILI	10	0	0	0	2	0	75	6	5	0	300	65	4	0
RSV	Out of SARI	12	0	0	0	42	0	95	42	10	0	386	0	6	0
	Out of ILI	10	0	0	0	2	0	75	4	5	0	300	0	4	0

- 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 03, 2024

Provinces/Regions	Districts	Total Number of Reporting Sites	Number of Reported Sites for current week	Compliance Rate (%)
Khyber Pakhtunkhwa	Abbottabad	111	105	95%
	Bannu	238	137	58%
	Battagram	59	31	53%
	Buner	34	33	97%
	Bajaur	44	43	98%
	Charsadda	59	58	98%
	Chitral Upper	34	28	82%
	Chitral Lower	35	33	94%
	D.I. Khan	113	113	100%
	Dir Lower	74	74	100%
	Dir Upper	37	29	78%
	Hangu	22	16	73%
	Haripur	72	72	100%
	Karak	36	36	100%
	Khyber	53	43	81%
	Kohat	61	61	100%
	Kohistan Lower	11	11	100%
	Kohistan Upper	20	20	100%
	Kolai Palas	10	10	100%
	Lakki Marwat	70	69	99%
	Lower & Central Kurram	42	7	17%
	Upper Kurram	41	26	63%
	Malakand	42	36	86%
	Mansehra	133	117	88%
	Mardan	80	76	95%
	Nowshera	55	52	95%
	North Waziristan	13	11	85%
	Peshawar	154	132	86%
	Shangla	37	28	76%
	Swabi	64	61	95%
	Swat	77	75	97%
	South Waziristan (Upper)	93	37	40%
	South Waziristan (Lower)	42	18	43%
	Tank	34	32	94%
	Torghar	14	14	100%
	Mohmand	68	64	94%
	SD Peshawar	5	0	0%
	SD Tank	58	5	9%
	Orakzai	69	13	19%
	Mirpur	37	37	100%
	Bhimber	42	20	48%

Azad Jammu Kashmir	Kotli	60	60	100%
	Muzaffarabad	45	44	98%
	Poonch	46	46	100%
	Haveli	39	39	100%
	Bagh	40	40	100%
	Neelum	39	39	100%
	Jhelum Valley	29	29	100%
Islamabad Capital Territory	Sudhnooti	27	27	100%
	ICT	21	19	90%
Balochistan	CDA	15	8	53%
	Gwadar	26	25	96%
	Kech	44	31	70%
	Khuzdar	74	45	61%
	Killa Abdullah	26	18	69%
	Lasbella	55	55	100%
	Pishin	69	40	58%
	Quetta	55	40	73%
	Sibi	36	20	56%
	Zhob	39	29	74%
	Jaffarabad	16	16	100%
	Naserabad	32	32	100%
	Kharan	30	30	100%
	Sherani	15	4	27%
	Kohlu	75	49	65%
	Chagi	36	23	64%
	Kalat	41	40	98%
	Harnai	17	17	100%
	Kachhi (Bolan)	35	0	0%
	Jhal Magsi	28	28	100%
	Sohbat pur	25	25	100%
	Surab	32	22	69%
	Mastung	45	0	0%
	Loralai	33	24	73%
	Killa Saifullah	28	27	96%
	Ziarat	29	25	86%
	Duki	31	0	0%
	Nushki	32	27	84%
	Dera Bugti	45	31	69%
	Washuk	46	25	54%
	Panjgur	38	3	8%
	Awaran	23	0	0%
	Chaman	24	0	0%
	Barkhan	20	20	100%
	Hub	33	0	0%
	Musakhel	41	14	34%
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	62	100%
	Astore	54	54	100%
	Shigar	27	25	93%
	Skardu	52	52	100%
	Ganche	29	28	97%
Sindh	Kharmang	46	25	54%
	Hyderabad	74	24	32%
	Ghotki	64	63	98%
	Umerkot	43	43	100%
	Naushahro Feroze	107	96	90%
	Tharparkar	276	234	85%
	Shikarpur	61	60	98%
	Thatta	52	31	60%
	Larkana	67	65	97%
	Kamber Shadadkot	71	71	100%
	Karachi-East	23	19	83%
	Karachi-West	20	20	100%
	Karachi-Malir	37	21	57%
	Karachi-Kemari	18	15	83%
	Karachi-Central	12	8	67%
	Karachi-Korangi	18	18	100%
	Karachi-South	4	4	100%
	Sujawal	55	55	100%
	Mirpur Khas	106	102	96%
	Badin	124	124	100%
	Sukkur	64	63	98%
	Dadu	90	88	98%
	Sanghar	100	99	99%
	Jacobabad	44	44	100%
	Khairpur	170	168	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	122	98%

Table 7: IDSR reporting Tertiary care hospital Week 03, 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	0	0%

Enhancing Emergency Response: NIH Conducts Intensive Rapid Response Team (RRT) Training in Balochistan

In a significant step toward strengthening Pakistan's public health emergency response capabilities, the National Institute of Health (NIH), in collaboration with the Balochistan Health Department and the U.S. Centers for Disease Control and Prevention (CDC-US), successfully conducted a five-day intensive training program for the Rapid Response Team (RRT).

This training, designed to equip health professionals with critical outbreak investigation and emergency response skills, focused on RRT curriculum orientation and hands-on simulation exercises, ensuring participants are prepared for real-world public health threats.

Building Rapid Response Capacity

With emerging infectious diseases, antimicrobial resistance, and climate-driven health crises posing growing threats, the need for well-trained Rapid Response Teams has never been more crucial. The training aimed to enhance preparedness, coordination, and response efficiency for public health emergencies in Balochistan—a province with unique geographical and health system challenges.

The five-day program covered:

- Fundamentals of outbreak detection and response.
- Epidemiological investigation techniques
- Risk communication and community engagement strategies.
- Personal protective equipment (PPE) training and biosafety measures
- Simulation-based field exercises for real-world crisis management.

Realistic Simulation Exercise: Putting Skills to the Test

A key highlight of the training was a realistic emergency simulation, where participants applied their knowledge in a controlled environment mimicking an actual disease outbreak. This hands-on approach reinforced teamwork, decision-making, and swift response under pressure, crucial for handling public health crises such as disease outbreaks, natural disasters, and biothreats.

Strengthening Public Health Preparedness in Balochistan

Balochistan's diverse terrain and remote communities pose logistical challenges in disease surveillance and outbreak response. By investing in capacity-building initiatives like this, NIH, the Balochistan Health Department, and CDC-US aim to empower local health professionals with the tools and knowledge needed to respond swiftly and effectively to health emergencies.

Way Forward

This RRT training is part of a broader strategy to enhance Pakistan's Global Health Security Agenda (GHSA) and International Health Regulations (IHR) compliance, ensuring that public health professionals are prepared to tackle emerging and re-emerging disease threats.

As Pakistan continues to strengthen its epidemic preparedness and response mechanisms, initiatives like this play a vital role in protecting communities, minimizing health risks, and building a resilient health system.

Notes from the field:

Outbreak Investigation of Measles Outbreak in Killi Abatu, Union Council Roghani-2, District Chaman, Balochistan 02nd Dec to 05th December, 2024.

Dr. Olas Yar (FETP Alumni PDSRU)

Dr. Abdul Kareem Qazi (FETP Fellow PDSRU)

Introduction:

Measles is a highly contagious viral disease transmitted through respiratory droplets when an infected person breathes, coughs, or sneezes and it can lead to severe complications, including pneumonia, encephalitis, and death, particularly among young children. Despite the availability of a safe and effective measles–rubella (MR) vaccine, global vaccination coverage remains suboptimal; according to the World Health Organization (WHO), an estimated 10.3 million measles cases were reported worldwide in 2023—a 20% increase from the previous year—with approximately 107,500 deaths, the vast majority occurring among unvaccinated or under-vaccinated children under five years of age.

In Balochistan, Pakistan, where low immunization rates are compounded by high levels of malnutrition, measles continues to be a significant public health concern. Recently, reports of an increase in measles cases in Union Council Roghani-2 of District Chaman raised alarms; on December 2, 2024, the Provincial Disease Surveillance and Response Unit (PDSRU) in Quetta received news reports about four suspected measles-related deaths among children in Killi Abatu, prompting an immediate field investigation. This outbreak investigation aims to identify the underlying risk factors, ascertain the causes of transmission, and develop targeted intervention strategies to prevent further spread of the disease in this vulnerable community.

Objectives

- To determine the magnitude of the disease (measles) in Killi Abatu, Roghani-2 Uc, District Chaman, Balochistan.
- To assess and evaluate the risk factors associated with measles in the area.
- To formulate the future recommendations to contain the outbreak.

Methodology

A descriptive study was carried out in this outbreak investigation in Village Abatu, Union Council Roghani-2, District Chaman, Balochistan. Suspected measles cases were defined as any child aged 0–120 months presenting with a fever of at least 37.5 °C and a maculopapular rash persisting for three or more days, accompanied by at least one of the following symptoms: cough, coryza, or conjunctivitis. This case definition was applied to all patients identified in Village Abatu between November 4, 2024, and December 3,

2024. Data were collected using a structured questionnaire adapted from the Integrated Disease Surveillance and Response (IDSR) system for measles, which documented clinical signs and symptoms, immunization status, demographic details, nutritional status, travel and treatment histories, and information from contact tracing.

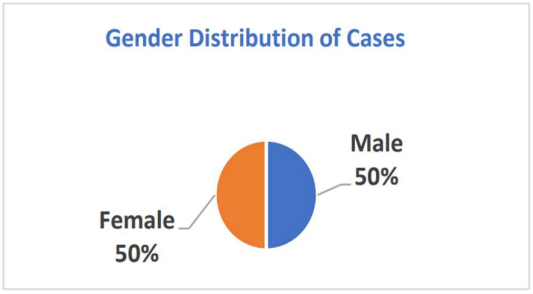
Blood samples were collected from suspected cases for laboratory confirmation of measles. Descriptive analysis including the measurement of frequency, gender distribution, attack rate, and the calculation of the case fatality rate, as well as the identification of risk factors was performed using MS Excel.

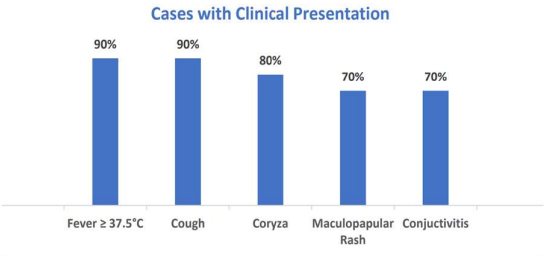
Results:

The active case search identified 10 suspected measles cases in Village Abatu, Union Council Roghani-2, District Chaman, with an equal distribution among males and females (50% each). The highest proportion of cases occurred in the 26–60 months age group (40%), followed by children older than 60 months (30%). The attack rate was calculated at 11 per 10,000 population for the under-15 years age group at risk. Among the 10 cases, the most commonly reported symptoms were fever (90%), cough (90%), coryza (80%), maculopapular rash (70%), and conjunctivitis (70%). Of the four suspected measles-related deaths, two were confirmed in a 10-month-old and a 5-year-old, both of whom were unvaccinated, resulting in a case fatality rate (CFR) of 20% while the other two remain unverified. These deaths occurred within the same household, which was identified as a vaccine-refusal case by the Expanded Programme on Immunization (EPI) team.

Additionally, during the active case search, 3 other unvaccinated households were identified.

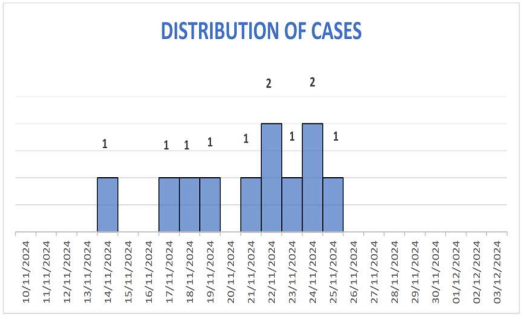
Limited health education and awareness regarding vaccination and hygiene practices were identified as risk factors, particularly within vaccine-refusal communities, thereby highlighting the critical role of vaccine hesitancy in disease transmission. Although the Integrated Disease Surveillance and Response (IDSR) system was operational with trained personnel, inconsistencies were noted in the reporting of suspected measles cases, which did not fully align with the established case definition.





Date wise Distribution of Cases:

The graph shows the distribution of cases presented with date of onset. Most of the cases were reported on 22 Nov 2024 and 24 Nov 2024.



Discussion:

The clustering of cases, particularly among unvaccinated households, emphasizes the role of vaccine hesitancy as a key driver of disease transmission. Research has consistently shown that measles outbreaks are more likely to occur in communities with low vaccination rates, even when overall

population coverage is high [1]. In this outbreak, both confirmed measles-related deaths occurred in a household identified as a vaccine-refusal case, reinforcing the direct consequences of vaccine hesitancy.

The presence of three additional unvaccinated households during the active case search indicates localized clusters of vaccine refusal, an issue documented as a significant contributor to measles resurgence [2]. According to the CDC, measles is one of the most contagious viral diseases, requiring over 95% vaccination coverage to prevent outbreaks [3]. Addressing these challenges requires targeted public health interventions, including culturally sensitive community engagement and education campaigns to improve vaccine acceptance [4].

While the Integrated Disease Surveillance and Response (IDSR) system was operational with trained personnel, inconsistencies in reporting suspected cases were noted, particularly deviations from the standard case definition. Surveillance systems play a crucial role in early outbreak detection and response, and timely, accurate reporting is essential for containment [5]. The WHO emphasizes the importance of robust measles surveillance and recommends immediate case notification, laboratory confirmation, and outbreak response measures [6]. Strengthening the IDSR system through enhanced training, real-time data sharing, and integration with immunization programs could improve early detection and timely response to future outbreaks.

Conclusion:

This measles outbreak in Village Abatu highlights the critical impact of vaccine hesitancy, inadequate immunization coverage, and gaps in disease surveillance. Strengthening routine immunization, enhancing surveillance reporting, and implementing targeted community education are essential to preventing future outbreaks. Urgent public health interventions are needed to improve vaccine acceptance and ensure timely outbreak response.

Recommendations

- Consider mass vaccination campaigns in UC Roghani-2, targeting high-risk and unimmunized populations.
- Health awareness sessions should be conducted for the community to address vaccine refusal.
- Implement vaccination programs in schools and madrassas to reach children, a vulnerable demographic.
- Comprehensive monitoring of outreach activities in UC Roghani-2 should focus on clusters to identify and address pockets of low immunization in a timely manner
- Strengthen the IDSR system for better integration of measles surveillance with other diseases to monitor and report cases in real time, enabling rapid responses to new cases.
- Launch community awareness campaigns on the symptoms of measles and the importance of seeking timely medical attention.
- Conduct refresher training for health workers on measles case definition, identification, and reporting to ensure accurate detection of cases.

References

1. Centers for Disease Control and Prevention (CDC). Measles (Rubeola): Data and Statistics. 2023. Available from: https://www.cdc.gov/measles/data-research/index.html
2. Dabbagh A, Laws RL, Steulet C, Dumolard L, Gacic-Dobo M, Mulders MN, et al. Progress Toward Regional Measles Elimination—Worldwide, 2000–2020. MMWR Morb Mortal Wkly Rep. 2021;70(45):1563–1569. Available from: https://doi.org/10.15585/mmwr.mm7045a1
3. Centers for Disease Control and Prevention (CDC). Measles Surveillance Manual. 2022. Available from: https://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.html
4. World Health Organization (WHO). Addressing Vaccine Hesitancy: Strategies and Best Practices. 2022. Available from: https://www.who.int/publications/i/item/9789240052079
5. Moss WJ. Measles. Lancet. 2017;390(10111):2490-2502. Available from: https://doi.org/10.1016/S0140-6736(17)31463-0
6. World Health Organization (WHO). Measles Outbreaks Strategic Response Plan 2021–2023. Geneva: WHO; 2021. Available from: https://www.who.int/publications/i/item/9789240052079

Knowledge Hub

Understanding Measles

Introduction

Measles is a highly contagious viral disease caused by the measles virus, a member of the Paramyxoviridae family. Despite the availability of a safe and effective vaccine, measles remains a significant cause of morbidity and mortality worldwide, particularly among young children.

Epidemiology

Globally, measles continues to be a major public health concern. In 2023, there were an estimated 107,500 measles deaths, primarily among unvaccinated children under the age of five. While vaccination efforts have prevented over 60 million deaths between 2000 and 2023, challenges such as vaccine hesitancy and disparities in healthcare access persist.

Transmission

Measles is transmitted via respiratory droplets when an infected person coughs or sneezes. The virus can remain infectious in the air for up to two hours after the infected person leaves an area. Individuals are contagious from four days before to four days after the appearance of the characteristic rash. Notably, up to 90% of susceptible individuals in close proximity to an infected person will contract the virus.

Clinical Presentation

The initial symptoms of measles include high fever, cough, runny nose (coryza), and red, watery eyes (conjunctivitis). These symptoms typically appear 7–14 days after exposure. Two to three days after symptom onset, small white spots known as Koplik spots may appear inside the mouth. A maculopapular rash usually develops three to five days after the initial symptoms, beginning on the face and spreading downward to the rest of the body.

Complications

Measles can lead to severe complications, especially in children under five and adults over 30. Common complications include ear infections and diarrhea. More severe complications encompass pneumonia, encephalitis (brain swelling), and subacute sclerosing panencephalitis (SSPE), a rare but fatal disease of the central nervous system that occurs years after a measles infection. For every 1,000 children who become infected with measles, one to three will die from respiratory and neurologic complications.

Prevention

Vaccination is the most effective method to prevent measles. The Measles, Mumps, and Rubella (MMR) vaccine is safe and highly effective. Two doses of the MMR vaccine are about 97% effective at preventing measles; one dose is about 93% effective. Despite the availability of the vaccine, global coverage remains below the optimal level, with the proportion of children receiving the first dose of the measles vaccine at 83% in 2023, below the 2019 level of 86%.

Challenges

Despite significant progress, measles outbreaks continue to occur, often due to gaps in vaccination coverage. Factors contributing to these gaps include vaccine hesitancy, misinformation, and logistical challenges in vaccine distribution.

Key take away:

Measles remains a critical public health issue that necessitates sustained vaccination efforts, public education to combat misinformation, and robust healthcare infrastructure to ensure vaccine accessibility. Continued vigilance and proactive measures are essential to prevent outbreaks and move closer to global measles elimination.

Refences:

Centers for Disease Control and Prevention (CDC). Measles: Signs and Symptoms. CDC [Internet]. 2023 [cited 2025 Feb 11]. Available from: https://www.cdc.gov/measles/signs-symptoms/index.html

World Health Organization (WHO). Measles. WHO [Internet]. 2023 [cited 2025 Feb 11]. Available from: https://www.who.int/news-room/fact-sheets/detail/measles

Measles

IT ISN'T JUST A LITTLE RASH

Measles can be dangerous, especially for babies and young children.

MEASLES SYMPTOMS TYPICALLY INCLUDE

- High fever (may spike to more than 104° F)
- Cough
- Runny nose
- Red, watery eyes
- Rash breaks out 3-5 days after symptoms begin

Measles Can Be Serious

About 1 out of 4 people who get measles will be hospitalized.

1 out of every 1,000 people with measles will develop brain swelling due to infection (encephalitis), which may lead to brain damage.

1 or 2 out of 1,000 people with measles will die, even with the best care.

You have the power to protect your child.

Provide your children with **safe** and **long-lasting protection** against measles by making sure they get the **measles-mumps-rubella (MMR) vaccine** according to CDC's recommended immunization schedule.

WWW.CDC.GOV/MEASLES

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UK Health Security Agency

World Health Organization

USAID

CDC U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION