

Monthly summary report

Hospital-Based Human Influenza Surveillance in Bangladesh

July 2024

Hospital based influenza surveillance
Monthly hospitalwise influenza lab results
July 2024

Hospital	District	Sample	Flu	Flu %	Flu A	Flu B	Flu A+B	Flu A/H1	Flu A/H3	Flu A/H5	Flu A/H7	Flu A/ (H1N1)pdm09	Flu B Yamagata lineage	Flu B Victoria lineage
JIMCH	Kishoregonj	103	37	36	37	0	0	0	16	0	0	21	0	0
RMCH	Rajshahi	44	17	39	17	0	0	0	16	0	0	1	0	0
CuMCH	Cumilla	62	6	10	6	0	0	0	6	0	0	0	0	0
KMCH	Khulna	33	13	39	13	0	0	0	8	0	0	4	0	0
JGH	Jashore	93	51	55	51	0	0	0	37	0	0	14	0	0
JRRMCH	Sylhet	89	26	29	26	0	0	0	16	0	0	10	0	0
SBMCH	Barishal	67	8	12	8	0	0	0	5	0	0	3	0	0
CMCH	Chattogram	124	18	15	18	0	0	0	7	0	0	11	0	0
MARMCH	Dinajpur	90	32	36	30	2	0	0	29	0	0	1	0	2
		705	208	30	206	2	0	0	140	0	0	65	0	2

#One co-infection with A/H3 and A/(H1N1)pdm09

Hospital based influenza surveillance
Monthly enrollment by different wards (Medicine, Pediatrics and CCU)
July 2024

Hospital	District	Medicine ward			Pediatrics ward (≤12 years of age)			Coronary Care Unit (CCU)		
		Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %
JIMCH	Kishoregonj	58	21	36	44	15	34	1	1	100
RMCH	Rajshahi	21	5	24	23	12	52	0	0	0
CuMCH	Cumilla	23	3	13	37	3	8	2	0	0
KMCH	Khulna	24	11	46	9	2	22	0	0	0
JGH	Jashore	68	38	56	25	13	52	0	0	0
JRRMCH	Sylhet	43	12	28	44	14	32	2	0	0
SBMCH	Barishal	29	2	7	38	6	16	0	0	0
CMCH	Chattogram	62	9	15	61	9	15	1	0	0
MARMCH	Dinajpur	36	10	28	54	22	41	0	0	0
		364	111	30	335	96	29	6	1	17

Hospital based influenza surveillance
Monthly enrollment by different surveillance groups
July 2024

Hospital	District	SARI (aged ≥ 5 years)			SARI (aged < 5 years)			ILI [‡]		
		Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %
JIMCH	Kishoregonj	42	19	45	21	10	48	40	8	20
RMCH	Rajshahi	26	8	31	18	9	50	-	-	-
CuMCH	Cumilla	31	4	13	31	2	6	-	-	-
KMCH	Khulna	27	12	44	6	1	17	-	-	-
JGH	Jashore	41	25	61	8	5	63	44	21	48
JRRMCH	Sylhet	27	10	37	24	6	25	38	10	26
SBMCH	Barishal	35	3	9	32	5	16	-	-	-
CMCH	Chattogram	41	5	12	39	4	10	44	9	20
MARMCH	Dinajpur	22	8	36	26	13	50	42	11	26
		292	94	32	205	55	27	208	59	28

Hospital based influenza surveillance
Influenza results by different age groups
July 2024

Age groups	July 2024									Initiation - July 2024								
	SARI (aged ≥ 5 years)			ILI [‡]			SARI (aged < 5 years)			SARI (aged ≥ 5 years)			ILI [‡]			SARI (aged < 5 years)		
	Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %
<1 Year	-	-	-	12	0	0	110	20	18	-	-	-	2,901	195	7	11,367	724	6
1-4 Years	-	-	-	26	9	35	95	35	37	-	-	-	4,876	715	15	5,135	820	16
5-14 Years	64	20	31	42	18	43	-	-	-	5,540	1204	22	3,110	734	24	-	-	-
15-24 Years	68	20	29	59	15	25	-	-	-	5,566	1293	23	3,127	617	20	-	-	-
25-39 Years	48	25	52	29	13	45	-	-	-	5,835	1144	20	2,569	430	17	-	-	-
40-59 Years	55	18	33	28	3	11	-	-	-	7,415	1195	16	1,731	257	15	-	-	-
≥ 60 Years	57	11	19	12	1	8	-	-	-	7,504	1171	16	591	65	11	-	-	-
	292	94	32	208	59	28	205	55	27	31,860	6,007	19	18,905	3,013	16	16,502	1,544	9

[‡]Outpatient ILI surveillance reinitiated at JIMCH (Kishoregonj), JGH (Jashore), JRRMCH (Sylhet), CMCH (Chattogram) and MARMCH (Dinajpur) in November 2023.

Hospital based influenza surveillance
Hospitalwise influenza lab results
Surveillance initiation - July 2024

Hospital	District	Initiation	Sample	Flu	Flu %	Flu A ^ψ	Flu B ^λ	Flu A+B [‡]	Flu A/H1	Flu A/H3	Flu A/H5	Flu A/H7	Flu A/ (H1N1)pdm09	Flu B Yamagata lineage	Flu B Victoria lineage
DNMCH ^γ	Dhaka	Jun 2007	2,061	312	15	201	111	0	15	84	0	0	102	13	7
CBMCH ^γ	Mymensingh	Oct 2007	2,053	302	15	206	96	0	7	107	1	0	91	16	10
JIMCH	Kishoregonj	Sep 2007	8,537	1,559	18	1051	507	1	9	586	0	0	454	64	273
RMCH	Rajshahi	May 2007	5,479	634	12	440	194	0	14	272	0	0	152	39	94
SZRMCH ^γ	Bogra	Sep 2007	3,865	653	17	439	213	1	12	256	0	0	170	29	39
LAMB [†]	Dinajpur	Oct 2007	1,171	112	10	72	40	0	7	41	0	0	24	1	0
BBMH [†]	Chattogram	Aug 2007	1,440	157	11	118	39	0	13	42	0	0	63	3	0
CuMCH [‡]	Cumilla	Oct 2007	6,985	865	12	592	270	3	9	322	0	0	260	28	92
KMCH	Khulna	Jul 2007	4,676	669	14	478	190	1	16	260	0	0	197	17	112
JGH ^{γ†}	Jashore	Sep 2007	6,501	1388	21	936	449	3	10	528	0	0	398	26	285
JRRMCH	Sylhet	Jul 2007	6,360	1072	17	724	346	2	16	382	0	0	325	34	169
SBMCH	Barishal	Aug 2007	8,049	1149	14	774	371	4	7	408	0	0	355	56	166
CMCH	Chattogram	Apr 2014	6,070	1022	17	745	273	4	0	393	0	0	351	41	212
MARMCH ²	Dinajpur	Apr 2014	4,020	670	17	448	222	0	0	267	0	0	178	28	173
			67,267	10,564	16	7,224	3,321	19	135	3,948	1	0	3,120	395	1,632

^ψrRT-PCR result of four samples were equivocal positive for Influenza A.

^γThree samples were co-infected with both A(H3) and A(H1N1)pdm09.

^λThree samples were co-infected with both Influenza B (Yamagata lineage) and Influenza B (Victoria lineage), another ten samples were unsubtypeable.

[‡]Three samples were co-infected with both Influenza A(H1N1)pdm09 and Influenza B (Victoria lineage).

[†]Nine samples were co-infected with both Influenza A(H3) and Influenza B (Victoria lineage).

[†]Surveillance activities ended at LAMB (Dinajpur) and BBMH (Chittagong) in May 2016.

Outpatient ILI surveillance discontinued in October 2017.

^γSurveillance activities ended at DNMCH (Dhaka), CBMCH (Mymensingh), SZRMCH (Bogra) and JGH (Jessore) in October 2017.

[‡]Surveillance activities reinitiated at Cumilla Medical College Hospital (CuMCH), Cumilla in January 2018.

[†]Surveillance activities reinitiated at Jashore 250 bed General Hospital (JGH), Jashore in December 2018.

²Dinajpur Medical College Hospital (DjMCH) has been renamed as M Abdur Rahim Medical College Hospital (MARMCH).

Note: Surveillance activities extended to the intensive care units (ICU) and coronary care unit (CCU) of the participating hospitals in January 2018.

^φ Intensive care units (ICU) surveillance discontinued in January 2019.

*One sample from CuMCH (Cumilla) and two samples from KMCH (Khulna) collected in November 2019 were not true positive for influenza A and were considered as inconclusive result. The result will be confirmed with further test through viral culture.

[†]Nine samples (one each from JIMCH, JRRMCH and MARMCH and two each from RMCH, KMCH and SBMCH) collected in December 2019 were not true positive for influenza A and were considered as inconclusive result. The result will be confirmed with further test through viral culture.

Outpatient ILI surveillance reinitiated at JRRMCH (Sylhet), CMCH (Chattogram) and MARMCH (Dinajpur) in November 2022.

Outpatient ILI surveillance reinitiated at JIMCH (Kishoregonj) and JGH (Jashore) in December 2022.

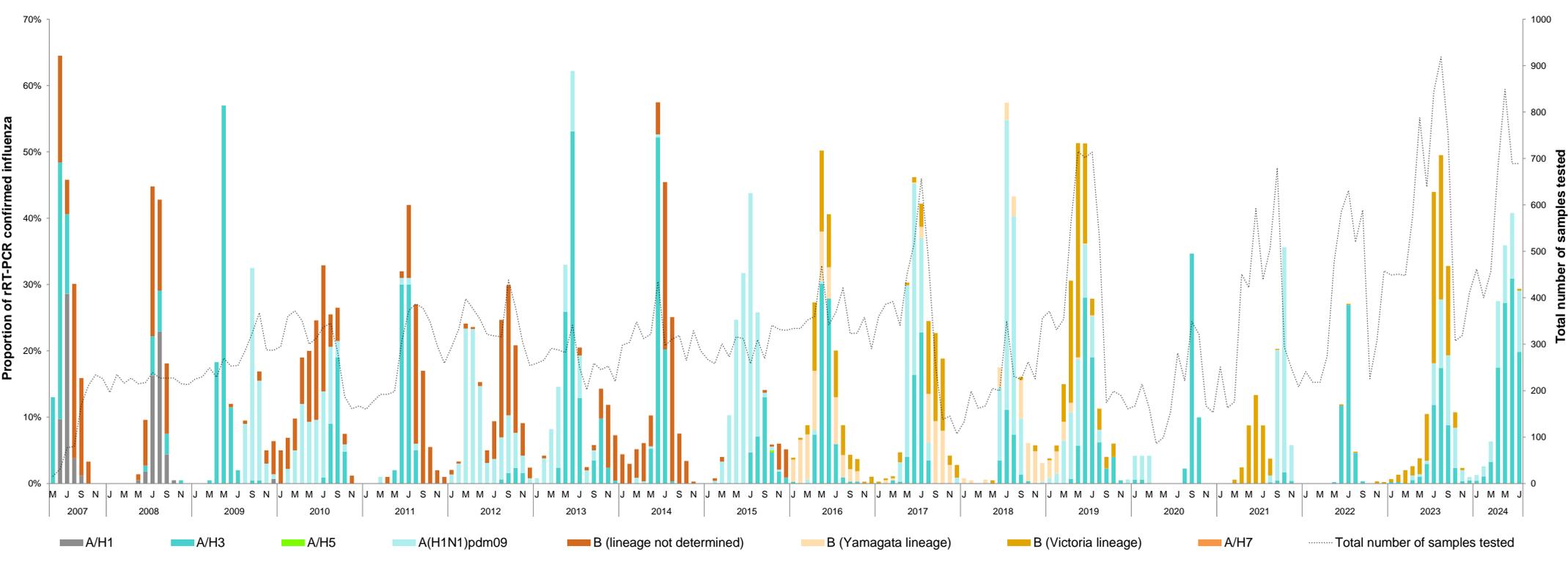
Outpatient ILI surveillance discontinued in October 2023.

Outpatient ILI surveillance reinitiated at JIMCH (Kishoregonj), JGH (Jashore), JRRMCH (Sylhet), CMCH (Chattogram) and MARMCH (Dinajpur) in November 2023.

Hospital based influenza surveillance

Influenza seasonality graph

May 2007 - July 2024

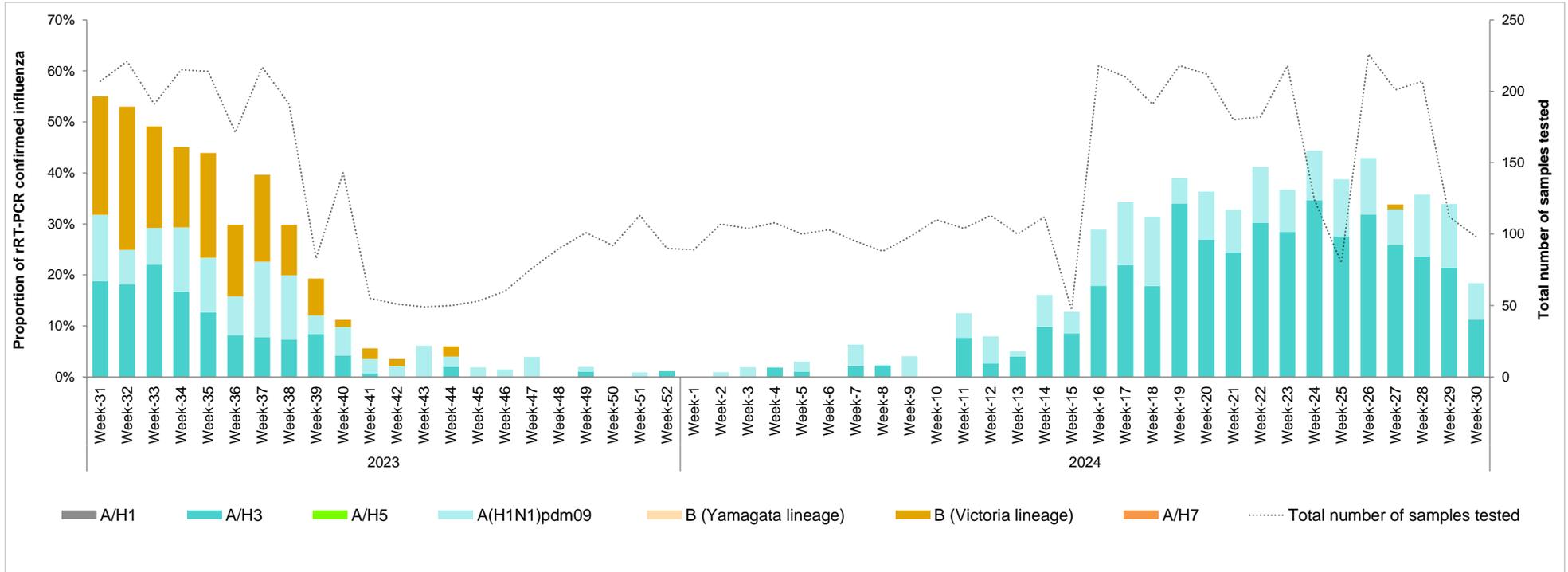


Note: Influenza B lineages initiated in January 2016

Hospital based influenza surveillance

Influenza seasonality graph

Week 31 of 2023 to week 30 of 2024



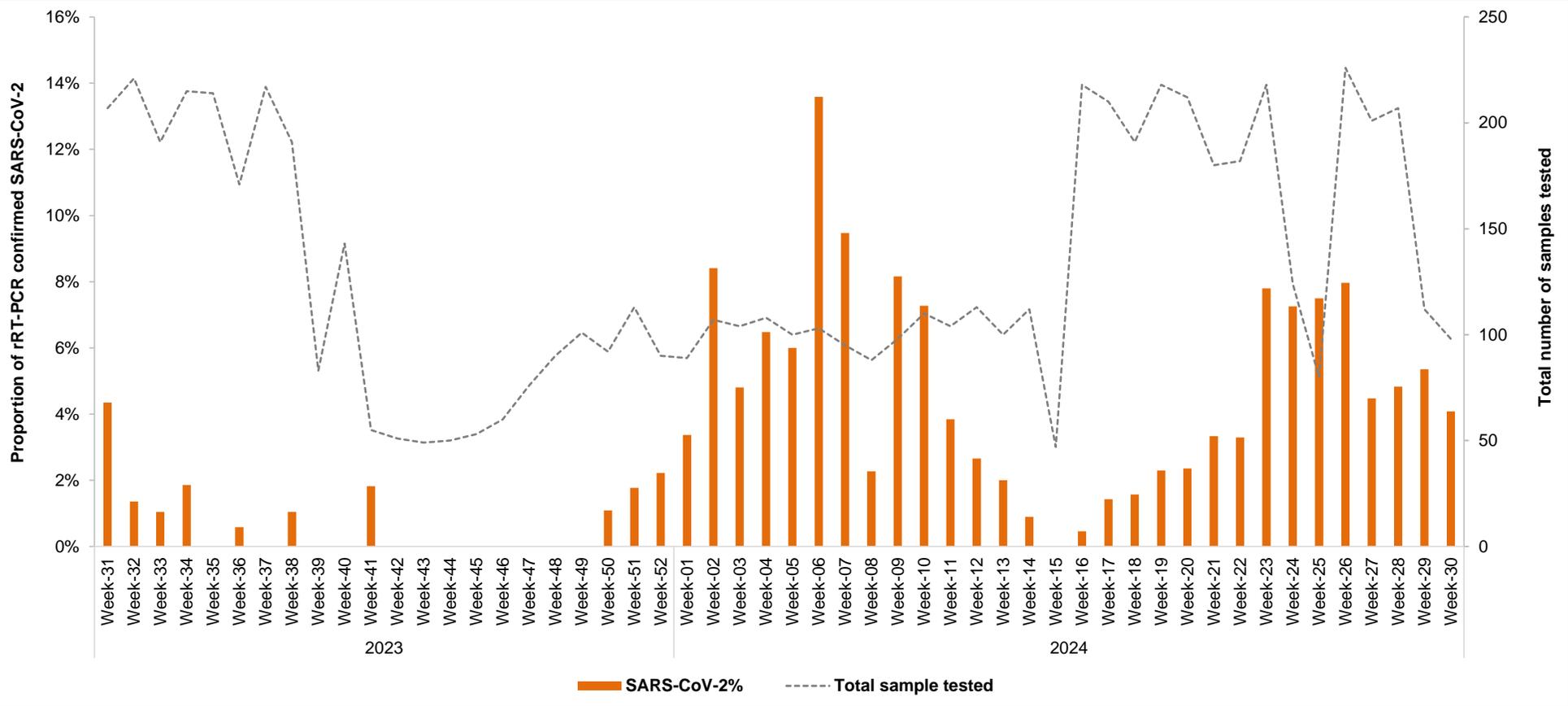
Hospital based influenza surveillance
Hospital-wise SARS-CoV-2 lab results
July 2024

Hospital	District	July 2024			March 2020 - July 2024		
		Sample	SARS-CoV-2	SARS-CoV-2 %	Sample	SARS-CoV-2	SARS-CoV-2 %
JIMCH	Kishoregonj	103	6	6	3,144	167	5
RMCH	Rajshahi	44	3	7	2,012	149	7
CuMCH	Cumilla	62	2	3	2,007	136	7
KMCH	Khulna	33	5	15	1,697	217	13
JGH	Jashore	93	4	4	2,617	220	8
JRRMCH	Sylhet	89	4	4	2,527	192	8
SBMCH	Barishal	67	2	3	2,442	180	7
CMCH	Chattogram	124	1	1	3,529	278	8
MARMCH	Dinajpur	90	7	8	2,357	144	6
		705	34	5	22,332	1,683	8

**Hospital based influenza surveillance
SARS-CoV-2 results by different age groups
July 2024**

Age groups	July 2024			March 2020 - July 2024		
	Sample	SARS-CoV-2	SARS-CoV-2 %	Sample	SARS-CoV-2	SARS-CoV-2 %
<1 Year	122	11	9	4966	178	4
1-4 Years	121	0	0	3354	47	1
5-14 Years	106	5	5	2,930	69	2
15-24 Years	127	7	6	2,445	139	6
25-39 Years	77	3	4	2,506	302	12
40-59 Years	83	5	6	3,239	507	16
≥ 60 Years	69	3	4	2,892	441	15
	705	34	5	22,332	1,683	8

**Hospital based influenza surveillance
SARS-CoV-2 positivity trend by week
Week 31 of 2023 to week 30 of 2024**



Hospital based influenza surveillance
Influenza and SARS-CoV-2 positivity graph
March 2020 - July 2024

