



Monthly summary report

Hospital-Based Human Influenza Surveillance in Bangladesh

December 2023

Hospital based influenza surveillance
Monthly enrollment by different wards (Medicine, Pediatrics and CCU)
December 2023

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	43	1	2	27	0	0	1	0	0
RMCH	Rajshahi	14	0	0	10	0	0	1	0	0
CuMCH	Cumilla	10	0	0	14	1	7	1	0	0
KMCH	Khulna	12	0	0	9	0	0	0	0	0
JGH	Jashore	41	0	0	23	0	0	1	0	0
JRRMCH	Sylhet	32	0	0	29	1	3	1	0	0
SBMCH	Barishal	4	0	0	19	0	0	0	0	0
CMCH	Chattogram	51	0	0	28	1	4	0	0	0
MARMCH	Dinajpur	15	0	0	25	0	0	0	0	0
		222	1	0.5	184	3	1.6	5	0	0

Hospital based influenza surveillance
Monthly hospitalwise influenza lab results
December 2023

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	71	1	1	1	0	0	0	0	0	0	1	0	0
RMCH	Rajshahi	25	0	0	0	0	0	0	0	0	0	0	0	0
CuMCH	Cumilla	25	1	4	1	0	0	0	1	0	0	0	0	0
KMCH	Khulna	21	0	0	0	0	0	0	0	0	0	0	0	0
JGH	Jashore	65	0	0	0	0	0	0	0	0	0	0	0	0
JRRMCH	Sylhet	62	1	2	1	0	0	0	0	0	0	1	0	0
SBMCH	Barishal	23	0	0	0	0	0	0	0	0	0	0	0	0
CMCH	Chattogram	79	1	1	1	0	0	0	1	0	0	0	0	0
MARMCH	Dinajpur	40	0	0	0	0	0	0	0	0	0	0	0	0
		411	4	1.0	4	0	0	0	2	0	0	2	0	0

Hospital based influenza surveillance
Monthly enrollment by different surveillance groups
December 2023

Hospital	District	SARI (aged ≥ 5 years)			SARI (aged < 5 years)			ILI [‡]		
		Sample	Flu	Flu %	Sample	Flu	Flu %	Sample	Flu	Flu %
JIMCH	Kishoregonj	16	0	0	8	0	0	47	1	2
RMCH	Rajshahi	17	0	0	8	0	0	-	-	-
CuMCH	Cumilla	17	1	6	8	0	0	-	-	-
KMCH	Khulna	14	0	0	7	0	0	-	-	-
JGH	Jashore	9	0	0	8	0	0	48	0	0
JRRMCH	Sylhet	11	0	0	8	0	0	43	1	2
SBMCH	Barishal	13	0	0	10	0	0	-	-	-
CMCH	Chattogram	23	1	4	8	0	0	48	0	0
MARMCH	Dinajpur	7	0	0	8	0	0	25	0	0
		127	2	1.6	73	0	0	211	2	0.9

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

Hospital based influenza surveillance
Influenza results by different age groups
December 2023

Age groups	December 2023									Initiation - December 2023								
	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	-	-	-	14	0	0	45	0	0	-	-	-	2,836	193	7	10,748	616	6
1-4 Years	-	-	-	31	1	3	28	0	0	-	-	-	4,628	652	14	4,643	658	14
5-14 Years	30	2	7	40	0	0	-	-	-	5,203	1095	21	2,838	653	23	-	-	-
15-24 Years	23	0	0	50	0	0	-	-	-	5,234	1204	23	2,765	535	19	-	-	-
25-39 Years	18	0	0	35	1	3	-	-	-	5,558	1063	19	2,339	376	16	-	-	-
40-59 Years	34	0	0	36	0	0	-	-	-	7,032	1107	16	1,533	229	15	-	-	-
≥ 60 Years	22	0	0	5	0	0	-	-	-	7,150	1098	15	506	55	11	-	-	-
	127	2	1.6	211	2	0.9	73	0	0	30,177	5,567	18	17,445	2,693	15	15,391	1,274	8

[‡]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 (May 2007) - December 2023

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	7,881	1,430	18	922	507	1	9	500	0	0	411	64	273
RMCH	Rajshahi	May 2007	5,201	590	11	396	194	0	14	233	0	0	147	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	6,648	807	12	534	270	3	9	287	0	0	237	28	92
KMCH	Khulna	Jul 2007	4,451	608	14	417	190	1	16	218	0	0	179	17	112
JGH ^{γ†}	Jashore	Sep 2007	5,899	1185	20	733	449	3	10	411	0	0	312	26	285
JRRMCH	Sylhet	Jul 2007	5,842	933	16	585	346	2	16	281	0	0	287	34	169
SBMCH	Barishal	Aug 2007	7,695	1060	14	685	371	4	7	336	0	0	338	56	166
CMCH	Chattogram	Apr 2014	5,322	846	16	569	273	4	0	269	0	0	300	41	212
MARMCH [‡]	Dinajpur	Apr 2014	3,484	539	15	319	220	0	0	158	0	0	158	28	171
			63,013	9,534	15	6,196	3,319	19	135	3,223	1	0	2,819	395	1,630

^λDetermination of influenza B lineage initiated in January 2016.

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

^γOne sample collected in June 2013 and another sample collected in June 2017 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.

[‡]Dinajpur 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.

^φIntensive 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.

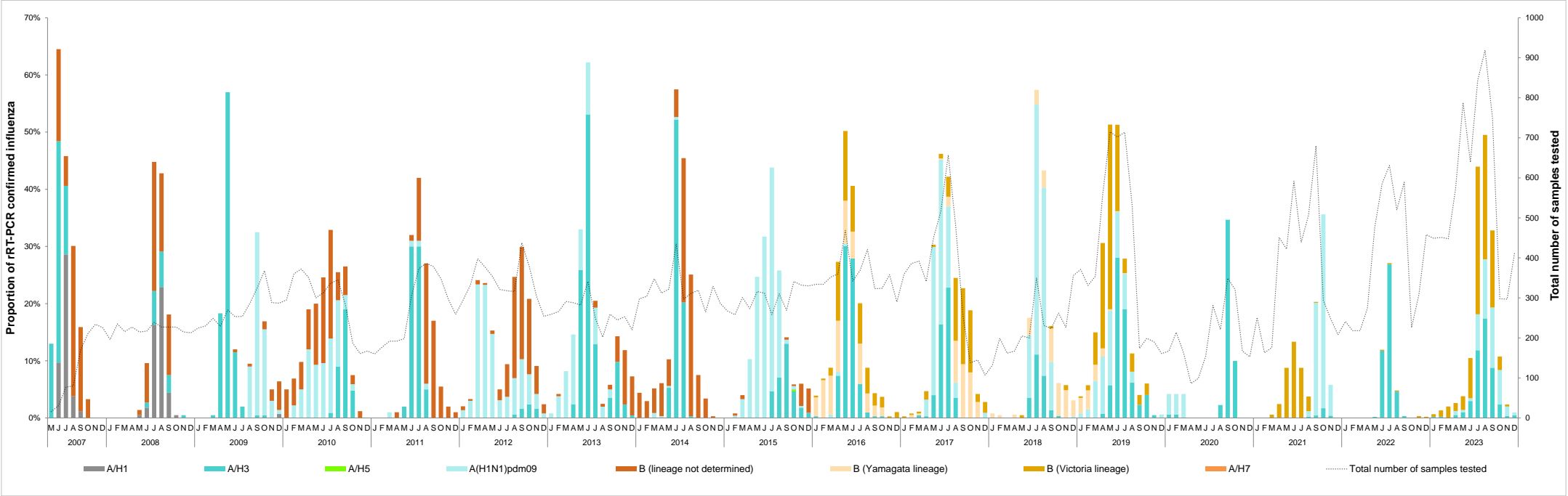
Outpatient ILI surveillance discontinued in October 2023.

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 - December 2023

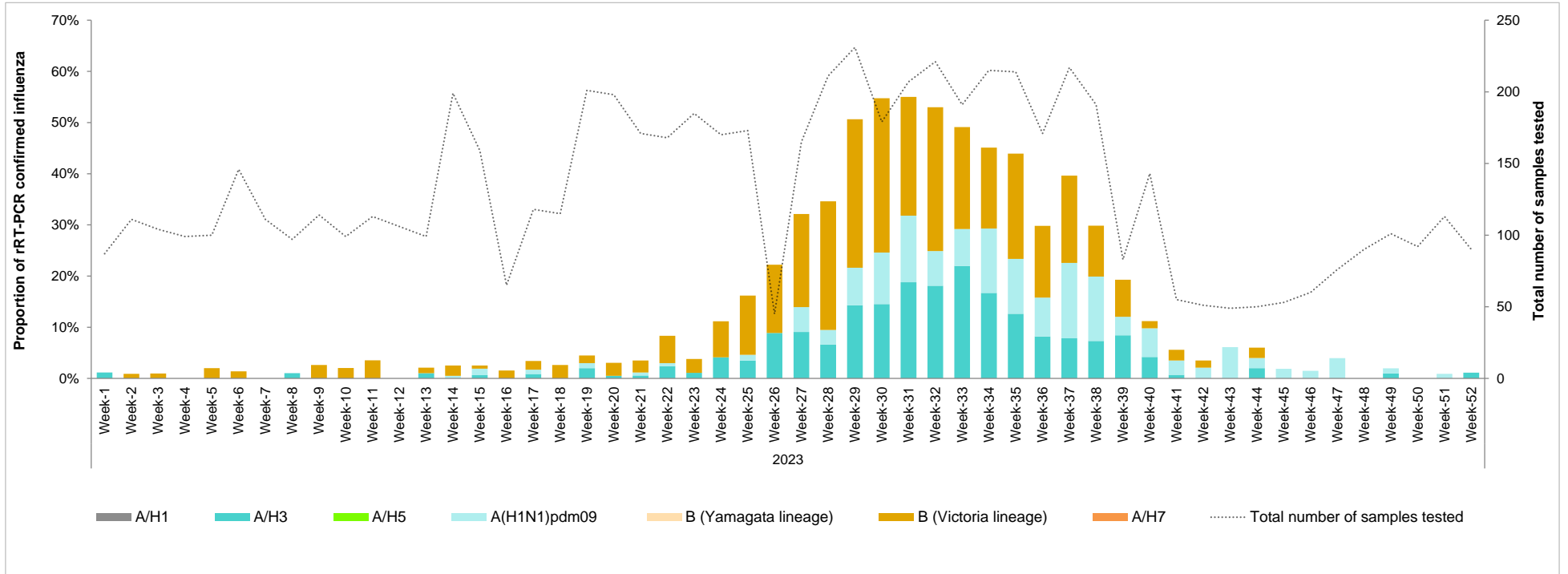


Note: Determination of influenza B lineage initiated in January 2016

Hospital based influenza surveillance

Influenza seasonality graph

Week 01 to 52 of 2023



Hospital based influenza surveillance
Hospitalwise SARS-CoV-2 lab results
December 2023

Hospital	District	December 2023			March 2020 - December 2023		
		Sample	SARS-CoV-2	SARS-CoV-2 %	Sample	SARS-CoV-2	SARS-CoV-2 %
JIMCH	Kishoregonj	71	1	1	2,488	131	5
RMCH	Rajshahi	25	0	0	1,734	141	8
CuMCH	Cumilla	25	0	0	1,670	123	7
KMCH	Khulna	21	0	0	1,472	202	14
JGH	Jashore	65	0	0	2,015	190	9
JRRMCH	Sylhet	62	0	0	2,009	172	9
SBMCH	Barishal	23	0	0	2,088	164	8
CMCH	Chattogram	79	4	5	2,781	245	9
MARMCH	Dinajpur	40	0	0	1,821	121	7
		411	5	1.2	18,078	1,489	8.2

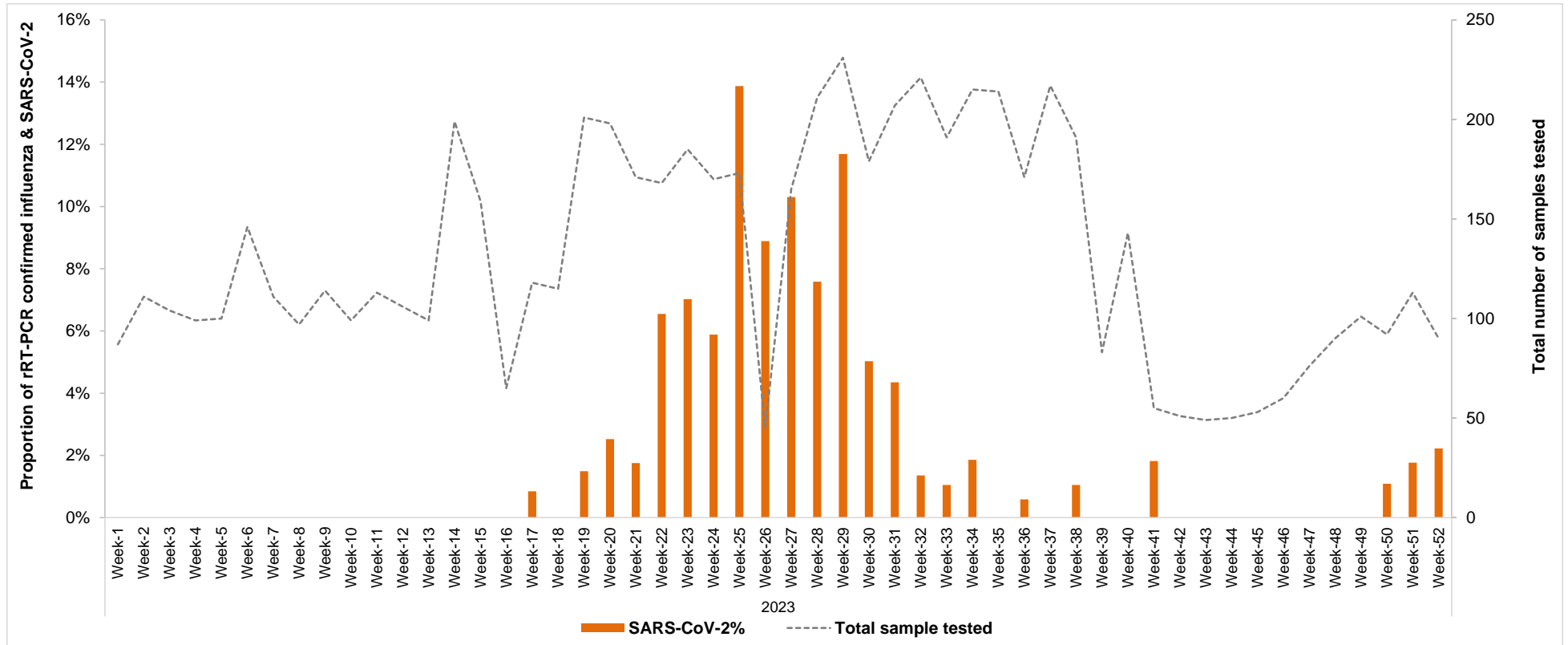
**Hospital based influenza surveillance
SARS-CoV-2 results by different age groups
December 2023**

Age groups	December 2023			March 2020 - December 2023		
	Sample	SARS-CoV-2	SARS-CoV-2 %	Sample	SARS-CoV-2	SARS-CoV-2 %
<1 Year	59	0	0	4282	139	3
1-4 Years	59	1	2	2614	34	1
5-14 Years	70	1	1	2,321	48	2
15-24 Years	73	1	1	1,751	97	6
25-39 Years	53	0	0	1,999	284	14
40-59 Years	70	2	3	2,658	467	18
≥ 60 Years	27	0	0	2,453	420	17
	411	5	1.2	18,078	1,489	8.2

Hospital based influenza surveillance

SARS-CoV-2 positivity trend by week

Week 01 to 52 of 2023



**Hospital based influenza surveillance
Influenza and SARS-CoV-2 positivity graph
March 2020 - December 2023**

