WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: July 16 to August 19, 2023 (week 29-33)

Summary

In New Brunswick, influenza activity returned to inter-seasonal levels

New Brunswick:

- There has been 1 positive influenza case in weeks 29 to 33. Since the beginning of the season, 4628 cases have been reported, 166 influenza A(H3) viruses, 19 influenza A(H1N1) pdm09, 4418 influenza A (unsubtyped) and 25 influenza B.
- There has been 1 new influenza associated hospitalization during weeks 29 to 33. Since the beginning of the season, 886 hospitalizations have been reported and 68 deaths.
- The ILI consultation rate remained at 0.0 per 1,000 patients visits from week 29 to week 33. The ILI rate was at the expected levels for this time of the year from week 29 to week 32, and below the expected levels for this time of the year for week 33.
- No new influenza outbreaks and no new ILI school outbreaks were reported in weeks 29 to 33. So far this season, 34 influenza outbreaks were reported, and 250 ILI school outbreaks were reported.

Canada:

- At the national level, influenza activity has been stable and remains at interseasonal levels. Sporadic influenza activity continues to be reported in many regions across Canada.
- In week 33, a total of 83 laboratory detections (72 influenza A and 11 influenza B) were reported.
- The percentage of FluWatchers reporting fever and cough was 0.9 % in week 33.

International:

Seasonal influenza:

Globally, influenza detections remained low, with activity in many countries in the southern hemisphere now decreasing after having peaked in recent weeks. In Oceania, influenza activity decreased, with influenza A viruses predominant. In South Africa, influenza activity of predominately influenza A(H3N2) viruses remained below the seasonal threshold after peaking in early June. In temperate South America, influenza detections continued to decrease with A(H1N1)pdm09 viruses most frequently detected followed by B viruses. Severe acute respiratory infections (SARI) activity declined in most countries. In the Caribbean countries, influenza activity remained low overall. In the Central American countries, influenza activity decreased overall with A(H1N1)pdm09 most frequently detected followed by B/Victoria lineage viruses. In the tropical countries of South America, overall influenza activity was low with detections of predominantly A(H1N1)pdm09 and B viruses. In tropical Africa, influenza detections remained low in reporting countries with influenza A(H1N1)pdm09 viruses predominantly detected. In Southern Asia, influenza activity remained low overall except in Bangladesh where influenza detections were elevated. In South-East Asia, influenza activity remained elevated overall, with continued reporting of predominantly A(H1N1)pdm09 and A(H3N2) virus detections. In the temperate zones of the northern hemisphere, influenza activity was reported at low levels or below seasonal threshold in most reporting countries. Detections were predominantly influenza A(H1N1)pdm09 followed by influenza B and influenza A(H3N2) viruses. Globally, RSV activity was generally low except in some parts of Australia and some countries in central America and temperate and tropical South America.

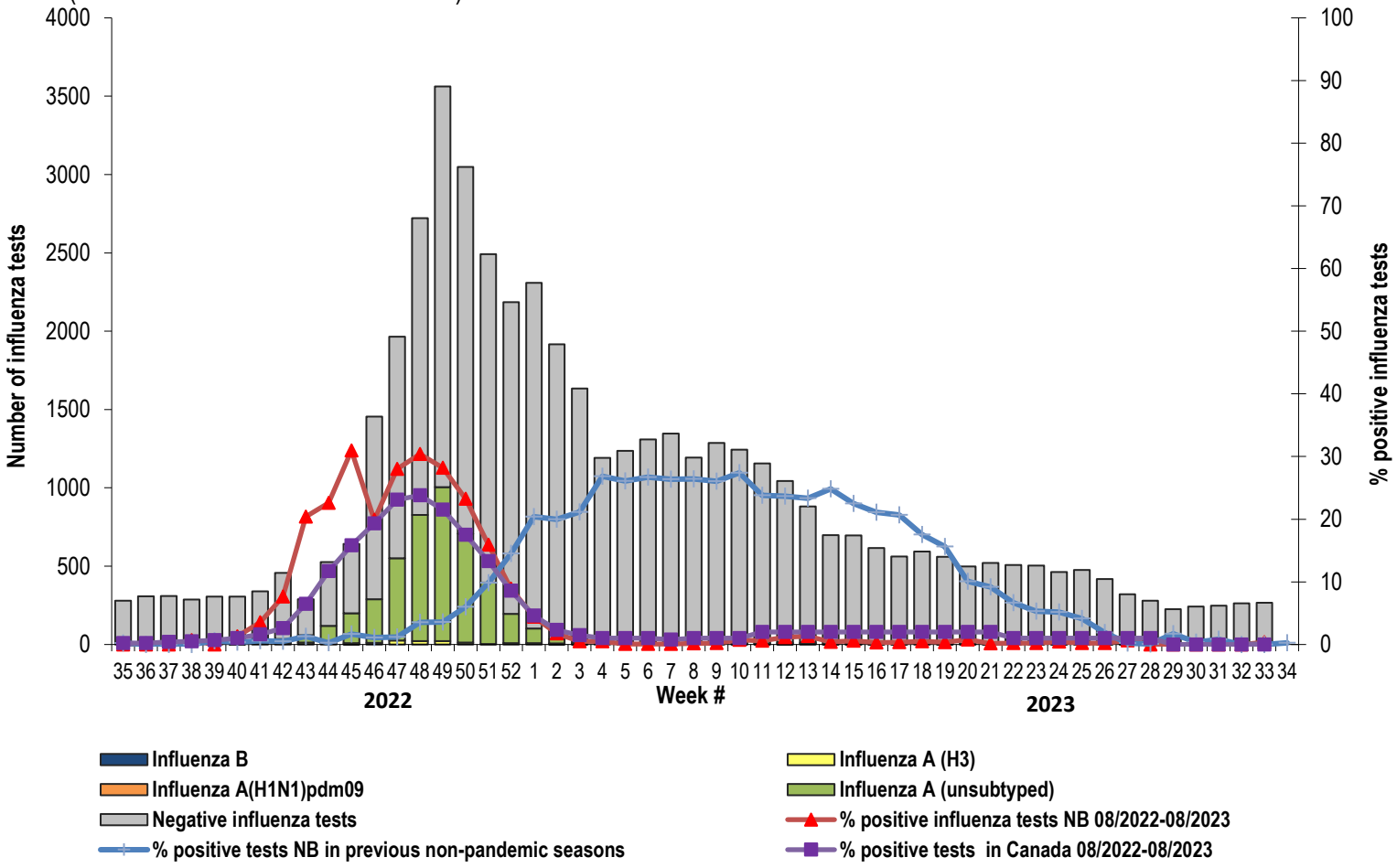
Emerging Respiratory Viruses:

- COVID-19: On December 31, 2019, a cluster of cases of pneumonia was reported in Wuhan, China, and the cause was confirmed as a new coronavirus that had not previously been identified in humans (COVID-19). As of August 29, 2023, 4,706,450 cases of COVID-19 infection in Canada have been identified with 53,345 deaths. Since August 28, 2022, sixteen thousand three hundred and twenty-seven cases have been identified in New Brunswick with 277 deaths. As of August 16, the WHO reported globally 769 806 130 confirmed cases and 6 955 497 deaths. For more timely updates, please visit the following websites:
  - WHO: https://www.who.int/emergencies/diseases/novel-coronavirus-2019
  - PHAC: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html
  - NB : https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/respiratory_diseases/coronavirus.html
- MERS CoV:
  - WHO: WHO EMRO | MERS outbreaks | MERS-CoV | Health topics
  - CDC: http://www.cdc.gov/coronavirus/mers/
- Avian Influenza:
  - WHO: WHO EMRO | Avian influenza | Avian influenza | Health topics

1) Influenza Laboratory Data[1]

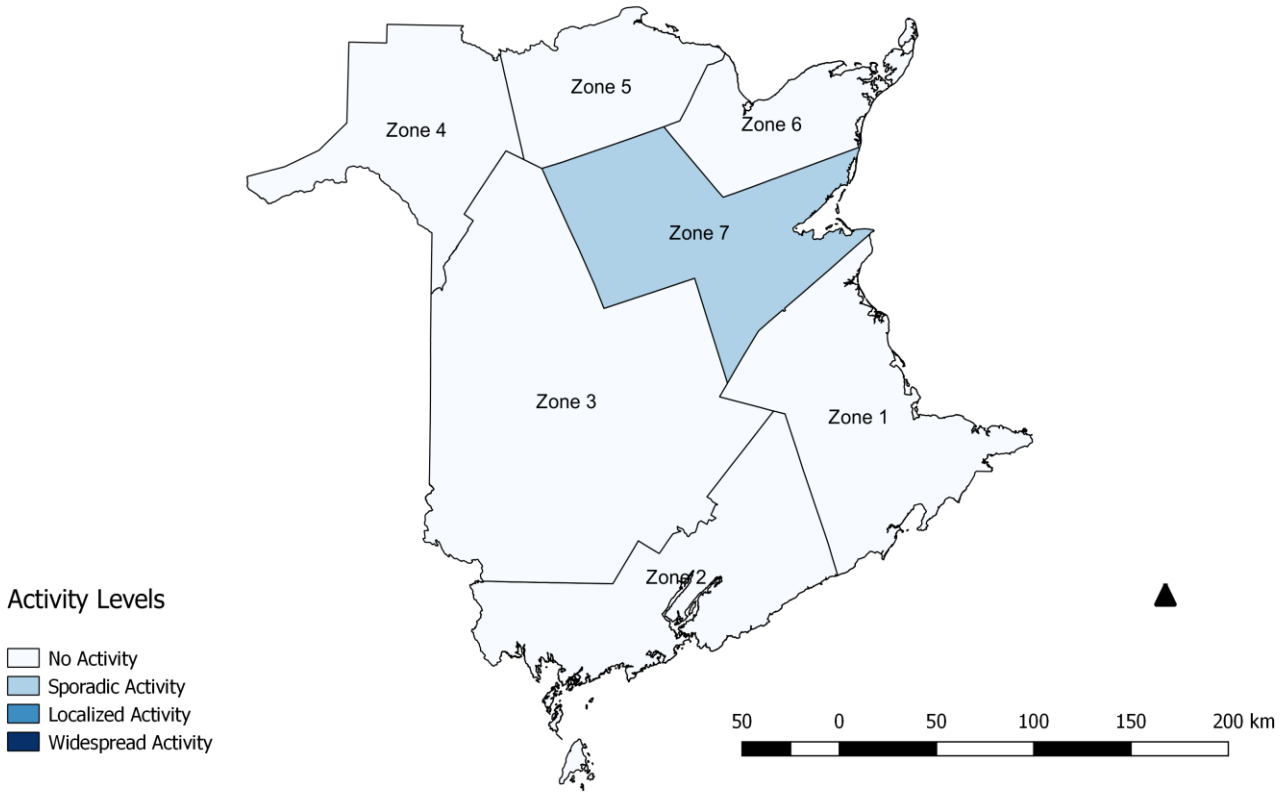
- Influenza activity returned to inter-seasonal levels in weeks 29-33.
- One influenza case was reported during weeks 29 to 33, one influenza A (unsubtyped).
- Since the beginning of the season, 4628 cases have been reported, 166 influenza A(H3) viruses, 19 influenza A(H1N1) pdm09, 4418 influenza A (unsubtyped) and 25 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to August 19, 2023 (data source: G. Dumont Lab results)



[1] Surveillance specimens are submitted by recruited New Brunswick Sentinel Practitioner Influenza Network (NB SPIN) practitioners, which are comprised of sites in Emergency Rooms, in Family Practice, in First Nations communities, in Nursing Home, in Universities and in Community Health Centers. Diagnostic specimens are submitted by physicians in the community/hospital setting. Influenza laboratory data is comprised of results from surveillance and diagnostic specimens. All laboratory specimens are tested using a real-time PCR assay, which is a rapid detection method designed for detection of all known variants of influenza A and B. All laboratory-confirmed cases are reported for the week when laboratory confirmation was received.

Figure 2: Influenza/ILI activity levels[2] by Health Zones, in New Brunswick, for week 33, season 2022/2023.



[2] No activity is defined as no laboratory-confirmed influenza detections in the reporting week, however, sporadically occurring ILI may be reported.
Sporadic activity is defined as sporadically occurring ILI and lab confirmed influenza detection(s) with no outbreaks detected within the influenza surveillance region.
Localized activity is defined as evidence of increased ILI with lab confirmed influenza detection(s) and outbreaks in schools, hospitals, residential institutions and/or other types of facilities occurring in less than 50% of the influenza surveillance region.
Widespread activity is defined as evidence of increased ILI with lab confirmed influenza detection(s) and outbreaks in schools, hospitals, residential institutions and/or other types of facilities occurring in greater than or equal to 50% of the influenza surveillance region.

Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2021-2022.
(data source: G. Dumont lab results up to August 19, 2023)

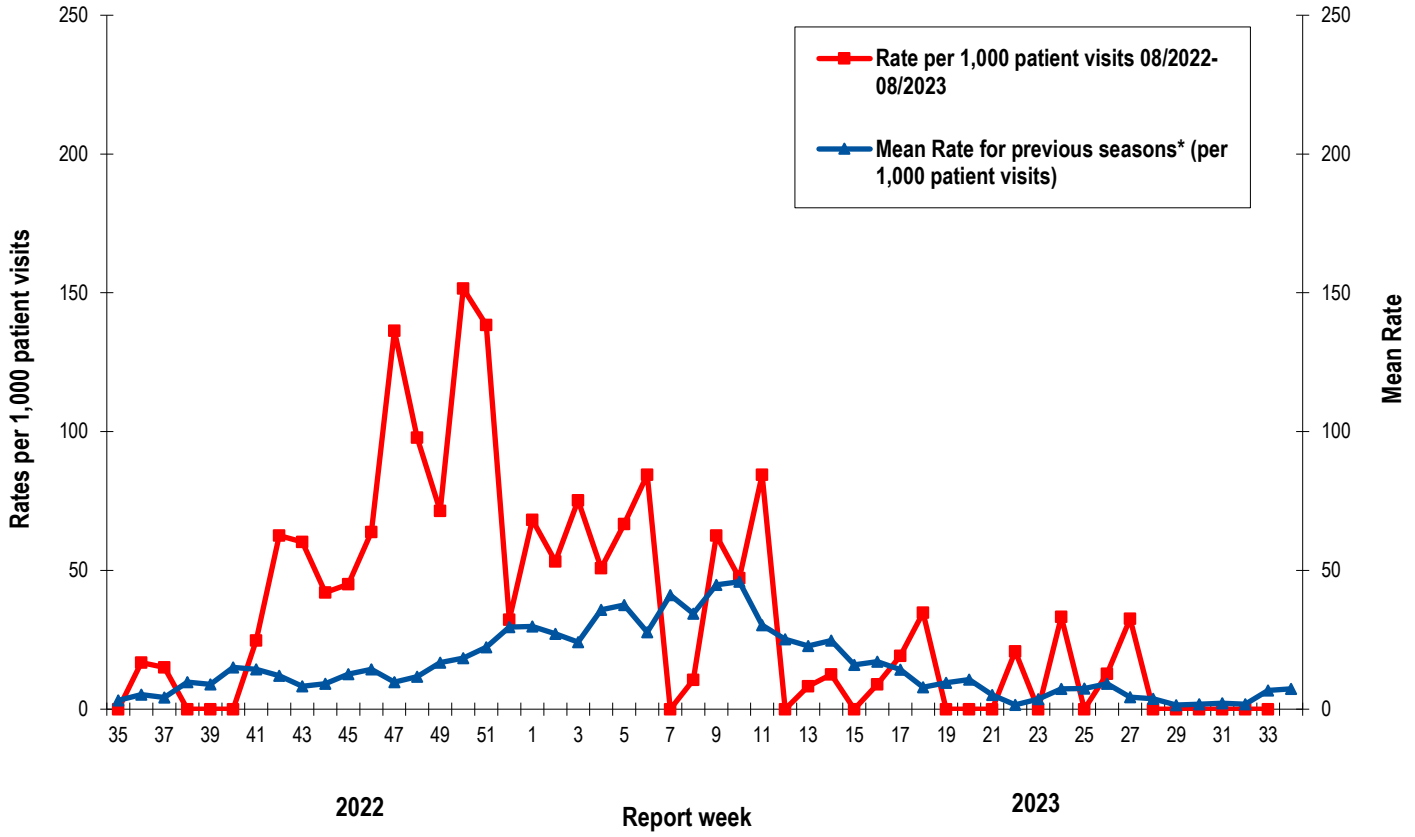
Zone	Reporting period: July/16/2023–August/19/2023						Cumulative: (2022/2023 season) Aug./28/2022 – Aug/19/2023						Cumulative: (2021/2022 season) Aug./29/2021 –Aug./27/2022					
	A				B	A & B co-infection	A				B	A & B co-infection	A				B	A & B co-infection
	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	**A Total**	**Total**	**Total**	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	**A Total**	**Total**	**Total**	(H3)	(H1N1) pdm09	Unsubty ped/ Other	**A Total**	**Total**	**Total**
Zone 1	0	0	0	**0**	**0**	**0**	88	1	1201	**1290**	**10**	**0**	124	0	115	**239**	**0**	**0**
Zone 2	0	0	0	**0**	**0**	**0**	39	3	992	**1034**	**6**	**0**	11	0	60	**71**	**0**	**0**
Zone 3	0	0	0	**0**	**0**	**0**	12	1	830	**843**	**4**	**0**	33	0	55	**88**	**1**	**0**
Zone 4	0	0	0	**0**	**0**	**0**	9	13	352	**374**	**3**	**0**	4	0	10	**14**	**0**	**0**
Zone 5	0	0	0	**0**	**0**	**0**	4	0	133	**137**	**1**	**0**	1	0	7	**8**	**0**	**0**
Zone 6	0	0	0	**0**	**0**	**0**	10	1	591	**602**	**0**	**0**	5	0	13	**18**	**0**	**0**
Zone 7	0	0	1	**1**	**0**	**0**	4	0	319	**323**	**1**	**0**	1	0	2	**3**	**0**	**0**
Total NB	**0**	**0**	**1**	**1**	**0**	**0**	**166**	**19**	**4418**	**4603**	**25**	**0**	**179**	**0**	**262**	**441**	**1**	**0**

2) ILI Consultation Rates[3]

- The ILI consultation rate was 0.0 per 1,000 patients visits from week 29 to week 33. The ILI rate was at the expected levels for this time of the year from weeks 29 to 32, and below the expected levels for this time of the year for week 33.

- During weeks 29 to 33, the sentinel response rates varied between 9% and 13% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2022/23 compared to previous seasons*



*** The mean rate was based on data from the 1996/97 to 2021/2022 seasons and excludes the Pandemic season (2009/10, 2020/21).**

[3] A total of 23 practitioner sites (14 FluWatch sentinel physicians and 9 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

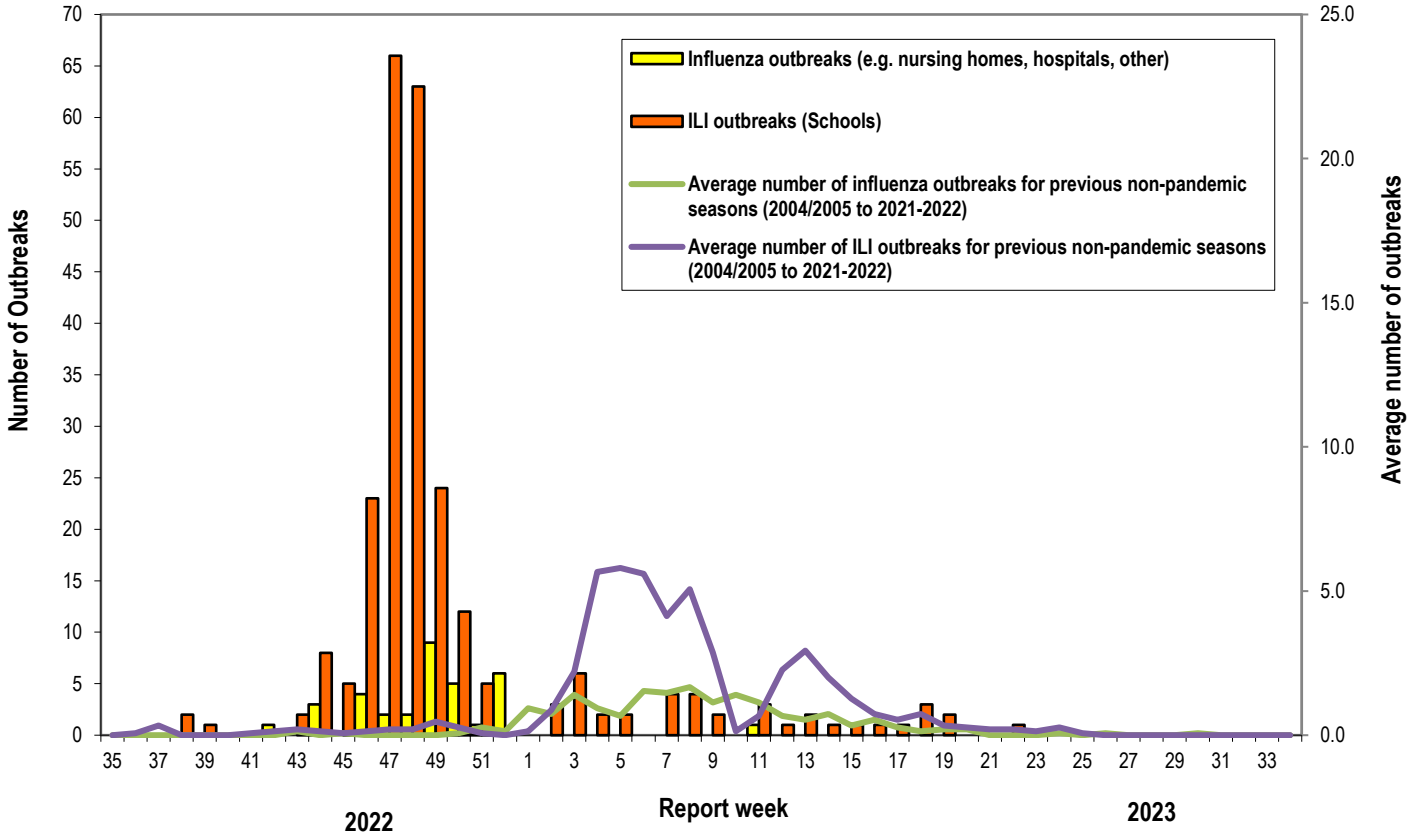
3) ILI and Laboratory-Confirmed Outbreak Data

Table 2: New ILI activity/outbreaks in New Brunswick nursing homes and schools* for the reporting week and current season.

	Reporting period: July/16/2023 to August/19/2023			Cumulative # of outbreaks season 2022-2023*
	Lab-confirmed outbreaks in Nursing homes[4]	ILI school outbreaks[5] *	Lab-confirmed outbreaks in Other settings[5]	
Zone 1	0 out of 15	0 out of 74	0	56
Zone 2	0 out of 16	0 out of 81	0	65
Zone 3	0 out of 16	0 out of 95	0	93
Zone 4	0 out of 5	0 out of 22	0	20
Zone 5	0 out of 2	0 out of 18	0	4
Zone 6	0 out of 9	0 out of 35	0	37
Zone 7	0 out of 5	0 out of 27	0	9
Total NB	0 out of 68	0 out of 352	0	284*

*During this influenza season, 2022-2023, the number of ILI outbreaks in school (based on greater than 10% absenteeism in school due to ILI symptoms, which for many schools cannot be determined) might be misrepresented due to the ongoing circulation of COVID-19, since distinction between influenza-like-illness and COVID-like illness is not always evident. Therefore, the number of ILI outbreaks in schools should be interpreted with caution.

Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other)[5] and ILI Outbreaks (schools)[6] reported to Public Health in New Brunswick, by report week, season 2022/23.

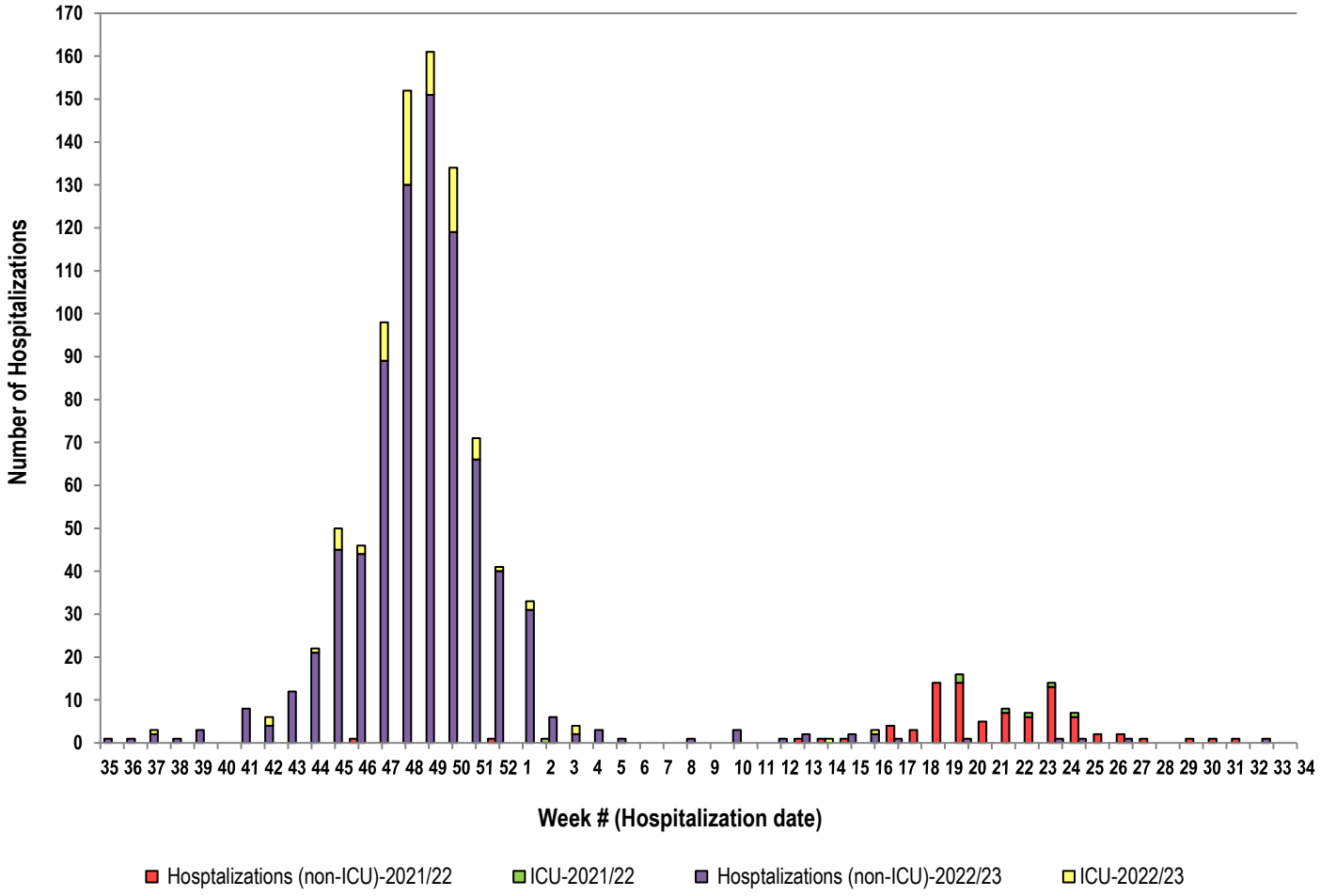


[4] Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

[5] Schools reporting greater than 10% absenteeism which is likely due to ILI.

4) Influenza associated Hospitalization[6] and Death[7] Surveillance[8]

Graph 4: Influenza associated Hospitalizations and ICU admissions in New Brunswick, by week of hospitalization for current and past season (2022-2023).*



***Sixty-eight deaths have been reported so far in season 2022-2023.**

National Flu Watch Program - Additional information on influenza activity in Canada and around the world is available on the Public Health Agency of Canada's website at: http://www.phac-aspc.gc.ca/fluwatch/

Other Links:
World-https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates
Europe: http://www.ecdc.europa.eu/en/healthtopics/seasonal_influenza/epidemiological_data/Pages/Weekly_Influenza_Surveillance_Overview.aspx
PAHO:http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=805&Itemid=569]
Australia: http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm]
New Zealand: [http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php
Argentina: http://www.msal.gov.ar/
South Africa: http://www.nicd.ac.za/
US: www.cdc.gov/flu/weekly/

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[6] Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.
[7] Deaths are influenza associated; influenza may not be the direct cause of death.
[8] In early January 2014, the Office of the Chief Medical Officer of Health implemented a new provincial surveillance system in collaboration with the Regional Health Authorities to monitor influenza-associated hospitalizations, intensive care unit admissions and deaths. A standardized Enhanced Surveillance Form is used to collect data on hospitalizations.