

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: December 4 to December 10, 2022 (week 49)

Summary

In New Brunswick, influenza activity remained high in week 49

New Brunswick:

- There have been 1016 positive influenza cases in week 49 (percent positivity:29%). Since the beginning of the season, 2827 cases have been reported, 106 influenza A(H3) viruses, 2720 influenza A (unsubtyped) and 1 influenza B.
- There have been 146 new influenza associated hospitalizations during week 49. Since the beginning of the season, 534 hospitalizations have been reported and 30 deaths.
- The ILI consultation rate was 71.4 per 1,000 patients visits for week 49. The ILI rate was above the expected levels for this time of year.
- Ten new influenza outbreaks (in Nursing Homes and Other settings) and 24 new ILI school outbreaks were reported in week 49. So far this season, 22 influenza outbreaks were reported, and 194 ILI school outbreaks were reported.

Canada:

- At the national level, influenza activity continues to circulate at peak levels. Most surveillance indicators are steady with some reporting small decreases from the previous week. Almost all indicators are still above expected levels typical of this time of year.
- In week 49, a total of 9,393 laboratory detections (9,365 influenza A and 28 influenza B) were reported. Among detections with detailed age information, 38% were in children and teenagers (ages 0 to 19 years).
- The percentage of FluWatchers reporting fever and cough was 2.7 % in week 49. The percentage of FluWatchers reporting cough and fever is within expected seasonal levels.

International:

Seasonal influenza:

Countries are recommended to monitor the co-circulation of influenza and SARS-CoV-2 viruses. They are encouraged to enhance integrated surveillance and step-up their influenza vaccination campaign to prevent severe disease and hospitalizations associated with influenza. Globally, influenza activity increased and where subtyped, influenza A(H3N2) viruses predominated. In the countries of North America, influenza positivity and influenza-like-illness (ILI) activity continued to increase steeply in recent weeks. Many indicators were above levels typically observed at this time of year and some are near or above levels observed at the peak of previous epidemics. Influenza A(H3N2) was the predominant virus detected. In Europe, overall influenza activity continued to increase with influenza positivity from sentinel sites remaining above the epidemic threshold at the regional level. Influenza A viruses predominated among the reported detections in general, with A(H3N2) viruses accounting for the majority of subtyped influenza A viruses from sentinel sites and influenza A(H1N1)pdm09 viruses predominant among non-sentinel samples. In central Asia, influenza B virus activity continued to be reported from Kazakhstan and other countries reporting a few influenza A and B virus detections. In Northern Africa, influenza detections were low in reporting countries. In Western Asia, influenza activity appeared to decrease overall with all seasonal influenza subtypes detected in similar proportions. In East Asia, influenza activity of predominantly influenza A(H3N2) remained low overall among reporting countries but with some increases reported in southern China and the Republic of Korea. In the Caribbean and Central American countries, influenza activity of predominately influenza A(H3N2) increased in Mexico but remained low in most other reporting countries. In the tropical countries of South America, influenza detections were low and A(H3N2) viruses predominated followed by influenza B/Victoria lineage viruses. In tropical Africa, influenza activity remained low with detections of all seasonal influenza subtypes reported. In Southern Asia, influenza activity decreased this period mainly due to decreased activity reported in Iran (Islamic Republic of). Influenza A(H3N2) was the most frequently detected subtype in the subregion. In South-East Asia, detections of predominantly influenza A(H3N2) and influenza B continued to decrease. In the temperate zones of the southern hemisphere, influenza activity was low in most reporting countries, except in temperate South America where activity remained elevated in Argentina and Chile.

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 December 19, 2022, 4,457,839 cases of COVID-19 infection in Canada have been identified with 48,645 deaths. Since August 28, 2022, nine thousand seven hundred and thirty-nine cases have been identified in New Brunswick with 95 deaths. As of December 19, the WHO reported globally 649 038 437 confirmed cases and 6 645 812 deaths.

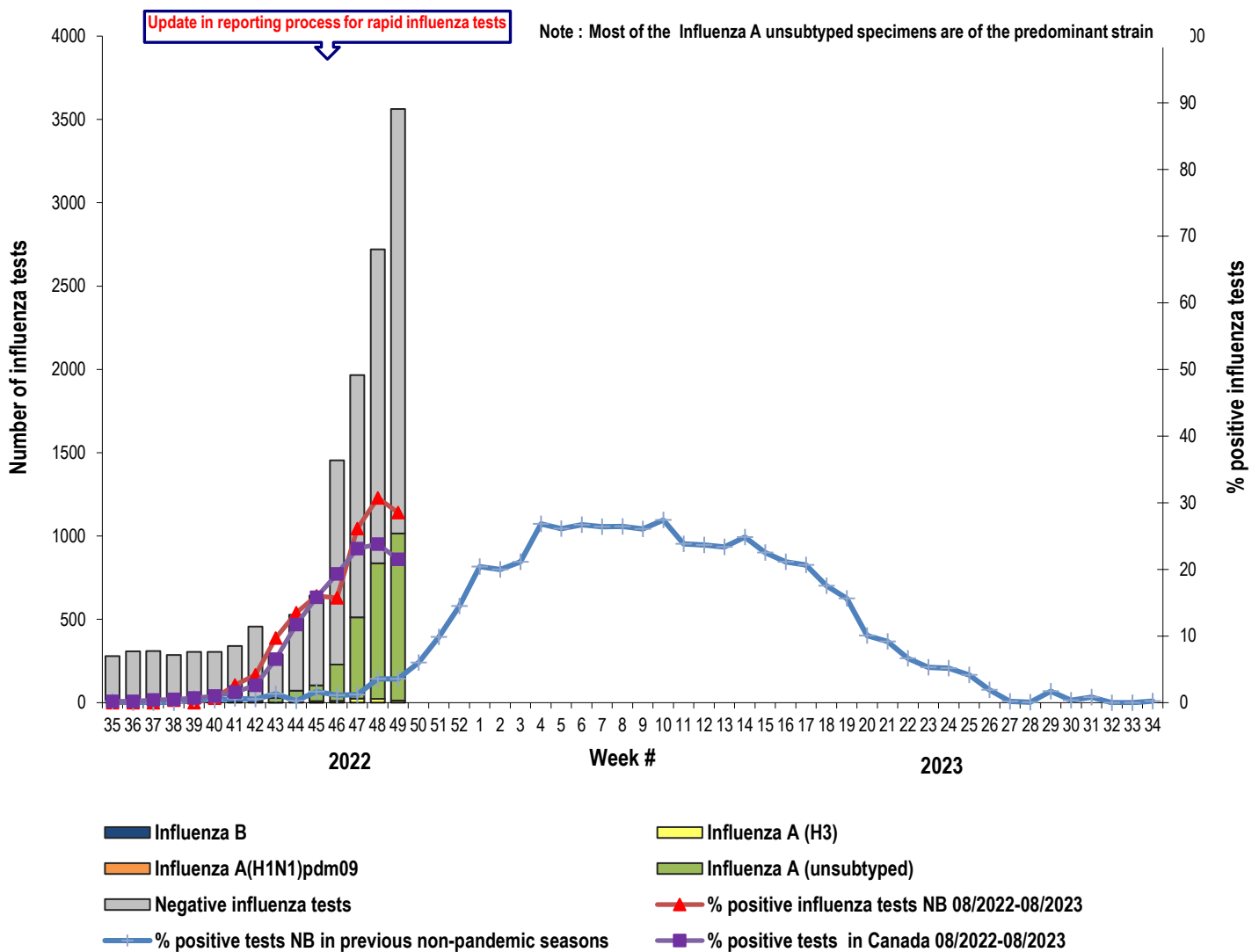
For more timely updates, please visit the following websites:

- 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 Data¹

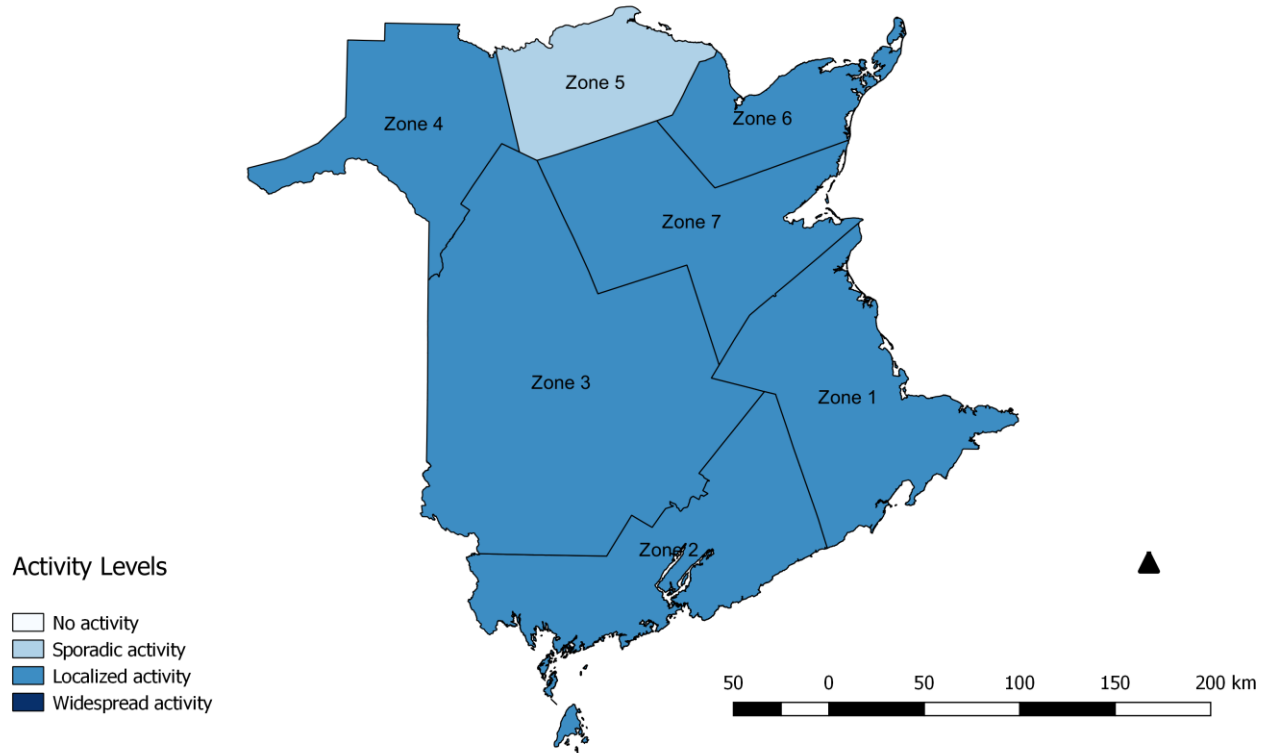
- Influenza activity remained high in week 49.
- One thousand and sixteen influenza cases were reported during week 49, 13 influenza A(H3) viruses, and 1003 influenza A (unsubtyped).
- Since the beginning of the season, 2827 cases have been reported, 106 influenza A(H3) viruses, 2720 influenza A (unsubtyped) and 1 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to December 10, 2022 (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 levels² by Health Zones, in New Brunswick, for week 49, 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.

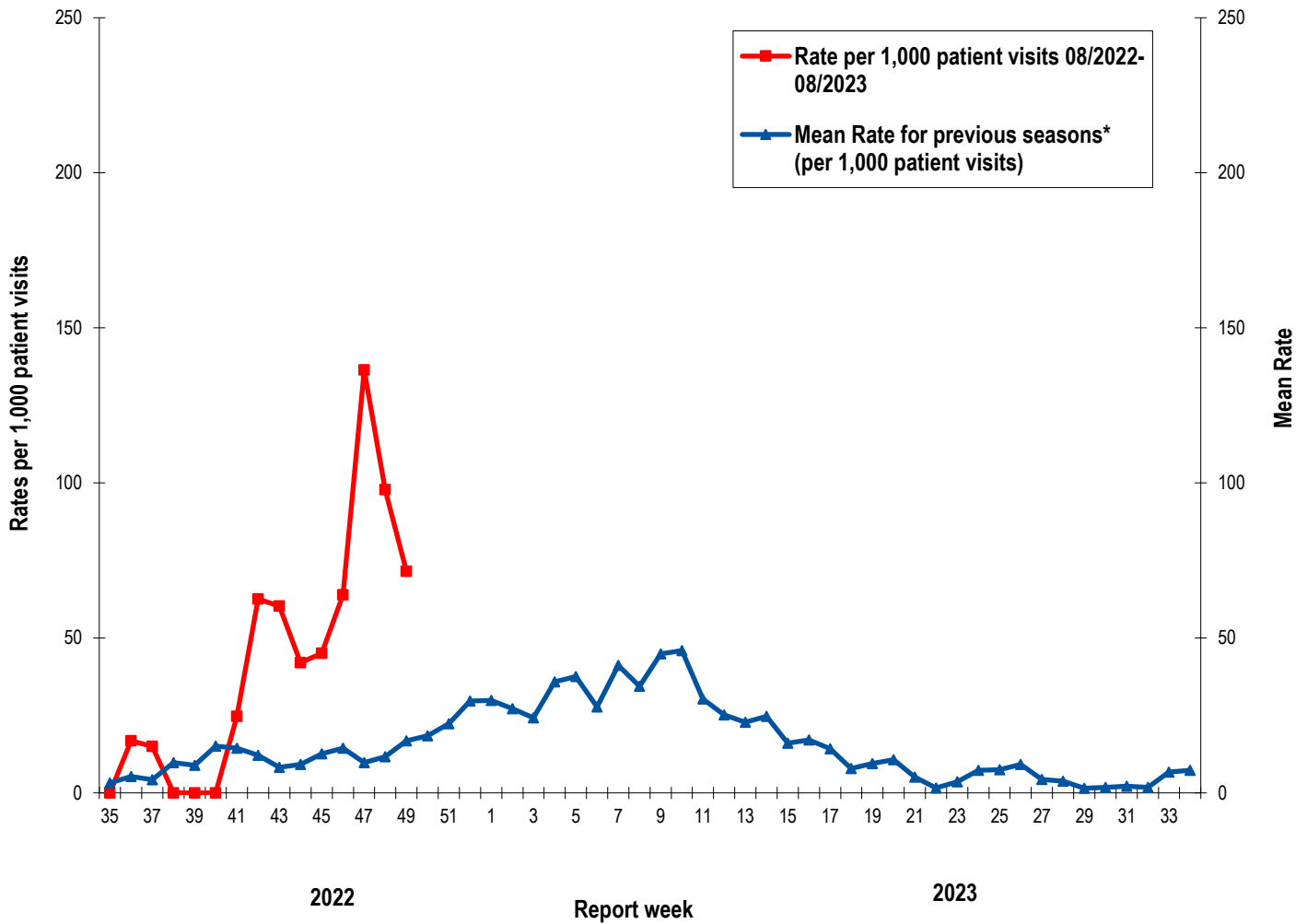
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
 (data source: G. Dumont lab results up to December 10, 2022)

Zone	Reporting period: December/04/2022–December/10/2022						Cumulative: (2022/2023 season) Aug./28/2022 –December/10/2022						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	Total	(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total
Zone 1	13	0	331	344	0	0	64	0	808	872	1	0	124	0	115	239	0	0
Zone 2	0	0	154	154	0	0	24	0	608	632	0	0	11	0	60	71	0	0
Zone 3	0	0	194	194	0	0	7	0	591	598	0	0	33	0	55	88	1	0
Zone 4	0	0	63	63	0	0	4	0	147	151	0	0	4	0	10	14	0	0
Zone 5	0	0	23	23	0	0	2	0	58	60	0	0	1	0	7	8	0	0
Zone 6	0	0	145	145	0	0	4	0	286	290	0	0	5	0	13	18	0	0
Zone 7	0	0	93	93	0	0	1	0	222	223	0	0	1	0	2	3	0	0
Total NB	13	0	1003	1016	0	0	106	0	2720	2826	1	0	179	0	262	441	1	0

2) ILI Consultation Rates³

- The ILI consultation rate was 71.4 per 1,000 patients visits for week 49. The ILI rate was above the expected levels for this time of year.
- During week 49, the sentinel response rate was 18% 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.

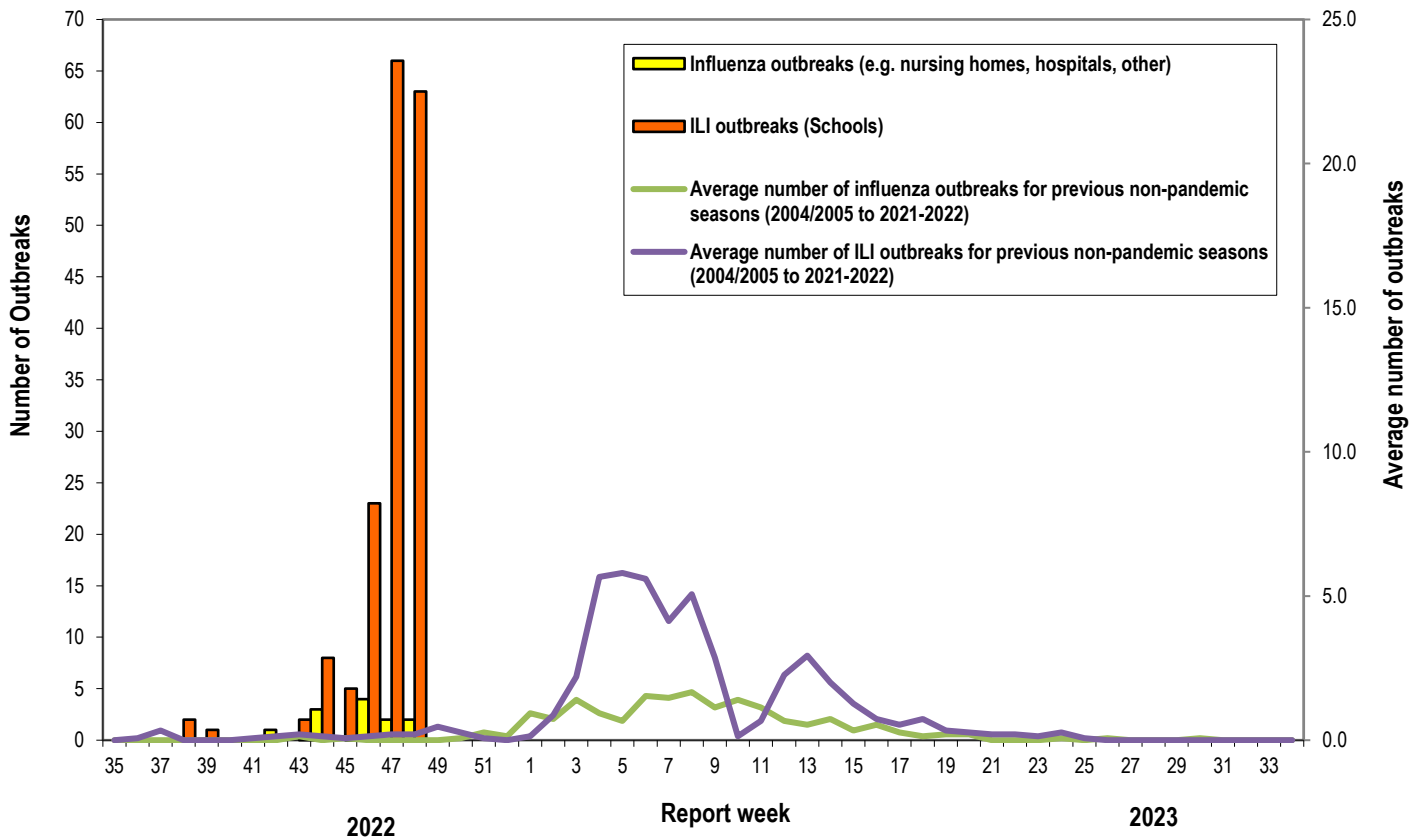
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: December/04/2022 to December/10/2022			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	2 out of 74	3	50
Zone 2	1 out of 16	6 out of 81	0	46
Zone 3	2 out of 16	6 out of 95	0	68
Zone 4	0 out of 5	4 out of 22	1	13
Zone 5	0 out of 2	0 out of 18	0	1
Zone 6	1 out of 9	5 out of 35	0	29
Zone 7	2 out of 5	1 out of 27	0	9
Total NB	6 out of 68	24 out of 352	4	216*

*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.

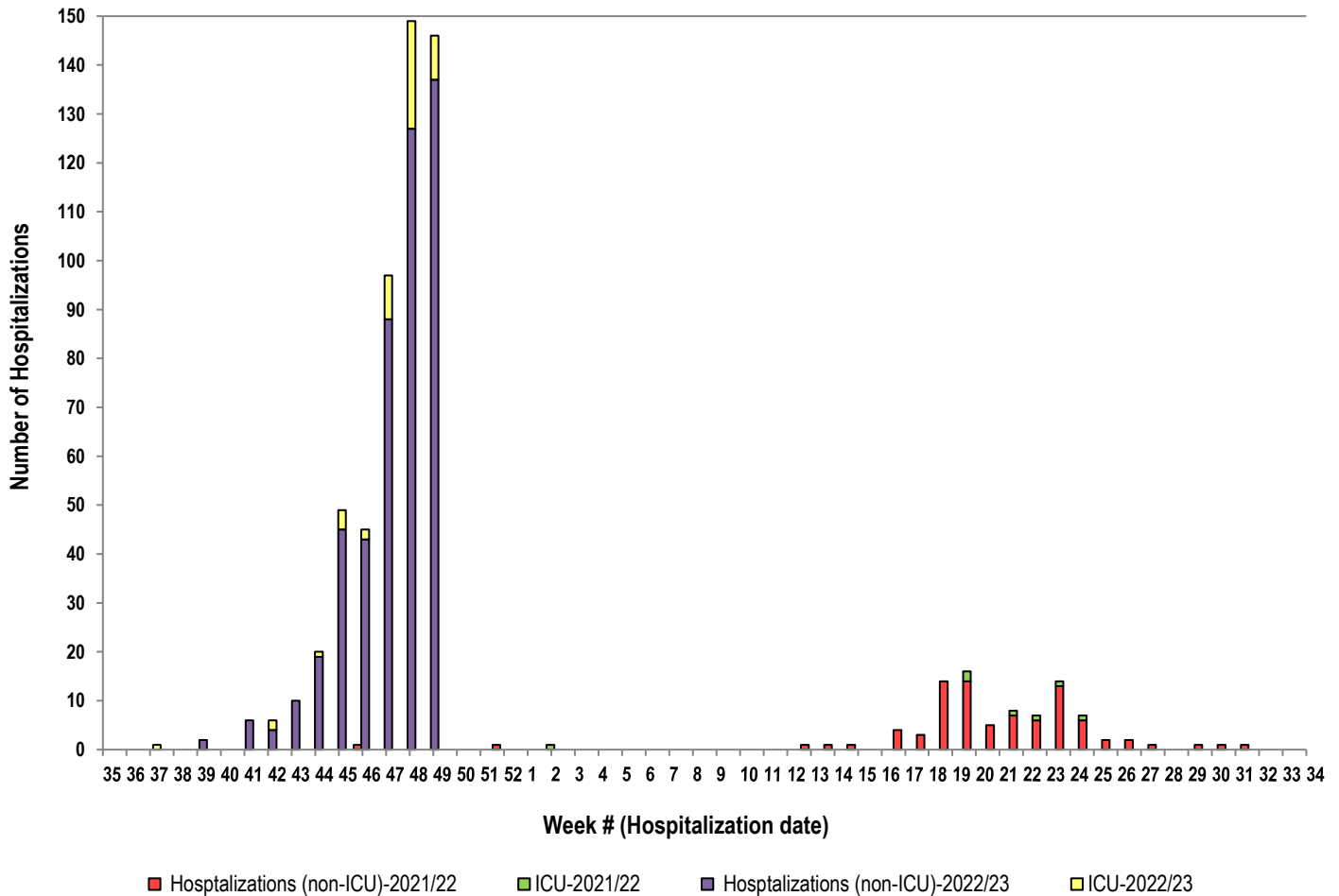


⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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

4) Influenza associated Hospitalization⁶ and Death⁷ Surveillance⁸

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



*Thirty 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.