

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: October 30 to November 5, 2022 (week 44)

Summary

In New Brunswick, influenza activity has been increasing in the last few weeks.

New Brunswick:

- There have been 71 positive influenza cases in week 44. Since the beginning of the season, 130 cases have been reported, 26 influenza A(H3) viruses and 104 influenza A (unsubtyped).
- There have been 15 new influenza associated hospitalizations during week 44. Since the beginning of the season, 38 hospitalizations have been reported and 3 deaths.
- The ILI consultation rate was 42.0 per 1,000 patients visits for week 44. The ILI rate was above the expected levels for this time of year.
- Four new influenza outbreaks in nursing homes and 3 new ILI school outbreaks were reported in week 44. So far this season, 5 influenza outbreaks were reported, and 8 ILI outbreaks were reported.

Canada:

- At the national level, influenza activity has crossed the seasonal threshold, indicating the start of an influenza epidemic. All surveillance indicators are increasing, and most are above expected levels typical of this time of year.
- In week 44, a total of 2,234 laboratory detections (2,231 influenza A and 3 influenza B) were reported. Among detections with detailed age information, 64% were in children and teenagers (ages 0 to 19 years).
- The percentage of FluWatchers reporting fever and cough was 2.6 % in week 44. The percentage of FluWatchers reporting cough and fever is well above levels typical of this time of year.

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. An increasing trend of influenza activity was observed in the northern hemisphere while a plateau was observed in the southern hemisphere. In the countries of North America, influenza activity increased steeply in recent weeks. Influenza A(H3N2) was predominant among the few subtyped viruses. In Europe, overall influenza activity followed an increasing trend but remained relatively low. Influenza A viruses predominated among the reported detections in general with A(H3N2) viruses accounting for the majority of subtyped influenza A viruses. In central Asia, Kazakhstan reported high influenza activity with B/Victoria-lineage viruses predominating. In East Asia, influenza activity of predominantly influenza A(H3N2) remained stable at intermediate levels overall. In Western Asia influenza activity was elevated. Detections of influenza continued to increase in some countries of the Arabian Peninsula. In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) most frequently detected. In the tropical countries of South America, influenza detections were low, and A(H3N2) detections predominated. In tropical Africa, influenza activity remained low with detections of influenza A(H3N2), B/Victoria and A(H1N1)pdm09 reported. In Southern Asia, influenza activity increased steeply, with elevated activity reported in Bhutan, Iran and Pakistan. The majority of subtyped detections were influenza A(H3N2), followed by A(H1N1)pdm09 and few influenza B detections. In South East Asia, detections of predominantly influenza A(H3N2) followed by influenza B and influenza A(H1N1)pdm09 decreased. In the temperate zones of the southern hemisphere, overall influenza activity appeared to decrease this reporting period, except in temperate South America where activity increased in several countries. In Oceania, influenza activity remained very low with detections of influenza A(H1N1)pdm09 and influenza A(H3N2) and some B viruses in Australia. ILI activity in New Zealand and, in general, across the Pacific Islands remained low except in a few countries. In Southern Africa, decreasing detections of influenza B/Victoria and influenza A(H3N2) were reported. In temperate South America, influenza detections have continued to increase in Argentina, Chile and Uruguay. Influenza A(H3N2) viruses predominated in Chile and Uruguay, while influenza B and influenza A(H1N1)pdm09 predominated among subtyped viruses in Argentina.

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 November 15, 2022, 4,377,070 cases of COVID-19 infection in Canada have been identified with 47,118 deaths. Eighty-one thousand seven hundred and eighty-seven cases have been identified in New Brunswick with 603 deaths. As of November 14, the WHO reported globally 631 935 687 confirmed cases and 6 588 850 deaths.

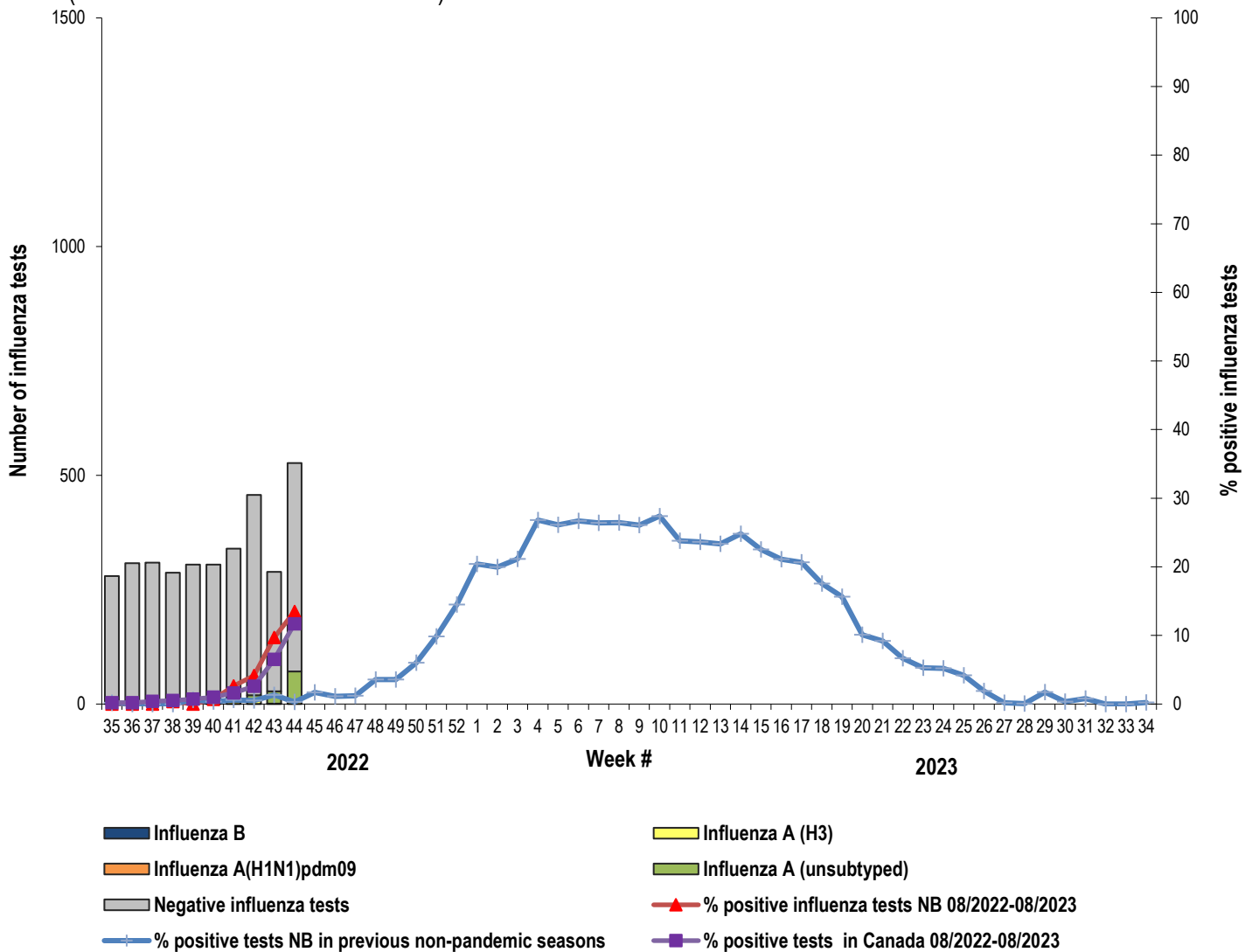
For more timely updates, please visit the following websites:

- 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

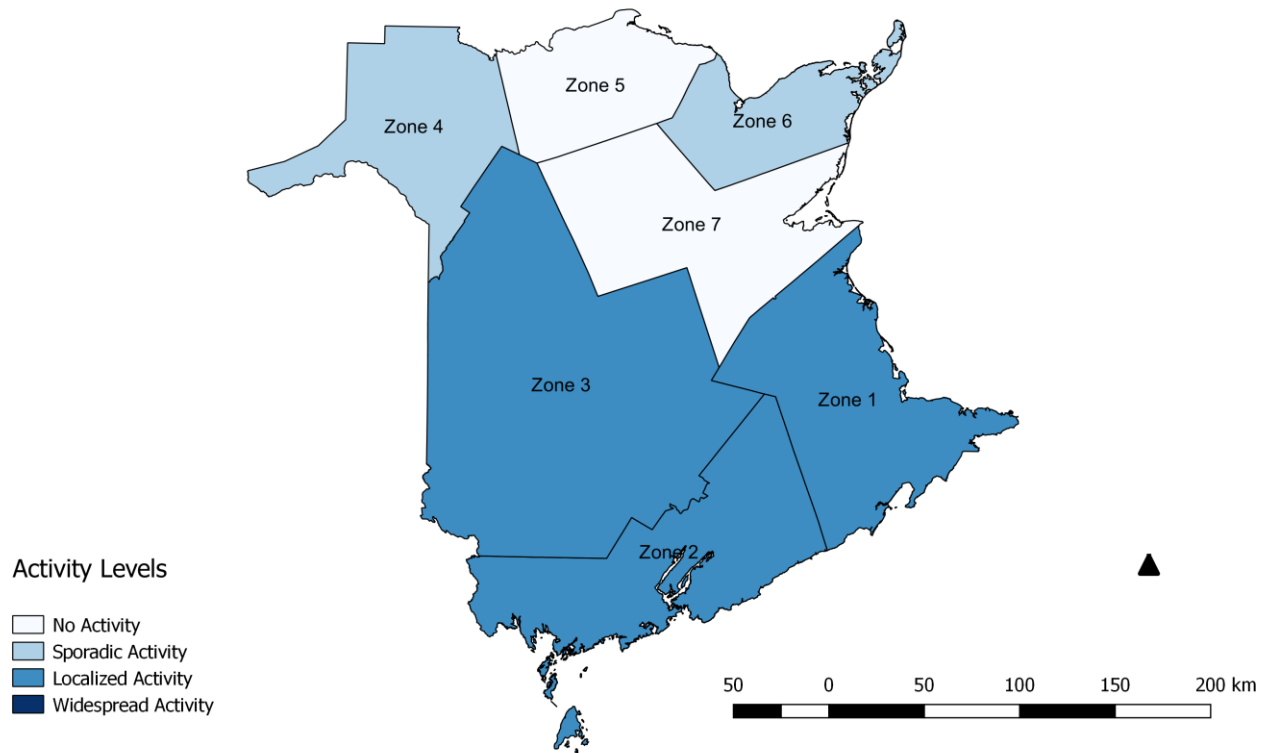
- Influenza activity has been increasing in the last few weeks.
- Seventy-one influenza cases were reported during week 44, 8 influenza A(H3) viruses and 63 influenza A (unsubtyped).
- Since the beginning of the season, 130 cases have been reported, 26 influenza A(H3) viruses and 104 influenza A (unsubtyped).

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to November 5, 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 44, 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 cases³ by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
(data source: G. Dumont lab results up to November 5, 2022)

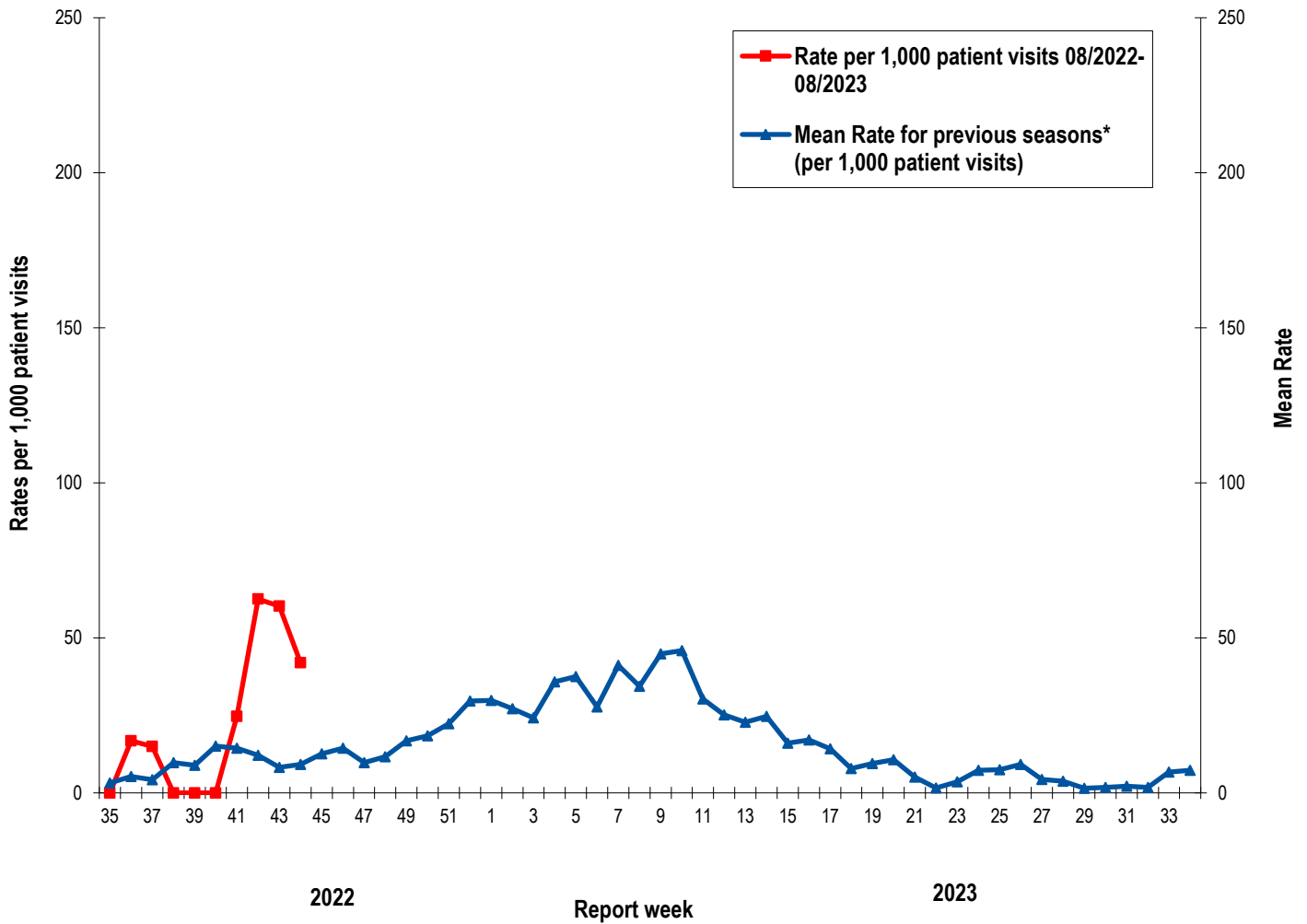
Zone	Reporting period: October/30/2022–November/05/2022						Cumulative: (2022/2023 season) Aug./28/2022 –November/05/2022						Cumulative: (2021/2022 season) Aug./29/2021 –Aug./27/2022					
	A				B	A & B co- infection	A				B	A & B co- infection	A				B	A & B co- infection
	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total	(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total
Zone 1	2	0	1	3	0	0	4	0	5	9	0	0	124	0	115	239	0	0
Zone 2	3	0	52	55	0	0	19	0	88	107	0	0	11	0	60	71	0	0
Zone 3	2	0	10	12	0	0	2	0	11	13	0	0	33	0	55	88	1	0
Zone 4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	10	14	0	0
Zone 5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	8	0	0
Zone 6	1	0	0	1	0	0	1	0	0	1	0	0	5	0	13	18	0	0
Zone 7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0
Total NB	8	0	63	71	0	0	26	0	104	130	0	0	179	0	262	441	1	0

³ A small proportion of specimens tested using Rapid Tests are not included in the total number of cases.

2) ILI Consultation Rates⁴

- The ILI consultation rate was 42.0 per 1,000 patients visits for week 44. The ILI rate was above the expected levels for this time of year.
- During week 44, the sentinel response rate was 22% 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).

⁴ 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.

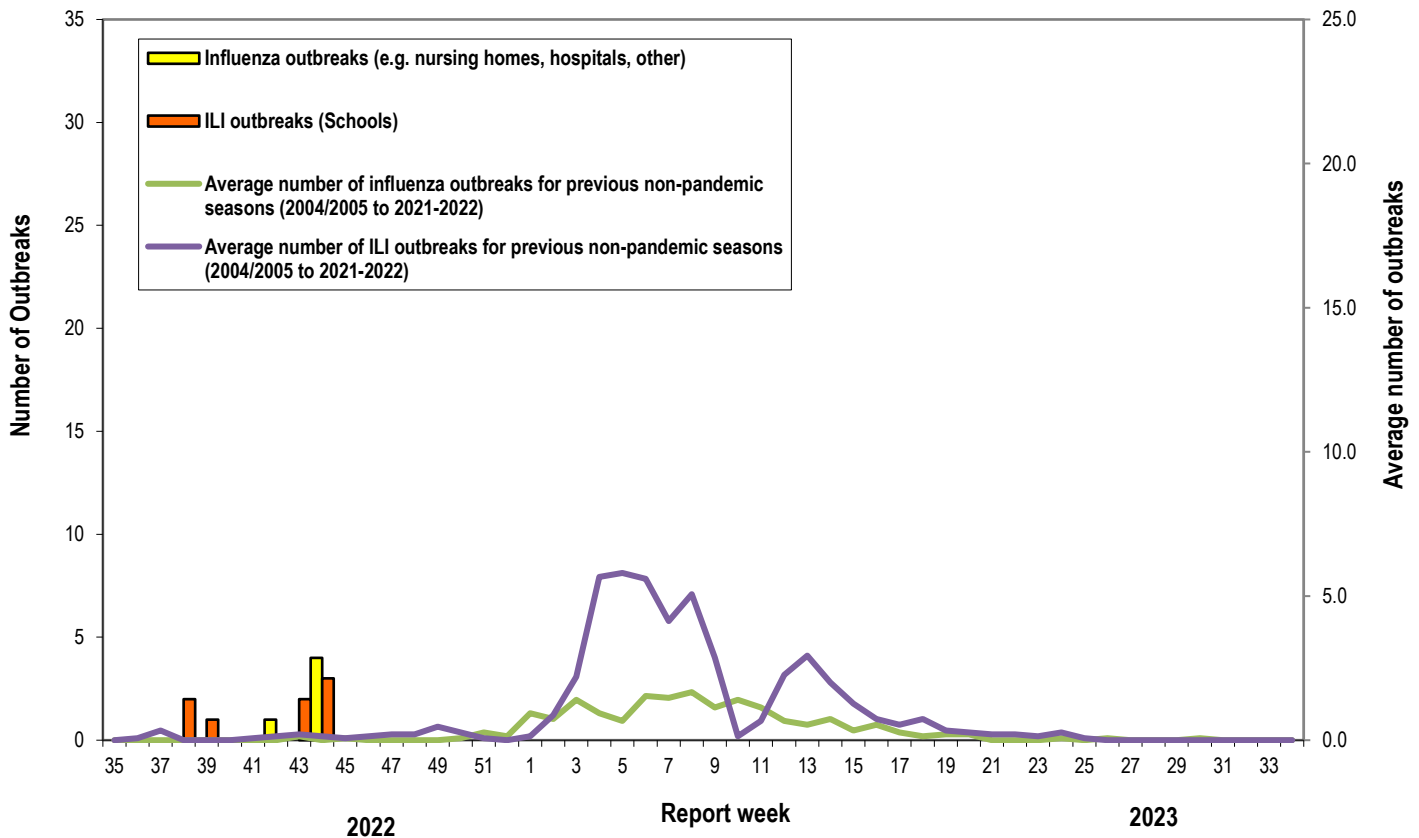
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: October/30/2022 to November/05/2022			Cumulative # of outbreaks season 2022-2023*
	Lab-confirmed outbreaks in Nursing homes ⁵	ILI school outbreaks ⁶ *	Lab-confirmed outbreaks in Other settings ⁵	
Zone 1	1 out of 15	0 out of 74	0	2
Zone 2	1 out of 16	3 out of 81	0	9
Zone 3	2 out of 16	0 out of 95	0	2
Zone 4	0 out of 5	0 out of 22	0	0
Zone 5	0 out of 2	0 out of 18	0	0
Zone 6	0 out of 9	0 out of 35	0	0
Zone 7	0 out of 5	0 out of 27	0	0
Total NB	4 out of 68	3 out of 352	0	13*

*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.

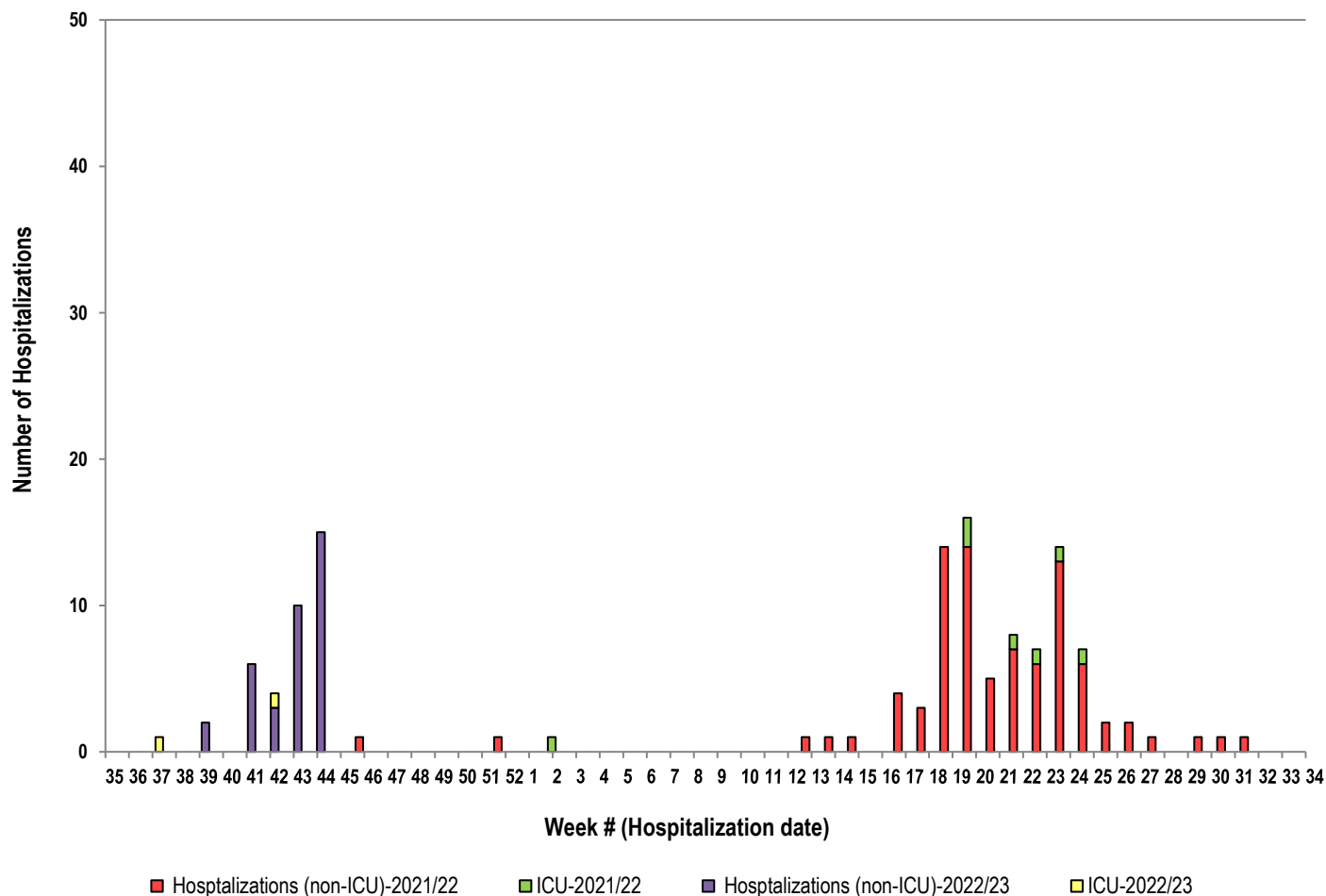


⁵ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

⁶ Schools reporting greater than 10% absenteeism which is likely due to ILI.

4) Influenza associated Hospitalization⁷ and Death⁸ Surveillance⁹

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



*Three 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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⁷ Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

⁸ Deaths are influenza associated; influenza may not be the direct cause of death.

⁹ 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.