New Brunswick Nouveau Brunswick

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: October 16 to October 29, 2022 (weeks 42-43)

Summary

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

New Brunswick:

- There have been 47 positive influenza cases in weeks 42 and 43. Since the beginning of the season, 59 cases have been reported, 18 influenza A(H3) viruses and 41 influenza A (unsubtyped).
- There have been 14 new influenza associated hospitalizations during weeks 42 and 43. Since the beginning of the season, 22 hospitalizations have been reported and 2 deaths.
- The ILI consultation rate was 62.5 and 60.2 per 1,000 patients visits for weeks 42 & 43, respectively. The ILI rate was above the expected levels for this time of year.
- One new influenza outbreak was reported in week 42 in an acute care setting. So far this season, 1 influenza outbreak was reported, and no ILI outbreaks were reported.

Canada:

- At the national level, influenza activity is increasing steeply and has crossed the seasonal threshold of 5% positivity; if percent positivity remains above this threshold next week, the start of an influenza epidemic will be declared.
- In weeks 42 and 43, a total of 1,508 laboratory detections (1,493 influenza A and 26 influenza B) were reported. Among detections with detailed age information, 54% were in children and teenagers (ages 0 to 19 years).
- The percentage of FluWatchers reporting fever and cough was 2.3 % in week 43. The percentage of FluWatchers reporting cough and fever is 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 remained low 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 slightly in recent weeks. Influenza A(H3N2) was predominant among the few subtyped viruses. In Europe, overall influenza activity remained at inter-seasonal levels, with a low but increasing trend. 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 increased influenza activity with B/Victoria-lineage viruses predominating. In East Asia, influenza activity of predominantly influenza A(H3N2) remained stable, at low levels, overall. In Western Asia influenza activity was elevated. Detections of influenza continued to increase in some countries of the Arab 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 remained low, with the exception of Iran where increased activity was reported. The majority of subtyped detections were influenza A(H3N2) and A(H1N1)pdm09, with few influenza B detections. In the temperate zones of the southern hemisphere, overall influenza activity appeared to further decrease this reporting period, except in temperate South America where activity increased in some countries. In Oceania, influenza activity remained 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, influenza detections decreased. Influenza B/Victoria viruses predominated, with some influenza A(H3N2) and only very few influenza A(H1N1)pdm09 virus detections. In temperate South America, influenza detections have continued to increase in Argentina and Chile. Elsewhere, influenza activity remained low or below the seasonal threshold. Influenza A viruses predominated with A(H1N1)pdm09 predominant among subtyped viruses in Argentina and other countries reporting mostly A(H3N2) viruses.

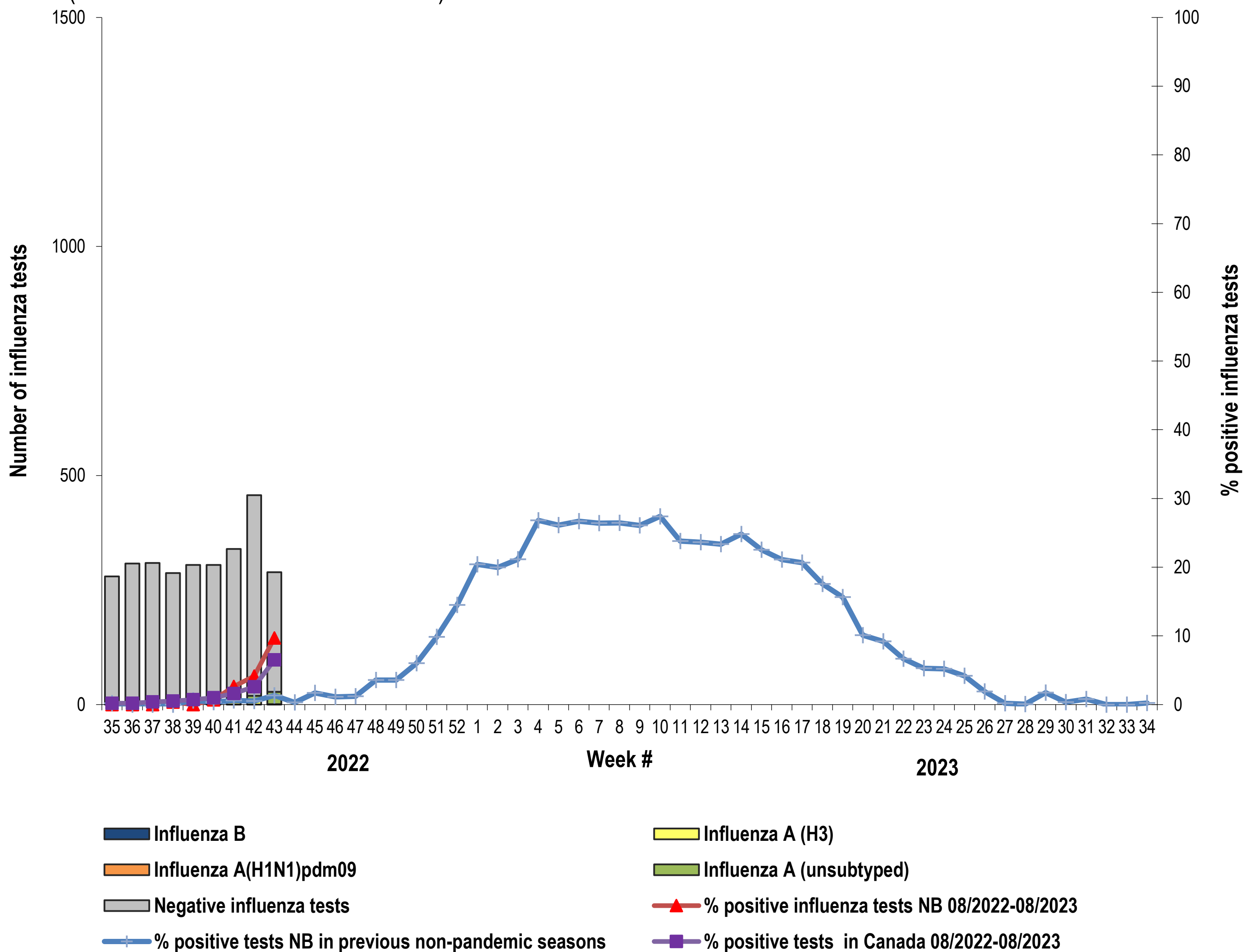
Emerging Respiratory Viruses:

- 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 7, 2022, 4,357,478 cases of COVID-19 infection in Canada have been identified with 46,710 deaths. Eighty-one thousand two hundred and sixty-nine cases have been identified in New Brunswick with 599 deaths. As of November 7, the WHO reported globally 629 370 889 confirmed cases and 6 578 245 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]

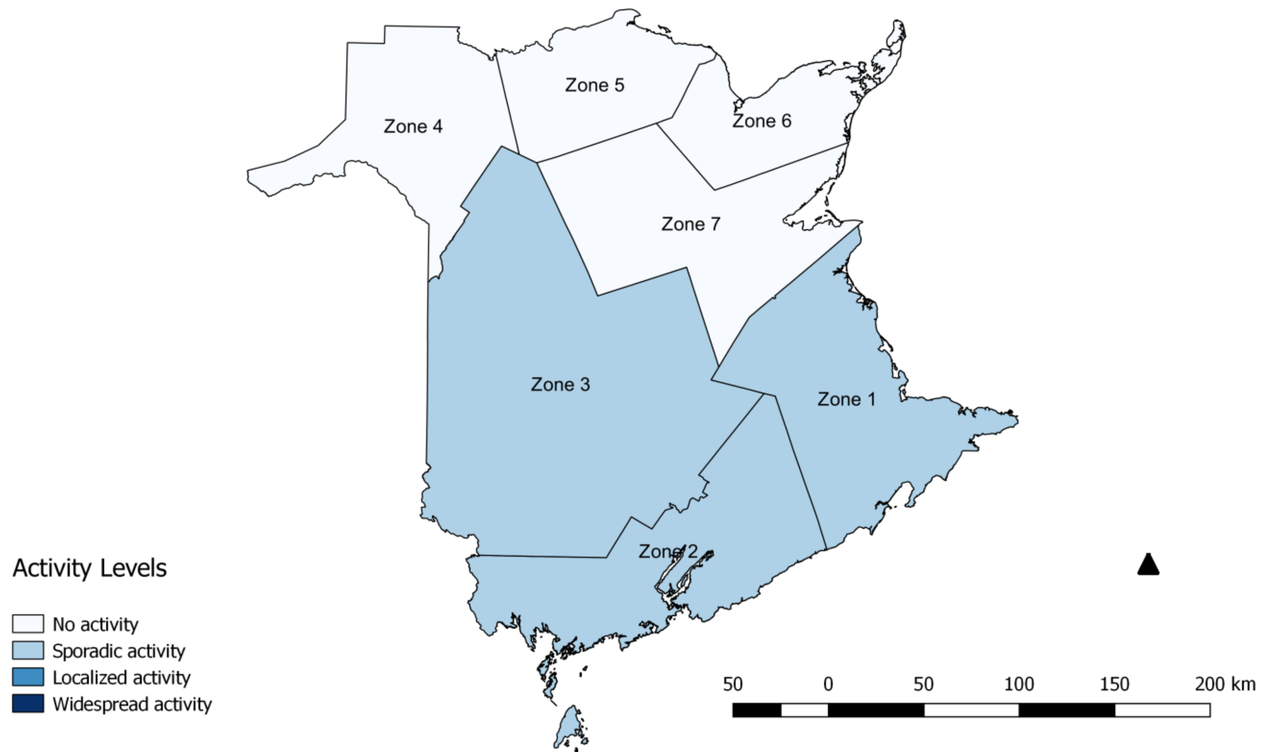
- Influenza activity remains low but has been increasing in the last few weeks.
- Forty-seven influenza cases were reported during weeks 42 and 43, 11 influenza A(H3) viruses and 36 influenza A (unsubtyped).
- Since the beginning of the season, 59 cases have been reported, 18 influenza A(H3) viruses and 41 influenza A (unsubtyped).

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to October 29, 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 levels[2] by Health Zones, in New Brunswick, for week 43, 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[3] by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
(data source: G. Dumont lab results up to October 29, 2022)

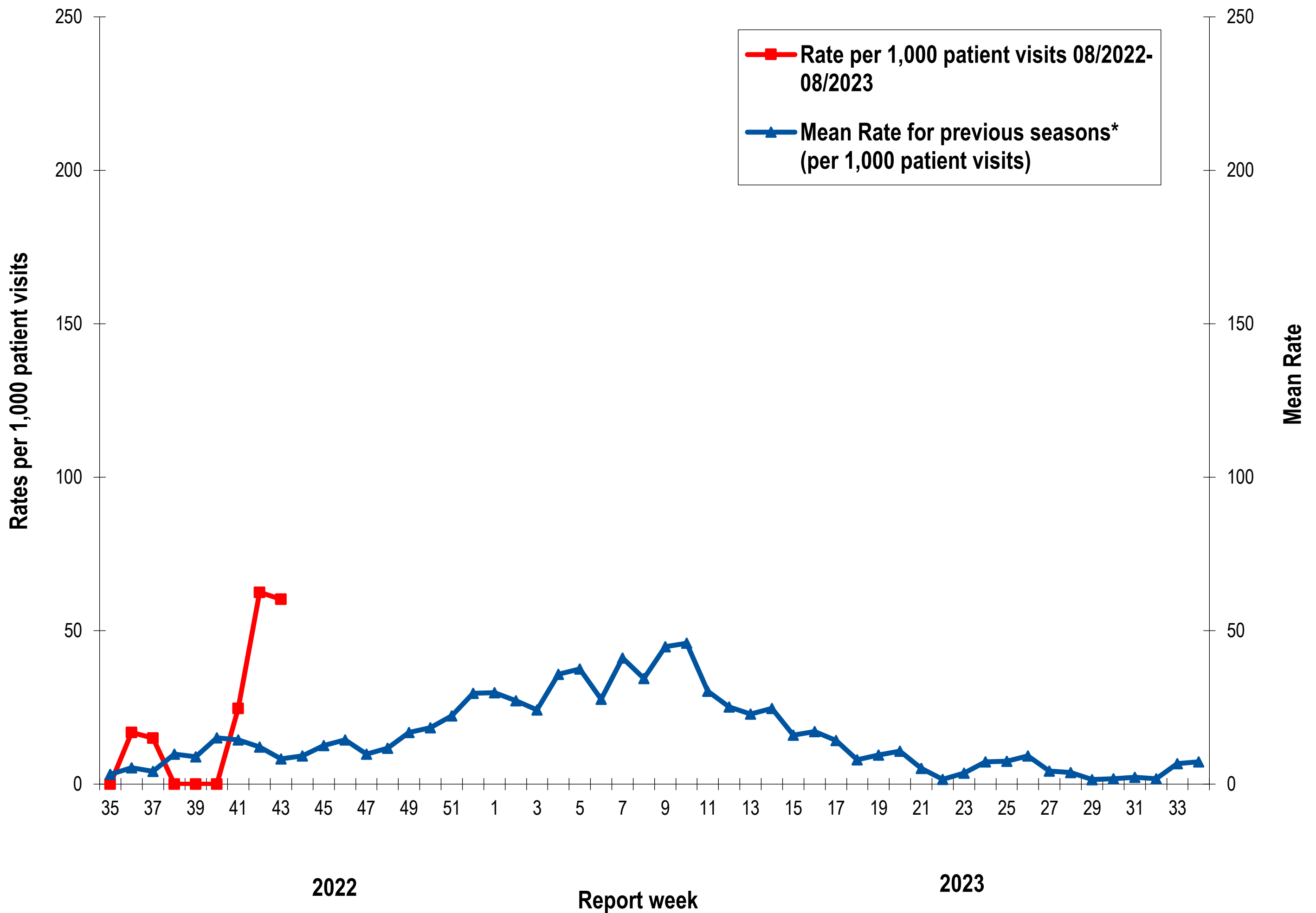
Zone	Reporting period: October/16/2022–October/29/2022						Cumulative: (2022/2023 season) Aug./28/2022 –October/29/2022						Cumulative: (2021/2022 season) Aug./29/2021 –Aug./27/2022					
	A				B	A & B co-infection	A				B	A & B co-infection	A				B	A & B co-infection
	A(H3)	(H1N1) pdm09	Unsubtyped/ Other	**A Total**	**Total**	**Total**	A(H3)	(H1N1) pdm09	Unsubtyped/ Other	**A Total**	**Total**	**Total**	(H3)	(H1N1) pdm09	Unsubtyped/ Other	**A Total**	**Total**	**Total**
Zone 1	1	0	3	**4**	**0**	**0**	2	0	4	**6**	**0**	**0**	124	0	115	**239**	**0**	**0**
Zone 2	10	0	32	**42**	**0**	**0**	16	0	36	**52**	**0**	**0**	11	0	60	**71**	**0**	**0**
Zone 3	0	0	1	**1**	**0**	**0**	0	0	1	**1**	**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	0	0	0	**0**	**0**	**0**	0	0	0	**0**	**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	**11**	**0**	**36**	**47**	**0**	**0**	**18**	**0**	**41**	**59**	**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 Rates[4]

- The ILI consultation rate was 62.5 and 60.2 per 1,000 patients visits for weeks 42 & 43, respectively. The ILI rate was above the expected levels for this time of year.
- During weeks 42 and 43, the sentinel response rate was between 13% and 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.

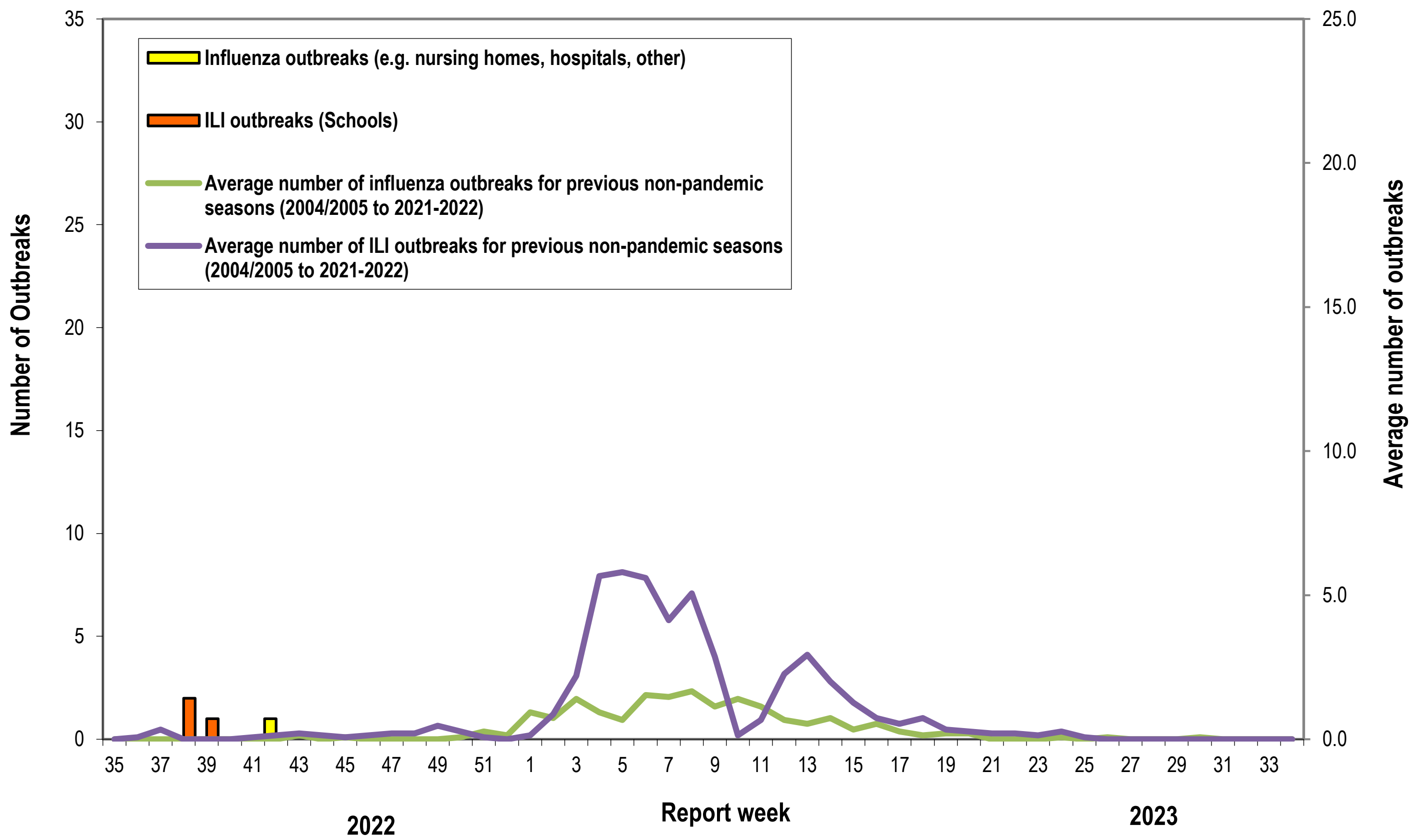
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: October/16/2022 to October/29/2022			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	0 out of 15	0 out of 74	0	1
Zone 2	0 out of 16	0 out of 81	1	3
Zone 3	0 out of 16	0 out of 95	0	0
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	0 out of 68	0 out of 352	1	4*

*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.

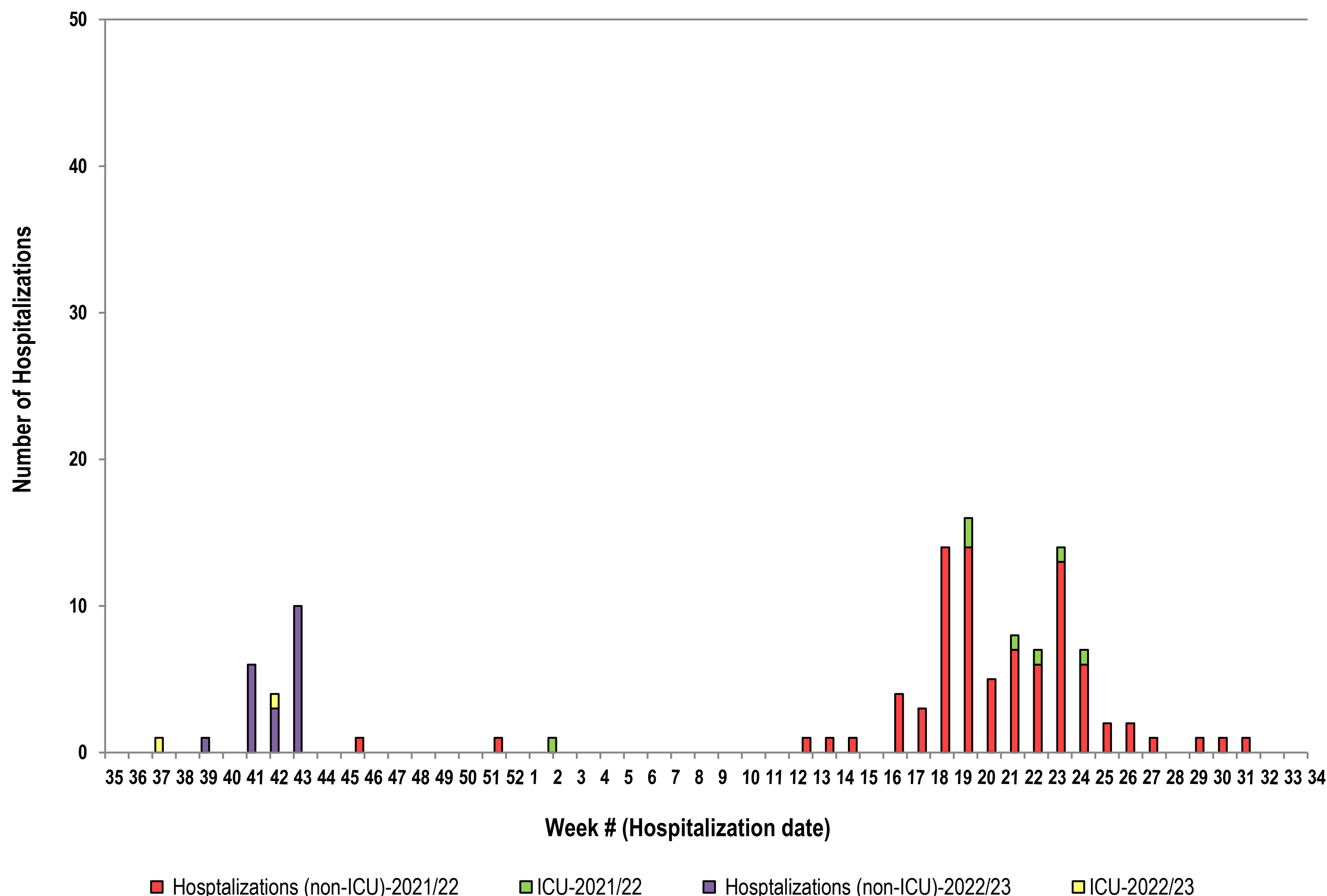
Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other)[5] and ILI Outbreaks (schools)[6] reported to Public Health in New Brunswick, by report week, season 2022/23.



[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 Hospitalization[7] and Death[8] Surveillance[9]

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



***Two 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/

Prepared by the Communicable Disease Control Unit, Office of the Chief Medical Officer of Health, Tel: (506) 444-3044

[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.