

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: December 18 to December 31, 2022 (weeks 51 & 52)

Summary

In New Brunswick, influenza activity continued to decrease in week 52

New Brunswick:

- There have been 607 positive influenza cases in weeks 51 & 52 (percent positivity: 16% and 9%, respectively). Since the beginning of the season, 4145 cases have been reported, 124 influenza A(H3) viruses, 4020 influenza A (unsubtyped) and 1 influenza B.
- There have been 99 new influenza associated hospitalizations during weeks 51 & 52. Since the beginning of the season, 809 hospitalizations have been reported and 47 deaths.
- The ILI consultation rate was 138.5 and 32.3 per 1,000 patients visits for weeks 51 & 52, respectively. The ILI rate was above the expected levels for week 51 but within the expected levels for week 52.
- Eight new influenza outbreaks (in Nursing Homes and Other settings) and 5 new ILI school outbreaks were reported in weeks 51 & 52. So far this season, 35 influenza outbreaks were reported, and 211 ILI school outbreaks were reported.

Canada:

- At the national level, influenza continues to circulate but has declined sharply from the peak that occurred in week 47 (end of November). Most surveillance indicators are decreasing and almost all indicators are within expected levels typical of this time of year.
- In week 52, a total of 2,841 laboratory detections (2,818 influenza A and 23 influenza B) were reported. Among detections with detailed age information, 40% were in individuals aged 65+ years old.
- The percentage of FluWatchers reporting fever and cough was 2.1 % in week 52. The percentage of FluWatchers reporting cough and fever is below seasonal levels for the first time this season.

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 elevated due to influenza activity in the northern hemisphere. Where subtyped, influenza A(H3N2) viruses predominated. In the countries of North America, some indicators of influenza activity decreased while others were stable or continued to increase. Many indicators were above levels typically observed at this time of year and some were 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 with A(H3N2) viruses accounting for the majority of subtyped influenza A viruses from sentinel sites and influenza A(H1N1)pdm09 viruses predominant among nonsentinel samples in recent weeks. In central Asia, influenza activity increased with relatively equal proportions of influenza A(H1N1)pdm09 and influenza B viruses reported. Influenza B viruses predominated in Kazakhstan and Uzbekistan while influenza A(H1N1)pdm09 predominated in Kyrgyzstan and Tajikistan. In Northern Africa, influenza detections increased but remained low. Morocco reported mainly B/Victoria lineage virus detections. Tunisia reported increasing detections of mainly influenza A (H1N1)pdm09 as well as some influenza A(H3N2) and influenza B/Victoria lineage virus detections. In Western Asia, influenza activity decreased overall with all seasonal influenza subtypes detected in similar proportions, though increased activity was reported in some countries. 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 predominantly influenza A(H3N2) viruses decreased but remained elevated in Mexico. In the tropical countries of South America, influenza detections were low, and A(H3N2) viruses predominated. In tropical Africa, influenza activity remained low with detections of all seasonal influenza subtypes reported. An increased number of detections was reported from Eastern Africa. In Southern Asia, influenza activity continued to decrease to low levels, mainly due to decreased activity reported in Iran (Islamic Republic of). Influenza A(H1N1)pdm09 was the most frequently detected subtype in the subregion. In South-East Asia, detections of predominantly influenza B increased and remained elevated. In the temperate zones of the southern hemisphere, influenza activity decreased in Argentina and Chile and remained low elsewhere.

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 January 9, 2022, 4,508,275 cases of COVID-19 infection in Canada have been identified with 49,566 deaths. Since August 28, 2022, eleven thousand two hundred and sixty-six cases have been identified in New Brunswick with 119 deaths. As of January 9, the WHO reported globally 659 108 952 confirmed cases and 6 684 756 deaths.

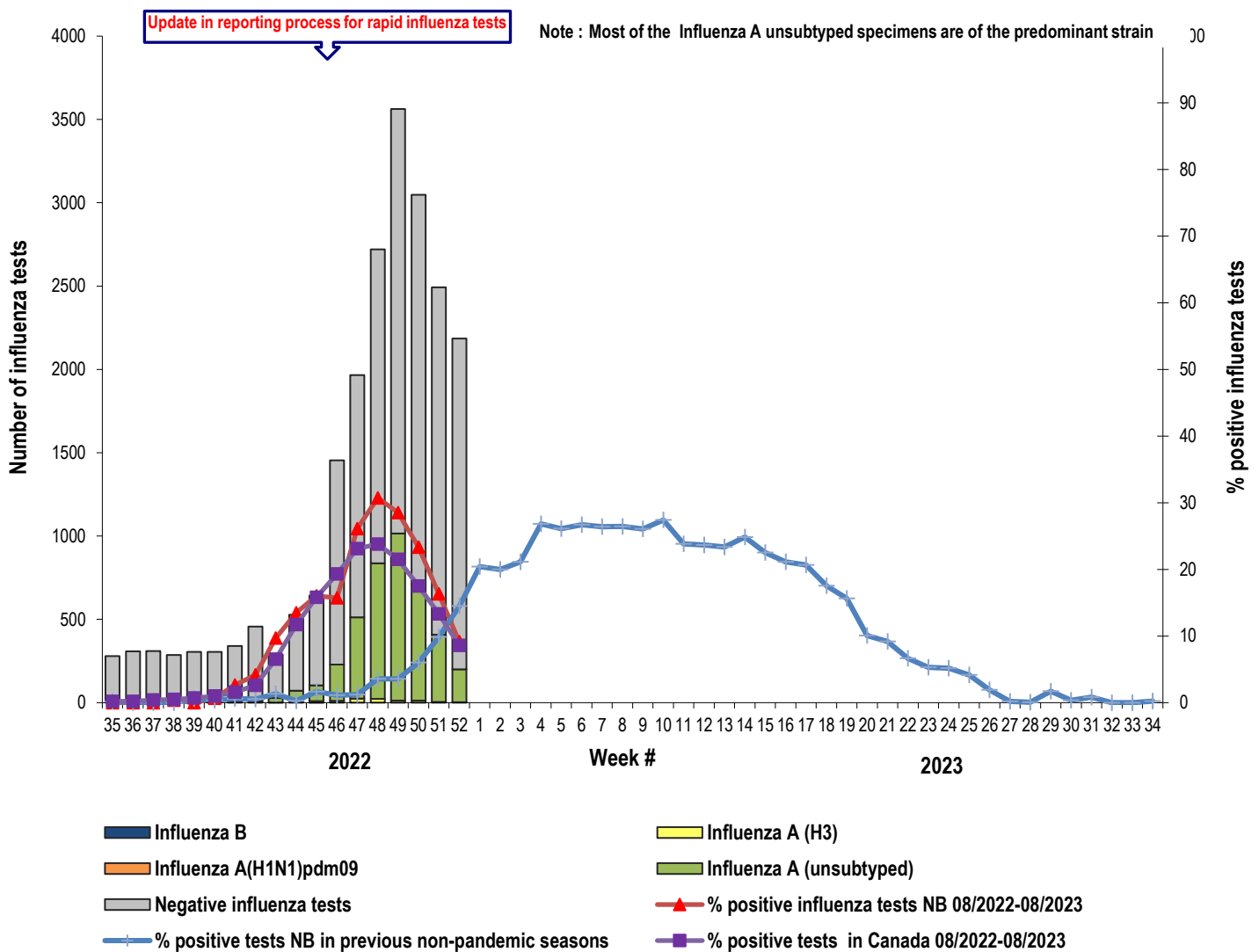
For more timely updates, please visit the following websites:

- 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

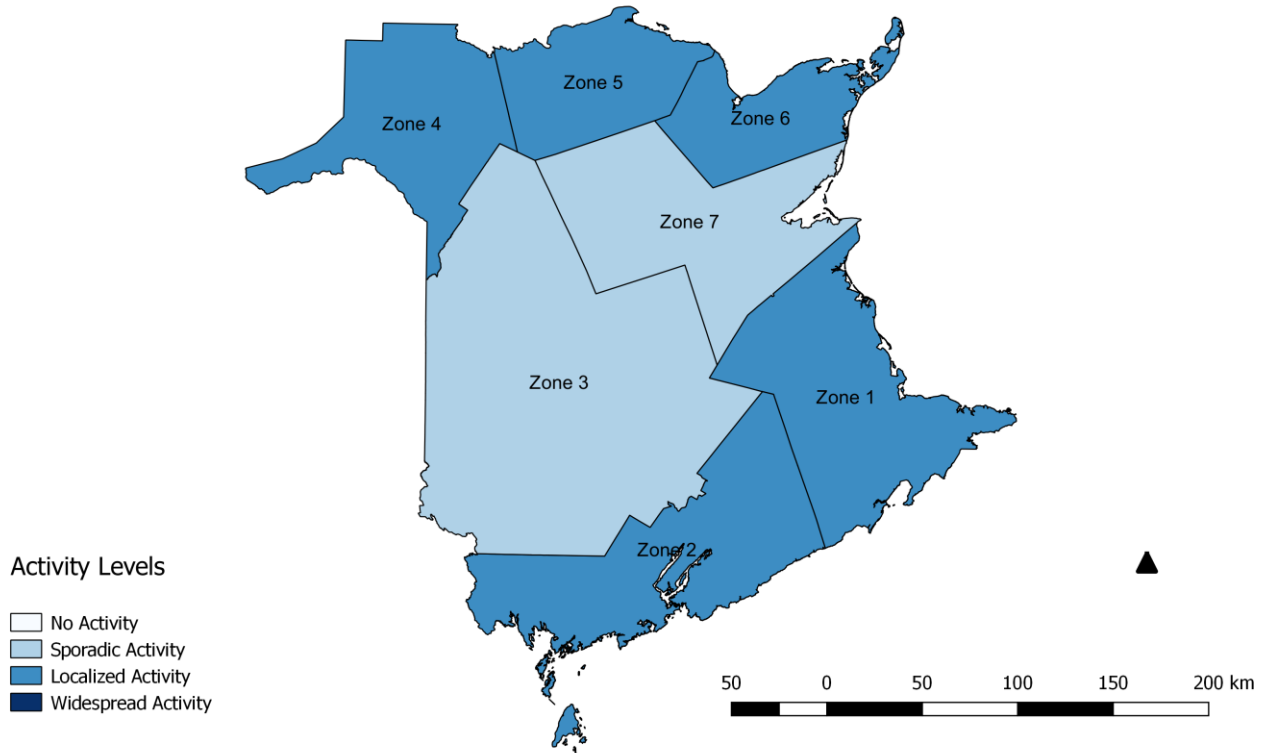
- Influenza activity continued to decrease in week 52.
- Six hundred and seven influenza cases were reported during weeks 51 & 52, 6 influenza A(H3) viruses, and 601 influenza A (unsubtyped).
- Since the beginning of the season, 4145 cases have been reported, 124 influenza A(H3) viruses, 4020 influenza A (unsubtyped) and 1 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to December 31, 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 52, 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.

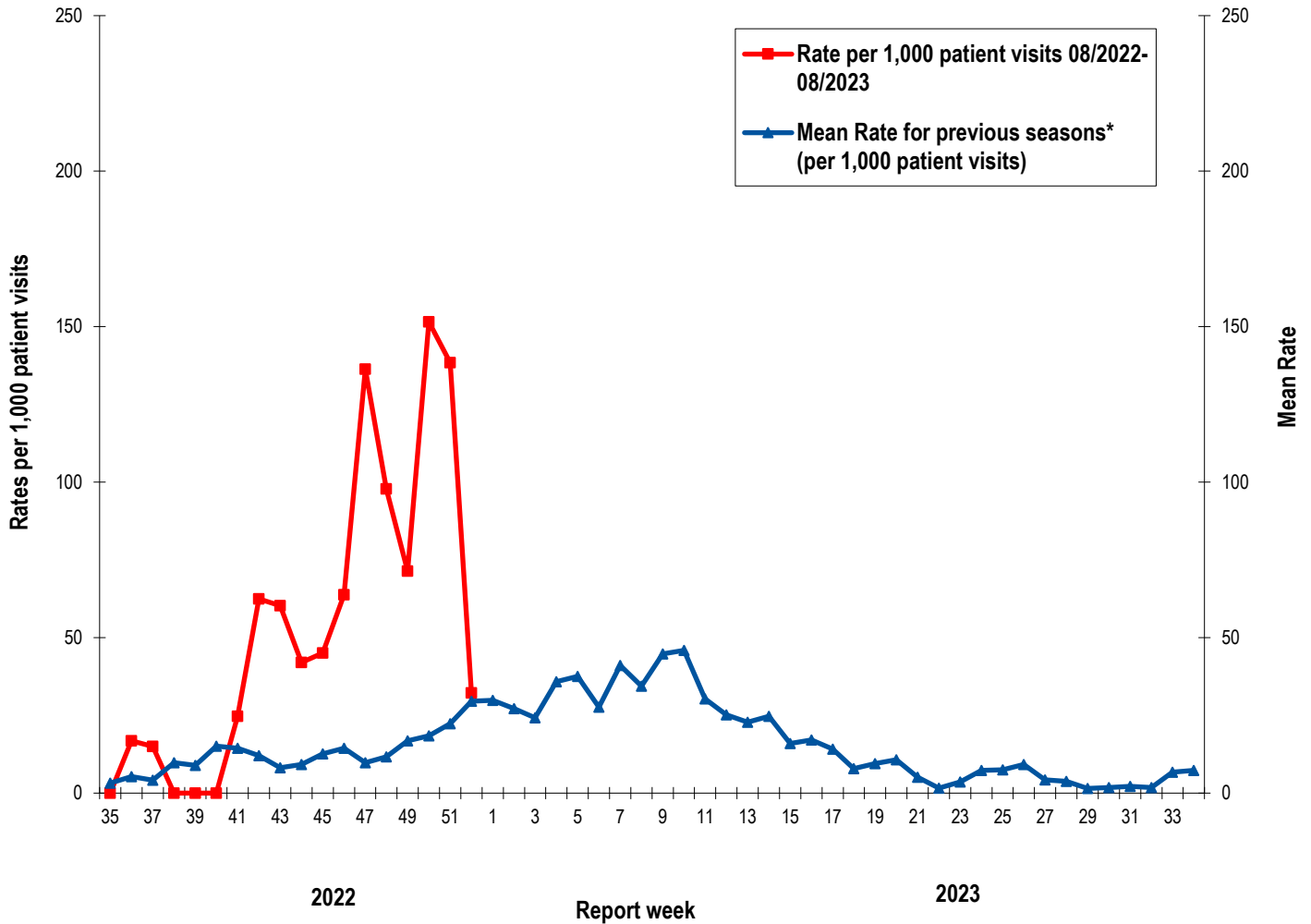
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
 (data source: G. Dumont lab results up to December 31, 2022)

Zone	Reporting period: December/18/2022–December/31/2022						Cumulative: (2022/2023 season) Aug./28/2022 –December/31/2022						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	6	0	138	144	0	0	75	0	1118	1193	1	0	124	0	115	239	0	0
Zone 2	0	0	88	88	0	0	25	0	785	810	0	0	11	0	60	71	0	0
Zone 3	0	0	95	95	0	0	8	0	807	815	0	0	33	0	55	88	1	0
Zone 4	0	0	88	88	0	0	6	0	320	326	0	0	4	0	10	14	0	0
Zone 5	0	0	31	31	0	0	3	0	125	128	0	0	1	0	7	8	0	0
Zone 6	0	0	128	128	0	0	5	0	567	572	0	0	5	0	13	18	0	0
Zone 7	0	0	33	33	0	0	2	0	298	300	0	0	1	0	2	3	0	0
Total NB	6	0	601	607	0	0	124	0	4020	4144	1	0	179	0	262	441	1	0

2) ILI Consultation Rates³

- The ILI consultation rate was 138.5 and 32.3 per 1,000 patients visits for weeks 51 & 52, respectively. The ILI rate was above the expected levels for week 51 but within the expected levels for week 52.
- During weeks 51 & 52, the sentinel response rate was between 18% 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).

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.

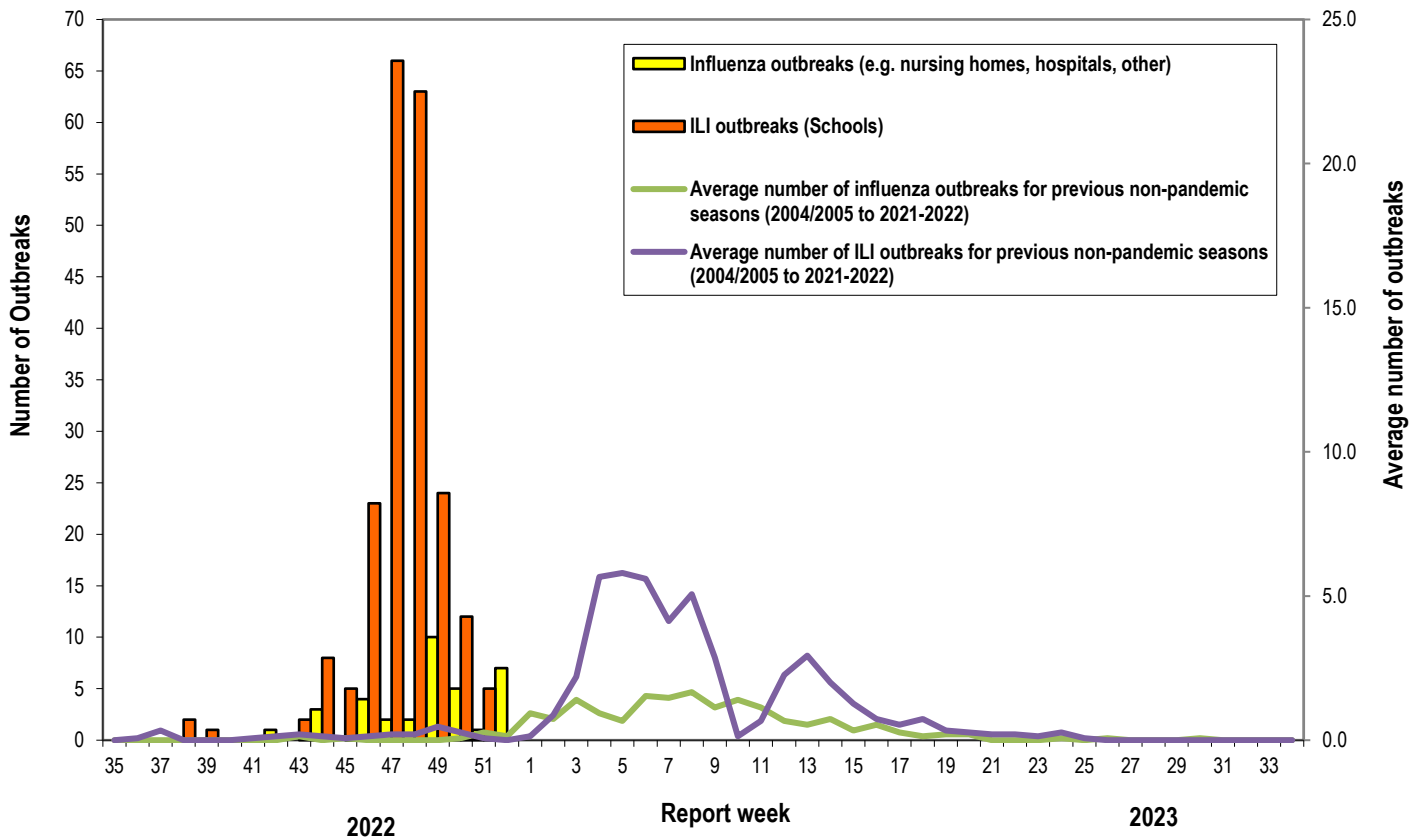
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: December/18/2022 to December/31/2022			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	1 out of 15	0 out of 74	0	52
Zone 2	1 out of 16	1 out of 81	0	53
Zone 3	0 out of 16	1 out of 95	0	75
Zone 4	1 out of 5	1 out of 22	3	18
Zone 5	0 out of 2	1 out of 18	1	4
Zone 6	1 out of 9	1 out of 35	0	35
Zone 7	0 out of 5	0 out of 27	0	9
Total NB	4 out of 68	5 out of 352	4	246*

*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.

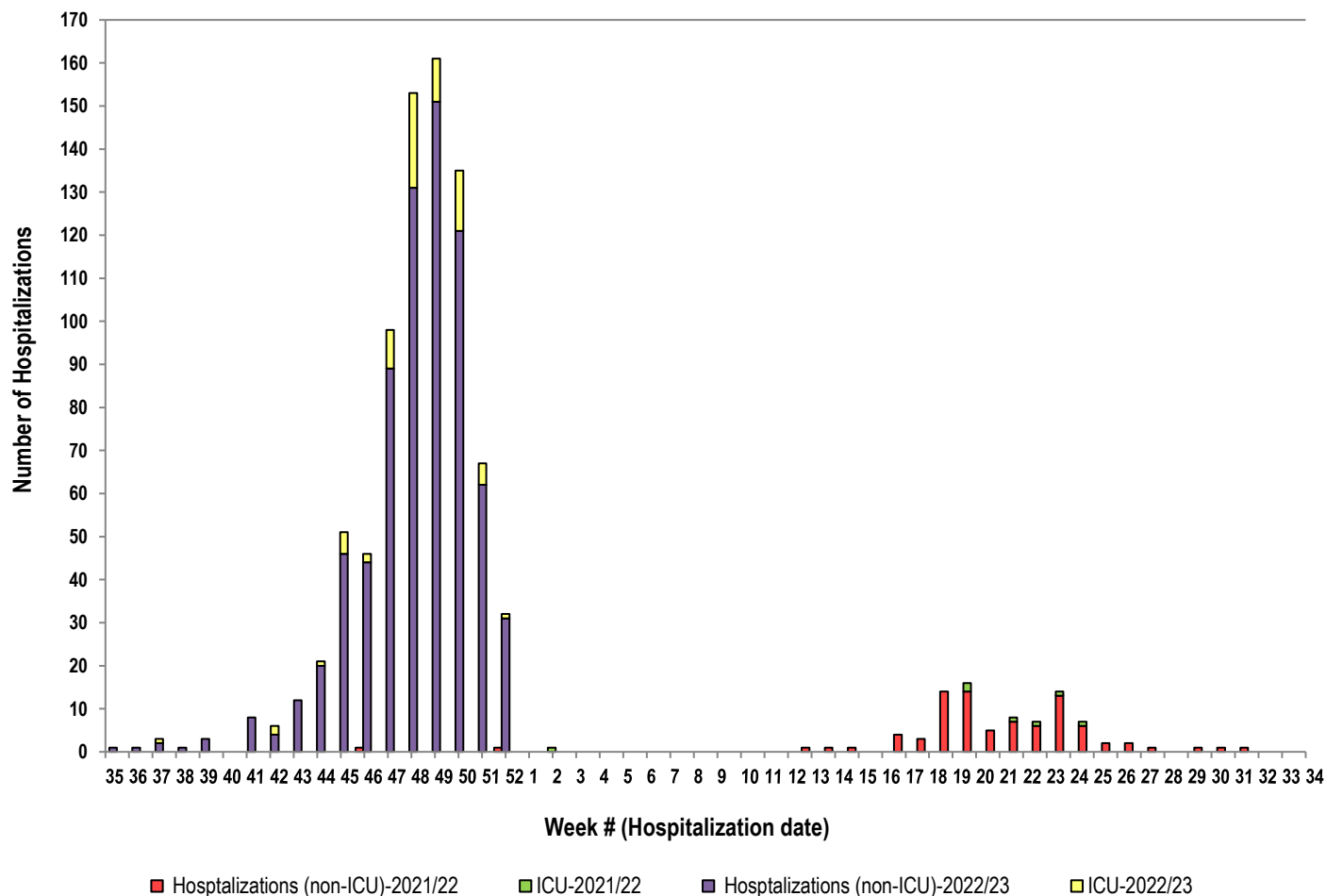


⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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).*



*Forty-seven 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.