

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: November 13 to November 19, 2022 (week 46)

Summary

In New Brunswick, influenza activity continued to increase in week 46

New Brunswick:

- There have been 229 positive influenza cases in week 46. Since the beginning of the season, 462 cases have been reported, 46 influenza A(H3) viruses, 415 influenza A (unsubtyped) and 1 influenza B.
- There have been 36 new influenza associated hospitalizations during week 46. Since the beginning of the season, 120 hospitalizations have been reported and 9 deaths.
- The ILI consultation rate was 63.8 per 1,000 patients visits for week 46. The ILI rate was above the expected levels for this time of year.
- Three new influenza outbreaks and 22 new ILI school outbreaks were reported in week 46. So far this season, 8 influenza outbreaks were reported, and 40 ILI outbreaks were reported.

Canada:

- At the national level, influenza activity has continued to increase steeply as we enter the fourth week of the national influenza epidemic. Most surveillance indicators are increasing, and all are above expected levels typical of this time of year.
- In week 46, a total of 5,891 laboratory detections (5,876 influenza A and 15 influenza B) were reported. Among detections with detailed age information, 49% were in children and teenagers (ages 0 to 19 years).
- The percentage of FluWatchers reporting fever and cough was 2.9 % in week 46. 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. In the countries of North America, influenza positivity and influenza-like-illness (ILI) activity increased steeply in recent weeks, indicating an earlier start of the influenza season in comparison with pre-COVID-19-pandemic seasons. Influenza A(H3N2) was the predominant virus detected. In Europe, overall influenza activity continued to increase with influenza positivity reported above epidemic threshold in some countries. 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 remained elevated, especially in some countries of the Arabian Peninsula. In the Caribbean and Central American countries, influenza activity of predominantly 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) detections predominated. In tropical Africa, influenza activity remained low with detections of influenza A(H1N1)pdm09, A(H3N2) and B/Victoria reported. In Southern Asia, influenza activity increased steeply mainly due to elevated activity reported in Iran (Islamic Republic of). Influenza A(H3N2) was the most frequently detected subtype in the subregion. In Southeast Asia, detections of predominantly influenza A(H3N2) and influenza B continued to decrease. In the temperate zones of the southern hemisphere, influenza activity continued to decrease in most reporting countries, except in temperate South America where activity increased 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 November 28, 2022, 4,408,276 cases of COVID-19 infection in Canada have been identified with 47,781 deaths. Eighty-two thousand eight hundred and nineteen cases have been identified in New Brunswick with 615 deaths. As of November 28, the WHO reported globally 637 404 847 confirmed cases and 6 608 893 deaths.

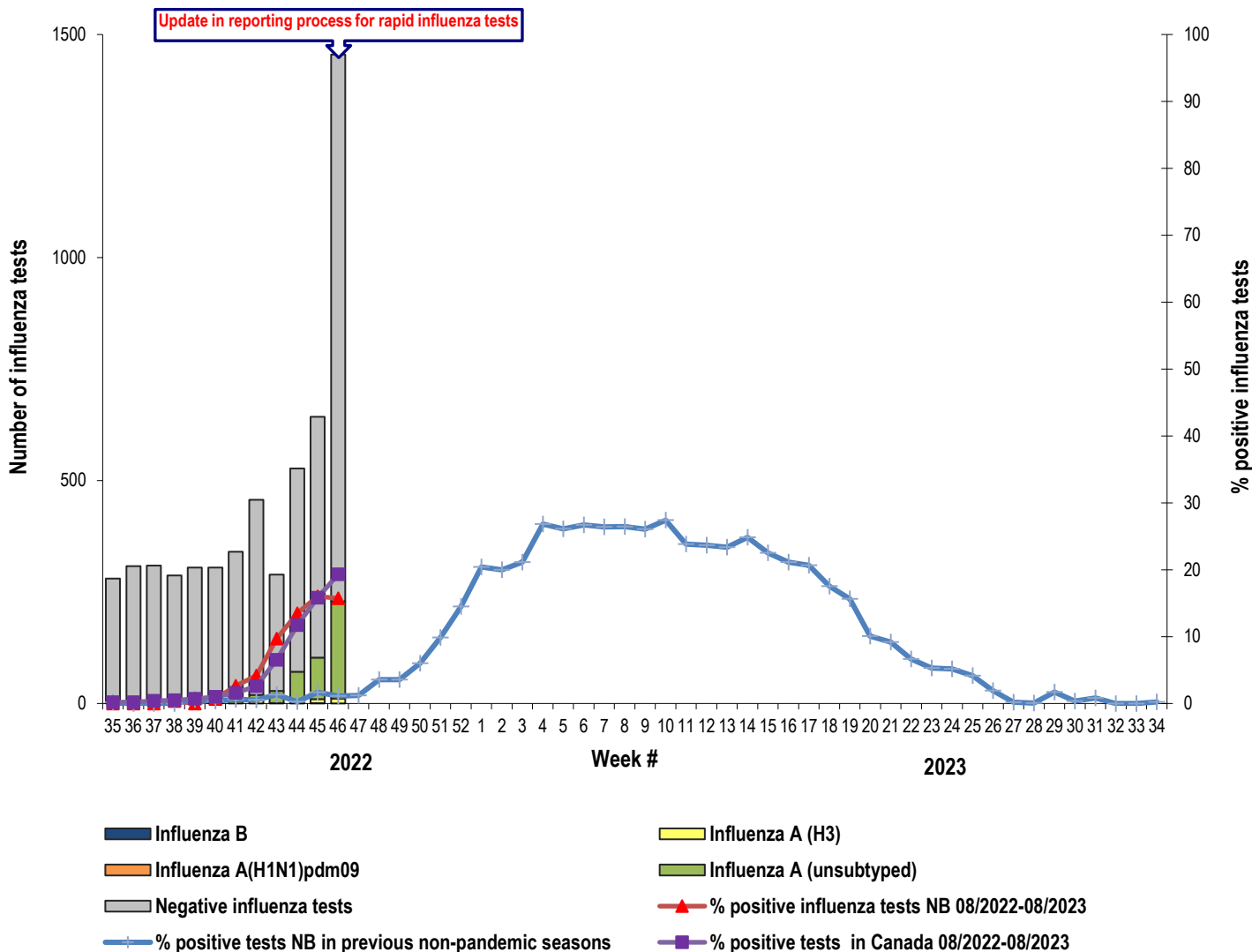
For more timely updates, please visit the following websites:

- 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

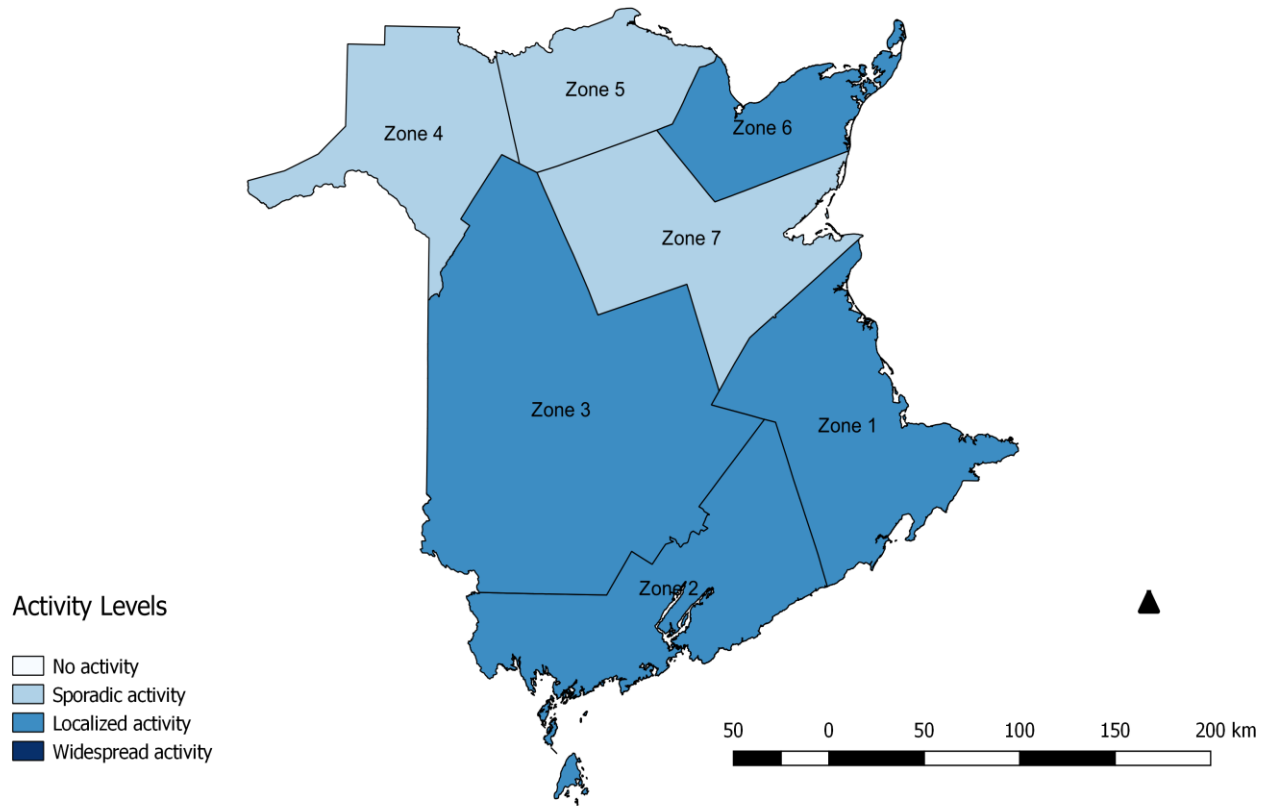
- Influenza activity continued to increase in week 46.
- Two-hundred and twenty-nine influenza cases were reported during week 46, 11 influenza A(H3) viruses, and 218 influenza A (unsubtyped).
- Since the beginning of the season, 462 cases have been reported, 46 influenza A(H3) viruses, 415 influenza A (unsubtyped) and 1 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to November 19, 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 46, 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.

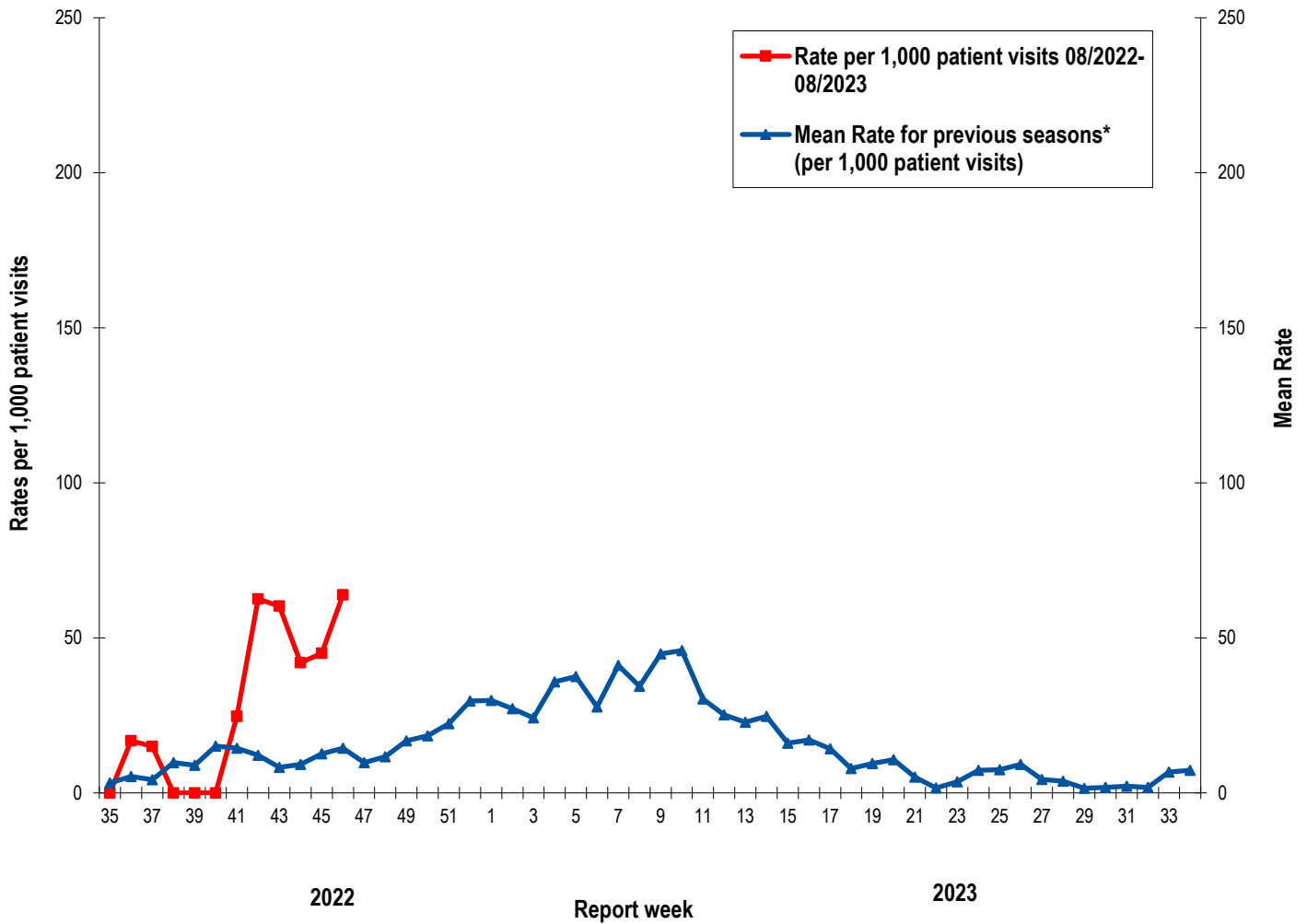
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
(data source: G. Dumont lab results up to November 19, 2022)

Zone	Reporting period: November/13/2022–November/19/2022						Cumulative: (2022/2023 season) Aug./28/2022 –November/19/2022						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	8	0	44	52	0	0	15	0	65	80	1	0	124	0	115	239	0	0
Zone 2	1	0	77	78	0	0	22	0	221	243	0	0	11	0	60	71	0	0
Zone 3	1	0	60	61	0	0	5	0	90	95	0	0	33	0	55	88	1	0
Zone 4	1	0	4	5	0	0	2	0	5	7	0	0	4	0	10	14	0	0
Zone 5	0	0	7	7	0	0	1	0	8	9	0	0	1	0	7	8	0	0
Zone 6	0	0	2	2	0	0	1	0	2	3	0	0	5	0	13	18	0	0
Zone 7	0	0	24	24	0	0	0	0	24	24	0	0	1	0	2	3	0	0
Total NB	11	0	218	229	0	0	46	0	415	461	1	0	179	0	262	441	1	0

2) ILI Consultation Rates³

- The ILI consultation rate was 63.8 per 1,000 patients visits for week 46. The ILI rate was above the expected levels for this time of year.
- During week 46, 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.

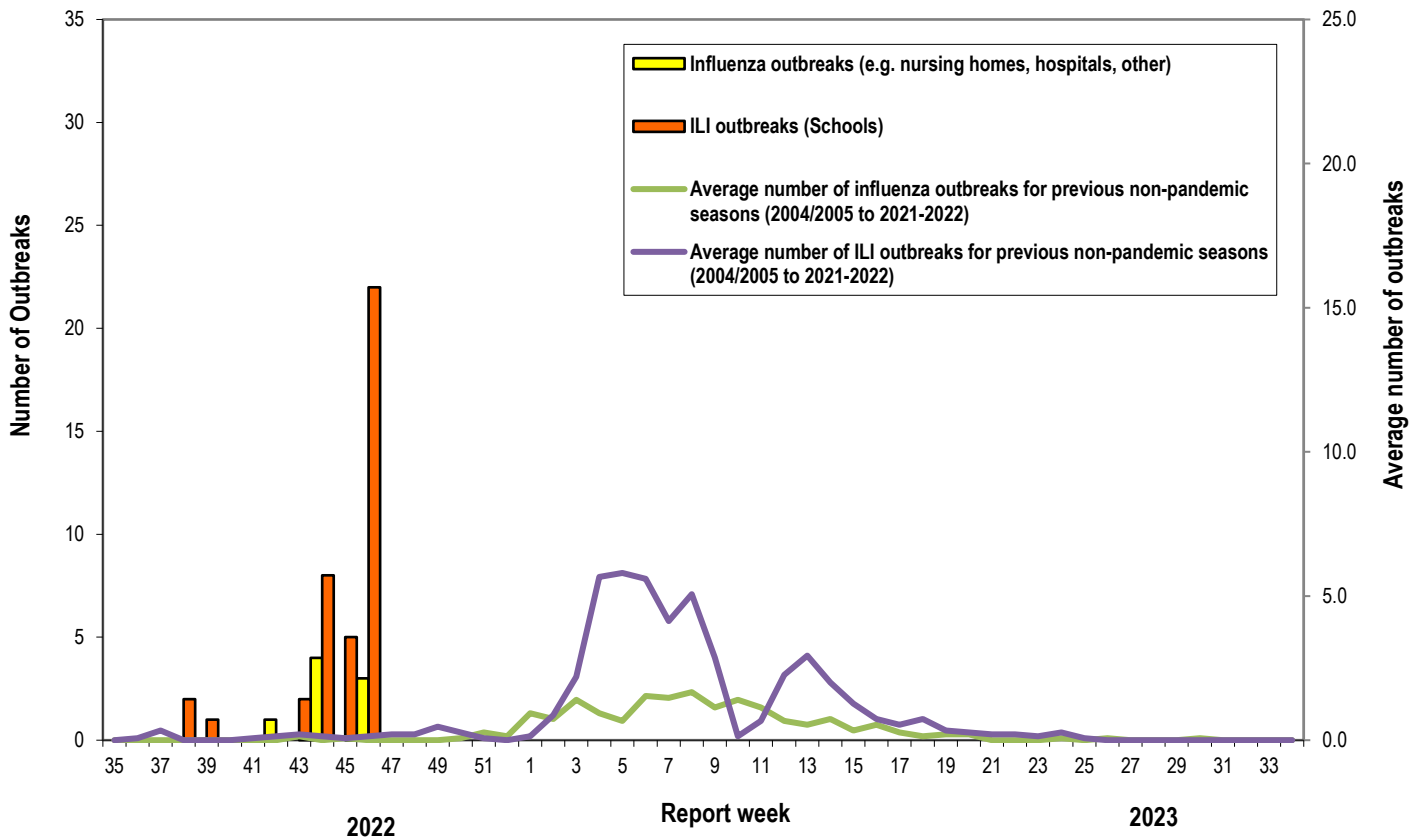
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: November/13/2022 to November/19/2022			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	7 out of 74	0	10
Zone 2	3 out of 16	4 out of 81	0	17
Zone 3	0 out of 16	9 out of 95	0	19
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	2 out of 35	0	2
Zone 7	0 out of 5	0 out of 27	0	0
Total NB	3 out of 68	22 out of 352	0	48*

*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.

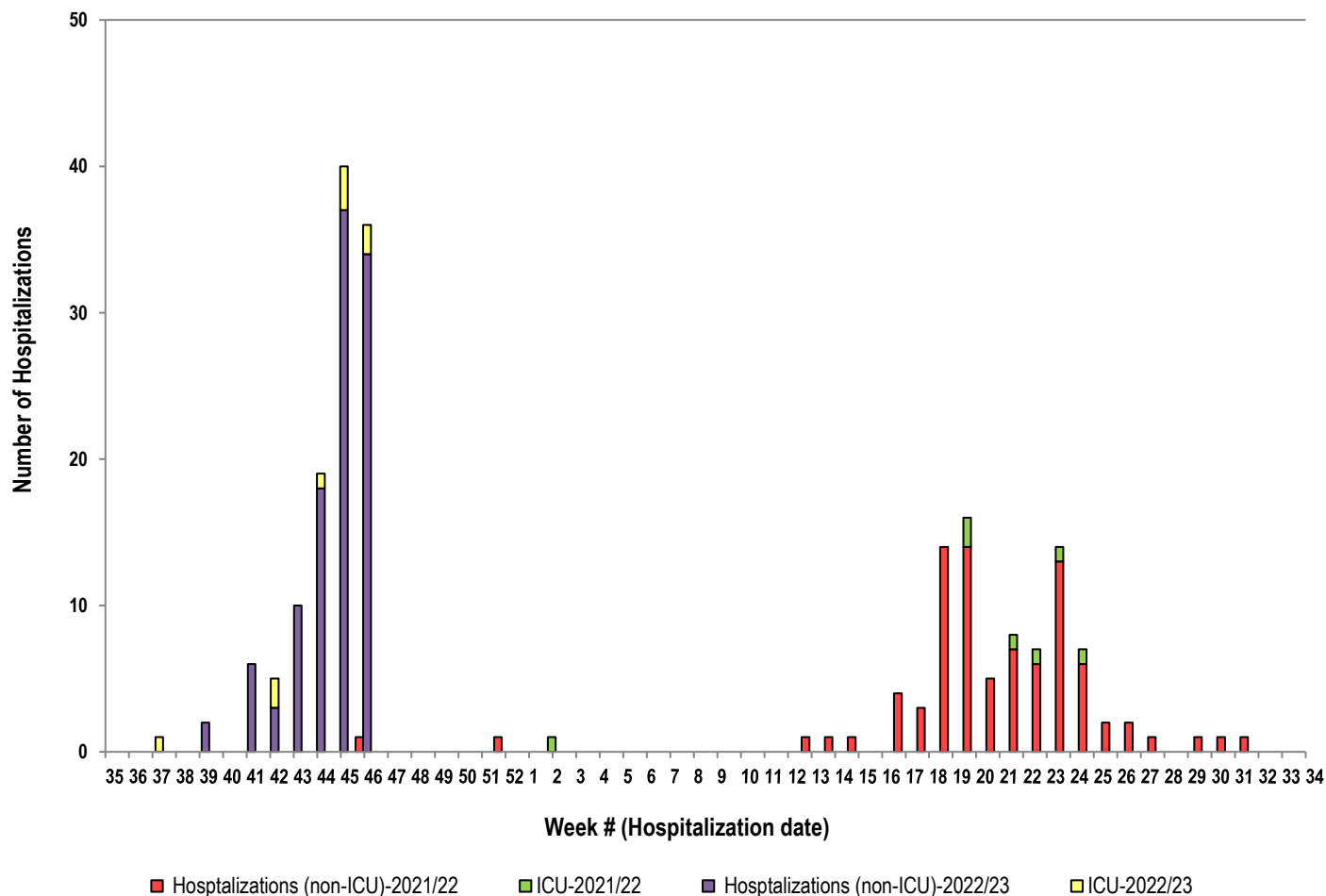


⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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).*



*Nine 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.