

Summary

In New Brunswick, influenza activity is low

New Brunswick:

- There has been 1 positive influenza case in week 5 (percent positivity: 0.08%). Since the beginning of the season, 4306 cases have been reported, 138 influenza A(H3) viruses, 4164 influenza A (unsubtyped) and 4 influenza B.
- There has been 1 new influenza associated hospitalization during week 5. Since the beginning of the season, 869 hospitalizations have been reported and 66 deaths.
- The ILI consultation rate was 66.7 per 1,000 patients visits for week 5. The ILI rate was above the expected levels for this time of the year.
- No new influenza outbreak and 2 new ILI school outbreaks were reported in week 5. So far this season, 35 influenza outbreaks were reported, and 224 ILI school outbreaks were reported.

Canada:

- At the national level, influenza activity remains low at levels typically seen in late spring/early summer.
- In week 5, a total of 285 laboratory detections (206 influenza A and 79 influenza B) were reported. Among detections for which age information (213) was reported in week 5, 59 (28%) of detections were in individuals aged 20-44 years.
- The percentage of FluWatchers reporting fever and cough was 1.2 % in week 5. The percentage of FluWatchers reporting cough and fever is below seasonal levels.

Effectiveness of 2022-2023 influenza vaccine:

- Based on a recently published [Canadian Vaccine Effectiveness Study](#), for data collected between November 1, 2022 and January 6, 2023, vaccine effectiveness (VE) was estimated to be 54% against influenza A(H3N2). This means that 5 cases out of 10 would have been prevented if they received the vaccination. Due to the dominant circulation of influenza A(H3N2) this season, the VE estimate was only available for one influenza subtype. By age group, VE was 47% (95% CI 11 to 69) for individuals under the age of 19 years, 58% (95% CI 33 to 73) for adults aged 20-64 years and 59% (95% CI 15 to 80) for adults 65 years and older.

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 decreased. Influenza A viruses predominated with a slightly larger proportion of A(H1N1)pdm09 viruses detected among the subtyped influenza A viruses during this reporting period. In the countries of North America, most indicators of influenza activity decreased to levels similar or below levels typically observed this time of year. Influenza A(H3N2) was the predominant virus detected in the United States of America whereas A(H1N1)pdm09 and A(H3N2) co-circulated in Canada in the most recent week. In Europe, overall influenza activity continued to decrease but influenza positivity from sentinel sites remained above the epidemic threshold at the regional level. Overall, influenza A viruses predominated with A(H1N1)pdm09 accounting for the majority of subtyped influenza viruses from primary care sentinel sites but with regional differences. Many countries reported high or moderate intensity, and most reported widespread activity. Other indicators of influenza activity decreased in most countries while a few countries reported increases. In Central Asia, influenza activity decreased overall but remained somewhat elevated, with influenza A(H1N1)pdm09 viruses predominant. In Northern Africa, influenza activity continued to decrease, with all seasonal influenza subtypes detected. In Western Asia, influenza activity decreased overall with all seasonal influenza subtypes detected, though increased activity was reported in some countries. In East Asia, influenza activity of predominantly influenza A(H3N2) viruses remained low overall though detections continued to be reported at elevated levels in Mongolia and the Republic of Korea. In the Caribbean and Central American countries, influenza activity of predominantly influenza A(H3N2) viruses was low overall. In the tropical countries of South America, influenza remained low with all seasonal subtypes co-circulating. In tropical Africa, influenza activity was highest in eastern Africa but remained low overall with detections of all seasonal influenza subtypes reported. In Southern Asia, influenza activity slightly increased in this reporting period with all seasonal influenza subtypes detected in similar proportions. In South-East Asia, detections of predominantly influenza B remained elevated due to continued detections reported in Malaysia. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal level.

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 February 13, 2022, 4,571,053 cases of COVID-19 infection in Canada have been identified with 50,863 deaths. Since August 28, 2022, thirteen thousand and one cases have been identified in New Brunswick with 164 deaths. As of February 13, the WHO reported globally 755 703 002 confirmed cases and 6 836 825 deaths.

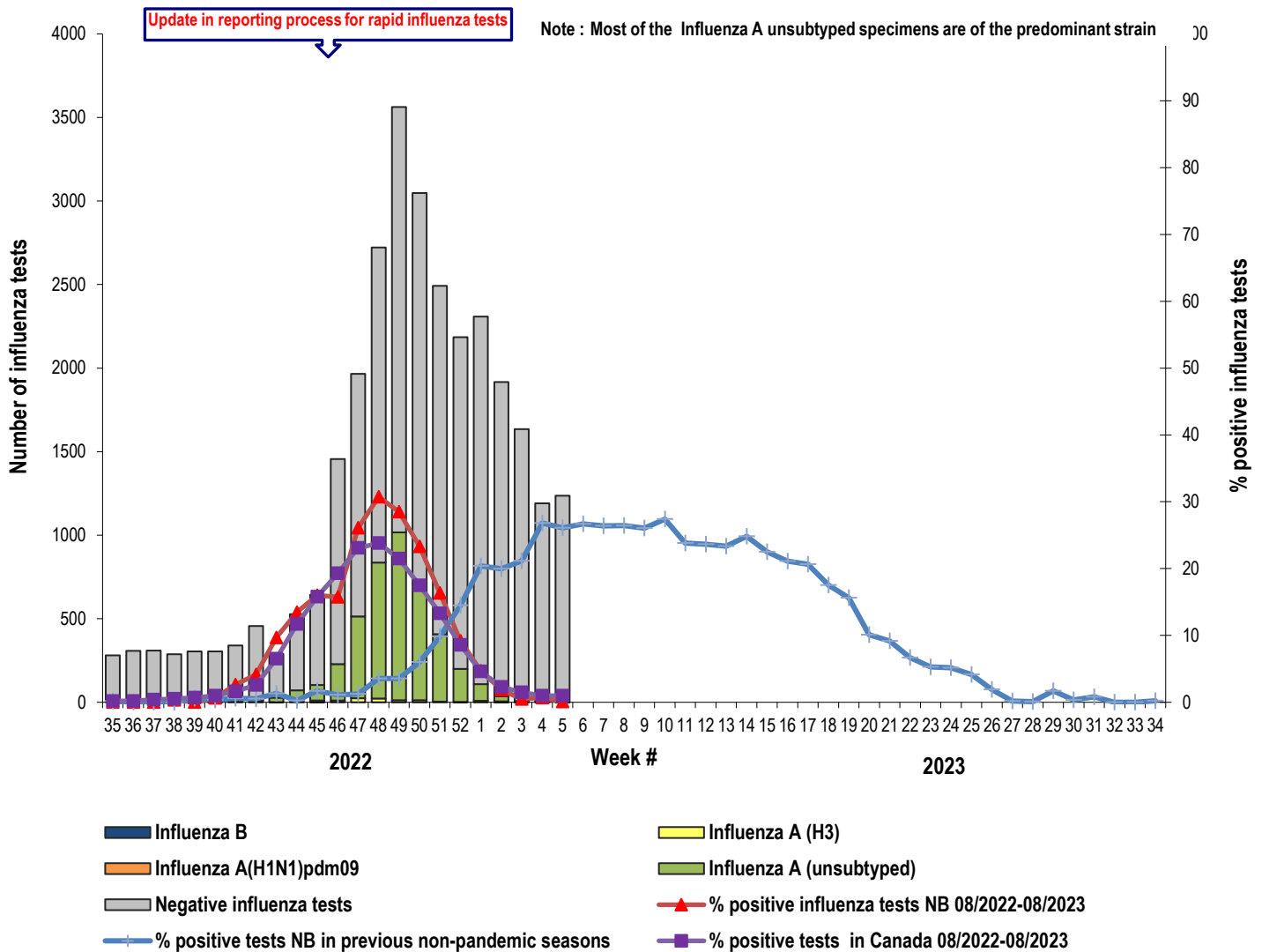
For more timely updates, please visit the following websites:

- 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:

1) Influenza Laboratory Data¹

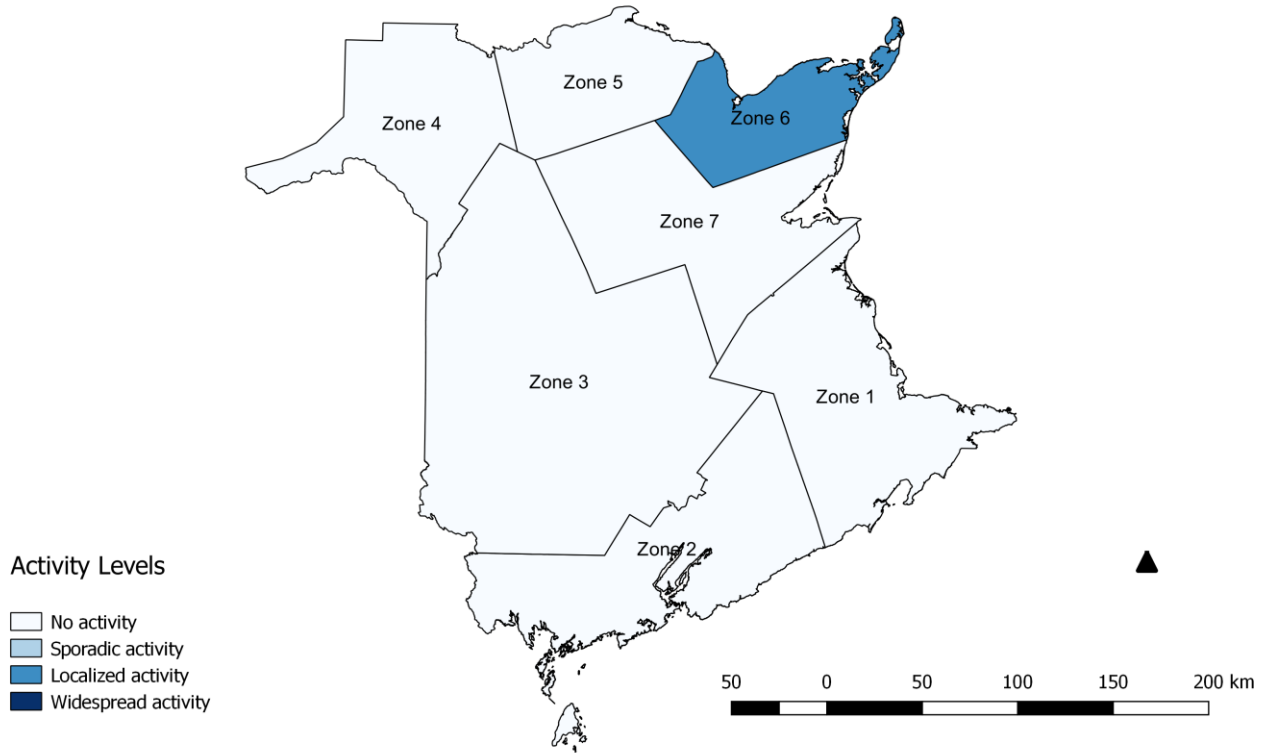
- Influenza activity is low in week 5.
- One influenza case was reported during week 5, 1 influenza A (unsubtyped).
- Since the beginning of the season, 4306 cases have been reported, 138 influenza A(H3) viruses, 4164 influenza A (unsubtyped) and 4 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to February 4, 2023 (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 5, 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.

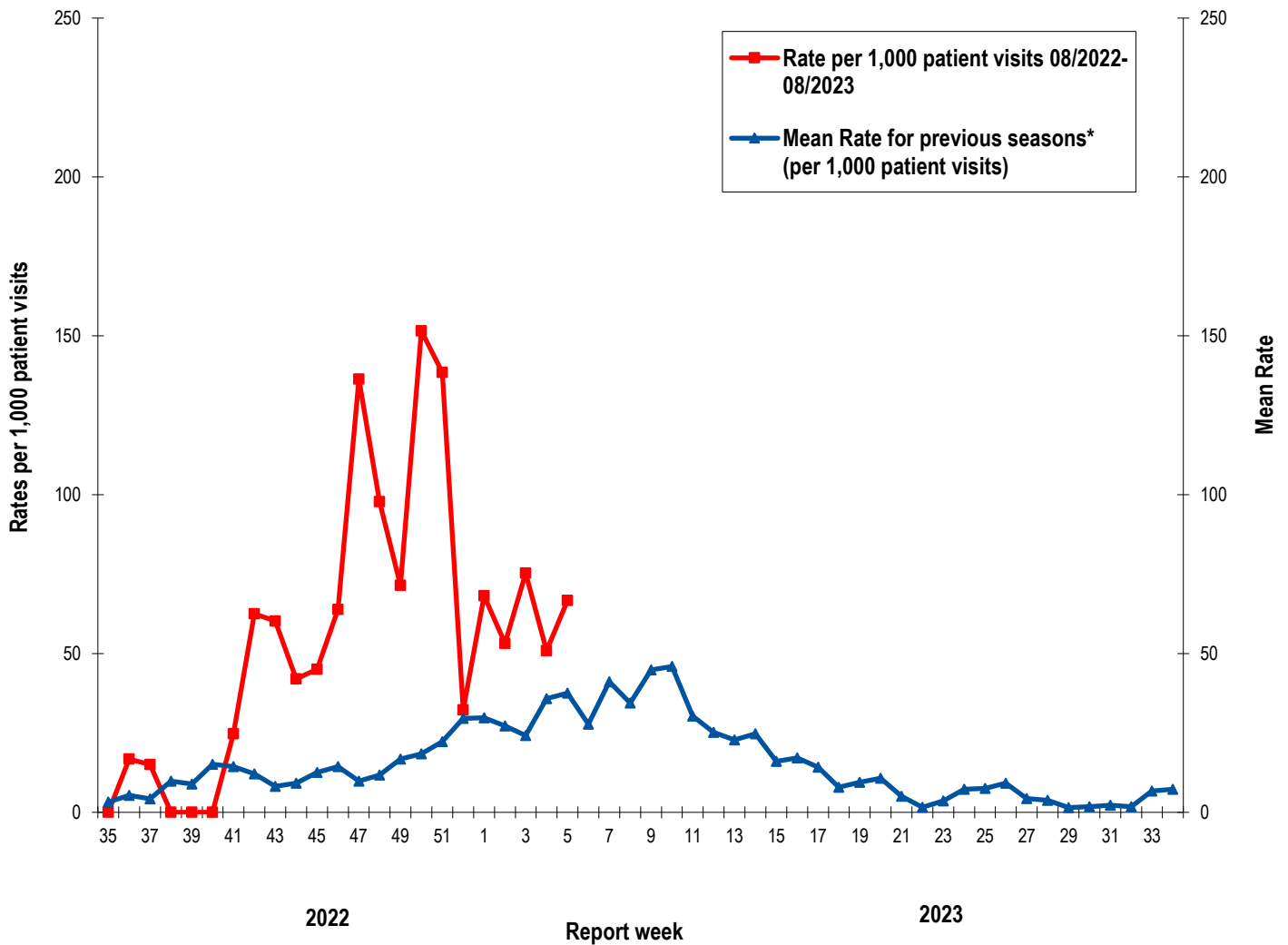
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
 (data source: G. Dumont lab results up to February 4, 2023)

Zone	Reporting period: January/29/2023–February/4/2023						Cumulative: (2022/2023 season) Aug./28/2022 – February/4/2023						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	0	0	0	0	0	0	79	0	1159	1238	1	0	124	0	115	239	0	0
Zone 2	0	0	0	0	0	0	28	0	800	828	0	0	11	0	60	71	0	0
Zone 3	0	0	0	0	0	0	9	0	821	830	0	0	33	0	55	88	1	0
Zone 4	0	0	0	0	0	0	7	0	347	354	2	0	4	0	10	14	0	0
Zone 5	0	0	0	0	0	0	5	0	135	140	0	0	1	0	7	8	0	0
Zone 6	0	0	1	1	0	0	8	0	595	603	0	0	5	0	13	18	0	0
Zone 7	0	0	0	0	0	0	2	0	307	309	1	0	1	0	2	3	0	0
Total NB	0	0	1	1	0	0	138	0	4164	4302	4	0	179	0	262	441	1	0

2) ILI Consultation Rates³

- The ILI consultation rate was 66.7 per 1,000 patients visits for week 5. The ILI rate was above the expected levels for this time of year.
- During week 5, the sentinel response rate was 17% 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.

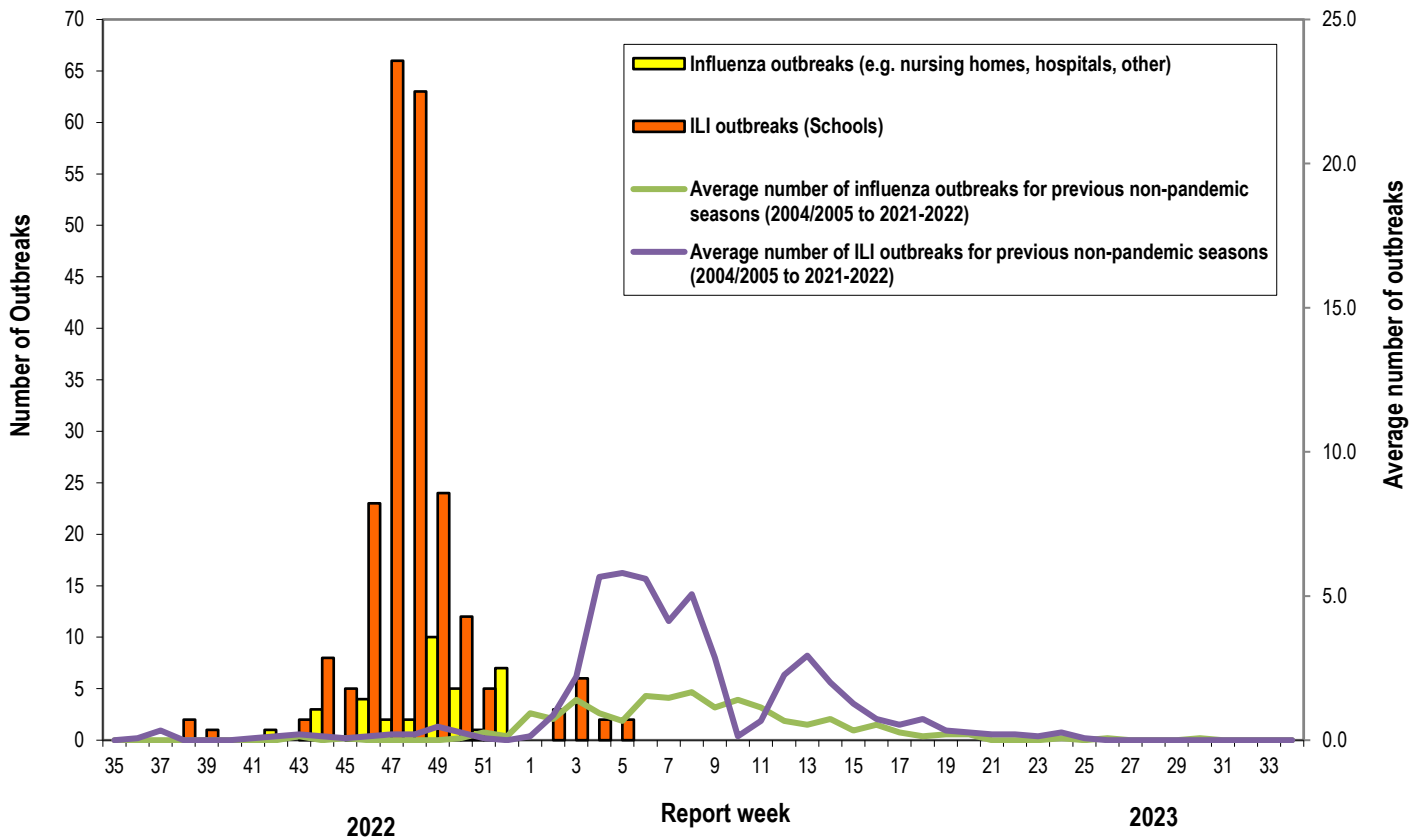
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: January/29/2023 to February/4/2023			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	1 out of 74	0	54
Zone 2	0 out of 16	0 out of 81	0	56
Zone 3	0 out of 16	1 out of 95	0	81
Zone 4	0 out of 5	0 out of 22	0	18
Zone 5	0 out of 2	0 out of 18	0	4
Zone 6	0 out of 9	0 out of 35	0	37
Zone 7	0 out of 5	0 out of 27	0	9
Total NB	0 out of 68	2 out of 352	0	259*

*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.

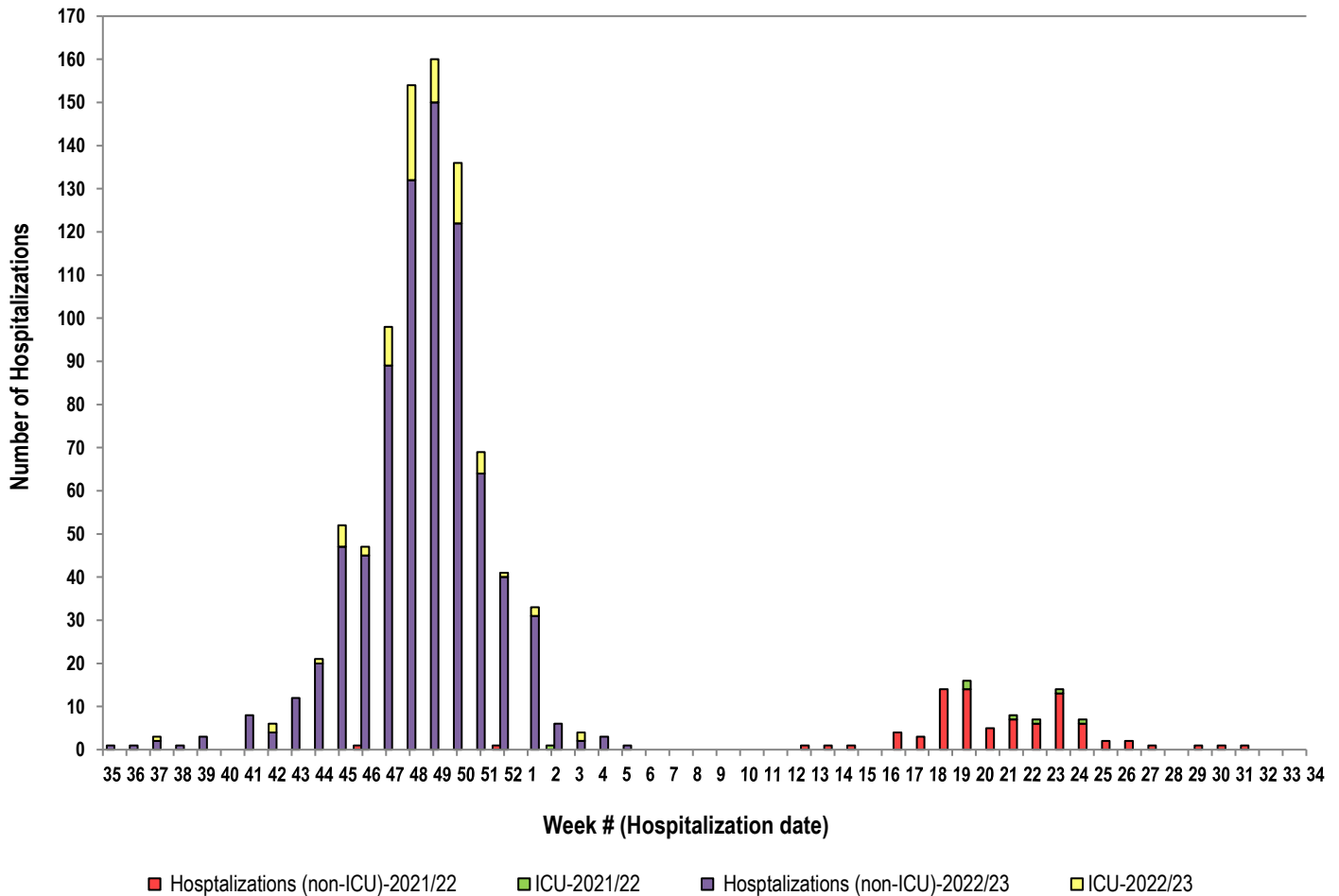


⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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).*



*Sixty-six 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.