

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: April 2 to April 8, 2023 (week 14)

Summary

In New Brunswick, influenza activity is low

New Brunswick:

- There have been 3 positive influenza cases in week 14 (percent positivity: 0.42%). Since the beginning of the season, 4356 cases have been reported, 138 influenza A(H3) viruses, 9 influenza A(H1N1) pdm09, 4195 influenza A (unsubtyped) and 14 influenza B.
- There has been no new influenza associated hospitalization during week 14. Since the beginning of the season, 873 hospitalizations have been reported and 66 deaths.
- The ILI consultation rate was 12.5 per 1,000 patients visits for week 14. The ILI rate was below the expected levels for this time of the year.
- No new influenza outbreaks and 1 ILI school outbreak was reported in week 14. So far this season, 36 influenza outbreaks were reported, and 241 ILI school outbreaks were reported.

Canada:

- At the national level, influenza activity has increased slightly in recent weeks but remains at interseasonal levels.
- In week 14, a total of 443 laboratory detections (75 influenza A and 368 influenza B) were reported.
- The percentage of FluWatchers reporting fever and cough was 1.3 % in week 14. The percentage of FluWatchers reporting cough and fever is below seasonal levels.

International:

Seasonal influenza:

Globally, influenza detections decreased steeply in January after a peak in late 2022. Detections in 2022 were predominantly influenza A(H3N2). After the end of January 2023, activity increased again with a higher proportion of influenza A(H1N1)pdm09 and B virus detections until a peak around week 10, after which detections have decreased. In the countries of North America, most indicators of influenza activity were at levels typically observed towards the end of the season. Influenza A viruses predominated in the United States of America, with influenza A(H1N1)pdm09 accounting for the majority of subtyped viruses, whereas influenza B viruses predominated in Canada. In Europe, overall influenza detections decreased and influenza positivity from sentinel sites decreased to 16% but remained above the epidemic threshold at the regional level. Out of 41 countries, 13 reported moderate intensity, with the remainder reporting low or below baseline intensity. Out of 40 countries, 20 continued to report widespread activity. Overall, influenza B viruses predominated in both sentinel and non-sentinel surveillance as all subregions experienced a wave of influenza B activity after an initial influenza A wave. Of the few influenza A viruses detected, the majority were influenza A(H1N1)pdm09. Influenza detections decreased or were stable in most countries except in Lithuania and Norway where very slight increases were reported. In Central Asia, sporadic influenza detections were reported in Kazakhstan A(H1N1)pdm09 and Tajikistan (influenza B). In Northern Africa, influenza detections were very low. In Western Asia, influenza activity overall decreased but continued to be reported in some countries with detections of all seasonal influenza subtypes. In East Asia, influenza activity continued to be driven predominantly by A(H1N1)pdm09 detections in China, which appeared to reach a peak and decrease slightly. Slight increases in some indicators of influenza activity were reported in China, Hong Kong and the Republic of Korea. In the Caribbean and Central American countries, influenza activity of mainly influenza B/Victoria lineage viruses was low, although increases in influenza activity were reported in Belize and Guatemala where activity was close to the moderate threshold. In the tropical countries of South America, influenza remained low with all seasonal subtypes detected and influenza B viruses predominant. Increasing trends in influenza activity and detections were reported in Brazil and Peru however activity remained low. In Bolivia, SARI activity remained high and RSV activity increased. In tropical Africa, influenza activity increased in some countries of Western Africa while detections were low across reporting countries in Middle and Eastern Africa. In Southern Asia, influenza activity remained low with influenza A(H3N2) and B/Victoria lineage viruses predominating. In South-East Asia, influenza activity remained elevated mainly due to influenza B detections in Malaysia and influenza A(H3N2) in Singapore. In the temperate zones of the southern hemisphere, influenza activity remained low however influenza activity increased slightly in Chile and Australia.

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 April 17, 2023, 4,647,673 cases of COVID-19 infection in Canada have been identified with 51,763 deaths. Since August 28, 2022, fifteen thousand three hundred and forty-two cases have been identified in New Brunswick with 219 deaths. As of April 12, the WHO reported globally 762 791 152 confirmed cases and 6 897 025 deaths.

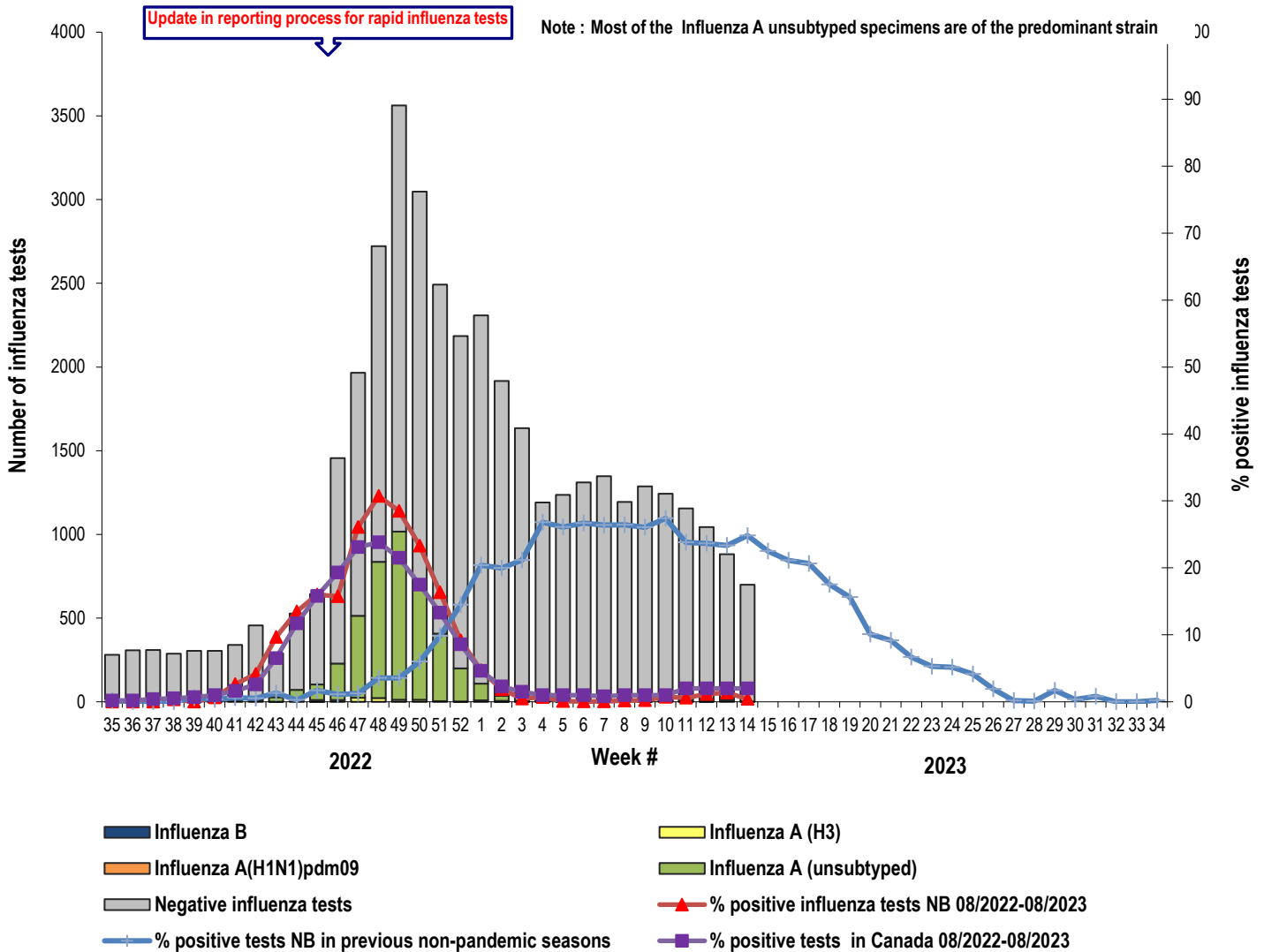
For more timely updates, please visit the following websites:

- 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

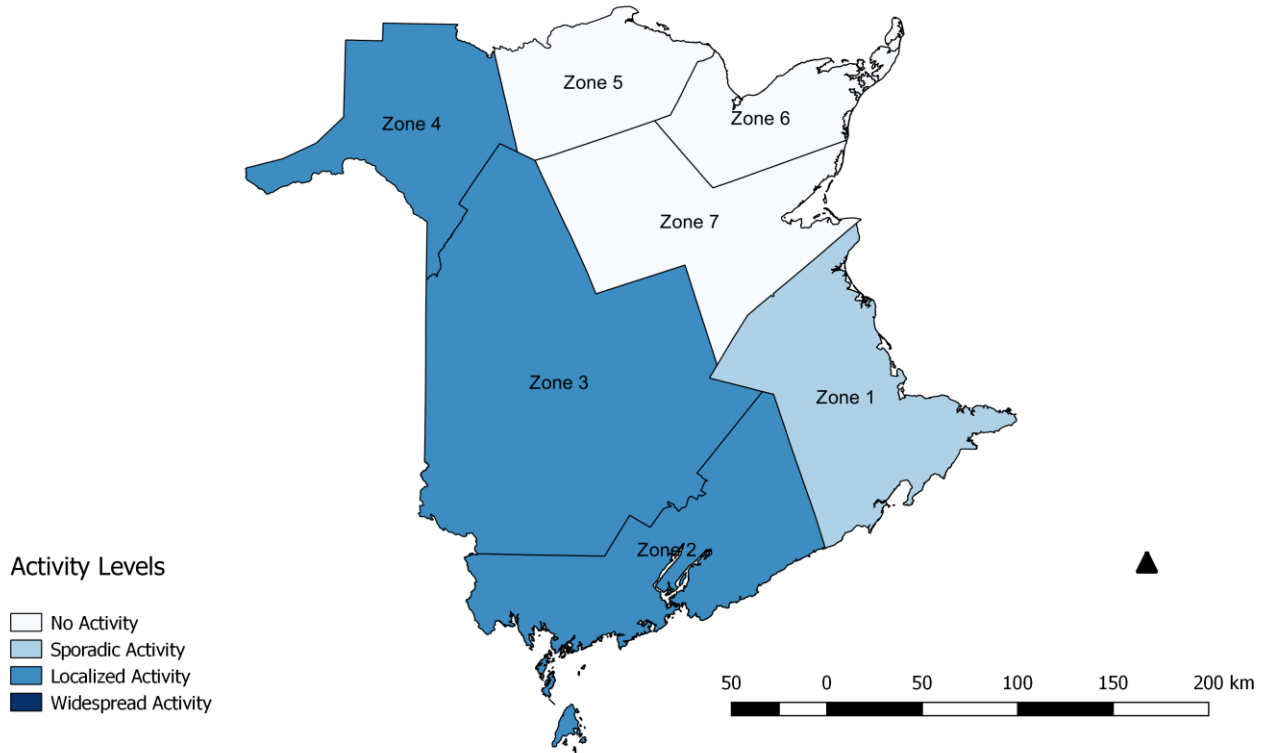
- Influenza activity is low in week 14.
- Three influenza cases were reported during week 14, one influenza A(H1N1) pdm09 and two influenza B.
- Since the beginning of the season, 4356 cases have been reported, 138 influenza A(H3) viruses, 9 influenza A(H1N1) pdm09, 4195 influenza A (unsubtyped) and 14 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to April 8, 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 14, 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.

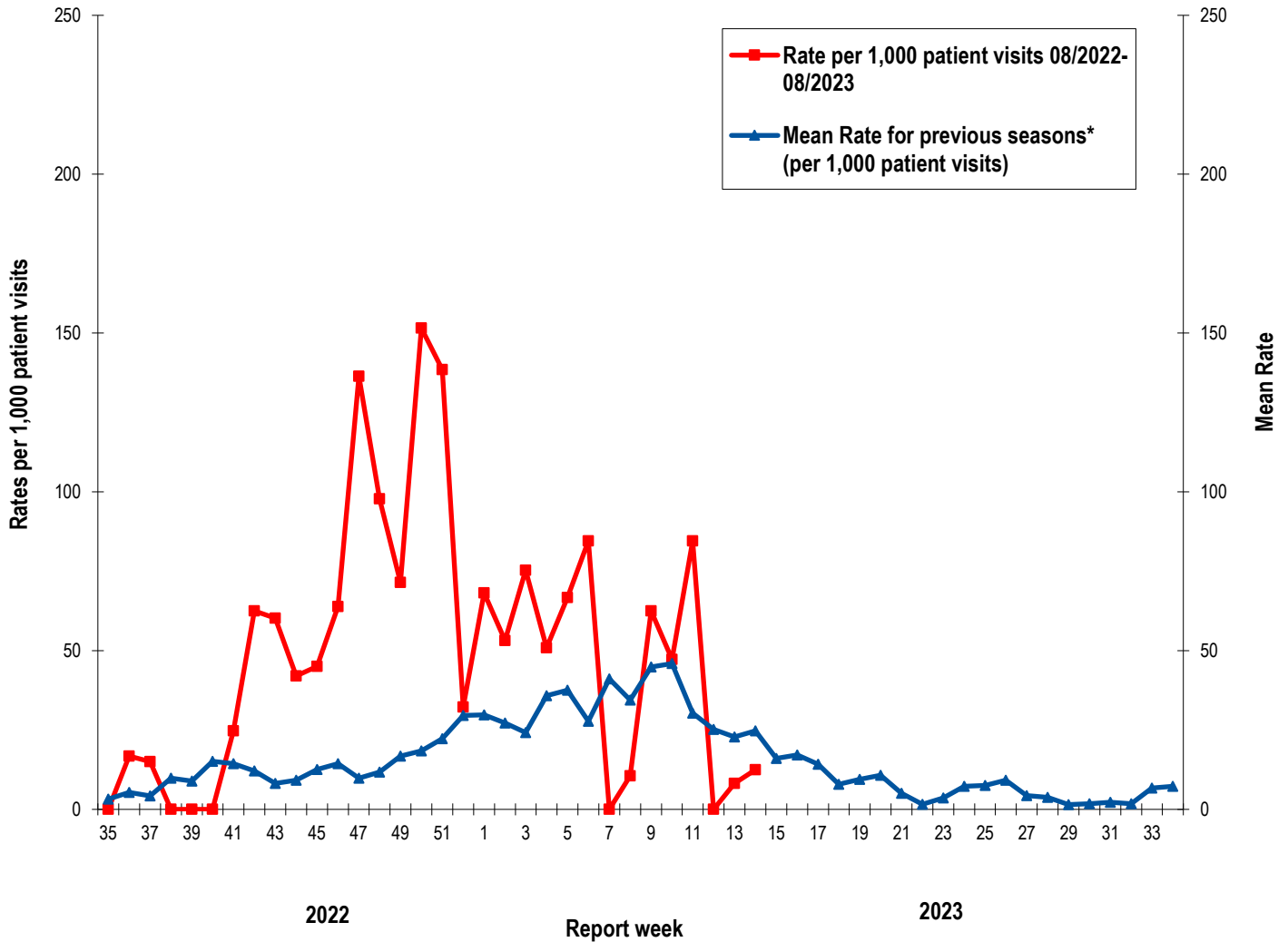
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020.
 (data source: G. Dumont lab results up to April 8, 2023)

Zone	Reporting period: April/2/2023–April/8/2023						Cumulative: (2022/2023 season) Aug./28/2022 – April/8/2023						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	1160	1239	5	0	124	0	115	239	0	0
Zone 2	0	0	0	0	1	0	28	0	800	828	2	0	11	0	60	71	0	0
Zone 3	0	0	0	0	1	0	9	0	824	833	3	0	33	0	55	88	1	0
Zone 4	0	1	0	1	0	0	7	8	369	384	2	0	4	0	10	14	0	0
Zone 5	0	0	0	0	0	0	5	0	135	140	1	0	1	0	7	8	0	0
Zone 6	0	0	0	0	0	0	8	1	596	605	0	0	5	0	13	18	0	0
Zone 7	0	0	0	0	0	0	2	0	311	313	1	0	1	0	2	3	0	0
Total NB	0	1	0	1	2	0	138	9	4195	4342	14	0	179	0	262	441	1	0

2) ILI Consultation Rates³

- The ILI consultation rate was 12.5 per 1,000 patients visits for week 14. The ILI rate below the expected levels for this time of year.
- During week 14, 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.

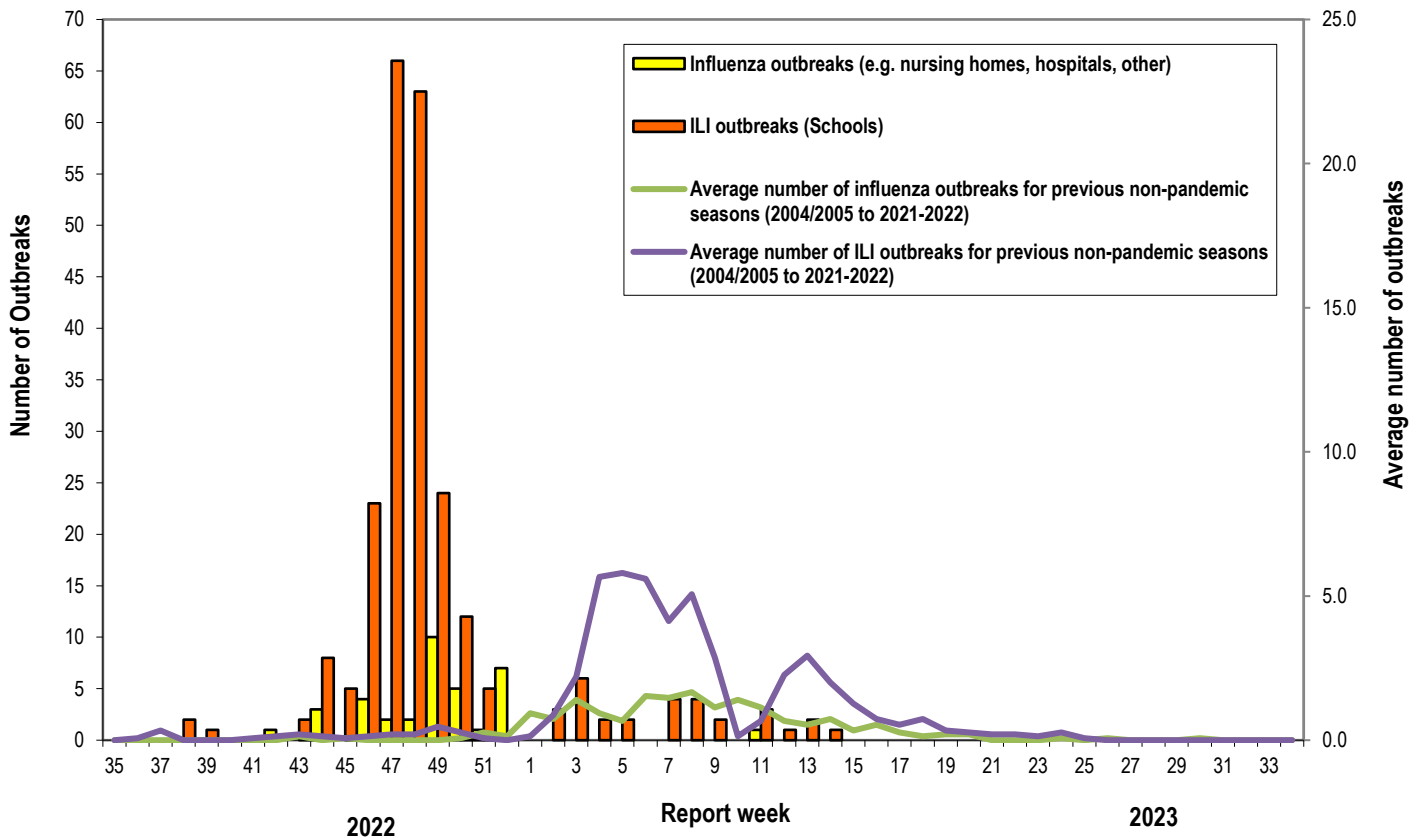
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: April/2/2023 to April/8/2023			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	0 out of 74	0	55
Zone 2	0 out of 16	0 out of 81	0	62
Zone 3	0 out of 16	0 out of 95	0	89
Zone 4	0 out of 5	1 out of 22	0	20
Zone 5	0 out of 2	0 out of 18	0	4
Zone 6	0 out of 9	0 out of 35	0	38
Zone 7	0 out of 5	0 out of 27	0	9
Total NB	0 out of 68	1 out of 352	0	277*

*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.

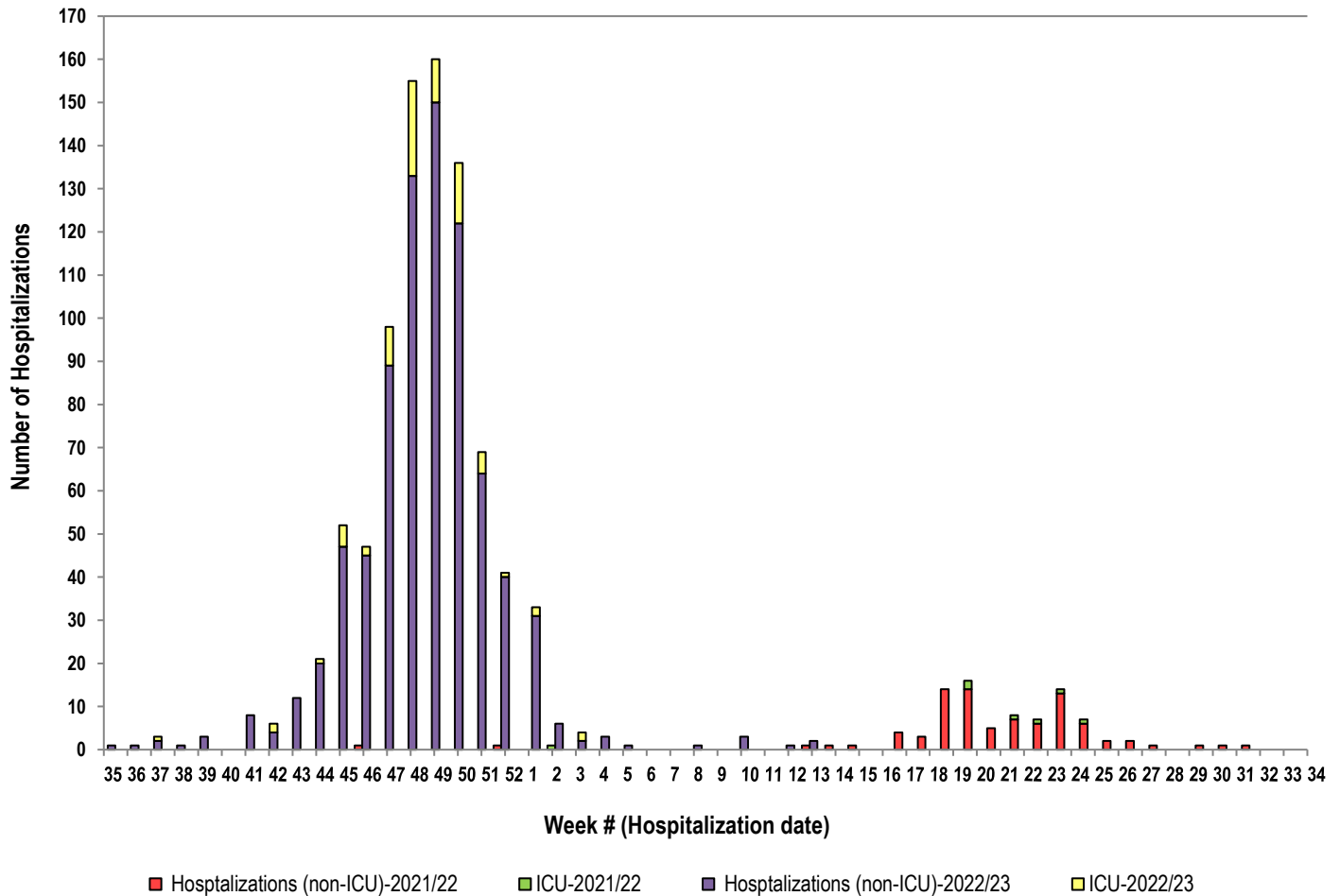


⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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.