WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: November 22 to November 28 2020 (week 48)

Summary

In New Brunswick, influenza activity remained at inter-seasonal levels in week 48

New Brunswick:

- Due to an upgrade to the lab system, no lab data was available for influenza detections in week 48. Since the beginning of the new season, no cases have been reported.
- There has been no new influenza associated hospitalizations during week 48. Since the beginning of the season, no hospitalizations have been reported.
- The ILI consultation rate was 0.0 per 1,000 patients visits for week 48. The ILI rate was lower than the expected levels for this time of year.
- No influenza outbreaks were reported in week 48. So far this season, no influenza outbreaks have been reported.

Canada:

- All indicators of influenza activity remain exceptionally low for this time of year, despite continued monitoring for influenza across Canada.
- To date, there is no evidence of community circulation of influenza; however, influenza testing continues at elevated levels.
- Two influenza-like-illness (ILI) outbreaks were reported in schools and daycares. No laboratory-confirmed outbreaks of influenza have been reported to date this season.
- 12,113 participants reported to FluWatchers and 29 (0.24%) participants reported cough and fever, similar to the previous week.
- Influenza surveillance indicators may be influenced by the COVID-19 pandemic, including changes in healthcare-seeking behaviour, impacts of public health measures and influenza testing capacity. Current data should be interpreted with consideration to this context.

International:

Seasonal influenza:

The current influenza surveillance data should be interpreted with caution as the ongoing COVID-19 pandemic have influenced to varying extents health seeking behaviours, staffing/routines in sentinel sites, as well as testing priorities and capacities in Member States. The various hygiene and physical distancing measures implemented by Member States to reduce SARS-CoV-2 virus transmission have likely played a role in reducing influenza virus transmission. Globally, despite continued or even increased testing for influenza in some countries, influenza activity remained at lower levels than expected for this time of the year. In the temperate zone of the northern hemisphere, influenza activity remained below interseasonal levels, though sporadic detections of influenza A and B viruses were reported in some countries. In the temperate zones of the southern hemisphere, influenza activity was reported at inter-seasonal level. In the Caribbean and Central American countries, sporadic influenza B detections were reported in some reporting countries. Severe acute respiratory infection (SARI) activity, likely due to COVID-19, continued to decrease in most reporting countries. In tropical South America, there were no influenza detections across reporting countries. In tropical Africa, influenza activity was reported in some countries of Western Africa. In Southern Asia, influenza detections continued to be reported in Afghanistan and India. In South East Asia, influenza detections of predominately influenza A(H3N2) continued to be reported in Lao People's Democratic Republic (PDR), Thailand and Cambodia. Worldwide, influenza A and B viruses were detected in similar proportions.

Emerging Respiratory Viruses:

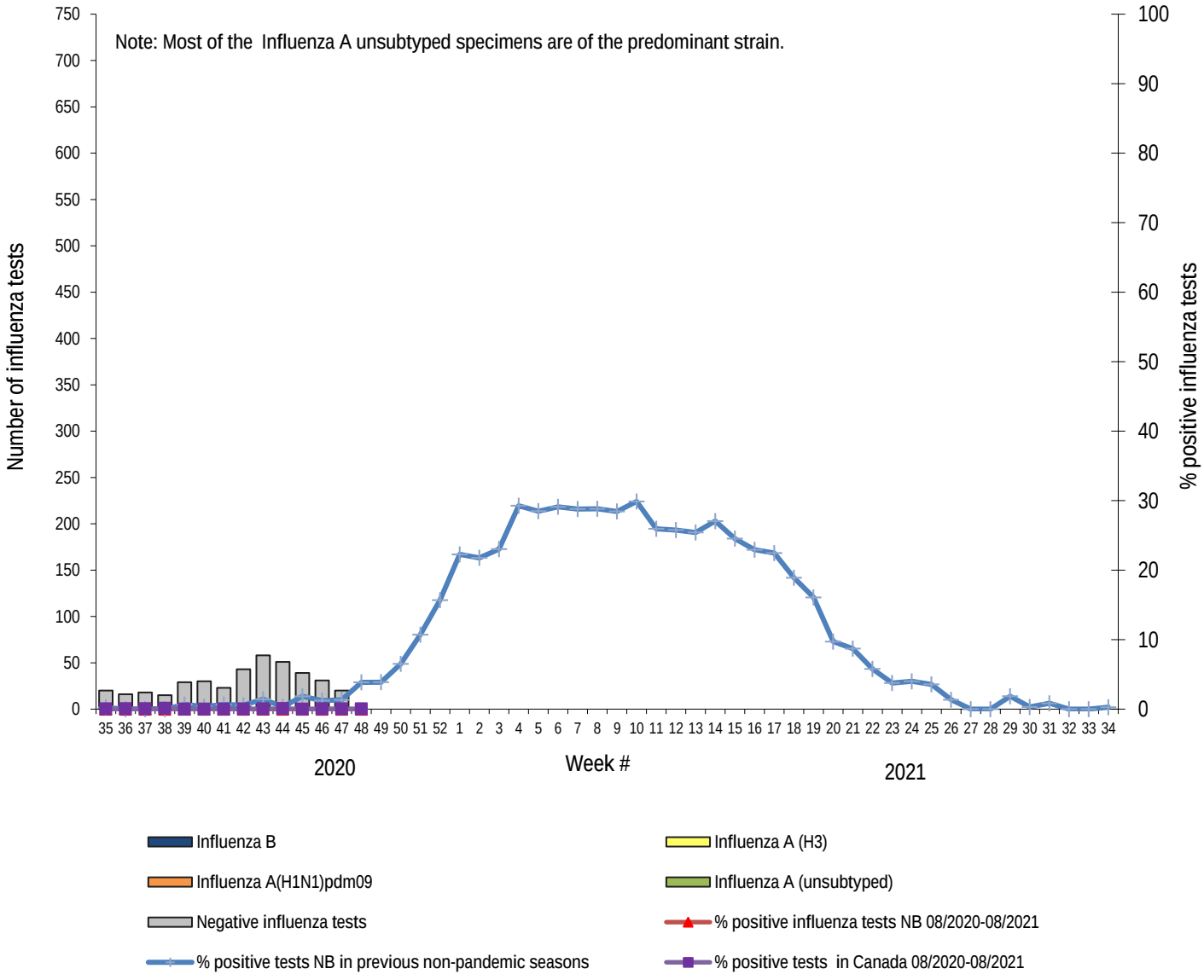
- COVID-19: On December 31, 2019, a cluster of cases of pneumonia was reported in Wuhan, China, and the cause has been confirmed as a new coronavirus that has not previously been identified in humans (COVID-19). As of December 7, 2020, 423,054 cases of COVID-19 infection in Canada have been identified with 12,777 deaths. Five hundred and forty-one cases have been identified in New Brunswick with 7 deaths. As of December 8, the WHO reported globally 66 729 375 confirmed cases and 1 535 982 deaths in approximately 220 countries/territories/areas.
  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: http://www.who.int/csr/disease/coronavirus_infections/en/
  - CDC: http://www.cdc.gov/coronavirus/mers/
  - Updated Risk Assessment (August 2018): http://www.who.int/csr/disease/coronavirus_infections/risk-assessment-august-2018.pdf?ua=1

1) Influenza Laboratory Data[1]

[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.

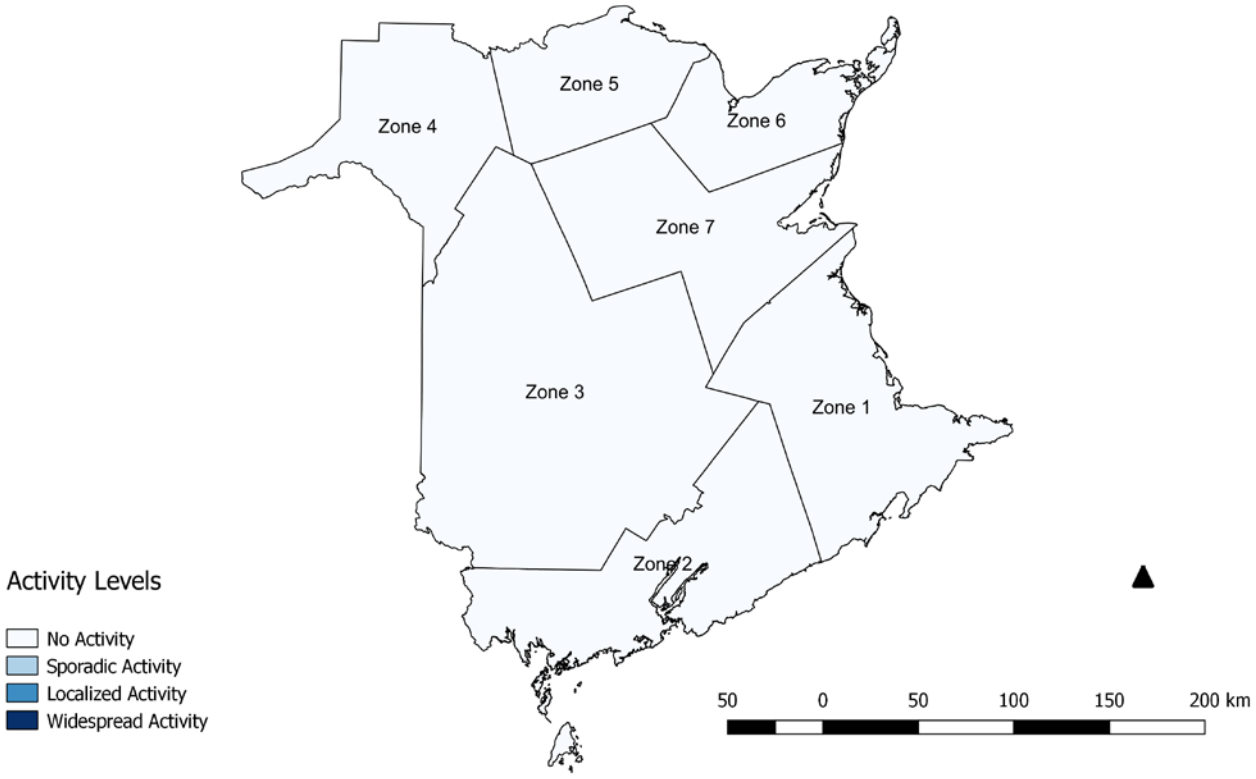
- Influenza activity remained at inter-seasonal levels in week 48.
- Due to an upgrade to the lab system, no lab data was available for influenza detections in week 48.
- Since the beginning of the season, no influenza cases have been reported.

Graph 1: Number and percent of positive influenza specimens[2] in New Brunswick by week, up to November 28, 2020 (data source: G. Dumont Lab results)



[2] Total number of positive influenza tests is higher than number of cases since some individuals had co-infection of A & B simultaneously.

Figure 2: Influenza/ILI activity levels[3] by Health Zones, in New Brunswick, for week 48, season 2020/2021.



[3] 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 previous seasons.
(data source: G. Dumont lab results up to November 28, 2020)

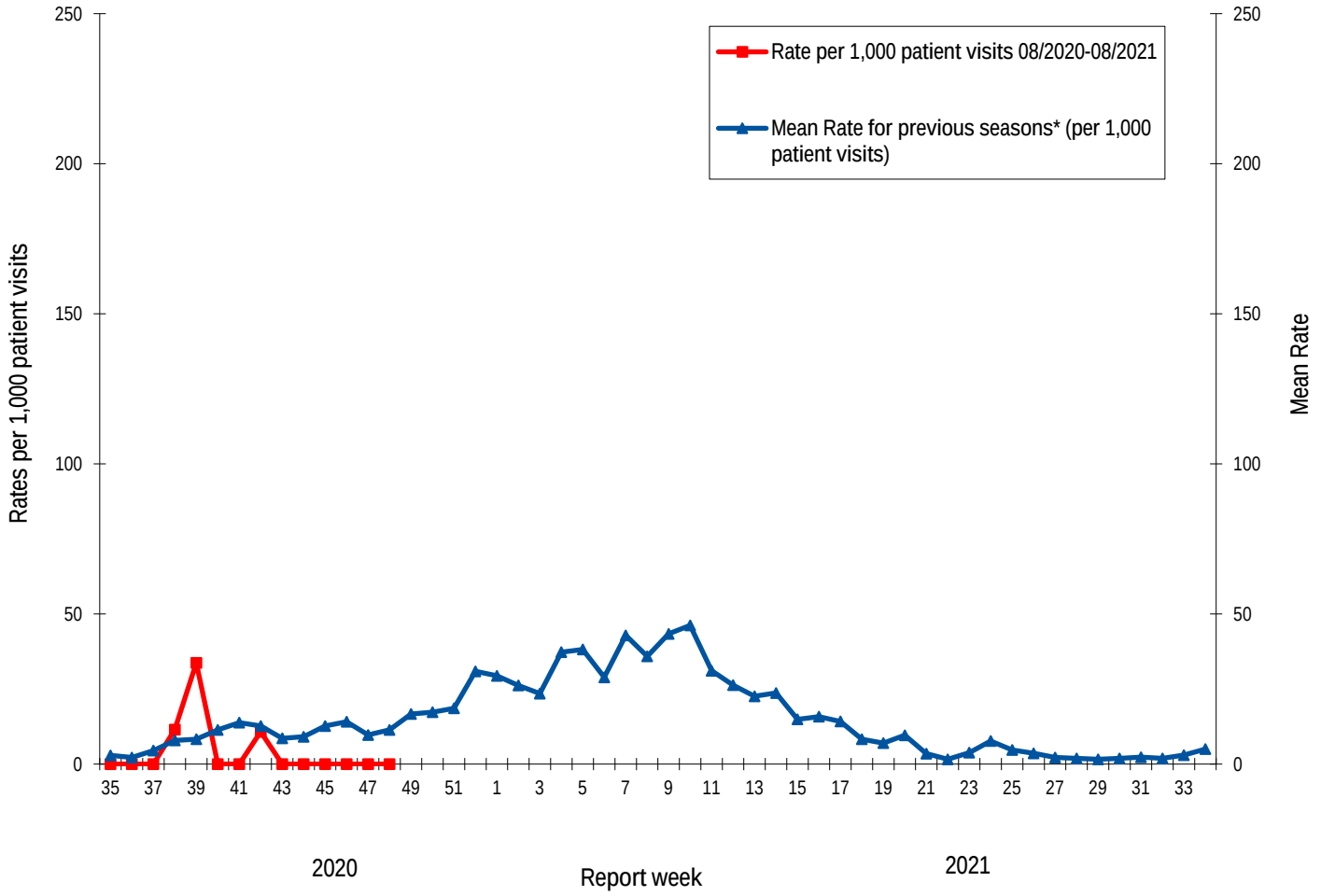
Zone	Reporting period: November/22/2020–November/28/2020						Cumulative: (2020/2021 season) Aug./23/2020 –November/28/2020						Cumulative: (2019/2020 season) Aug./25/2019 –Aug./22/2020					
	A				B	A & B co-infection	A				B	A & B co-infection	A				B	A & B co-infection
	A(H3)	(H1N1) pdm09	Unsubtyped/ 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	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	9	28	324	**361**	**665**	**3**
Zone 2	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	3	11	121	**135**	**96**	**2**
Zone 3	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	1	8	102	**111**	**188**	**5**
Zone 4	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	1	7	43	**51**	**212**	**1**
Zone 5	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	10	5	85	**100**	**17**	**1**
Zone 6	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	6	7	120	**133**	**98**	**1**
Zone 7	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	**0**	**0**	**0**	0	3	65	**68**	**103**	**0**
Total NB	N/A	N/A	N/A	N/A	N/A	N/A	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**69**	**860**	**959**	**1379**	**13**

2) ILI Consultation Rates[4]

- For week 48, the ILI consultation rate was 0.0 consultations per 1,000 patients visits. The ILI rate was lower than the expected levels for this time of year.

- During week 48, the sentinel response rate was 29% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2020/21 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2019/2020 seasons and excludes the Pandemic season (2009/10).

[4] A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

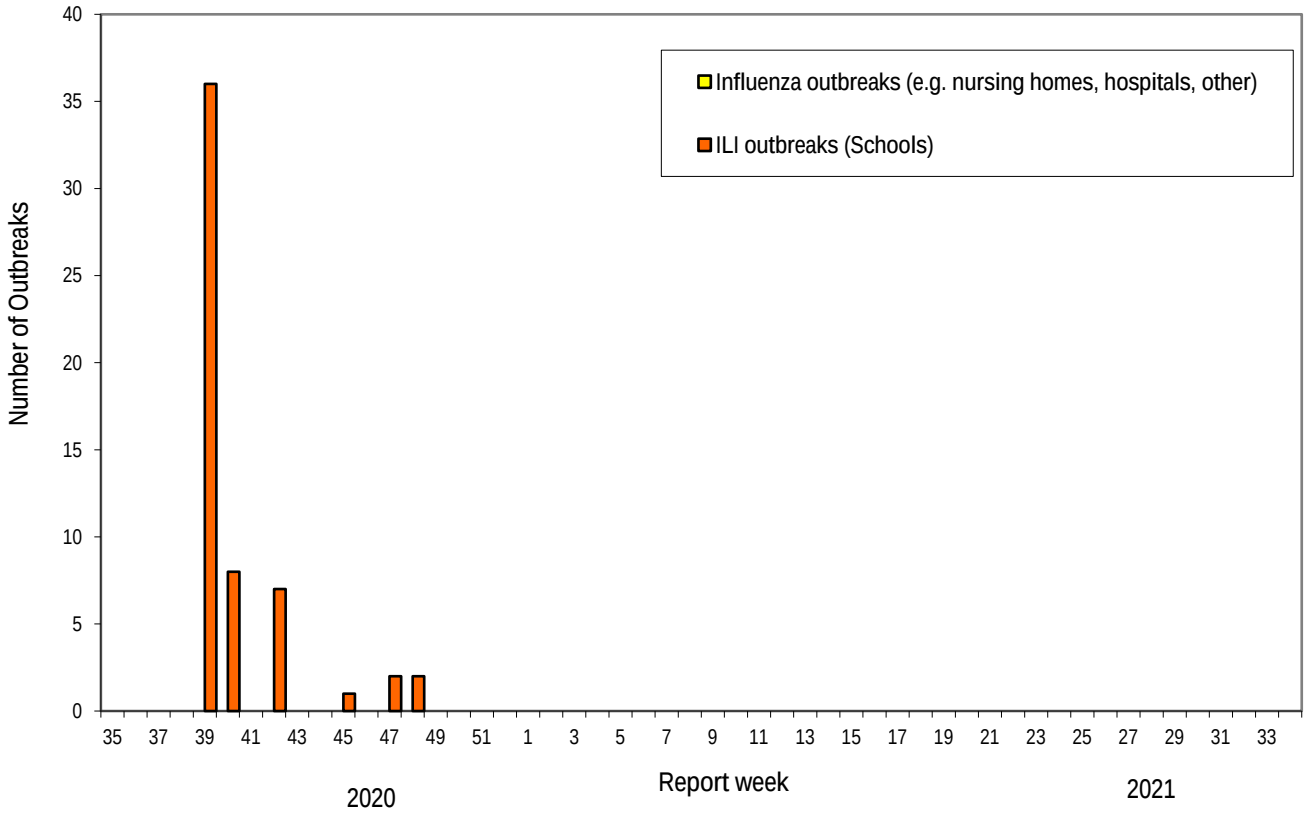
3) ILI and Laboratory-Confirmed Outbreak Data

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

	Reporting period: November/22/2020 to November/28/2020			Cumulative # of outbreaks season 2020-2021*
	Lab-confirmed outbreaks in Nursing homes[5]	ILI school outbreaks[6] *	Lab-confirmed outbreaks in Other settings[4]	
Zone 1	0 out of 15	2 out of 74	0	17
Zone 2	0 out of 16	0 out of 81	0	14
Zone 3	0 out of 16	0 out of 95	0	23
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	2
Total NB	0 out of 68	2 out of 352	0	56*

*During this influenza season, 2020-2021, 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) will likely be skewed due to the COVID-19 pandemic, the prudence of parents/guardians to send their children to school and their interpretation of the home isolation requirements. Therefore, the number of ILI outbreaks in schools should be interpreted with caution and should not be compared to previous seasons.

Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other) and ILI Outbreaks (schools) reported to Public Health in New Brunswick, by report week, season 2020/21.

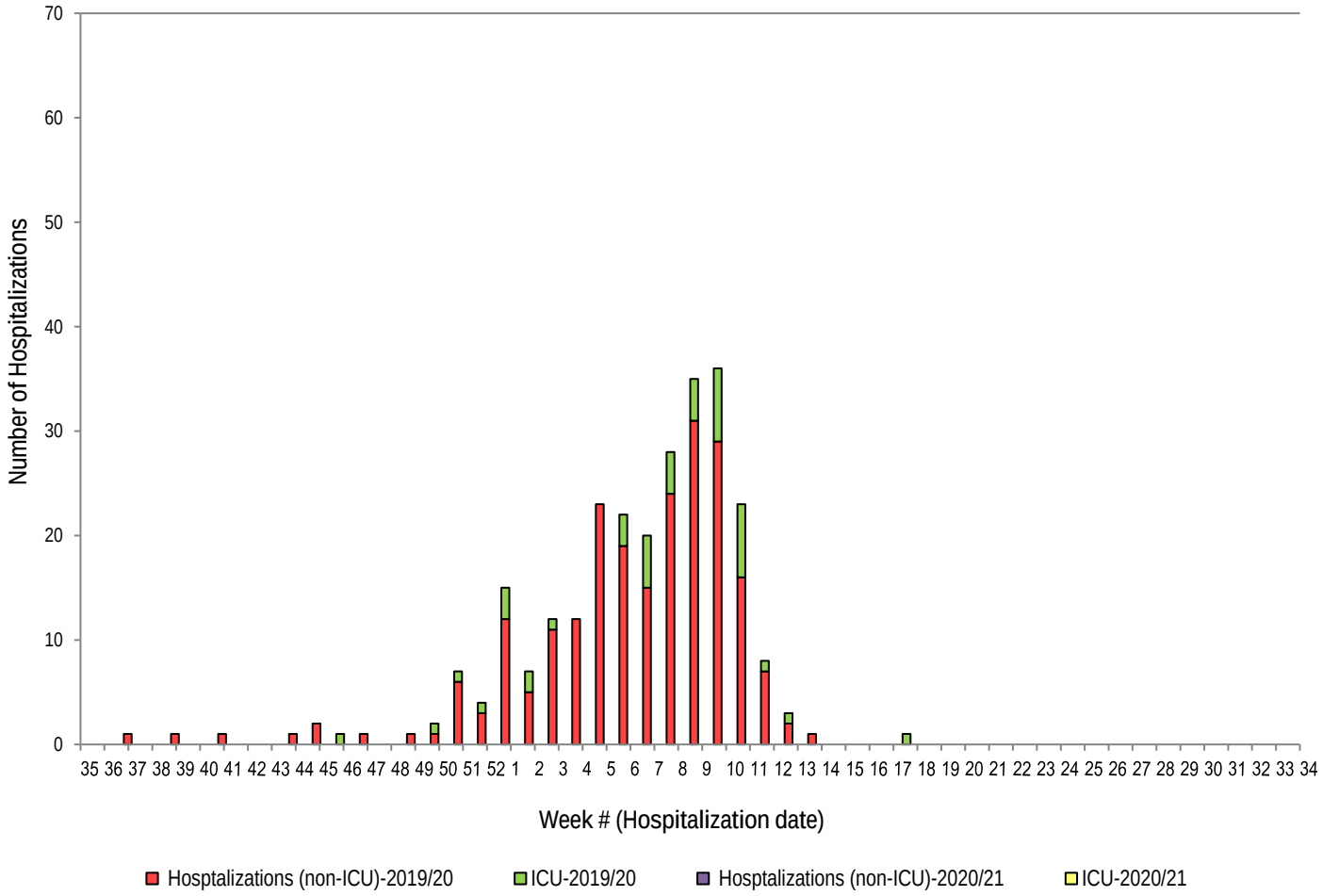


[5] Two or more ILI cases within a seven day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

[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.*



*Those who had been hospitalized 15 days or more prior to laboratory confirmation date were excluded from the graph
**No deaths have been reported so far in season 2020-2021.

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-http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html
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.