

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: January 3 to January 9 2021 (week 1)

Summary

In New Brunswick, influenza activity remained at inter-seasonal levels in week 1

New Brunswick:

- There have been no positive influenza cases in week 1. Since the beginning of the season, 1 case of influenza B has been reported.
- There has been no new influenza associated hospitalizations during week 1. Since the beginning of the season, no hospitalizations have been reported and no deaths.
- The ILI consultation rate was 0.0 per 1,000 patients visits for week 1. The ILI rate was lower than the expected levels for this time of year.
- No influenza outbreaks were reported in week 1. 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. Influenza testing continues at seasonal levels. No laboratory detections of influenza were reported in week 1.
- Five influenza-like-illness (ILI) or lab-confirmed outbreaks were reported in week 1. To date this season, 97 ILI outbreaks have been reported in schools and/or daycares. No laboratory-confirmed outbreaks of influenza have been reported to date this season.
- 12,402 participants reported to FluWatchers and 26 (0.21%) participants reported cough and fever, which remains low compared to previous seasons.
- 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 no influenza detections were reported. Severe acute respiratory infection (SARI) activity, likely due to COVID-19, was elevated in some reporting countries. In tropical South America, there were no influenza detections across reporting countries. In tropical Africa, influenza activity continued to be reported in Western Africa. In Southern Asia, sporadic influenza detections were reported in India. In South East Asia, influenza detections of predominately influenza A(H3N2) continued to be reported in Lao People's Democratic Republic (PDR) and Viet Nam. Worldwide, influenza B detections accounted for the majority of the very low numbers of detections reported.

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 January 18, 2021, 715,072 cases of COVID-19 infection in Canada have been identified with 18,120 deaths. Nine hundred seventy-three cases have been identified in New Brunswick with 13 deaths. As of January 19, the WHO reported globally 93 956 883 confirmed cases and 2 029 084 deaths in approximately 223 countries/territories/areas.

For more timely updates, please visit the following websites:

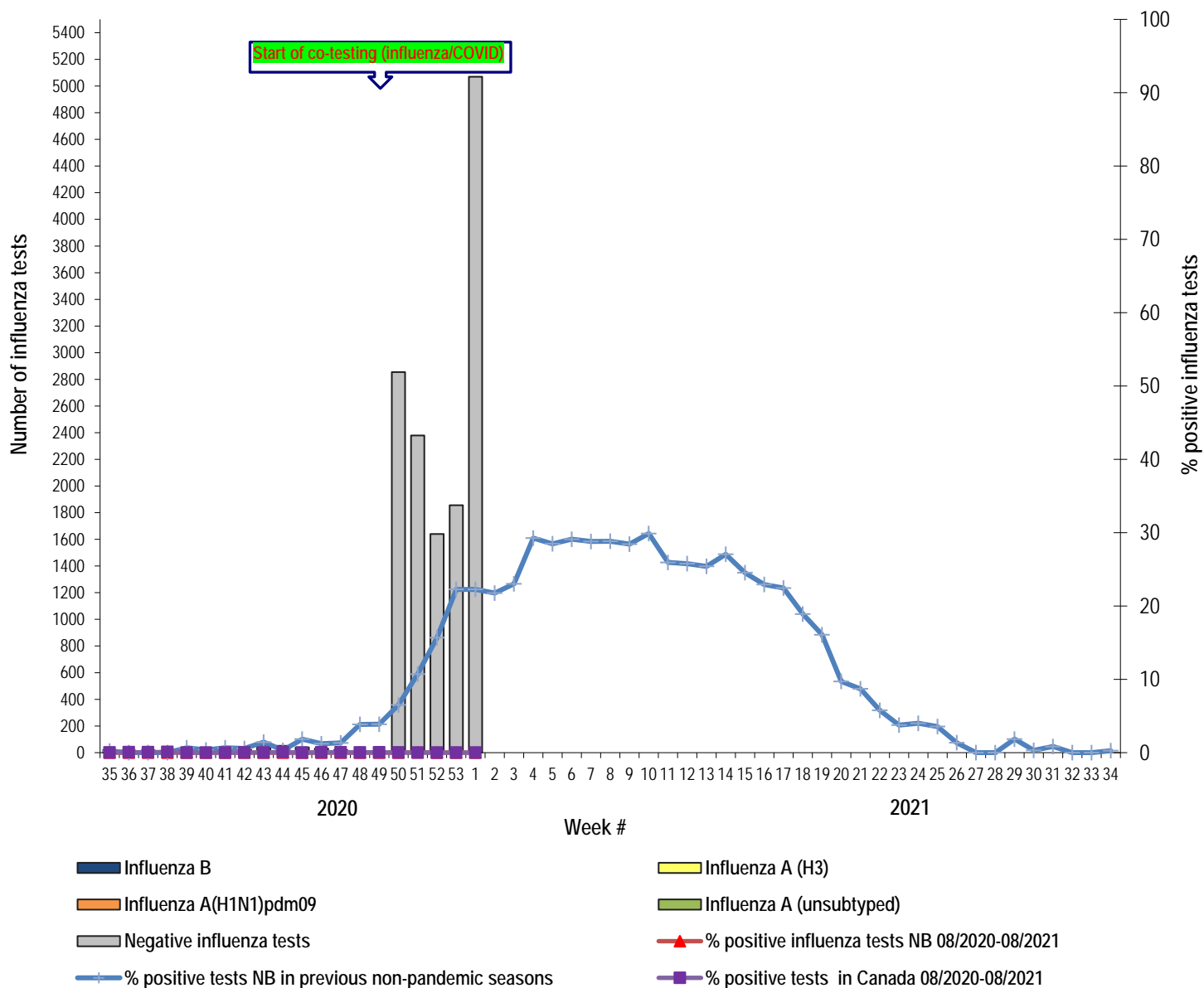
- WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- PHAC: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>
- NB: https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/respiratory_diseases/coronavirus.html
- **MERS CoV:**
 - WHO: http://www.who.int/csr/disease/coronavirus_infections/en/

1) Influenza Laboratory Data¹

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 1.
- No influenza cases were reported during week 1.
- Since the beginning of the season, 1 influenza case has been reported, an influenza B virus².

Graph 1: Number and percent of positive influenza specimens³ in New Brunswick by week, up to January 9, 2021 (data source: G. Dumont Lab results)



*The increase in influenza laboratory tests seen since week 50 is due to a change in testing process (start of co-testing for influenza and COVID)

² This positive influenza detection is associated with recent live attenuated influenza vaccine receipt and does not represent community circulation of seasonal influenza viruses.

³ 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 levels⁴ by Health Zones, in New Brunswick, for week 1, season 2020/2021.



⁴ 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 January 9, 2021)

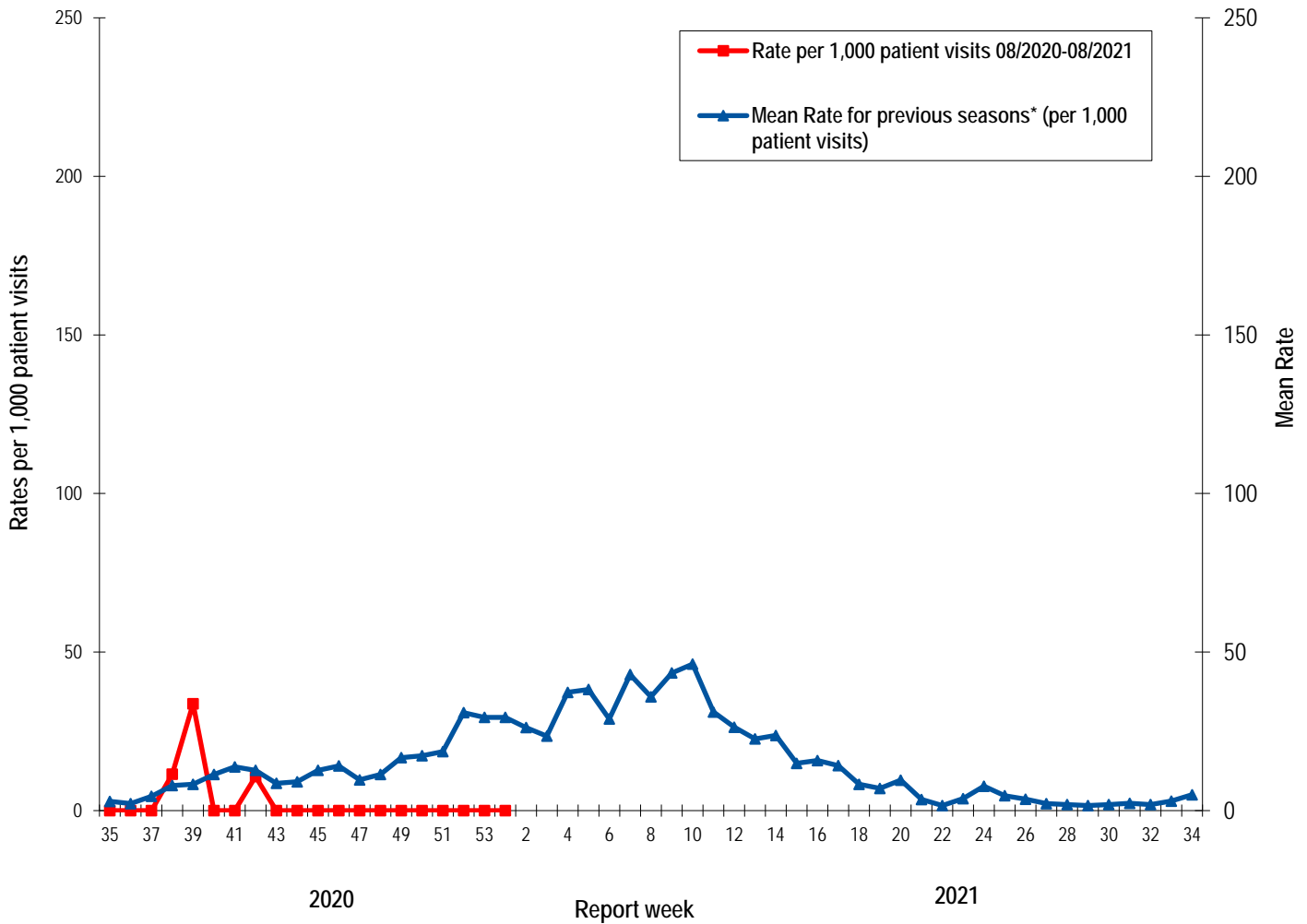
| Zone | Reporting period: January/03/2021–January/09/2021 | | | | | | Cumulative: (2020/2021 season) Aug./23/2020 –January/09/2021 | | | | | | Cumulative: (2019/2020 season) Aug./25/2019 –Aug./22/2020 | | | | | | | | | |
|-----------------|--|-----------------|--------------------------|------------|----------|----------|---|-----------------|--------------------------|------------|-----------|----------|---|-----------|-----------------|--------------------------|-------------|-------------------------------|-------|--|--|--|
| | A | | | | | B | A & B co- infection | | | | | A | | | | | B | A & B co- infectio n | | | | |
| | 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 | Total | | | |
| Zone 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 9 | 28 | 324 | 361 | 665 | 3 | | | | |
| Zone 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 11 | 121 | 135 | 96 | 2 | | | | |
| Zone 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 102 | 111 | 188 | 5 | | | | |
| Zone 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 43 | 51 | 212 | 1 | | | | |
| Zone 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 5 | 85 | 100 | 17 | 1 | | | | |
| Zone 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | 120 | 133 | 98 | 1 | | | | |
| Zone 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 65 | 68 | 103 | 0 | | | | |
| Total NB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1* | 0 | 30 | 69 | 860 | 959 | 1379 | 13 | | | | |

*This positive influenza detection is associated with recent live attenuated influenza vaccine receipt and does not represent community circulation of seasonal influenza viruses.

2) ILI Consultation Rates⁵

- For week 1, 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 1, 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 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).

⁵ 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.

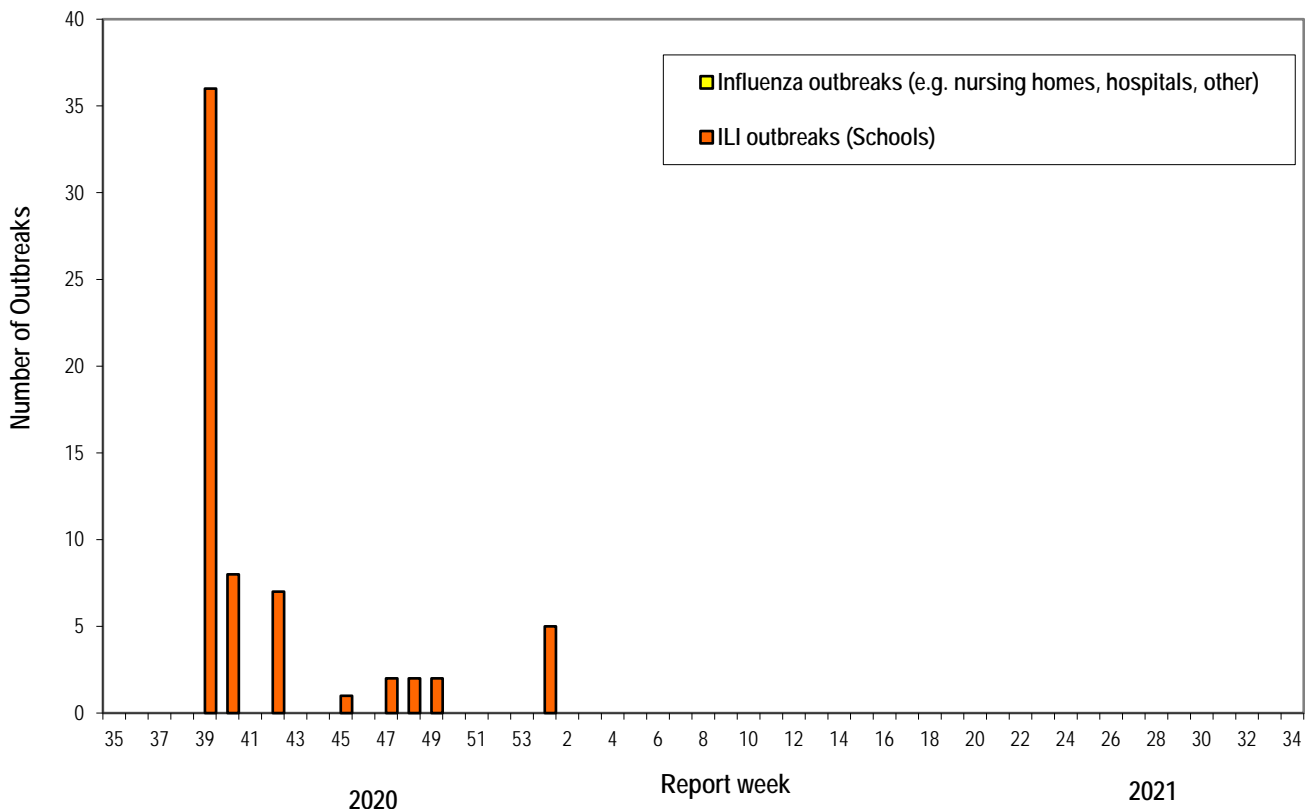
3) ILI and Laboratory-Confirmed Outbreak Data

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

| | Reporting period: January/03/2021 to January/09/2021 | | | Cumulative # of outbreaks season 2020-2021* |
|-----------------|---|-------------------------------------|--|---|
| | Lab-confirmed outbreaks in Nursing homes ⁶ | ILI school outbreaks ⁷ * | Lab-confirmed outbreaks in Other settings ⁴ | |
| Zone 1 | 0 out of 15 | 5 out of 74 | 0 | 24 |
| 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 | 5 out of 352 | 0 | 63* |

*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.

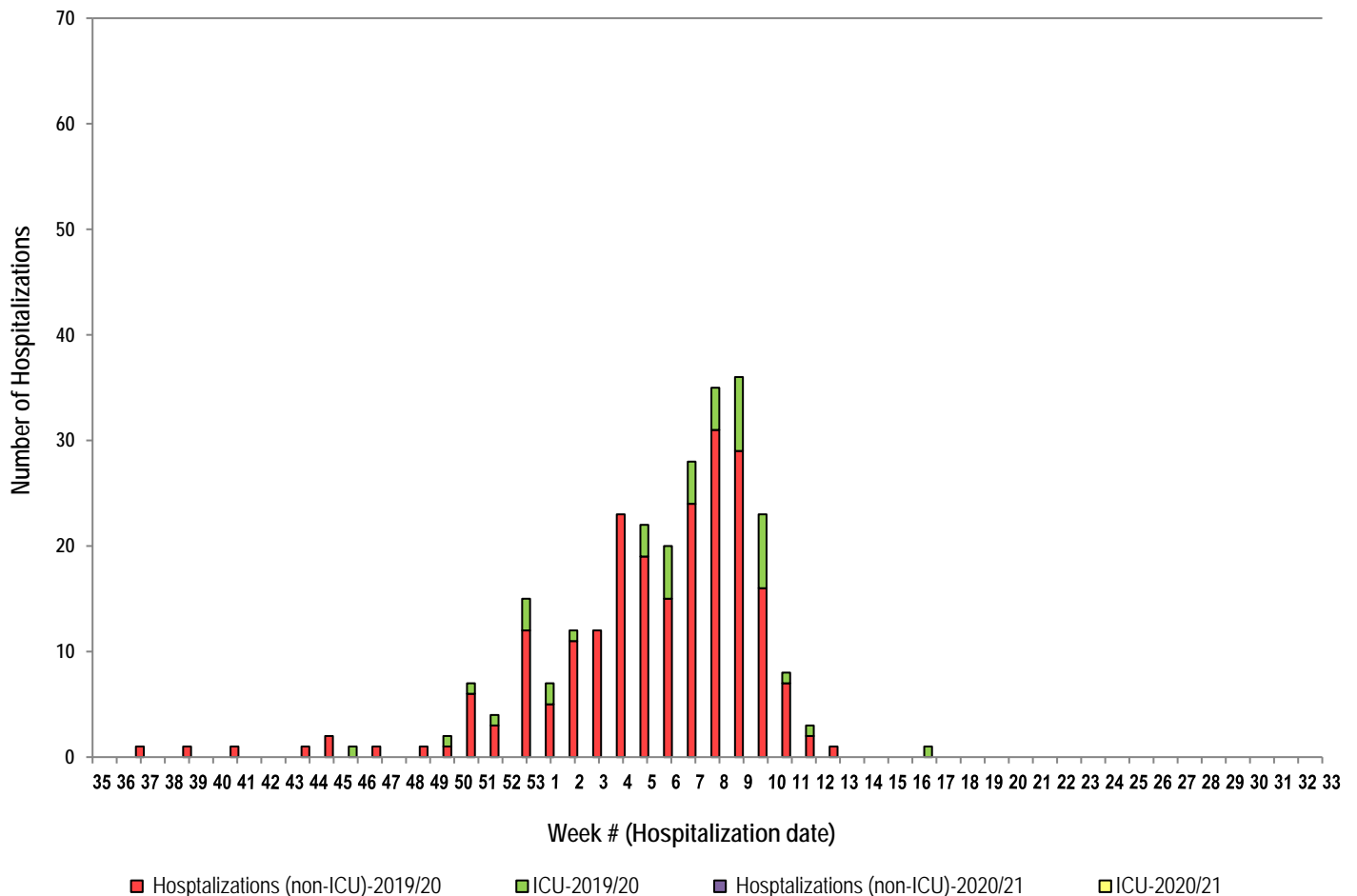


⁶ Two or more ILI cases within a seven day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

⁷ Schools reporting greater than 10% absenteeism which is likely due to ILI.

4) Influenza associated Hospitalization⁸ and Death⁹ Surveillance¹⁰

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/

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⁸ Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

⁹ Deaths are influenza associated; influenza may not be the direct cause of death.

¹⁰ 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.