

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: September 20 to October 3 2020 (weeks 39-40)

Summary

In New Brunswick, influenza activity remained at inter-seasonal levels in weeks 39 and 40

New Brunswick:

- There have been no positive influenza cases in weeks 39 & 40. Since the beginning of the new season, no cases have been reported.
- There has been no new influenza associated hospitalizations during weeks 39 & 40.
- The ILI consultation rate was 33.7 per 1,000 patients visits for week 39 and 0.0 per 1,000 patients visits for week 40. The ILI rate was higher than expected levels for week 39.
- No influenza outbreaks were reported in weeks 39 & 40. No information was available on ILI outbreaks for weeks 39 & 40.

Canada:

- Testing for influenza continues at elevated levels, no influenza detections and no influenza activity was reported across Canada in weeks 39 to 40.
- During weeks 39 to 40, 15 influenza-like-illness (ILI) outbreaks were reported in schools and daycares which is higher than typically reported in these settings at this time of year. These elevated levels are not unexpected and are a signal of public health effectively leveraging existing flu surveillance systems to monitor respiratory viral illness in schools.
- 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 might 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 might also have played a role in mitigating influenza virus transmission. Globally, influenza activity remained at lower levels than expected for this time of the year, though increased detections were reported in some countries. In the temperate zones of the southern hemisphere, the influenza season remained low or below baseline. Despite continued or even increased testing for influenza in some countries in the southern hemisphere, very few influenza detections were reported. In the temperate zone of the northern hemisphere, influenza activity remained below inter-seasonal levels. In the Caribbean and Central American countries, there were no influenza detections reported. Severe acute respiratory infection (SARI) activity, likely due to COVID-19, decreased in most reporting countries. In tropical South America, tropical Africa and Southern Asia there were sporadic or no influenza detections across reporting countries. In South East Asia, increased influenza detections were reported in Cambodia and Lao People's Democratic Republic (PDR). Worldwide, of the very low numbers of detections reported, seasonal influenza A(H3N2) viruses accounted for the majority of detections.

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 October 14, 2020, 189,387 cases of COVID-19 infection in Canada have been identified with 9,664 deaths. Two hundred-ninety-two cases have been identified in New Brunswick with 2 deaths. As of October 15, the WHO reported globally 38,394,169 confirmed cases and 1,089,047 deaths in 201 countries/territories/areas.

For more timely updates, please visit the following websites:

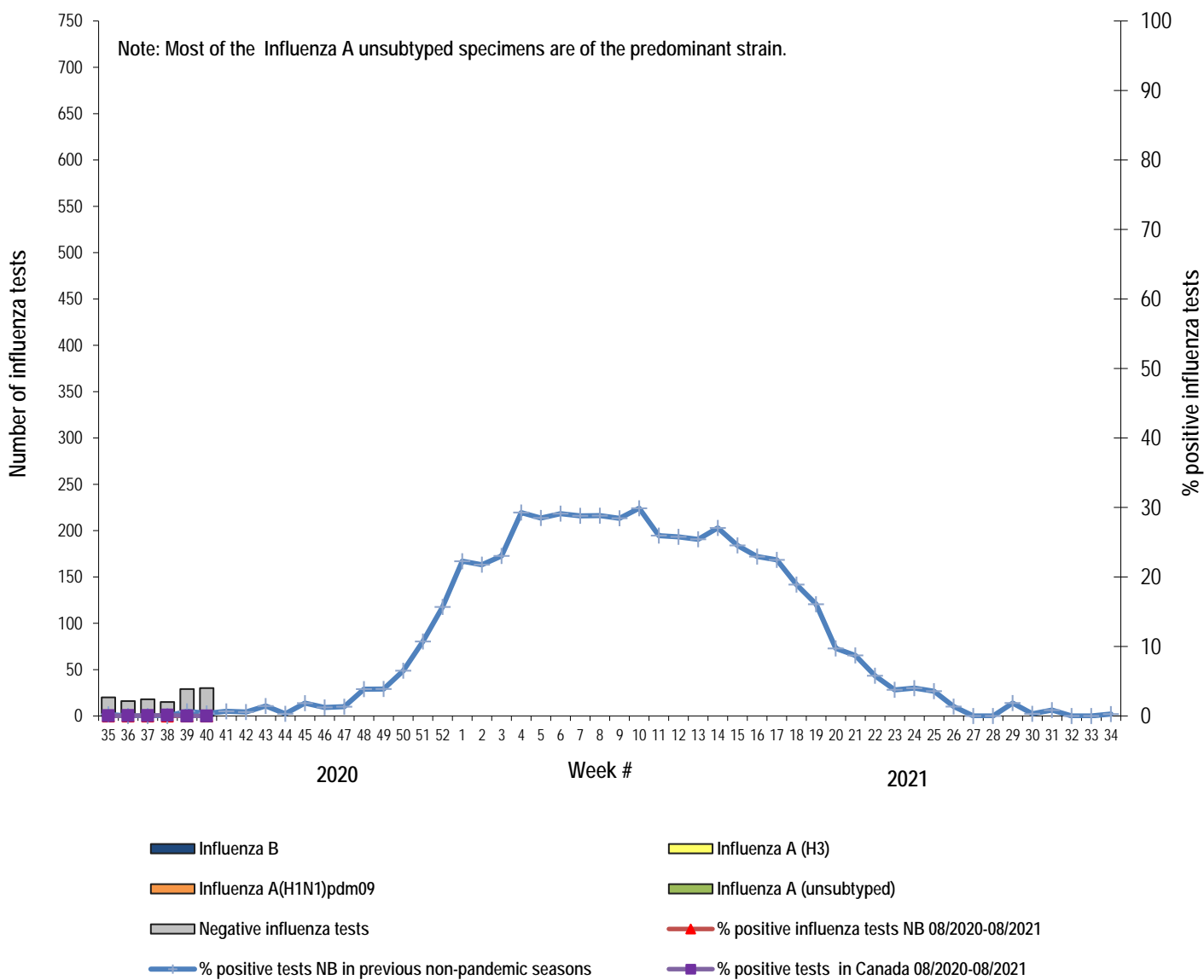
- WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- PHAC: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>
- NB : https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/respiratory_diseases/coronavirus.html
- MERS CoV:
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

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.

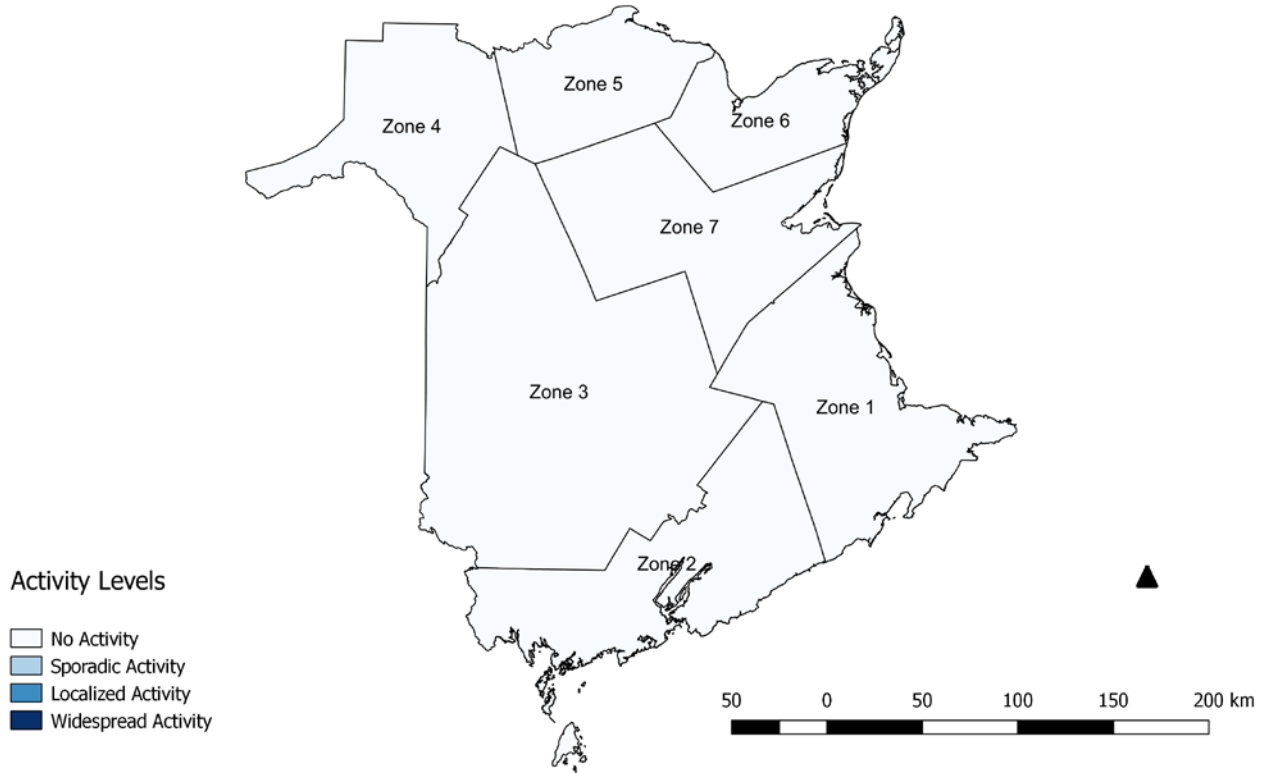
- Influenza activity remained at inter-seasonal levels in weeks 39 & 40.
- No influenza cases were reported during weeks 39 & 40.
- Since the beginning of the season, no influenza cases have been reported.

Graph 1: Number and percent of positive influenza specimens² in New Brunswick by week, up to October 3, 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 levels³ by Health Zones, in New Brunswick, for week 40, 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.

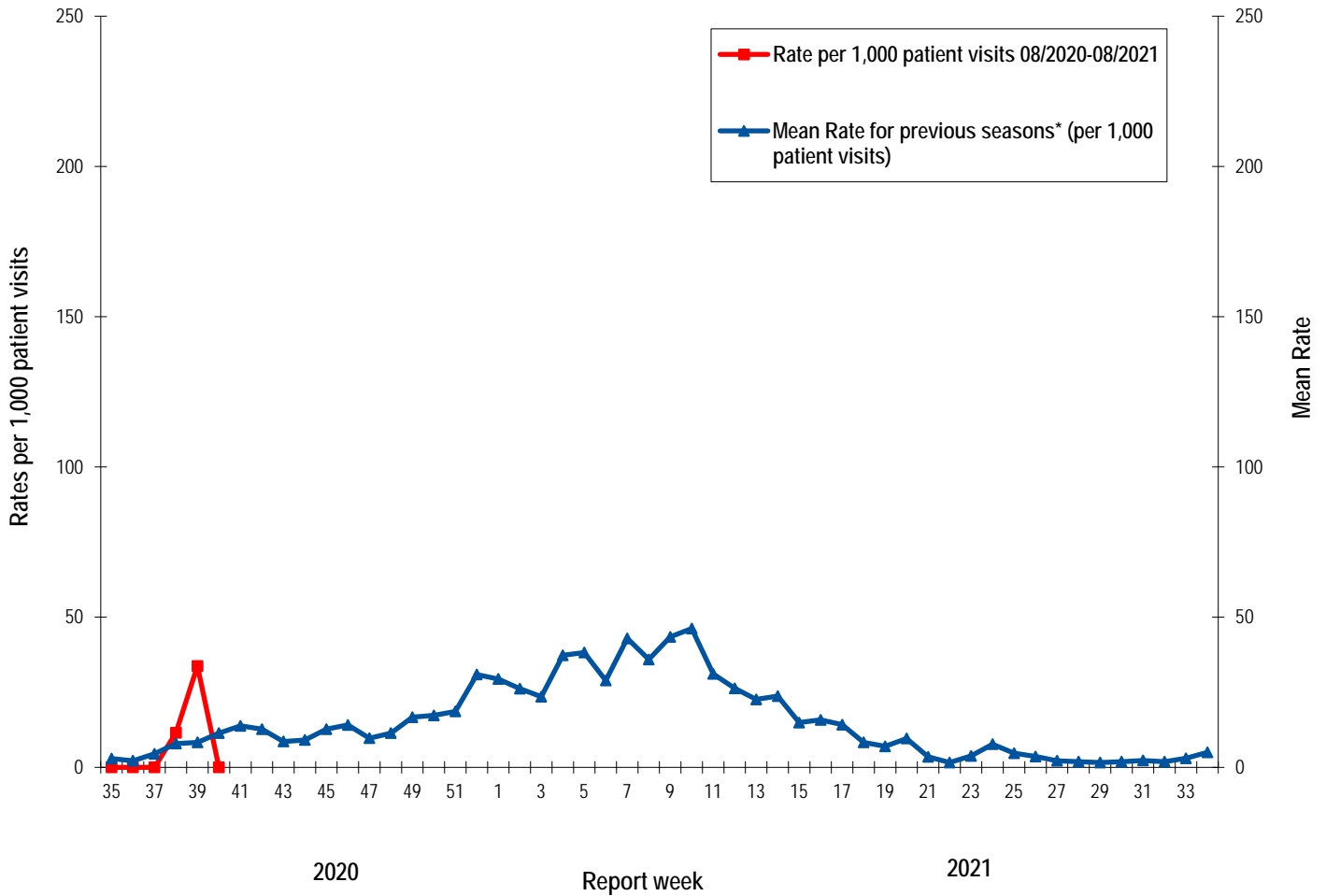
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
 (data source: G. Dumont lab results up to October 3, 2020)

Zone	Reporting period: September/20/2020–October/03/2020						Cumulative: (2020/2021 season) Aug./23/2020 –October/03/2020						Cumulative: (2019/2020 season) Aug./25/2019 –Aug./22/2020					
	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	(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total
Zone 1	0	0	0	0	0	0	0	0	0	0	0	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	0	0	30	69	860	959	1379	13

2) ILI Consultation Rates⁴

- For week 39, the ILI consultation rate was 33.7 consultations per 1,000 patients visits and was 0.0 consultations per 1,000 patient visits for week 40. The ILI rate was higher than the expected levels for week 39.
- During weeks 39 & 40, the sentinel response rate ranged between 25% and 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).

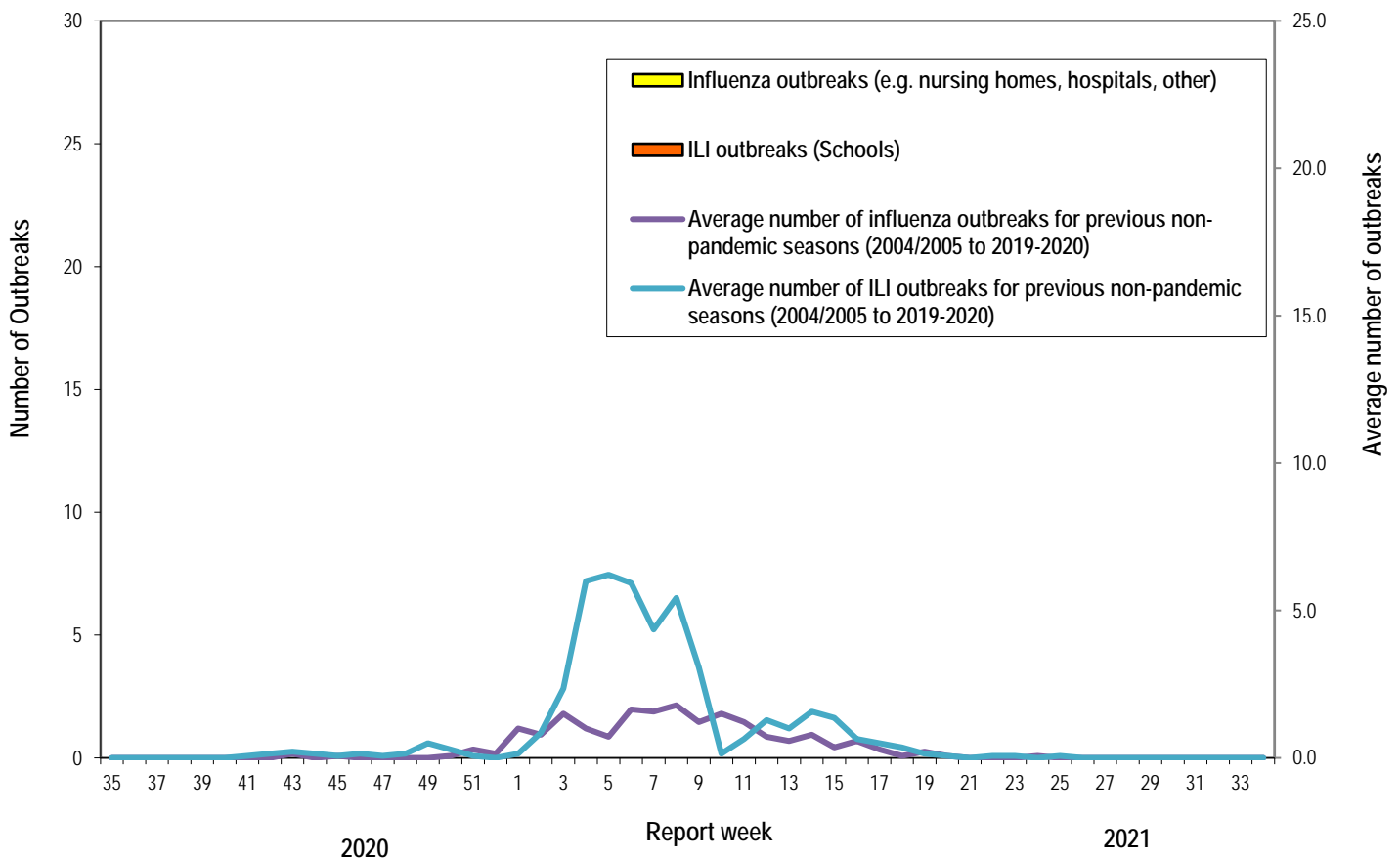
⁴ A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

3) ILI and Laboratory-Confirmed Outbreak Data

Table 2: ILI activity/outbreaks in New Brunswick nursing homes and schools for the reporting week, current and previous seasons. **ILI outbreak information is not available for this time period.**

	Reporting period: September/20/2020 to October/03/2020			Cumulative # of outbreaks season 2020-2021	Cumulative # of outbreaks season 2019-2020
	Lab-confirmed outbreaks in Nursing homes ⁵	ILI school outbreaks ⁶ Not available for this period	Lab-confirmed outbreaks in Other settings ⁴		
Zone 1	0 out of 15	0 out of 74	0	0	13
Zone 2	0 out of 16	0 out of 81	0	0	15
Zone 3	0 out of 16	0 out of 95	0	0	27
Zone 4	0 out of 5	0 out of 22	0	0	10
Zone 5	0 out of 2	0 out of 18	0	0	3
Zone 6	0 out of 9	0 out of 35	0	0	8
Zone 7	0 out of 5	0 out of 27	0	0	12
Total NB	0 out of 68	0 out of 352	0	0	88

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.

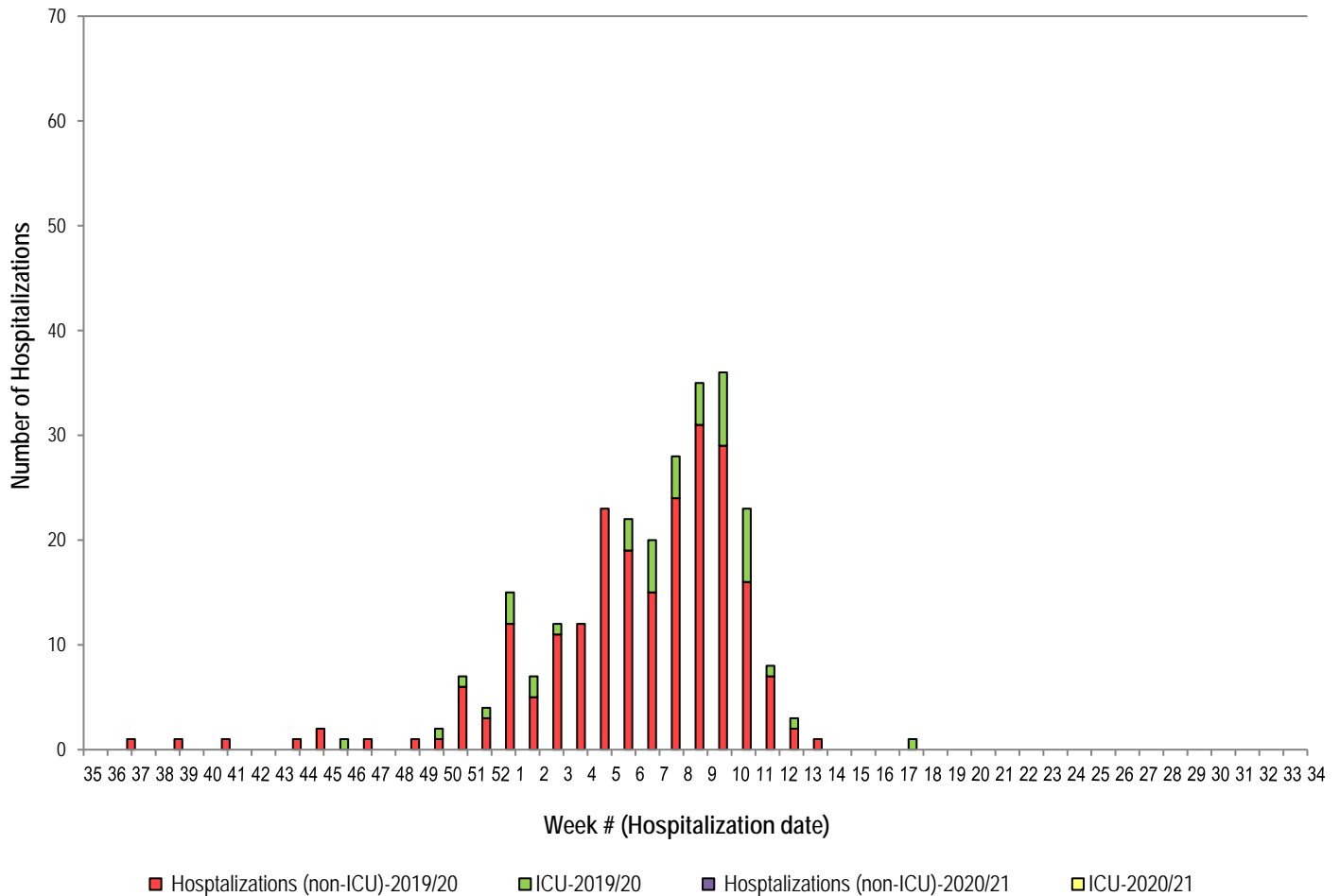


⁵ Two or more ILI cases within a seven day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

⁶ Schools reporting greater than 10% absenteeism which is likely due to ILI.

4) Influenza associated Hospitalization⁷ and Death⁸ Surveillance⁹

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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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.