

## WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: January 5 to January 11, 2020 (week 2)

### Summary

#### In New Brunswick, influenza activity increased in week 2

##### New Brunswick:

- There have been 76 positive influenza cases in week 2. Since the beginning of the new season, 254 cases has been reported, 29 influenza A (H1N1)pdm09, 9 influenza A (H3), 62 influenza A (unsubtyped) and 154 influenza B.
- There have been 4 new influenza associated hospitalizations during week 2. So far this season, 39 influenza associated hospitalizations have been reported and 2 deaths.
- The ILI consultation rate was 19.2 consultations per 1,000 patients visits in week 2. The ILI rate was slightly below the expected levels for this time of year.
- One new influenza outbreak was reported in another setting in week 2. So far this season, 1 influenza outbreak has been reported in a nursing home, 2 outbreaks have been reported in hospitals, 1 influenza outbreak was reported in another setting and 2 ILI outbreaks were reported in schools.

##### Canada:

- Influenza activity decreased across multiple indicators this week. This suggests that Canada may have reached peak influenza activity at the national level. Elevated activity is expected to continue in the coming weeks.
- Influenza A(H3N2), A(H1N1) and B continue to co-circulate. Influenza A remains the predominant circulating type and influenza B continues to circulate at higher levels than usual.
- A(H1N1) and A(H3N2) are circulating in almost equal proportions. For the season to date, there is a slight majority (53%) of A(H1N1), due to an increase in detections in recent weeks.
- The highest cumulative hospitalization rates are among children under 5 years of age and adults 65 years of age and older.

##### International:

###### Seasonal influenza:

In the temperate zone of the northern hemisphere, respiratory illness indicators and influenza activity continued to increase in most countries. In North America, influenza activity further increased with all seasonal influenza subtypes circulating. In Europe, influenza activity continued to increase across the region and was reported at moderate levels in some countries of Northern Europe. In Central Asia, influenza activity increased with influenza B viruses predominant. In Western and Eastern Asia, influenza activity remained elevated overall. In the Caribbean and Central American countries, influenza activity was low overall, except for Mexico where increased detections of influenza A viruses were reported. In tropical South American countries, increased influenza activity was reported from Ecuador and Colombia in recent weeks. In tropical Africa, influenza activity was low across reporting countries of Eastern and Middle Africa. In Southern Asia, influenza activity was low in most reporting countries, but increased in Afghanistan. In South East Asia, influenza activity continued to be reported in the Lao People's Democratic Republic and Malaysia and increased in Singapore. In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels. Worldwide, seasonal influenza A viruses accounted for the majority of detections.

###### Emerging Respiratory Viruses:

- MERS CoV:
  - WHO: [http://www.who.int/csr/disease/coronavirus\\_infections/en/](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](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](http://www.who.int/csr/disease/avian_influenza/en/index.html)

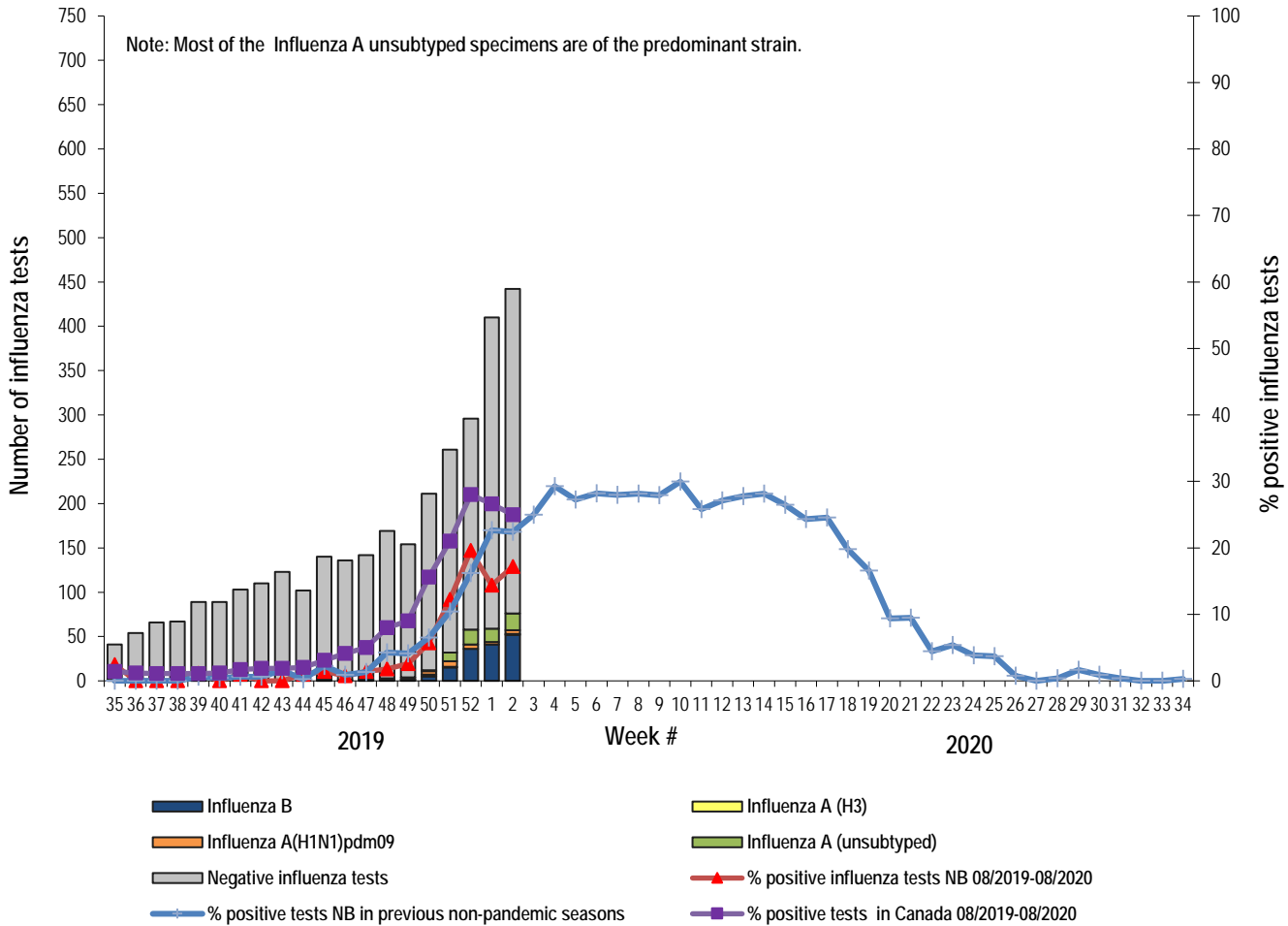
#### 1) Influenza Laboratory Data<sup>1</sup>

- Influenza activity increased in week 2.
- Seventy-six influenza cases were reported during week 2, 4 influenza A (H1N1)pdm09, 1 influenza A (H3), 19 influenza A (unsubtyped) and 52 influenza B.

<sup>1</sup> 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.

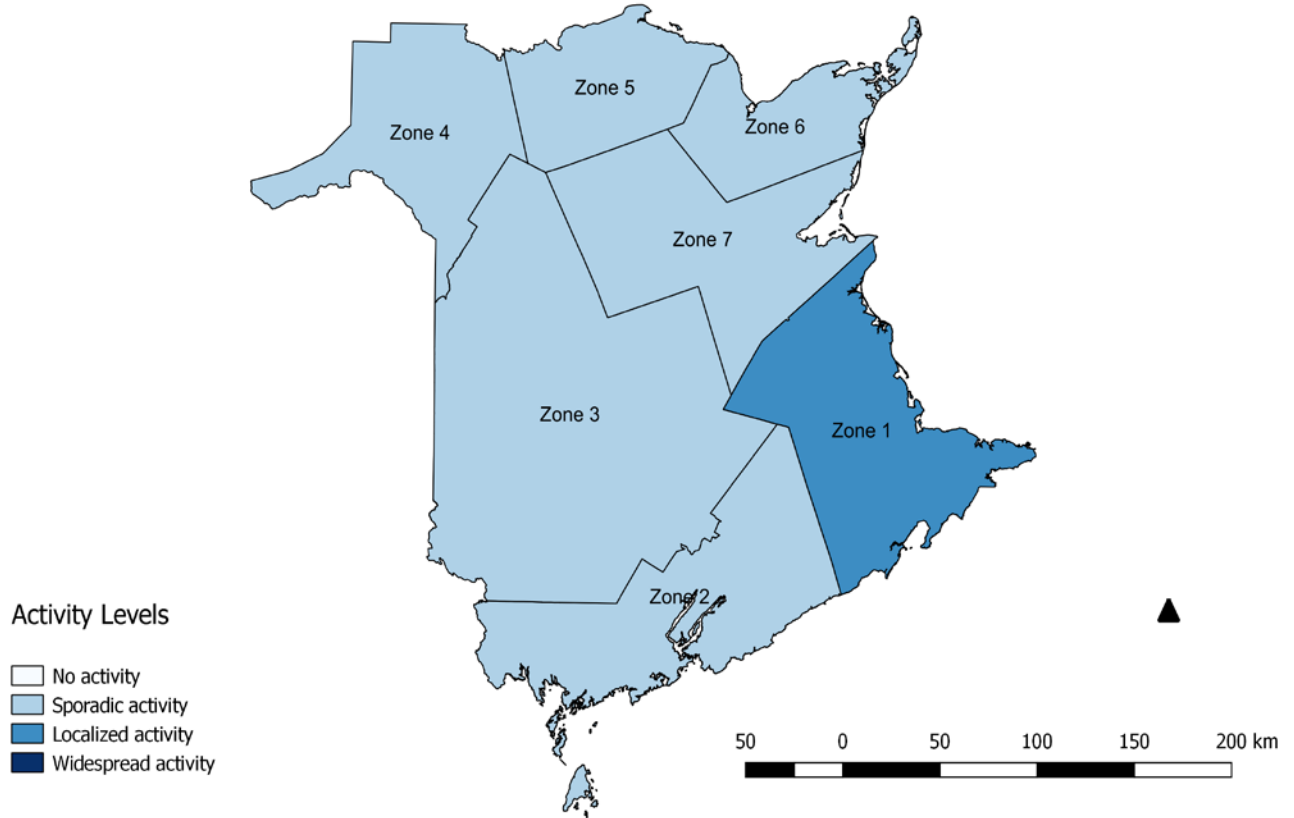
- Since the beginning of the season, 254 influenza cases have been reported, 29 influenza A (H1N1)pdm09, 9 influenza A (H3), 62 influenza A (unsubtyped) and 154 influenza B.

**Graph 1:** Number and percent of positive influenza specimens<sup>2</sup> in New Brunswick by week, up to January 11, 2020 (data source: G. Dumont Lab results)



<sup>2</sup> 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<sup>3</sup> by Health Zones, in New Brunswick, for week 2, season 2019/2020.



<sup>3</sup> 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.

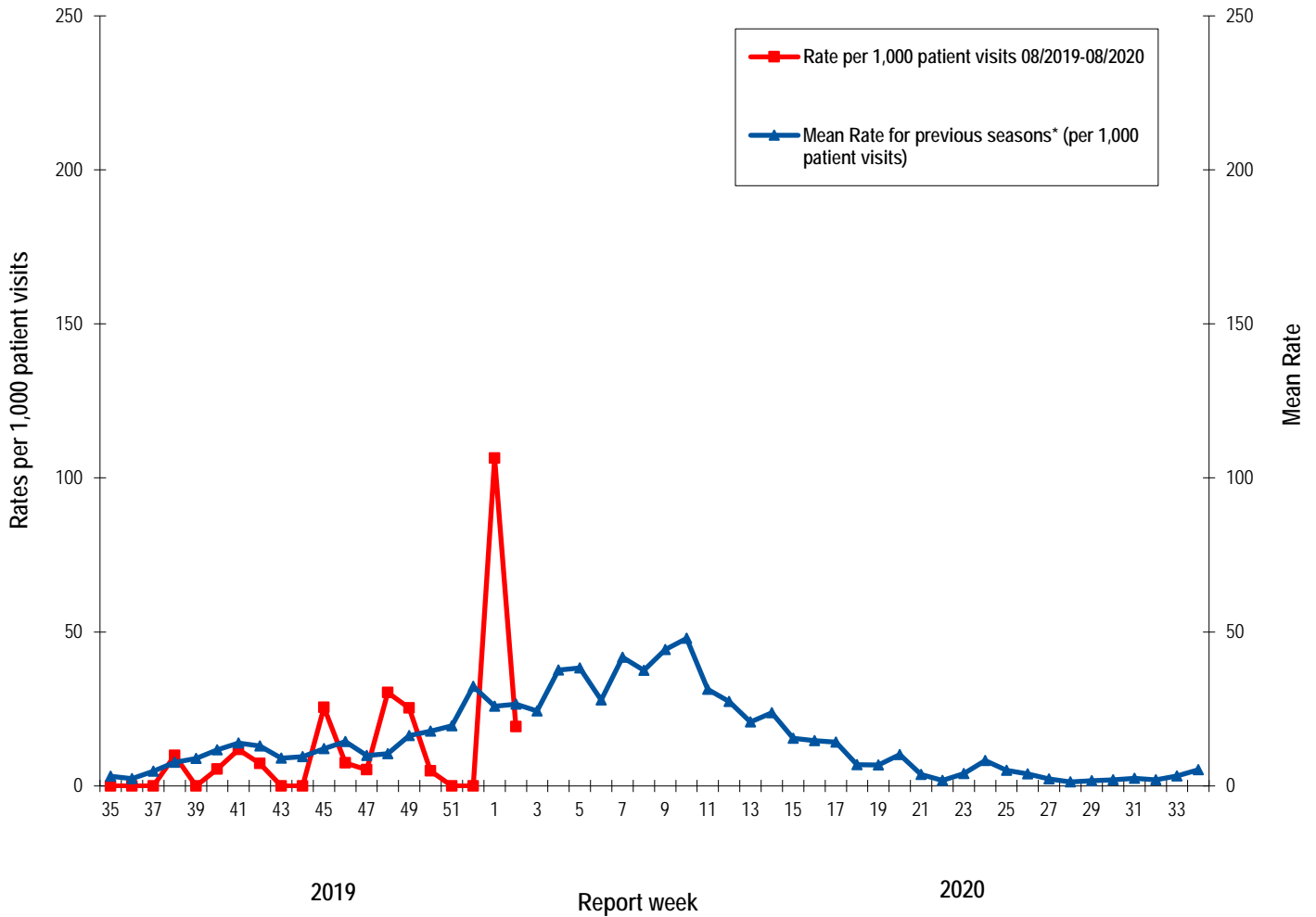
**Table 1:** Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.  
 (data source: G. Dumont lab results up to January 11, 2020)

Zone	Reporting period: January/05/2020–January/11/2020						Cumulative: (2019/2020 season) Aug./25/2019 –January/11/2020						Cumulative: (2018/2019 season) Aug./26/2018 –Aug./24/2019								
	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	(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total			
Zone 1	0	1	9	10	32	0	6	15	36	57	115	0	29	97	1163	1289	130	3			
Zone 2	0	1	0	1	2	0	1	3	5	9	7	0	6	47	293	346	58	0			
Zone 3	0	1	2	3	2	0	1	4	2	7	4	0	9	39	260	308	3	0			
Zone 4	0	0	2	2	10	0	0	1	4	5	15	0	2	28	135	165	6	0			
Zone 5	1	0	0	1	0	0	1	2	1	4	1	0	2	20	84	106	127	1			
Zone 6	0	1	6	7	3	0	0	3	12	15	6	0	5	36	200	241	14	0			
Zone 7	0	0	0	0	3	0	0	1	2	3	6	0	9	23	160	192	19	0			
<b>Total NB</b>	<b>1</b>	<b>4</b>	<b>19</b>	<b>24</b>	<b>52</b>	<b>0</b>	<b>9</b>	<b>29</b>	<b>62</b>	<b>100</b>	<b>154</b>	<b>0</b>	<b>62</b>	<b>290</b>	<b>2295</b>	<b>2647</b>	<b>357</b>	<b>4</b>			

2) ILI Consultation Rates<sup>4</sup>

- For week 2, the ILI consultation rate was 19.4 consultations per 1,000 patients visits. The ILI rate was slightly below the expected levels for this time of year.
- During week 2, 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 2019/20 compared to previous seasons\*



\* The mean rate was based on data from the 1996/97 to 2018/2019 seasons and excludes the Pandemic season (2009/10).

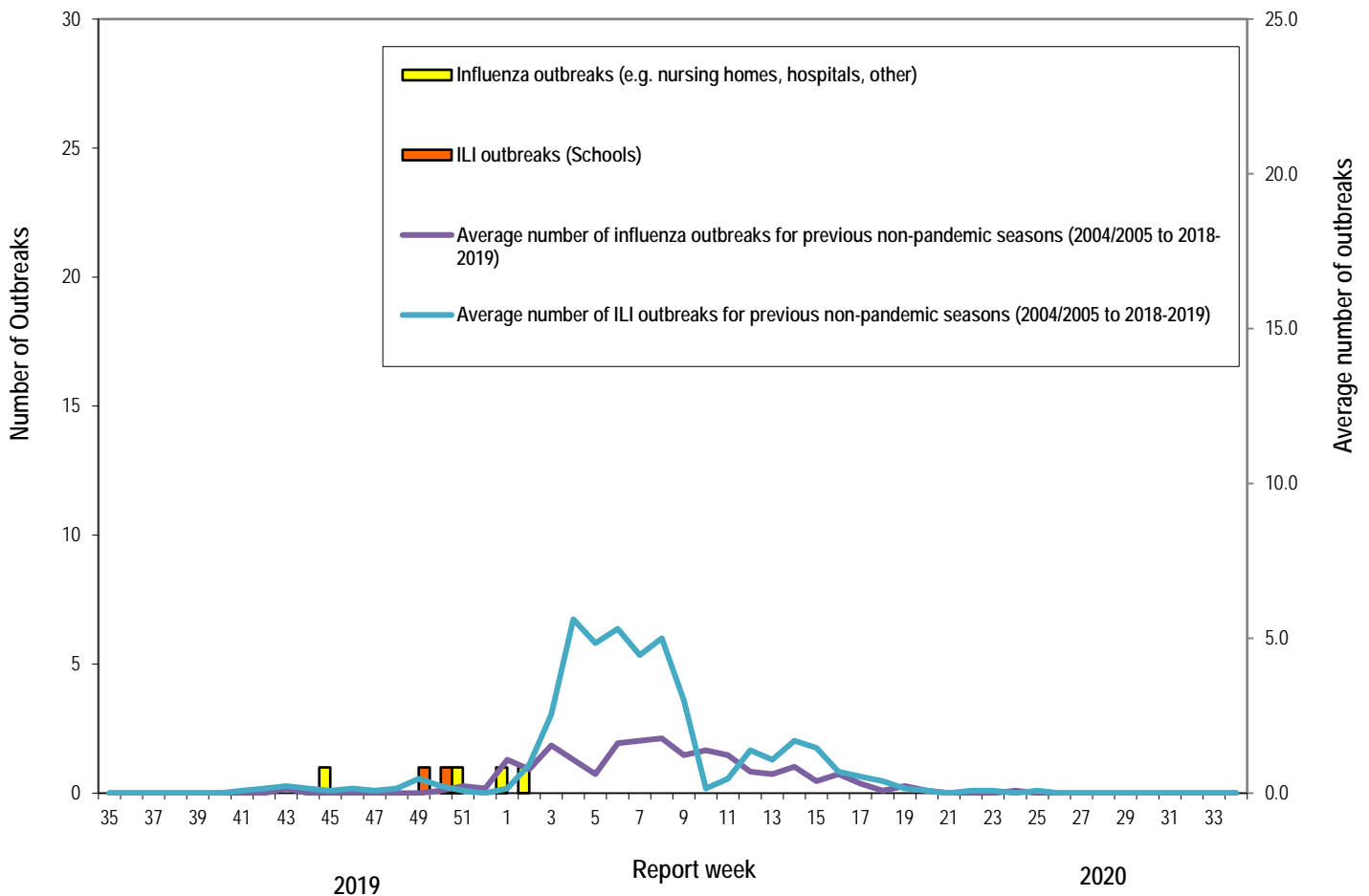
<sup>4</sup> A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

### 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.

	Reporting period: January/05/2019-January/11/2020			Cumulative # of outbreaks season 2019-2020	Cumulative # of outbreaks season 2018-2019
	Lab-confirmed outbreaks in Nursing homes <sup>5</sup>	ILI school outbreaks <sup>6</sup>	Lab-confirmed outbreaks in Other settings <sup>4</sup>		
Zone 1	0 out of 13	0 out of 74	1	2	12
Zone 2	0 out of 16	0 out of 81	0	0	13
Zone 3	0 out of 14	0 out of 95	0	1	6
Zone 4	0 out of 6	0 out of 22	0	1	0
Zone 5	0 out of 2	0 out of 18	0	0	0
Zone 6	0 out of 9	0 out of 35	0	0	4
Zone 7	0 out of 4	0 out of 27	0	2	8
<b>Total NB</b>	<b>0 out of 64</b>	<b>0 out of 352</b>	<b>1</b>	<b>6</b>	<b>43</b>

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 2019/20.

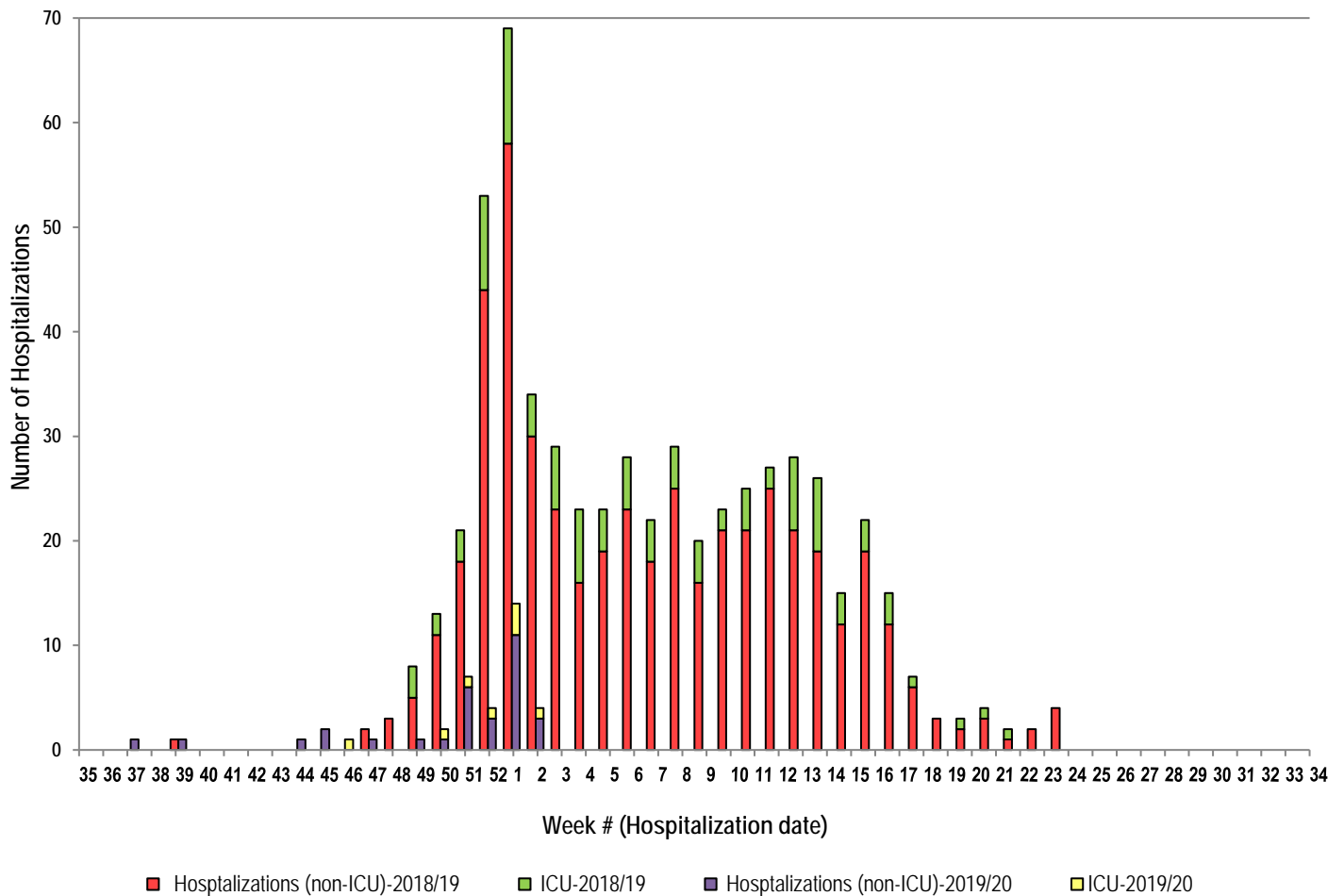


<sup>5</sup> Two or more ILI cases within a seven day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

<sup>6</sup> Schools reporting greater than 10% absenteeism which is likely due to ILI.

#### 4) Influenza associated Hospitalization<sup>7</sup> and Death<sup>8</sup> Surveillance<sup>9</sup>

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

\*\*Two deaths have been reported so far in season 2019-2020.

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](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](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](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](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/](http://www.cdc.gov/flu/weekly/)

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<sup>7</sup> Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

<sup>8</sup> Deaths are influenza associated; influenza may not be the direct cause of death.

<sup>9</sup> 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.