

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: June 23 to July 20 2019 (weeks 26-29)

Summary

In New Brunswick, influenza activity returned to inter-seasonal levels in weeks 26 to 29

New Brunswick:

- There has been 1 positive influenza case in weeks 26-29. To date this season, 3008 cases have been reported, 290 influenza A (H1N1)pdm09, 2295 influenza A (unsubtyped), 62 influenza A (H3), 357 influenza B and 4 had both influenza A and B simultaneously.
- There has been no influenza associated hospitalizations during weeks 26-29. So far this season, 619 influenza associated hospitalizations have been reported and 37 deaths.
- The ILI consultation rate was higher than the expected levels for weeks 26 & 27 but was within the expected levels for weeks 28 & 29.
- No new ILI/influenza outbreaks were reported in weeks 26-29. So far this season, 14 influenza outbreaks have been reported in nursing homes, 6 in Hospitals, 5 in other settings (Residential facility and Assisted Living) and 18 ILI outbreaks have been reported in schools.

Canada:

- Influenza activity is at interseasonal levels across the country.
- The majority of regions in Canada are reporting no influenza activity.
- Influenza A is the most common influenza virus circulating in Canada.
- Updates from the National Influenza Surveillance will only be available on a monthly basis during the summer months.

International:

Seasonal influenza:

In the temperate zones of the southern hemisphere, influenza activity appeared to have peaked and to decrease in most countries. Influenza A(H3N2) viruses predominated in Oceania and South Africa. Influenza A viruses predominated in temperate South America. In the Caribbean, Central American countries, and the tropical countries of South America, influenza activity was low overall. In tropical Africa, influenza activity was low across reporting countries, with the exception of a few countries in Eastern Africa. In Southern Asia, influenza activity was low across reporting countries. In South East Asia, an increase in influenza activity was observed in a few reporting countries. In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels. Worldwide, seasonal influenza A viruses accounted for the majority of detections.

Emerging Respiratory Viruses:

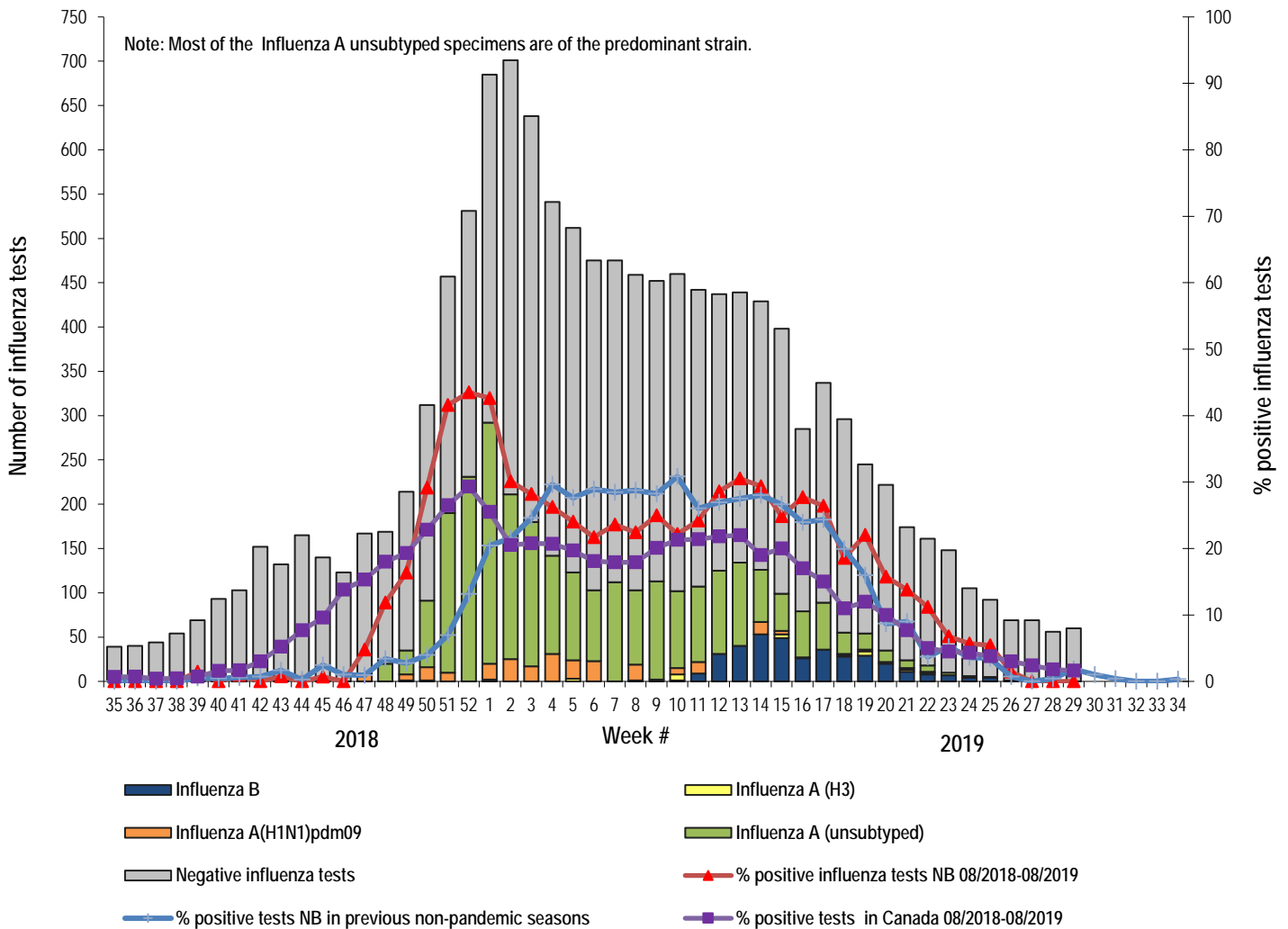
- MERS CoV:
 - WHO: http://www.who.int/csr/disease/coronavirus_infections/en/
 - CDC: <http://www.cdc.gov/coronavirus/mers/>
 - Updated Risk Assessment (August 2018): http://www.who.int/csr/disease/coronavirus_infections/risk-assessment-august-2018.pdf?ua=1
- Avian Influenza:
 - WHO: www.who.int/csr/disease/avian_influenza/en/index.html

1) Influenza Laboratory Data¹

- Influenza activity returned to inter-seasonal levels in weeks 26 to 29.
- One influenza case was reported during weeks 26-29, 1 influenza B.
- Since the beginning of the season, 3008 influenza cases have been reported, 290 influenza A(H1N1)pdm09, 2295 influenza A(unsubtyped), 62 influenza A (H3), 357 influenza B and 4 with co-infection of influenza A & B simultaneously.

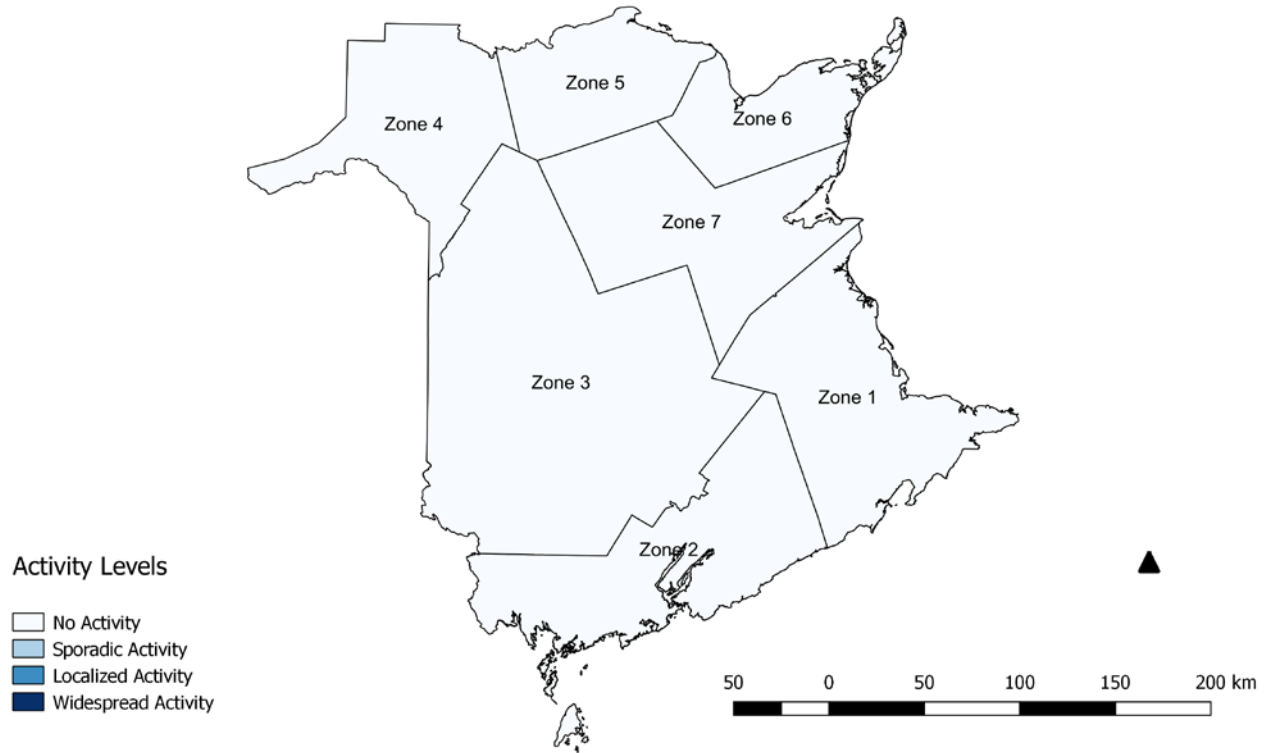
¹ Surveillance specimens are submitted by recruited New Brunswick Sentinel Practitioner Influenza Network (NB SPIN) practitioners, which are comprised of sites in Emergency Rooms, in Family Practice, in First Nations communities, in Nursing Home, in Universities and in Community Health Centers. Diagnostic 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.

Graph 1: Number and percent of positive influenza specimens² in New Brunswick by week, up to July 20, 2019 (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 29, season 2018/2019.



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.

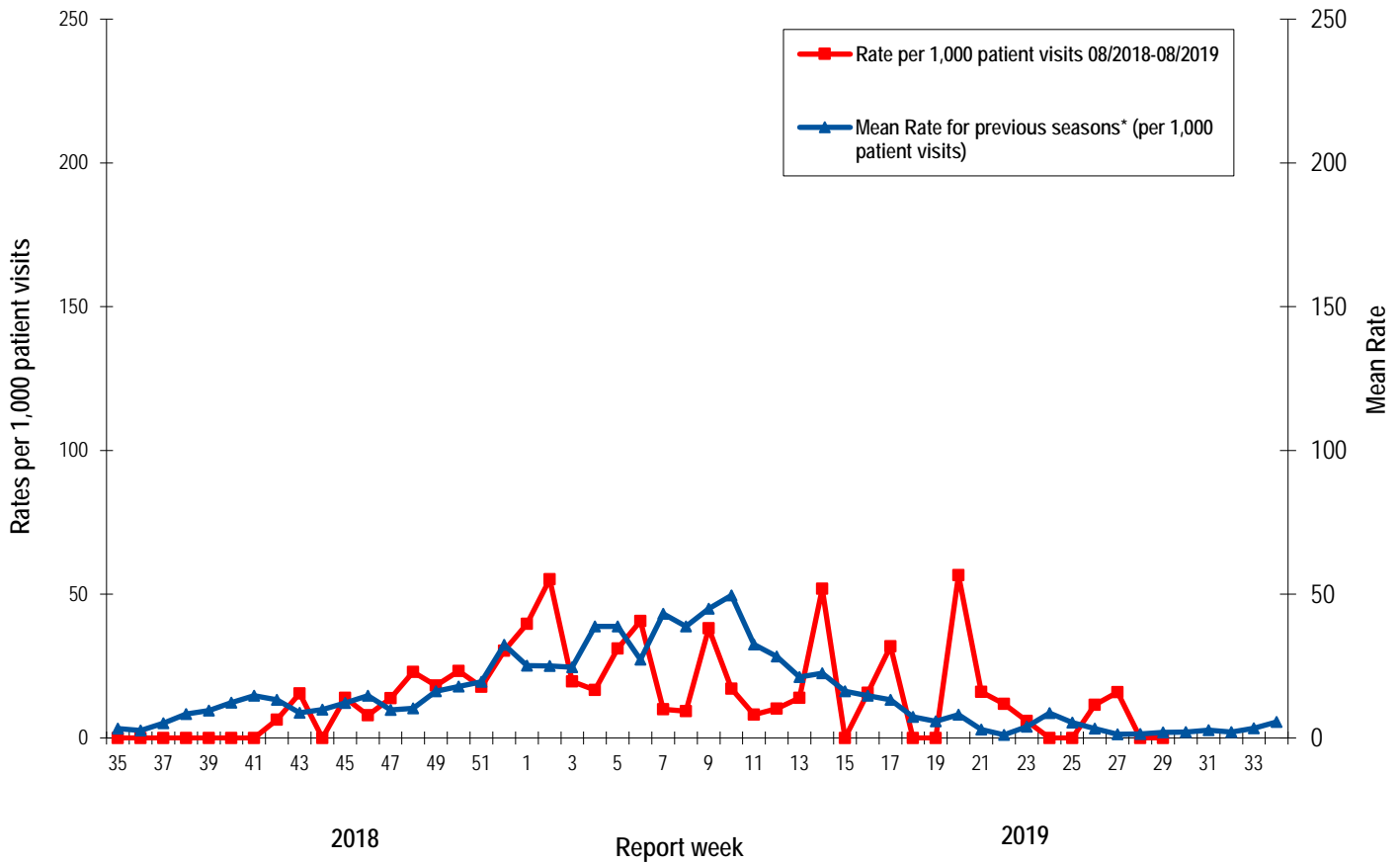
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
 (data source: G. Dumont lab results up to July 20, 2019)

Zone	Reporting period: June/23/2019–July/20/2019						Cumulative: (2018/2019 season) Aug./26/2018 –July/20/2019						Cumulative: (2017/2018 season) Aug./27/2017 –Aug./25/2018										
	A					B	A					B	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	29	97	1163	1289	130	3	102	12	575	689	756	11					
Zone 2	0	0	0	0	0	0	6	47	293	346	58	0	32	3	126	161	158	1					
Zone 3	0	0	0	0	0	0	9	39	260	308	3	0	63	3	194	260	163	3					
Zone 4	0	0	0	0	0	0	2	28	135	165	6	0	19	2	53	74	84	0					
Zone 5	0	0	0	0	0	0	2	20	84	106	127	1	9	0	8	17	6	0					
Zone 6	0	0	0	0	0	0	5	36	200	241	14	0	38	3	75	116	68	0					
Zone 7	0	0	0	0	1	0	9	23	160	192	19	0	17	2	72	91	63	0					
Total NB	0	0	0	0	1	0	62	290	2295	2647	357	4	280	25	1103	1408	1298	15					

2) ILI Consultation Rates⁴

- For weeks 26 & 27, the ILI consultation rate was 11.5 & 15.9 consultations per 1,000 patients visits, respectively and for weeks 28 & 29 was 0.0 consultations. The ILI rate was above the expected levels for weeks 26 & 27 and was below the expected levels for weeks 28 & 29.
- During weeks 26-29, the sentinel response rate varied between 23% and 31%, for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2018/19 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2017/2018 seasons and excludes the Pandemic season (2009/10).

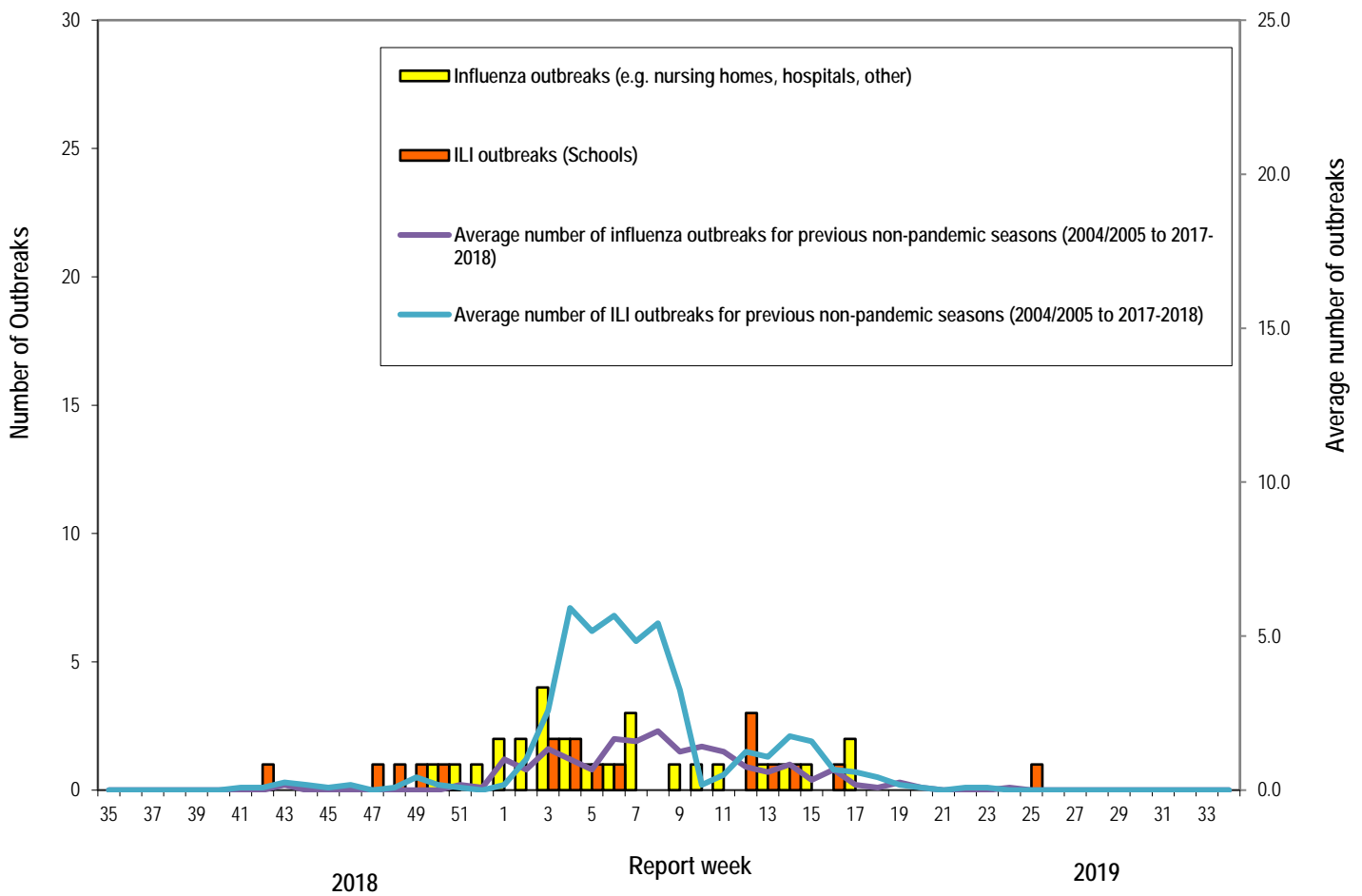
⁴ A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

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.

	Reporting period: June/23/2019–July/20/2019			Cumulative # of outbreaks season 2018-2019	Cumulative # of outbreaks season 2017-2018
	Lab-confirmed outbreaks in Nursing homes ⁵	ILI school outbreaks ⁶	Lab-confirmed outbreaks in Other settings ⁴		
Zone 1	0 out of 13	0 out of 74	0	12	9
Zone 2	0 out of 16	0 out of 81	0	13	11
Zone 3	0 out of 14	0 out of 95	0	6	21
Zone 4	0 out of 6	0 out of 22	0	1	1
Zone 5	0 out of 2	0 out of 18	0	0	0
Zone 6	0 out of 9	0 out of 35	0	4	3
Zone 7	0 out of 4	0 out of 27	0	8	3
Total NB	0 out of 64	0 out of 352	0	44	48

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 2018/19.

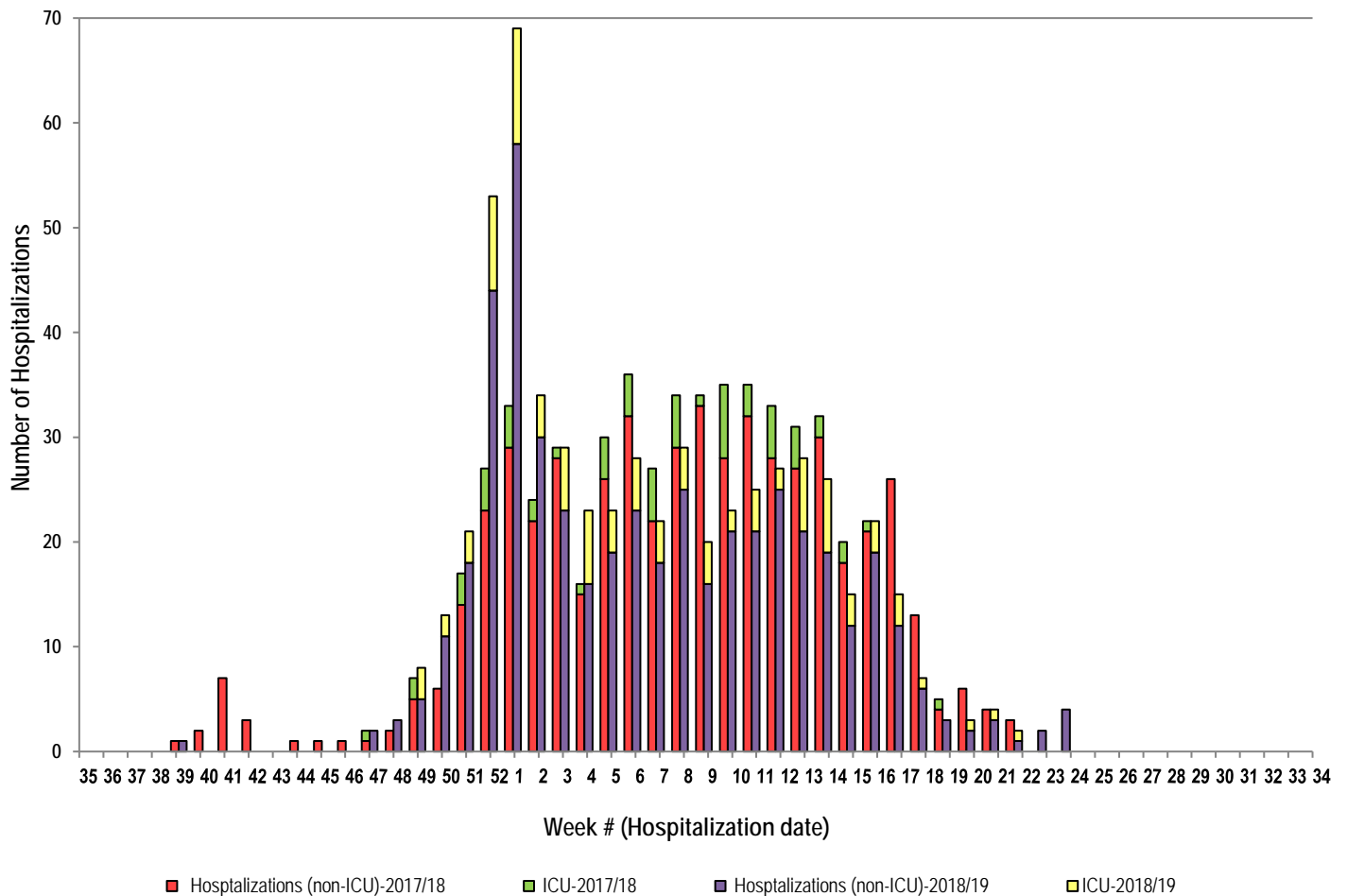


⁵ Two or more ILI cases within a seven day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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

**Thirty-seven deaths have been reported so far in season 2018-2019.

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.