

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: June 17 to July 21 2018 (weeks 25 to 29)

Summary:

In New Brunswick, influenza activity returned to inter-seasonal levels in weeks 25 to 29

New Brunswick:

- There have been 6 positive influenza cases in weeks 25 to 29. To date this season, 2721 cases have been reported, 280 had influenza A (H3), 25 had influenza A (H1N1)pdm09, 1103 had influenza A (unsubtyped, most likely the H3 strain), 1298 had influenza B and 15 had both influenza A and B simultaneously.
- Both Influenza A(H3N2) and Influenza B have co-circulated this season.
- There have been no new influenza associated hospitalizations during weeks 25 to 29. So far this season, 690 influenza associated hospitalizations have been reported with 50 deaths.
- The ILI consultation rate was 19.7 and 0.0 consultations per 1,000 patients visits in weeks 25 & 26 to 29, respectively. The ILI rate was within the expected levels for weeks 26 to 29.
- No new influenza/ILI outbreaks were reported in weeks 25 to 29. So far this season, 48 outbreaks were reported in total: 7 in hospitals, 25 in nursing homes, 7 in other settings (special care homes and adult residential facilities) and 9 ILI outbreaks in schools.

Canada:

- Influenza activity is at inter-seasonal levels across the country. The majority of regions in Canada are reporting no influenza activity.
- All indicators of influenza activity are at low levels, as expected for this time of year.
- 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 southern hemisphere, influenza activity continued to increase in South America and may have peaked in Southern Africa. However, influenza activity remained below seasonal threshold in Australia and New Zealand. In the temperate zone of the northern hemisphere influenza activity returned to inter-seasonal levels. Increased influenza activity was reported in some countries of tropical America. Worldwide, seasonal influenza subtype 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/>
- Avian Influenza:
 - WHO: www.who.int/csr/disease/avian_influenza/en/index.html

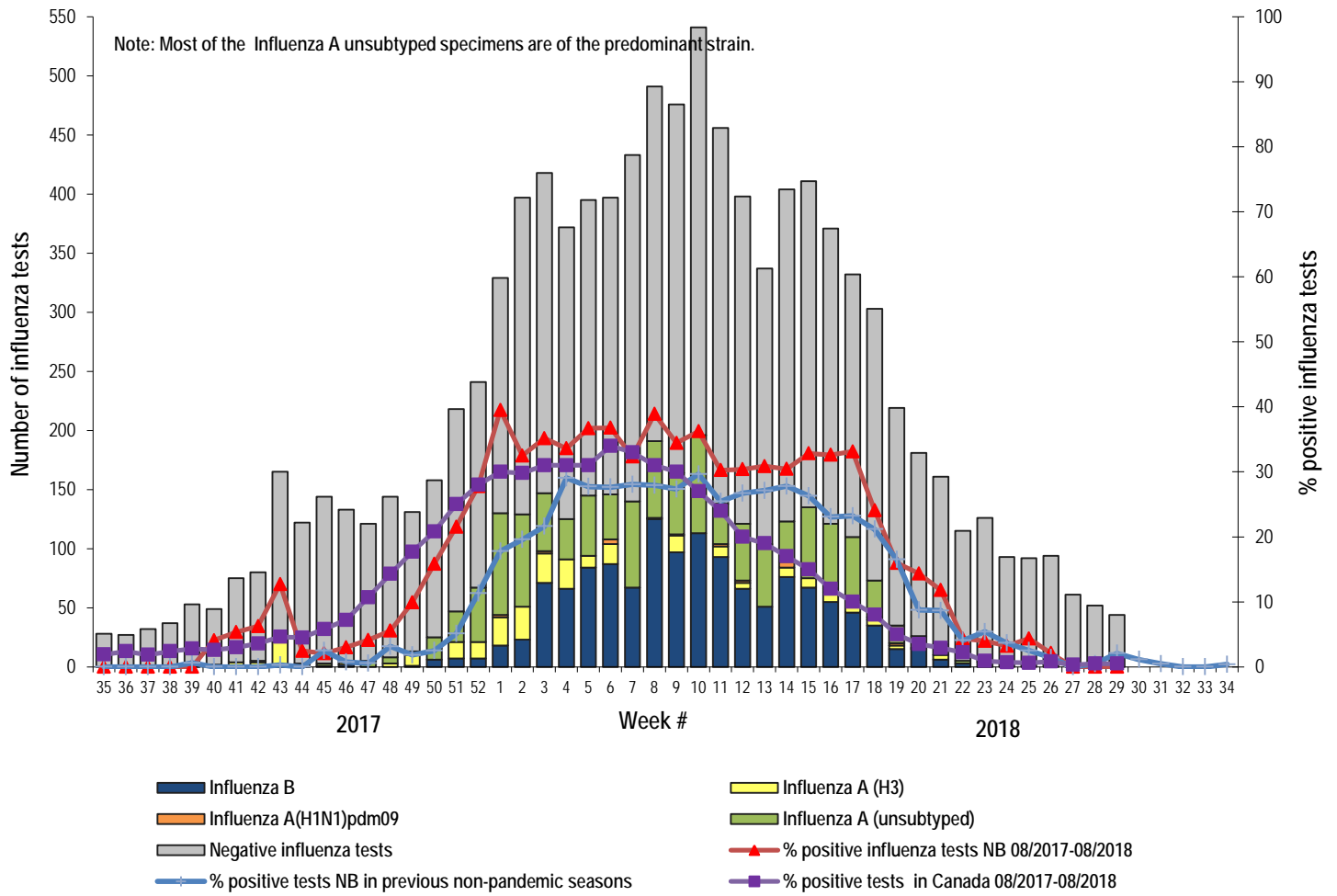
1) Influenza Laboratory Data¹

- Influenza activity has returned to inter-seasonal levels in weeks 25 to 29.
- Six influenza cases were reported during weeks 25 to 29.
- Since the beginning of the season, 2721 influenza cases were reported, 280 with influenza A (H3), 25 with influenza A(H1N1)pdm09, 1103 with influenza A (unsubtyped)², 1298 with influenza B and 15 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.

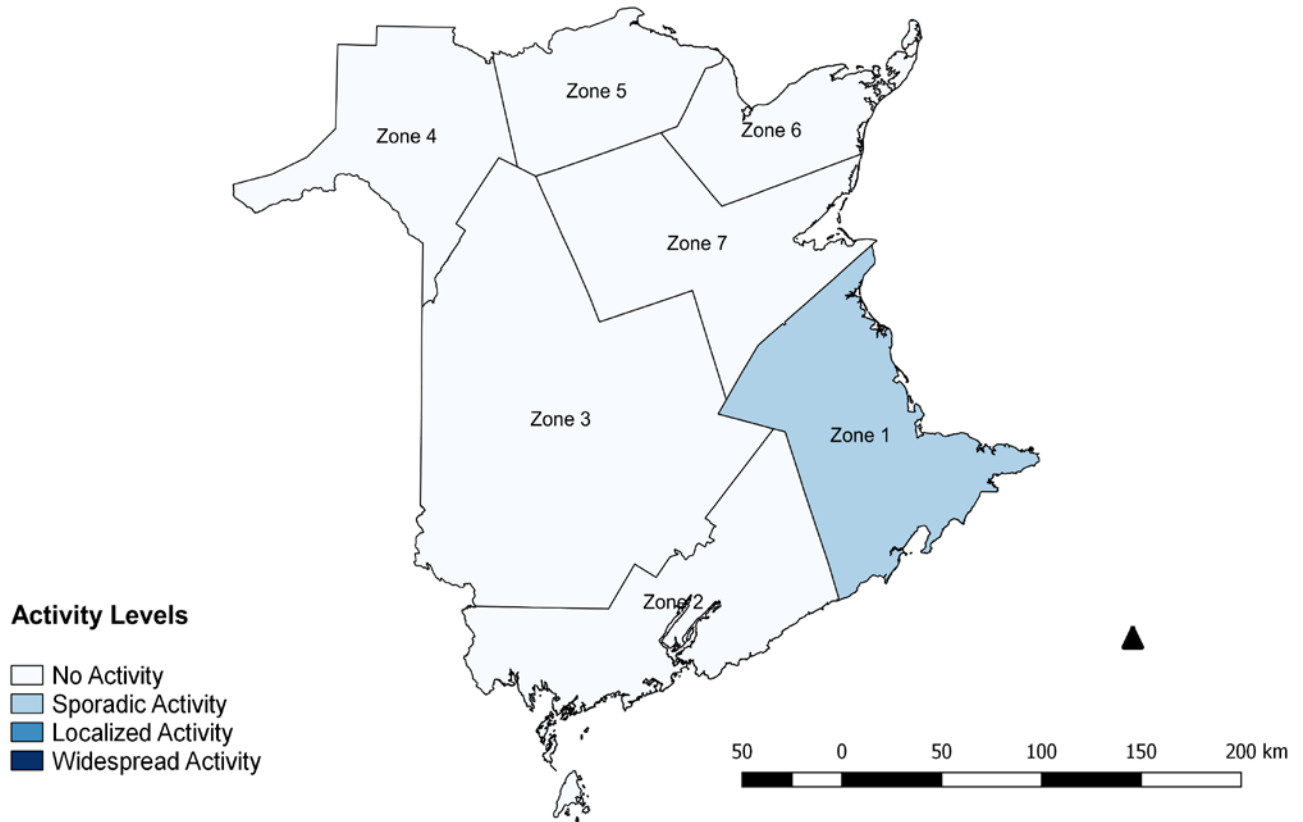
² The influenza A (unsubtyped) detections are most likely of the predominant strain (H3).

Graph 1: Number and percent of positive influenza specimens³ in New Brunswick by week, up to July 21 2018 (data source: G. Dumont Lab results)



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 weeks 25 to 29, season 2017/2018.



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.

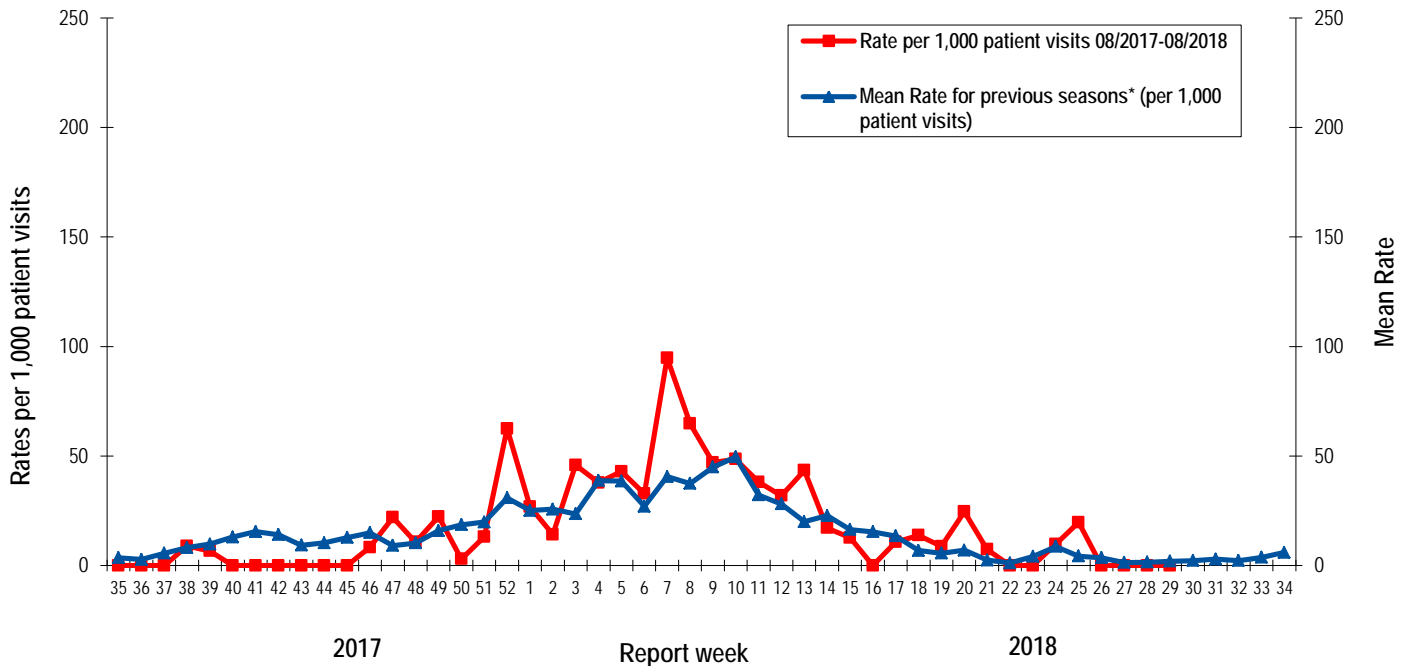
Table 1: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
 (data source: G. Dumont lab results up to July 21 2018)

| Zone | Reporting period: June/17/2018–July/21/2018 | | | | | | Cumulative: (2017/2018 season) Aug./27/2017 –July/21/2018 | | | | | | Cumulative: (2016/20167 season) Aug./28/2016 –Aug./26/2017 | | | | | |
|---------------------|--|-----------------|--------------------------|------------|----------|---------------------------|--|-----------------|--------------------------|-------------|-------------|---------------------------|--|----------|-----------------|--------------------------|------------|------------------------|
| | 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 | Total | (H3) | (H1N1) pdm09 | Unsubty ped/ Other | A Total | Total |
| Zone 1 | 0 | 0 | 0 | 0 | 6 | 0 | 102 | 12 | 575 | 689 | 756 | 11 | 75 | 0 | 505 | 579 | 89 | 1 |
| Zone 2 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 3 | 126 | 161 | 158 | 1 | 21 | 1 | 77 | 99 | 8 | 0 |
| Zone 3 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 3 | 194 | 260 | 163 | 3 | 25 | 0 | 117 | 142 | 23 | 0 |
| Zone 4 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 2 | 53 | 74 | 84 | 0 | 18 | 0 | 31 | 50 | 5 | 1 |
| Zone 5 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 8 | 17 | 6 | 0 | 2 | 0 | 3 | 5 | 6 | 0 |
| Zone 6 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 3 | 75 | 116 | 68 | 0 | 27 | 0 | 62 | 89 | 11 | 0 |
| Zone 7 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 2 | 72 | 91 | 63 | 0 | 21 | 0 | 52 | 73 | 16 | 0 |
| Total NB | 0 | 0 | 0 | 0 | 6 | 0 | 280 | 25 | 1103 | 1408 | 1298 | 15 | 189 | 1 | 845 | 1037 | 158 | 2 |

2) ILI Consultation Rates⁵

- For weeks 25 and 26 to 29, the ILI consultation rate was 19.7 and 0.0 consultations per 1,000 patients visits, respectively. The ILI rate was within the expected levels for weeks 26 to 29.
- During weeks 25 to 29, the sentinel response rate was between 15% and 27%, for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2017/18 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2016/2017 seasons and excludes the Pandemic season (2009/10).

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.

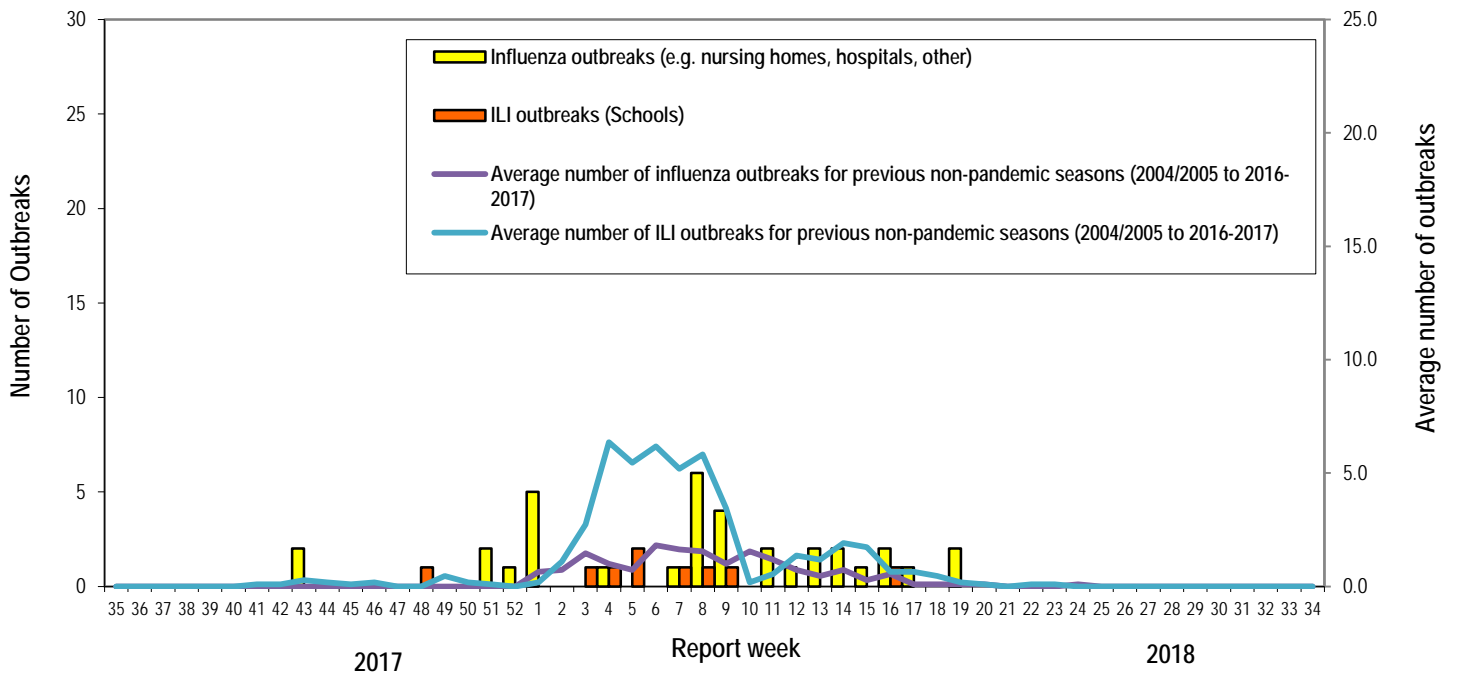
| | Reporting period: June/17/2018–July/21/2018 | | | Cumulative # of outbreaks season 2017-2018 | Cumulative # of outbreaks season 2016-2017 |
|-----------------|---|--------------------------------------|--|---|---|
| | Lab-confirmed outbreaks in Nursing homes ⁶ | ILI school outbreaks ⁷ | Lab-confirmed outbreaks in Other settings ⁴ | | |
| Zone 1 | 0 out of 13 | 0 out of 74 | 0 | 9 | 3 |
| Zone 2 | 0 out of 16 | 0 out of 81 | 0 | 11 | 5 |
| Zone 3 | 0 out of 14 | 0 out of 95 | 0 | 21 | 14 |
| 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 | 1 |
| Zone 6 | 0 out of 9 | 0 out of 35 | 0 | 3 | 0 |
| Zone 7 | 0 out of 4 | 0 out of 27 | 0 | 3 | 2 |
| Total NB | 0 out of 64 | 0 out of 352 | 0 | 48 | 25 |

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.

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.

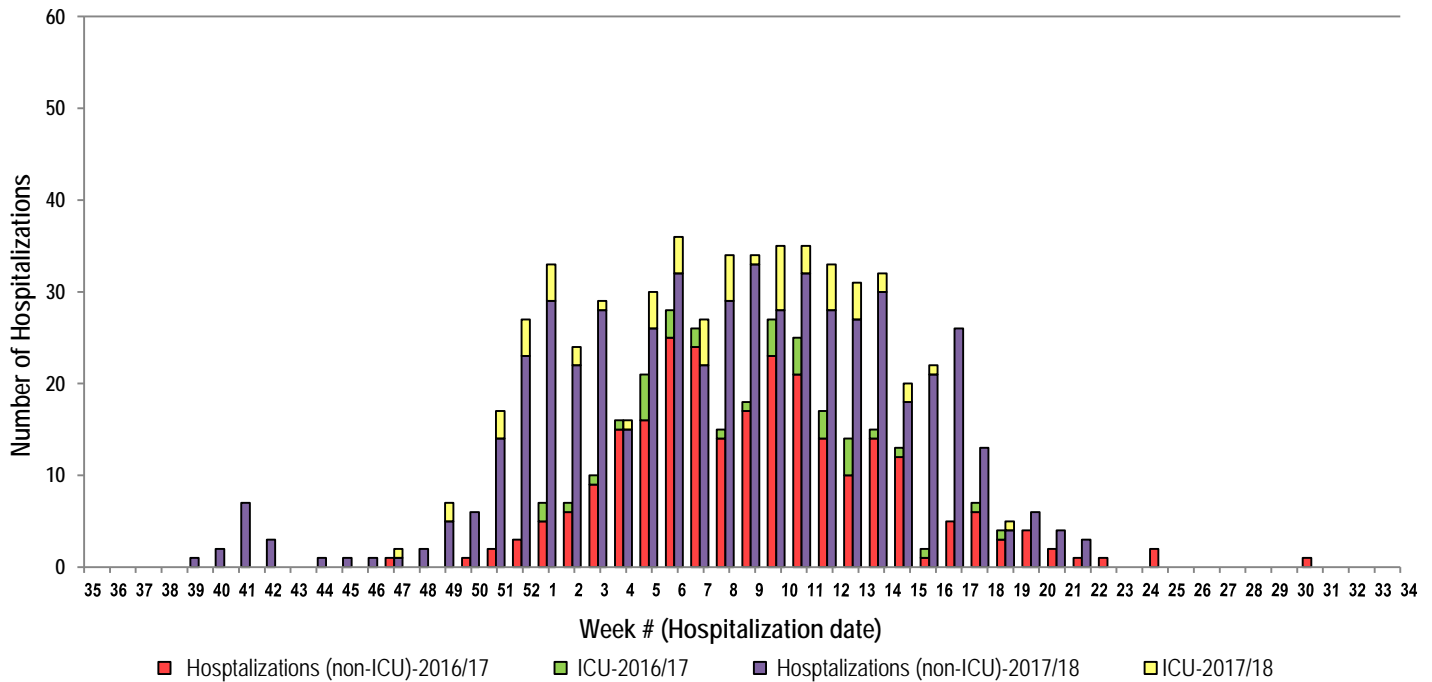
⁷ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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 2017/18.



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

**Fifty deaths have been reported so far in season 2017-2018.

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.

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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