

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: January 15 to January 21 2017 (week 3)

Summary:

In New Brunswick, influenza activity is low but slowly increasing

New Brunswick:

- There have been 31 positive influenza detections in week 3. To date this season, 99 influenza detections have been reported, 48 influenza A (H3), 49 influenza A (unsubtyped) and 2 influenza B.
- There have been 7 influenza associated hospitalizations during week 3. So far this season, 30 influenza associated hospitalizations were reported with 2 deaths.
- The ILI consultation rate was 16.7 consultations per 1,000 patients visits, and was within the expected levels for this time of year.
- No new influenza or ILI outbreaks were reported in week 3.

Canada:

- Activity from several indicators including laboratory detections, hospitalizations and outbreaks declined from the previous week indicating that nationally the influenza season may have reached its peak in week 2.
- A total of 2,667 positive influenza detections were reported in week 3, a decrease from the previous week. Influenza A (H3N2) continues to be the most common subtype detected.
- The majority of cases, hospitalizations and deaths have been among adults aged 65+ years.
- Sixty-six laboratory-confirmed influenza outbreaks were reported in week 3, with the majority occurring in long-term care facilities and due to influenza A.
- A total of 417 hospitalizations were reported by participating provinces and territories, down from 467 hospitalizations reported in the previous week.

International:

Seasonal influenza:

- Influenza activity in the temperate zone of the northern hemisphere continued to increase, with many countries especially in East Asia and Europe having passed their seasonal threshold early in comparison with previous years. Worldwide, influenza A(H3N2) virus was predominant. The majority of influenza viruses characterized so far was similar antigenically to the reference viruses contained in vaccines for use in the 2016-2017 northern hemisphere influenza season.

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 is low but slowly increasing.
- Thirty-one influenza detections were reported during week 3.
- Since the beginning of the season, 99 influenza detections were reported, 48 influenza A (H3), 49 influenza A (unsubtyped) and 2 influenza B.

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 specimens in New Brunswick by week, up to January 21 2017
 (data source: G. Dumont Lab results)

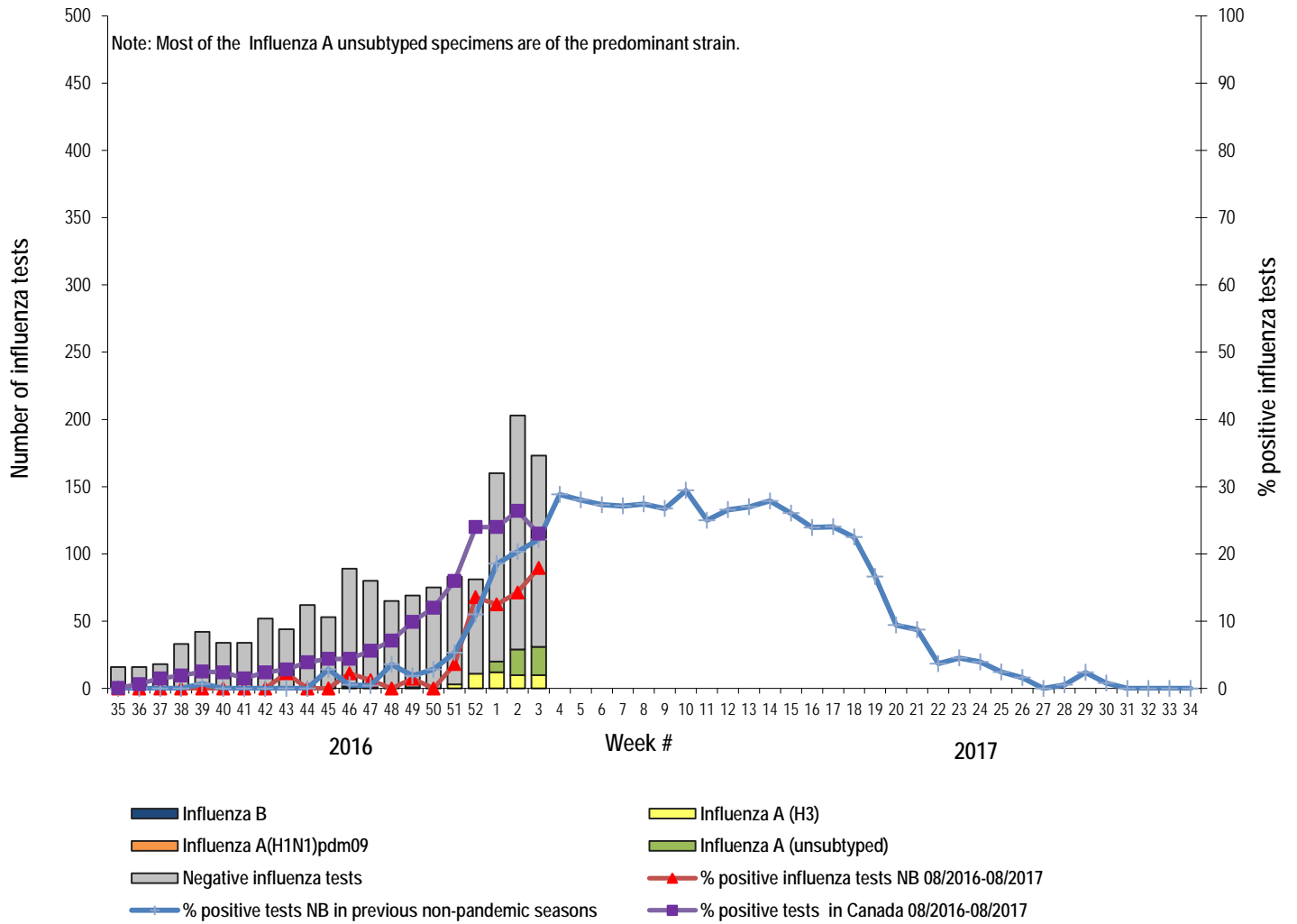


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to January 21 2017)

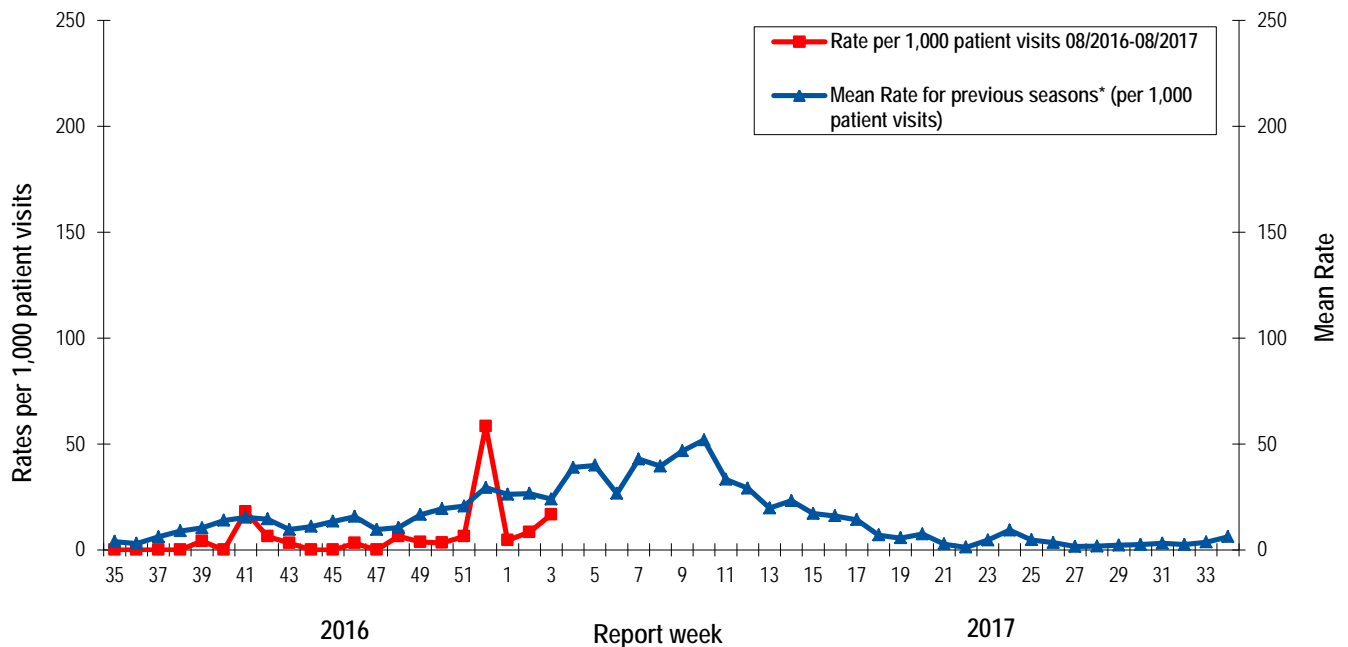
| Zone | Reporting period: Jan./15/2017–Jan./21/2017 | | | | | | Cumulative: (2016/2017 season) Aug./28/2016 –Jan./21/2017 | | | | | Cumulative: (2015/2016 season) Aug./30/2015 – Aug./27/2016 | | | | |
|-----------------|--|-----------|--------------|--------------------|-----------|----------|--|--------------|--------------------|-----------|----------|---|--------------|--------------------|-------------|------------|
| | Activity level ² | A | | | | B | A | | | | B | A | | | | B |
| | | A(H3) | (H1N1) pdm09 | Unsubtyped / Other | A Total | Total | A(H3) | (H1N1) pdm09 | Unsubtyped / Other | A Total | Total | (H3) | (H1N1) pdm09 | Unsubtyped / Other | A Total | Total |
| Zone 1 | Sporadic activity | 3 | 0 | 19 | 22 | 0 | 21 | 0 | 36 | 57 | 1 | 3 | 40 | 576 | 619 | 113 |
| Zone 2 | Sporadic activity | 2 | 0 | 0 | 2 | 0 | 6 | 0 | 3 | 9 | 0 | 0 | 9 | 131 | 140 | 7 |
| Zone 3 | Localized activity | 2 | 0 | 2 | 4 | 0 | 8 | 0 | 5 | 13 | 1 | 0 | 9 | 57 | 66 | 13 |
| Zone 4 | Sporadic activity | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 2 | 6 | 0 | 0 | 11 | 86 | 97 | 8 |
| Zone 5 | No activity | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 4 | 9 | 13 | 3 |
| Zone 6 | Sporadic activity | 1 | 0 | 0 | 1 | 0 | 5 | 0 | 2 | 7 | 0 | 3 | 18 | 79 | 100 | 5 |
| Zone 7 | Sporadic activity | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 4 | 0 | 0 | 6 | 22 | 28 | 8 |
| Total NB | | 10 | 0 | 21 | 31 | 0 | 48 | 0 | 49 | 97 | 2 | 6 | 97 | 960 | 1063 | 157 |

² Influenza activity level definition is available on the PHAC FluWatch website: <http://healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/flu-grippe/surveillance/season-definitions-saison-eng.php>

2) ILI Consultation Rates³

- During week 3, the ILI consultation rate was 16.7 consultations per 1,000 patients visits, and was within the expected levels for this time of year.
- During week 3, the sentinel response rate was 37% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2016/17 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2015/2016 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.

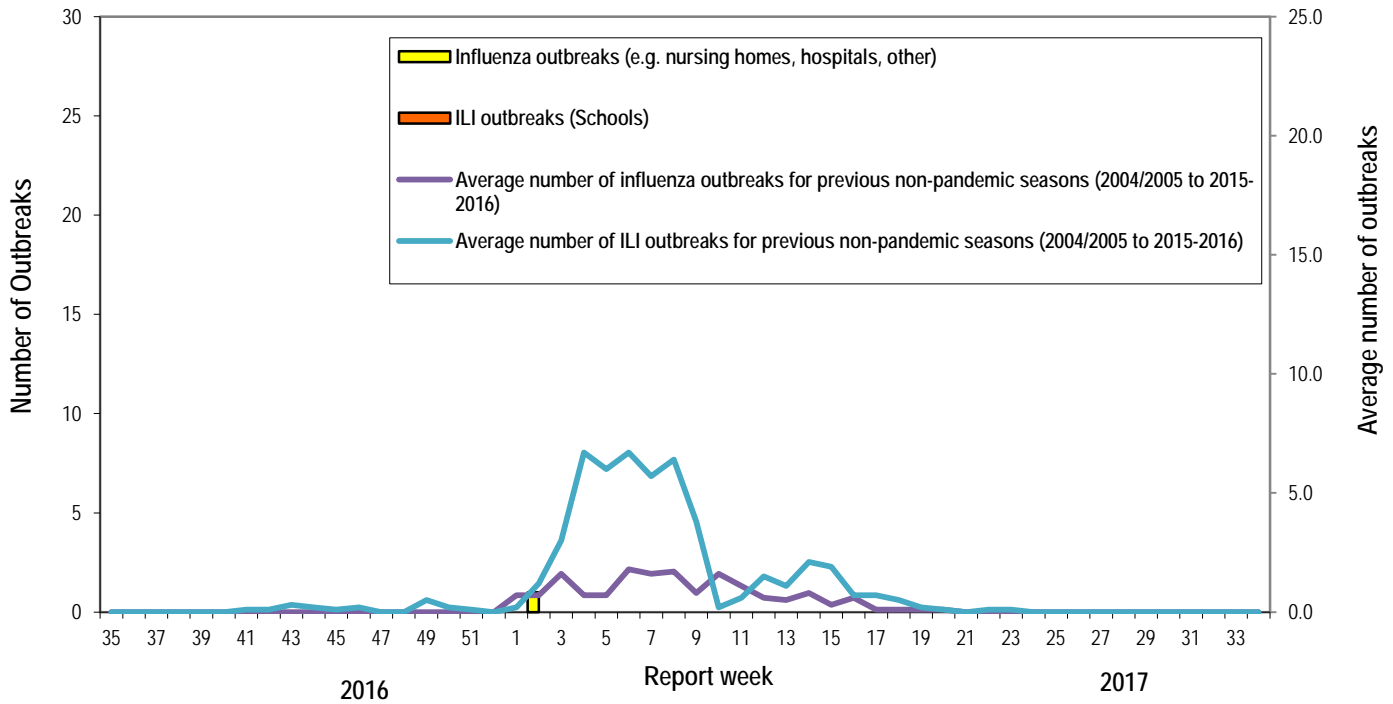
| | Reporting period: January/15/2017–January/21/2017 | | | Cumulative # of outbreaks season 2016-2017 | Cumulative # of outbreaks season 2015-2016 |
|----------|---|-----------------------------------|--|--|--|
| | Lab-confirmed outbreaks in Nursing homes ⁴ | ILI school outbreaks ⁵ | Lab-confirmed outbreaks in Other settings ⁴ | | |
| Zone 1 | 0 out of 13 | 0 out of 74 | 0 | 0 | 6 |
| Zone 2 | 0 out of 16 | 0 out of 81 | 0 | 0 | 4 |
| Zone 3 | 0 out of 14 | 0 out of 95 | 0 | 1 | 1 |
| Zone 4 | 0 out of 6 | 0 out of 22 | 0 | 0 | 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 | 3 |
| Zone 7 | 0 out of 4 | 0 out of 27 | 0 | 0 | 5 |
| Total NB | 0 out of 64 | 0 out of 352 | 0 | 1 | 19 |

³ 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.

⁴ 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.

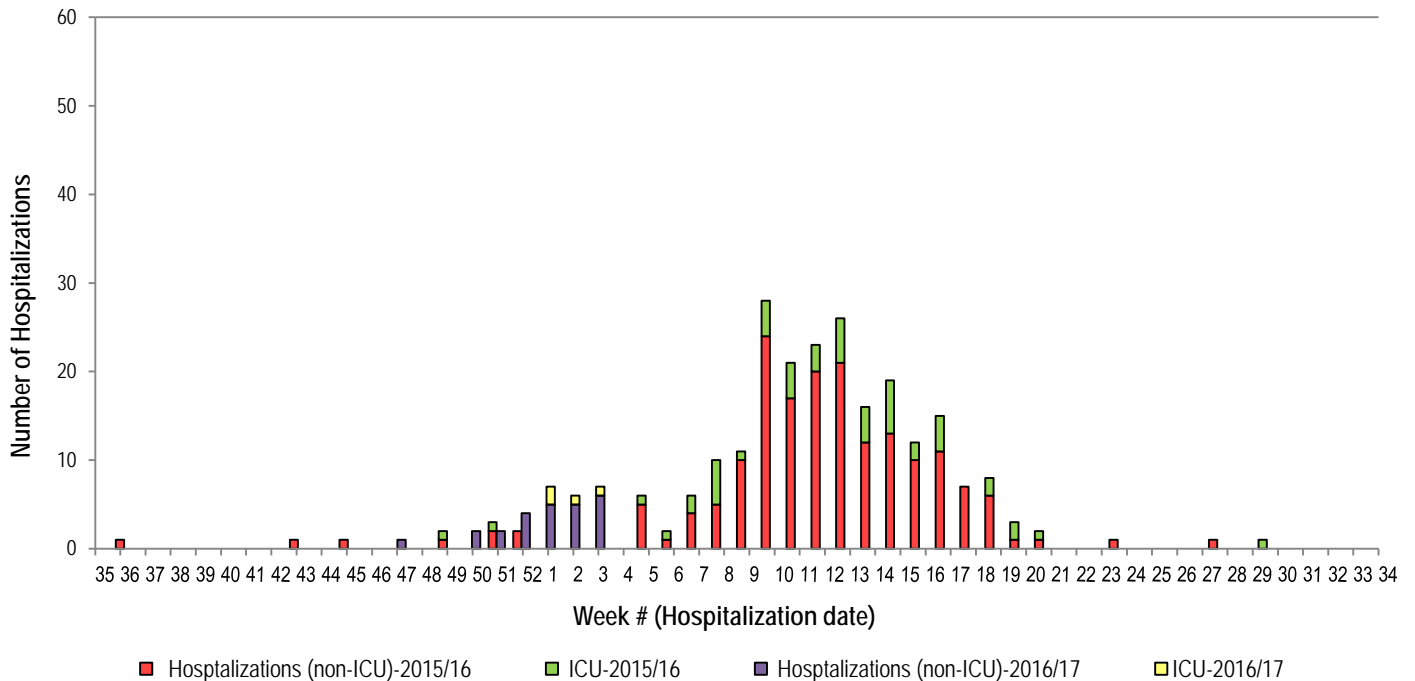
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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 2016/17.



4) Influenza associated Hospitalization⁶ and Death⁷ Surveillance⁸

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 2016-2017.

⁶ Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

⁷ Deaths are influenza associated; influenza may not be the direct cause of death.

⁸ 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.

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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