

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: April 23 to April 29 2017 (week 17)

Summary:

In New Brunswick, influenza activity continued to decrease in week 17

New Brunswick:

- There have been 26 positive influenza detections in week 17. To date this season, 1135 influenza detections have been reported, 184 influenza A (H3), 839 influenza A (unsubtyped), 1 influenza A (H1N1)pdm09 and 111 influenza B.
- There have been 5 influenza associated hospitalizations during week 17. So far this season, 307 influenza associated hospitalizations were reported with 13 deaths.
- The ILI consultation rate was 0.0 consultations per 1,000 patients visits, and was lower than the expected levels for this time of year.
- No new influenza or ILI outbreaks were reported in week 17.

Canada:

- Overall, influenza activity continues to decline slowly in Canada.
- Influenza B accounted for the majority of influenza activity⁶ in Canada with 50% or more of influenza laboratory detections, hospitalizations and outbreaks due to influenza B.
- This increase in Influenza B activity is expected as influenza B often appears later in the flu season.
- The majority of laboratory detections, hospitalizations and deaths have been among adults aged 65+ years.

International:

Seasonal influenza:

- Influenza activity in the temperate zone of the northern hemisphere continued to decrease. Influenza activity remained low in the temperate zone of the southern hemisphere. Worldwide, influenza A(H3N2) and B viruses were predominant, with an increased proportion of influenza B viruses detected in recent weeks.

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 continued to decrease in week 17.
- Twenty-six influenza detections were reported during week 17.
- Since the beginning of the season, 1135 influenza detections were reported, 184 influenza A (H3), 839 influenza A (unsubtyped), 1 influenza A (H1N1)pdm09 and 111 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 April 29 2017 (data source: G. Dumont Lab results)

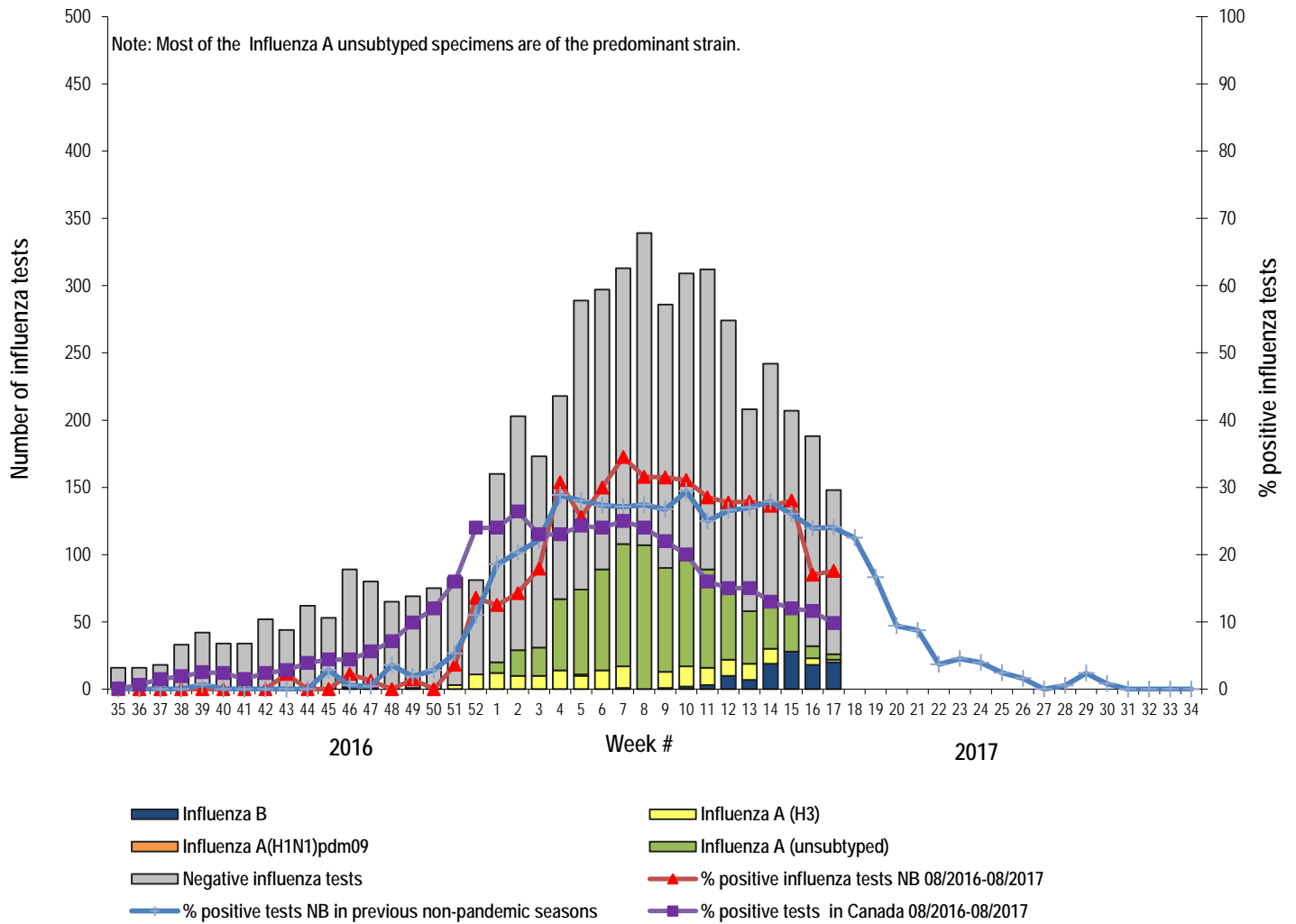


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to April 29 2017)

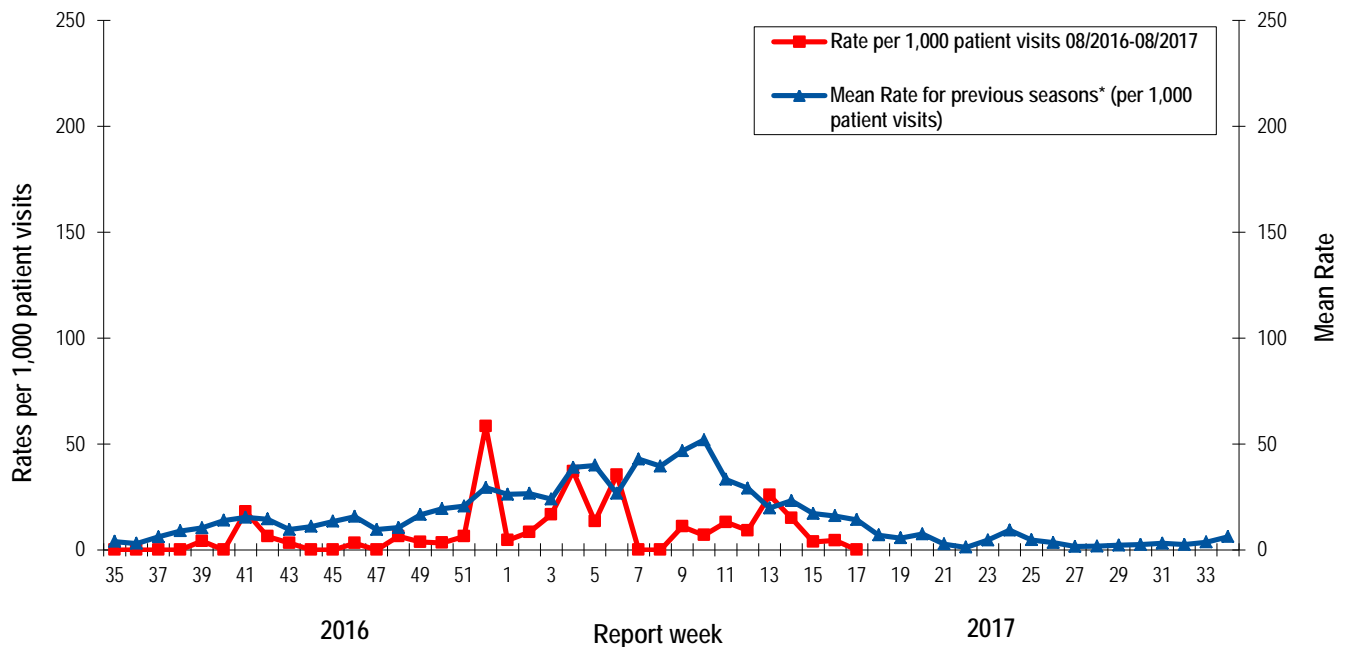
| Zone | Reporting period: Apr./23/2017–Apr./29/2017 | | | | | | Cumulative: (2016/2017 season) Aug./28/2016 –Apr./29/2017 | | | | | Cumulative: (2015/2016 season) Aug./30/2015 – Aug./27/2016 | | | | |
|-----------------|--|----------|--------------|--------------------|----------|-----------|--|--------------|--------------------|-------------|------------|---|--------------|--------------------|-------------|------------|
| | 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 | 1 | 0 | 3 | 4 | 10 | 74 | 0 | 499 | 573 | 60 | 3 | 40 | 576 | 619 | 113 |
| Zone 2 | Sporadic activity | 0 | 0 | 0 | 0 | 3 | 21 | 1 | 77 | 99 | 6 | 0 | 9 | 131 | 140 | 7 |
| Zone 3 | Sporadic activity | 0 | 0 | 0 | 0 | 1 | 24 | 0 | 115 | 139 | 21 | 0 | 9 | 57 | 66 | 13 |
| Zone 4 | Sporadic activity | 1 | 0 | 0 | 1 | 0 | 18 | 0 | 32 | 50 | 5 | 0 | 11 | 86 | 97 | 8 |
| Zone 5 | Sporadic activity | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 5 | 5 | 0 | 4 | 9 | 13 | 3 |
| Zone 6 | Sporadic activity | 0 | 0 | 0 | 0 | 2 | 26 | 0 | 62 | 88 | 9 | 3 | 18 | 79 | 100 | 5 |
| Zone 7 | Sporadic activity | 0 | 0 | 1 | 1 | 3 | 19 | 0 | 51 | 70 | 5 | 0 | 6 | 22 | 28 | 8 |
| Total NB | | 2 | 0 | 4 | 6 | 20 | 184 | 1 | 839 | 1024 | 111 | 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 17, the ILI consultation rate was 0.0 consultations per 1,000 patients visits, and was lower than the expected levels for this time of year.
- During week 17, the sentinel response rate was 30% 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.

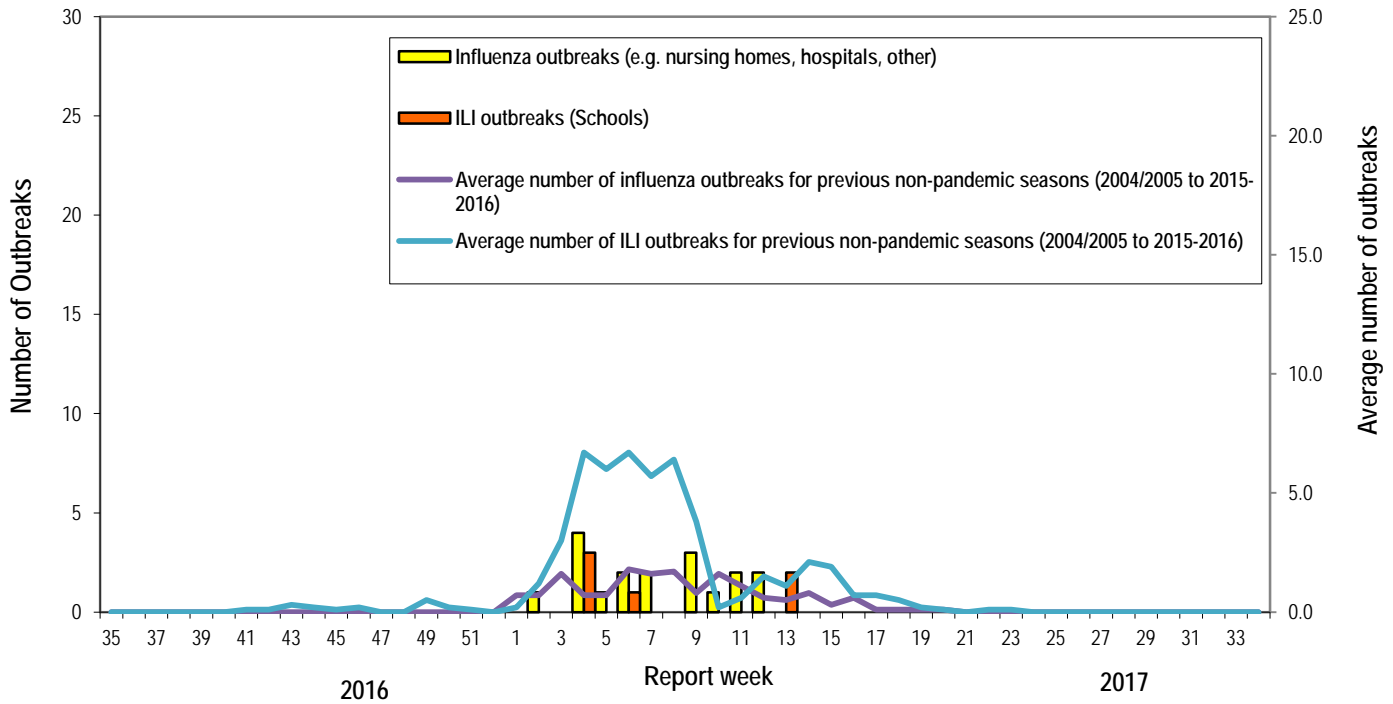
| | Reporting period: April/23/2017–April/29/2017 | | | Cumulative # of outbreaks season 2016-2017 | Cumulative # of outbreaks season 2015-2016 |
|----------|---|-----------------------------------|--|--|--|
| | Lab-confirmed outbreaks in Nursing homes ⁴ | ILI school outbreaks ⁵ | Lab-confirmed outbreaks in Other settings ⁴ | | |
| Zone 1 | 0 out of 13 | 0 out of 74 | 0 | 2 | 6 |
| Zone 2 | 0 out of 16 | 0 out of 81 | 0 | 5 | 4 |
| Zone 3 | 0 out of 14 | 0 out of 95 | 0 | 14 | 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 | 1 | 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 | 2 | 5 |
| Total NB | 0 out of 64 | 0 out of 352 | 0 | 24 | 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.

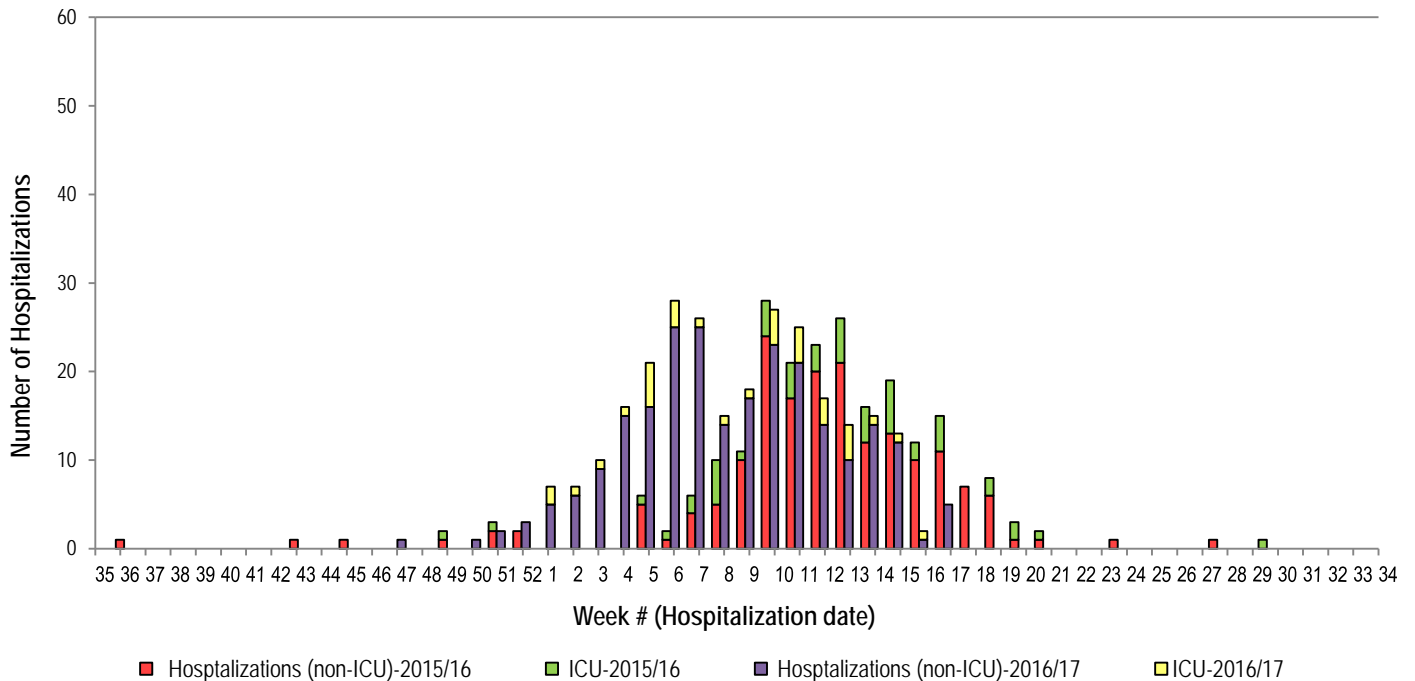
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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

** Thirteen 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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