

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: April 2 to April 8 2017 (week 14)

Summary:

In New Brunswick, a slow decrease in percent positive influenza detections has been observed since week 8

New Brunswick:

- There have been 66 positive influenza detections in week 14. To date this season, 1019 influenza detections have been reported, 177 influenza A (H3), 796 influenza A (unsubtyped), 1 influenza A (H1N1)pdm09 and 45 influenza B.
- There have been 8 influenza associated hospitalizations during week 14. So far this season, 274 influenza associated hospitalizations were reported with 12 deaths.
- The ILI consultation rate was 15.0 consultations per 1,000 patients visits, and was slightly lower than the expected levels for this time of year.
- No new influenza outbreaks were reported in week 14.

Canada:

- Overall, influenza activity is slowly declining in Canada.
- Influenza B accounted for a greater proportion of laboratory detections, outbreaks and hospitalizations compared to the previous week.
- Influenza activity due to influenza B is slowly increasing but is low compared to the same time period in the previous two seasons.
- Influenza A activity is decreasing; however, influenza A continues to be the most common type of influenza affecting Canadians.
- 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. Worldwide, influenza A(H3N2) and influenza B viruses were predominant during this reporting period. In South Asia, influenza activity with mainly influenza A(H1N1) remained elevated.

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

- A slow decrease in percent positive influenza detections has been observed since week 8.
- Sixty-six influenza detections were reported during week 14.
- Since the beginning of the season, 1019 influenza detections were reported, 177 influenza A (H3), 796 influenza A (unsubtyped), 1 influenza A (H1N1)pdm09 and 45 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 8 2017
 (data source: G. Dumont Lab results)

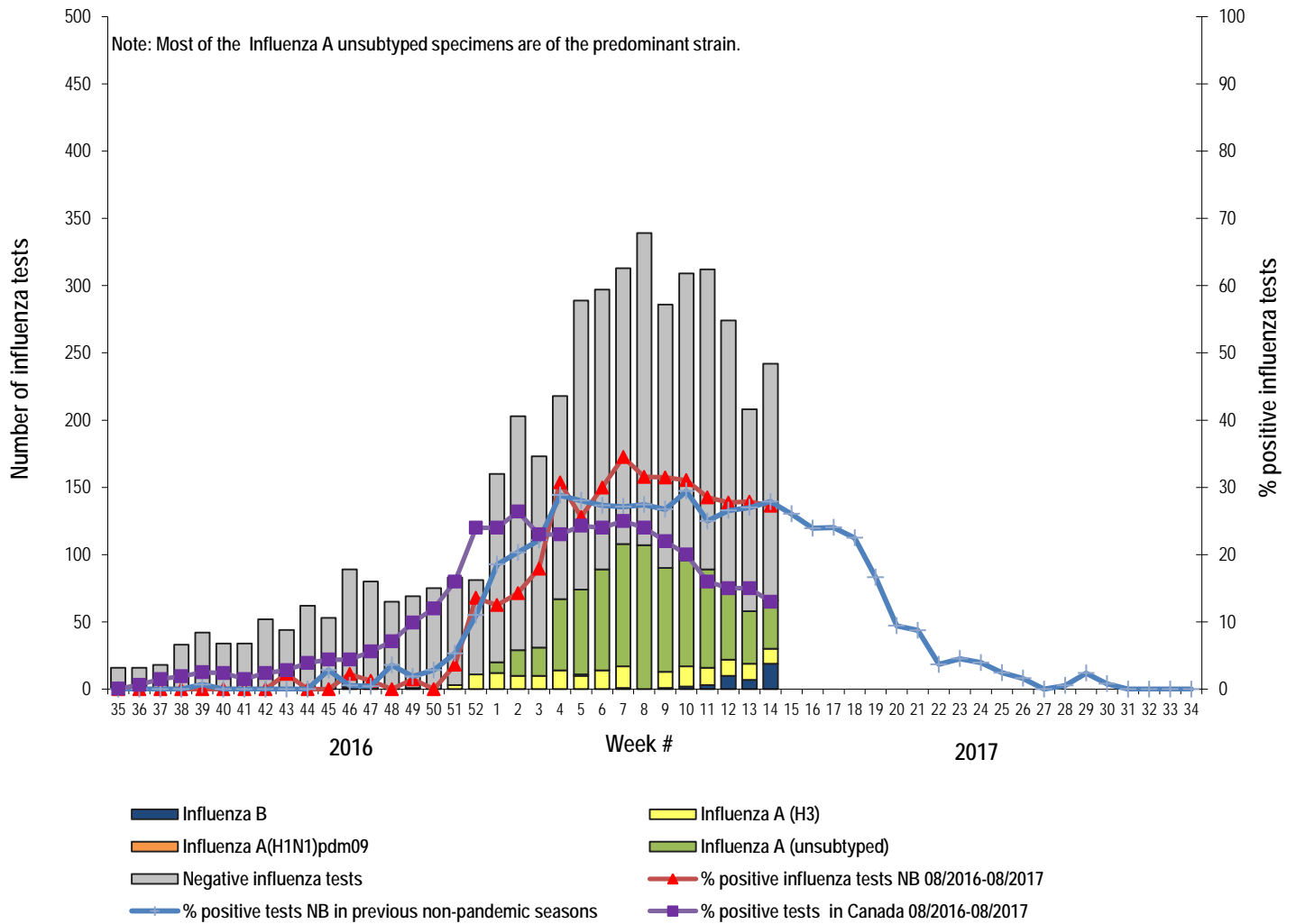


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to April 8 2017)

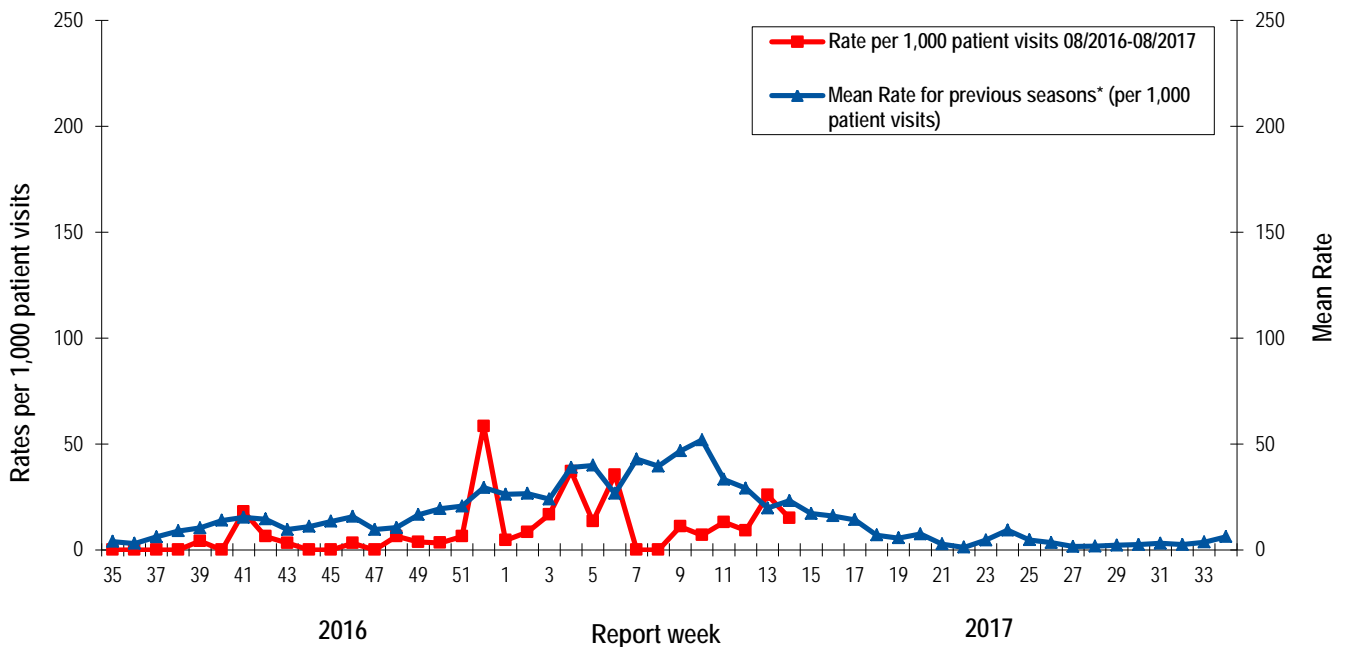
| Zone | Reporting period: Apr./02/2017–Apr./08/2017 | | | | | | Cumulative: (2016/2017 season) Aug./28/2016 –Apr./08/2017 | | | | | Cumulative: (2015/2016 season) Aug./30/2015 – Aug./27/2016 | | | | |
|-----------------|--|-----------|--------------|--------------------|-----------|-----------|--|--------------|--------------------|------------|-----------|---|--------------|--------------------|-------------|------------|
| | 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 | 4 | 0 | 22 | 26 | 7 | 71 | 0 | 478 | 549 | 27 | 3 | 40 | 576 | 619 | 113 |
| Zone 2 | Localized activity | 1 | 0 | 1 | 2 | 2 | 20 | 1 | 73 | 94 | 2 | 0 | 9 | 131 | 140 | 7 |
| Zone 3 | Localized activity | 1 | 0 | 6 | 7 | 5 | 24 | 0 | 109 | 133 | 10 | 0 | 9 | 57 | 66 | 13 |
| Zone 4 | Sporadic activity | 3 | 0 | 0 | 3 | 0 | 17 | 0 | 31 | 48 | 0 | 0 | 11 | 86 | 97 | 8 |
| Zone 5 | Sporadic activity | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 3 | 1 | 0 | 4 | 9 | 13 | 3 |
| Zone 6 | Sporadic activity | 1 | 0 | 3 | 4 | 4 | 25 | 0 | 55 | 80 | 5 | 3 | 18 | 79 | 100 | 5 |
| Zone 7 | Sporadic activity | 1 | 0 | 4 | 5 | 0 | 18 | 0 | 49 | 67 | 0 | 0 | 6 | 22 | 28 | 8 |
| Total NB | | 11 | 0 | 36 | 47 | 19 | 177 | 1 | 796 | 974 | 45 | 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 14, the ILI consultation rate was 15.0 consultations per 1,000 patients visits, and was slightly lower than the expected levels for this time of year.
- During week 14, the sentinel response rate was 26% 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.

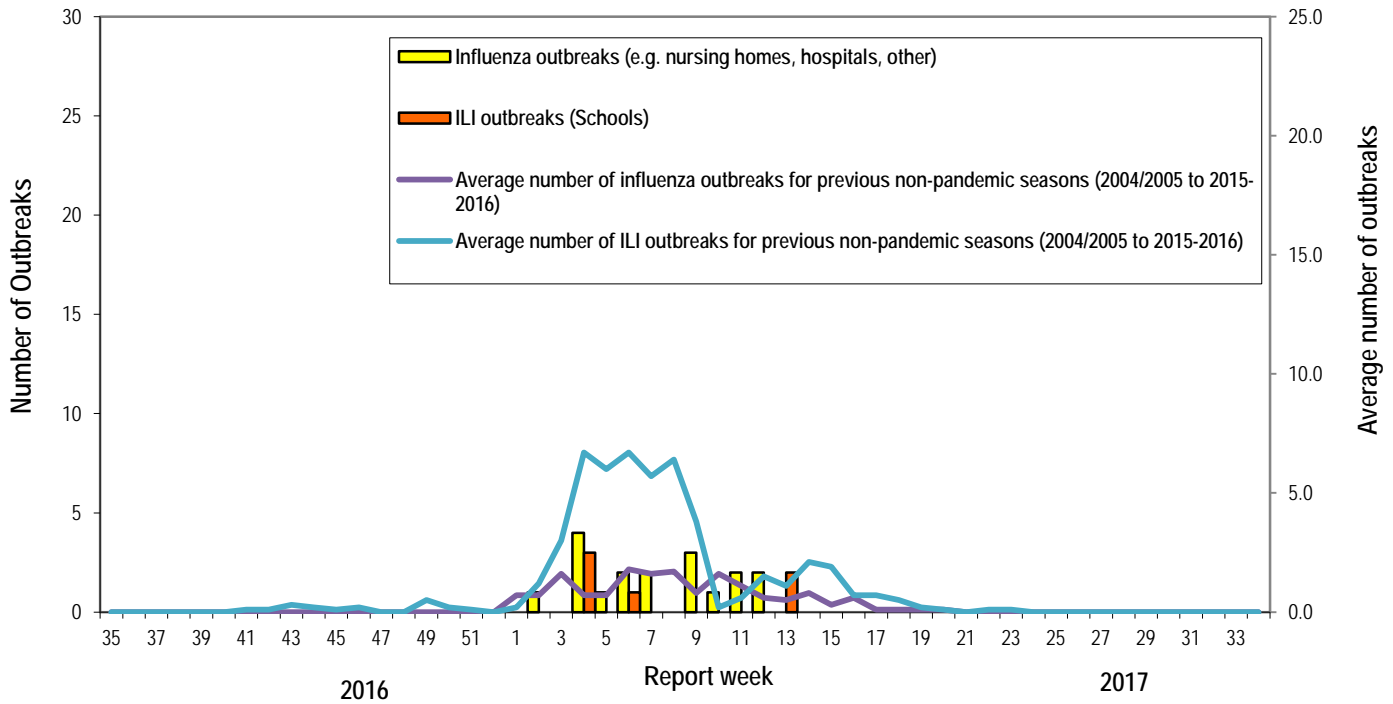
| | Reporting period: April/02/2017–April/08/2017 | | | Cumulative # of outbreaks season 2016-2017 | Cumulative # of outbreaks season 2015-2016 |
|----------|---|-----------------------------------|--|--|--|
| | Lab-confirmed outbreaks in Nursing homes ⁴ | ILI school outbreaks ⁵ | Lab-confirmed outbreaks 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.

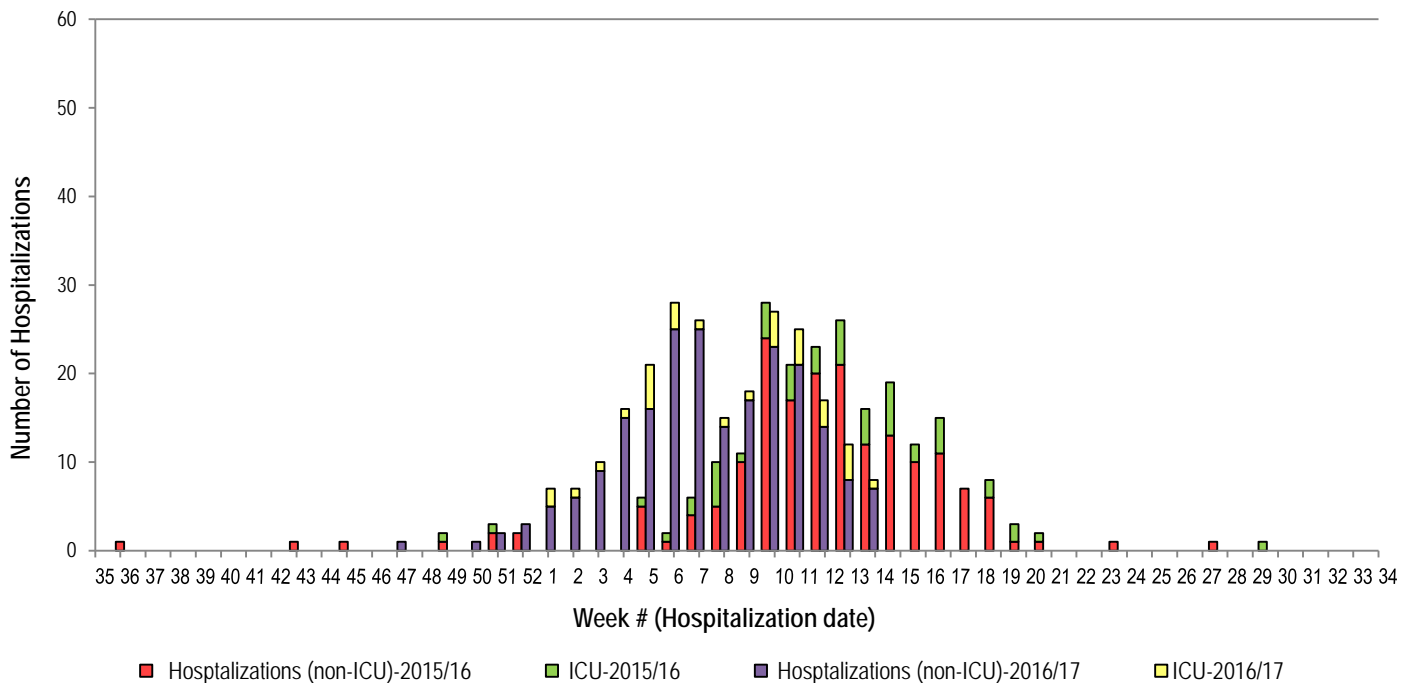
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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

** Twelve 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/

Prepared by the Communicable Disease Control Unit
Office of the Chief Medical Officer of Health, Tel: (506) 444-3044