

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: October 25 to October 31 2015 (week 43)

Summary:

In New Brunswick, influenza activity remains at inter-seasonal levels.

New Brunswick:

- There have been no positive influenza detections during week 43.
- The ILI consultation rate was 29.0 consultations per 1,000 patients visits, and was above the expected level for week 43.
- No new influenza outbreaks were reported in week 42 but 2 ILI school outbreaks were reported.

Canada:

- Overall, Canada continues to experience low influenza activity, which is normally seen at this time of year.
- One new laboratory confirmed influenza outbreak was reported in week 43.
- So far this season, influenza A (H3N2) has been the most common subtype affecting Canadians; it is too early in the season to know if this is likely to continue.
- To date, the majority of influenza laboratory detections and hospitalizations have been in seniors greater than 65 years of age.
- 17 laboratory detections of influenza were reported during week 43, and the percentage of laboratory tests positive for influenza was 1.0%.
- The national ILI consultation rate was 17.5 consultations per 1,000 patients' visits for week 43, the highest ILI rate was found in the 20-64 age group.
- Antigenic characterization: NML has antigenically characterized 15 H3N2 viruses, all of which showed a match to the vaccine strain, 1 A (H1N1)pdm09 that was a match to the vaccine strain and 6 B viruses, all of which were a match to the vaccine strain.

International:

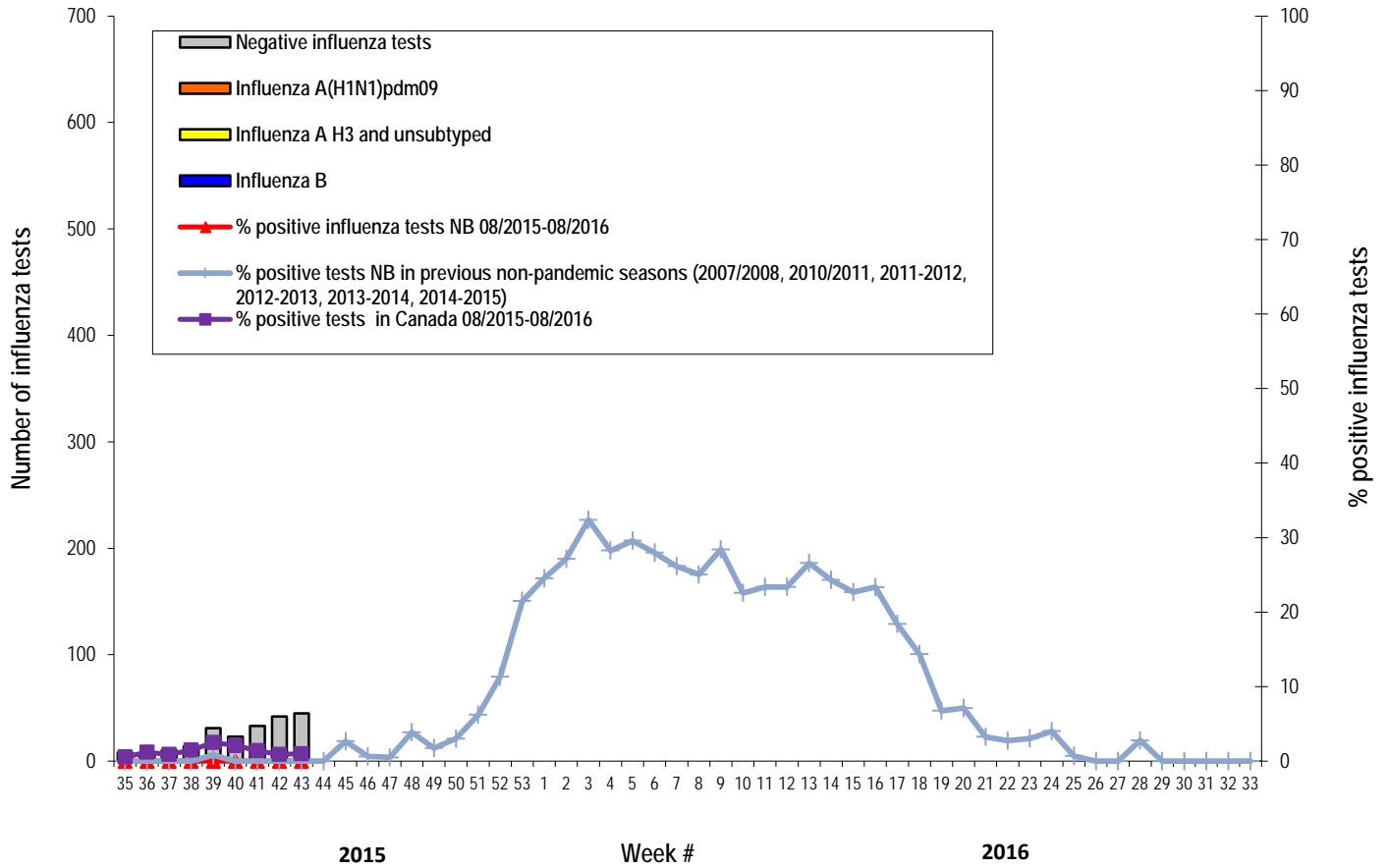
- Globally, influenza activity generally decreased or remained low in both hemispheres, with only a few countries reporting elevated respiratory illness levels.
- Human infection with Avian Influenza: As of November 9 2015, a total of 680 laboratory-confirmed cases of human infection with an avian influenza A (H7N9) virus were reported in China (as well as in Taiwan, Hong Kong and Malaysia) including 275 deaths. The majority of cases have presented with severe acute illness, rapidly progressing to severe pneumonia. Most human cases have reported a history of exposure to poultry or live bird markets. There is currently no evidence of sustained human-to-human transmission of H7N9.
- Other Respiratory Viruses:
 - MERS-CoV: From September 2012 to November 9 2015, 1,611 laboratory-confirmed cases of MERS-CoV have been reported from 26 countries. All cases have either occurred in the Middle East or have a direct link to a primary case infected in the Middle East. Among the 1,611 cases, 575 were fatal. An outbreak in the Republic of Korea and has resulted in 186 cases including 36 deaths. This outbreak represents the largest nosocomial outbreak outside the Middle East.

1) Influenza Laboratory Data¹

- Influenza activity remains at inter-seasonal levels.
- No influenza detections were reported during week 43.
- Since the beginning of the season, no positive influenza detections were reported.

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 October 31 2015
 (data source: G. Dumont Lab results)



Note: Most of the Influenza A untyped specimens are of the predominant strain.

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 October 31 2015)

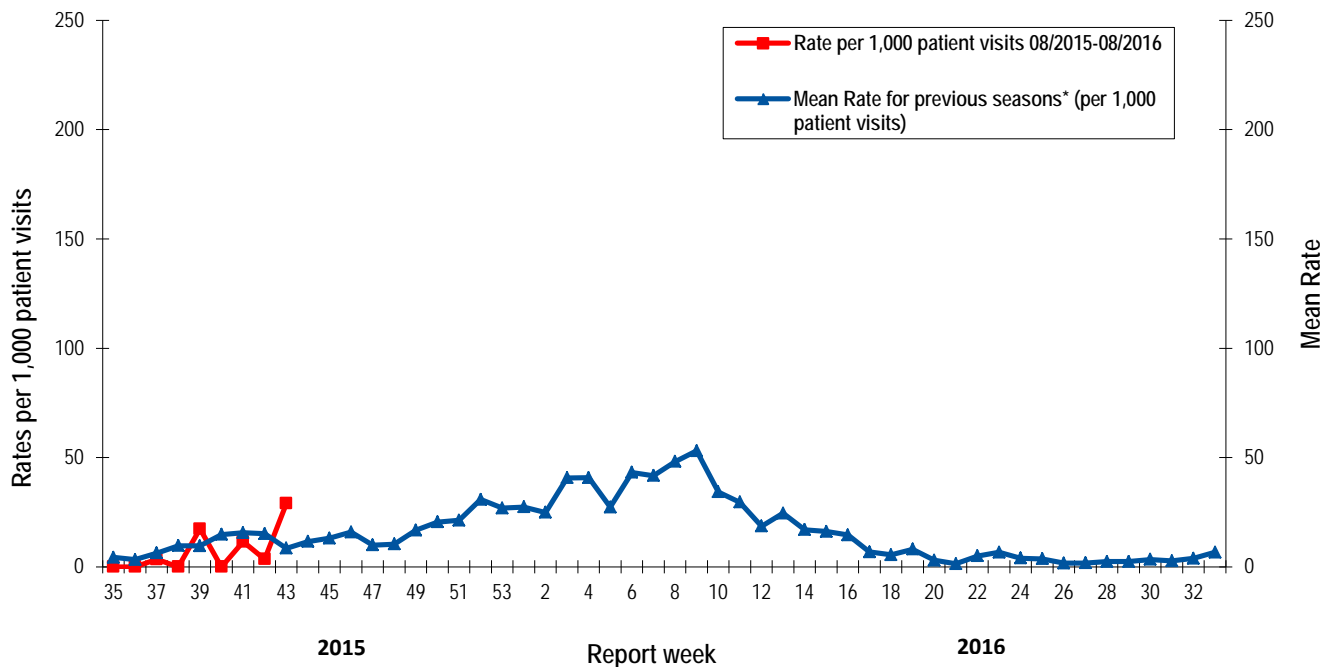
| Zone | Reporting period: Oct./25/2015–Oct./31/2015 | | | | | | Cumulative: (2015/2016 season) Aug./30/2015 –Oct./31/2015 | | | | | Cumulative: (2014/2015 season) Aug./24/2014 – Aug./29/2015 | | | | |
|-----------------|--|----------|--------------|--------------------|----------|----------|--|--------------|--------------------|----------|----------|---|--------------|--------------------|------------|------------|
| | 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 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 0 | 353 | 441 | 280 |
| Zone 2 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 69 | 88 | 58 |
| Zone 3 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 69 | 88 | 55 |
| Zone 4 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 31 | 87 | 27 |
| Zone 5 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 14 | 22 | 2 |
| Zone 6 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 95 | 176 | 29 |
| Zone 7 | No activity | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 24 | 36 | 19 |
| Total NB | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 283 | 0 | 655 | 938 | 470 |

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 43, the ILI consultation rate was 29.0 consultations per 1,000 patients visits, and was above the expected level for week 43.
- During week 43, the sentinel response rate was 45% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2015/16 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2014/2015 seasons and excludes the Pandemic season (2009-2010).

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.

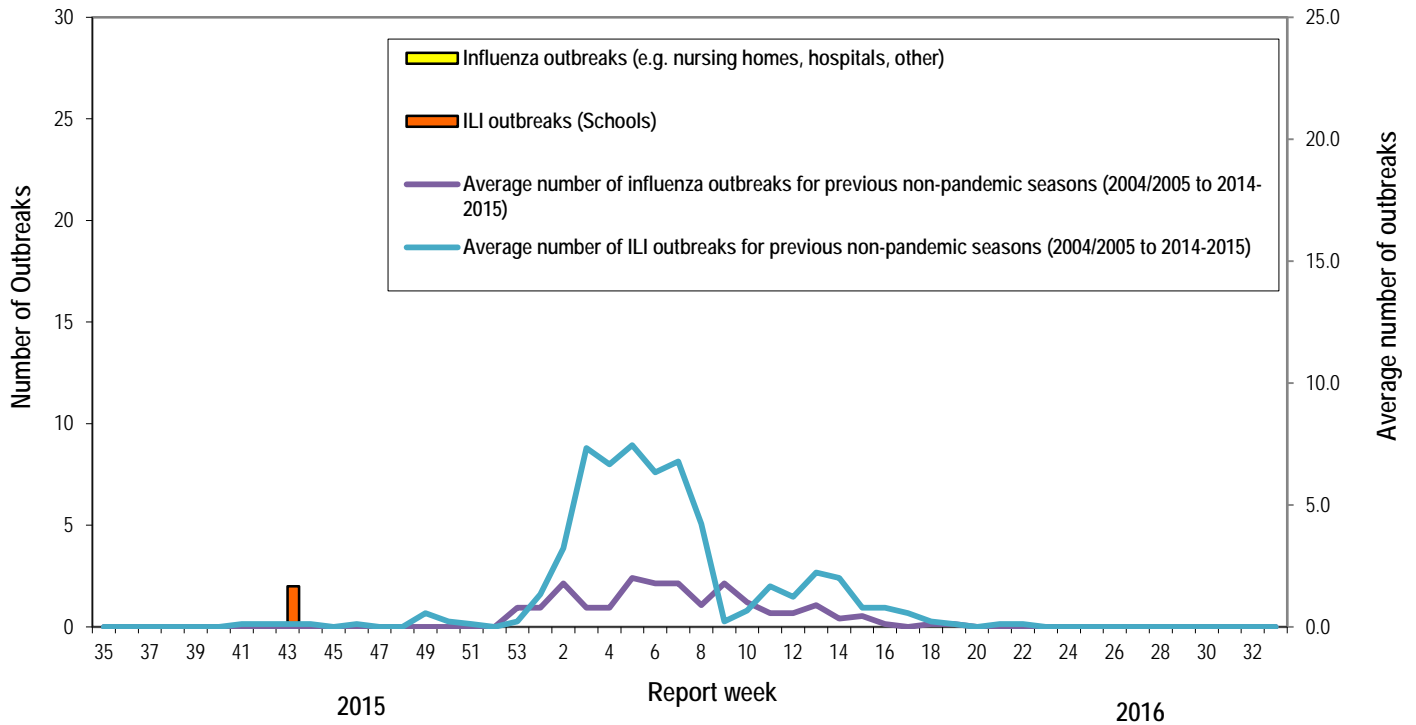
| | Reporting period: Oct./25/2015–Oct./31/2015 | | | Cumulative # of outbreaks season 2015-2016 | Cumulative # of outbreaks season 2014-2015 |
|-----------------|--|------------------------|--|--|--|
| | Lab-confirmed outbreaks in Nursing homes* | ILI school outbreaks** | Lab-confirmed outbreaks in Other settings* | | |
| Zone 1 | 0 out of 13 | 0 out of 74 | 0 | 0 | 14 |
| Zone 2 | 0 out of 15 | 0 out of 81 | 0 | 0 | 15 |
| Zone 3 | 0 out of 14 | 0 out of 95 | 0 | 0 | 12 |
| Zone 4 | 0 out of 6 | 0 out of 22 | 0 | 0 | 6 |
| Zone 5 | 0 out of 2 | 0 out of 18 | 0 | 0 | 4 |
| Zone 6 | 0 out of 9 | 1 out of 35 | 0 | 1 | 5 |
| Zone 7 | 0 out of 4 | 1 out of 27 | 0 | 1 | 8 |
| Total NB | 0 out of 63 | 2 out of 352 | 0 | 2 | 64 |

*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.

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

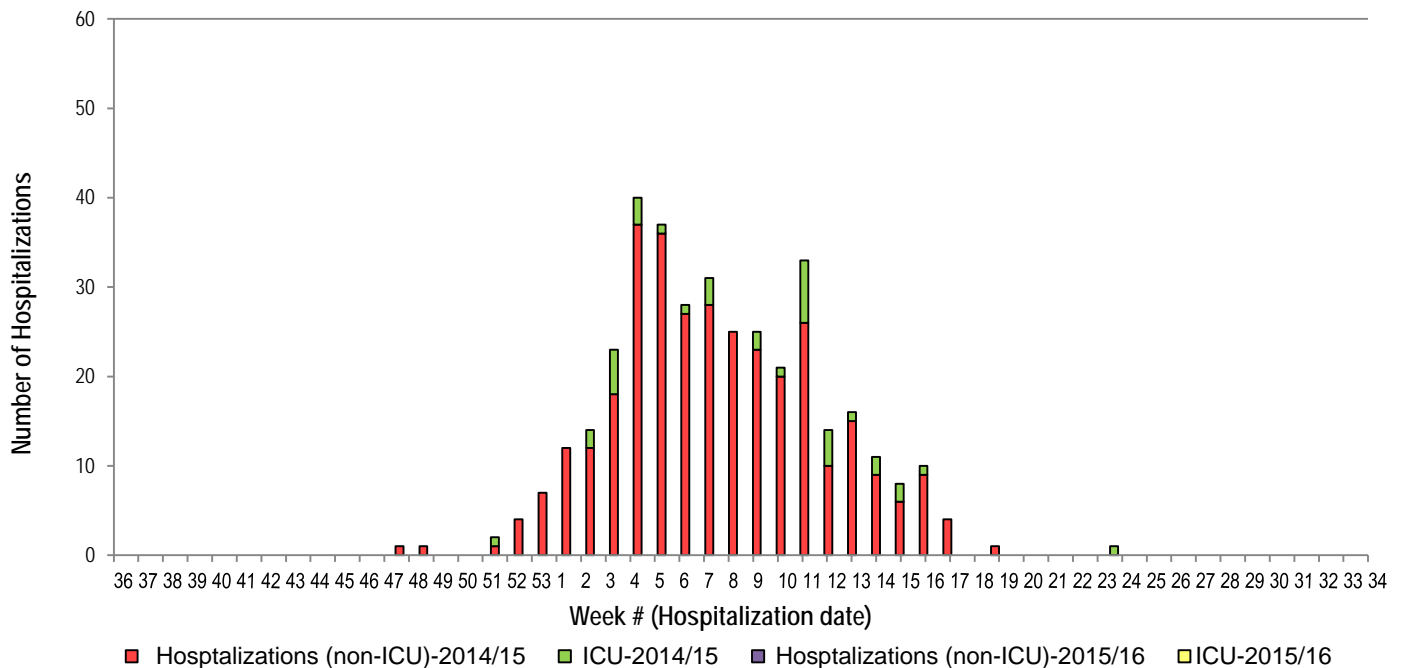
³ A total of 29 practitioner sites (17 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other)⁴ and ILI Outbreaks (schools)⁵ reported to Public Health in New Brunswick, by report week, season 2015/16.



4) Influenza associated Hospitalization⁴ and Death⁵ Surveillance⁶

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

** Twenty-six deaths were reported during season 2014-2015.

⁴ Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

⁵ Deaths are influenza associated; influenza may not be the direct cause of death.

⁶ 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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