

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: November 5 to November 11 2017 (week 45)

Summary:

In New Brunswick, influenza activity was low in week 45

New Brunswick:

- There have been 2 positive influenza detections in week 45. To date this season, 37 influenza detections have been reported, 34 were influenza A (H3) and 3 was influenza A (unsubtyped). Twenty-one of the 37 detections reported so far were related to two nosocomial outbreaks (where patients were admitted at least 48 hours before influenza symptoms).
- There has been 1 new influenza associated hospitalization during week 45. So far this season, 31 influenza associated hospitalizations have been reported with 1 death. Twenty-one of the 31 hospitalizations were related to nosocomial outbreaks where patients were admitted at least 48 hours before influenza symptoms.
- The ILI consultation rate was 0.0 consultations per 1,000 patients visits in week 45. The ILI rate was slightly below the expected levels for this time of year.
- No new influenza or ILI outbreaks were reported in week 45.

Canada:

- Influenza activity crossed the seasonal threshold in week 45, indicating the beginning of the influenza season at the national level.
- The number and percentage of laboratory tests positive for both influenza A and B is higher for this time of year compared to previous seasons. The majority of influenza detections continue to be A(H3N2), although an elevated number of influenza B detections have also been reported.
- The number of influenza-related hospitalizations and regions reporting sporadic and localized activity are above the expected levels for this time of year.

International:

Seasonal influenza:

- Influenza activity remained at low levels in the temperate zone of the northern hemisphere. Declining levels of influenza activity were reported in the temperate zone of the southern hemisphere and in some countries of South and South East Asia. In Central America and the Caribbean, low influenza activity was reported in a few countries. Worldwide, influenza A(H3N2) and B viruses accounted for the majority of influenza detections.

Effectiveness of 2017-2018 influenza vaccine for influenza A(H3N2):

- The [WHO has stated](#) that, given the suboptimal effectiveness of vaccines containing A/Hong Kong/4801/2014 in the 2017 southern hemisphere season, a suboptimal vaccine effectiveness (VE) is likely to occur in the 2017/2018 northern hemisphere season if influenza A(H3N2) viruses predominate. However, the vaccine should provide good protection for influenza A(H1N1)pdm09 and influenza B virus infection.
- In the context of a potentially reduced influenza VE for the upcoming 2017-18 season, the Association of Medical Microbiology and Infectious Disease (AMMI Canada) has posted an updated [guidance on the use of antiviral medication](#).

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 was low in week 45.
- Two influenza detections were reported during week 45.
- Since the beginning of the season, 37 influenza detections were reported, 34 were influenza A (H3) and 3 was influenza A (unsubtyped).

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 November 11 2017 (data source: G. Dumont Lab results)

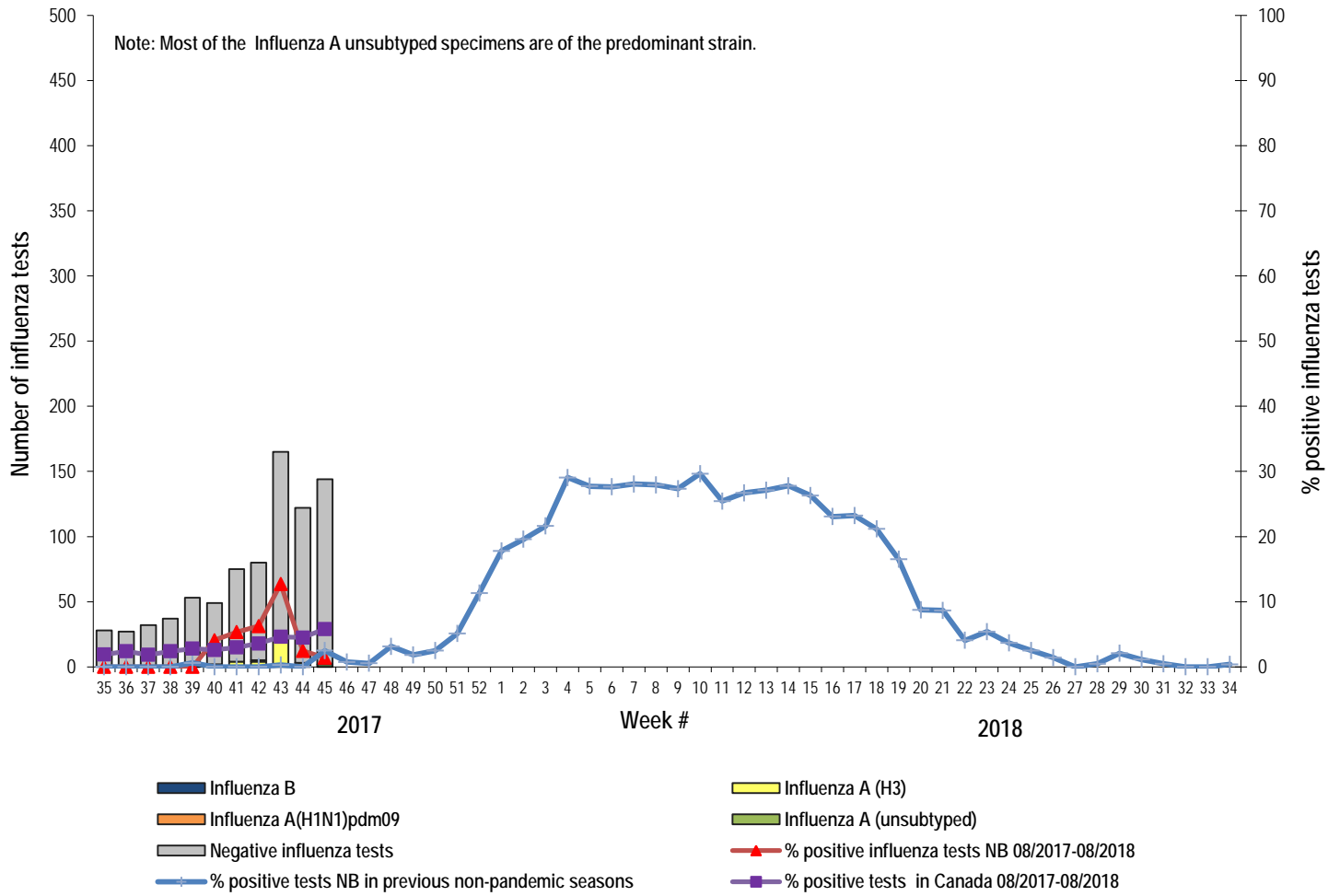


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to November 11 2017)

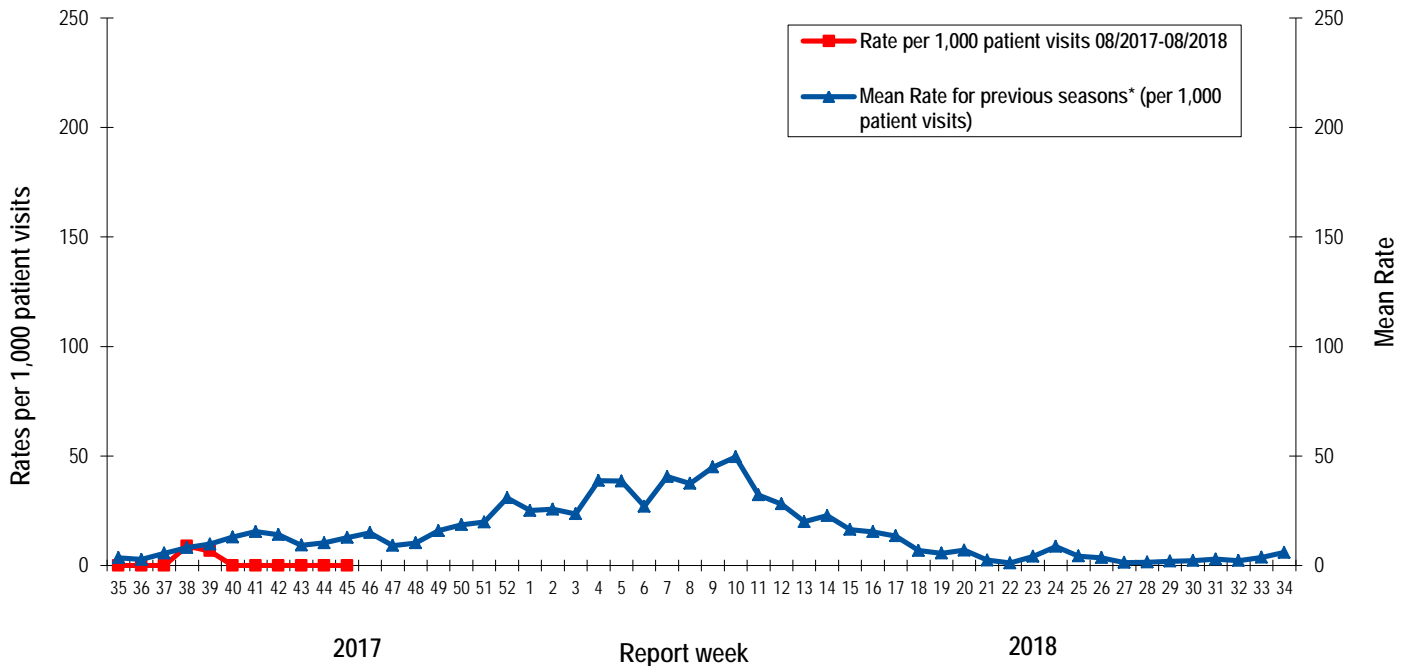
Zone	Reporting period: November/05/2017–November/11/2017						Cumulative: (2017/2018 season) Aug./27/2017 –Nov./11/2017					Cumulative: (2016/2017 season) Aug./28/2016 – Aug./26/2017				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Zone 1	Sporadic activity	0	0	1	1	0	9	0	1	10	0	76	0	504	580	90
Zone 2	Sporadic activity	0	0	1	1	0	0	0	1	1	0	21	1	77	99	8
Zone 3	No activity	0	0	0	0	0	23	0	1	24	0	25	0	117	142	23
Zone 4	No activity	0	0	0	0	0	0	0	0	0	0	18	0	32	50	6
Zone 5	No activity	0	0	0	0	0	0	0	0	0	0	2	0	3	5	6
Zone 6	No activity	0	0	0	0	0	1	0	0	1	0	27	0	62	89	11
Zone 7	No activity	0	0	0	0	0	1	0	0	1	0	21	0	52	73	16
Total NB		0	0	2	2	0	34	0	3	37	0	190	1	847	1038	160

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 45, the ILI consultation rate was 0.0 consultations per 1,000 patients visits. The ILI rate was slightly below the expected levels for this time of year.
- During week 45, the sentinel response rate was 29%, 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.

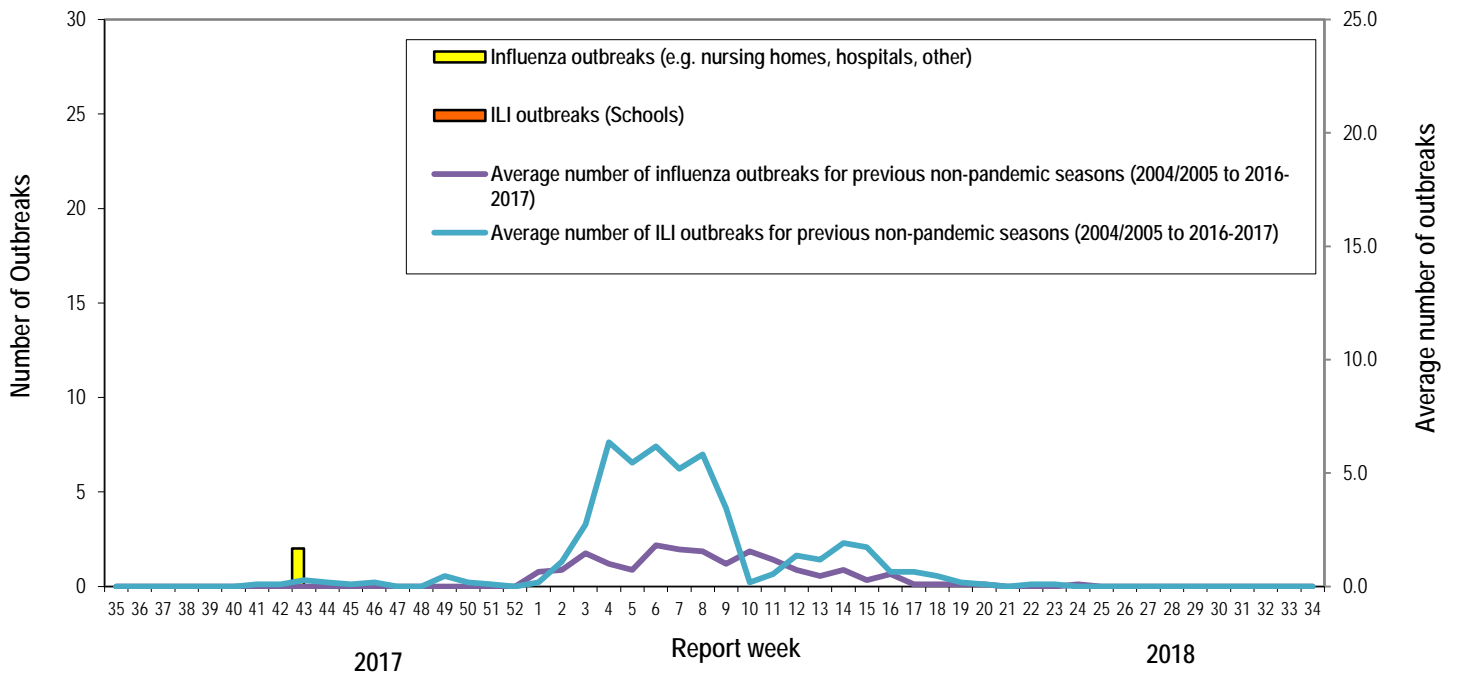
	Reporting period: November/05/2017–November/11/2017			Cumulative # of outbreaks season 2017-2018	Cumulative # of outbreaks season 2016-2017
	Lab-confirmed outbreaks in Nursing homes ⁴	ILI school outbreaks ⁵	Lab-confirmed outbreaks in Other settings ⁴		
Zone 1	0 out of 13	0 out of 74	0	0	3
Zone 2	0 out of 16	0 out of 81	0	0	5
Zone 3	0 out of 14	0 out of 95	0	2	14
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	1
Zone 6	0 out of 9	0 out of 35	0	0	0
Zone 7	0 out of 4	0 out of 27	0	0	2
Total NB	0 out of 64	0 out of 352	0	2	25

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.

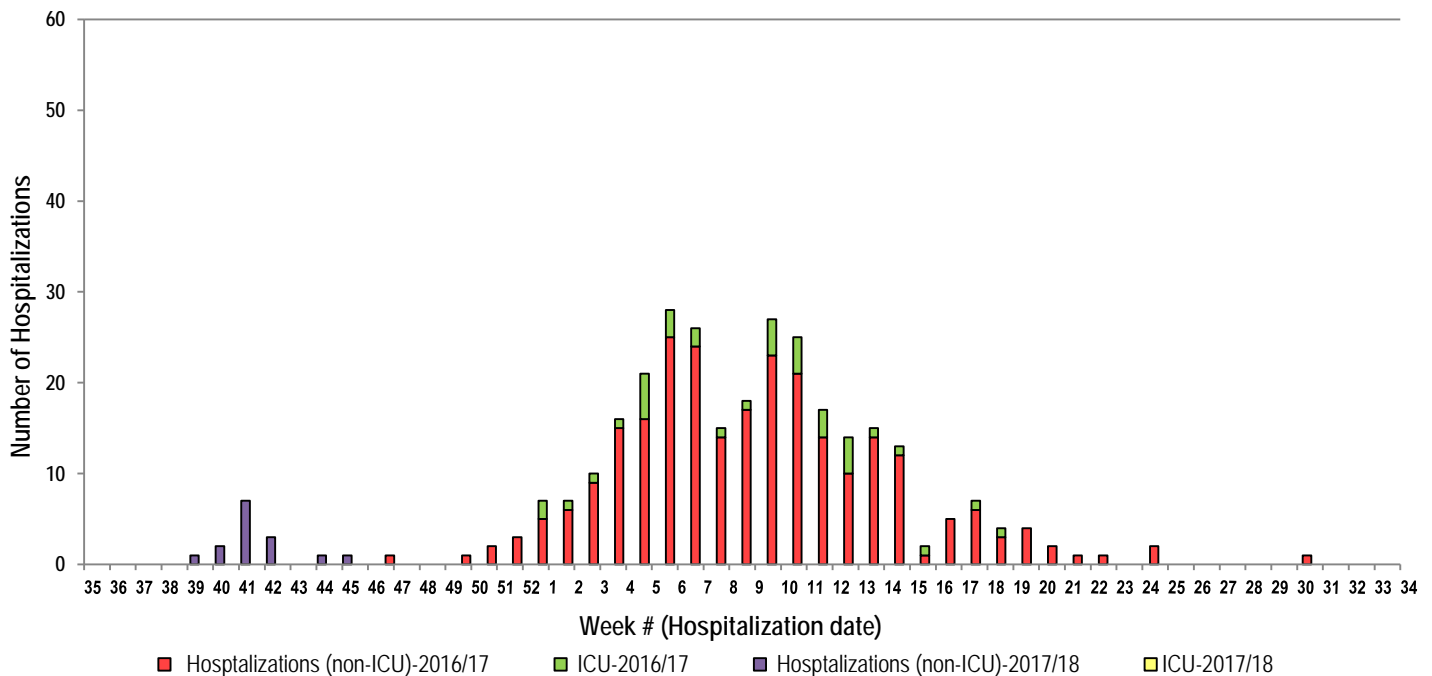
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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 2017/18.



4) Influenza associated Hospitalization⁶ and Death⁷ Surveillance

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

** One death has been reported so far in season 2017-2018.

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.

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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