

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: December 10 to December 16 2017 (week 50)

Summary:

In New Brunswick, influenza activity increased in week 50

New Brunswick:

- There have been 25 positive influenza detections in week 50. To date this season, 93 influenza detections have been reported, 49 were influenza A (H3), 35 were influenza A (unsubtyped) and 9 were influenza B. Twenty-one of the 93 detections reported so far were related to two nosocomial outbreaks (where patients were admitted at least 48 hours before influenza symptoms).
- There have been 3 new influenza associated hospitalizations during week 50. So far this season, 46 influenza associated hospitalizations have been reported with 1 death. Twenty-one of the 46 hospitalizations were related to nosocomial outbreaks where patients were admitted at least 48 hours before influenza symptoms.
- The ILI consultation rate was 3.0 consultations per 1,000 patients visits in week 50. The ILI rate was below the expected levels for this time of year.
- No new ILI or influenza outbreaks were reported in week 50.

Canada:

- No new updates were available on the national influenza activity at the time of this report.

International:

- No new updates were available on the international influenza activity at the time of this report.

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 increased in week 50.
- Twenty-five influenza detections were reported during week 50.
- Since the beginning of the season, 93 influenza detections were reported, 49 were influenza A (H3), 35 were influenza A (unsubtyped) and 9 were 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 December 16 2017 (data source: G. Dumont Lab results)

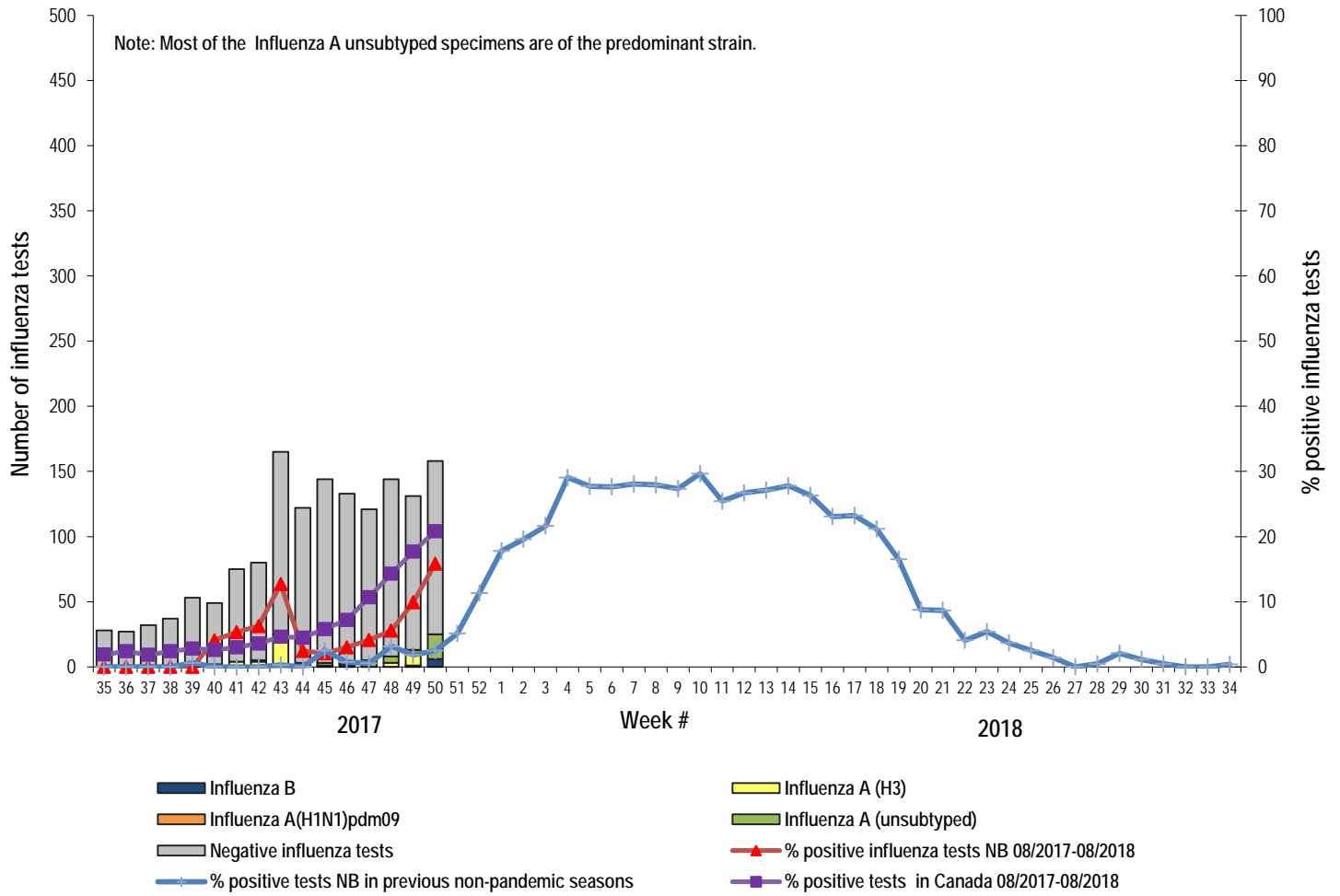


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to December 16 2017)

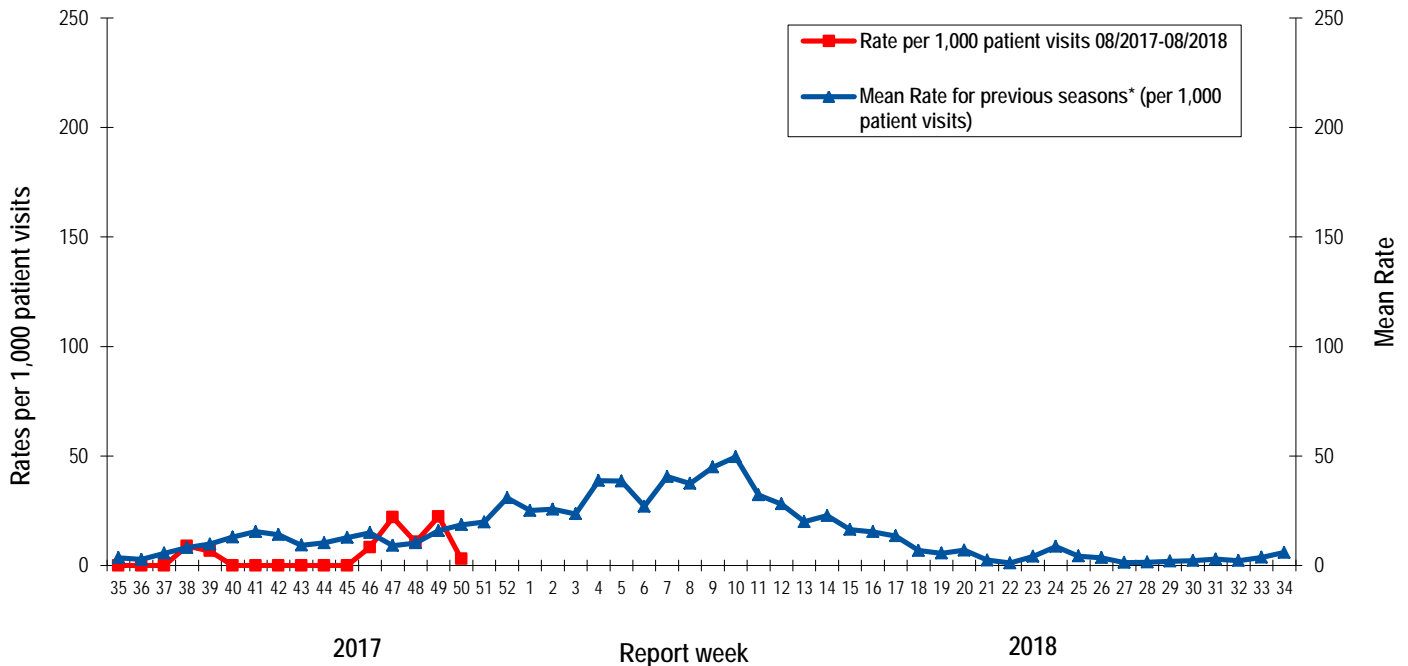
Zone	Reporting period: December/10/2017–December/16/2017						Cumulative: (2017/2018 season) Aug./27/2017 –Dec./16/2017					Cumulative: (2016/2017 season) Aug./28/2016 – Aug./26/2017				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Zone 1	Sporadic activity	0	0	7	7	6	18	0	21	39	7	76	0	504	580	90
Zone 2	No activity	0	0	0	0	0	0	0	1	1	1	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	1	2	0	3	5	6
Zone 6	Sporadic activity	0	0	6	6	0	5	0	6	11	0	27	0	62	89	11
Zone 7	Sporadic activity	0	0	6	6	0	3	0	6	9	0	21	0	52	73	16
Total NB		0	0	19	19	6	49	0	35	84	9	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 50, the ILI consultation rate was 3.0 consultations per 1,000 patients visits. The ILI rate was lower than the expected levels for this time of year.
- During week 50, the sentinel response rate was 32%, 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.

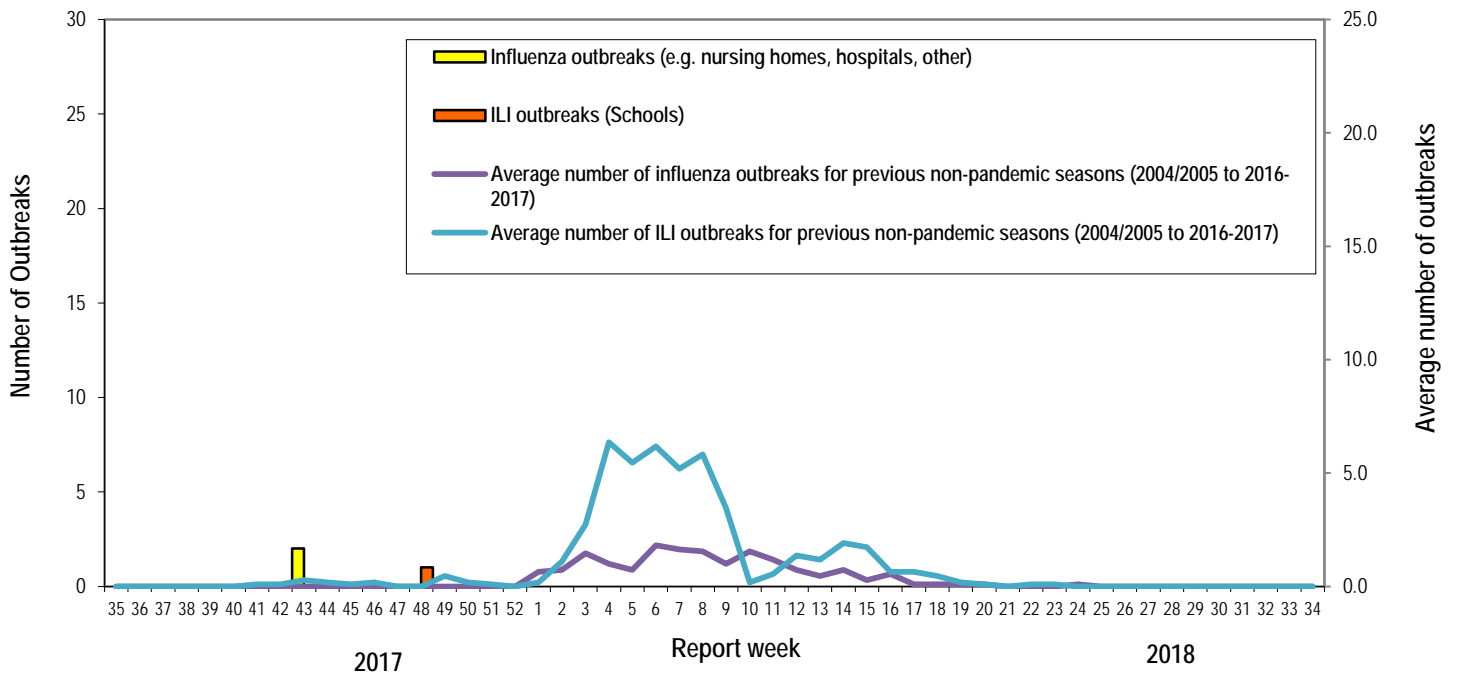
	Reporting period: December/10/2017–December/16/2017			Cumulative # of outbreaks season 2017-2018	Cumulative # of outbreaks season 2016-2017
	Lab-confirmed outbreaks in Nursing homes ⁴	ILI school outbreaks ⁵	Lab-confirmed outbreaks in Other settings ⁴		
Zone 1	0 out of 13	0 out of 74	0	0	3
Zone 2	0 out of 16	0 out of 81	0	0	5
Zone 3	0 out of 14	0 out of 95	0	3	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	3	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.

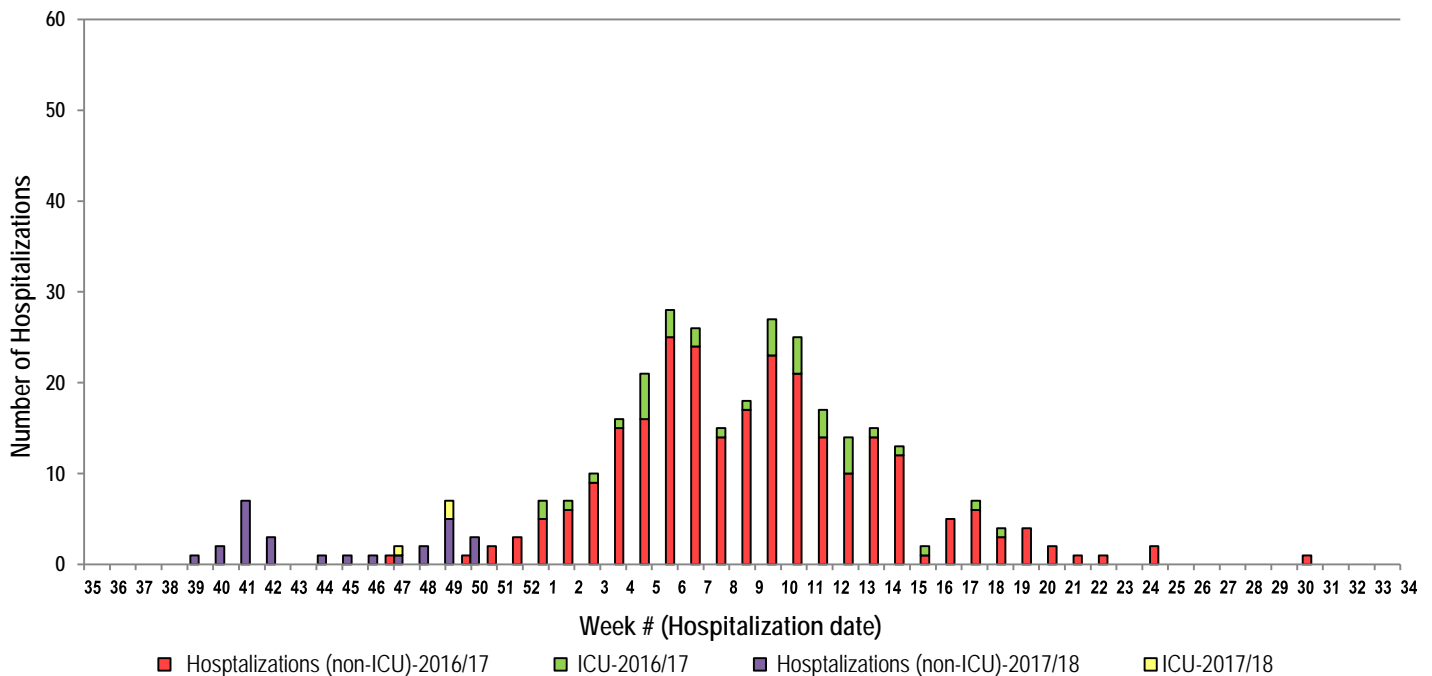
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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/

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