

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: January 22 to January 28 2017 (week 4)

Summary:

In New Brunswick, most influenza indicators increased in week 4

New Brunswick:

- There have been 67 positive influenza detections in week 4. To date this season, 166 influenza detections have been reported, 62 influenza A (H3), 102 influenza A (unsubtyped) and 2 influenza B.
- There have been 11 influenza associated hospitalizations during week 4. So far this season, 47 influenza associated hospitalizations were reported with 4 deaths.
- The ILI consultation rate was 37.0 consultations per 1,000 patients visits, and was within the expected levels for this time of year.
- Four new influenza outbreaks were reported (1 nursing home, 1 hospital and 2 in closed communities) as well as 3 ILI outbreaks in schools.

Canada:

- Influenza activity continues to be reported across Canada and a few regions are reporting widespread influenza activity.
- All indicators (laboratory detections, Influenza-like illness, hospitalizations and outbreaks) have either decreased or remained similar to the previous week.
- The majority of laboratory detections, hospitalizations and deaths have been among adults aged 65+ years.
- Fifty-one outbreaks were reported in week 4, with the majority occurring in long-term care facilities and due to influenza A.
- A(H3N2) continues to be the most common subtype of influenza affecting Canadians.

International:

Seasonal influenza:

- Influenza activity in the temperate zone of the northern hemisphere continued to increase, with many countries especially in East Asia and Europe having passed their seasonal threshold early in comparison with previous years. Worldwide, influenza A(H3N2) virus was predominant. The majority of influenza viruses characterized so far was similar antigenically to the reference viruses contained in vaccines for use in the 2016-2017 northern hemisphere influenza season.

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

- Most influenza indicators increased in week 4.
- Sixty-seven influenza detections were reported during week 4.
- Since the beginning of the season, 166 influenza detections were reported, 62 influenza A (H3), 102 influenza A (unsubtyped) and 2 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 January 28 2017
 (data source: G. Dumont Lab results)

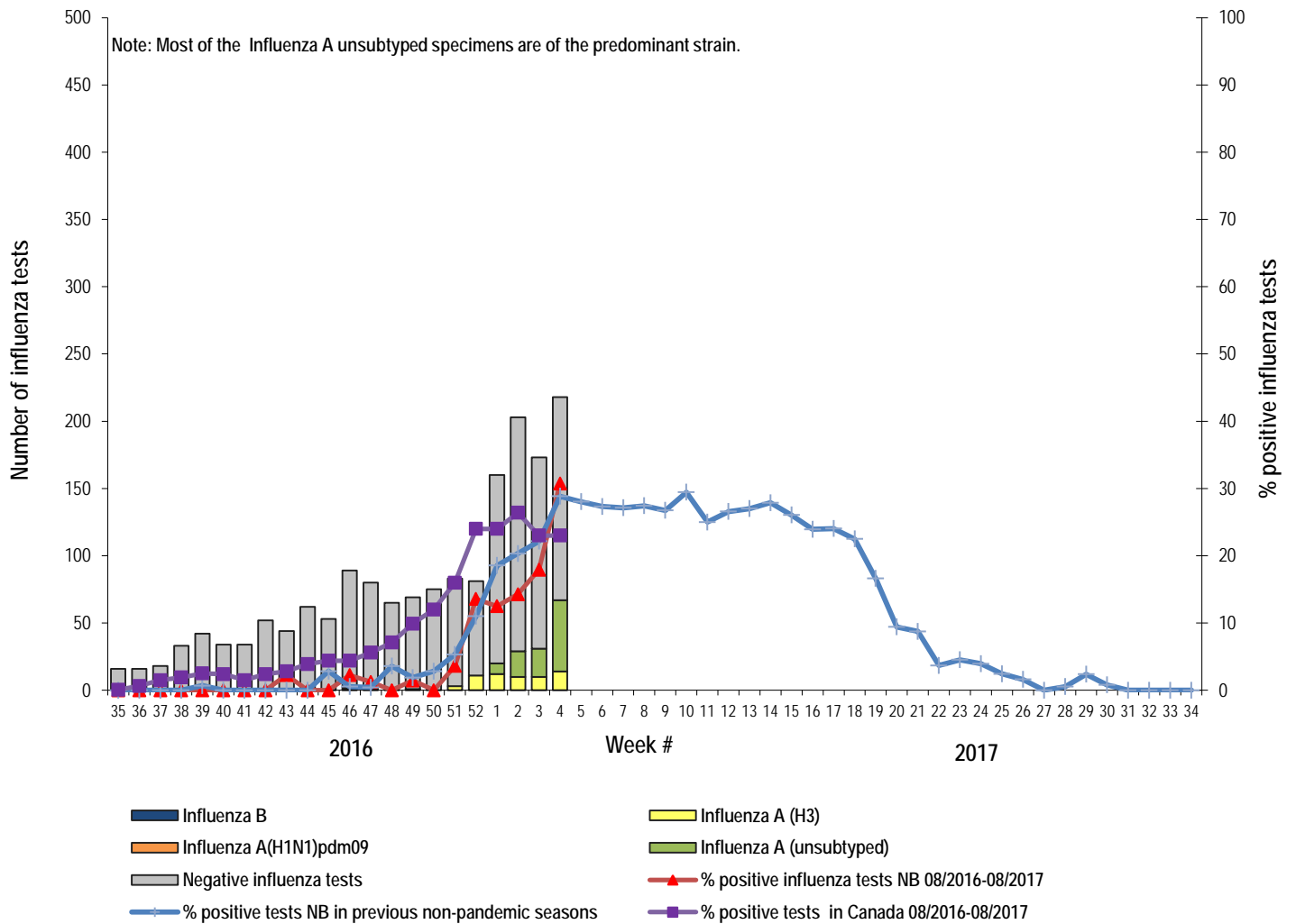


Table 1: Positive influenza test results by Health Region, in New Brunswick for reporting week, cumulative current and previous seasons.
(data source: G. Dumont lab results up to January 28 2017)

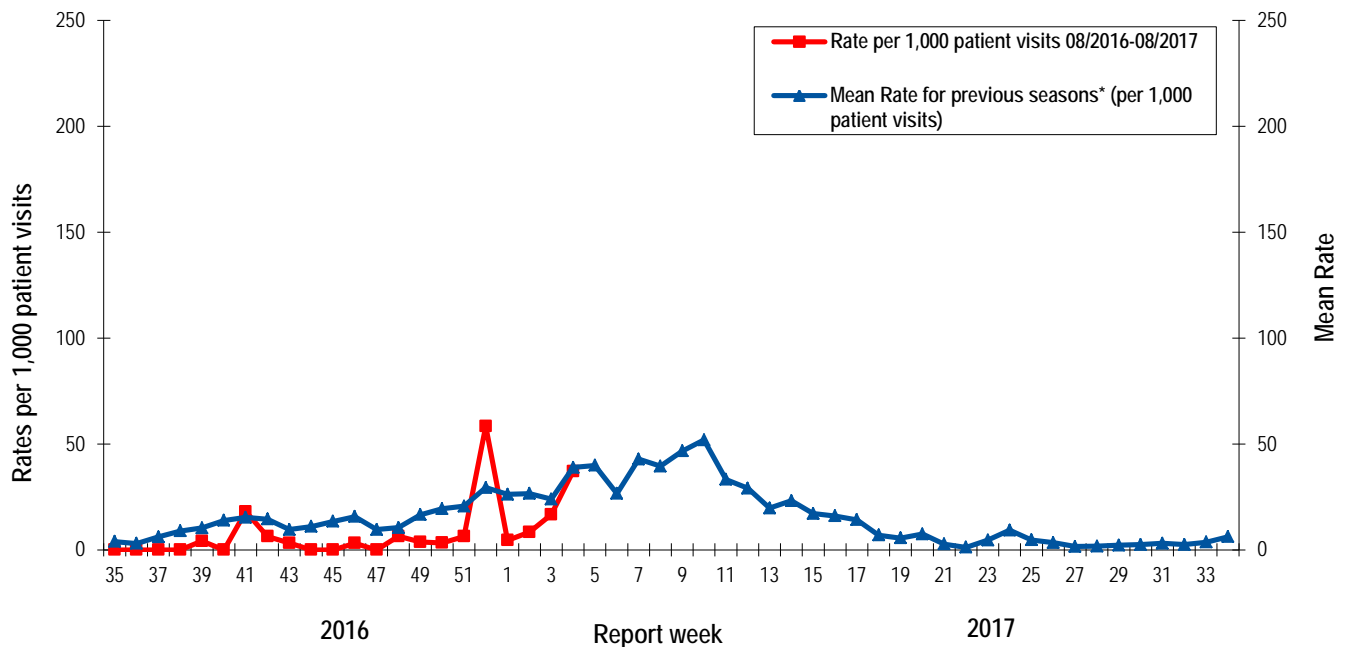
Zone	Reporting period: Jan./15/2017–Jan./21/2017						Cumulative: (2016/2017 season) Aug./28/2016 –Jan./21/2017					Cumulative: (2015/2016 season) Aug./30/2015 – Aug./27/2016				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Zone 1	Localized activity	5	0	35	40	0	26	0	71	97	1	3	40	576	619	113
Zone 2	Sporadic activity	2	0	3	5	0	8	0	6	14	0	0	9	131	140	7
Zone 3	Localized activity	3	0	12	15	0	11	0	17	28	1	0	9	57	66	13
Zone 4	Sporadic activity	3	0	0	3	0	7	0	2	9	0	0	11	86	97	8
Zone 5	No activity	0	0	0	0	0	1	0	0	1	0	0	4	9	13	3
Zone 6	Sporadic activity	0	0	2	2	0	5	0	4	9	0	3	18	79	100	5
Zone 7	Localized activity	1	0	1	2	0	4	0	2	6	0	0	6	22	28	8
Total NB		14	0	53	67	0	62	0	102	164	2	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 4, the ILI consultation rate was 37.0 consultations per 1,000 patients visits, and was within the expected levels for this time of year.
- During week 4, the sentinel response rate was 15% 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.

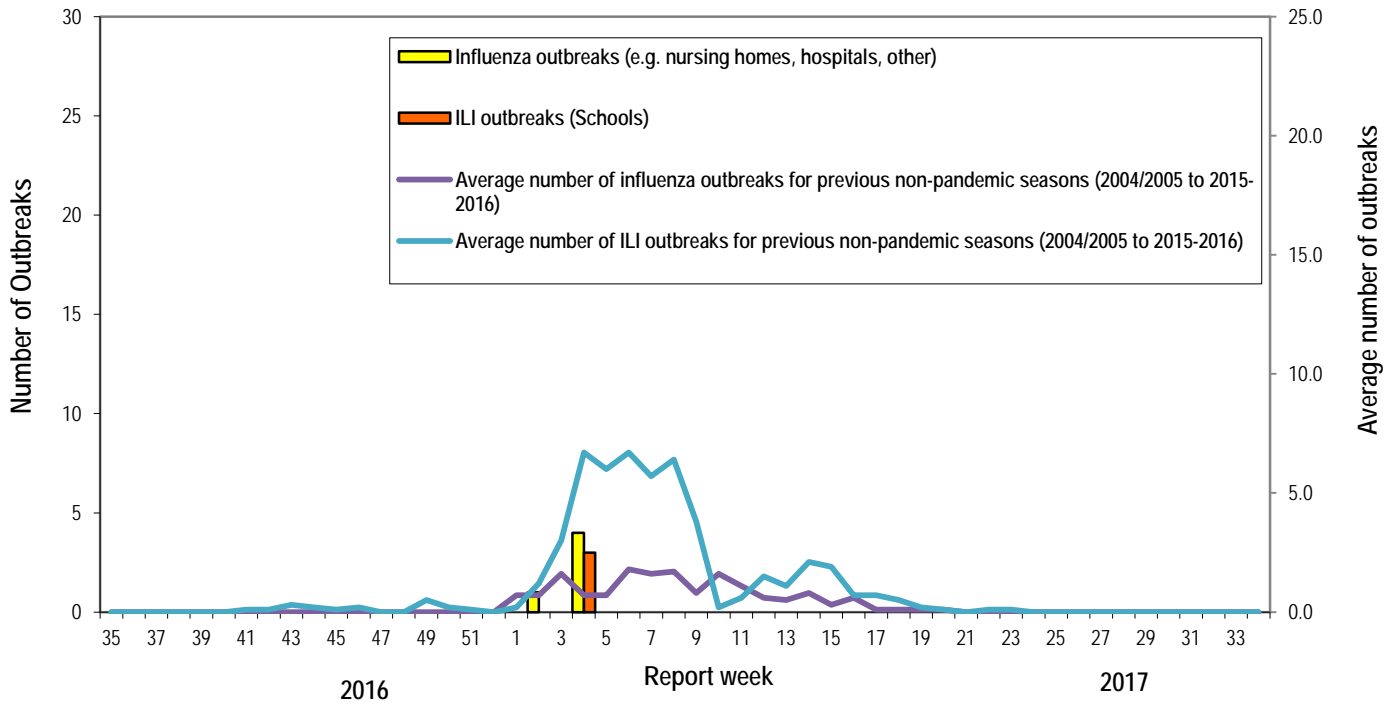
	Reporting period: January/22/2017–January/28/2017			Cumulative # of outbreaks season 2016-2017	Cumulative # of outbreaks season 2015-2016
	Lab-confirmed outbreaks in Nursing homes ⁴	ILI school outbreaks ⁵	Lab-confirmed outbreaks in Other settings ⁴		
Zone 1	0 out of 13	0 out of 74	1	1	6
Zone 2	0 out of 16	0 out of 81	0	0	4
Zone 3	1 out of 14	3 out of 95	1	6	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	0	0
Zone 6	0 out of 9	0 out of 35	0	0	3
Zone 7	0 out of 4	0 out of 27	1	1	5
Total NB	1 out of 64	3 out of 352	3	8	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.

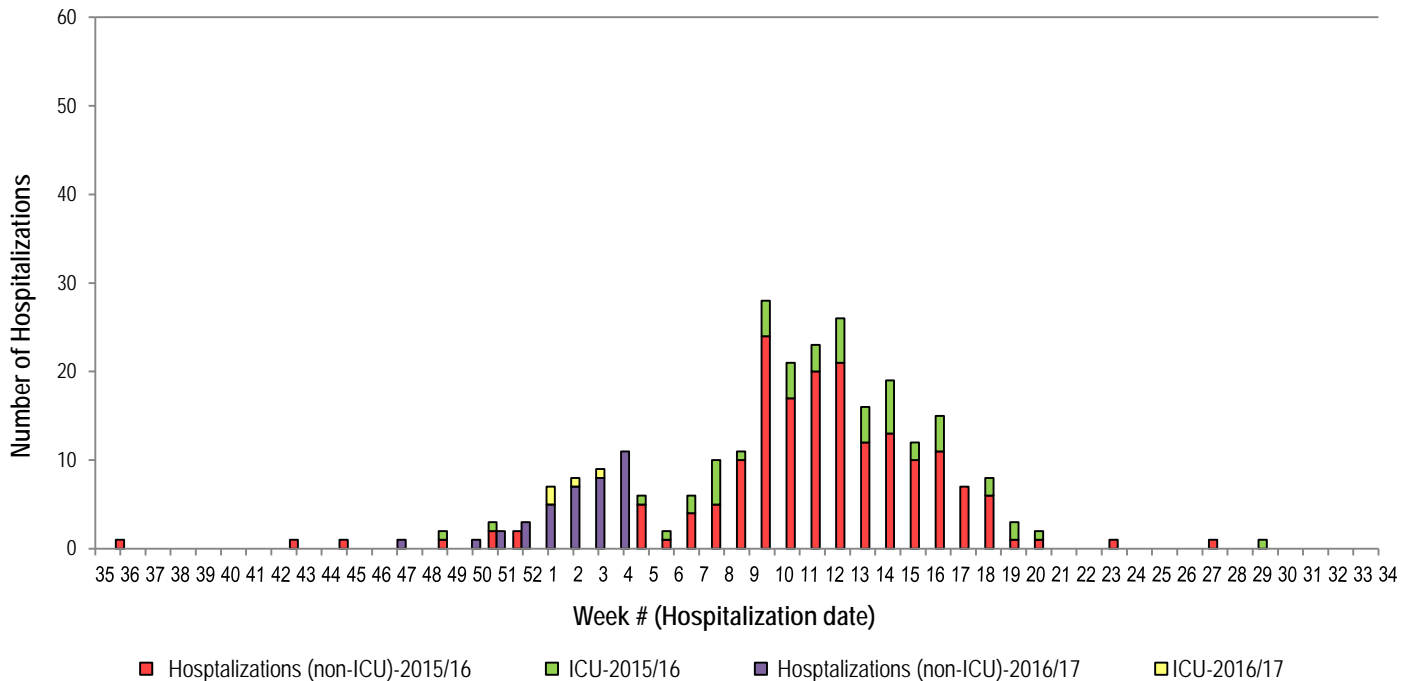
⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

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

** Four 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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