

## WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: March 6 to March 12 2016 (week 10)

### Summary:

#### In New Brunswick, most influenza indicators increased in week 10

##### New Brunswick:

- There have been 111 positive influenza detections in week 10. To date this season, a total of 345 influenza detections have been reported, 281 influenza A (unsubtyped), 49 influenza A (H1N1)pdm09, 3 influenza A (H3) and 12 influenza B.
- There has been 28 influenza associated hospitalizations during week 10. So far this season, a total of 75 influenza associated hospitalizations were reported in New Brunswick, including 4 deaths.
- The ILI consultation rate was 29.9 consultations per 1,000 patients visits, and was below the expected levels for this time of year.
- No new influenza or ILI outbreaks were reported.

##### Canada:

- Overall, influenza activity continues to increase and is typical of peak season levels. The Eastern provinces accounted for the majority of influenza activity nationally. Nearly all reporting regions in Canada are reporting sporadic or localized activity.
- Adults age 45 and over accounted for the majority of hospitalizations.
- 46 outbreaks were reported with the majority of outbreaks reported in long-term care facilities.
- Hospitalizations and ICU admissions among the pediatric population continue to be above typical peak season levels.
- A Canadian study reported an interim estimate of vaccine effectiveness of 64% against influenza A (H1N1) in Canada. This estimate suggests that the 2015-2016 northern hemisphere vaccine has provided good protection against the influenza A (H1N1) virus, the most common circulating influenza virus.
- 4,359 positive laboratory detections of influenza were reported during week 10, and the percentage of laboratory tests positive for influenza was 36%.
- The national ILI consultation rate was 75.6 consultations per 1,000 patients' visits, the highest ILI consultation rate was found in the 5-19 years age group.
- 46 new laboratory confirmed influenza outbreaks were reported: 23 in long-term care facilities, 9 in hospitals and 14 in community settings. Additionally, 3 ILI outbreaks were reported in schools.
- Antigenic characterization: the National Microbiology Laboratory (NML) has characterized 994 influenza viruses [140 A(H3N2), 611 A(H1N1) and 243 influenza B]. All characterized viruses were antigenically related to their respective vaccine strain.

##### International:

##### Seasonal influenza:

- Globally, high levels of influenza activity continued to be reported. In some countries in northern Europe influenza B virus detections were increasing. In North America, influenza activity continued to increase and ARI and pneumonia activity were above thresholds in Mexico. In Northern Temperate Asia, influenza activity was ongoing with increasing levels of influenza B virus.

##### Emerging Respiratory Viruses: No new updates this week

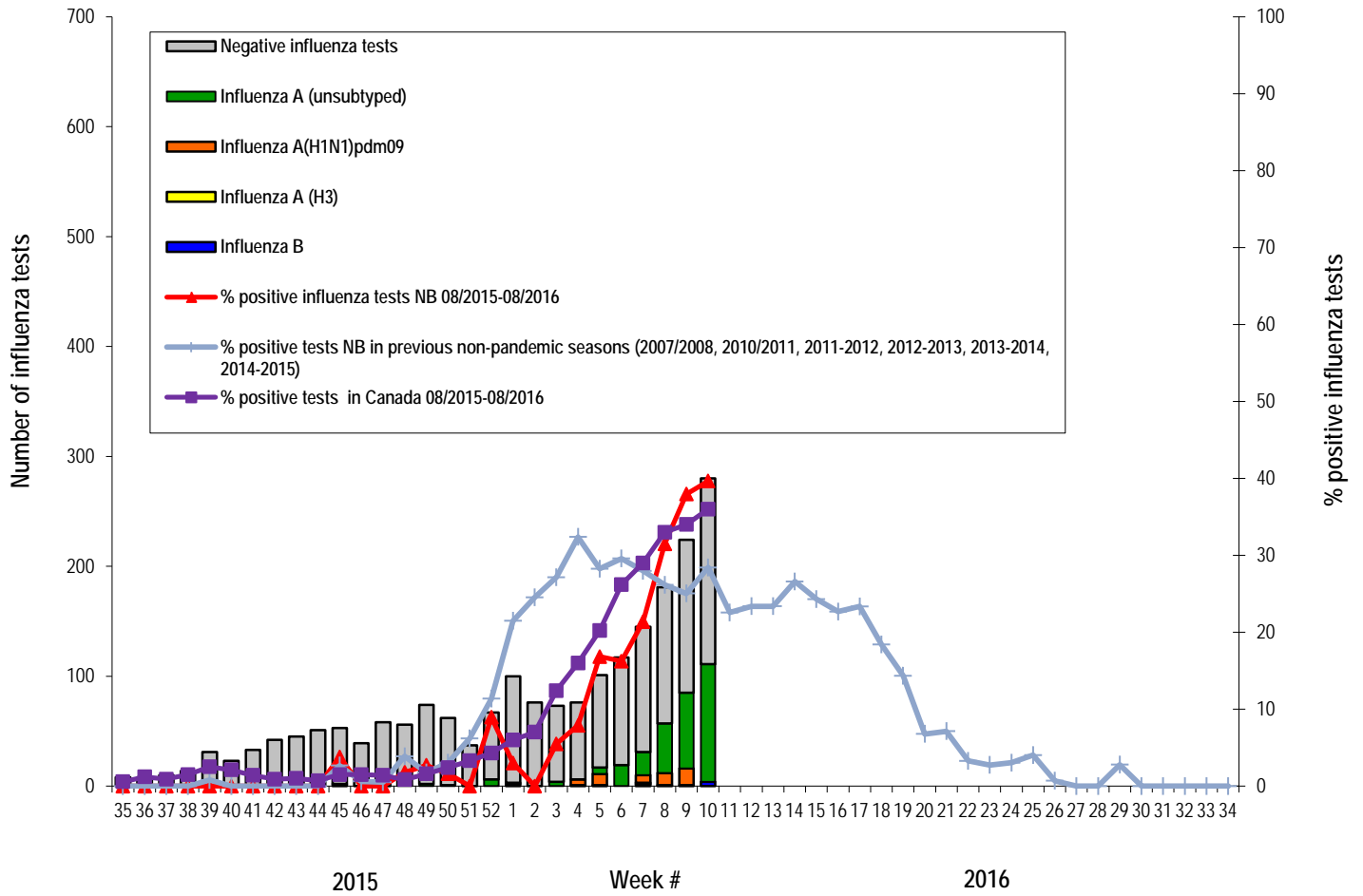
- MERS CoV:
  - WHO: [http://www.who.int/csr/disease/coronavirus\\_infections/en/](http://www.who.int/csr/disease/coronavirus_infections/en/)
  - CDC: <http://www.cdc.gov/coronavirus/mers/>
- Avian Influenza
  - WHO: [www.who.int/csr/disease/avian\\_influenza/en/index.html](http://www.who.int/csr/disease/avian_influenza/en/index.html)

### 1) Influenza Laboratory Data<sup>1</sup>

- Most influenza indicators increased in week 10.
- 111 influenza detections were reported during week 10.
- Since the beginning of the season, 345 positive influenza detections were reported, 12 influenza B and 281 influenza A (unsubtyped), 3 influenza A (H3) and 49 influenza A (H1N1)pdm09.

<sup>1</sup> 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 March 12 2016**  
 (data source: G. Dumont Lab results)



Note: Most of the Influenza A unsubtyped 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 March 12 2016)

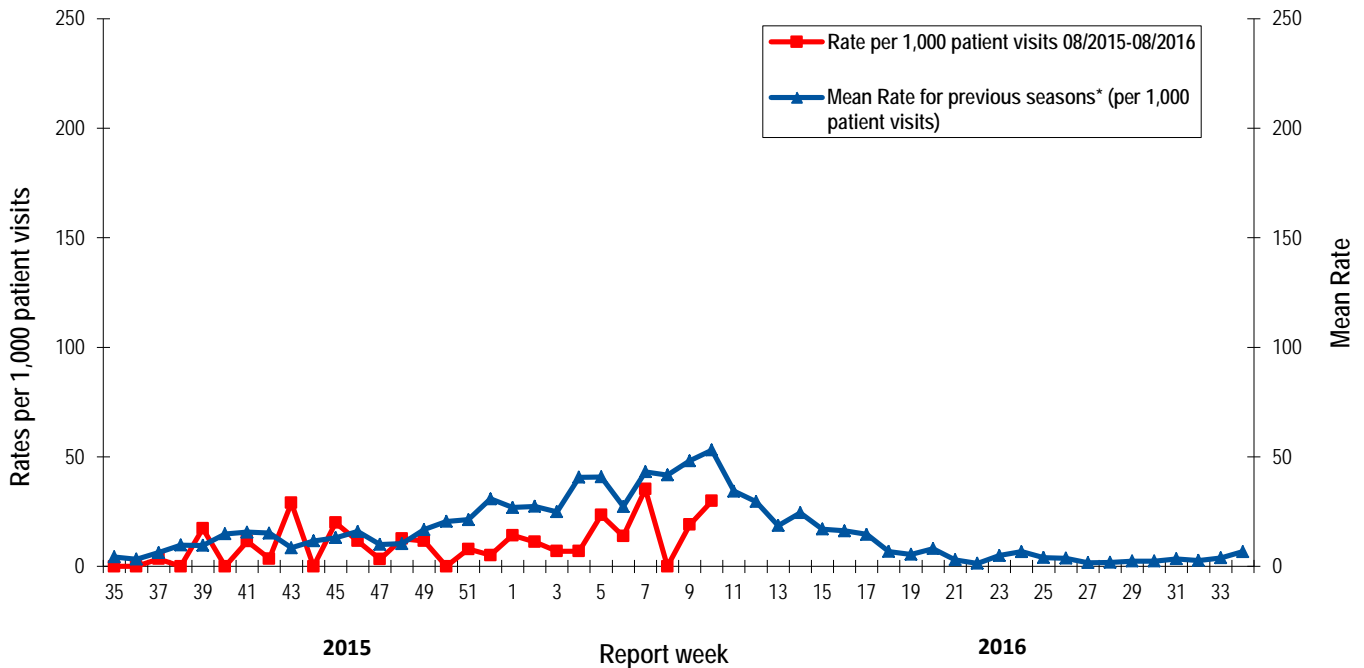
Zone	Reporting period: Mar./06/2016–Mar./12/2016						Cumulative: (2015/2016 season) Aug./30/2015 –Mar./12/2016					Cumulative: (2014/2015 season) Aug./24/2014 – Aug./29/2015				
	Activity level <sup>2</sup>	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Zone 1	Sporadic	0	0	64	64	4	0	22	167	189	12	88	0	353	441	280
Zone 2	Sporadic	0	0	10	10	0	0	4	29	33	0	19	0	69	88	58
Zone 3	Sporadic	0	0	8	8	0	0	5	13	18	0	19	0	69	88	55
Zone 4	Sporadic	0	0	11	11	0	0	4	22	26	0	56	0	31	87	27
Zone 5	No activity	0	0	0	0	0	0	1	2	3	0	8	0	14	22	2
Zone 6	Sporadic	0	0	12	12	0	3	12	37	52	0	81	0	95	176	29
Zone 7	Sporadic	0	0	2	2	0	0	1	11	12	0	12	0	24	36	19
<b>Total NB</b>		<b>0</b>	<b>0</b>	<b>107</b>	<b>107</b>	<b>4</b>	<b>3</b>	<b>49</b>	<b>281</b>	<b>333</b>	<b>12</b>	<b>283</b>	<b>0</b>	<b>655</b>	<b>938</b>	<b>470</b>

<sup>2</sup> 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 Rates<sup>3</sup>

- During week 10, the ILI consultation rate was 29.9 consultations per 1,000 patients visits, and was below the expected levels for week 10.
- During week 10, the sentinel response rate was 43%, 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.

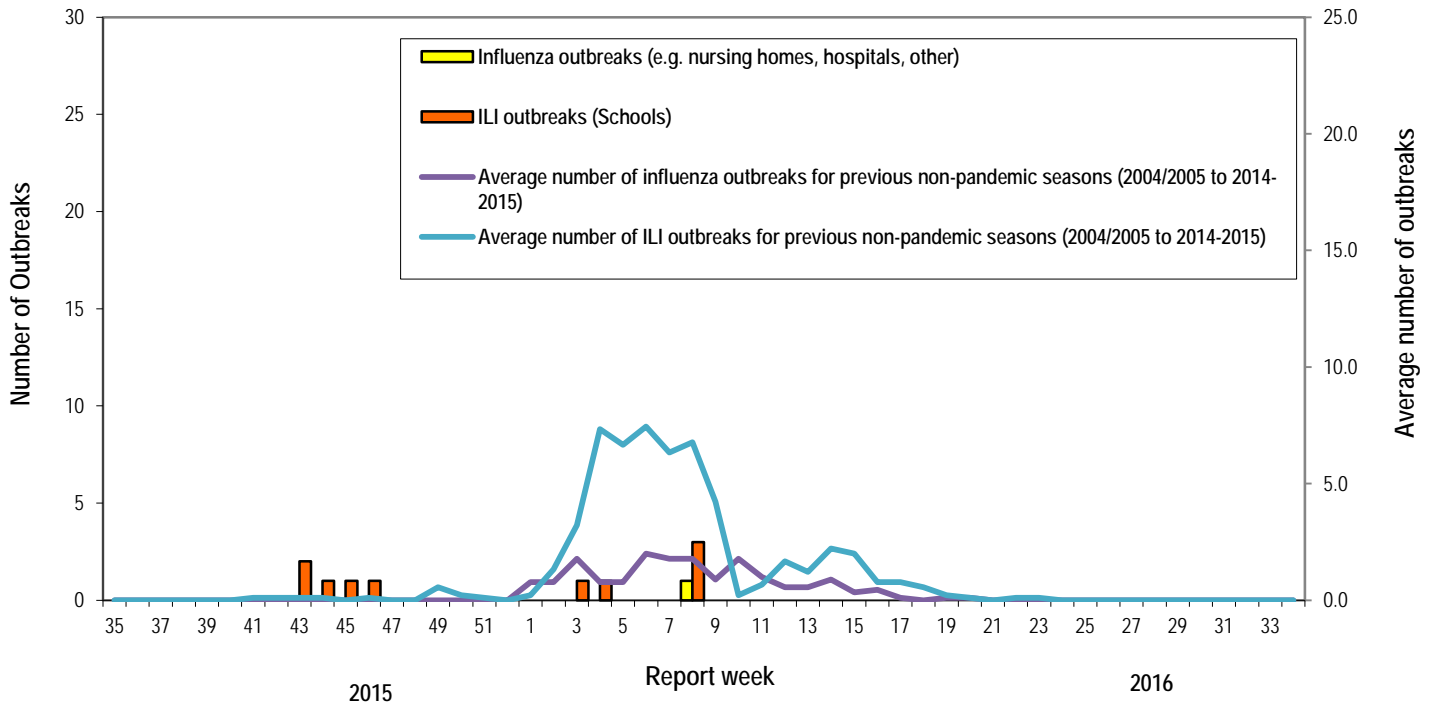
	Reporting period: Mar./06/2016–Mar./12/2016			Cumulative # of outbreaks season 2015-2016	Cumulative # of outbreaks season 2014-2015
	Lab-confirmed outbreaks in Nursing homes*	ILI school outbreaks**	Lab-confirmed outbreaks in Other settings*		
Zone 1	0 out of 13	0 out of 74	0	3	14
Zone 2	0 out of 15	0 out of 81	0	1	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	0 out of 35	0	3	5
Zone 7	0 out of 4	0 out of 27	0	4	8
Total NB	0 out of 63	0 out of 352	0	11	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.

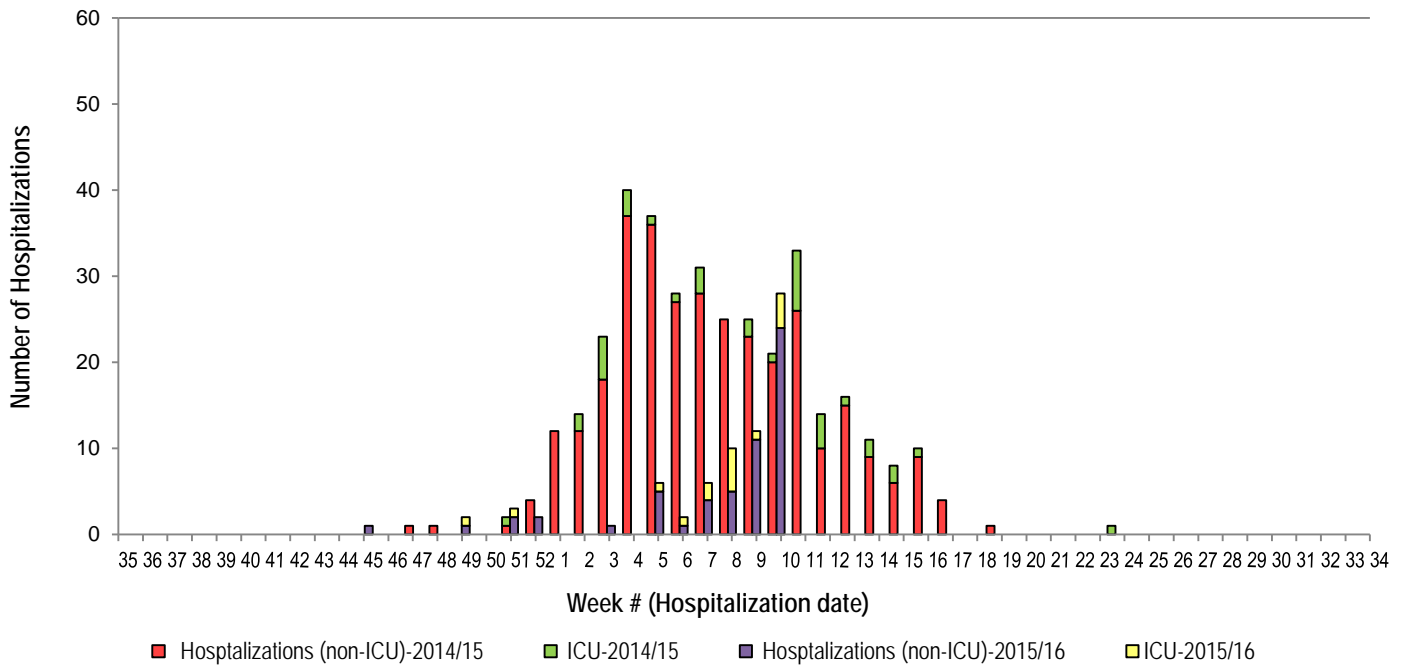
<sup>3</sup> A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

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



**4) Influenza associated Hospitalization<sup>4</sup> and Death<sup>5</sup> Surveillance<sup>6</sup>**

**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 were reported so far in season 2015-2016.

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

<sup>5</sup> Deaths are influenza associated; influenza may not be the direct cause of death.

<sup>6</sup> 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](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](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](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](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/](http://www.cdc.gov/flu/weekly/)

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