

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: April 3 to April 9 2016 (week 14)

Summary:

In New Brunswick, most influenza indicators have decreased in week 14

New Brunswick:

- There have been 113 positive influenza detections in week 14. To date this season, a total of 936 influenza detections have been reported, 812 influenza A (unsubtyped), 72 influenza A (H1N1)pdm09, 5 influenza A (H3) and 47 influenza B.
- There has been 9 influenza associated hospitalizations during week 14. So far this season, a total of 162 influenza associated hospitalizations were reported in New Brunswick, including 8 deaths.
- The ILI consultation rate was 0.0 consultations per 1,000 patients visits, and was below the expected levels for this time of year.
- No new influenza outbreaks were reported and 1 new ILI outbreak was reported in a school in Region 7.

Canada:

- Influenza activity peaked nationally in week 10; however, lower but sustained activity is being reported throughout the country. All regions in Canada reported sporadic or localized activity.
- Both influenza B and influenza A detections decreased in week 14. To date this season, a total of 34,105 positive influenza tests have been reported.
- Hospitalizations, ICU admissions and deaths among the pediatric population, while declining, remain above expected levels based on the past several influenza seasons. Despite higher pediatric hospitalizations reported, the pediatric population account for the smallest proportion of all deaths reported.
- 1,914 positive laboratory detections of influenza were reported during week 14, and the percentage of laboratory tests positive for influenza was 23%.
- The national ILI consultation rate was 26.8 consultations per 1,000 patients' visits, the highest ILI consultation rate was found in the 0-4 years age group.
- 17 new laboratory confirmed influenza outbreaks were reported: 14 in long-term care facilities, 2 in hospitals and 1 in community setting. Additionally, three ILI outbreak were reported in schools.
- Antigenic characterization: the National Microbiology Laboratory (NML) has characterized 1580 influenza viruses [179 A(H3N2), 889 A(H1N1) and 512 influenza B]. All characterized viruses were antigenically related to their respective vaccine strain.

International:

Seasonal influenza:

- Globally, elevated levels of influenza activity continued to be reported in North America, in parts of Europe and in Northern Temperate Asia. An increase in influenza B virus activity has been reported in Northern Temperate Asia, South East Asia and Europe.

Emerging Respiratory Viruses: No new updates this week

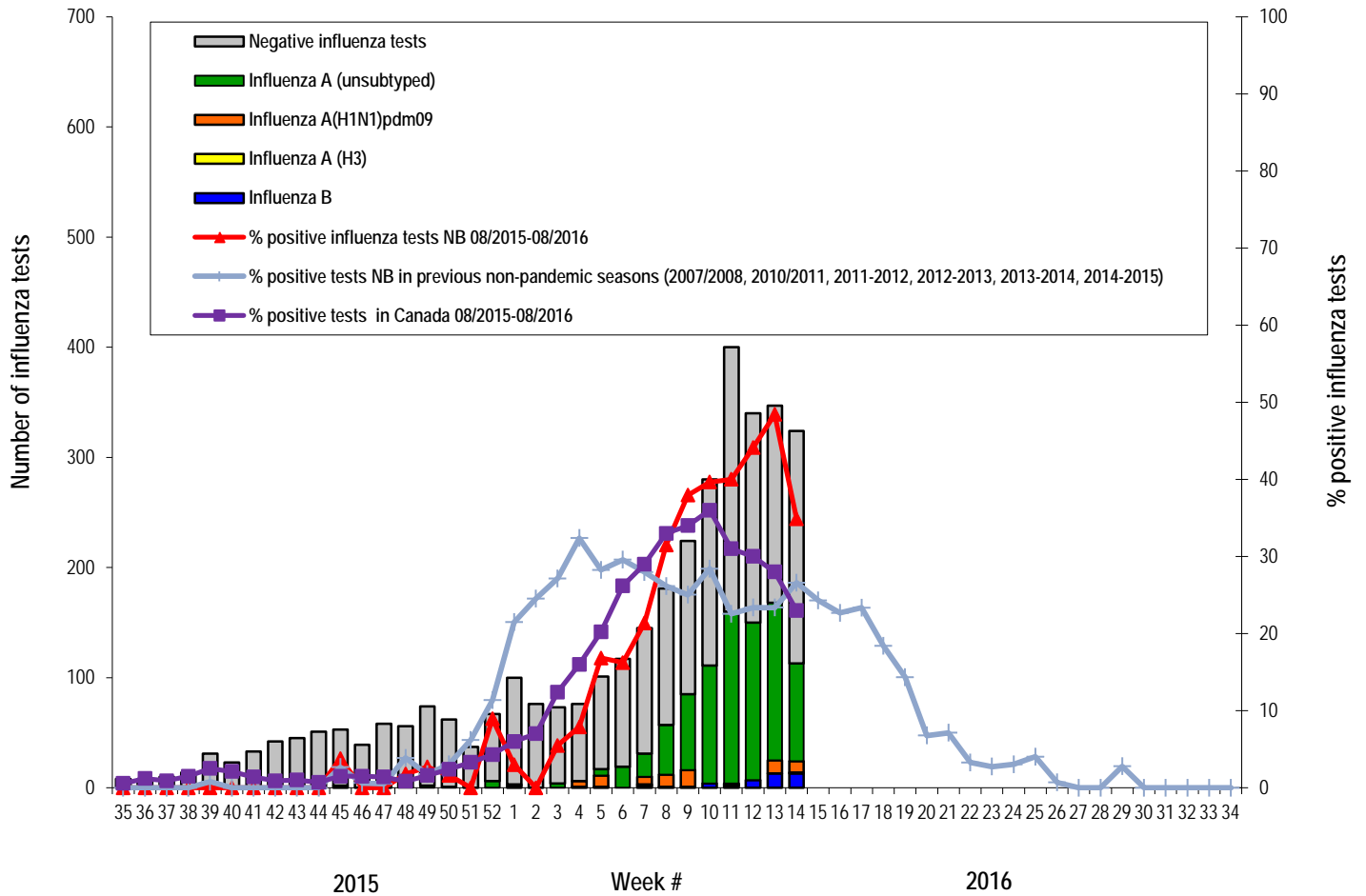
- MERS CoV:
 - WHO: http://www.who.int/csr/disease/coronavirus_infections/en/
 - CDC: <http://www.cdc.gov/coronavirus/mers/>
- Avian Influenza
 - WHO: www.who.int/csr/disease/avian_influenza/en/index.html

1) Influenza Laboratory Data¹

- Most influenza indicators have decreased in week 14.
- 113 influenza detections were reported during week 14.
- Since the beginning of the season, 936 positive influenza detections were reported, 47 influenza B and 812 influenza A (unsubtyped), 5 influenza A (H3) and 72 influenza A (H1N1)pdm09.

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 April 9 2016 (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 April 9 2016)

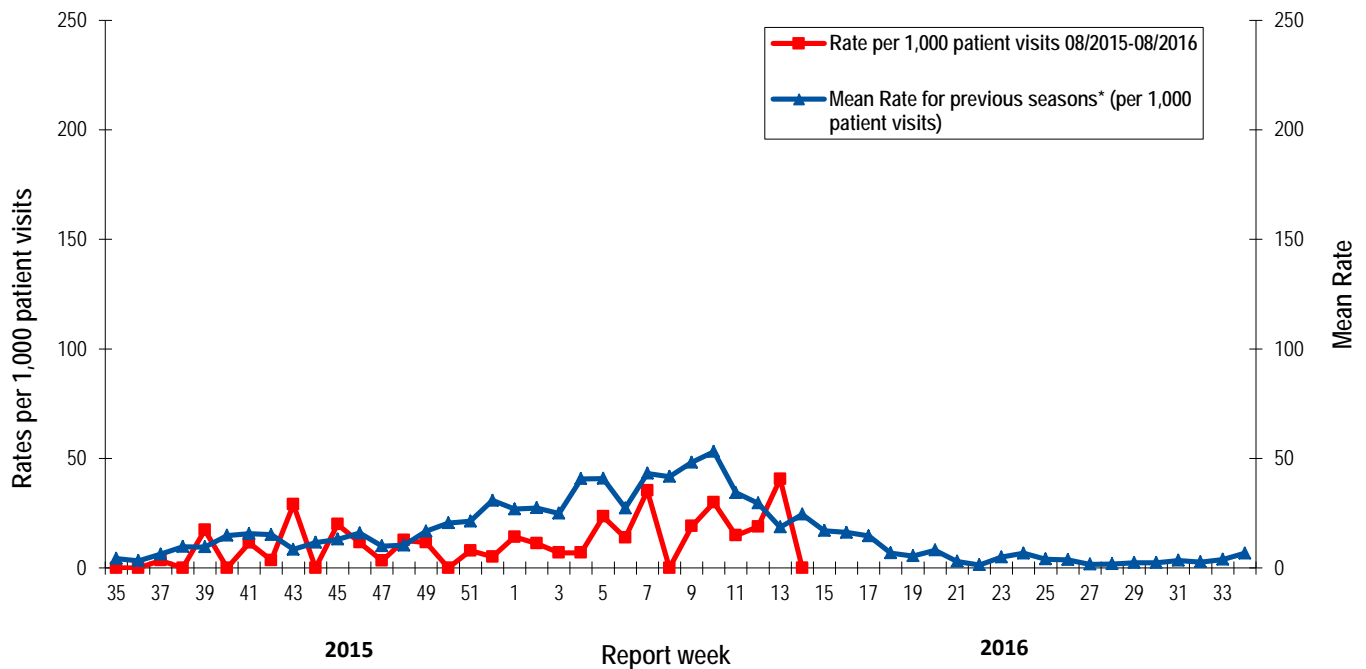
Zone	Reporting period: Apr./03/2016–Apr./09/2016						Cumulative: (2015/2016 season) Aug./30/2015 –Apr./09/2016					Cumulative: (2014/2015 season) Aug./24/2014 – Aug./29/2015				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Zone 1	Localized	1	3	57	61	9	2	31	512	545	37	88	0	353	441	280
Zone 2	Sporadic	0	1	14	15	0	0	6	89	95	2	19	0	69	88	58
Zone 3	Sporadic	0	1	7	8	3	0	7	37	44	5	19	0	69	88	55
Zone 4	Sporadic	0	2	4	6	0	0	8	79	87	1	56	0	31	87	27
Zone 5	Sporadic	0	1	2	3	0	0	4	8	12	0	8	0	14	22	2
Zone 6	Sporadic	0	1	4	5	0	3	14	70	87	1	81	0	95	176	29
Zone 7	Localized	0	1	1	2	0	0	2	17	19	0	12	0	24	36	19
Total NB		1	10	89	100	12	5	72	812	889	46	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 14, the ILI consultation rate was 0.0 consultations per 1,000 patients visits, and was below the expected levels for week 14.
- During week 14, the sentinel response rate was 41%, 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.

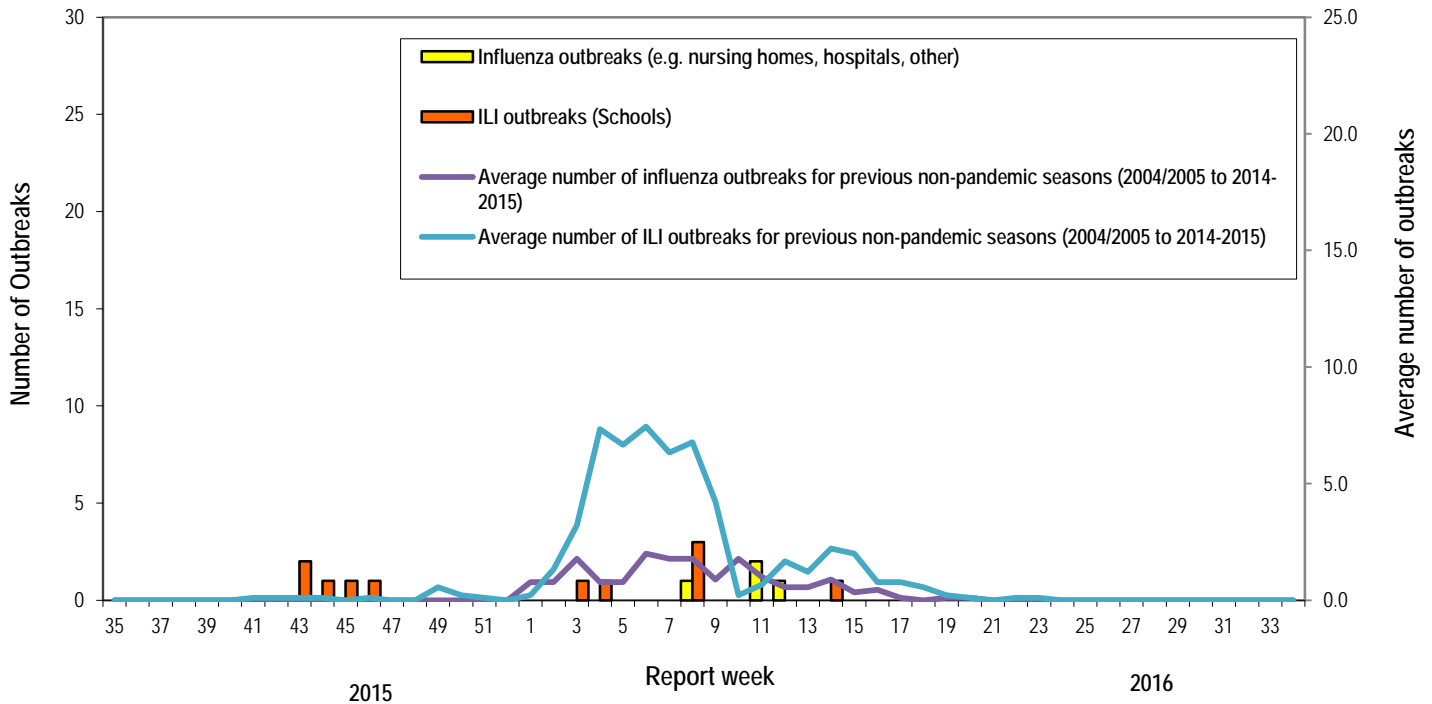
	Reporting period: Apr./03/2016–Apr./09/2016			Cumulative # of outbreaks season 2015-2016	Cumulative # of outbreaks season 2014-2015
	Lab-confirmed outbreaks in Nursing homes*	ILI school outbreaks**	Lab-confirmed outbreaks in Other settings*		
Zone 1	0 out of 13	0 out of 74	0	5	14
Zone 2	0 out of 15	0 out of 81	0	2	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	1 out of 27	0	5	8
Total NB	0 out of 63	1 out of 352	0	15	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.

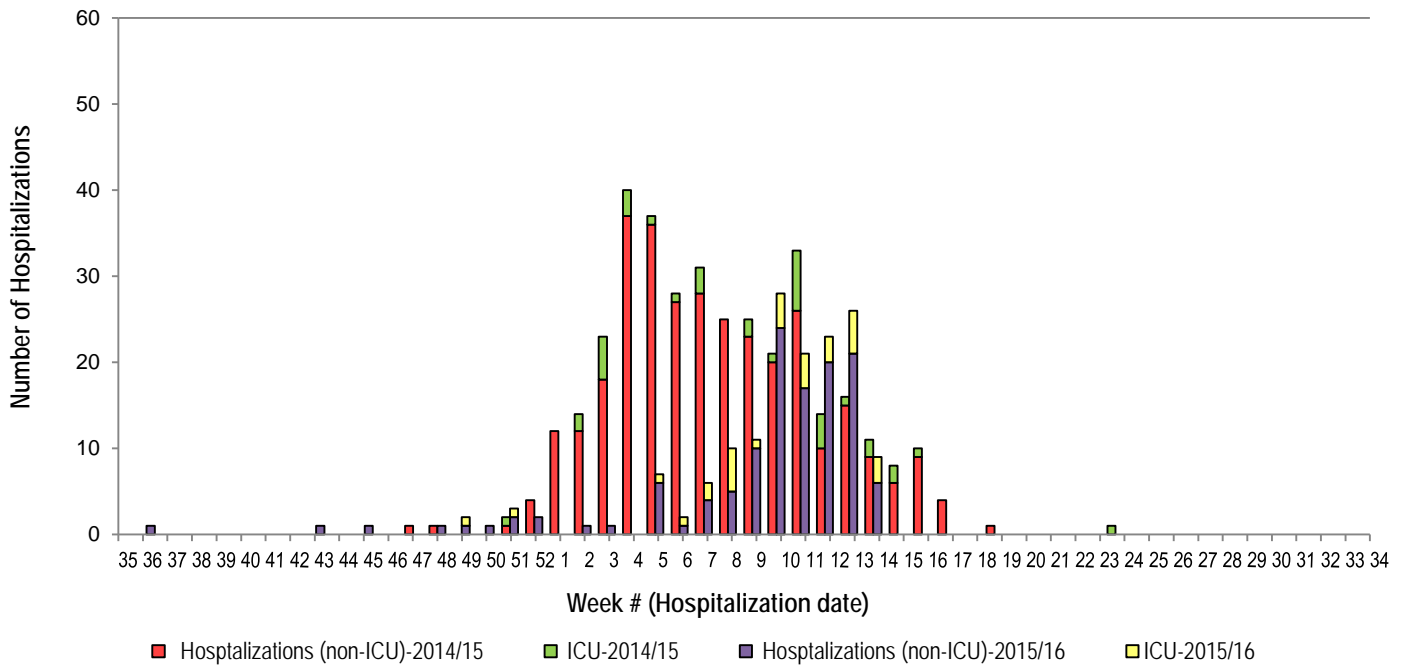
³ A total of 28 practitioner sites (16 FluWatch sentinel physicians and 12 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other)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

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

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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