

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: February 16 to February 22 2014 (week 8)

Summary:

In New Brunswick, most influenza indicators have been decreasing.

New Brunswick:

- There have been 41 positive influenza detections during week 8, 39 were A (unsubtyped) and 2 were influenza B.
- The ILI consultation rate increased and was within the expected levels for this time of year.
- No new ILI or influenza outbreaks were reported.

Canada:

- In week 8, overall influenza activity continued to decrease in Canada, except in the eastern provinces which experienced a later start to the influenza season.
- The influenza A(H1N1) virus remains the most common influenza virus circulating this season, although influenza B virus detections continue to increase.
- Overall influenza activity in Canada during the 2013-14 season has been similar to the 2012-13 season and is within expected levels for this time of year. Adults 20-64 years of age continue to be more affected by influenza this season, although the increasing circulation of influenza B may result in greater impact on older adults and children in the coming weeks.
- 1014 laboratory detections of influenza were reported in week 8. The percentage of laboratory tests positive for influenza was 14.3%.
- The national ILI consultation rate was 22.0 consultations per 1,000 patients' visits, which is below the expected range for week 8.
- Eleven new influenza outbreaks were reported: 10 in long-term care facilities and 1 in a hospital. Also, 5 ILI outbreaks were reported in other facilities.

International:

- Human infection with Avian Influenza: As of February 27 2014, a total of 372 laboratory-confirmed cases of human infection with an avian influenza A (H7N9) virus were reported in China (as well as in Taiwan and Malaysia) including 116 deaths (reports were received of 49 new deaths not previously reported). Following initial emergence of this virus in February 2013, a first peak in human cases occurred in March/April 2013. A quiescent summer period was followed by sporadic cases during the fall 2013 but, more recently, a second wave has become evident with over 232 new cases of human H7N9 illness reported since October 2013. The majority have presented with severe acute illness, rapidly progressing to severe pneumonia. Most human cases have reported a history of exposure to poultry or live bird markets. There is currently no evidence of sustained human-to-human transmission of H7N9.
- MERS-CoV: Since April 2012, 184 laboratory-confirmed cases have been reported from Saudi Arabia, Qatar, Jordan, United Arab Emirates, Kuwait, United Kingdom, Oman, France, Germany, Tunisia and Italy. Among the 184 cases, 80 were fatal. Onset of illness was between April 2012 and February 2014.
- Novel influenza A viruses:
 - Since summer 2013, the United States reported 21 new cases of human infection with variant influenza A viruses (19 H3N2v and 2 H1N1v) from Illinois, Indiana, Ohio, Michigan, Arkansas and Iowa. No human-to-human transmission has been identified. All have reported close contact with swine.
 - China reported 3 human cases of avian-origin influenza A(H10N8) in recent months (with exposure to live poultry markets) with 2 deaths. While human infection with other H10 subtypes, notably H10N7, has been previously reported, these are the first reports of H10N8 infection in humans, although this virus has been detected in birds and environmental samples in China.

1) Influenza Laboratory Data¹

- Percent positive detections have been stable in weeks 7 & 8, although were decreasing since week 4.
- 41 influenza detections were reported during this current reporting period.

¹ Surveillance specimens are submitted by recruited New Brunswick Sentinel Practitioner Influenza Network (NB SPIN) practitioners, which are comprised of 8 sites in Emergency Rooms, 3 sites in Family Practice, 2 sites in First Nations communities, 1 site in a Nursing Home, 3 sites in Universities and 8 sites 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.

- Since the beginning of the season, 1303 positive influenza detections were reported, 438 influenza A (H1N1)pdm09, 1 influenza A (H3), 851 influenza A (unsubtyped) and 13 influenza B.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to February 22 2014 (data source: G. Dumont Lab results)

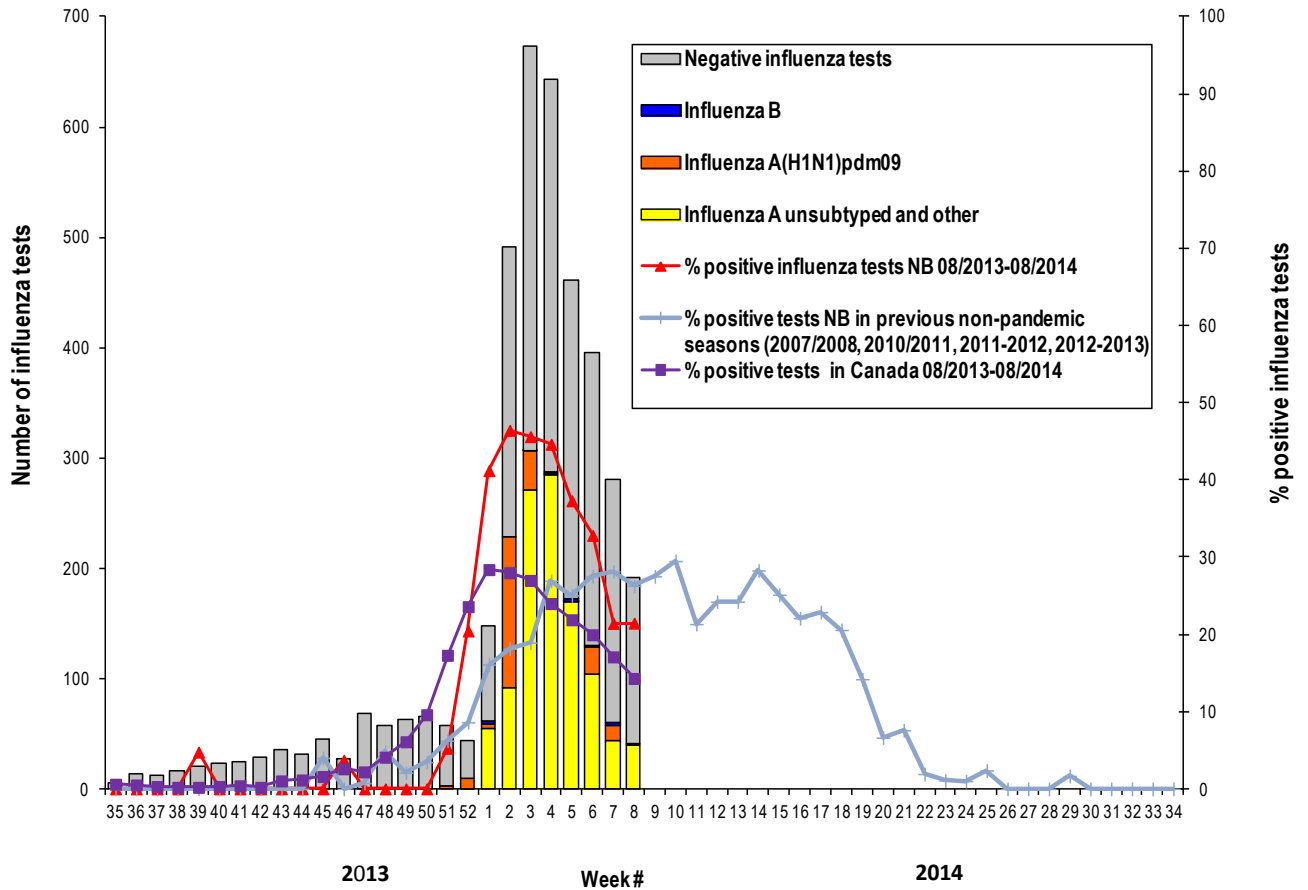


Table 1: Positive influenza test results by Health Region, in New Brunswick up to February 22 2014 (data source: G. Dumont lab results)

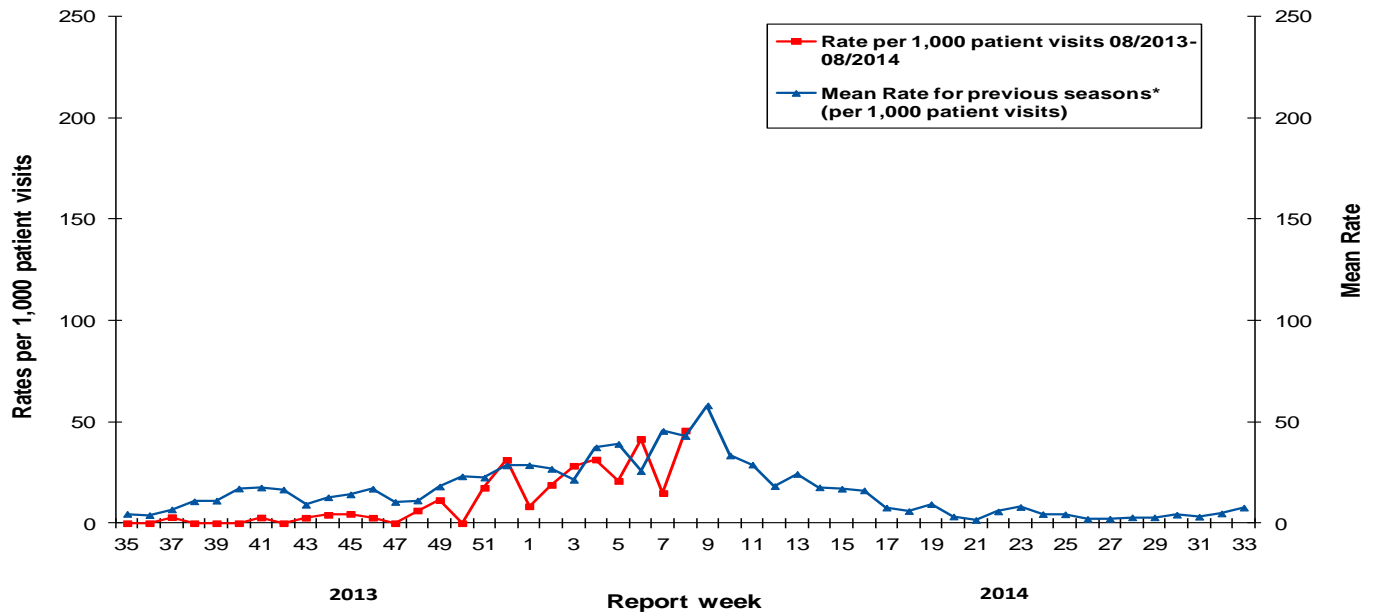
Region	Reporting period: Feb./16/2014–Feb./22/2014							Cumulative: (2013/2014 season) Aug./25/2013 –Feb./22/2014						Cumulative: (2012/2013 season) Aug./26/2012 – Aug./24/2013			
	Activity level ²	A				B	Total	A				B	Total	A		B	Total
		A(H1)	A(H3)	(H1N1) pdm09	unsubt yped	A(H1)		A(H3)	(H1N1) pdm09	unsubt yped	Non-(H1N1) pdm09	(H1N1) pdm09					
Region 1	Sporadic	0	0	0	11	1	12	0	1	204	433	1	639	527	13	18	558
Region 2	Sporadic	0	0	0	13	0	13	0	0	85	207	0	292	211	3	8	222
Region 3	Sporadic	0	0	0	3	0	3	0	0	41	75	1	117	85	9	1	95
Region 4	Sporadic	0	0	0	4	0	4	0	0	52	60	3	115	168	5	3	176
Region 5	No activity	0	0	0	0	0	0	0	0	10	20	4	34	20	1	7	28
Region 6	Sporadic	0	0	0	7	1	8	0	0	42	46	3	91	252	5	50	307
Region 7	Sporadic	0	0	0	1	0	1	0	0	4	10	1	15	89	2	11	102
Total NB		0	0	0	39	2	41	0	1	438	851	13	1303	1352	38	98	1488

² Influenza activity level definition is available on the PHAC FluWatch website: <http://www.phac-aspc.gc.ca/fluwatch/13-14/def13-14-eng.php>

2) ILI Consultation Rates³

- During week 8, the ILI consultation rate was 45.7 consultations per 1,000 patient visits, and was within the expected levels for this time of year.
- During week 8, the sentinel response rate was 50% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2013/14 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2012/2013 seasons and excludes the Pandemic season (2009-2010).

3) ILI and Laboratory-Confirmed Outbreak Data

Table 3: ILI activity/outbreaks in New Brunswick nursing homes and schools for the reporting week, current and previous seasons.

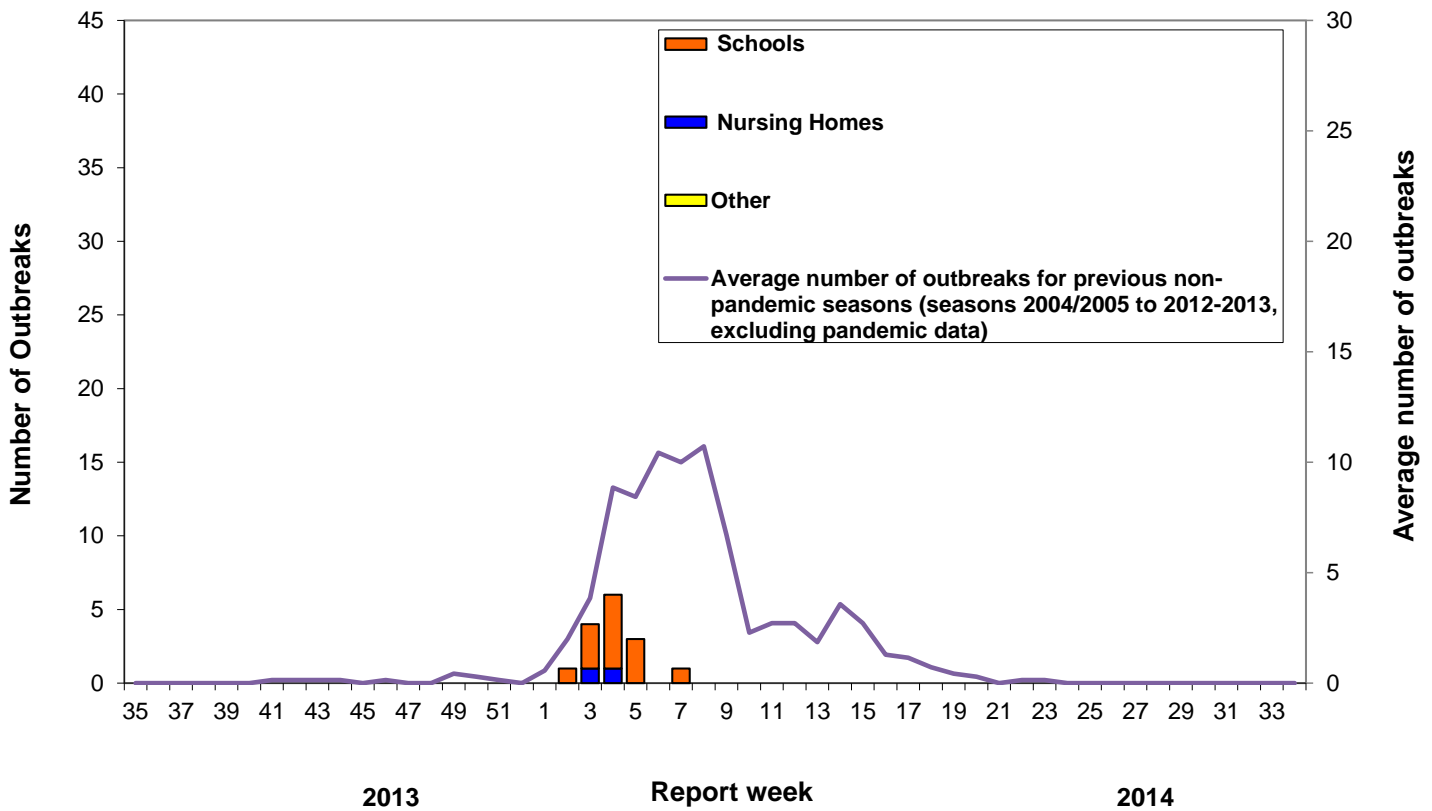
	Reporting period: Feb./16/2014–Feb./22/2014			Cumulative # of outbreaks season 2013-2014	Cumulative # of outbreaks season 2012-2013
	Lab-confirmed outbreaks in Nursing Homes*	Schools reporting ILI outbreaks**	Lab-confirmed outbreaks in Other Settings*		
Region 1	0 out of 13	0 out of 74	0	3	15
Region 2	0 out of 15	0 out of 81	0	2	38
Region 3	0 out of 14	0 out of 95	0	3	20
Region 4	0 out of 6	0 out of 22	0	1	2
Region 5	0 out of 2	0 out of 18	0	0	6
Region 6	0 out of 9	0 out of 35	0	3	23
Region 7	0 out of 4	0 out of 27	0	2	10
Total NB	0 out of 63	0 out of 352	0	14	114

*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 (or absenteeism that is higher (e.g. >5-10%) than expected level as determined by school or Public Health Authority) which is likely due to ILI.

³ A total of 34 practitioner sites (19 FluWatch sentinel physicians and 15 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 in Nursing Homes¹ and ILI Outbreaks in Schools² reported to Public Health in New Brunswick, by report week, season 2013/14.



¹ The National FluWatch definition of an outbreak in a nursing home is stated as two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case.

² The National FluWatch definition of an ILI outbreak in a school is stated as absenteeism greater than 10% (or absenteeism that is higher (e.g. >5-10%) than expected level as determined by school or Public Health Authority) which is likely due to ILI.

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.euroflu.org/cgi-files/bulletin_v2.cgi and

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/