

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: January 12 to January 18 2014 (week 3)

Summary:

In New Brunswick, continued increase in percent positive lab results since week 51 and influenza A (H1N1)pdm09 predominates

New Brunswick:

- There have been 307 positive influenza detections during week 3, 35 were A(H1N1)pdm09, 271 were A (unsubtyped) and 1 influenza B
- The ILI consultation rate was higher than the expected levels for this time of year.
- Two new ILI outbreaks were reported in schools in Regions 1 and 2, and one influenza outbreak in a nursing home in Region 1.

Canada:

- In week 03, overall laboratory detections of influenza decreased slightly, reflecting decreased activity in some regions that experienced an earlier start to the influenza season, and increases in activity in other regions. Prescriptions for antiviral medications to treat influenza have also decreased.
- 3364 laboratory detections of influenza were reported during week 3, proportion of positive tests was 27.2%.
- The ILI consultation rate increased and was above the expected levels for week 3 but in keeping with the trend at this time of year.
- Nine new influenza outbreaks were reported: four in hospitals and five in long-term care facilities. In addition, three outbreaks of influenza-like-illness were reported in week 03: two in schools and one in another facility or community.

International:

- Human infection with Avian Influenza: As of January 17 2013, a total of 195 laboratory-confirmed cases of human infection with an avian influenza A (H7N9) virus was reported in China including 53 deaths. China is experiencing a second wave of influenza A(H7N9) cases. 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 51 new cases of human H7N9 illness reported since early December 2013. There is currently no evidence of sustained human-to-human transmission of H7N9
- MERS-CoV: Since April 2012, 180 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 180 cases, 77 were fatal. Onset of illness was between April 2012 and January 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.

1) Influenza Laboratory Data¹

- Continued increase in percent positive lab results since week 51 and A (H1N1)pdm09 predominates.
- 307 influenza detections were reported during this current reporting period.
- Since the beginning of the season, 611 positive influenza detections were reported, 323 influenza A (H1N1)pdm09, 1 influenza A (H3), 284 influenza A (unsubtyped) and 3 influenza B.

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.

Graph 1: Number and percent of positive influenza specimens in New Brunswick by week, up to January 18 2014 (data source: G. Dumont Lab results)

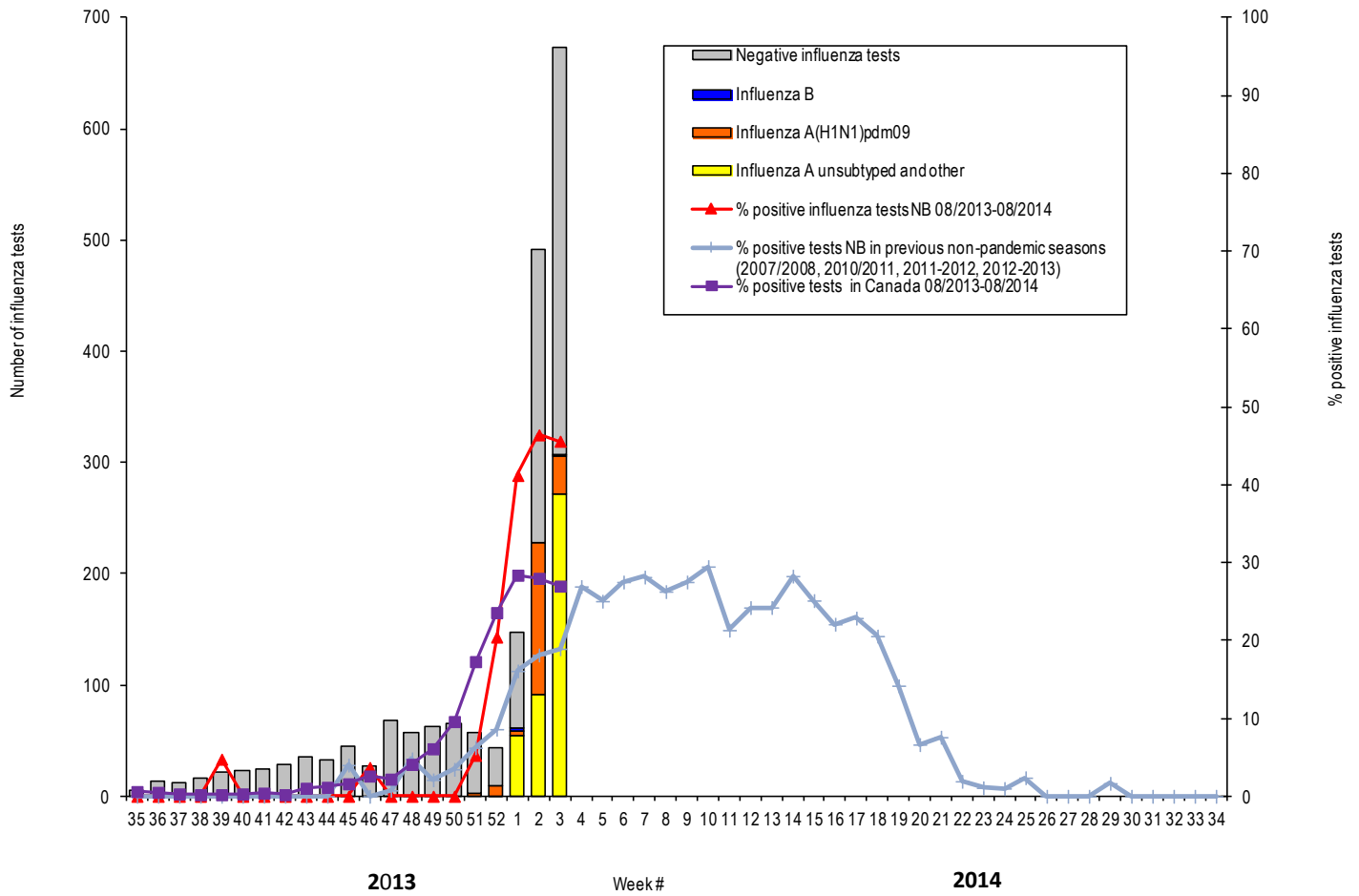


Table 1: Positive influenza test results by Health Region, in New Brunswick up to January 18 2014 (data source: G. Dumont lab results)

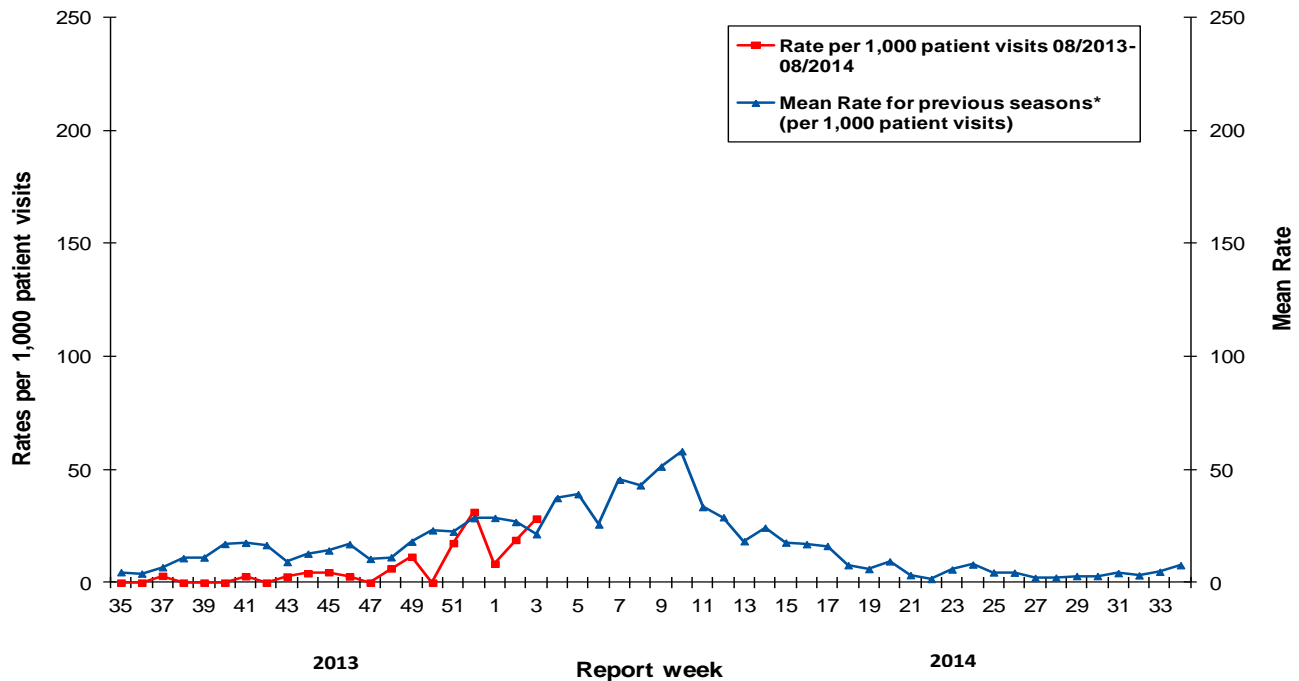
Region	Reporting period: Jan./12/2014–Jan./18/2014							Cumulative: (2013/2014 season) Aug./25/2013 –Jan./18/2014						Cumulative: (2012/2013 season) Aug./26/2012 – Aug./24/2013			
	Activity level ²	A				B	Total	A				B	Total	A		B	Total
		A(H1)	A(H3)	(H1N1) pdm09	unsubt yped			A(H1)	A(H3)	(H1N1) pdm09	unsubt yped			Non-(H1N1) pdm09	(H1N1) pdm09		
Region 1	Sporadic	0	0	26	120	0	146	0	1	160	124	0	285	527	13	18	558
Region 2	Sporadic	0	0	0	97	0	97	0	0	73	103	0	176	211	3	8	222
Region 3	Sporadic	0	0	3	22	0	25	0	0	26	24	0	50	85	9	1	95
Region 4	Sporadic	0	0	4	12	0	16	0	0	31	12	2	45	168	5	3	176
Region 5	Sporadic	0	0	0	10	0	10	0	0	6	10	0	16	20	1	7	28
Region 6	Sporadic	0	0	0	9	0	9	0	0	22	9	0	31	252	5	50	307
Region 7	Sporadic	0	0	2	1	1	4	0	0	5	2	1	8	89	2	11	102
Total NB		0	0	35	271	1	307	0	1	323	284	3	611	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 3, the ILI consultation rate was 28.3 consultations per 1,000 patient visits, and was above the expected levels for this time of year.
- During week 3, 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.

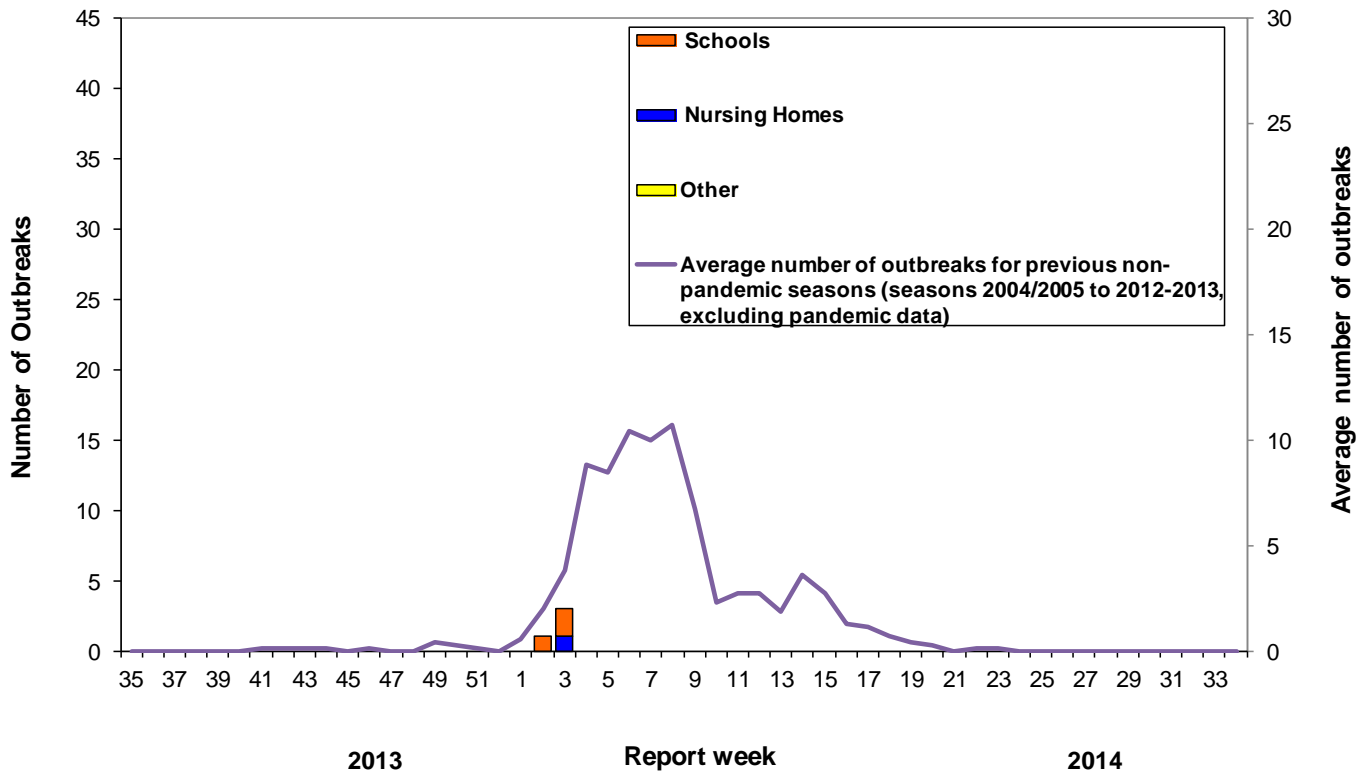
	Reporting period: Jan./12/2014–Jan./18/2014			Cumulative # of outbreaks season 2013-2014	Cumulative # of outbreaks season 2012-2013
	Lab-confirmed outbreaks in Nursing Homes*	Schools reporting ILI outbreaks**	Lab-confirmed outbreaks in Other Settings*		
Region 1	1 out of 13	1 out of 74	0	2	15
Region 2	0 out of 15	1 out of 81	0	1	38
Region 3	0 out of 14	0 out of 95	0	1	20
Region 4	0 out of 6	0 out of 22	0	0	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	0	23
Region 7	0 out of 4	0 out of 27	0	0	10
Total NB	1 out of 63	2 out of 352	0	4	114

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.

*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.

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/