

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: April 13 to April 19 2014 (week 16)

Summary:

In New Brunswick, low influenza activity in week 16, all positive detections were influenza B.

New Brunswick:

- There have been 11 positive influenza detections during week 16, all were influenza B.
- The ILI consultation rate decreased slightly compared to previous week and was below the expected levels for this time of year.
- No new influenza or ILI outbreaks were reported.

Canada:

- In week 16, influenza B continued to circulate in several regions across Canada. Influenza activity remains within the expected levels for this time of year, and is consistent with late-season circulation of influenza B.
- While the influenza A (H1N1)pdm09 virus has mostly affected adults 20-64 years of age this season, influenza B is having a greater impact on adults 65 years of age and older, as well as young persons 5 to 19 years of age.
- 587 laboratory detections of influenza were reported in week 16. The percentage of laboratory tests positive for influenza was 16.1%.
- The national ILI consultation rate was 23.2 consultations per 1,000 patients' visits, which is within the expected range for week 16.
- Seven new influenza outbreaks were reported: 5 in long-term care facilities, 1 in a hospital and 1 in another setting. Also, 1 outbreak of ILI was reported in a school.

International:

- Human infection with Avian Influenza: As of April 24 2014, a total of 427 laboratory-confirmed cases of human infection with an avian influenza A (H7N9) virus were reported in China (as well as in Taiwan, Hong Kong and Malaysia) including 146 deaths. The majority of cases 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, 254 laboratory-confirmed cases have been reported from Saudi Arabia, Qatar, Jordan, United Arab Emirates, Kuwait, United Kingdom, Oman, France, Germany, Tunisia, Italy, Malaysia and Greece. Among the 254 cases, 93 were fatal. Onset of illness was between April 2012 and April 2014. A recent increase in cases has been mostly associated with large nosocomial outbreaks including asymptomatic cases identified through case tracking and affecting mostly health care workers.
- 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.

1) Influenza Laboratory Data¹

- Low influenza activity, all positive detections were influenza B.
- 11 influenza detections were reported during this current reporting period.
- Since the beginning of the season, 1403 positive influenza detections were reported, 440 influenza A (H1N1)pdm09, 1 influenza A (H3), 884 influenza A (unsubtyped) and 78 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 April 19 2014 (data source: G. Dumont Lab results)

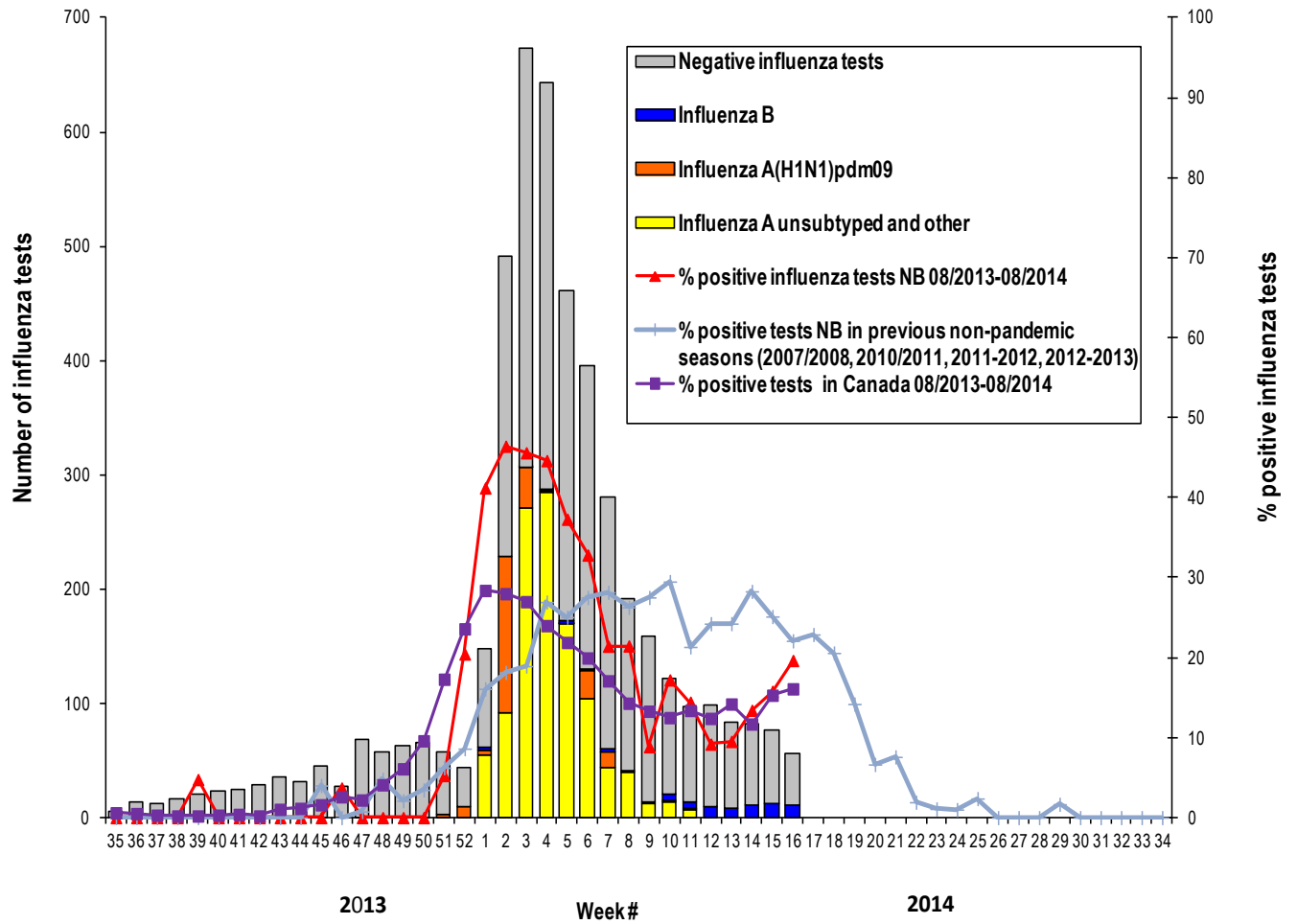


Table 1: Positive influenza test results by Health Region, in New Brunswick up to April 19 2014 (data source: G. Dumont lab results)

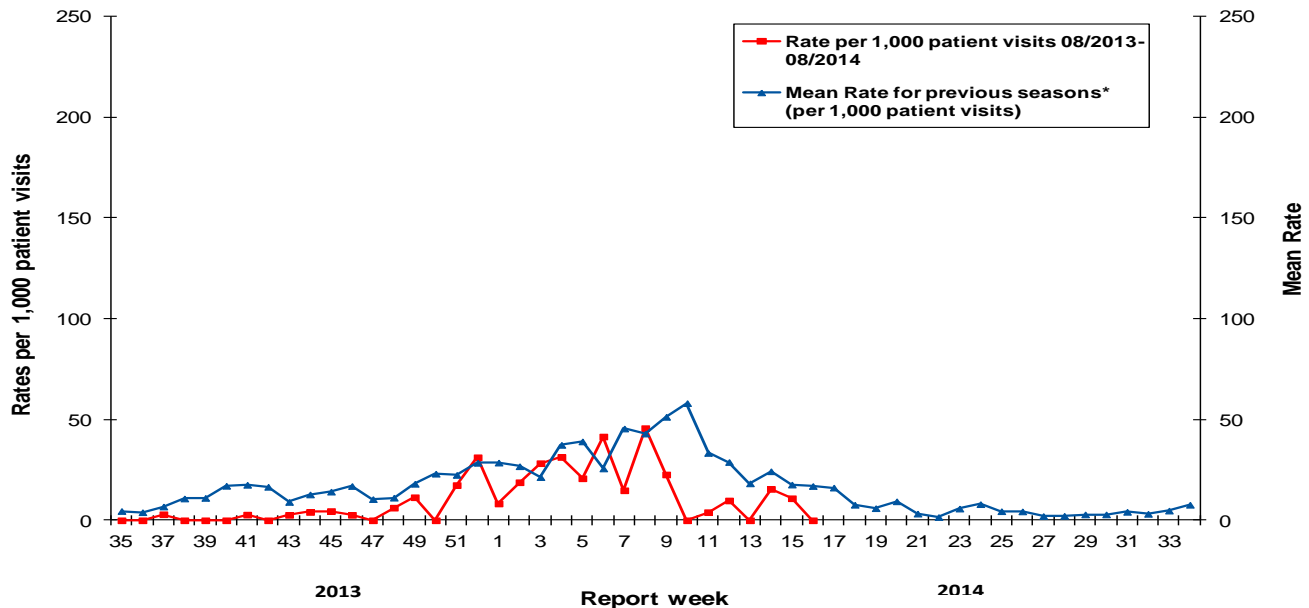
Region	Reporting period: Apr./13/2014–Apr./19/2014							Cumulative: (2013/2014 season) Aug./25/2013 –Apr./19/2014						Cumulative: (2012/2013 season) Aug./26/2012 – Aug./24/2013			
	Activity level ²	A				B	Total	A				B	Total	A		B	Total
		A(H1)	A(H3)	(H1N1) pdm09	unsubt yped	A(H1)		A(H3)	(H1N1) pdm09	unsubt yped	Non-(H1N1) pdm09	(H1N1) pdm09					
Region 1	No activity	0	0	0	0	0	0	0	1	205	442	15	663	527	13	18	558
Region 2	No activity	0	0	0	0	0	0	0	0	86	219	1	306	211	3	8	222
Region 3	No activity	0	0	0	0	0	0	0	0	41	80	3	124	85	9	1	95
Region 4	Sporadic	0	0	0	0	11	11	0	0	52	61	42	155	168	5	3	176
Region 5	No activity	0	0	0	0	0	0	0	0	10	22	5	37	20	1	7	28
Region 6	No activity	0	0	0	0	0	0	0	0	42	49	9	100	252	5	50	307
Region 7	No activity	0	0	0	0	0	0	0	0	4	11	3	18	89	2	11	102
Total NB		0	0	0	0	11	11	0	1	440	884	78	1403	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 16, the ILI consultation rate was 0.0 consultations per 1,000 patient visits, and was below the expected levels for this time of year.
- During week 16, 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 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.

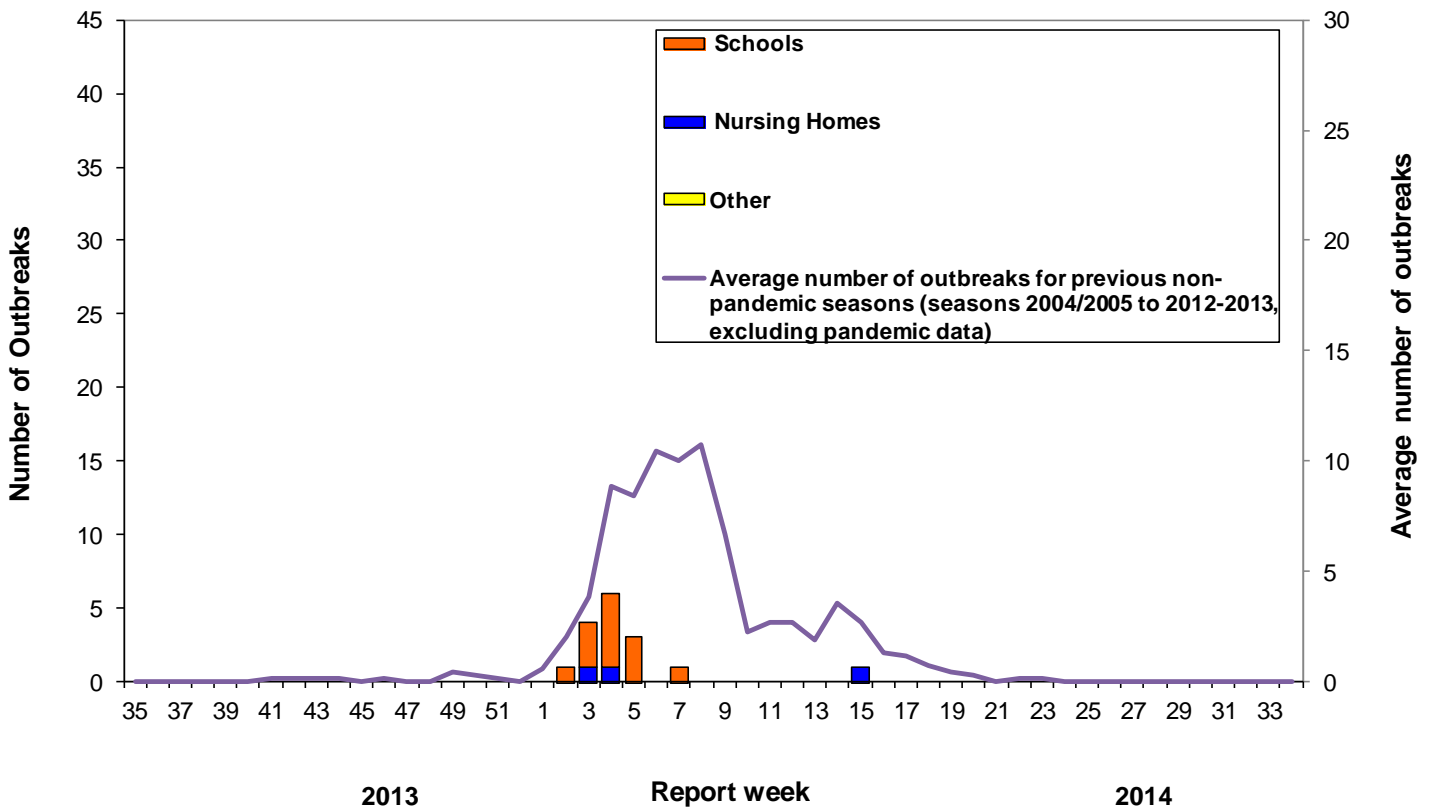
	Reporting period: Apr./13/2014–Apr./19/2014			Cumulative # of outbreaks season 2013-2014	Cumulative # of outbreaks season 2012-2013
	Lab-confirmed outbreaks in Nursing Homes*	Schools reporting ILI outbreaks**	Lab-confirmed outbreaks in Other Settings*		
Region 1	0 out of 13	0 out of 74	0	3	15
Region 2	0 out of 15	0 out of 81	0	2	38
Region 3	0 out of 14	0 out of 95	0	4	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	15	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/