

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: November 30 to December 6 2014 (week 49)

Summary:

In New Brunswick, influenza activity remains within expected levels

New Brunswick:

- There has been 1 positive influenza detection during week 49, an influenza A (H3) virus.
- The ILI consultation rate was 4.1 consultations per 1,000 patients visits, and was below the expected level for this time of year.
- No new influenza or ILI outbreaks were reported.

Canada:

- Laboratory detections of influenza increased sharply for the third consecutive week. The majority of lab detections continued to be reported in BC, AB, ON and QC; but with increasing activity in SK and NS.
- Influenza A (H3N2) continues to be the most common type of influenza affecting Canadians. Among laboratory detections and hospitalizations, the majority of cases have been among seniors 65 years of age and over.
- 1,003 laboratory detections of influenza were reported in week 49 and the percentage of laboratory tests positive for influenza was 19.5%.
- The national ILI consultation rate was 44.3 consultations per 1,000 patients' visits, which is above the expected levels for week 49. Thirty-seven new influenza outbreaks were reported in 6 provinces; 32 were in long-term care facilities, 2 in hospitals and 3 in other settings. An additional 3 outbreaks of ILI were reported in schools.
- The rate of antiviral prescriptions among seniors increased significantly in week 49.
- Antigenic characterization: NML has antigenically characterized 11 H3N2 viruses, 9 of which showed suboptimal match to the vaccine strain and 14 B viruses, 3 of which showed suboptimal match to the vaccine strain.

International:

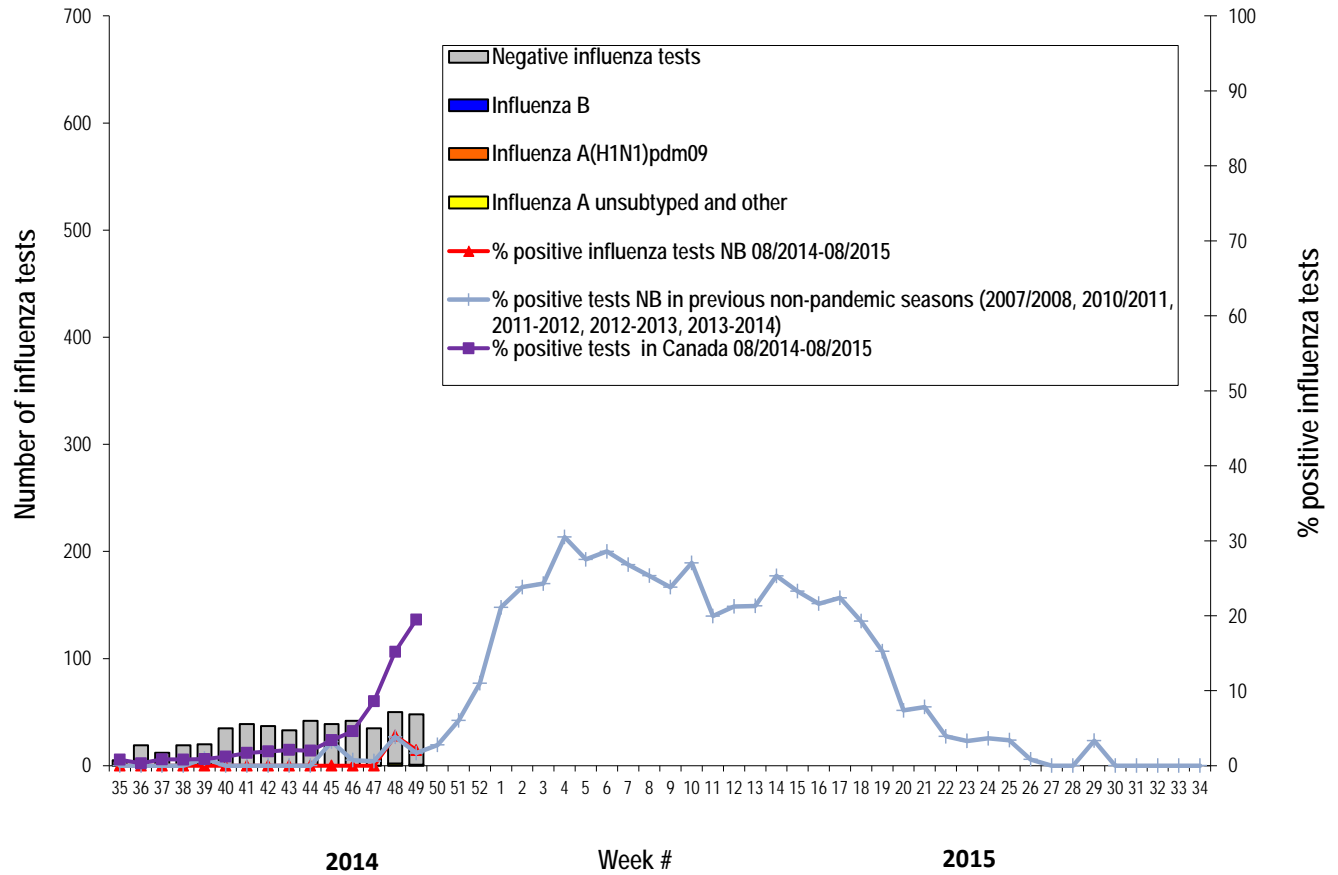
- Globally, influenza activity remained low, with the exception of some Pacific Islands.
- Human infection with Avian Influenza: As of December 11 2014, a total of 458 laboratory-confirmed cases of human infection with an avian influenza A (H7N9) virus were reported in China (as well as in Taiwan, Hong Kong and Malaysia) including 177 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.
- Other Respiratory Viruses:
- MERS-CoV: From April 2012 to December 11 2014, 927 laboratory-confirmed cases of MERS-CoV have been reported from 23 countries. All cases have either occurred in the Middle East or have a direct link to a primary case infected in the Middle East. Among the 927 cases, 338 were fatal. Investigations to identify the source of infection and routes of exposure are still ongoing. The number of MERS-CoV cases in September and October 2014 has been slightly higher than in July and August 2014. This pattern was also observed previously.

1) Influenza Laboratory Data¹

- Influenza activity remains within expected levels.
- One influenza detection was reported during the reporting period; an A (H3) virus.
- Since the beginning of the season, three positive influenza detections were reported, all were A (H3).

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, 2 sites in Family Practice, 2 sites in First Nations communities, 1 site in a Nursing Home, 2 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 December 6 2014 (data source: G. Dumont Lab results)



Note: Influenza A unsubtype and other might include some (H1N1)pdm09 and H3N2 specimens that have not been subtyped.

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 December 6 2014)

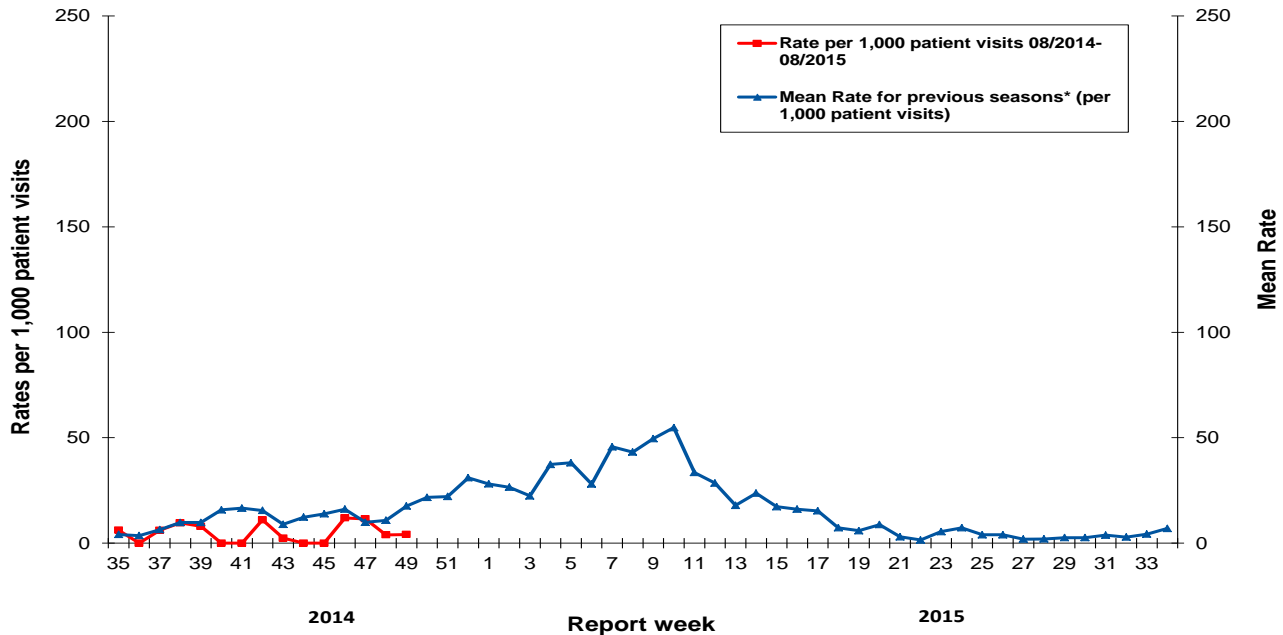
Region	Reporting period: November/30/2014–December/06/2014						Cumulative: (2014/2015 season) Aug./24/2014 –Dec./06/2014					Cumulative: (2013/2014 season) Aug./25/2013 – Aug./23/2014				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Region 1	No activity	0	0	0	0	0	2	0	0	2	0	2	205	442	649	39
Region 2	No activity	0	0	0	0	0	0	0	0	0	0	0	86	219	305	2
Region 3	No activity	0	0	0	0	0	0	0	0	0	0	0	41	80	121	4
Region 4	Sporadic activity	1	0	0	1	0	1	0	0	1	0	0	52	61	113	49
Region 5	No activity	0	0	0	0	0	0	0	0	0	0	0	10	23	33	6
Region 6	No activity	0	0	0	0	0	0	0	0	0	0	0	42	49	91	25
Region 7	No activity	0	0	0	0	0	0	0	0	0	0	0	4	11	15	3
Total NB		1	0	0	1	0	3	0	0	3	0	2	440	885	1327	128

² Influenza activity level definition is available on the PHAC FluWatch website: <http://www.phac-aspc.gc.ca/fluwatch/14-15/def14-15-eng.php>

2) ILI Consultation Rates³

- During week 49, the ILI consultation rate was 4.1 consultations per 1,000 patient visits, and was below the expected level for this time of year.
- During week 49, the sentinel response rate was 32%, for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2014/15 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2013/2014 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.

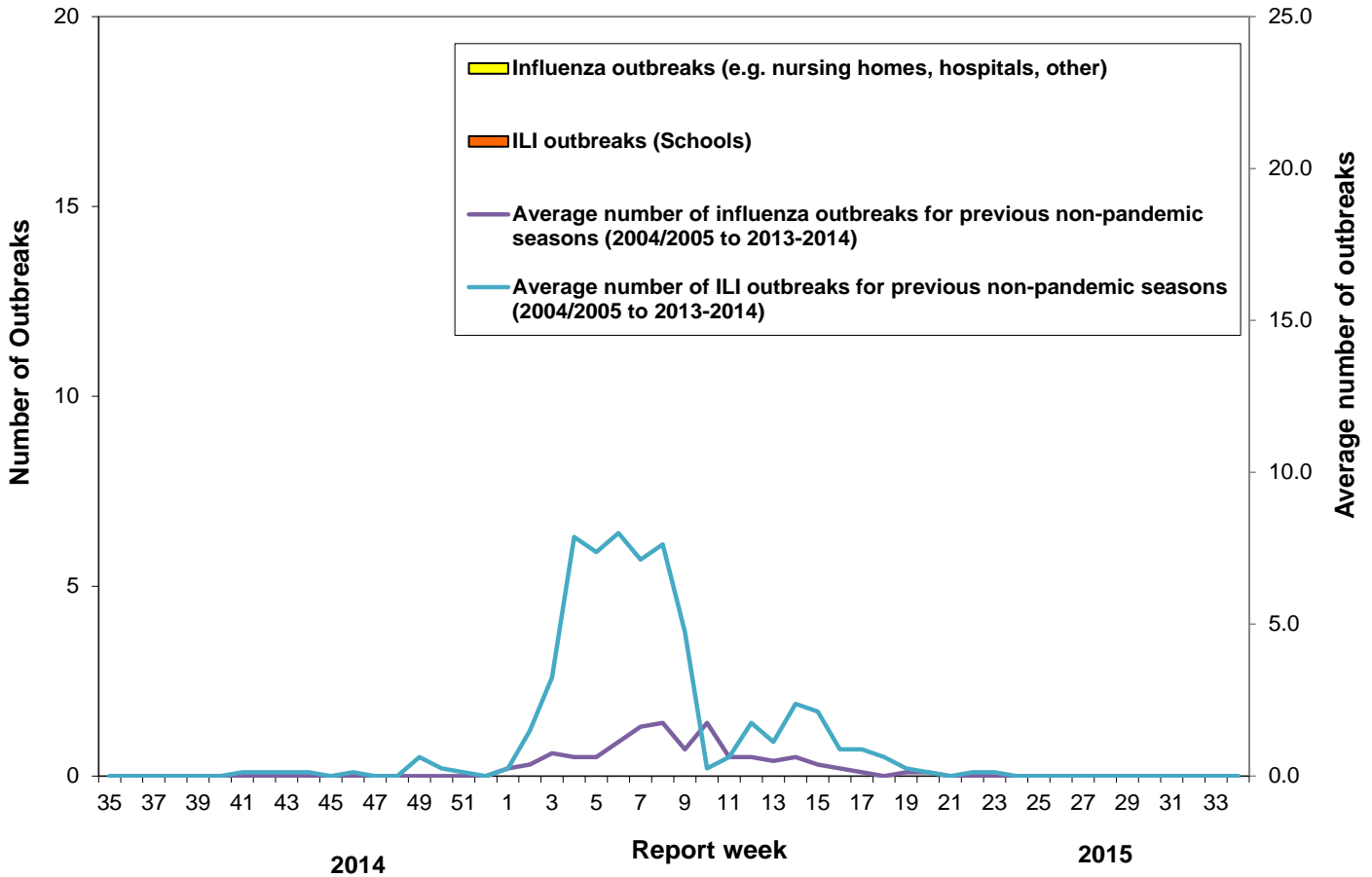
	Reporting period: November/30/2014–December/06/2014			Cumulative # of outbreaks season 2014-2015	Cumulative # of outbreaks season 2013-2014
	Lab-confirmed outbreaks in Nursing Homes*	Schools reporting ILI outbreaks**	Lab-confirmed outbreaks in Other Settings*		
Region 1	0 out of 13	0 out of 74	0	0	3
Region 2	0 out of 15	0 out of 81	0	0	2
Region 3	0 out of 14	0 out of 95	0	0	4
Region 4	0 out of 6	0 out of 22	0	0	1
Region 5	0 out of 2	0 out of 18	0	0	0
Region 6	0 out of 9	0 out of 35	0	0	3
Region 7	0 out of 4	0 out of 27	0	0	2
Total NB	0 out of 63	0 out of 352	0	0	15

*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 31 practitioner sites (18 FluWatch sentinel physicians and 13 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) and ILI Outbreaks (schools) reported to Public Health in New Brunswick, by report week, season 2014/15.



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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