

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: December 21 2014 to January 3 2015 (weeks 52 & 53)

Summary:

In New Brunswick, influenza activity increased compared to previous weeks but remains within expected levels

New Brunswick:

- There have been 27 positive influenza detections during weeks 52 & 53, 24 A (H3) viruses, 1 A (unsubtyped) and 2 B.
- The ILI consultation rate was 40.8 and 0.0 consultations per 1,000 patients visits, respectively, for weeks 52 & 53 and was above the expected level for week 52.
- One new influenza outbreak was reported in week 53 in a hospital setting.

Canada:

- The percent positive for laboratory detections of influenza increased in week 52 but remained stable in week 53, perhaps indicating that we are nearing the peak in laboratory detections for the season. The majority of lab detections continued to be reported in AB, ON and QC; but with increasing activity in BC and MB.
- Influenza A (H3N2) continues to be the most common type of influenza affecting Canadians. Among laboratory detections, hospitalizations and deaths, the majority of cases have been among seniors 65 years of age and over.
- 9,273 laboratory detections of influenza were reported in weeks 52 & 53 and the percentage of laboratory tests positive for influenza was 35% for week 53.
- The national ILI consultation rate was 69.1 consultations per 1,000 patients' visits in week 53, which is above the expected levels for week 53.
- One hundred and sixty-six new influenza outbreaks were reported in 8 provinces in week 53; 122 were in long-term care facilities, 9 in hospitals and 35 in other settings.
- Antigenic characterization: NML has antigenically characterized 40 H3N2 viruses, 34 of which showed suboptimal match to the vaccine strain, 2 A (H1N1)pdm09 that were a match to the vaccine strain and 24 B viruses, 21 of which were a match to the vaccine strain.

International:

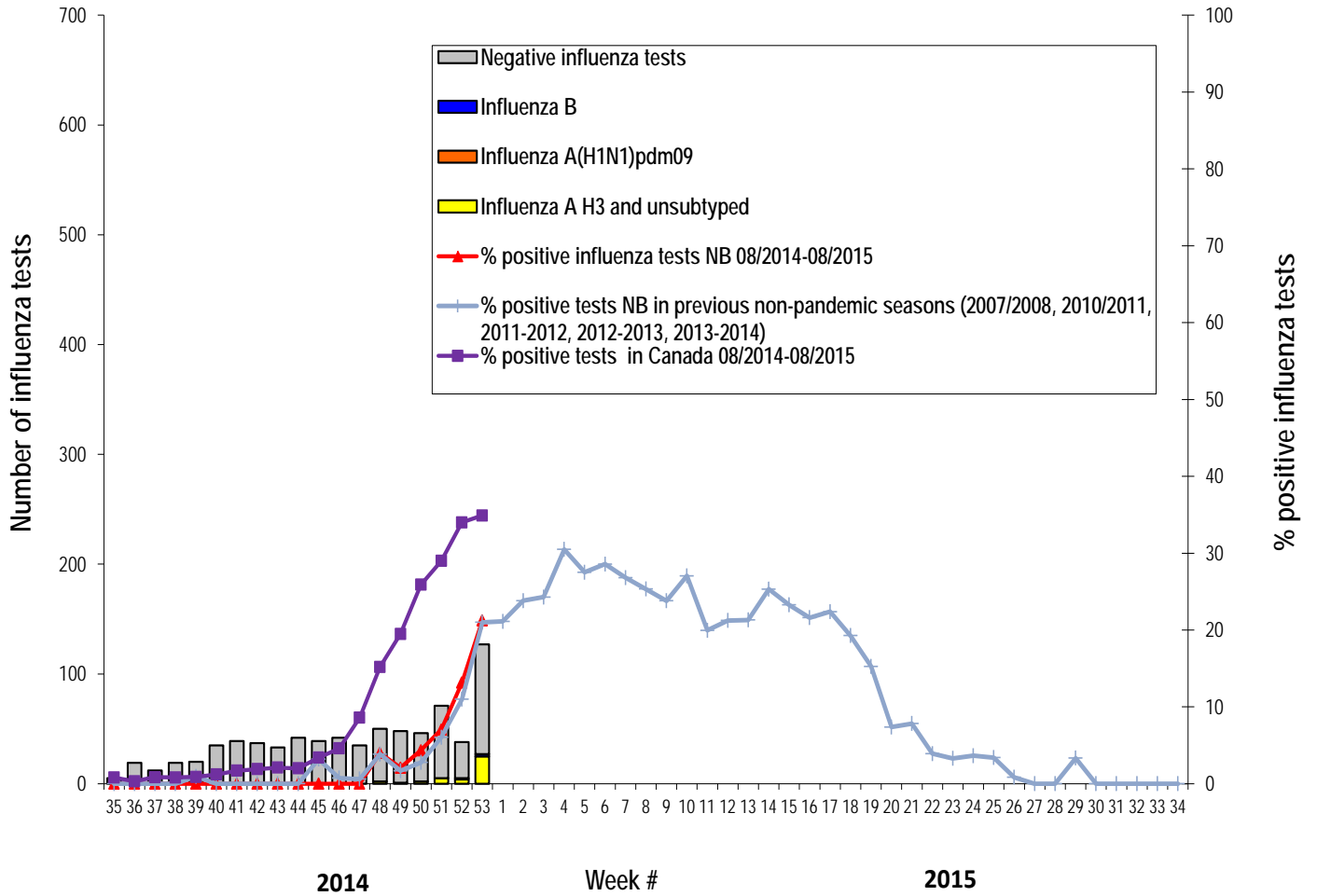
- Globally, influenza activity continued to increase in the northern hemisphere with influenza A (H3N2) predominating so far this season. The antigenic characterization of most recent A(H3N2) viruses so far indicated differences from the A(H3N2) virus used in the influenza vaccines for the northern hemisphere 2014-2015.
- Human infection with Avian Influenza: As of January 8 2015, a total of 470 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 182 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 January 8 2015, 945 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 945 cases, 348 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 increased compared to previous weeks but remained within expected levels.
- Twenty-seven influenza detections were reported during the reporting period; 24 A (H3) viruses, 1 A (unsubtyped) and 2 B viruses.
- Since the beginning of the season, Thirty-seven positive influenza detections were reported, 33 were A (H3), 2 were A (unsubtyped) and 2 were B viruses.

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 January 3 2015 (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 January 3 2015)

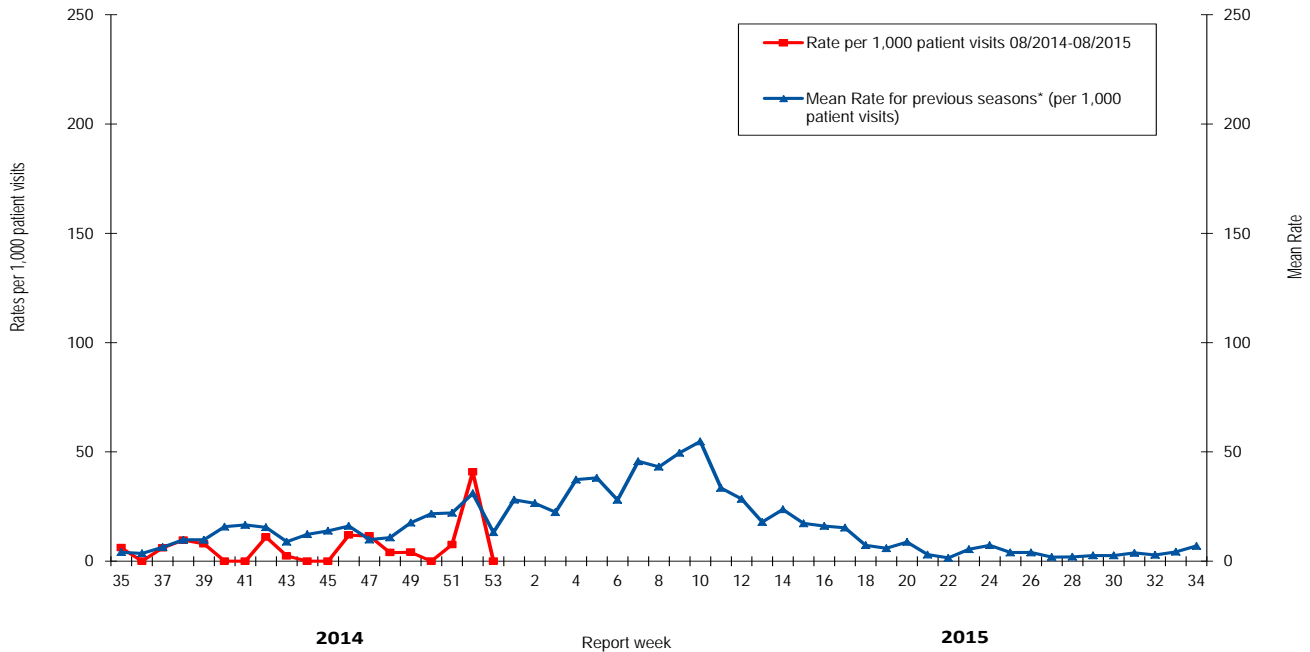
Region	Reporting period: December/21/2014–January/03/2015						Cumulative: (2014/2015 season) Aug./24/2014 –Jan./03/2015					Cumulative: (2013/2014 season) Aug./25/2013 – Aug./23/2014				
	Activity level ²	A				B	A				B	A				B
		A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	A(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total	(H3)	(H1N1) pdm09	Unsubtyped / Other	A Total	Total
Region 1	Sporadic	10	0	1	11	2	14	0	1	15	2	2	205	442	649	39
Region 2	Sporadic	7	0	0	7	0	7	0	1	8	0	0	86	219	305	2
Region 3	Sporadic	1	0	0	1	0	1	0	0	1	0	0	41	80	121	4
Region 4	No activity	0	0	0	0	0	3	0	0	3	0	0	52	61	113	49
Region 5	Sporadic	1	0	0	1	0	1	0	0	1	0	0	10	23	33	6
Region 6	Sporadic activity	5	0	0	5	0	7	0	0	7	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		24	0	1	25	2	33	0	2	35	2	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 53, the ILI consultation rate was 0.0 consultations per 1,000 patient visits.
- During week 53, the sentinel response rate was 13%, 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 2: ILI activity/outbreaks in New Brunswick nursing homes and schools for the reporting week, current and previous seasons.

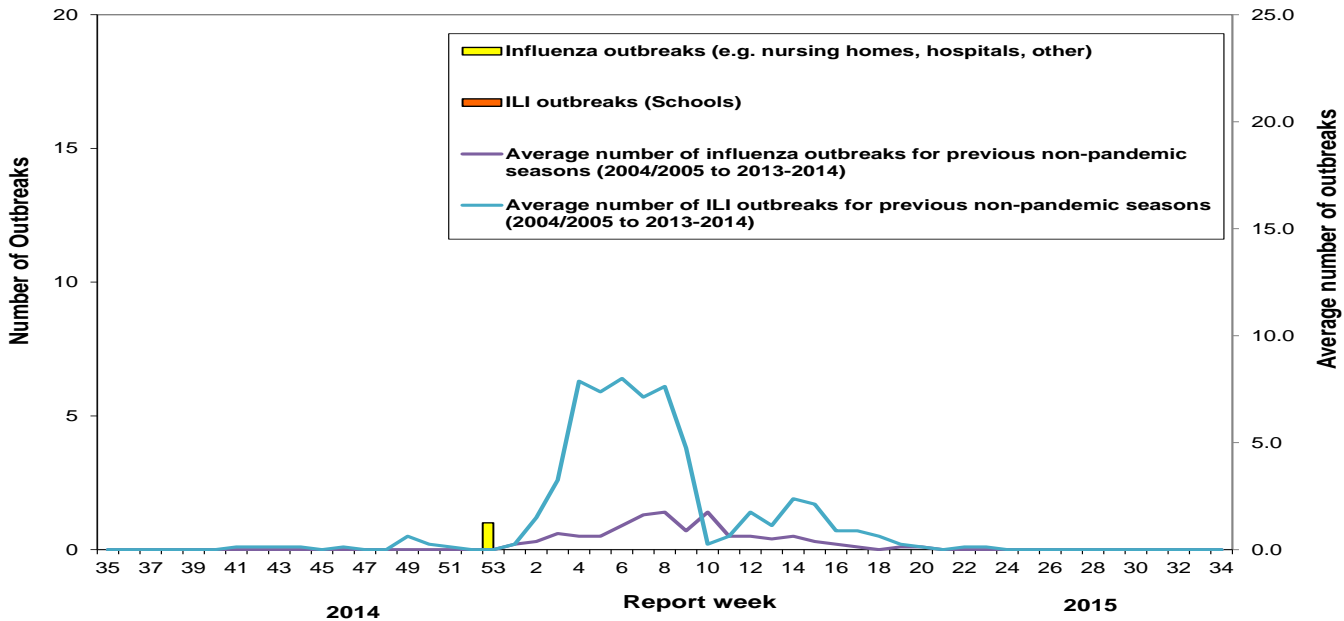
	Reporting period: December/21/2014–January/03/2015			Cumulative # of outbreaks season 2014-2015	Cumulative # of outbreaks season 2013-2014
	Lab-confirmed outbreaks in Nursing homes	ILI school outbreaks	Lab-confirmed outbreaks in Other settings		
Region 1	0 out of 13	0 out of 74	0	0	3
Region 2	0 out of 15	0 out of 81	1	1	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	1	1	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.

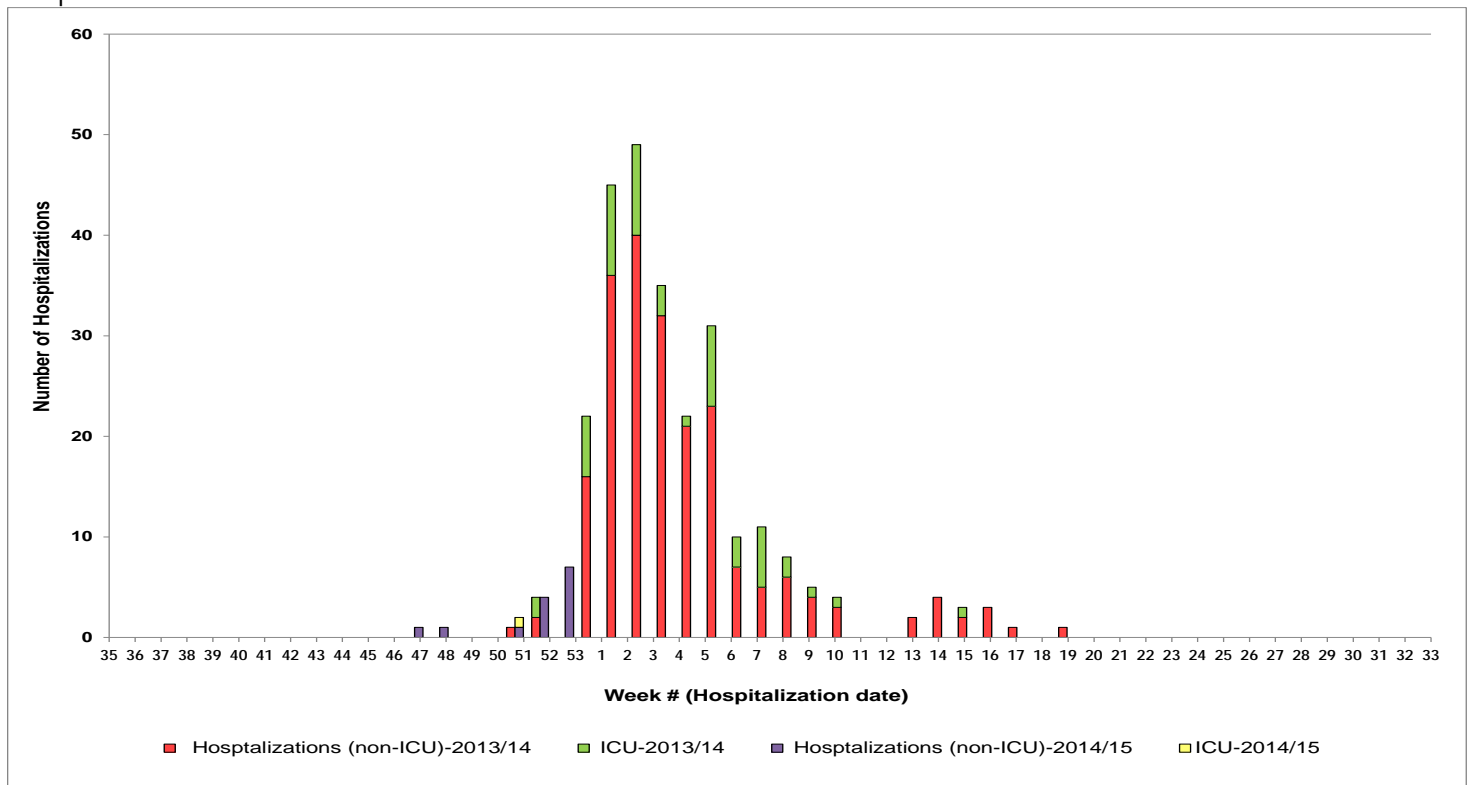
³ A total of 31 practitioner sites (18 FluWatch sentinel physicians and 13 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

Graph 3: Number of Influenza Outbreaks (nursing homes, hospitals, other)⁴ and ILI Outbreaks (schools)⁵ reported to Public Health in New Brunswick, by report week, season 2014/15.



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

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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