WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: August 16 to August 29 2015 (weeks 33 & 34)

Summary:

In New Brunswick, influenza activity remains at inter-seasonal levels.

New Brunswick:

- There have been no positive influenza detections during weeks 33 & 34.
- The ILI consultation rate was 0.0 and 3.9 consultations per 1,000 patients visits, for weeks 33 & 34, respectively, and was within the expected level for this time of year.
- No new influenza or ILI outbreaks were reported during weeks 33 & 34.

Canada:

- Overall, there is little to no influenza activity in Canada; however, in week 34, there were low levels of influenza activity reported in regions of Ontario, Québec and Nova Scotia.
- Rhinovirus was the most commonly detected respiratory virus in weeks 33 & 34.
- As of week 34, 8021 hospitalizations and 606 deaths have been reported from participating regions, which is more than were reported last year at this time (5,457 hospitalizations and 344 deaths).
- 8 laboratory detections of influenza were reported in weeks 33&34 and the percentage of laboratory tests positive for influenza was less than 1%.
- The national ILI consultation rate was 10.9 consultations per 1,000 patients' visits for week 34, which is slightly higher than the expected levels for week 34.
- No new outbreaks of influenza were reported. To date this season, 1281 outbreaks in LTCFs have been reported. There has been a higher number of reported influenza outbreaks to date this season compared to the same period in previous seasons.
- Antigenic characterization: NML has antigenically characterized 221 H3N2 viruses, 215 of which showed suboptimal match to the vaccine strain, 24 A (H1N1)pdm09 that were a match to the vaccine strain and 926 B viruses, 815 of which were a match to the vaccine strain.

International:

- Globally, influenza activity continued in the Southern Hemisphere, with an increase in Oceania peaking in temperate South America and decreased activity in South Africa.
- Human infection with Avian Influenza: As of September 2 2015, a total of 678 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 275 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 September 2012 to September 2 2015, 1,478 laboratory-confirmed cases of MERS-CoV have been reported from 26 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 1,478 cases, 516 were fatal. A recent number of cases have been associated with a hospital outbreak in the Riyad Region. An outbreak in the Republic of Korea and has resulted in 186 cases including 36 deaths. No new cases have been reported in Korea since July 4, 2015. This outbreak represents the largest nosocomial outbreak outside the Middle East.

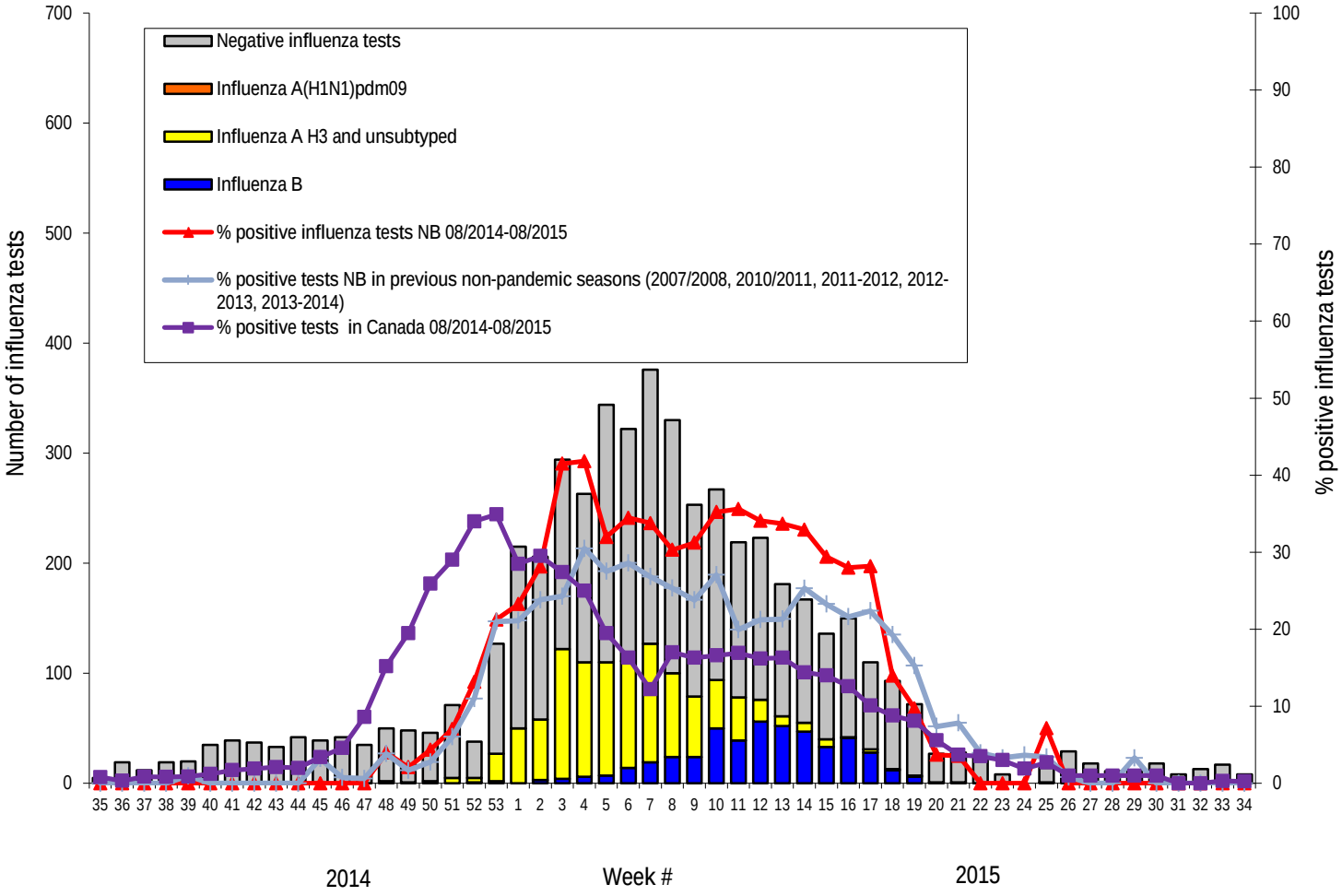
Note: This is the final report for the 2014-2015 influenza season. The next report will be the first for the 2015-2016 influenza season. Bi-weekly reports will continue until October 9, 2015.

1) Influenza Laboratory Data[1]

- Influenza activity remains at inter-seasonal levels.
- No influenza detections were reported during weeks 33 & 34.
- Since the beginning of the season, 1408 positive influenza detections were reported, 283 were A (H3), 655 were A (unsubtyped) and 470 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 August 29 2015 (data source: G. Dumont Lab results)



Note: Most of the Influenza A unsubtyped 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 August 29 2015)

Region	Reporting period: Aug./16/2015–Aug./29/2015						Cumulative: (2014/2015 season) Aug./24/2014 –Aug./29/2015					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	No activity	0	0	0	0	0	88	0	353	441	280	2	205	442	649	39
Region 2	No activity	0	0	0	0	0	19	0	69	88	58	0	86	219	305	2
Region 3	No activity	0	0	0	0	0	19	0	69	88	55	0	41	80	121	4
Region 4	No activity	0	0	0	0	0	56	0	31	87	27	0	52	61	113	49
Region 5	No activity	0	0	0	0	0	8	0	14	22	2	0	10	23	33	6
Region 6	No activity	0	0	0	0	0	81	0	95	176	29	0	42	49	91	25
Region 7	No activity	0	0	0	0	0	12	0	24	36	19	0	4	11	15	3
Total NB		0	0	0	0	0	283	0	655	938	470	2	440	885	1327	128

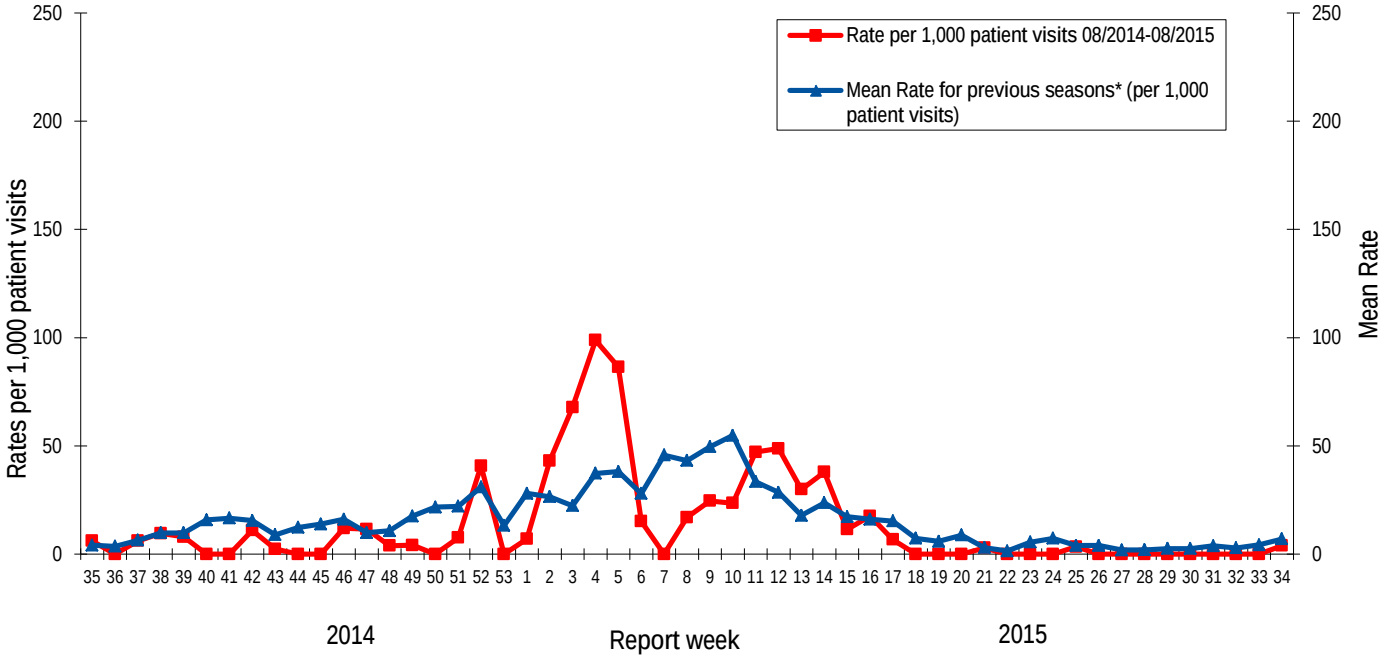
[2] Influenza activity level definition is available on the PHAC FluWatch website: http://www.phac-aspc.gc.ca/fluwatch/14-15/def14-15-eng.php

2) ILI Consultation Rates[3]

- During weeks 33 & 34, the ILI consultation rate was 0.0 and 3.9 consultations per 1,000 patients visits, respectively, and was within the expected level for this time of year.

- During weeks 33 & 34, the sentinel response rate was 17% and 27%, respectively, 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

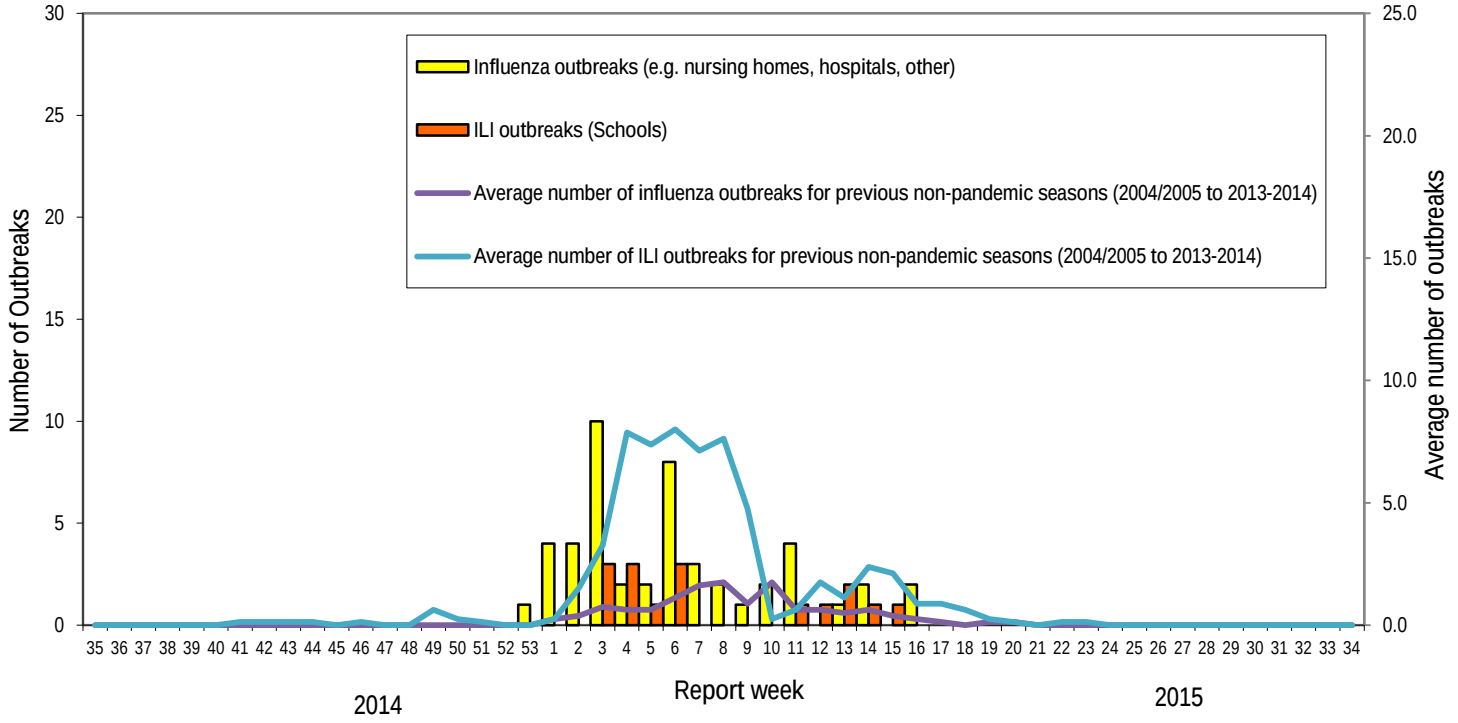
Table 2: ILI activity/outbreaks in New Brunswick nursing homes and schools for the reporting week, current and previous seasons.

	Reporting period: Aug./16/2015–Aug./29/2015			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	14	3
Region 2	0 out of 15	0 out of 81	0	15	2
Region 3	0 out of 14	0 out of 95	0	12	4
Region 4	0 out of 6	0 out of 22	0	6	1
Region 5	0 out of 2	0 out of 18	0	4	0
Region 6	0 out of 9	0 out of 35	0	5	3
Region 7	0 out of 4	0 out of 27	0	8	2
Total NB	0 out of 63	0 out of 352	0	64	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.

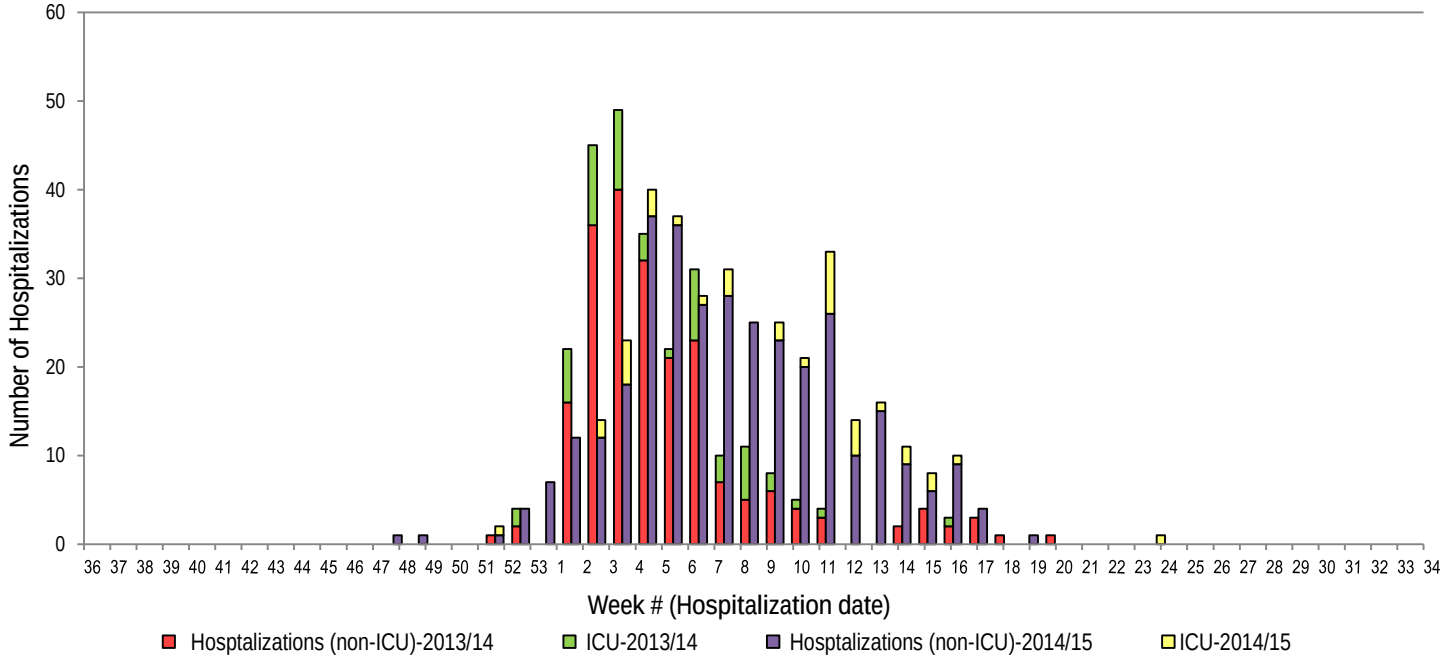
[3] A total of 31 practitioner sites (18 FluWatch sentinel physicians and 13 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

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 Hospitalization[4] and Death[5] Surveillance[6]

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
** Twenty-six deaths have been reported so far in season 2014-2015.

[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/

Prepared by the Communicable Disease Control Unit
Office of the Chief Medical Officer of Health, Tel: (506) 444-3044