

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: February 13, 2011 – February 19, 2011 (week 7)

Summary

In New Brunswick, influenza activity increased (3 indicators) and was within expected levels

In New Brunswick, the ILI consultation rate in week 7 remained similar to the previous week and was slightly below the expected range for this time of year. There have been 180 positive influenza detections during week 7, forty-two pandemic influenza A (H1N1), ninety-nine influenza A (H3), twenty-nine untyped influenza A and ten influenza B. Fifteen ILI school outbreaks were reported for week 7 in all regions except region 4, three influenza outbreaks were reported in long-term care facilities in regions 2, 3 & 4, and one outbreak was reported in other facilities in region 1.

However, in Canada, the ILI consultation rate in week 7 was 29.4 consultations per 1,000 patients visits, a similar rate to that observed during the previous 4 weeks, and still within the expected levels for this time of year. The proportion of positive influenza tests decreased slightly from week 6. The proportion of positive tests peaked in week 52, deviated slightly from the downward trend in weeks 5 and 6, but decreased in week 7. Of the 1150 positive specimens reported during week 7, 337 specimens were reported as influenza A/H3N2 (all provinces except MB), 608 as untyped influenza A (all provinces except NL), 92 as pandemic H1N1 2009 (all provinces except MB, PE & NL) and 113 as influenza B (all provinces except SK, MB, NS & NL). Since the beginning of the season, 86.3% of the subtyped positive influenza A specimens were for influenza A/H3N2. In week 7, detections of Pandemic H1N1 2009 represented 21.4% of all subtyped influenza A specimens. During week 7, the proportion of positive tests for respiratory syncytial virus (RSV) was 19.0% of specimens tested. During week 7, 51 new ILI/influenza outbreaks were reported: 26 in long-term care facilities, 20 ILI outbreaks were reported in schools, 1 outbreak was reported in a hospital and 4 outbreaks in other facilities.

Worldwide, influenza activity is increasing in parts of North America coincident with increasing numbers of detections of influenza A(H1N1)2009 and influenza type B, though the dominant virus in North America is still currently influenza A(H3N2). Rates of pneumonia and influenza mortality in the United States of America have remained above the epidemic threshold for the past two to three weeks. Transmission of influenza appears to have peaked in much of Western Europe, though case counts of severe and fatal cases continue to accumulate. The appearance of severe cases in Europe is similar to the 2009-2010 season; the highest number have been in the age group from 15-64 years, 60-70% have a pre-existing medical condition associated with increased risk of severe influenza, and most have not been vaccinated. Transmission in tropical zones of the world is sporadic (the Americas) or low (tropical Asia). Countries in the southern temperate zone have little influenza activity; however Australia continues to have transmission of influenza A at low-levels. The majority of the viruses characterized from North America and Europe are closely related to the vaccine viruses for the current seasonal vaccines, though small numbers of influenza type B of the Yamagata lineage are reported in both regions.

1) Influenza Laboratory Data

Surveillance specimens are submitted by recruited New Brunswick Sentinel Practitioner Influenza Network (NB SPIN) practitioners, which are comprised of 1 site in Urgent Care, 8 sites in Emergency Rooms, 6 sites in Family Practice, 3 sites in First Nations communities, 1 site in a Nursing Home, 4 sites in Universities and 9 sites in Community Health Centres. 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 February 19, 2011 (data source: G. Dumont lab results)

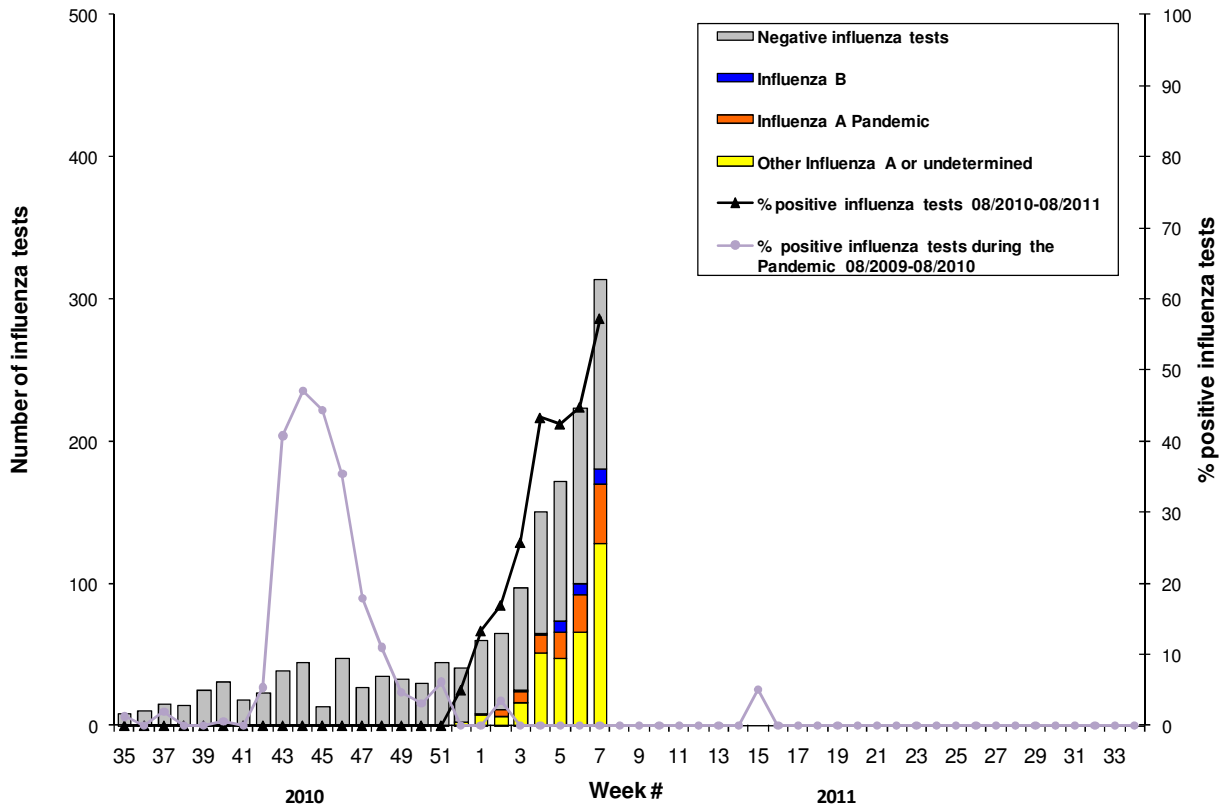


Table 1: Positive influenza test results by Health Region in New Brunswick up to February 19, 2011 (data source: G. Dumont lab results)

	Activity level ¹	Reporting period: 13/02/11 –19/02/11					Cumulative: (2010/2011 season) 29/08/10 –19/02/11					Cumulative: (2009/2010 season) 30/08/09 –28/08/10		
		Influenza A				Influenza B	Influenza A				Influenza B	Influenza A		Influenza B
		A(H1)	A(H3)	pH1N1	Unsub typed		A(H1)	A(H3)	pH1N1	Unsub typed		Non-pH1N1 or undeterm	pH1N1	
Region 1	Localized	0	57	15	12	1	0	147	33	20	1	2	793	0
Region 2	Localized	0	2	0	1	0	0	4	0	2	0	0	292	1
Region 3	Localized	0	12	6	11	0	0	22	10	11	0	1	221	0
Region 4	Localized	0	12	15	2	9	0	61	49	9	26	0	290	0
Region 5	Localized	0	5	2	2	0	0	11	3	3	0	0	96	0
Region 6	Localized	0	6	4	1	0	0	18	19	1	0	0	114	0
Region 7	Localized	0	5	0	0	0	0	13	1	0	0	0	68	0
Total NB		0	99	42	29	10	0	276	115	46	27	3	1874	1

¹ Influenza activity level definition is available on the PHAC FluWatch website: <http://www.phac-aspc.gc.ca/fluwatch/08-09/def08-09-eng.php>

2) ILI Consultation Rates

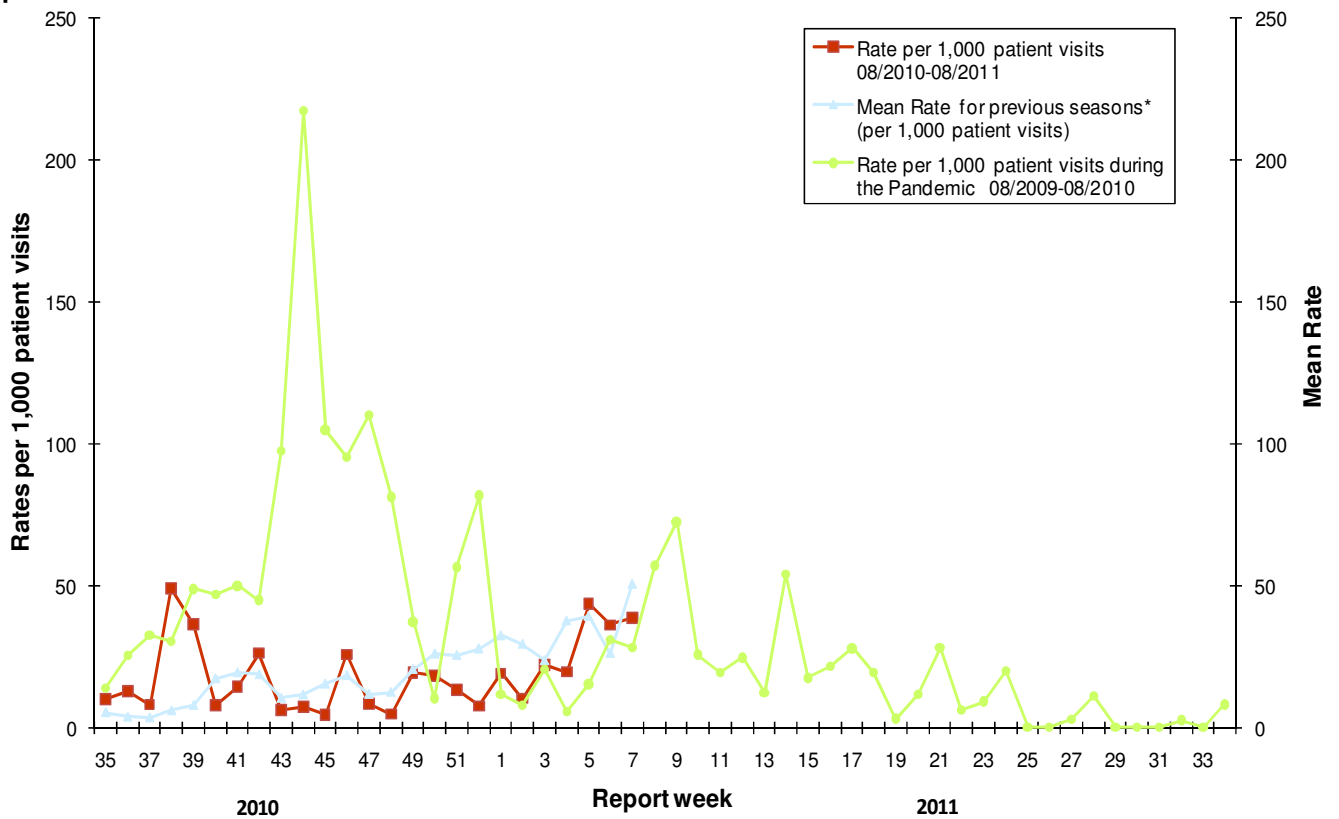
A total of 39 practitioner sites (15 FluWatch sentinel physicians and 24 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

During week 7:

18 practitioner sites (6 FluWatch and 12 NB SPIN) reported a total of 23 cases of ILI of the 595 patients seen for any reason during this reporting period.

For week 7, the ILI consultation rate was 38.7 consultations per 1,000 patient visits which is a similar rate than the week before and was slightly lower than the expected levels for this time of year. The sentinel response rate was 40% for the FluWatch sentinel physicians and 50% for the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2010/11 compared to previous seasons*



* The mean rate was based on data from the 1996/97 to 2008/2009 seasons and excludes the Pandemic.

3) ILI and Laboratory-Confirmed Outbreak Data

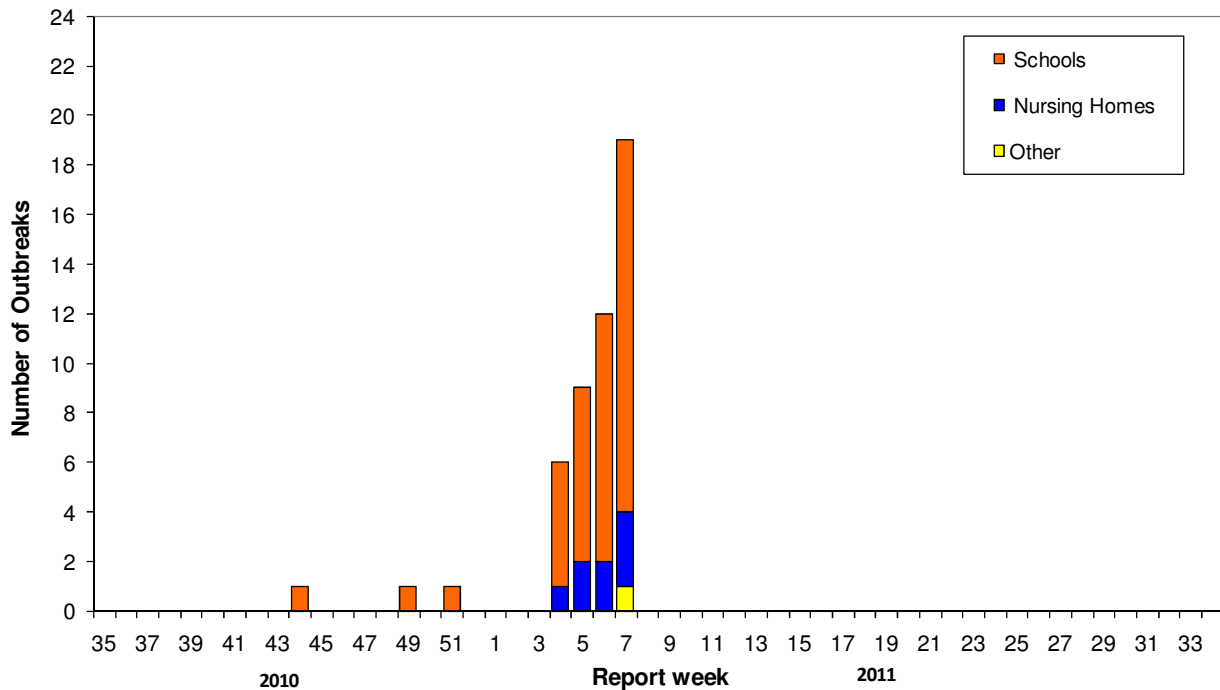
Table 2: ILI activity/outbreaks in New Brunswick nursing homes and schools for the reporting week, and cumulative numbers for the 2009/2010 and 2010/2011 seasons, by Health Region.

	Reporting period: 13/02/11 –19/02/11			Cumulative # of outbreaks (current season) 2010-2011	Cumulative # of outbreaks (past season) 2009-2010
	Lab-confirmed outbreaks in Nursing Homes*	Schools reporting ILI outbreaks**	Lab-confirmed outbreaks in Other Settings*		
Region 1	0 out of 13	4 out of 74	1	6	16
Region 2	1 out of 15	1 out of 81	0	2	49
Region 3	1 out of 14	3 out of 95	0	6	38
Region 4	1 out of 6	0 out of 22	0	10	9
Region 5	0 out of 2	2 out of 18(ongoing)	0	11	5
Region 6	0 out of 9	1 out of 35(ongoing)	0	5	2
Region 7	0 out of 4	4 out of 27	0	9	11
Total NB	3 out of 63	15 out of 352	1	49	130

*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 2010/11.



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:

www.phac-aspc.gc.ca/fluwatch/index.html

More information on the Pandemic H1N1 Flu virus in New Brunswick is available on the NB Health website at: <http://www.gnb.ca/cnb/Promos/Flu/index-e.asp>

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