

Week 45: Nov 4-10, 2012

*Influenza activity in Manitoba is **low**.*

Summary:

- The influenza-like-illness rate was **1.5%** with **77%** of sentinel physician sites reporting.
- There have been **eight** cases of influenza reported since the beginning of the 2012/2013 season.
- There have been **two** hospitalizations and **one** death associated with a lab-confirmed report of influenza this season. (This aggregate count should be interpreted with caution as underlying cause of death may or may not be directly related to the lab-confirmed positive influenza diagnosis.)
- There has been **one** lab-confirmed outbreak of influenza A reported this season in a long term care facility.

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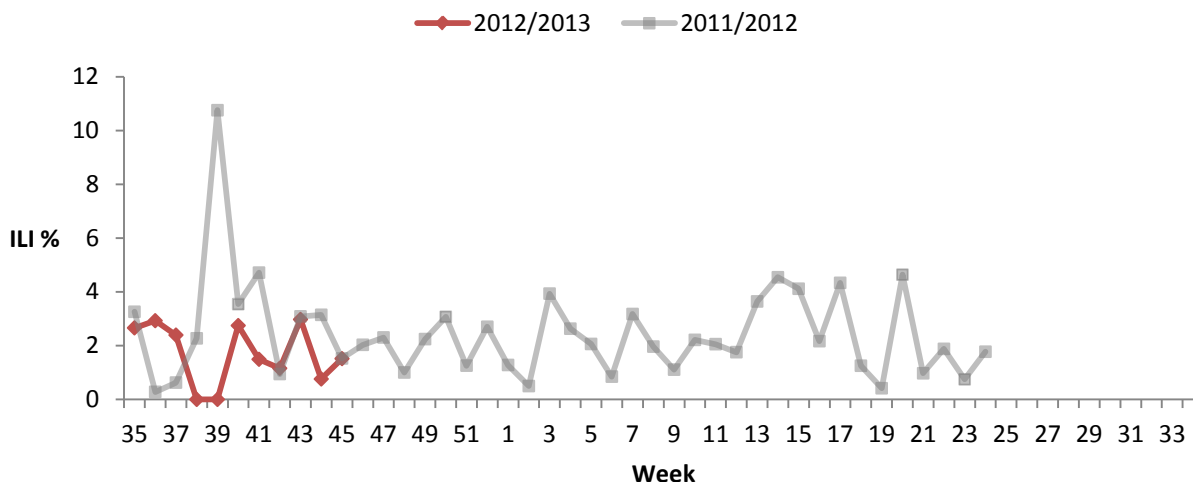
Sentinel Physicians

Manitoba Health participates in the National *FluWatch* Program coordinated by PHAC. In addition to laboratory-confirmation of influenza, this program relies on weekly reports of ILI as reported by 22 current Manitoban sentinel physicians in all five RHAs (Northern, Southern, Western, Interlake-Eastern, and Winnipeg).

Manitoba Health receives weekly reports from PHAC presenting the provincial ILI rate and the specific data for each of the participating sentinel physicians. The graph below depicts the proportion of total patients who were seen for an ILI. These numbers should be interpreted with caution as the number of sentinel physicians reporting to *FluWatch* varies from week to week and may not be representative of ILI activity across the province.

The proportion of patients seen for an ILI increased during week 45 compared to last week (1.5% from 0.8%). The proportion is equal to what was observed at the same time last season.

Figure 1. Proportion of patients seen for ILI as reported by *FluWatch* sentinel physicians by week and flu season, Manitoba



STRIVE (Surveillance Team Research on Influenza Vaccine Effectiveness)

Beginning with the 2011/2012 influenza season, Manitoba joins, on a pilot basis, a national vaccine effectiveness surveillance network already in operation in Alberta, British Columbia, Ontario, and Quebec. Operated in collaboration with Cadham Provincial Laboratory, the pilot sentinel network project (STRIVE) aims to assess the effectiveness of the seasonal trivalent influenza vaccine in protecting against influenza, and to monitor influenza activity in the region. STRIVE specimens are tested for influenza and other respiratory viruses through PCR and Seeplex RV15 panel. Results of respiratory testing performed by network members will be regularly featured in this column. While recruitment is ongoing, we would like to thank sentinel clinicians and sites who have thus far supported this public health initiative in Manitoba.

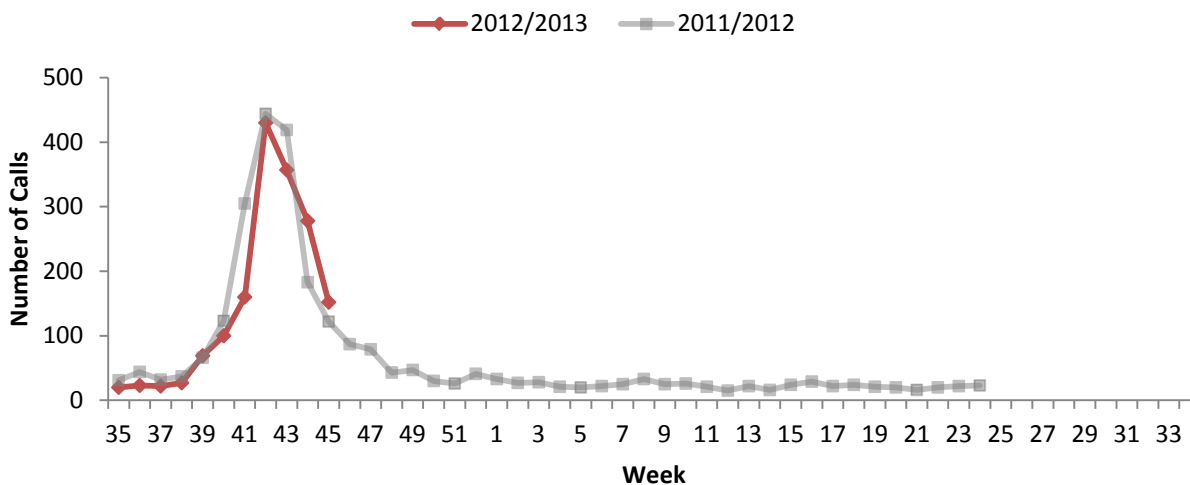
For more information about the study, please e-mail Arielle.GoldmanSmith@gov.mb.ca (for sites outside Winnipeg) or strive@wrha.mb.ca (Winnipeg).

Health Links – Info Santé (HL-IS)

HL-IS is a 24-hour, 7-days a week telephone information service staffed by registered nurses with the knowledge to provide answers over the phone to health care questions and guidance to appropriate care. When a caller phones HL-IS and selects the Influenza Service, they are given an option to select information on (1) the groups of individuals who are at an increased risk of serious illness, (2) how to arrange a flu shot, (3) the annual influenza immunization campaign, or (4) the management of flu and its potential complications.

The weekly total is slightly higher than the total observed at the same time last season; however, the peak this season was the same as last season.

Figure 2. The number of calls to HL-IS Influenza Service by season, Manitoba



Laboratory Surveillance

Reports of culture isolations and enzyme immunoassay (EIA) detections from Cadham Provincial Laboratory (CPL) are forwarded to the Public Health Surveillance (PHS) Unit weekly. While EIA detections and culture isolations comprise the largest number of reports from CPL, seroconversions are similarly forwarded to the PHS Unit weekly.

Since the beginning of this season, there have been:

- 5 cases of influenza A reported;
- 3 case of influenza B reported.

Table 1. Reported Cases of Influenza A and B by Age Group, Manitoba, 2012/2013				
Age Group	Influenza A		Influenza B	
	#	%	#	%
<1 yrs	0	0%	0	0%
1-4 yrs	0	0%	0	0%
5-9 yrs	0	0%	0	0%
10-14 yrs	0	0%	0	0%
15-19 yrs	0	0%	0	0%
20-24 yrs	0	0%	0	0%
25-29 yrs	0	0%	0	0%
30-39 yrs	0	0%	1	33%
40-49 yrs	0	0%	0	0%
50-59 yrs	0	0%	1	33%
60-69 yrs	1	20%	0	0%
70-79 yrs	2	40%	1	33%
>79 yrs	2	40%	0	0%
Missing	0	0%	0	0%
TOTAL	5		3	

Figure 3. Number of lab-confirmed cases of influenza A by specimen collection week and season, Manitoba (Note: 2009/2010 season excluded due to the H1N1 pandemic, making the numbers incomparable with other seasons.)

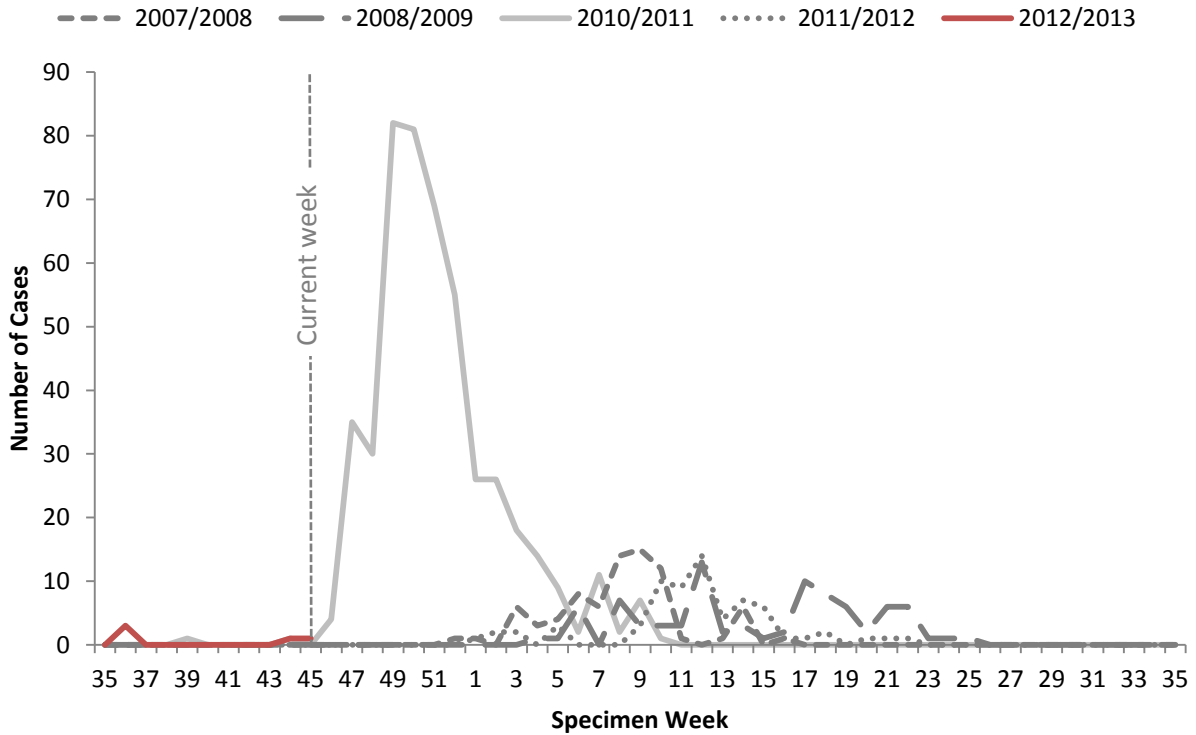
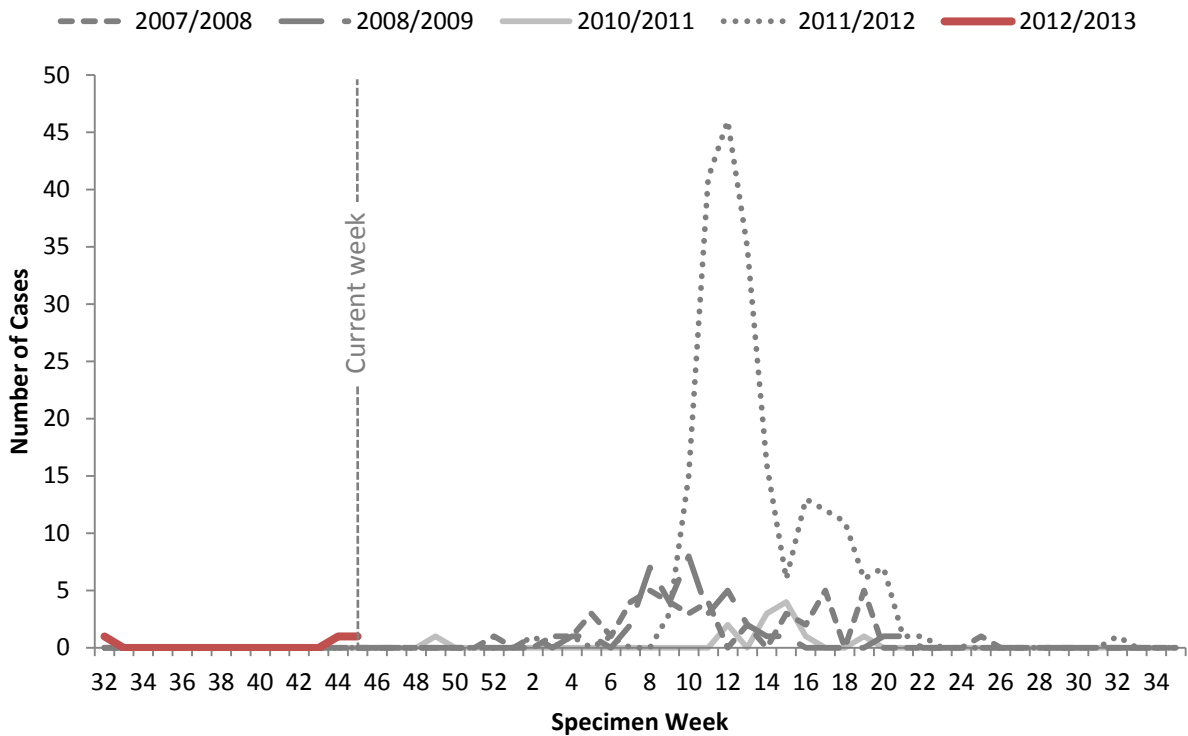


Figure 4. Number of lab-confirmed cases of influenza B by specimen collection week and season, Manitoba



Clinically Severe Cases

This season, PHAC is requesting provinces and territories to report the number of hospitalizations, ICU admissions, and deaths **associated** with a lab-confirmed report of influenza. The reason for hospitalization, ICU admission, or death does not have to be attributable to the influenza diagnosis in order to be included in this count. These data are collected in order to continue with the surveillance system implemented during the 2009 H1N1 pandemic to help monitor the severity/burden of illness during the influenza season.

Since the beginning of the season, there has been:

- 2 hospitalizations, of which
- 0 resulted in an ICU admission; and
- 1 death.¹

Outbreaks

Outbreaks of influenza must be accompanied by a positive influenza lab report to be counted. The outbreak-related cases reflected on tables and figures within this report are lab-confirmed. However, most outbreak-related cases will not be lab-confirmed.

Since the beginning of the season, there has been:

- 1 outbreak of influenza A;
- 0 outbreaks of influenza B.

Table 2. Number of lab-confirmed outbreaks of influenza by RHA and season, Manitoba

RHA:	Week 45, 2011/2012 (up to Nov 12, 2011)				Week 45, 2012/2013 (up to Nov 10, 2012)			
	LTCF	Workplace	ACF	Community	LTCF	Workplace	ACF	Community
Winnipeg	0	0	0	0	1*	0	0	0
Northern	0	0	0	0	0	0	0	0
Southern	0	0	0	0	0	0	0	0
Interlake-Eastern	0	0	0	0	0	0	0	0
Western	0	0	0	0	0	0	0	0

LTCF: long term care facility

ACF: acute care facility

* Reported in September 2012.

¹ The reason for hospitalization, ICU admission, or death does not have to be attributable to the influenza diagnosis in order to be included in this count.

Sub-Typing, Strain Characterization, and Antiviral Resistance

Sub-Typing:

Table 3. Sub-typing of influenza A specimens as reported by CPL, 2012/2013 flu season, Manitoba

A/H1	A/H3	A Unsubtyped	A Total
0	5	0	5

Strain Characterization:

Since September 1, 2012, NML has antigenically characterized 6 influenza viruses (4 H3N2 and 2 B viruses) that were received from Canadian laboratories with the following results:

Strain	Number of viruses	
	Canada	Manitoba
A/Victoria/361/2011 (H3N2)-like ²	7	0
B/Wisconsin/01/2010-like (Yamagata lineage) ³	2	0

Antiviral Resistance:

Since September 1, 2012, NML has performed drug susceptibility testing on influenza isolates received from Canadian laboratories with the following results:

Antiviral resistance by influenza virus type and subtype, Canada, 2012/2013						
Virus type/subtype	Oseltamivir		Zanamivir		Amantadine	
	# Resistant (%)	# Sensitive (%)	# Resistant (%)	# Sensitive (%)	# Resistant (%)	# Sensitive (%)
A(H3N2)	0	7 (100)	0	7 (100)	21 (100)	0
A(H1N1)	0	0	0	0	0	0
B	0	2 (100)	0	2 (100)	N/A	N/A

N/A = Not applicable

The isolates tested from CPL had the following results:

Antiviral resistance by influenza virus type and subtype, Manitoba, 2012/2013						
Virus type/subtype	Oseltamivir		Zanamivir		Amantadine	
	# Resistant	# Sensitive	# Resistant	# Sensitive	# Resistant	# Sensitive
A(H3N2)	0	0	0	0	2	0
A(H1N1)	0	0	0	0	0	0
B	0	0	0	0	N/A	N/A

² Strain match to recommended H3N2 component for the 2012/2013 northern hemisphere influenza vaccine.

³ Strain match to recommended influenza B component for the 2012/2013 northern hemisphere influenza vaccine.

Abbreviations

ACF = acute care facility
CPL = Cadham Provincial Laboratory
HL-IS = Health Links – Info Santé
PHAC = Public Health Agency of Canada
ICU = intensive care unit
ILI = influenza-like-illness
LTCF = long term care facility
NML = National Microbiology Laboratory
PHS = Public Health Surveillance
RHA = Regional Health Authority
WRHA = Winnipeg Regional Health Authority

Explanatory Notes and Definitions

Cumulative data:

Cumulative data includes updates to previous weeks; due to reporting delays or amendments, the sum of weekly report totals may not add up to cumulative totals.

Data extraction date:

Manitoba-specific information contained within this update is based on data confirmed in Manitoba's PHS Unit databases on or before **November 16, 2012**, the date of data extraction.

ILI in the general population:

Acute onset of respiratory illness with fever and cough and with one or more of the following – sore throat, arthralgia, myalgia, or prostration, which is likely due to influenza. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

ILI outbreaks :

Schools: 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.

Hospitals and residential institutions: Two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case.

Other settings: Two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case; i.e. workplace, closed communities.

Specimen collection date:

The date the laboratory specimen is taken is used to assign cases to the appropriate week in this report.

For other Epidemiology and Surveillance reports, please view the Manitoba Health internet website:

<http://www.gov.mb.ca/health/publichealth/surveillance/index.html>

For national surveillance data, refer to:

<http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>