

Manitoba Health, Healthy Living and Seniors Influenza Surveillance Weekly Report

This is the last weekly report for the 2014/2015 season

- In week 21 there were:
0 cases of influenza A
3 cases of influenza B
- In week 22 there were:
0 cases of influenza A
2 cases of influenza B
- A total of **1073** cases of influenza A and **216** cases of influenza B have been reported since the start of the current influenza season
- The percentage of influenza B positive tests continued to decline in week 21 and 22.

Laboratory



- Since the start of the current influenza season, **363** hospitalizations, **66** ICU admissions, and **48** deaths *associated* with a laboratory-confirmed diagnosis of influenza have been reported

**Numbers are subject to change as more data become available*

**The reason for the reported hospitalizations, ICU admissions, and deaths does not have to be attributable to the influenza diagnosis*

Severity



The following regional proportions and cumulative incidence rates (number of cases per 10,000 population) have been observed this season:

- Winnipeg:
39% (6.91/10,000)
- Northern:
12% (20.21/10,000)
- Prairie Mountain:
22% (16.99/10,000)
- Southern:
16% (10.78/10,000)
- Interlake-Eastern:
11% (11.52/10,000)

Geography



- Proportion of patients visiting sentinel physicians for influenza-like-illness:
1.54% in Week 21
1.13% in Week 22

Outpatient ILL (sentinels)



- Manitoba's influenza activity is **low** as estimated by Google Flu
- Calls to Health Links - Info Santé:
10 in Week 21
6 in Week 22

Syndromic Surveillance



- Units of oseltamivir dispensed from community retail pharmacies:
14 in Week 21
8 in Week 22
- Since October 1, 2014, **2592** units have been dispensed

Treatment



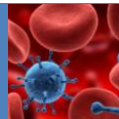
- Since the start of this influenza season, **94** lab-confirmed outbreaks of influenza A and **11** of influenza B have been reported

Institutional Outbreaks



- Since September 1, 2014, **1** isolate has tested positive for resistance to oseltamivir and **none** to zanamivir

Antiviral Resistance



- As of May 11, 2015, **22.0%** of Manitobans had received the seasonal influenza vaccine

Immunization



In Summary

The influenza B activity level has been declining since early April and it is low.

Surveillance Measures

1. Laboratory Surveillance

Reports of influenza nucleic acid detection, culture isolation, and enzyme immunoassay (EIA) detections are received from Cadham Provincial Laboratory (CPL) and occasionally other laboratories. These reports are forwarded to the Surveillance Information Systems (SIS) within 24 hours of confirmation.

CPL performs testing for other respiratory viruses including parainfluenza, RSV, adenovirus, rhinovirus, coronavirus, enterovirus, and bocavirus. The total number of other respiratory viruses detected is reported to SIS on a weekly basis.

Number of new influenza cases:

- In week 21 there were:
 0 cases of influenza A
 3 cases of influenza B
- In week 22 there were:
 0 cases of influenza A
 2 cases of influenza B

Since the beginning of this season, there have been:

- **1073** cases of influenza A and
- **216** cases of influenza B

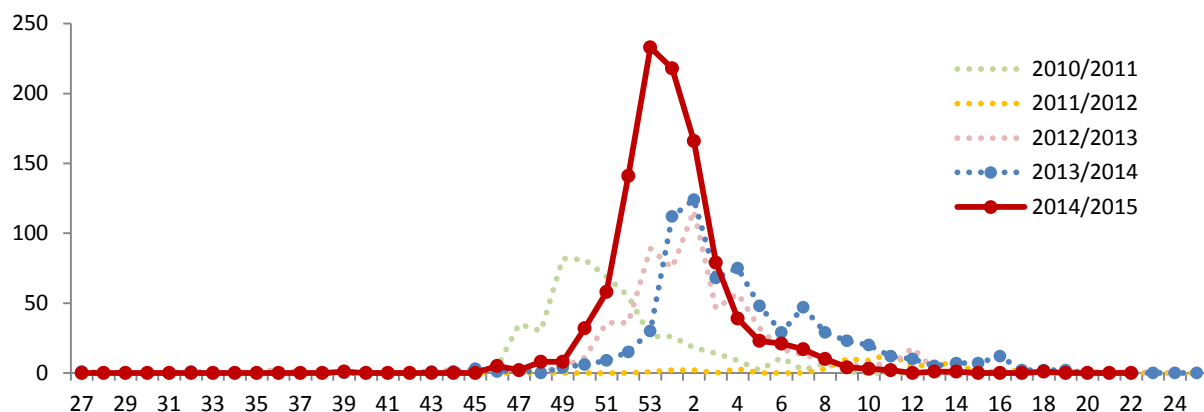


Figure 1. Cases of laboratory-confirmed influenza A by week

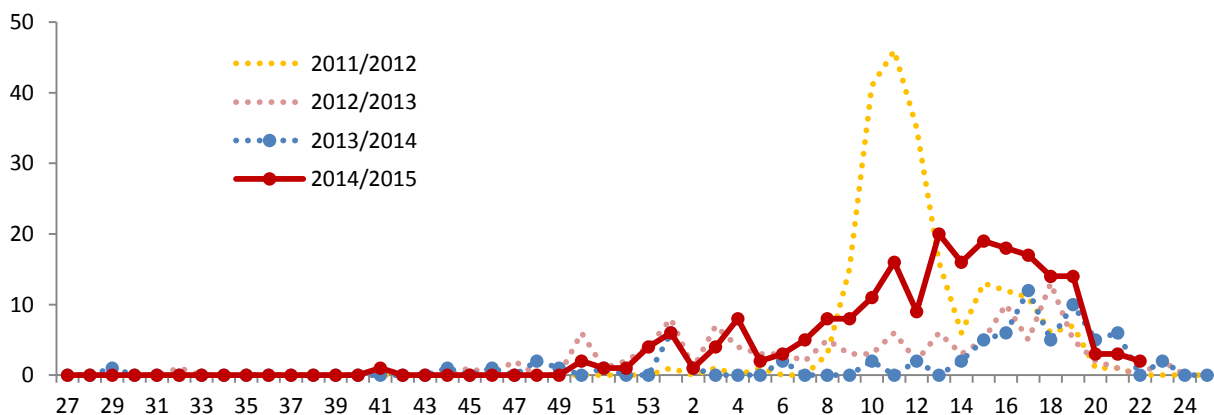


Figure 2. Cases of laboratory-confirmed influenza B by week

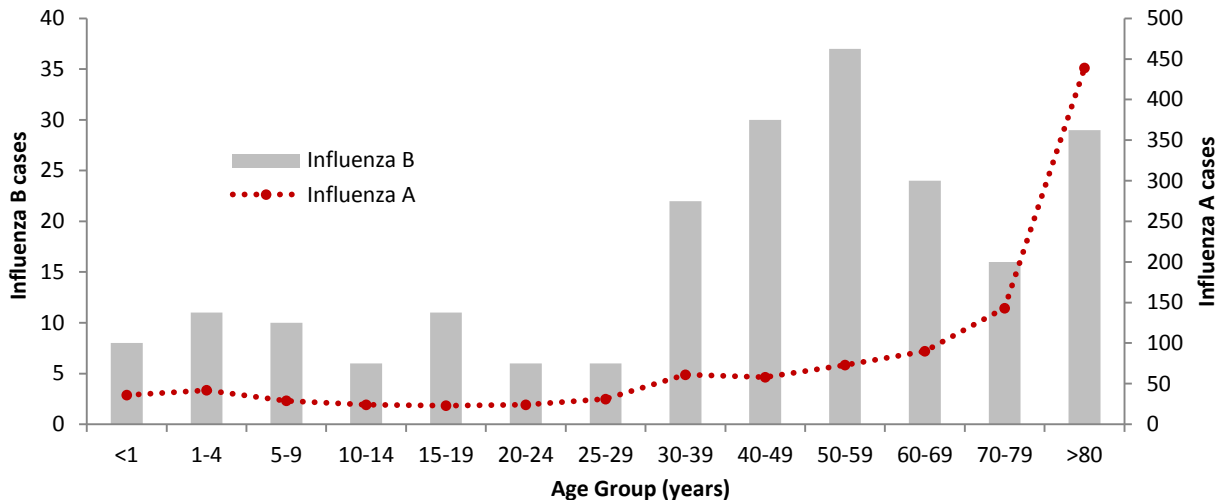


Figure 3. Cases of laboratory-confirmed influenza A and B by age group in the 2014/15 influenza season, Manitoba

2. Outpatient Influenza-Like-Illness (ILI) – Sentinel Physicians

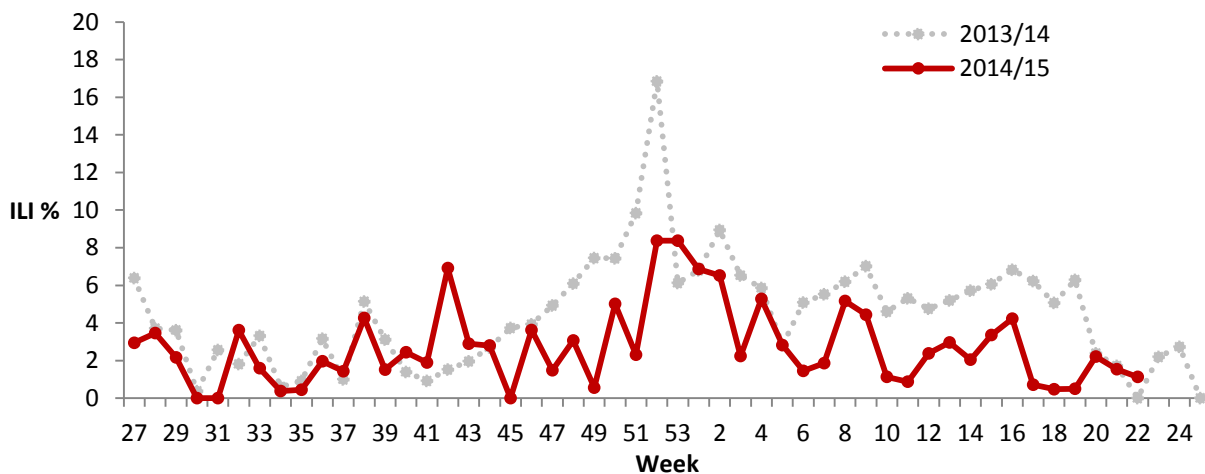
Proportion of patients visiting sentinel physicians for influenza-like-illness:
1.54% in Week 21
1.13% in Week 22

The proportion was comparable to the total observed around the same time last season.

Manitoba Health, Healthy Living and Seniors (MHLS) participates in the National *FluWatch* Program coordinated by Public Health Agency of Canada (PHAC). In addition to laboratory-confirmation of influenza, this program relies on weekly reports of ILI as reported by 27 current Manitoban sentinel physicians in all five Regional Health Authorities (RHAs) including Northern, Southern, Prairie Mountain, Interlake-Eastern, and Winnipeg.

MHLS 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.**

Figure 4. Proportion of patients seen for ILI by *FluWatch* sentinel physicians by week in the 2013/14 and 2014/15 influenza seasons, Manitoba



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.

Calls to Health Links - Info Santé:

- 10** in Week 21
- 6** in Week 22

This number was comparable to the total observed around the same time last season.

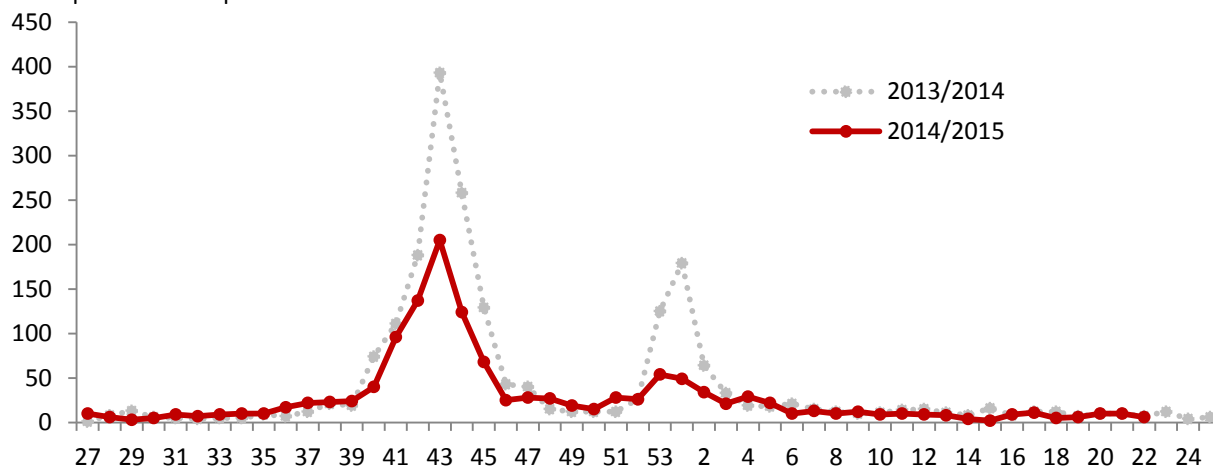


Figure 5. Number of calls to HL-IS in the 2013/14 and 2014/15 influenza seasons, Manitoba

Severity (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.

In week 21 and 22, there were:

- **2** influenza B associated hospitalizations
- **0** resulted in an ICU admission; and
- **0** influenza B associated deaths¹

Since the beginning of the season, there have been:

- **363** hospitalizations, of which
- **66** resulted in an ICU admission; and
- **48** deaths¹

*Hospitalized cases are reported based on laboratory report date.

*Numbers are subject to change. Missed events in current weekly report due to a delay of submission to MHLS will be reported in the following weekly reports when data become available.

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.

Institutional 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. Note that most outbreak-related cases will not be lab-confirmed.

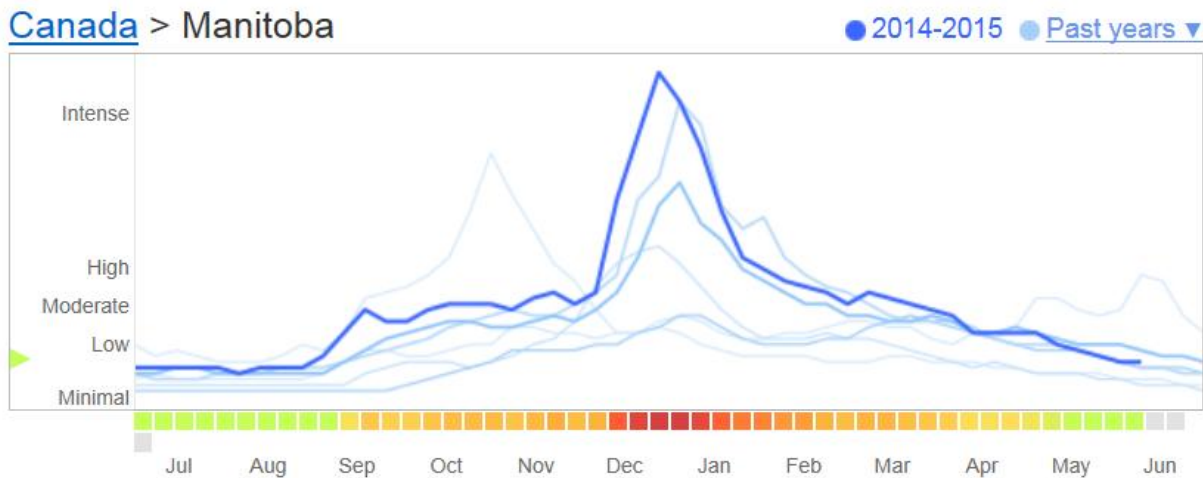
<p>In week 21 and 22, there were:</p> <ul style="list-style-type: none"> • 0 outbreaks of influenza A; • 0 outbreaks of influenza B. 	<p>Since the beginning of the season, there have been:</p> <ul style="list-style-type: none"> • 94 outbreaks of influenza A; • 11 outbreaks of influenza B.
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* Numbers are subject to change. Missed events in current weekly report due to a delay of submission to MHLS will be reported in the following weekly reports when data become available.

Syndromic Surveillance

[Google Flu Trends](#) uses certain influenza-related search terms as indicators of influenza activity. These aggregated search data are used to estimate influenza activity. Google Flu Trends compares current estimates against a historic baseline of influenza activity for the relevant area or region. Depending on whether the current estimate is higher or lower than the baseline, the general activity is classified as Minimal, Low, Moderate, High, or Intense.

Manitoba’s influenza activity level now is **low**.



Sub-Typing, Strain Characterization, and Antiviral Resistance

Sub-Typing:

Sub-typing of influenza A specimens reported by CPL for the 2014/2015 influenza season in Manitoba

A/H1	A/H3	A Unsubtyped	A Total	B Total
1	477	641	1119	221

Strain Characterization:

Since September 1, 2014, National Microbiology Laboratory (NML) has antigenically characterized **1003** influenza viruses (205 H3N2, 21 H1N1, and 777 B viruses) that were received from Canadian laboratories including CPL with the following results:

Strain	Number of viruses	
	Canada	Manitoba
A/Switzerland/9715293/2013(H3N2)-like ¹	199	10
A/Texas/50/2012 (H3N2)-like ²	6	0
A/California/07/09 (H1N1)-like ³	21	0
B/Massachusetts/02/12-like ⁴	714	26
B/Brisbane/60/2008-like ⁵	63	0

Antiviral Resistance:

Since September 1, 2014, 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, 2014/2015						
Virus type/subtype	Oseltamivir		Zanamivir		Amantadine	
	# Resistant	# Sensitive	# Resistant	# Sensitive	# Resistant	# Sensitive
A(H3N2)	1	913	0	912	1414	1
A(H1N1)	0	19	0	19	23	0
B	0	687	0	686	N/A	N/A

N/A = Not applicable

The isolates received from CPL had the following results:

Antiviral resistance by influenza virus type and subtype, Manitoba, 2014/2015						
Virus type/subtype	Oseltamivir		Zanamivir		Amantadine	
	# Resistant	# Sensitive	# Resistant	# Sensitive	# Resistant	# Sensitive
A(H3N2)	0	73	0	72	122	0
A(H1N1)	0	0	0	0	0	0
B	0	23	0	23	N/A	N/A

¹ A/Switzerland/9715293/2013 is the H3N2 virus selected for the 2015 Southern Hemisphere influenza vaccine. It is related to, but antigenically and genetically distinguishable from the A/Texas/50/2012 vaccine virus.

² A/Texas/50/2012 is the recommended H3N2 component for the 2014-2015 influenza vaccine.

³ A/California/07/2009 is the recommended H1N1 component for the 2014-2015 Northern hemisphere influenza vaccine.

⁴ B/Massachusetts/02/12, which belongs to the B Yamagata lineage, is the recommended influenza B component for the 2014-2015 Northern hemisphere influenza vaccine.

⁵ B/Brisbane/60/2008, which belongs to the B/Victoria/02/87 lineage, was the recommended influenza B component for the 2011-2012 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
MHLS = Manitoba Health, Healthy Living and Seniors
NML = National Microbiology Laboratory
RHA = Regional Health Authority
SIS = Surveillance Information Systems
WRHA = Winnipeg Regional Health Authority

Explanatory Notes and Definitions

Cumulative data:

Cumulative data include 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 SIS databases at 11:00 am on the date of data extraction.

Incidence rate:

Incidence rate measures the frequency with which influenza occurs in a region. It is calculated as the total number of new cases this influenza season multiplied by 10,000 and divided by the total population in each region. Regional populations are based on the Manitoba Health Population Report 2013.

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 was taken is used to assign cases to the appropriate week in this report. However, hospitalized/ICU cases are reported based on laboratory report date.

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>