

Manitoba Health, Healthy Living and Seniors Influenza Surveillance Weekly Report

- This week there were **160** new cases of influenza A and **1** case of influenza B
- A total of **863** cases of influenza A and **16** cases of influenza B have been reported since the start of the current influenza season
- The volume of total tests was lower compared to last week

Laboratory



- Since the beginning of this season, **228** hospitalizations, **35** ICU admissions, and **22** 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 incidence rates have been observed this season:

Winnipeg: **42%** (5.07/10,000)
Northern: **12%** (14.59/10,000)
Prairie Mountain: **23%** (12.15/10,000)
Southern: **13%** (5.87/10,000)
Interlake-Eastern: **10%** (6.75/10,000)

Geography



- The proportion of patients visiting sentinel physicians for influenza-like-illness was **6.52%** (6.87% last week)

Outpatient ILI (sentinels)



- Manitoba's influenza activity, as estimated by Google Flu was **High**
- There were **34** calls to Health Links - Info Santé (49 last week)

Syndromic Surveillance



- This week, **283** units of oseltamivir were dispensed from community retail pharmacies
- Since October 1, 2014, **1348** units have been dispensed

Treatment



- Since September 1, 2014, **75** lab-confirmed outbreaks of influenza A have been reported

Institutional Outbreaks



- Since September 1, 2014, **no** isolates have tested positive for resistance to either oseltamivir or zanamivir

Antiviral Resistance



- As of January 2, 2015, **16.8%** of Manitobans had received the seasonal influenza vaccine
- *This provisional estimate is subject to change*

Immunization



In Summary

- There were **160** laboratory-confirmed cases of influenza A and **1** case of influenza B reported this week, a decrease from the previous week

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.

This week, there were:

- **160** cases of influenza A reported;
- **1** case of influenza B reported.

Since the beginning of this season, there have been:

- **863** cases of influenza A reported;
- **16** cases of influenza B reported.

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.

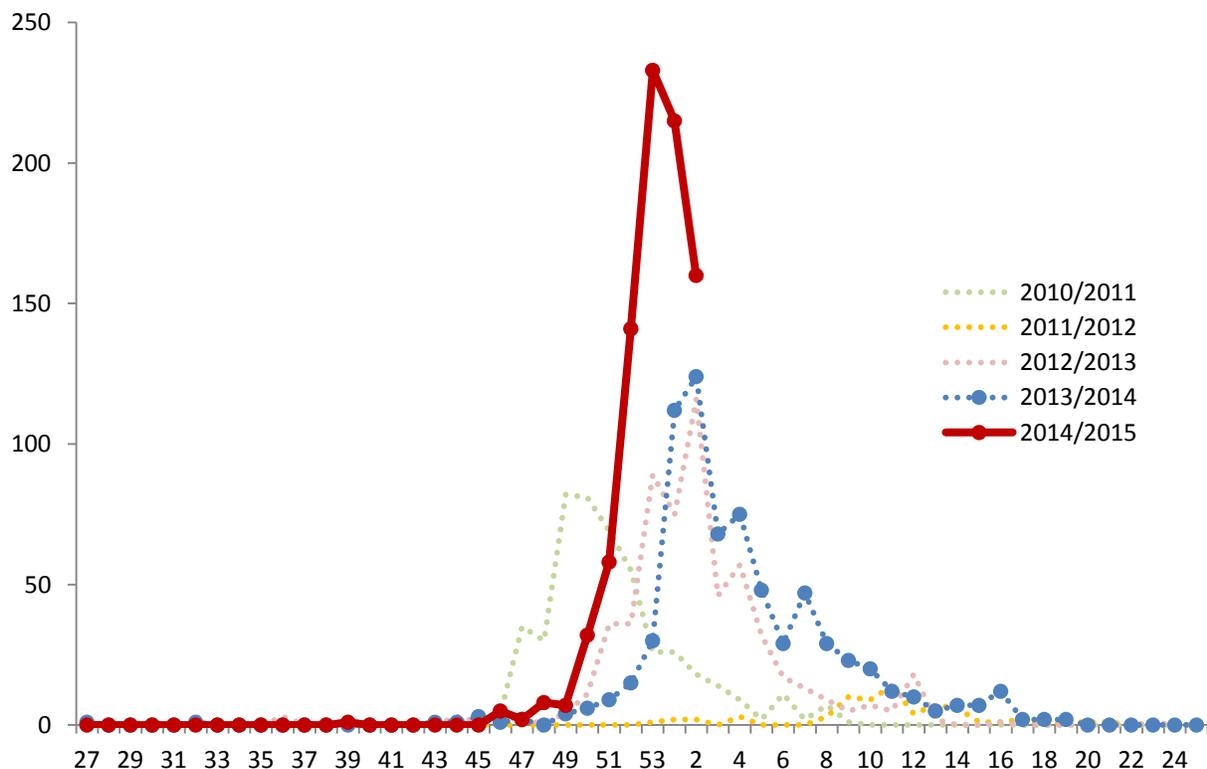


Figure 1. Number of laboratory-confirmed influenza A cases by week

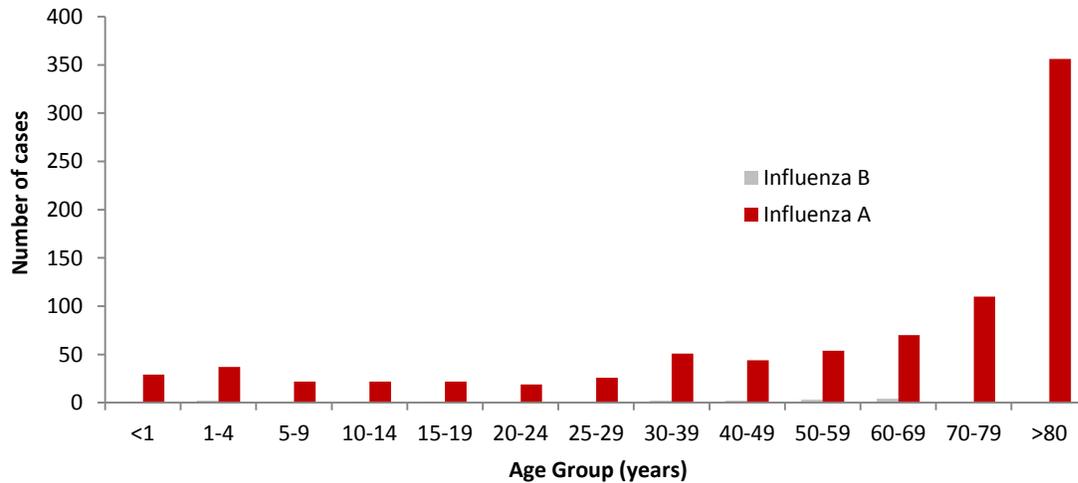


Figure 2. Cases of influenza A and B by age group, Manitoba, 2014/15

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

The proportion of patients seen for ILI this week: **6.52%**.

The proportion was similar 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.**

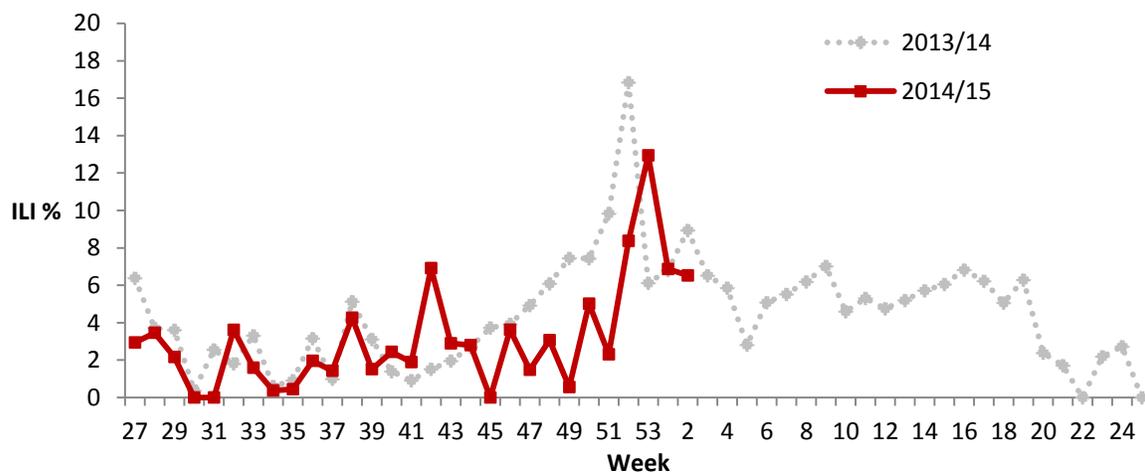


Figure 3. Proportion of patients seen for ILI as reported by *FluWatch* sentinel physicians by week for the 2013/14 and 2014/15 influenza seasons, Manitoba

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.

There were **34** calls to HL-IS this week.

This weekly total was lower than the total observed around the same time last season.

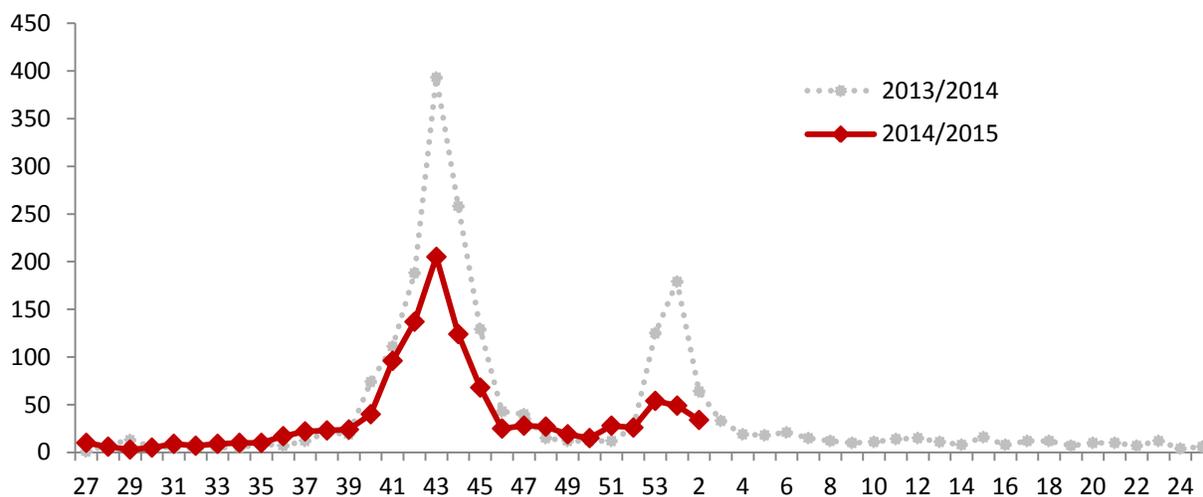


Figure 4. Number of calls to HL-IS in the 2013/14 and 2014/15 influenza seasons, Manitoba

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.

This week there were:

- **70** hospitalizations, of which
- **11** resulted in an ICU admission; and
- **6** deaths¹

Since the beginning of the season, there have been:

- **228** hospitalizations, of which
- **35** resulted in an ICU admission; and
- **22** 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 and 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. However, note that most outbreak-related cases will not be lab-confirmed.

This week there were:

- 15 outbreaks of influenza A;
- 0 outbreaks of influenza B.

Since the beginning of the season, there have been:

- 75 outbreaks of influenza A;
- 0 outbreaks of influenza B.

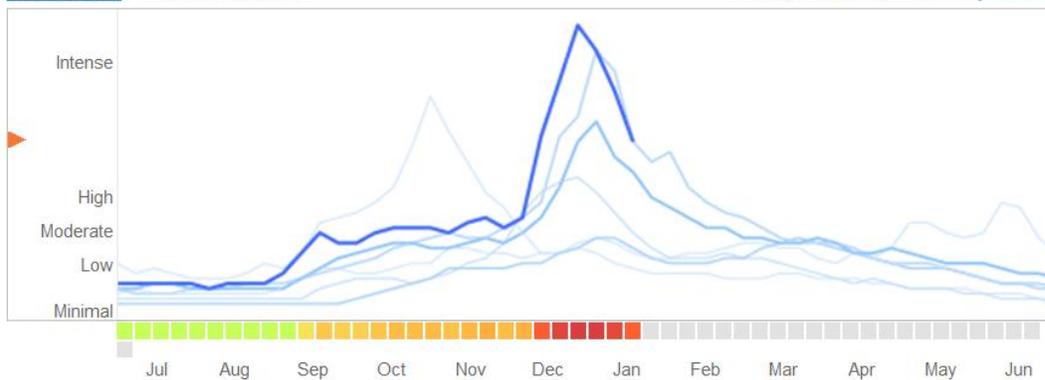
* Numbers are subject to change. Missed events in current weekly report due to a delay of submission to MHHS will be reported in the following weekly reports when data become available.

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. As of January 23, 2015 Manitoba's influenza activity level was **High**.

Canada > Manitoba

● 2014-2015 ● Past years ▼



Sub-Typing, Strain Characterization, and Antiviral Resistance

Sub-Typing:

Sub-typing of influenza A specimens as reported by CPL, 2014/2015 flu season, Manitoba

A/H1	A/H3	A Unsubtyped	A Total
0	321	506	827

Strain Characterization:

Since September 1, 2014, National Microbiology Laboratory (NML) has antigenically characterized **106** influenza viruses (62 H3N2, 2 H1N1, and 42 B viruses) that were received from Canadian laboratories including CPL with the following results:

Strain	Number of viruses	
	Canada	Manitoba
A/Switzerland/9715293/2013-like ¹	56	2
A/Texas/50/2012 (H3N2)-like ²	6	0
A/California/07/09 (H1N1)-like ³	2	0
B/Massachusetts/02/12-like (B Yamagata lineage) ⁴	41	2

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)	0	237	0	235	510	1
A(H1N1)	0	2	0	2	2	0
B	0	41	0	41	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, 2014/2015						
Virus type/subtype	Oseltamivir		Zanamivir		Amantadine	
	# Resistant	# Sensitive	# Resistant	# Sensitive	# Resistant	# Sensitive
A(H3N2)	0	8	0	8	28	0
A(H1N1)	0	0	0	0	0	0
B	0	2	0	2	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-like virus, which belongs to the B Yamagata lineage, is the recommended influenza B component for the 2014-2015 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
MHHS = 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 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 SIS databases at 11:00 am on the date of data extraction.

Incidence rate:

Incidence rate measures the frequency with which influenza occurs in each region. It is calculated as the 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>