

- This week: There were **32** cases of influenza A and **1** case of influenza B reported
- A total of **55** cases of influenza A and **2** cases of influenza B have been reported since the start of the current influenza season
- A variety of respiratory viruses continue to circulate and influenza A is the dominant pathogen detected; influenza A virus detections have increased this week

Laboratory



- This week there were **2** hospitalizations associated with a laboratory-confirmed diagnosis of influenza, **0** ICU admissions and **0** deaths

This report includes hospitalizations, ICU admissions, and deaths associated with a lab-confirmed influenza report and the outcome does not have to be attributable to the influenza diagnosis to be counted

Severity



- The following regional proportions have been observed among cases of influenza this season:

- Winnipeg (59%)
- Northern (7%)
- Prairie Mountain (16%)
- Southern (4%)
- Interlake-Eastern (13%)

Geography



- Dec 7-Dec 13: The proportion of patients visiting sentinel physicians for influenza-like-illness was **5.01%** (higher than 0.6% last week)

Outpatient ILI (sentinels)



- Manitoba's influenza activity, as estimated by Google search data is **High**

- There were **15** calls to Health Links - Info Santé this week, which is **lower** than the previous week (19 calls).

Syndromic Surveillance



- Between Dec 7 and Dec 13, 2014, **77** units of oseltamivir were dispensed from community retail pharmacies
- The total number of units dispensed since Oct 1, 2014 was **263**

Treatment



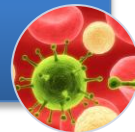
- Since September 1, 2014, there have been **5** lab-confirmed outbreaks of influenza A reported

Institutional Outbreaks



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

Antiviral Resistance



- As of December 6, 2014, **12.4%** of Manitobans had received the seasonal influenza vaccine
- This provisional estimate is subject to change

Immunization



In Summary

- There were **32** laboratory-confirmed case of influenza A and **1** case of influenza B reported this 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 Public Health Surveillance (PHS) Unit 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 PHS on a weekly basis.

This week, there were:

- **32** cases of influenza A reported;
- **1** cases of influenza B reported.

Since the beginning of this season, there have been:

- 55 cases of influenza A reported;
- 2 case of influenza B reported.

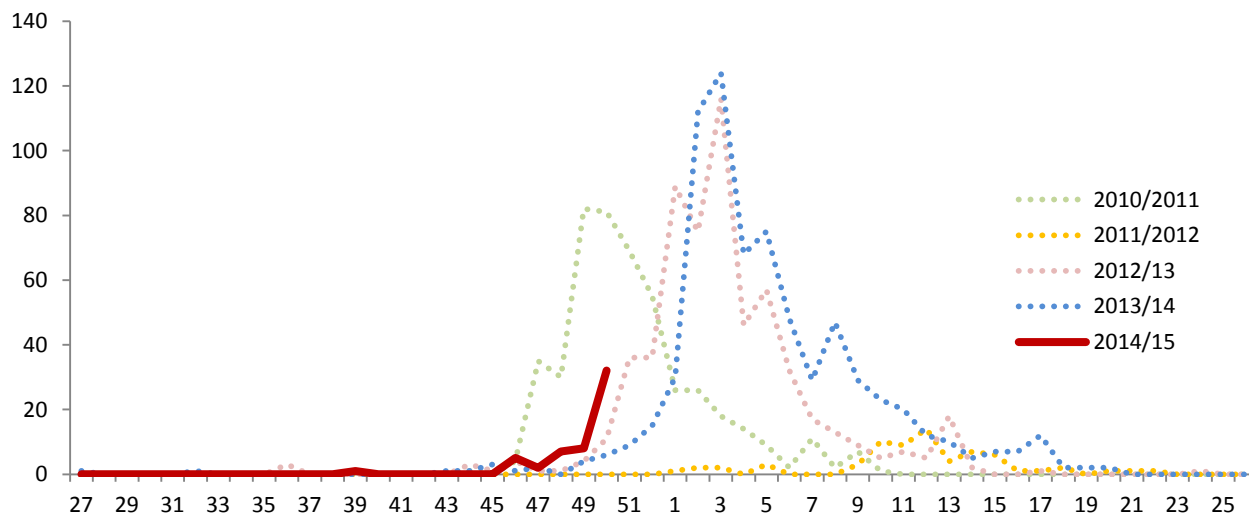


Figure 1. Number of laboratory-confirmed influenza cases by week

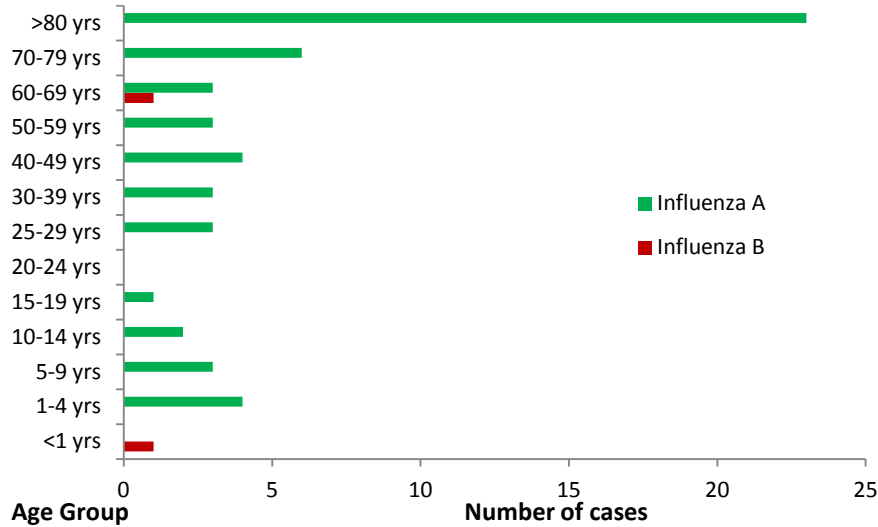


Figure 2. Cases of influenza A and B by age group, Manitoba, 2014/15

2. Outpatient ILI (Sentinel Physicians)

The proportion of patients seen for an ILI this week was **higher** than last week (5.01% compared to 0.6%). The proportion is lower than observed at the same time last season.

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 27 current Manitoban sentinel physicians in all five RHAs (Northern, Southern, Prairie Mountain, 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.**

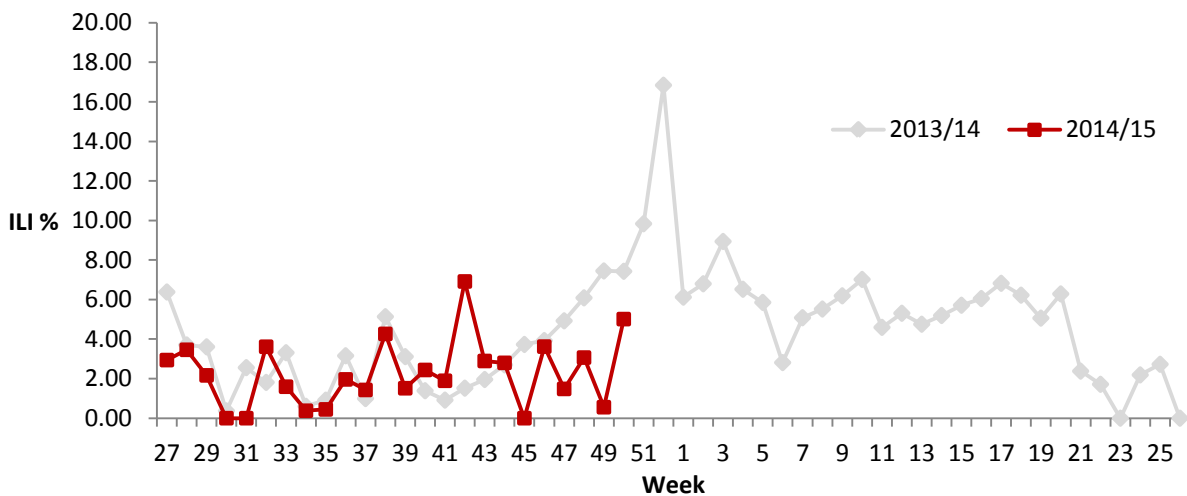


Figure 3. Proportion of patients seen for influenza-like illness as reported by *FluWatch* sentinel physicians by week for the 2013/14 and 2014/15 influenza seasons, Manitoba

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.

This week there were 15 calls, which was lower than the previous week (19 calls). The weekly total is comparable to the total observed at the same time last season.

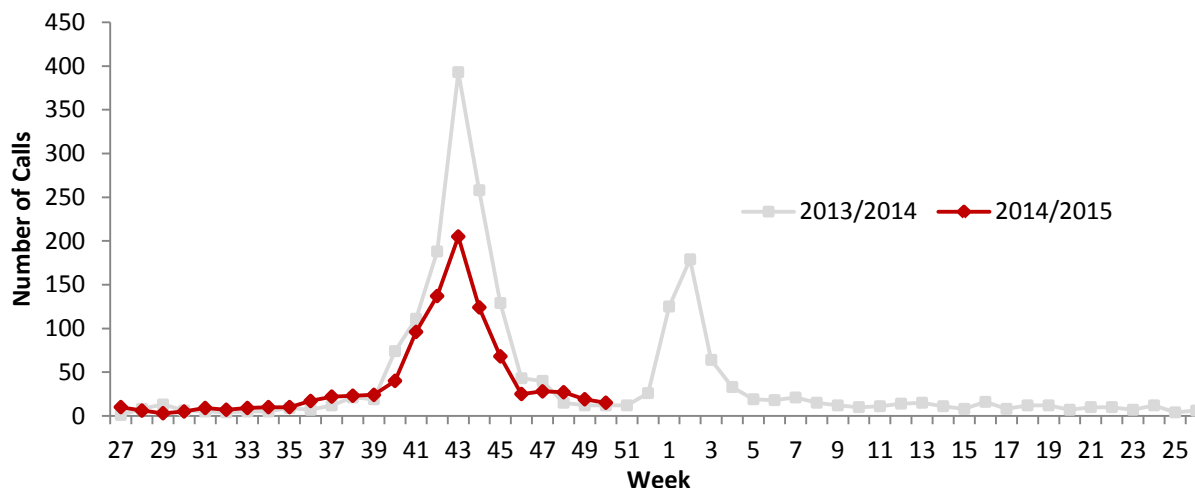


Figure 4. Number of calls to Health Links – Info Santé in the 2013/14 and 2014/15 influenza seasons, Manitoba

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.

| | |
|---|--|
| <p>This week there were:</p> <ul style="list-style-type: none"> • 2 hospitalizations, of which • 0 resulted in an ICU admission; and • 0 deaths.¹ | <p>*Since the beginning of the season, there have been:</p> <ul style="list-style-type: none"> • 6 hospitalizations, of which • 0 resulted in an ICU admission; and • 0 deaths.¹ |
|---|--|

*Hospitalized cases are reported based on laboratory report date.

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:

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

From the beginning of the season until Dec. 13, 2014 there have been:

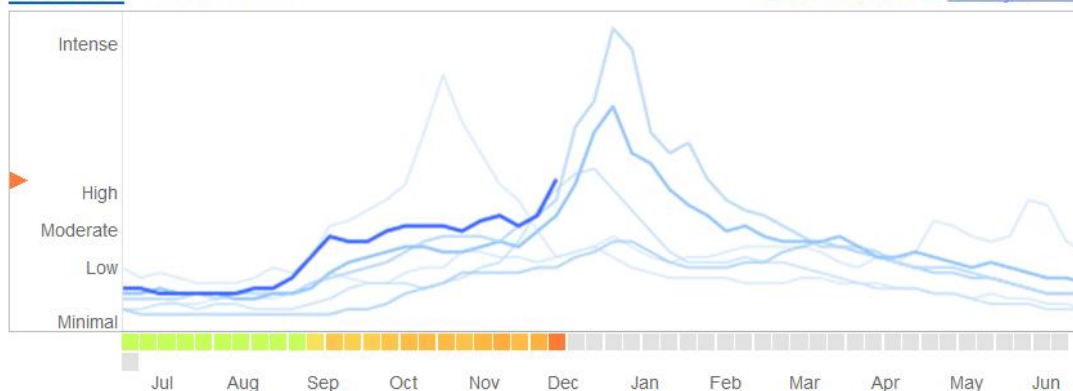
- 5 outbreaks of influenza A;
- 0 outbreaks of influenza B.

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 December 15, 2014 Manitoba's influenza activity 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 | 41 | 14 | 55 |

Strain Characterization:

Since September 1, 2014, NML has antigenically characterized **30** influenza viruses (13 H3N2, 2 H1N1, and 15 B viruses) that were received from Canadian laboratories with the following results:

| Strain | Number of viruses | |
|--|-------------------|----------|
| | Canada | Manitoba |
| A/Switzerland/9715293/2013-like ¹ | 7 | 0 |
| 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 | 15 | 1 |

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 | 79 (100) | 0 | 79(100) | 128 (100) | 1 |
| A(H1N1) | N/A | N/A | N/A | N/A | 2 (100) | 0 |
| B | 0 | 14 (100) | 0 | 14(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, 2014/2015 | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Virus type/subtype | Oseltamivir | | Zanamivir | | Amantadine | |
| | # Resistant | # Sensitive | # Resistant | # Sensitive | # Resistant | # Sensitive |
| A(H3N2) | 0 | 0 | 0 | 0 | 0 | 0 |
| A(H1N1) | NA | NA | NA | NA | 0 | 0 |
| B | 0 | 0 | 0 | 1 | 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
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 **Dec 19, 2014**, 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. 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>