

- Jan 27-Feb 02: The proportion of patients visiting sentinel physicians for influenza-like-illness was **11.5%** (up from 7.2% last week).

Outpatient ILI (sentinels)



- This week: There were **52** cases of influenza A and **4** case of influenza B reported.
- A total of **477** cases of influenza A and **37** cases of influenza B have been reported since the start of the current influenza season.

Laboratory



- There were **6** hospitalizations associated with a laboratory-confirmed diagnosis of influenza that were reported this week, 1 ICU admission and 3 deaths.
- There have been **93** hospitalizations, of which 6 resulted in ICU admissions, this season.
- So far this season, **7** Manitobans with laboratory-confirmed influenza have died.

Severity



- The following regional proportions are observed among cases of influenza A: Winnipeg (29.1%), Northern (15.1%), Prairie Mountain (30.1%), Southern (17.6%), Interlake-Eastern (8.1%).

Geography



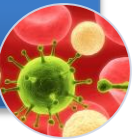
- Between Jan 01-Feb 03, 2013, **743** units of oseltamivir have been dispensed from community retail pharmacies. This brings the total number of units dispensed since Sept 01, 2012 up to 980.

Treatment



- There have been **zero** influenza isolates that have tested positive for resistance to oseltamivir or zanamivir.

Antiviral Resistance



- Manitoba's influenza activity, as estimated by Google search data, remains as "high".
- There were 51 calls to Health-Links Info-Santé this week compared to 48 the previous week.

Syndromic Surveillance



- As of Feb 02, there have been **33** lab-confirmed outbreaks of influenza A reported, of which **13** are ongoing.

Institutional Outbreaks



- As of February 6th, 2013, only **18.2%** of Manitobans had received the seasonal influenza vaccine.

Immunization



In Summary

- The number of reported laboratory-confirmed cases of Influenza A is only slightly greater than the number seen last week.
- Influenza activity continues to be observed in long term care facilities across the province.

Surveillance Measures

1. 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.

Table 1. Reported Cases of Influenza A and B by Age Group, Manitoba, 2012/2013

| Age Group | Influenza A | | Influenza B | |
|--------------|-------------|-------|-------------|-------|
| | # | % | # | % |
| <1 yrs | 25 | 5.2% | 1 | 2.7% |
| 1-4 yrs | 48 | 10.1% | 3 | 8.1% |
| 5-9 yrs | 33 | 6.9% | 2 | 5.4% |
| 10-14 yrs | 20 | 4.2% | 5 | 13.5% |
| 15-19 yrs | 31 | 6.5% | 2 | 5.4% |
| 20-24 yrs | 16 | 3.4% | 1 | 2.7% |
| 25-29 yrs | 14 | 2.9% | 4 | 10.8% |
| 30-39 yrs | 18 | 3.8% | 2 | 5.4% |
| 40-49 yrs | 35 | 7.3% | 4 | 10.8% |
| 50-59 yrs | 42 | 8.8% | 4 | 10.8% |
| 60-69 yrs | 30 | 6.3% | 3 | 8.1% |
| 70-79 yrs | 38 | 8.0% | 2 | 5.4% |
| >79 yrs | 127 | 26.6% | 4 | 10.8% |
| Missing | 0 | 0.0% | 0 | 0.0% |
| TOTAL | 477 | | 37 | |

This week, there were:

- 52 cases of influenza A reported;
- 4 case of influenza B reported.

Since the beginning of this season, there have been:

- 477 cases of influenza A reported;
- 37 cases of influenza B reported.

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.)

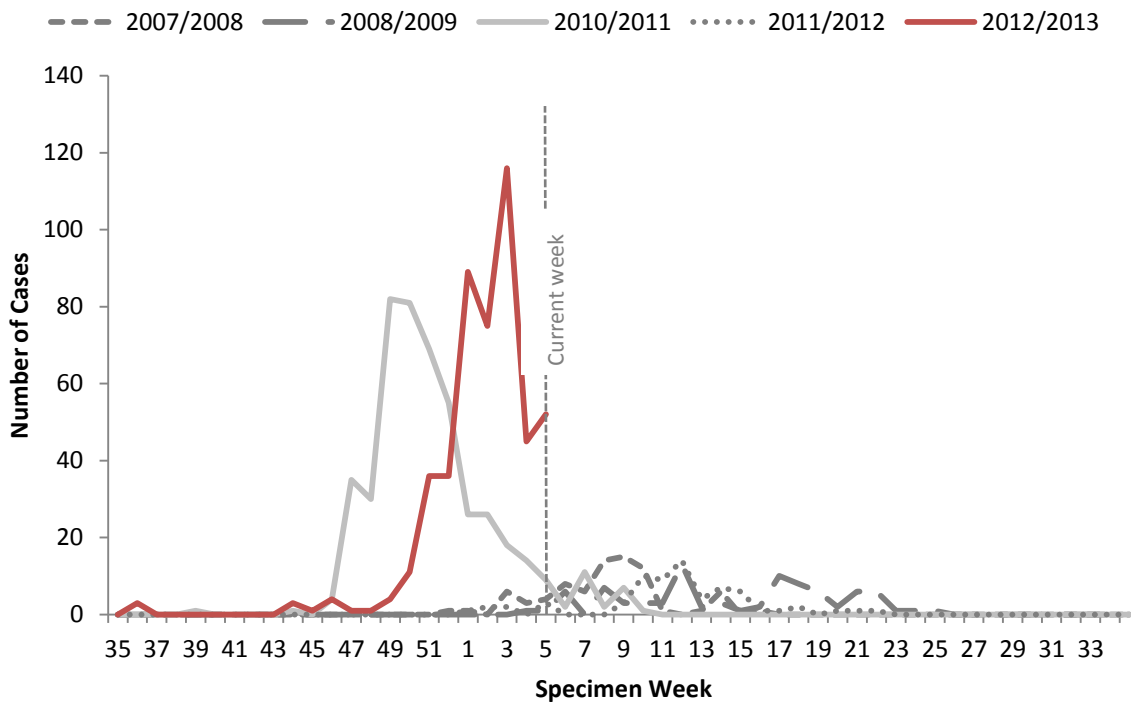
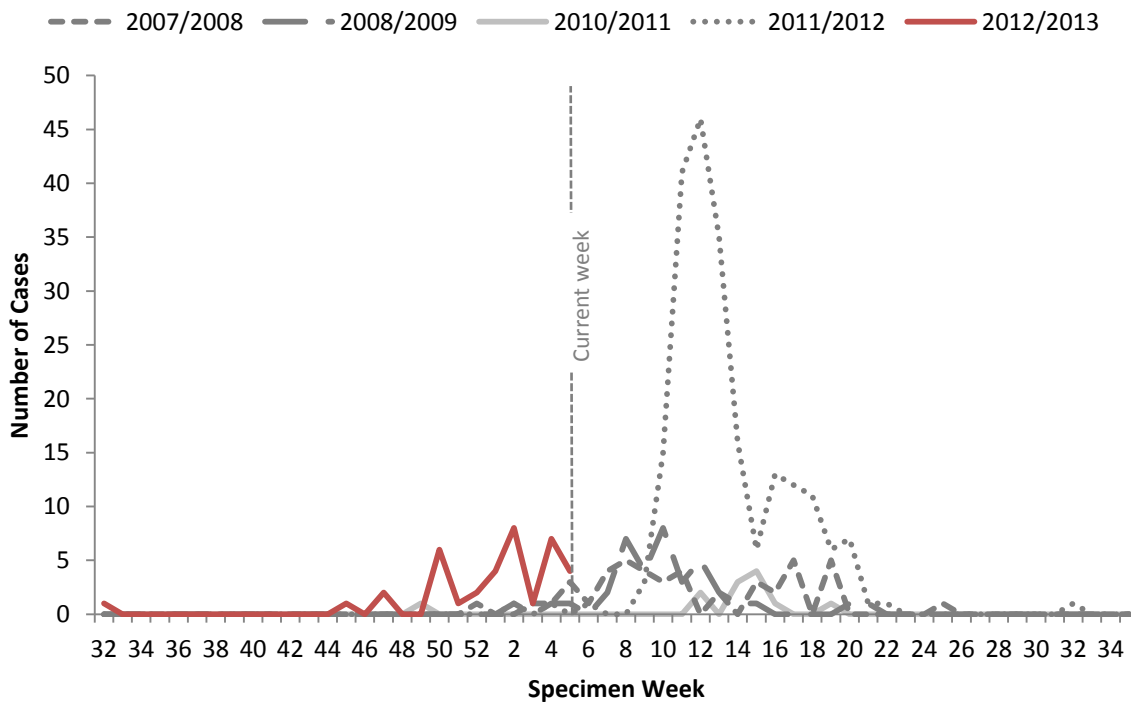


Figure 4. Number of lab-confirmed cases of influenza B by specimen collection week and season, Manitoba



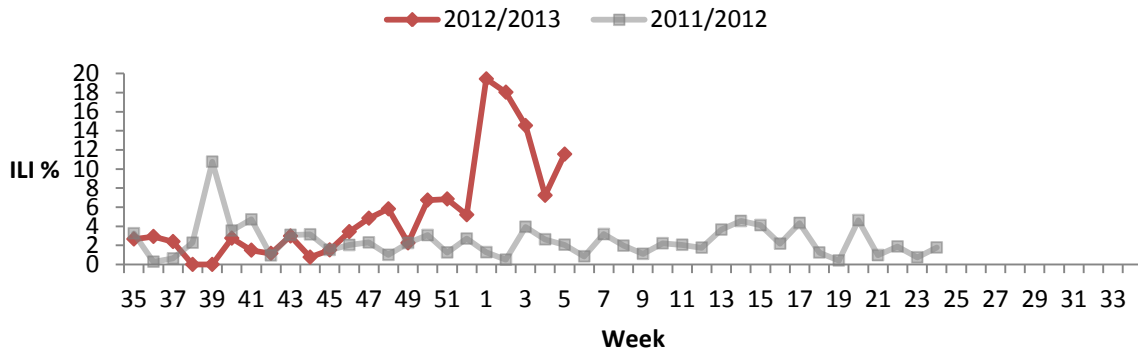
2. OutPatient ILI (Sentinel Physicians)

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, Prairie Mountain, Interlake-Eastern, and Winnipeg).

The proportion of patients seen for an ILI this week was higher than last week (11.5% from 7.2%). The proportion is higher than what was observed at the same time last season.

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 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 2012/2013 influenza season, Manitoba Health has joined STRIVE, a national multi-site vaccine effectiveness surveillance network already in operation in Alberta, British Columbia, Ontario, and Quebec. Operated in collaboration with Cadham Provincial Laboratory, STRIVE aims to assess the effectiveness of the 2012-2013 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 Seplex 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).

| | Influenza A | Influenza B | Total |
|--|-------------|-------------|-----------|
| *New STRIVE lab-confirmed influenza cases: | 3 | 2 | 5 |
| Total STRIVE lab-confirmed influenza cases: | 39 | 6 | 45 |

(These cases are included in the total number of provincial influenza cases)

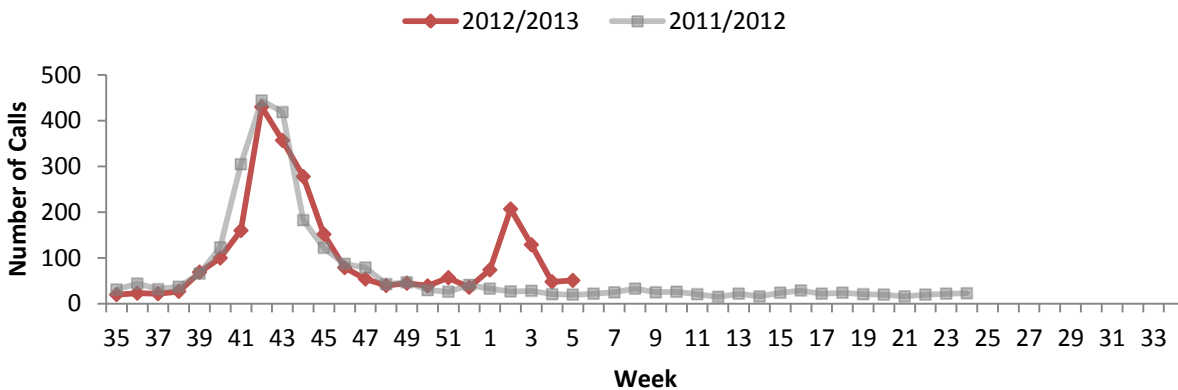
*Data Source: STRIVE Network, data extracted on Feb 01, 2013 based on Jan 20-26th, 2013 specimen dates.

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 51 calls compared to 48 the previous week. The weekly total is only slightly higher than the total observed at the same time last season.

Figure 2. The number of calls to HL-IS Influenza Service by season, 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"> • 6 hospitalizations*, of which • 1 resulted in an ICU admission; and • 3 deaths.¹ | <p>Since the beginning of the season, there have been:</p> <ul style="list-style-type: none"> • 93 hospitalizations, of which • 6 resulted in an ICU admission; and • 7 deaths.¹ |
|--|--|

There were twenty-one children (aged 9 or under) admitted to hospital with laboratory-confirmed influenza A or B since the start of the season. There were two children admitted in the week of Jan 27-Feb 02, 2013. (Note: these children are included in the counts above).

*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, 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 February 02 there have been:

- 33 outbreaks of influenza A;
- 2 outbreaks of influenza B.

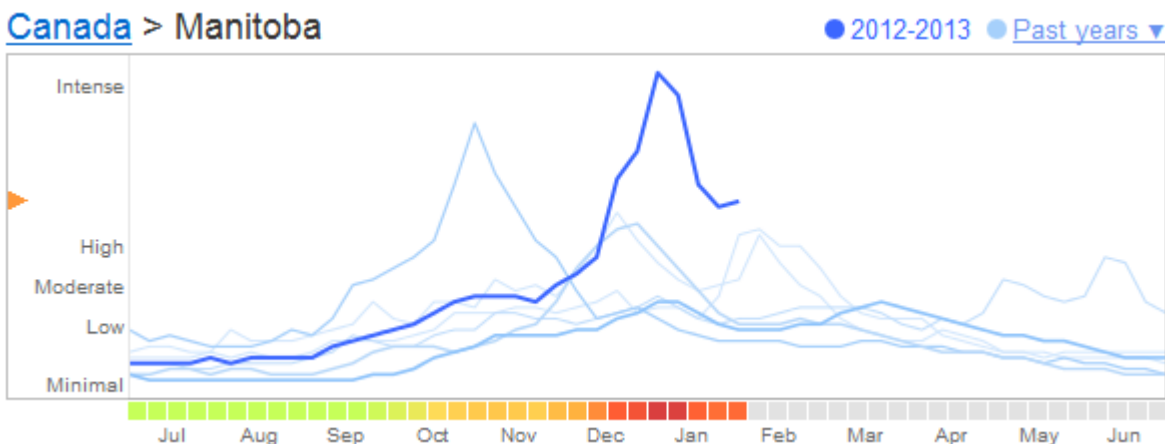
Table 2. Cumulative number of lab-confirmed outbreaks of influenza by RHA and season, Manitoba

| RHA: | 2011/2012 up to the end of Week 5 (Feb 04, 2012) | | | | 2012/2013 up to end of the Week 5 (Feb 02, 2013) | | | |
|-------------------|--|-----------|----------|-----------|---|-----------|----------|-----------|
| | LTCF | Workplace | ACF | Community | LTCF | Workplace | ACF | Community |
| Winnipeg | 1 | 0 | 0 | 0 | 14 | 0 | 0 | 0 |
| Northern | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Southern | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| Interlake-Eastern | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| Prairie Mountain | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| Total | 1 | 0 | 0 | 0 | 35 | 0 | 0 | 0 |

LTCF: long term care facility
ACF: acute care facility

Syndromic Surveillance

[Google Flu Trends](#) uses aggregated Google search data to estimate influenza activity. As of February 6th, Manitoba’s influenza activity is categorized as “high”.



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 |
|------|------|--------------|---------|
| 3 | 135 | 339 | 477 |

Strain Characterization:

Since September 1, 2012, NML has antigenically characterized 425 influenza viruses (297 H3N2, 56 H1N1, and 72 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 | 297 | 3 |
| A/California/07/09 (H1N1)-like ³ | 56 | 0 |
| B/Brisbane/60/2008-like (B/Victoria/02/87 lineage) ⁴ | 14 | 2 |
| B/Wisconsin/01/2010-like (Yamagata lineage) ⁵ | 58 | 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 | 285 (100) | 0 | 285 (100) | 495 (100) | 0 |
| A(H1N1) | 0 | 52 (100) | 0 | 51 (100) | 50 (100) | 0 |
| B | 0 | 60 (100) | 0 | 60 (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 | 3 | 0 | 3 | 5 | 0 |
| A(H1N1) | 0 | 0 | 0 | 0 | 0 | 0 |
| B | 0 | 2 | 0 | 2 | N/A | N/A |

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

³ Strain match to recommended H1N1 component for the 2012/2013 northern hemisphere influenza vaccine.

⁴ Strain match to recommended influenza B component of the 2011/2012 influenza vaccine.

⁵ 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 the morning of **February 07, 2013**, 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>