

- Apr 21-27: The proportion of patients visiting sentinel physicians for influenza-like-illness was **4.9%** (up from **1.1%** last week).

#### Outpatient ILI (sentinels)



- This week: There was **1** case of influenza A and **10** cases of influenza B reported.
- A total of **589** cases of influenza A and **87** cases of influenza B have been reported since the start of the current influenza season.

#### Laboratory



- There were **2** hospitalizations associated with a laboratory-confirmed diagnosis of influenza that were reported this week, **0** ICU admissions and **0** deaths.
- There have been **148** hospitalizations, of which **23** resulted in ICU admissions, this season.
- So far this season, **8** Manitobans with laboratory-confirmed influenza have died.

#### Severity



- The following regional proportions are observed among cases of influenza A: Winnipeg (34.7%), Northern (13.9%), Prairie Mountain (26.4%), Southern (16.0%), Interlake-Eastern (9.0%).

#### Geography



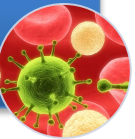
- Between Jan 1 - Apr 28, 2013, **1290** units of oseltamivir have been dispensed from community retail pharmacies. This brings the total number of units dispensed since Sept 1, 2012 up to 1527.

#### Treatment



- There has been **1** H3N2 influenza isolate that has tested positive for resistance to Oseltamivir and Zanamivir.

#### Antiviral Resistance



- Manitoba's influenza activity, as estimated by Google search data, remains "low".
- There were 9 calls to Health-Links Info-Santé this week, which is similar to the previous week (10 calls).

#### Syndromic Surveillance



- As of April 27, there have been **40** lab-confirmed outbreaks of influenza A reported, of which one is ongoing.

#### Institutional Outbreaks



- As of March 20, 2013, only **19.7%** of Manitobans had received the seasonal influenza vaccine.

#### Immunization



## In Summary

- There was one laboratory-confirmed case of Influenza A and ten cases of influenza B reported last week.

# 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	42	7.1%	4	4.6%
1-4 yrs	60	10.2%	6	6.9%
5-9 yrs	40	6.8%	8	9.2%
10-14 yrs	23	3.9%	8	9.2%
15-19 yrs	32	5.4%	5	5.7%
20-24 yrs	22	3.7%	2	2.3%
25-29 yrs	19	3.2%	6	6.9%
30-39 yrs	27	4.6%	7	8.0%
40-49 yrs	42	7.1%	8	9.2%
50-59 yrs	50	8.5%	11	12.6%
60-69 yrs	39	6.6%	5	5.7%
70-79 yrs	49	8.3%	4	4.6%
>79 yrs	144	24.4%	13	14.9%
Missing		0.0%		0.0%
<b>TOTAL</b>	<b>589</b>		<b>87</b>	

This week, there were:

- 1 case of influenza A reported;
- 10 cases of influenza B reported.

Since the beginning of this season, there have been:

- 589 cases of influenza A reported;
- 87 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.)

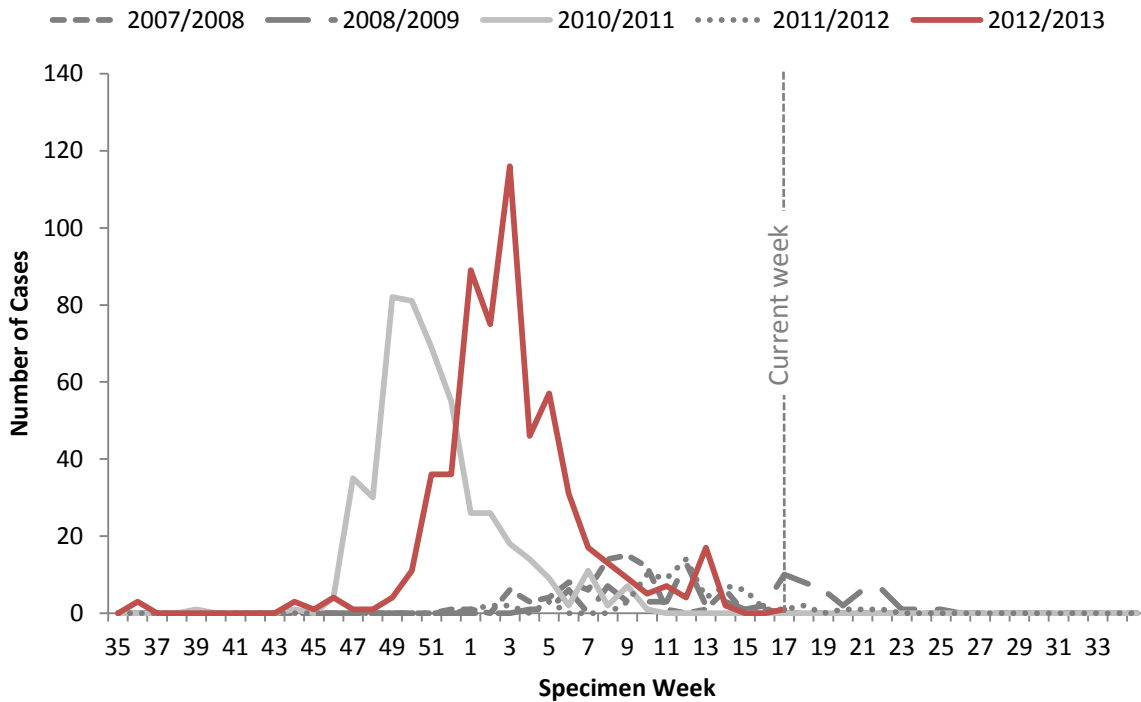
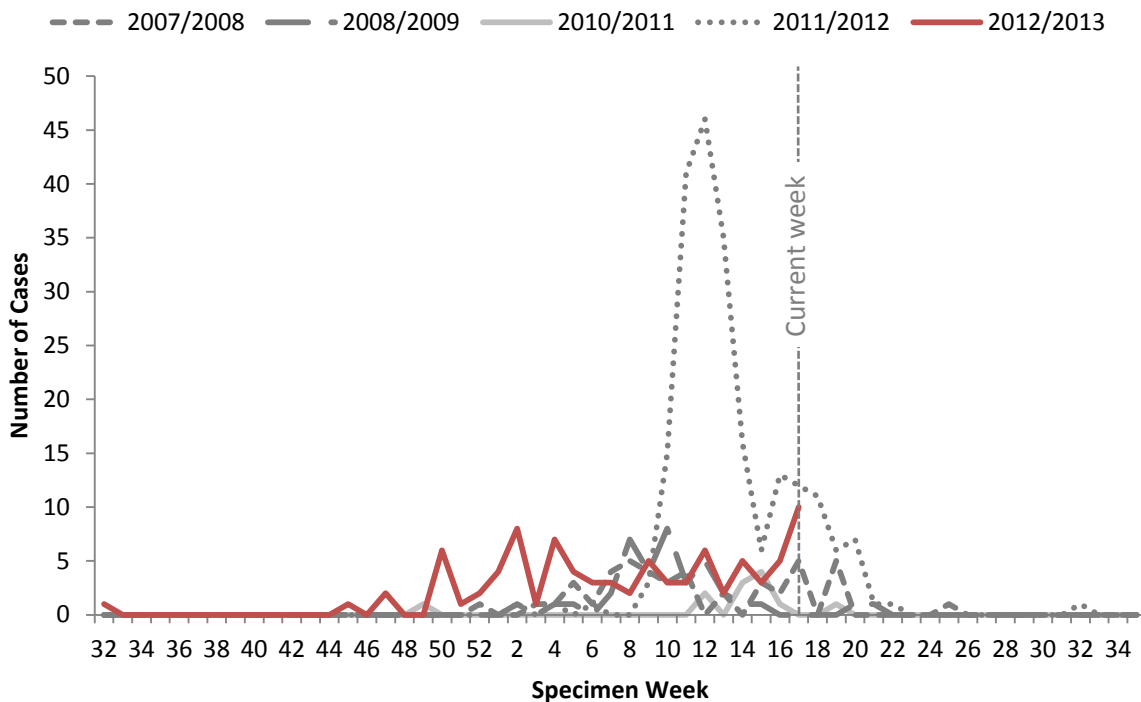


Figure 4. Number of lab-confirmed cases of influenza B by specimen collection week and season, Manitoba



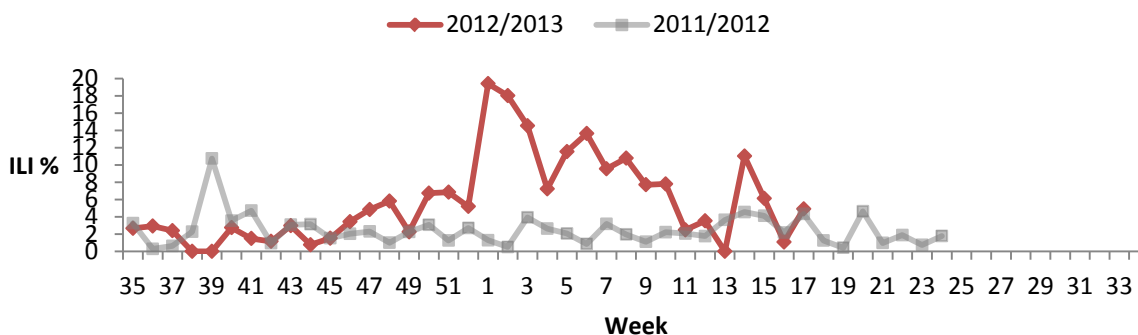
## 2. Outpatient ILI (Sentinel Physicians)

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 (4.9% from 1.1%). The proportion is about the same as 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 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](mailto:Arielle.GoldmanSmith@gov.mb.ca) (for sites outside Winnipeg) or [strive@wrha.mb.ca](mailto:strive@wrha.mb.ca) (Winnipeg).

	Influenza A	Influenza B	Total
<b>*New</b> STRIVE lab-confirmed influenza cases:	1	1	2
<b>Total</b> STRIVE lab-confirmed influenza cases:	46	10	56

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

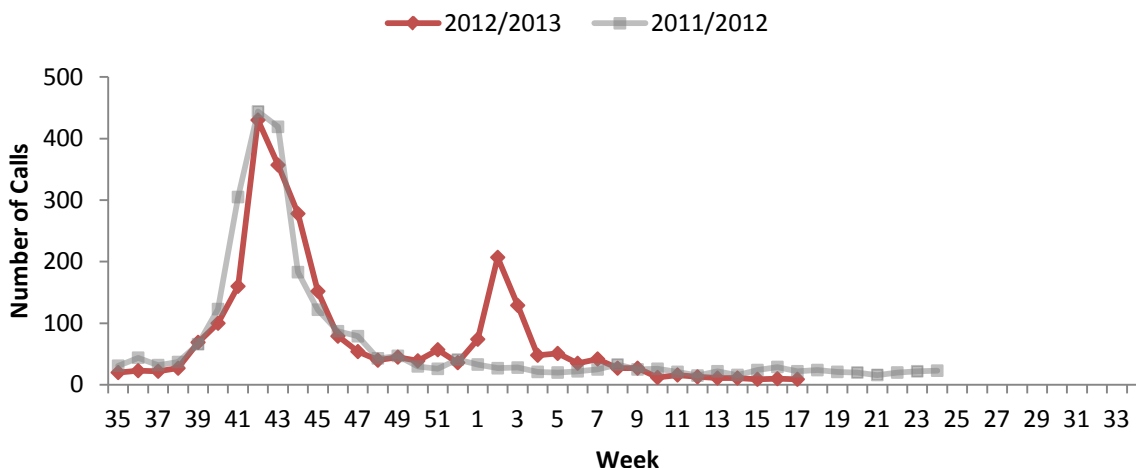
\*Data Source: STRIVE Network, based on data received by Apr 26 for Apr 14-20, 2013 specimen dates.

### 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 9 calls, which is similar to the previous week (10 calls). The weekly total is lower 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"> <li>• 2 hospitalizations, of which</li> <li>• 0 resulted in an ICU admission; and</li> <li>• 0 deaths.<sup>1</sup></li> </ul>	<p>*Since the beginning of the season, there have been:</p> <ul style="list-style-type: none"> <li>• 148 hospitalizations, of which</li> <li>• 23 resulted in an ICU admission; and</li> <li>• 8 deaths.<sup>1</sup></li> </ul>
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There were 45 children (aged 9 or under) admitted to hospital with laboratory-confirmed influenza A or B since the start of the season. There was one child admitted in the week of Apr 21-27, 2013. (Note: These children are included in the counts above).

\*Hospitalized cases are reported based on laboratory report date.

<sup>1</sup> 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:

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

From the beginning of the season until April 27, there have been:

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

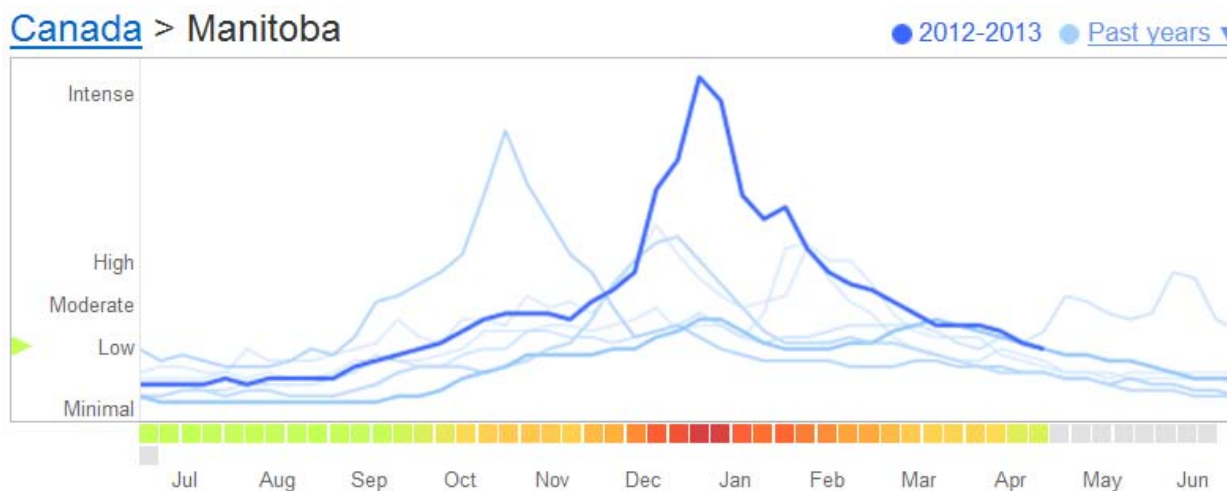
Table 2. Cumulative number of lab-confirmed outbreaks of influenza by RHA and season, Manitoba

RHA:	2011/2012 up to the end of Week 17 (Apr 28, 2012)				2012/2013 up to end of the Week 17 (Apr 27, 2013)			
	LTCF	Workplace	ACF	Community	LTCF	Workplace	ACF	Community
Winnipeg	7	0	0	0	23	0	0	0
Northern	0	0	0	0	2	0	0	0
Southern	0	0	0	0	5	0	0	0
Interlake-Eastern	1	0	0	0	4	0	0	0
Prairie Mountain	0	0	0	0	10	0	0	0
<b>Total</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>0</b>

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 May 1, Manitoba's influenza activity remains "low".



## 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
17	150	422	589

### Strain Characterization:

Since September 1, 2012, NML has antigenically characterized **1145** influenza viruses (565 H3N2, 189 H1N1, and 391 B viruses) that were received from Canadian laboratories with the following results:

Strain	Number of viruses	
	Canada	Manitoba
A/Victoria/361/2011 (H3N2)-like <sup>2</sup>	565	3
A/California/07/09 (H1N1)-like <sup>3</sup>	189	0
B/Brisbane/60/2008-like (B/Victoria/02/87 lineage) <sup>4</sup>	78	2
B/Wisconsin/01/2010-like (Yamagata lineage) <sup>5</sup>	313	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 (%)
<b>A(H3N2)</b>	1 (0.2)	558 (99.8)	1 (0.2)	558 (99.8)	951 (99.9)	1 (0.1)
<b>A(H1N1)</b>	0	186 (100)	0	183 (100)	220 (100)	0
<b>B</b>	0	336 (100)	0	336 (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
<b>A(H3N2)</b>	0	3	0	3	5	0
<b>A(H1N1)</b>	0	0	0	0	1	0
<b>B</b>	0	2	0	2	N/A	N/A

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

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

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

<sup>5</sup> 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 **May 2, 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. 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>