

- The proportion of patients visiting sentinel physicians for influenza-like-illness was **19.4%**.

• **ER (Wpg only):**

- The total number of IRI-related emergency room (ER) visits ranged from **186 to 236 visits a day**, or **23.5% to 24.6% of all ER visits**.

Outpatient IRI (sentinels)



- **This week:** There were **66 cases of influenza A** and 4 cases of influenza B reported.

- A total of 166 cases of influenza A and 17 cases of influenza B have been reported since the start of the current influenza season.

Laboratory



- There were **9 hospitalizations** associated with a laboratory-confirmed diagnosis of influenza reported this week, of which **1 resulted in an ICU admission**.

- There have been 27 hospitalizations and 3 ICU admissions this season.

- So far this season, **2** Manitobans with laboratory-confirmed influenza have died.

Severity



- Out of a total of 166 cases of influenza A, the following regional proportions are observed: Winnipeg RHA (22.9%), Northern (8.4%), Prairie Mountain Health (44%), Southern (16.3%), Interlake-Eastern (6%).

Geography



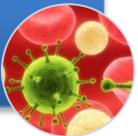
- Between December 5th and December 31st, 2012, **95** units of oseltamivir have been dispensed from community, retail pharmacies.

Treatment



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

Antiviral Resistance



- Google Flu Trends categorizes Manitoba's influenza activity as **"intense"**.

- The number of calls to Health Links - Info Sante has increased over the previous week and is higher than this time last year.

Syndromic Surveillance



- There were **11** lab-confirmed outbreaks of influenza A reported.

Institutional Outbreaks



- As of January 4th, 2013, only 15.7% of Manitobans have received the seasonal influenza vaccine.

- At this time last year, 19.3% of Manitobans had received the seasonal influenza vaccine

Immunization



In Summary

- The number of reported laboratory-confirmed cases continues to increase and has likely not peaked yet.
- Increased influenza activity has been observed in long term care facilities across the province.
- In addition to influenza, Manitobans are experiencing a high rate of respiratory syncytial virus, creating an overall high occurrence of respiratory illnesses.

Surveillance Measures

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.

This week, there were:

- 66 cases of influenza A reported;
- 4 cases of influenza B reported.

Since the beginning of this season, there have been:

- 166 cases of influenza A reported;
- 17 cases of influenza B reported.

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

Age Group	Influenza A		Influenza B	
	#	%	#	%
<1 yrs	7	4.2%	0	0.0%
1-4 yrs	13	7.9%	1	5.9%
5-9 yrs	13	7.9%	2	11.8%
10-14 yrs	6	3.6%	3	17.6%
15-19 yrs	19	11.5%	2	11.8%
20-24 yrs	4	2.4%	1	5.9%
25-29 yrs	1	0.6%	0	0.0%
30-39 yrs	10	6.1%	1	5.9%
40-49 yrs	6	3.6%	0	0.0%
50-59 yrs	14	8.5%	2	11.8%
60-69 yrs	11	6.7%	1	5.9%
70-79 yrs	15	9.1%	0	0.0%
>79 yrs	46	27.9%	4	23.5%
Missing	0	0.0%	0	0.0%
TOTAL	165		17	

Children under 19 years of age, represent 35.1% of reported influenza A cases, as well as 47.1% of influenza B.

Adults and seniors over 60, account for 43.7% of influenza A and 29.8% of influenza B cases.

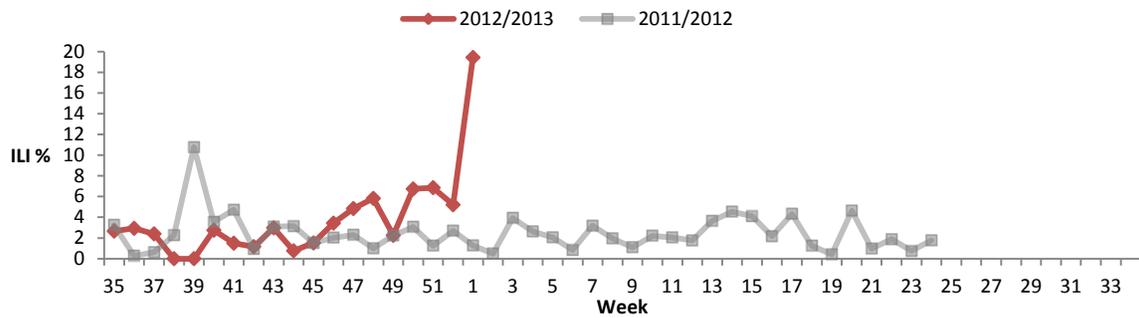
OutPatient ILI (Sentinel Physicians)

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 (19.4% from 5.2%). The proportion is higher than what was observed at the same time last season. (This is a steep increase from last week and may be influenced by a single sentinel site reporting an extremely high proportion).

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 (for sites outside Winnipeg) or strive@wrha.mb.ca (Winnipeg).

	Influenza A	Influenza B	Total
New STRIVE lab-confirmed influenza cases:	5	0	5
Total STRIVE lab-confirmed influenza cases:	16	2	18

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

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.

The weekly total is higher than the total observed at the same time last season. The peak this season shares the same pattern as the peak that occurred last season.

Figure 2. The number of calls to HL-IS Influenza Service by season, Manitoba

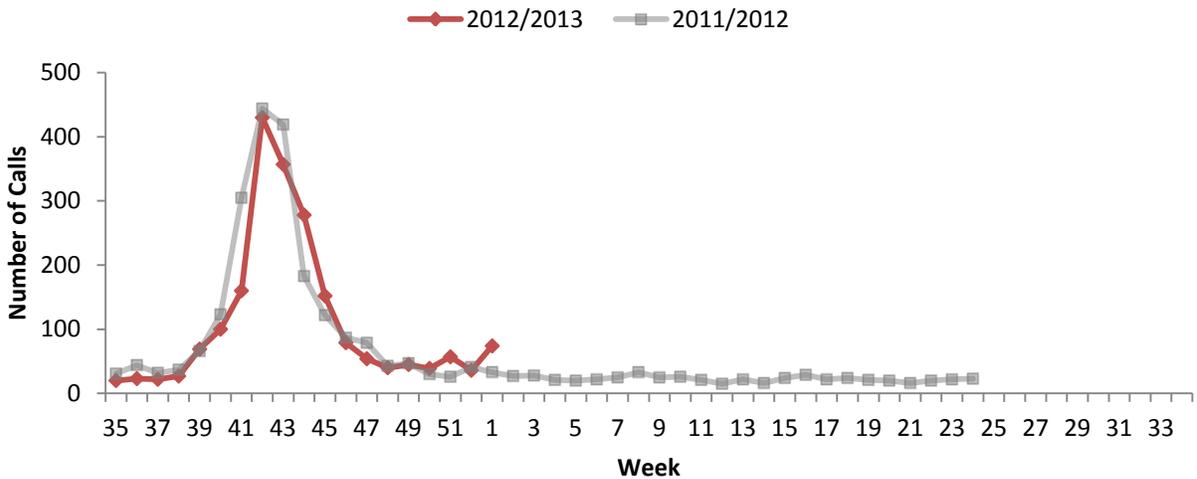


Figure 3. Number of lab-confirmed cases of influenza A by specimen collection week and season, Manitoba (Note: 2009/2010 season excluded due to the H1N1 pandemic, making the numbers incomparable with other seasons.)

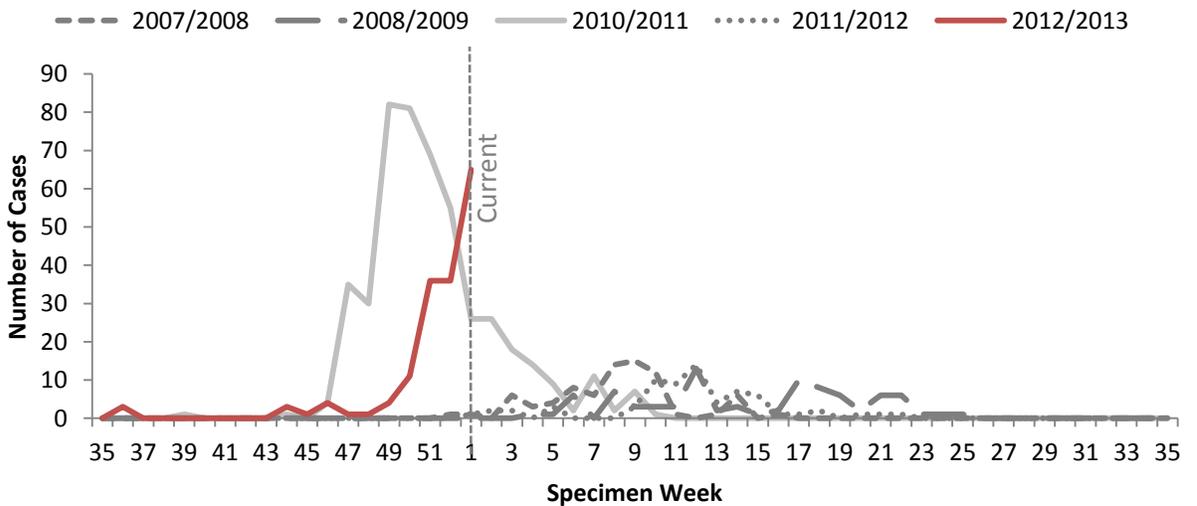
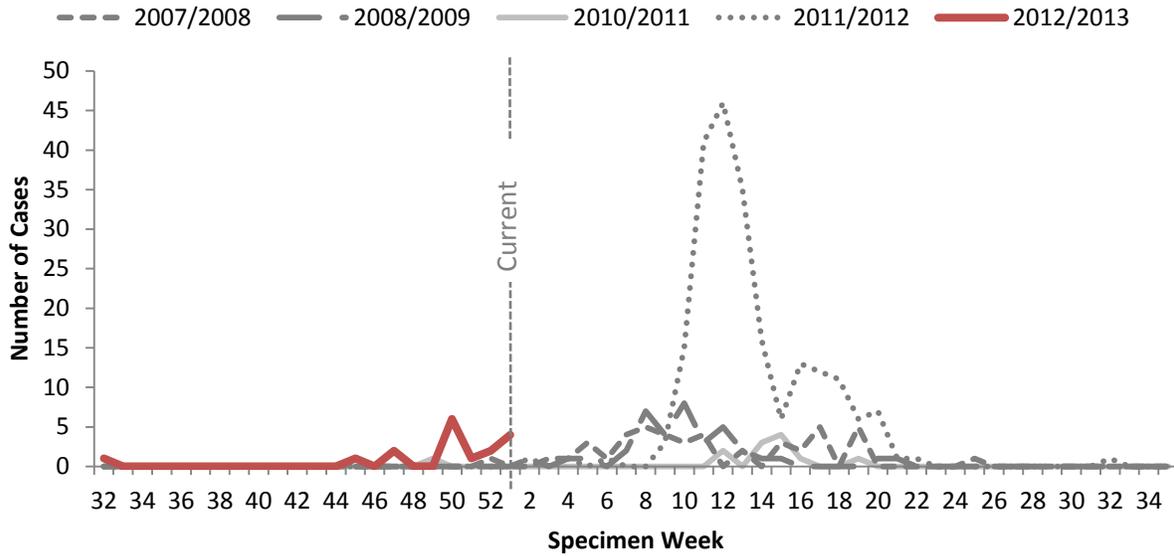


Figure 4. Number of lab-confirmed cases of influenza B by specimen collection week and season, Manitoba



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 was:

- 9 hospitalizations, of which
- 1 resulted in an ICU admission; and
- 0 deaths.¹

Since the beginning of the season, there have been:

- 27 hospitalizations, of which
- 3 resulted in an ICU admission; and
- 2 deaths.¹

There were 8 children (aged 10 or under) admitted to hospital for influenza A or B, since the start of the season. There were no children admitted in the week December 30, 2012 to January 5th, 2013. (Note: These children are included in the counts above.)

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:

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

Since the beginning of the season, there have been:

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

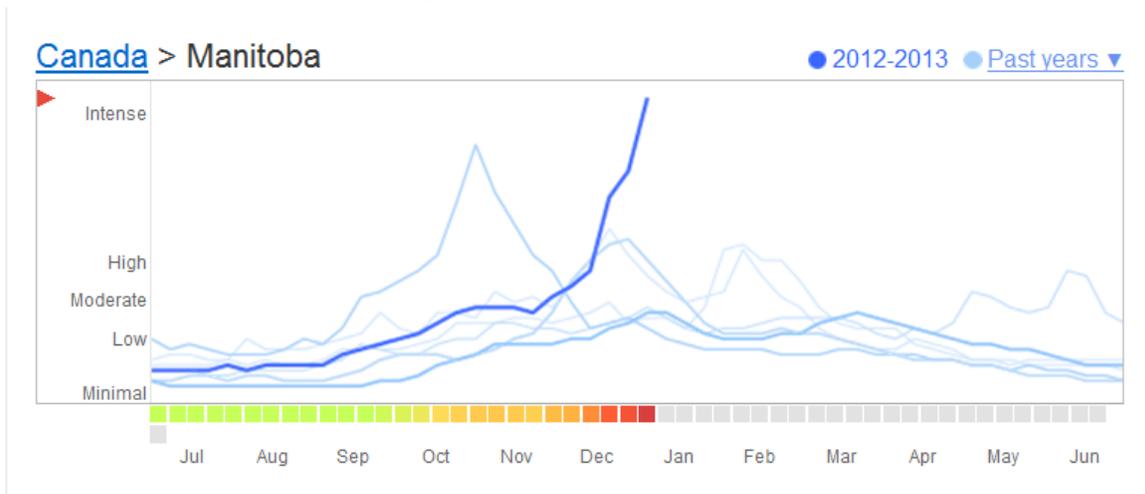
Table 2. Cumulative number of lab-confirmed outbreaks of influenza by RHA and season, Manitoba

RHA:	Week 1, 2011/2012 (up to Jan 7, 2012)				Week 1, 2012/2013 (up to Jan 5, 2013)			
	LTCF	Workplace	ACF	Community	LTCF	Workplace	ACF	Community
Winnipeg	0	0	0	0	5	0	0	0
Northern	0	0	0	0	1	0	0	0
Southern	0	0	0	0	2	0	0	0
Interlake-Eastern	0	0	0	0	3	0	0	0
Prairie Mountain	0	0	0	0	6	0	0	0
Total	0	0	0	0	17	0	0	0

LTCF: long term care facility
ACF: acute care facility

Syndromic Surveillance

[Google Flu Trends](#) uses aggregated Google search data to estimate flu activity. As of January 11th, Manitoba's flu activity is categorized as "intense".



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
0	57	109	166

Strain Characterization:

Since September 1, 2012, NML has antigenically characterized 193 influenza viruses (143 H3N2, 25 H1N1, and 25 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	143	3
A/California/07/09 (H1N1)-like ³	25	0
B/Brisbane/60/2008-like (B/Victoria/02/87 lineage) ⁴	4	1
B/Wisconsin/01/2010-like (Yamagata lineage) ⁵	21	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	137 (100)	0	135 (100)	225 (100)	0
A(H1N1)	0	18 (100)	0	18 (100)	18 (100)	0
B	0	23 (100)	0	23 (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	1	0	1	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 **January 11, 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>