

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 5, Weeks 51-52

December 18 to 31, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## A/H3N2 continues to predominate among influenza detections in BC

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### Summary

The holiday period may introduce instability in regular surveillance indicators so that further monitoring for a consistent pattern over the coming weeks is needed. In weeks 51-52 (December 18 – 31 2011) most, but not all, surveillance indicators suggested an increase in influenza activity in BC. The influenza-like illness (ILI) rate reported by sentinel physicians was 0.2%, similar to previous weeks and below the expected range for this time of year. The MSP influenza illness proportion increased to above the ten year median at the provincial level and in most HAs except Northern HA. The ILI consultation rate in BC Children's Hospital ER was higher than the previous week but at the expected level for this time of year. Three out of four influenza-like illness (ILI) outbreak reports received from long term care facilities were lab-confirmed influenza outbreaks, including two A/H3N2 in Fraser HA (week 51) and Interior HA (week 52), and one influenza A in Vancouver Island HA (week 52) for which subtype is still pending. Among 231 specimens tested at the provincial laboratory in weeks 51-52, 51 (22%) were positive for influenza, similar to the previous week, including 47 A/H3N2, 1 influenza A (subtype pending), and 3 influenza B. Other significant respiratory virus detections included rhino/enterovirus (14%, 32/231) and human metapneumovirus (10%, 24/231). Other respiratory viruses were also sporadically detected. RSV continues to increase and dominate among respiratory viruses detected at BC Children's Hospital.

*Report disseminated January 5, 2012*

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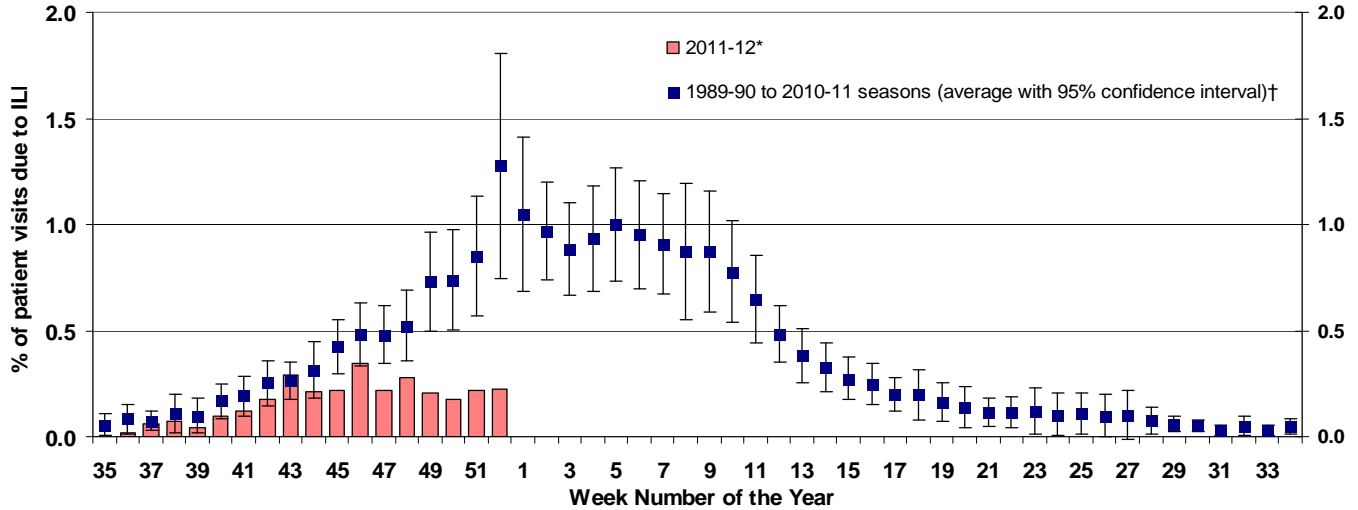
December 18 to 31, 2011

## British Columbia

### Sentinel Physicians

In weeks 51-52, the proportion of patients with ILI among those presenting to sentinel physicians was 0.2%, which continued to be lower than the expected range for this time of year. During this holiday season, fewer sentinel physicians have reported than previous weeks: the proportion of sentinel physician sites reporting for week 51 and 52 to-date is 61% and 37%, respectively.

**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2011-2012**



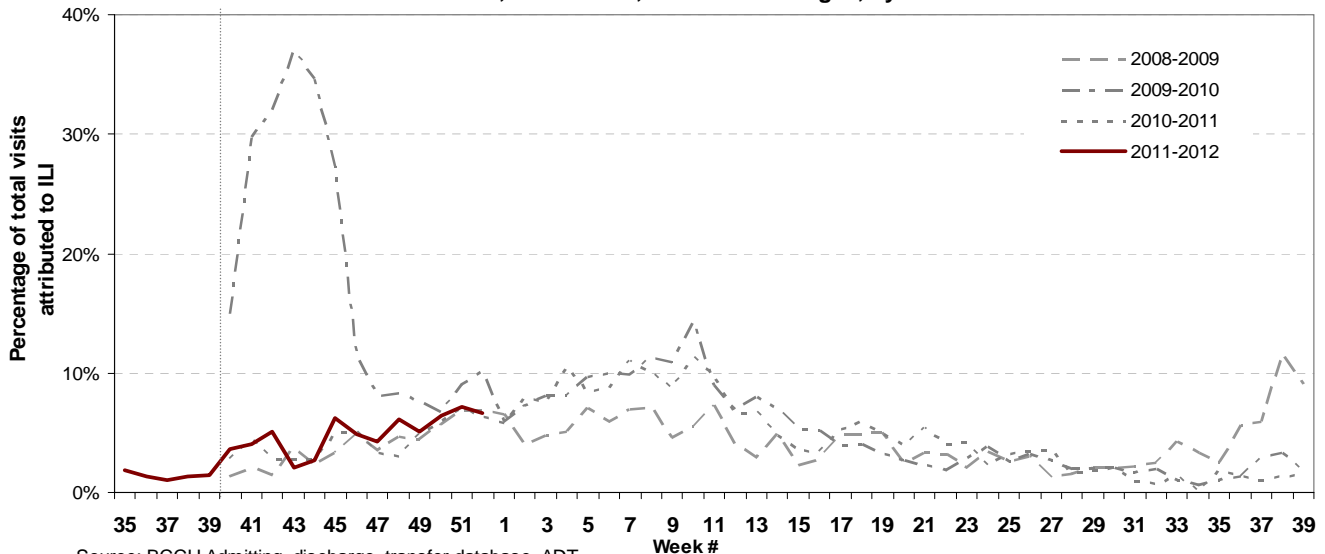
\* Data subject to change as reporting becomes increasingly complete.

† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

### BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness in weeks 51 and 52 was 7.1% and 6.6%, respectively, consistent with this time last year though slightly higher than the previous weeks.

**Percentage of Patients Presenting to BC Children's Hospital ER with Presenting Complaint of "Flu," "Influenza," or "Fever/Cough", by Week**



Source: BCCH Admitting, discharge, transfer database, ADT

Data provided by Decision Support Services at Children's & Women's Health Centre of BC

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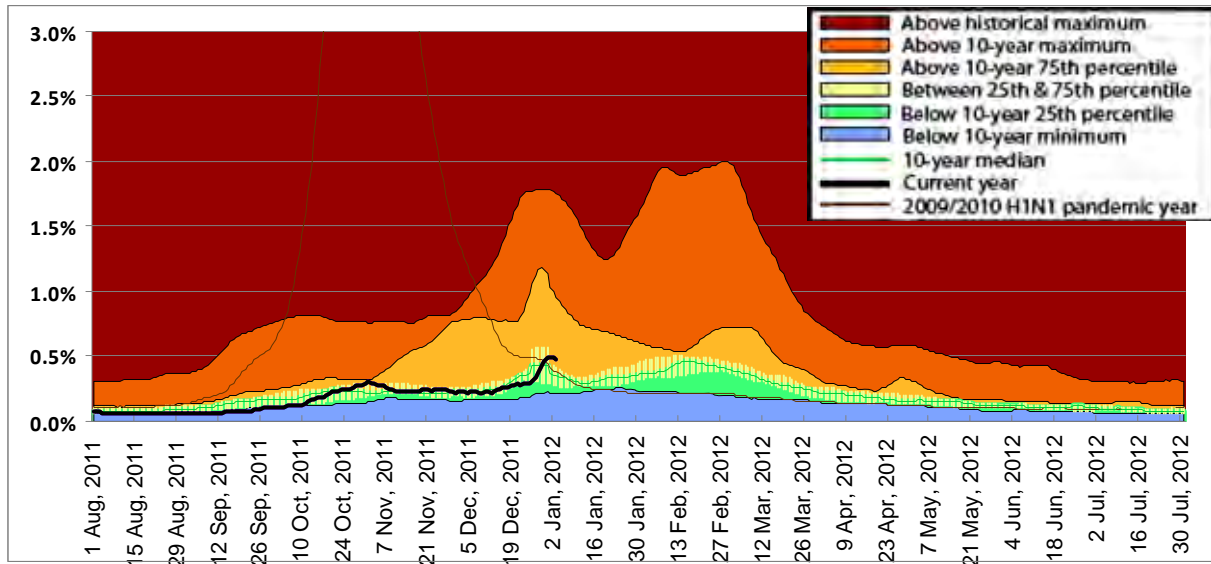
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## Medical Services Plan

In weeks 51-52, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims increased to above the ten year median level at the provincial level and within most HAs except Northern HA. Change in care-seeking patterns during the holiday period may have also contributed to this perceived increase. Further monitoring is warranted in the coming weeks to assess whether this profile continues.

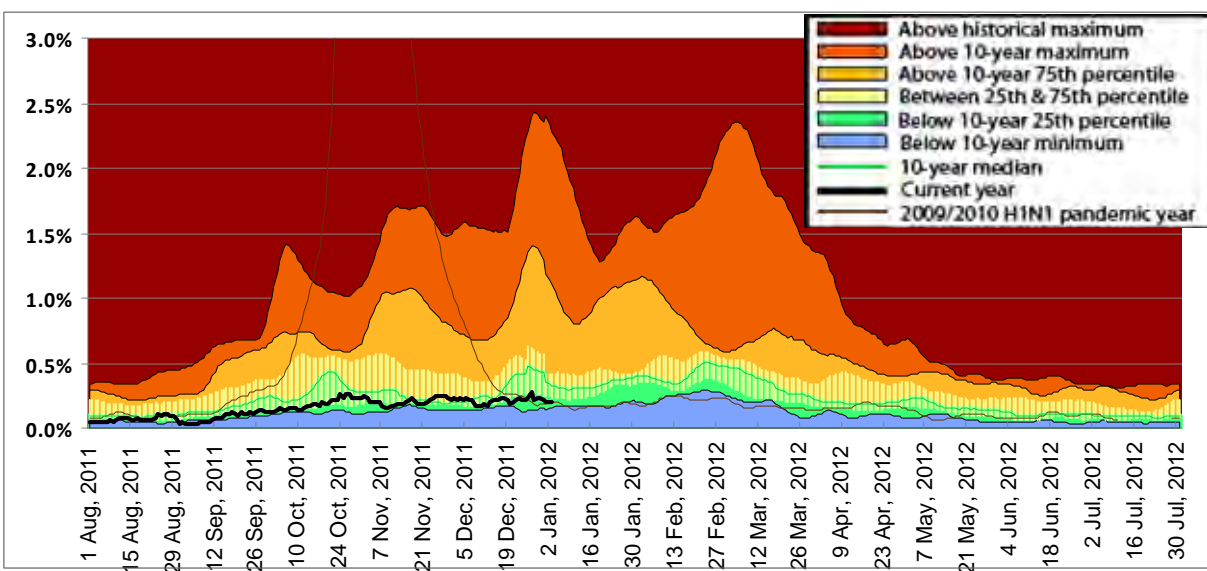
### Influenza Illness Claims\* British Columbia



\* Influenza illness is tracked as the percentage of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza). Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services

**Notes:** MSP week beginning 28 August 2011 corresponds to sentinel ILI week 35; Data current to 3 January 2012

### Northern

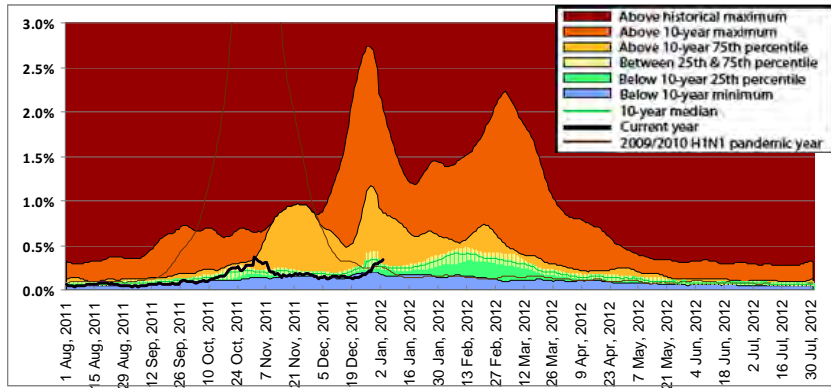


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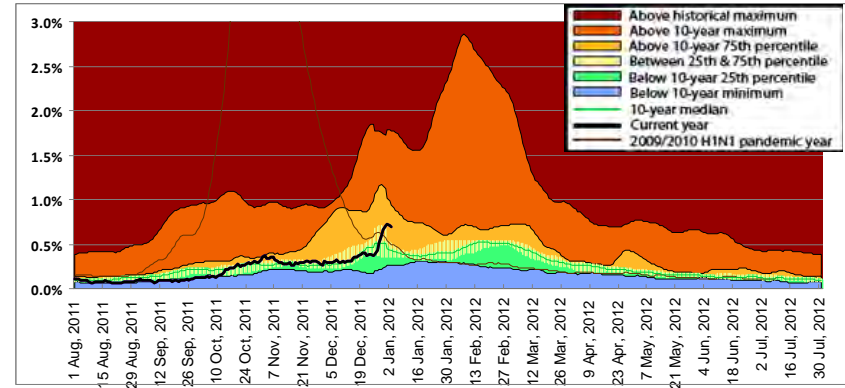
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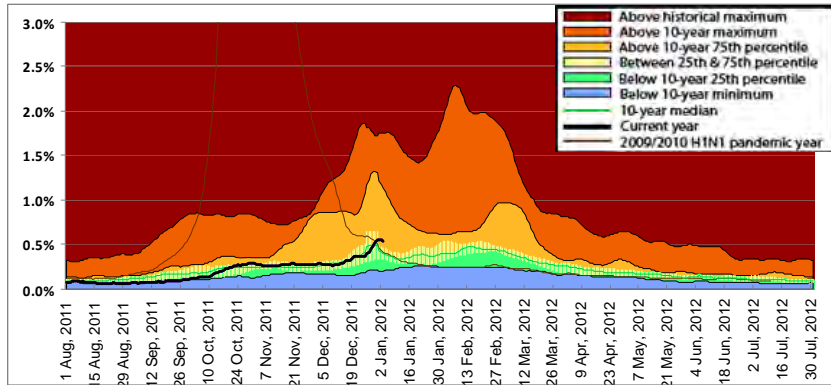
### Interior



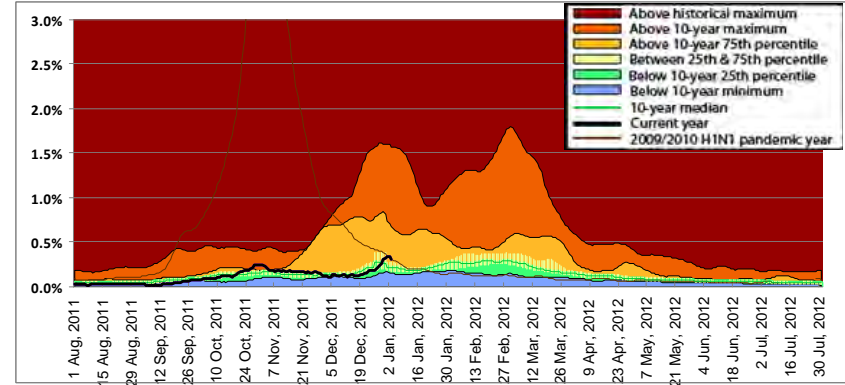
### Vancouver Coastal



### Fraser



### Vancouver Island



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

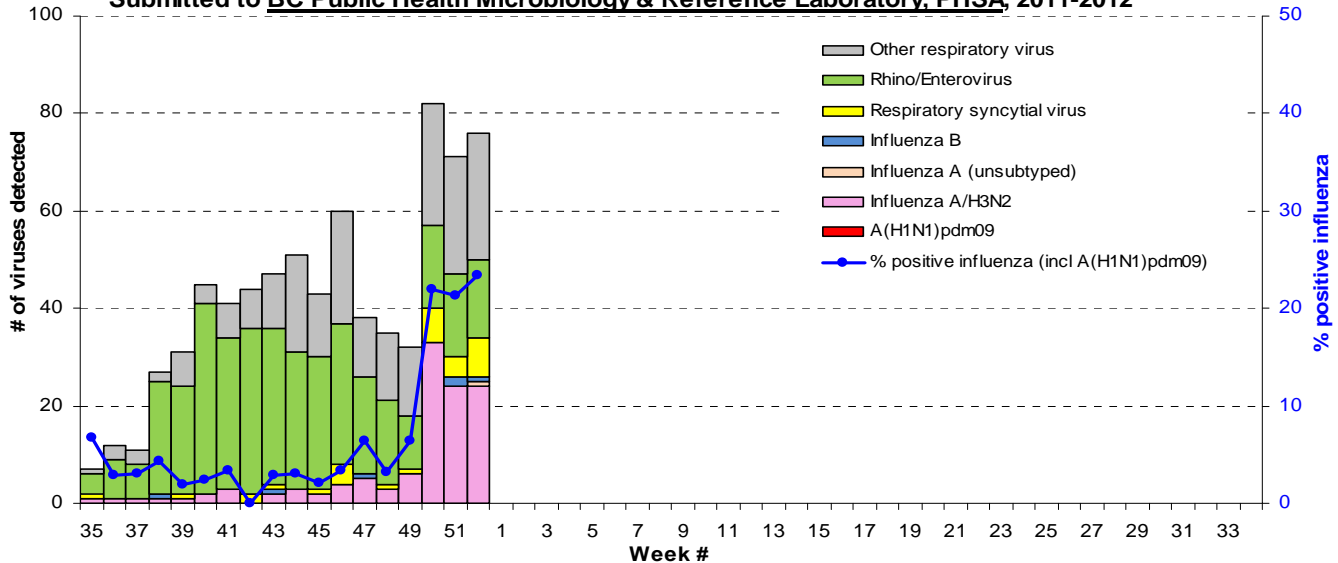
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## Laboratory Reports

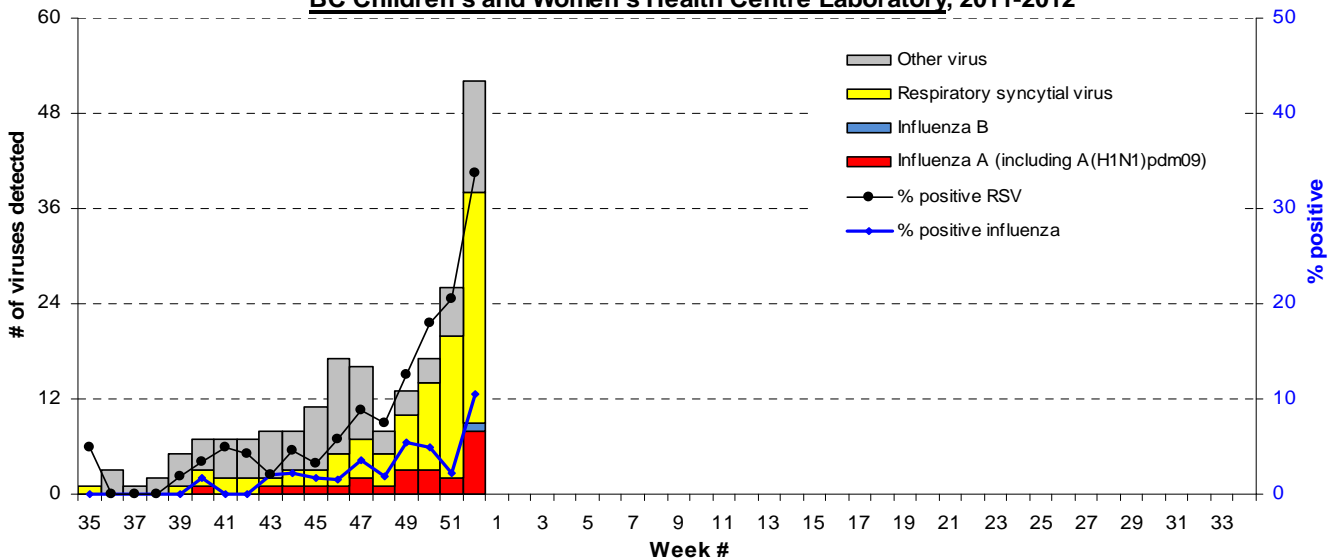
The proportion of lab-confirmed influenza positive specimens was similar (~20%) to that reported for the previous week 50. In weeks 51-52, 231 respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Influenza was detected in 51 (22.1%) submitted specimens (3 facility outbreak related), including 47 A/H3N2 reported from across all HAs, 1 influenza A (subtype pending) from Interior HA, and 3 influenza B from FHA and VCHA. Of 231 specimens tested for other respiratory viruses, 32 (14%) were positive for rhino/enteroviruses and the proportion of human metapneumovirus positives increased to 10% (24/231). Other respiratory viruses were also sporadically detected.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2011-2012**



In weeks 51-52, BC Children's and Women's Health Centre Laboratory tested 174 respiratory specimens: two (2.3%, 2/88) were positive for influenza A/H3N2 in week 51; nine (10.5%; 9/86) were influenza positive in week 52 (8 A/H3N2 and 1 influenza B). Respiratory syncytial virus (RSV) continued to predominate and increase as a proportion of respiratory viruses detected (27%, 47/174). Other respiratory viruses were also detected at low levels.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2011-2012**



Data provided by Virology Department at Children's & Women's Health Centre of BC

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

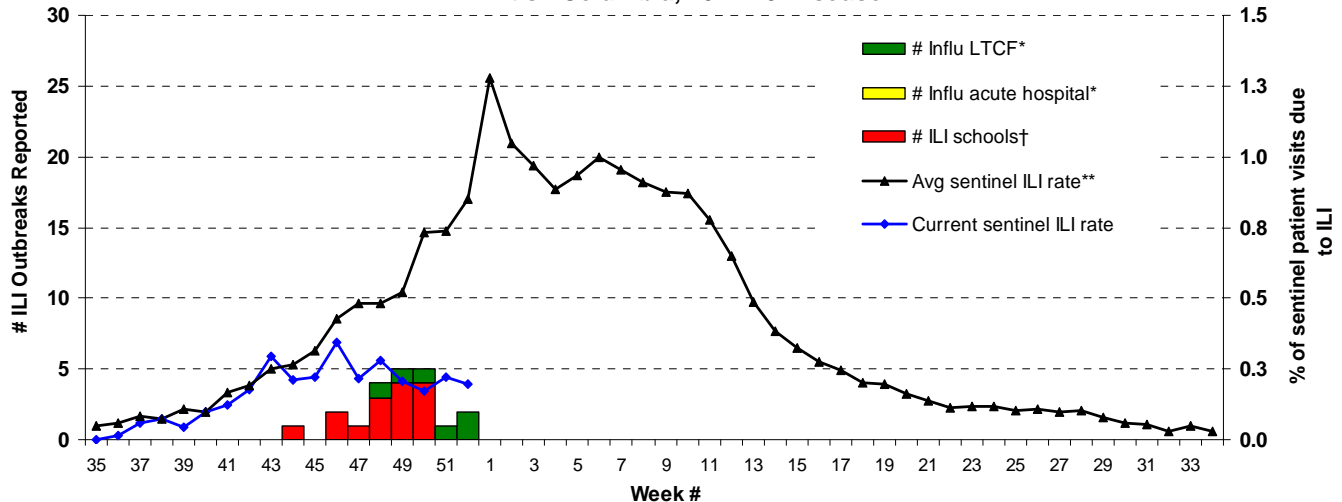
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## ILI Outbreaks

In weeks 51-52, four ILI outbreak reports were received from long term care facilities (LTCF), including two lab-confirmed influenza A/H3N2 in Fraser HA (week 51) and Interior HA (week 52), one lab-confirmed influenza A in Vancouver Island HA (week 52) (subtype pending), and another in Interior HA (lab results pending). As is typical of the seasonal holiday period, no school ILI outbreaks were reported.

**Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 20 years, per Week, British Columbia, 2011-2012 season**



\* Facility influenza outbreak defined as 2 or more ILI cases within 7-day period, with at least one case laboratory-confirmed as influenza.

† School ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI.

\*\* Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

## CANADA

### FluWatch

In week 51 (December 18 to 24, 2011), influenza activity in Canada remained similar to previous weeks. The proportion of tests positive for influenza in week 51 increased to 4.3% (49/1,129). Forty-nine laboratory detections of influenza were reported, including 47 A/H3N2 and two influenza B. The ILI consultation rate remained within expected levels for this time of year. ([www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)).

### National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2011 and January 5, 2012, 47 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

26 A/Perth/16/2009-like (H3N2)<sup>†</sup> from ONT, ALTA, and BC;

6 A/California/07/09-like (H1N1)\* from QUE and ONT;

7 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)<sup>†</sup> from QUE, ONT ALTA, and BC;

8 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NB, ONT, ALTA, and BC;

<sup>†</sup> indicates a strain match to the recommended H3N2 component of the 2011-12 northern hemisphere influenza vaccine

\* indicates a strain match to the recommended H1N1 component for the 2011-2012 northern hemisphere influenza vaccine

† indicates a strain match to the recommended influenza B component for the 2011-2012 influenza vaccine

### NML: Antiviral Resistance

From September 1, 2011 to January 5, 2012, drug susceptibility to oseltamivir and zanamivir was tested at the NML for twenty-five influenza A/H3N2, six influenza A(H1N1)pdm09, and fourteen influenza B isolates. The results indicated that all isolates were sensitive to oseltamivir and zanamivir. In addition, twenty-four A/H3N2 and five A(H1N1)pdm09 isolates were also tested for susceptibility to amantadine and all were found to be resistant.

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## INTERNATIONAL

**Northern Hemisphere:** In week 51 ending December 24, 2011, influenza activity remained low in the United States. Few specimens (3.7%) tested were positive for influenza; and (of those subtyped) the predominant influenza virus was A/H3N2. The proportion of outpatient visits for ILI was 1.5% which is below the national baseline of 2.4%. The USA further reported that 7.2% of all deaths reported were due to pneumonia and influenza illness, which is also below the epidemic threshold for this time of the year. [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). **Other Areas:** According to the most recent WHO report (16 December 2011), influenza activity in the temperate regions of the northern hemisphere remained at low levels with sporadic activity reported in some European countries. In Europe, the ILI consultation rates continued to be low but nine countries reported increasing trends; only 1.8% of sentinel laboratory specimens tested were positive for influenza; A/H3N2 was the most common virus identified. Influenza activity in north China increased slightly with influenza type B as the predominant type. In the tropical zone, most countries reported low influenza activity except Costa Rica, primarily influenza A/H3N2, and Cameroon which was experiencing transmission of A/H3N2 following on recent peaks of A(H1N1)pdm09 and type B. Influenza activity in the temperate countries of the southern hemisphere was at inter-seasonal levels.

[www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html)

### **Avian Influenza:**

According to the WHO on 21 December 2011, the Ministry of Health of Egypt notified the WHO of one new case of human infection with avian influenza A/H5N1 virus: a 29 year-old male who died after hospitalization on 19 December 2011. The cumulative number of deaths attributed to A/H5N1 in 2011 has reached 31 (53%) out of the total of 58 cases reported to the WHO. [www.who.int/csr/don/2011\\_11\\_29/en/index.html](http://www.who.int/csr/don/2011_11_29/en/index.html). China also reported one fatal case of human infection of A/H5N1 clade 2.3.2.1 on 3 January 2012: a 39-year-old bus driver in Shenzhen who died after hospitalization on 31 December 2011. <http://www.promedmail.org/?p=2400:1000>

### **WHO Recommendations for 2011-12 Northern Hemisphere Influenza Vaccine**

On February 17, 2011 the WHO announced the recommended strain components for the 2011-12 northern hemisphere trivalent influenza vaccine (TIV):

A/California/7/2009 (H1N1)-like virus

A/Perth/16/2009 (H3N2)-like virus

B/Brisbane/60/2008 (Victoria lineage)-like virus

All three recommended components are the same as for northern hemisphere seasonal TIV vaccines produced and administered in 2010-11. For further details, see:

[www.who.int/influenza/vaccines/virus/2011\\_12north/en/index.html](http://www.who.int/influenza/vaccines/virus/2011_12north/en/index.html)

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## Contact Us:

**Communicable Disease Prevention and Control (CDPACS):  
BC Centre for Disease Control (BCCDC)**

## List of Acronyms

**ACF:** Acute Care Facility

**AI:** Avian Influenza

**FHA:** Fraser Health Authority

**HBoV:** Human bocavirus

**HMPV:** Human metapneumovirus

**HSDA:** Health Service Delivery Area

**IHA:** Interior Health Authority

**ILI:** Influenza-Like Illness

**LTCF:** Long Term Care Facility

**MSP:** BC Medical Services Plan

**NHA:** Northern Health Authority

**NML:** National Microbiological Laboratory

**pH1N1:** Pandemic H1N1 influenza

**RSV:** Respiratory syncytial virus

**VCHA:** Vancouver Coastal Health Authority

**VIHA:** Vancouver Island Health Authority

**WHO:** World Health Organization

## Web Sites

### 1. Influenza Web Sites

Canada – Flu Watch: [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

Washington State Flu Updates: [www.doh.wa.gov/FLUNews/](http://www.doh.wa.gov/FLUNews/)

USA Weekly Surveillance reports: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/)

European Influenza Surveillance Scheme: [www.ecdc.europa.eu](http://www.ecdc.europa.eu)

WHO – Global Influenza Programme: [www.who.int/csr/disease/influenza/mission/](http://www.who.int/csr/disease/influenza/mission/)

WHO – Weekly Epidemiological Record: [www.who.int/wer/en/](http://www.who.int/wer/en/)

Influenza Centre (Australia): [www.influenzacentre.org/](http://www.influenzacentre.org/)

Australian Influenza Report: [www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm](http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm)

New Zealand Influenza Surveillance Reports: [www.surv.esr.cri.nz/virology/influenza\\_weekly\\_update.php](http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php)

### 2. Avian Influenza Web Sites

World Health Organization – Avian Influenza: [www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

World Organization for Animal Health: [www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm)

### 3. This Report On-line: [www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm)



# Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to [ilioutbreak@bccdc.ca](mailto:ilioutbreak@bccdc.ca)

**Note: This form is for provincial surveillance purposes.  
Please notify your local health unit per local guidelines/requirements.**

**ILI:** Acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia, or prostration which *could* be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

**Schools and work site outbreak:** greater than 10% absenteeism on any day, most likely due to ILI.

**Residential institutions (facilities) outbreak:** two or more cases of ILI within a seven-day period.

<b>A</b>	<b><u>Reporting Information</u></b>	Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Person Reporting: _____	Title: _____
	Contact Phone: _____	Email: _____
	Health Authority: _____	HSDA: _____
	Full Facility Name: _____	
	Is this report:	<input type="checkbox"/> First Notification ( <i>complete section B below; Section D if available</i> ) <input type="checkbox"/> Update ( <i>complete section C below; Section D if available</i> ) <input type="checkbox"/> Outbreak Over ( <i>complete section C below; Section D if available</i> )

<b>B</b>	<b><u>First Notification</u></b>														
	Type of facility: <input type="checkbox"/> LTCF <input type="checkbox"/> Acute Care Hospital <input type="checkbox"/> Senior's Residence (if ward or wing, please specify name/number: _____)														
	<input type="checkbox"/> Workplace <input type="checkbox"/> School (grades: _____) <input type="checkbox"/> Other (_____)														
	Date of onset of first case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>														
	<table border="1"> <thead> <tr> <th>Numbers to date</th> <th>Residents/Students</th> <th>Staff</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td></td> <td></td> </tr> <tr> <td><b>With ILI</b></td> <td></td> <td></td> </tr> <tr> <td><b>Hospitalized</b></td> <td></td> <td></td> </tr> <tr> <td><b>Died</b></td> <td></td> <td></td> </tr> </tbody> </table>	Numbers to date	Residents/Students	Staff	<b>Total</b>			<b>With ILI</b>			<b>Hospitalized</b>			<b>Died</b>	
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<b>C</b>	<b><u>Update AND Outbreak Declared Over</u></b>															
	Date of onset for most recent case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>															
	If over, date outbreak declared over (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>															
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<b>Died</b>																

<b>D</b>	<b><u>Laboratory Information</u></b>
	Specimen(s) submitted? <input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know