

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 3, Weeks 46-49

November 13 to December 10, 2011



BC Centre for Disease Control  
An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Sporadic influenza detections and facility outbreaks; increase in influenza activity in BC anticipated

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### Summary

During weeks 46 to 49 (November 13 – December 10, 2011), most influenza indicators in BC remained low. The influenza-like illness (ILI) rate reported by sentinel physicians was below 0.35% and within the expected range for this time of year. The MSP influenza illness proportion was around the 10-year median at the provincial and Health Authority (HA) levels. However, recent reports of facility outbreaks during weeks 48-50 may signal imminent increase in influenza activity levels as we enter the holiday period.

Two lab-confirmed influenza A/H3 outbreaks were reported from long term care facilities: one in Vancouver Coastal HA in week 48 and one in Vancouver Island HA in week 49. In addition, two ILI outbreaks were reported in Fraser HA in the first half of week 50: one lab-confirmed influenza A/H3, and one as yet not confirmed by lab testing. Since week 46 and to mid-week 50 there have also been 13 school ILI outbreaks, primarily from Interior HA but also from Vancouver Coastal and Fraser HAs.

Among 387 specimens tested at the provincial laboratory during week 46 to 49, 18 (4.7%) were positive for influenza, including 17 A/H3N2 and 1 influenza B. Rhino/enteroviruses continued to be the predominant viruses detected (76/387; 20%). Other respiratory viruses were also sporadically detected.

*Report disseminated December 15, 2011*

Contributors: Helen Li, Lisan Kwindt, Naveed Janjua, Danuta Skowronski

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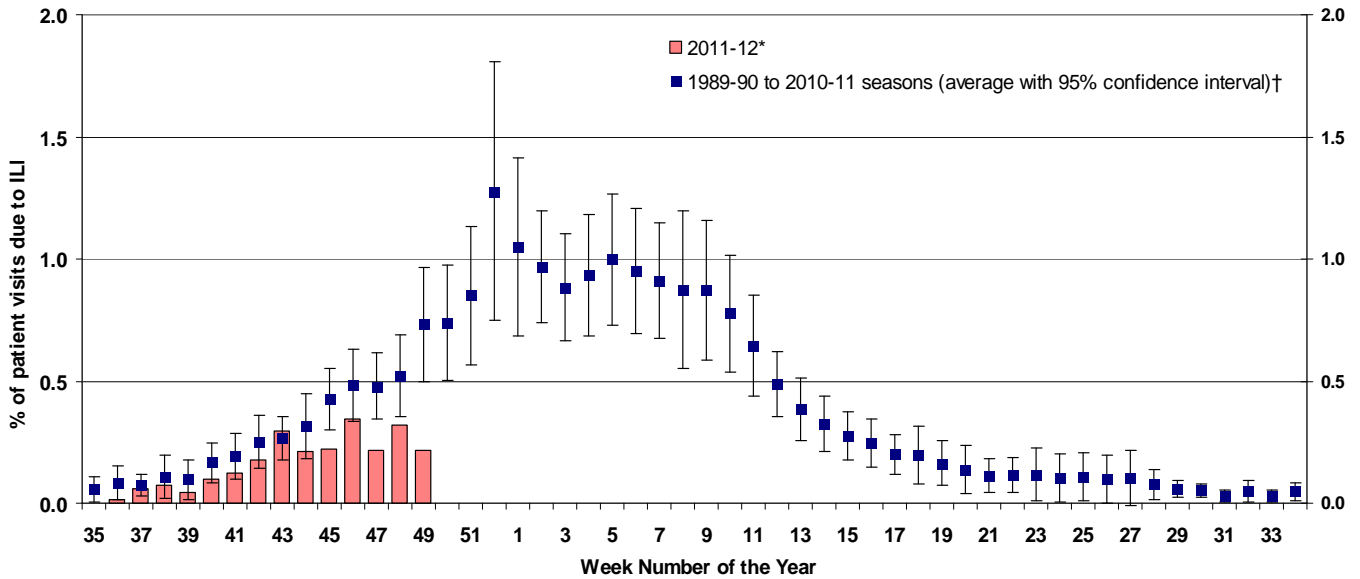
November 13 to December 10, 2011

## British Columbia

### Sentinel Physicians

In weeks 46-49, the proportion of patients with ILI among those presenting to sentinel physicians ranged from 0.22% to 0.35%, which is within the expected range for this time of year. The proportion of sentinel physician sites reporting to-date is at or above 73% for each week except the most recent (week 49), at 67%.

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



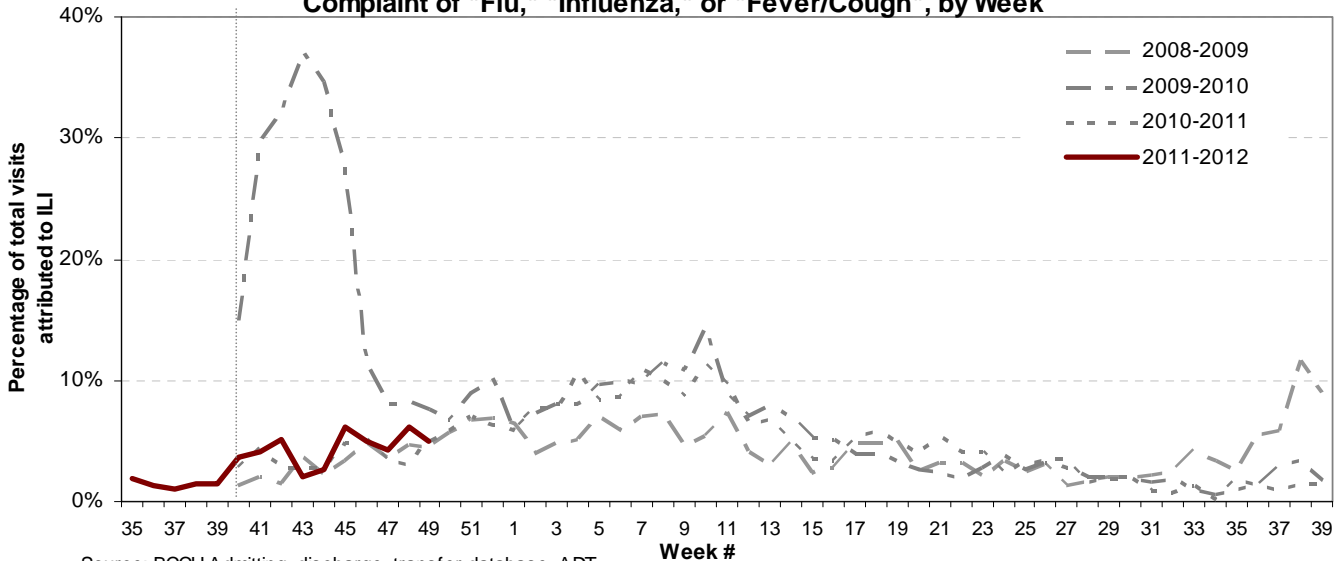
\* Data subject to change as reporting becomes increasingly complete

† 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 46-49 ranged from 4.2% to 5.0%, consistent with this time last year.

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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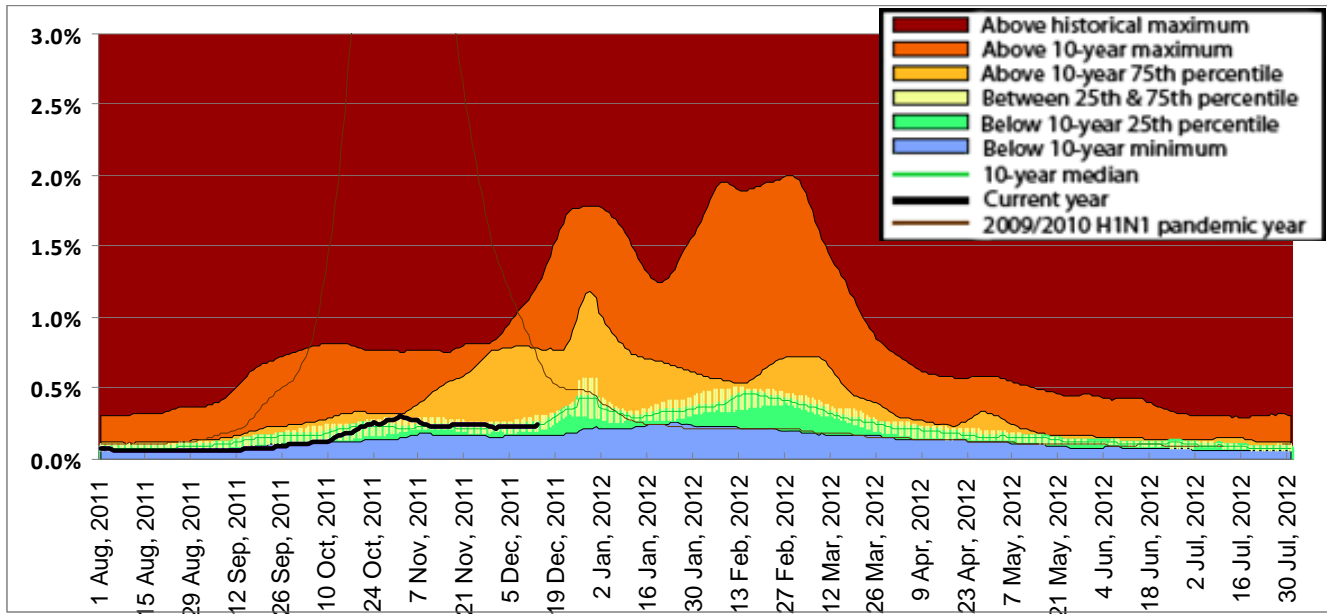
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## Medical Services Plan

During weeks 46-49, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims hovered around the 10-year median for this time of year at the provincial level and in each HA.

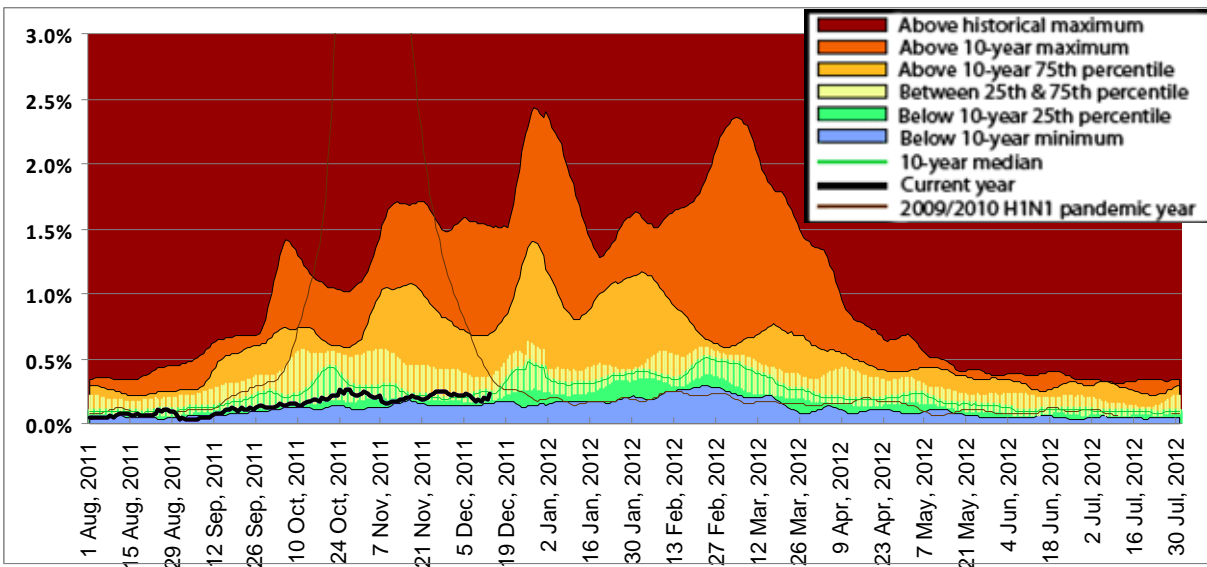
### Influenza Illness Claims\* British Columbia



\* 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 13 December 2011

### Northern

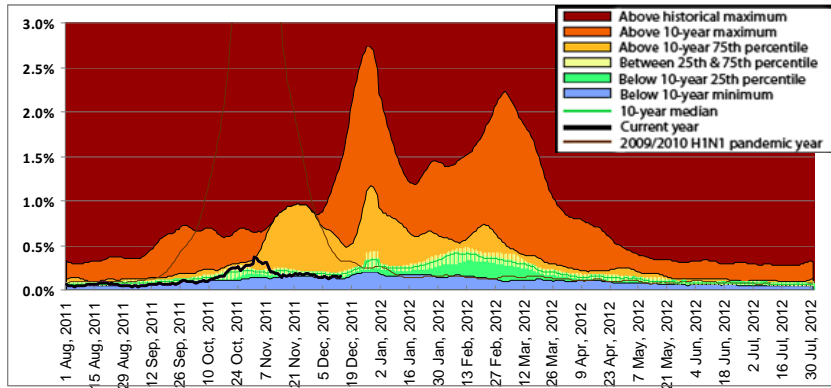


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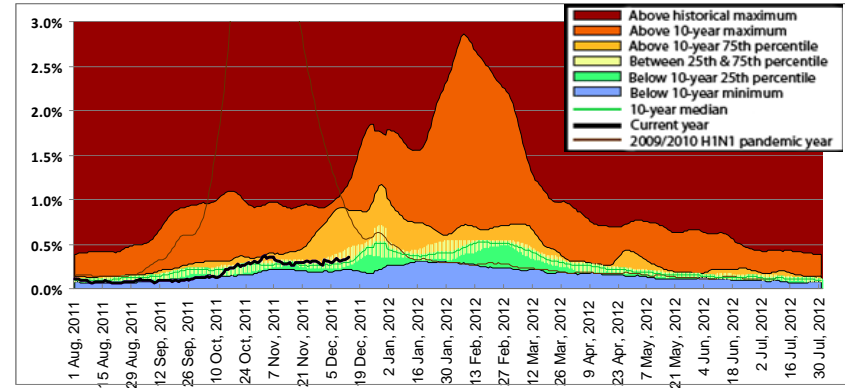
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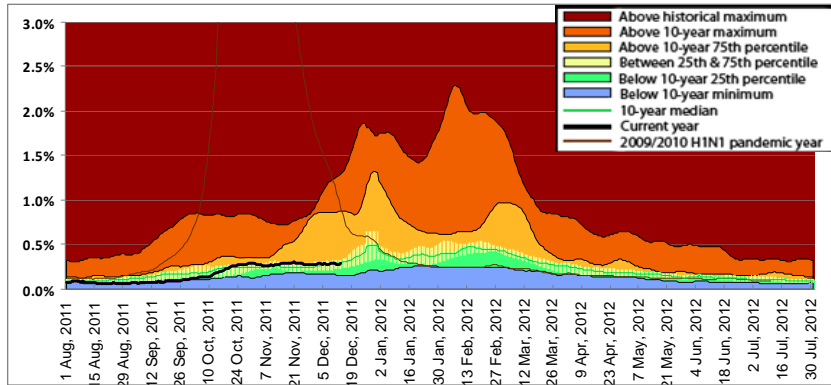
### Interior



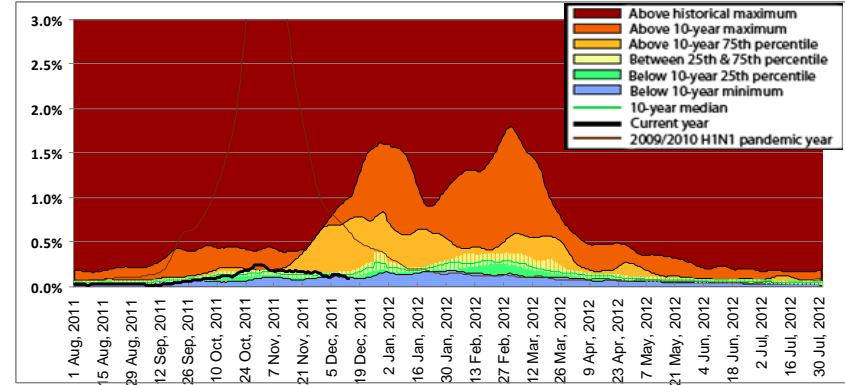
### Vancouver Coastal



### Fraser



### Vancouver Island



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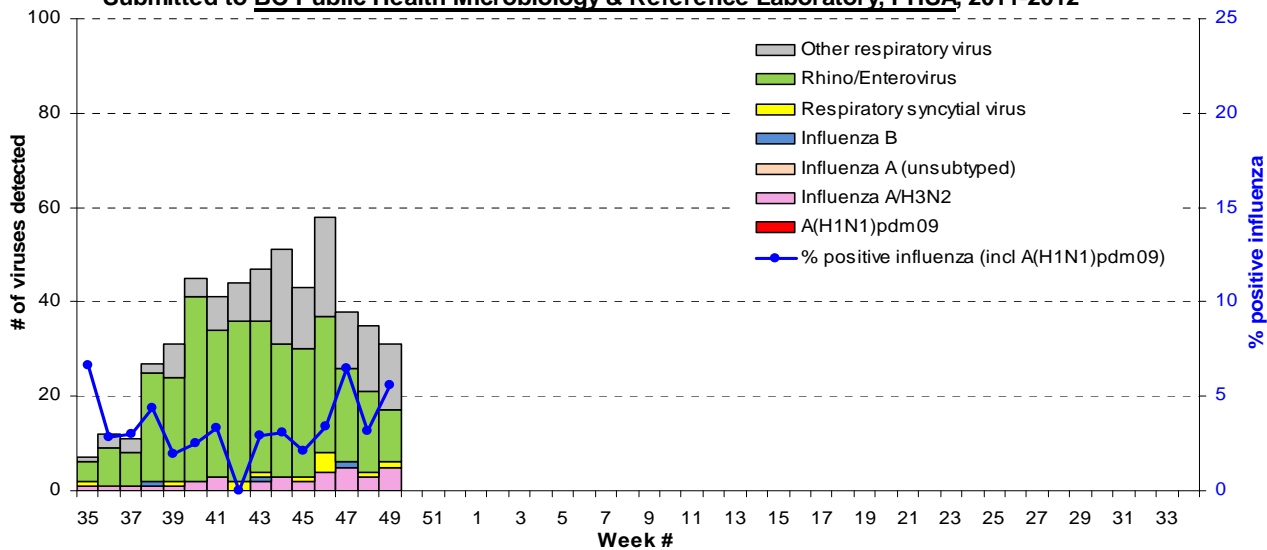
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## Laboratory Reports

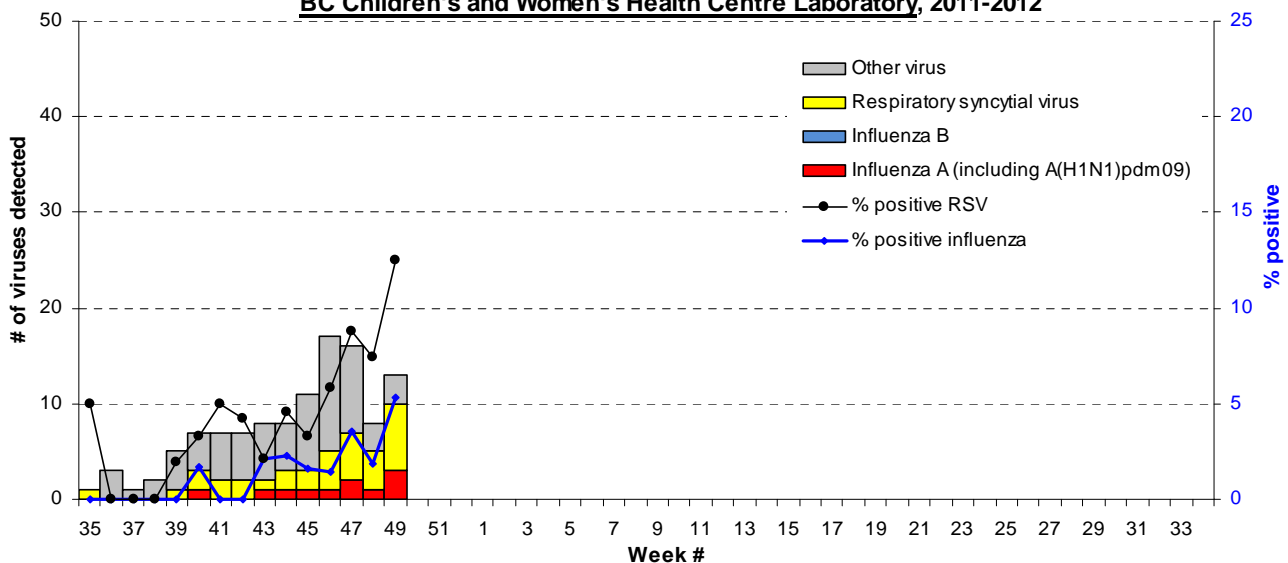
During weeks 46-49, three hundred and eighty-seven respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Influenza was detected in 18 (4.7%) submitted specimens: seventeen A/H3N2 and one influenza type B. Of 387 specimens tested for other respiratory viruses, 76 (20%) were positive for rhino/enteroviruses and 33 (9%) were positive for parainfluenza viruses. Other respiratory viruses were also sporadically detected. Since the beginning of this season (week 40, 2 October 2011), the cumulative influenza positive cases have reached 32 including 30 A/H3N2 and 2 influenza B. A/H3N2 was mainly observed in adults 20-49 years of age in each HA while two influenza B were observed in patients 50-64 years of age from Fraser and Vancouver Coastal HAs.

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



During weeks 46-49, BC Children's and Women's Health Centre Laboratory tested 236 respiratory specimens. Seven (3%) of these were positive for influenza A. Twenty-two (9%) and twenty (8.5%) specimens were positive for parainfluenza viruses and respiratory syncytial virus (RSV), respectively. Adenovirus was 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

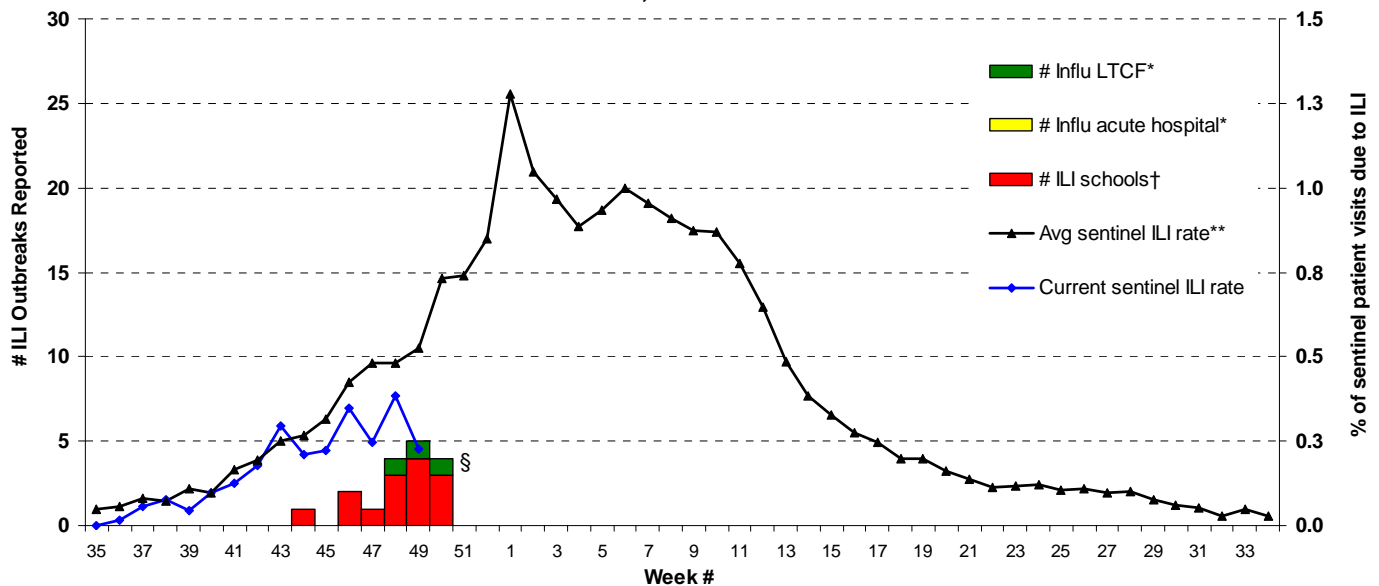
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## ILI Outbreaks

From weeks 46 to 49, the number of reported ILI outbreaks increased compared to previous weeks. Two ILI outbreaks were reported from long term care facilities (LTCF) during this period including one lab-confirmed influenza A/H3N2 in Vancouver Coastal HA in week 48, and one lab-confirmed influenza A/H3N2 in Vancouver Island HA in week 49. In addition, in the first half of the week 50, two ILI outbreaks have been reported from LTCFs in Fraser HA; one lab-confirmed influenza A/H3N2, the other as yet not confirmed by lab testing. Since week 46 and to mid-week 50 there have also been 13 school ILI outbreaks reported, primarily from Interior HA (10) but also from Vancouver Coastal (2) and Fraser (1) HAs.

**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.

§ Data for week 50 (current week) is partial only; subject to update pending completion of week.

## CANADA

### FluWatch

From week 46 to week 48 (November 13 to December 3, 2011), influenza activity in Canada has started to increase and influenza activity was reported from more regions than previous weeks. The proportion of tests positive for influenza remained below 1.0% during this period. Influenza A/H3N2 was the predominant influenza virus; A(H1N1)pdm09 and influenza B were also sporadically detected. The ILI consultation rate was low and remained within expected levels. ([www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)).

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

Between September 1 and December 14, 2011, 27 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

2 A/California/07/09-like (H1N1)\* from QUE;

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

4 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NB, 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 of the 2011-2012 northern hemisphere influenza vaccine

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

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## **NML: Antiviral Resistance**

From September 1 to December 15, 2011, drug susceptibility to Oseltamivir and Zanamivir was tested at the NML for eighteen influenza A/H3N2, two influenza A(H1N1)pdm09, and seven influenza B isolates. The results indicated that all isolates were sensitive to Oseltamivir and Zanamivir. In addition, twenty-three A/H3N2 and one A(H1N1)pdm09 isolates were also tested for susceptibility to Amantadine and all were found to be resistant.

## **INTERNATIONAL**

**Northern Hemisphere:** In week 48 ending December 3, 2011, influenza activity remained low in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Few specimens (1.7%) tested were positive for influenza; and (of those subtyped) the predominant influenza virus was A/H3N2. The proportion of outpatient visits for ILI was 1.2% which is below the national baseline of 2.4%. **Other Areas:** Influenza activity in the temperate regions of the northern hemisphere remained low. In Europe, the influenza activity remained low overall. In the tropical zone, significant influenza activity was reported in only a few countries. Transmission in the temperate countries of the southern hemisphere returned to inter-seasonal levels, with some persistence of influenza A/H3N2 in Australia. [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:**

On December 9, 2011, the US Centers for Disease Control confirmed two new human infections with swine origin influenza; one with swine origin A/H3N2 with A(H1N1)pdm09 M gene detected in West Virginia and one swine origin A/H1N2 detected in Minnesota. The swine origin A/H3N2 virus was similar to 10 recent cases reported from multiple states in USA.

On 29 November 2011, the Ministry of Health of Egypt notified the WHO of one new case of human infection with avian influenza A/H5N1 virus. As of the most recent report, the 31-year-old female was in critical condition in hospital. The cumulative number of deaths attributed to A/H5N1 in 2011 has reached 29 (53%) out of the total of 55 cases reported. [www.who.int/csr/don/2011\\_11\\_29/en/index.html](http://www.who.int/csr/don/2011_11_29/en/index.html)

## **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>Died</b>															

<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>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