

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 10, Week 2

January 6 to 12, 2013



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Widespread influenza activity in BC

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### Summary

During week 2 (6 to 12 January 2013), influenza activity in BC remained high and by most indicators, increased slightly. The proportion of patients with influenza-like illness among those presenting to sentinel physicians increased significantly from the previous week, rising above the expected range for this time of year. Across most of the province, the proportion of medical visits with an influenza diagnosis continued to increase over the previous week, compared to the same period during the prior ten years. We continue to observe a large volume of ILI (including confirmed influenza A) outbreaks in long-term care facilities. During week 2, more than a third (38.8%) of the specimens tested at the BC Public Health Microbiology & Reference Laboratory were positive for influenza, predominately A/H3N2. At BC Children's and Women's Health Centre Laboratory, the influenza positive rate remained similar to the previous week. Consultations for influenza-like illness at BC Children's Hospital emergency room dropped compared to the previous week but remained higher than recent seasons.

*Report disseminated January 17, 2013*

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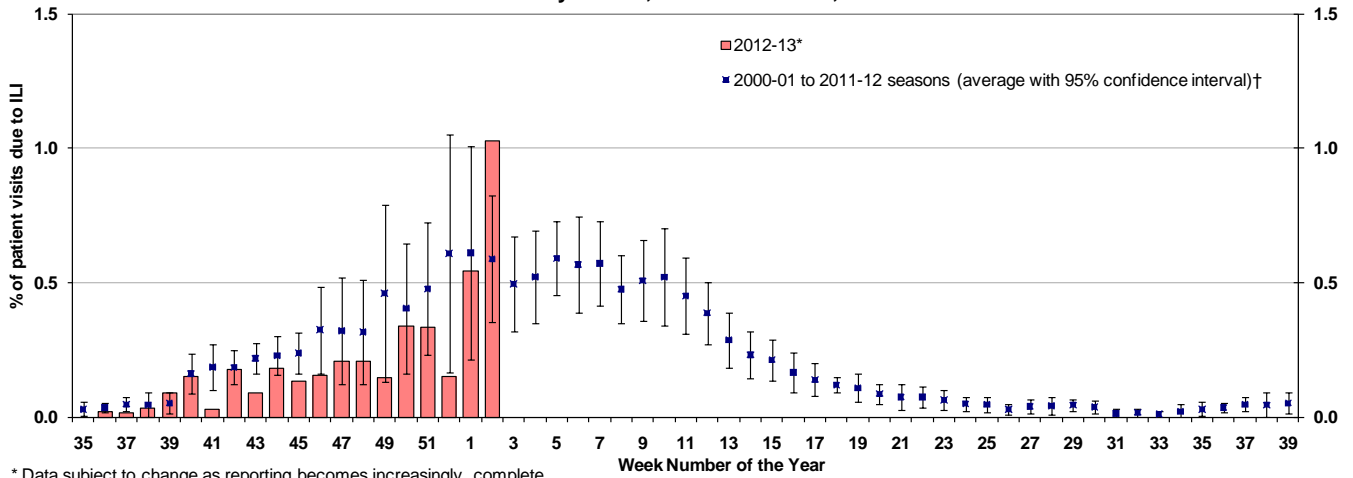
January 6 to 12, 2013

## British Columbia

### Sentinel Physicians

In week 2, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians increased significantly (to 1.03%), rising above the expected range for this time of year. To date, 68% of sentinel physician sites have reported for week 2.

**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 10 Seasons Sentinel Physicians, British Columbia, 2012-2013**



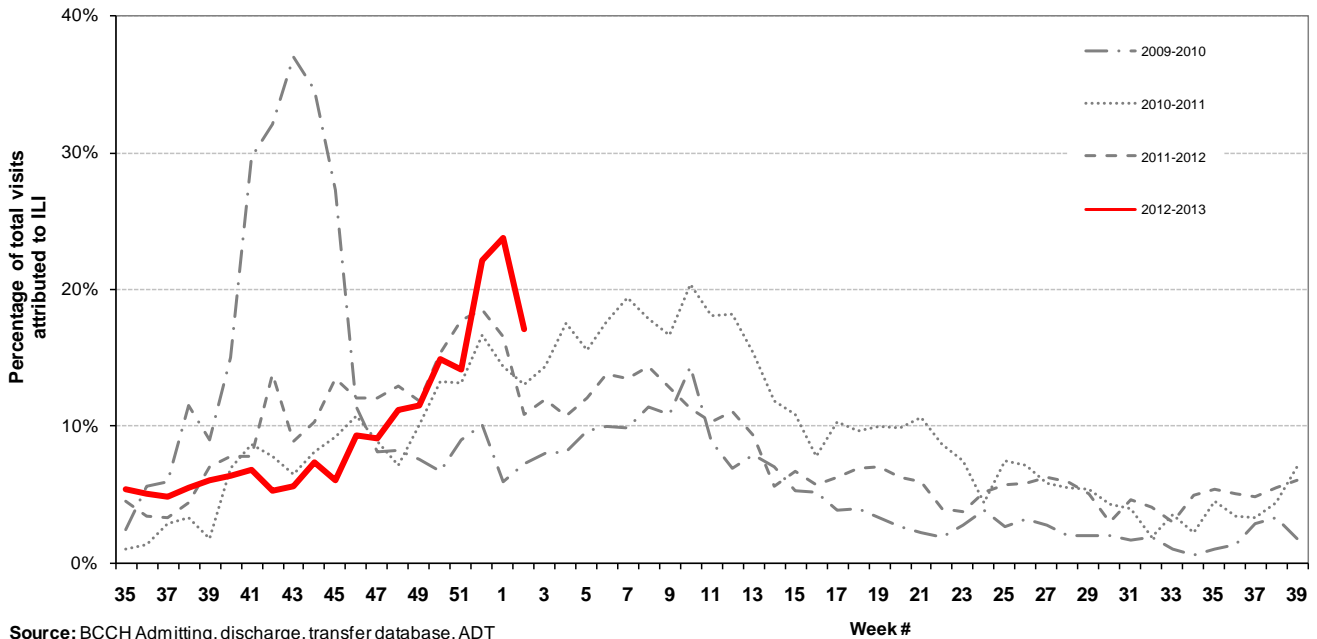
\* Data subject to change as reporting becomes increasingly complete.

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

### BC Children's Hospital Emergency Room

The proportion of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness dropped from 23.8% in week 1 to 17.1% in week 2, but remained above that of recent prior seasons.

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



Source: BCCH Admitting, discharge, transfer database, ADT

Note: Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

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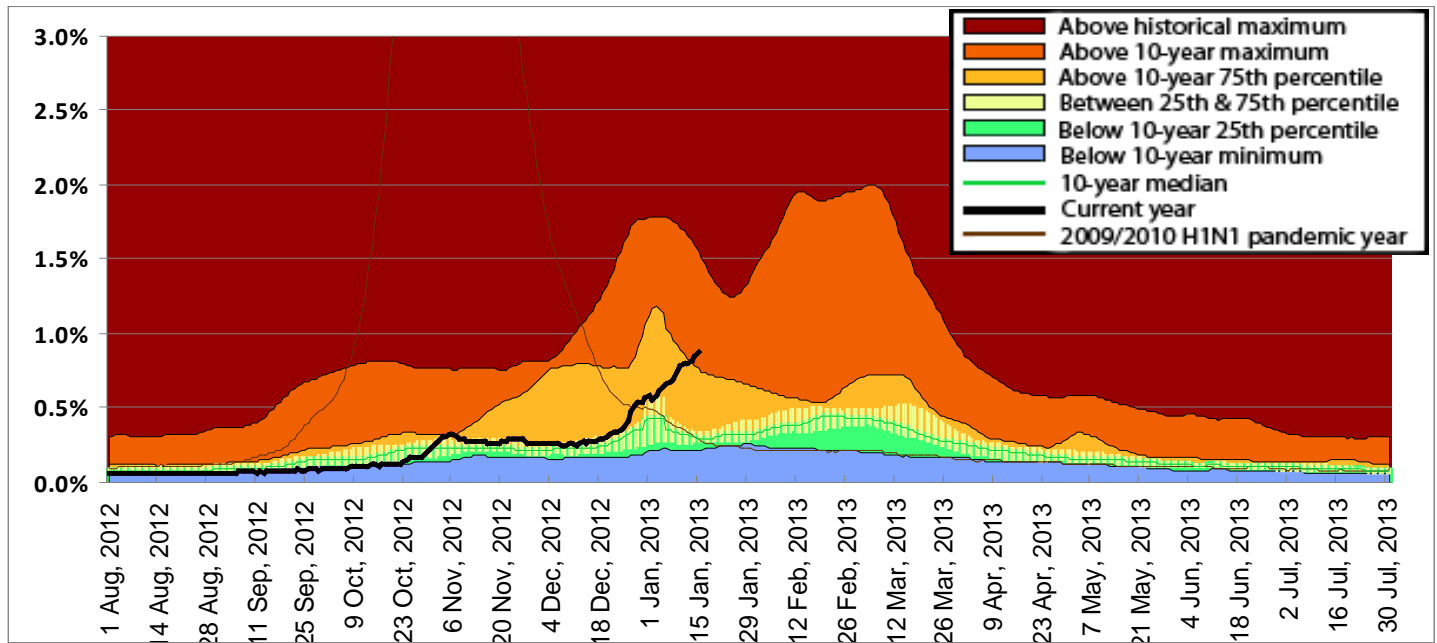
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## Medical Services Plan

During week 2, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims continued to increase provincially and in each Health Authority except Northern. The proportions entered the range of 10-year maximum in FHA, VCHA and at the provincial level and above the 10-year 75% percentile in VIHA, NHA and IHA for this time of year (noting variability around those classifications per below).

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

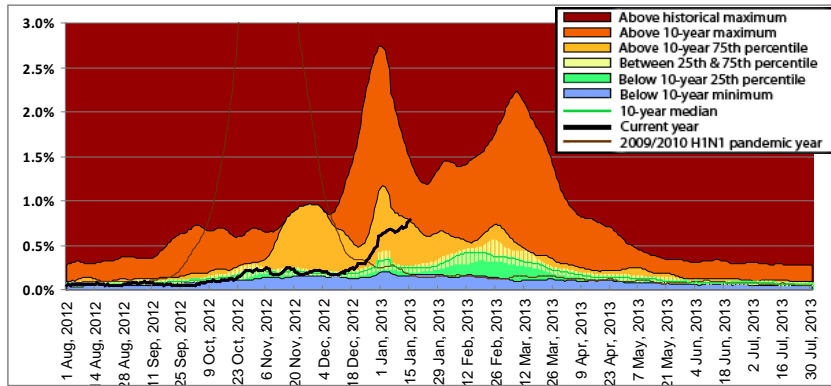
**Notes:** MSP week beginning 1 August 2012 corresponds to sentinel ILI week 31; Data current to 08 January 2013.

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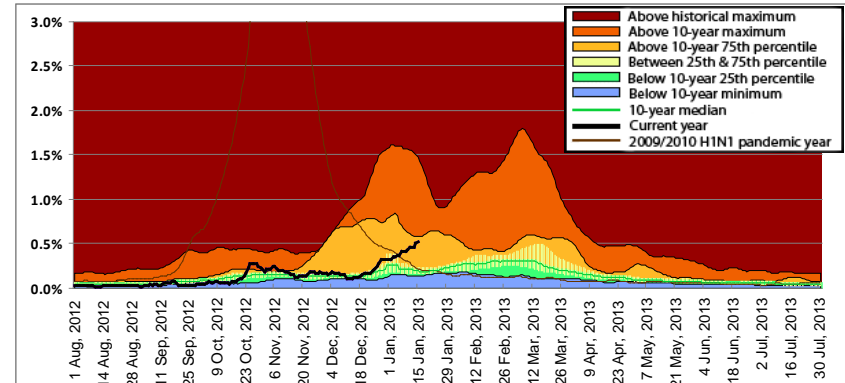
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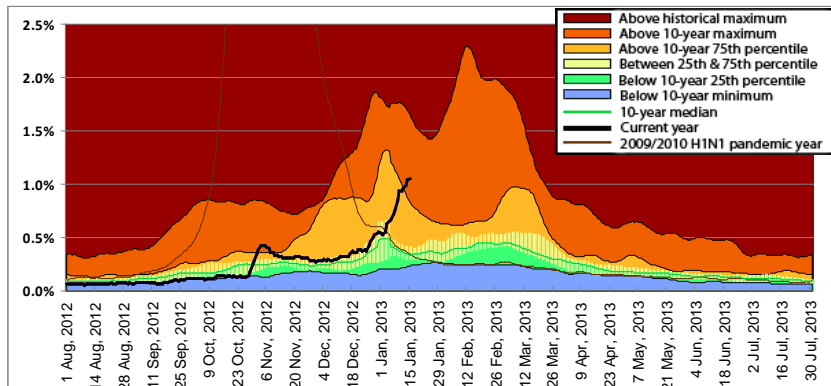
**Interior**



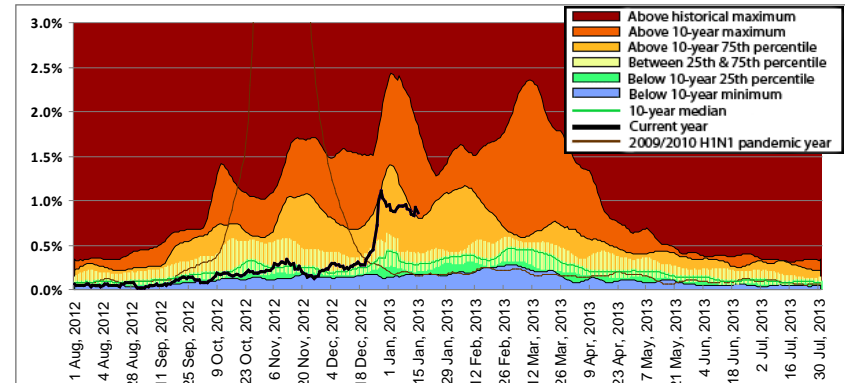
**Vancouver Island**



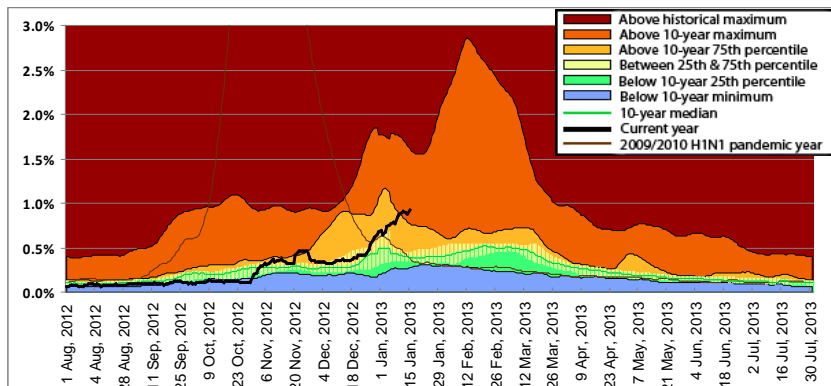
**Fraser**



**Northern**



**Vancouver Coastal**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

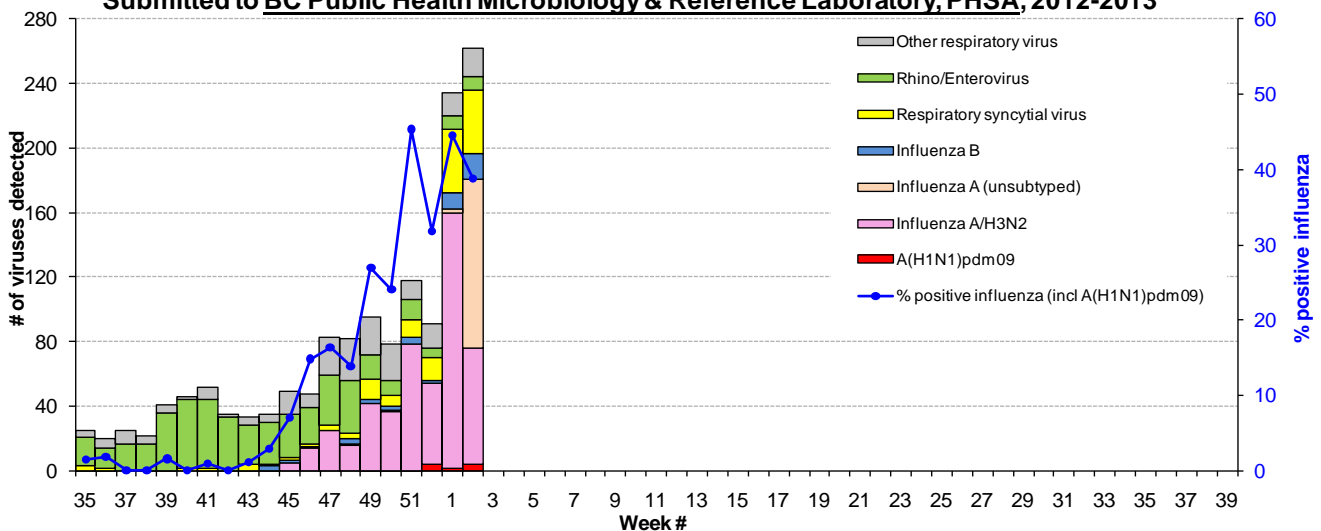
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## Laboratory Reports

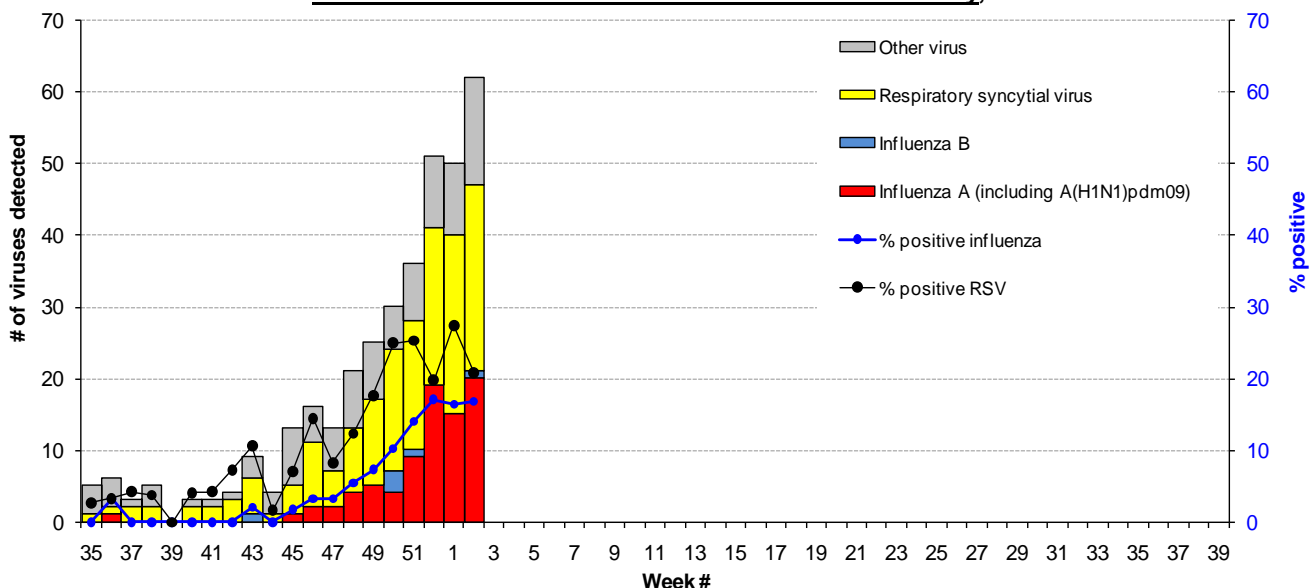
In week 2, 508 specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 197 (38.8%) were positive for influenza, including 181 influenza A from all Health Authorities [72 A/H3N2, 4 A(H1N1)pdm09, 105 A (subtype pending)], and 16 influenza B. Among other respiratory viruses, RSV continued to be the most common detection (39/508, 7.7%). Other respiratory viruses were also sporadically detected. Influenza thus remains the most likely cause of acute respiratory illness for which testing was undertaken during week 2. However, the recent high level of influenza positives may partially reflect the clustering of specimens submitted from facility outbreaks.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2012-2013**



In week 2, BC Children's and Women's Health Centre Laboratory tested 125 respiratory specimens, of which 21 (16.8%) were positive for influenza viruses (similar to the previous week), including 20 influenza A (un-subtyped) and 1 influenza B. RSV (26/125, 20.8%) was the most common detection. Other respiratory viruses were also sporadically detected.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2012-2013**



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

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

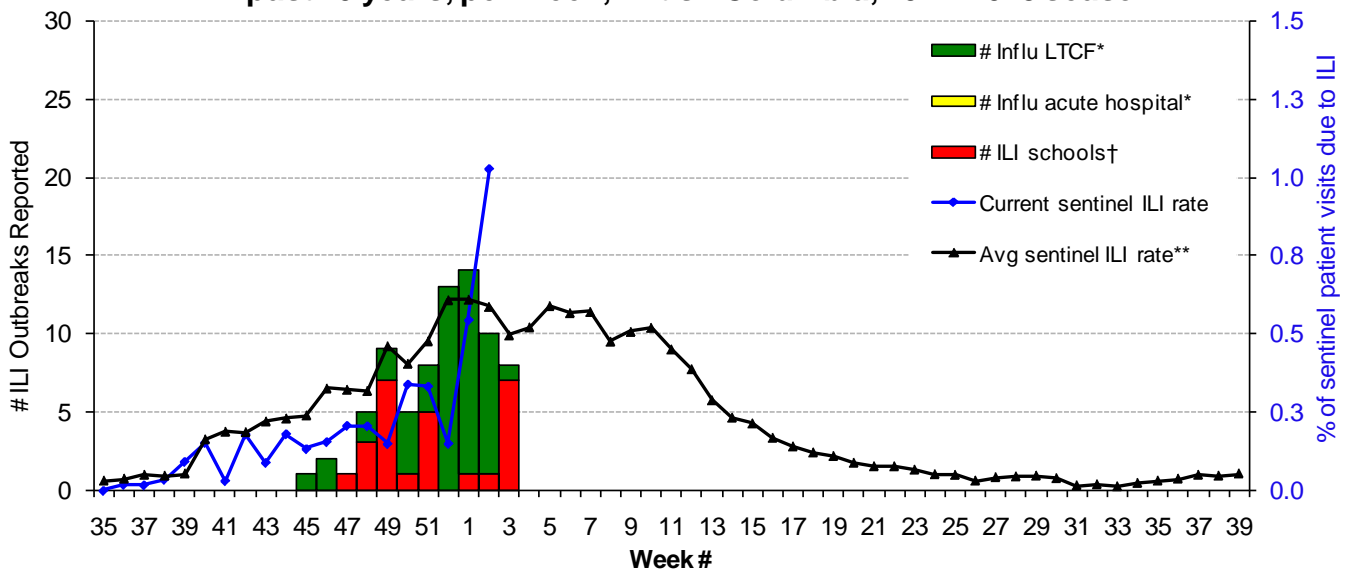
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## ILI Outbreaks

During week 2, 15 ILI outbreaks were reported from long-term care facilities (LTCF), including 9 lab-confirmed influenza A (FHA: 3; IHA: 1; VCHA: 2, VIHA: 3), and six with negative or pending lab result. One school ILI outbreak was reported from IHA in week 2. In the beginning of week 3, five ILI outbreaks from LTCFs (1 influenza A in FHA; the rest pending lab result) and seven from schools (IHA: 4; NHA: 2, VCHA: 1) have been reported. To date, 50 lab-confirmed influenza outbreaks have thus been reported from LTCFs in BC in the current season since week 40 (30 September 2012), with 72% of these outbreaks reported since week 52 (23 December 2012).

## Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 10 years, per Week, British Columbia, 2012-2013 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.

## FluWatch

In week 1 (December 30, 2012 to January 11, 2013), testing volume has increased and the percentage of positive laboratory tests for influenza has declined slightly. More regions across Canada reported widespread and localized influenza activity and the number of LTCF influenza outbreaks increased significantly compared to the previous week. A total of 3864 (32.4%) laboratory detections of influenza were reported, of which 98.1% were for influenza A viruses, predominantly A/H3N2. The ILI consultation rate was above the expected range for this time of year. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

## National Microbiology Laboratory (NML): Strain Characterization

From September 1, 2012 to Jan. 17, 2013, 248 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

172 A/Victoria/361/2011-like (H3N2)<sup>†</sup> from NFLD, PEI, NB, QUE, ONT, MAN, SASK, ALTA and BC;

36 A/California/07/2009-like\* from NB, ONT and SASK;

9 B/Brisbane/60/2008-like\*\* from QUE, ONT, MAN, and SASK;

31 B/Wisconsin/01/2010-like<sup>†</sup> from NB, QUE, ONT, SASK and BC;

<sup>†</sup> indicates a strain match to the recommended H3N2 component for the 2012-2013 northern hemisphere influenza vaccine  
<sup>†</sup> belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 northern hemisphere influenza vaccine.

\* indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.

\*\* belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.

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## **NML: Antiviral Resistance**

From September 1, 2012 to January 17, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 163; zanamivir: 162; amantadine: 306), A(H1N1)pdm09 (oseltamivir: 25; zanamivir: 25; amantadine: 27), and influenza B isolates (oseltamivir: 26; zanamivir: 26). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

## **Updated Antiviral Guidance**

For your information, updated antiviral guidance of the Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) entitled "The use of antiviral drugs for influenza: Guidance for practitioners 2012/2013" is now available from the following websites, and includes updated dosing guidance of which clinicians should be aware for their patients with reduced creatinine clearance:

[www.ammi.ca/guidelines](http://www.ammi.ca/guidelines)

This document is also available via the Public Health Agency of Canada's FightFlu website at [www.fightflu.ca/info-pro-eng.php](http://www.fightflu.ca/info-pro-eng.php)

## **INTERNATIONAL**

**USA:** during week 1 (December 30, 2012 to January 5, 2013), influenza activity remained elevated, but may be decreasing in some areas. The proportion of outpatient visits for influenza-like illness was 4.3% which is above the national baseline of 2.2% but lower than the previous week. The percentage of specimens testing positive is also showing signs of decline; 4222 (32.8%) influenza viruses were detected, including 79.8% influenza A viruses [52.9% A/H3N2, 1.1% A(H1N1)pdm09, and 46.0% un-subtyped A], and 20.2% influenza B. The US CDC's weekly influenza surveillance report is available at: [www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly).

**Europe:** in week 1 of 2013, ECDC

([http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC\\_DispForm.aspx?ID=1031](http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=1031)) reported increasing influenza trends in 16 of 20 countries. Influenza transmission and geographic spread was most active in northern and western Europe. The percentage of sentinel specimens testing positive for influenza remained high. Since week 40, of the influenza virus detections in sentinel specimens, 44% were type A, and 56% were type B viruses. Of influenza A viruses subtyped, 51% were A/H3N2 and 49% were A/H1N1.

No new report has been released by the WHO since 7 January 2013.

[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)

## **WHO Recommendations for 2012-13 Northern Hemisphere Influenza Vaccine**

On 23 February 2012, the WHO announced the recommended strain components for the 2012-13 northern hemisphere vaccine:

A/California/7/2009 (H1N1)pdm09 virus

A/Victoria/361/2011 (H3N2)-like virus\*

B/Wisconsin/1/2010 (Yamagata lineage)-like virus\*

\* these two of the three recommended components are different from the northern hemisphere seasonal TIV vaccines produced and administered in 2010-11 and 2011-2012. For further details, see:

[www.who.int/influenza/vaccines/virus/recommendations/2012\\_13\\_north/en/index.html](http://www.who.int/influenza/vaccines/virus/recommendations/2012_13_north/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

**A(H1N1)pdm09:** 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/EHSPHL/Epidemiology/CD/fluupdate.pdf](http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.pdf)

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

European Influenza Surveillance Scheme:

[ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL\\_INFLUENZA/EPIDEMIOLOGICAL\\_DATA/Pages/Weekly\\_Influenza\\_Surveillance\\_Overview.aspx](http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx)

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>Reporting Information</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>First Notification</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>

Numbers to date	Residents/Students	Staff
<b>Total</b>		
<b>With ILI</b>		
<b>Hospitalized</b>		
<b>Died</b>		

<b>C</b>	<b>Update AND Outbreak Declared Over</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>

Numbers to date	Residents/Students	Staff
<b>Total</b>		
<b>With ILI</b>		
<b>Hospitalized</b>		
<b>Died</b>		

<b>D</b>	<b>Laboratory Information</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