

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 6, Week 49

December 2 to 8, 2012



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Influenza activity continues to increase in BC

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### Summary

During week 49 (December 2 to 8, 2012), most indicators suggested that influenza activity in BC continued to increase. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was 0.24%, similar to the previous week and within the expected level of this time of year. The MSP influenza illness proportion was above the 10-year median for this time of year in three of the five Health Authorities, and at the provincial level. Three ILI outbreaks were reported from long-term care facilities in FHA in week 49 (two un-subtyped influenza A, the other lab-negative for respiratory viruses). Five school ILI outbreaks were reported from NHA (2 lab-confirmed A/H3N2, 3 unknown pathogen). So far in the beginning of week 50, one school ILI outbreak has been reported from NHA (unknown pathogen). During week 49, out of 161 specimens tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, 31 (19.3%) were positive for influenza, including 30 A/H3N2 and 1 influenza A(H1N1)pdm09. Among other respiratory viruses, rhino/enterovirus (12/161, 7.5%) and parainfluenza (12/161, 7.5%) were the most common detections. Other respiratory viruses were also detected sporadically. Compared to the previous week, more influenza viruses (5/68, 7.4%) were detected by BC Children's and Women's Health Centre Laboratory in week 49. The ILI consultation rate in BC Children's Hospital ER continued to increase (11.5%).

*Report disseminated December 13, 2012*

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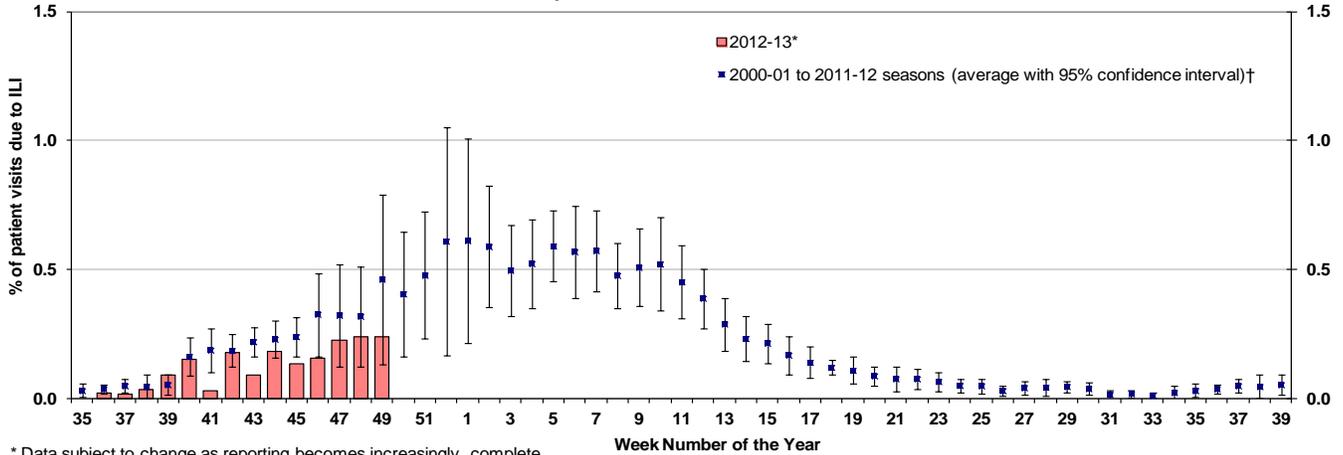
December 2 to 8, 2012

## British Columbia

### Sentinel Physicians

In week 49, the proportion of patients with ILI among those presenting to sentinel physicians was 0.24%, within the expected range for this time of year. To date, 63% of sentinel physician sites have reported for week 49. Note that in order to assess against more recent trends and experience, the historic average comparator period has now been restricted to include only seasons since 2000-01, excluding the atypical 2008-09 and 2009-10 seasons.

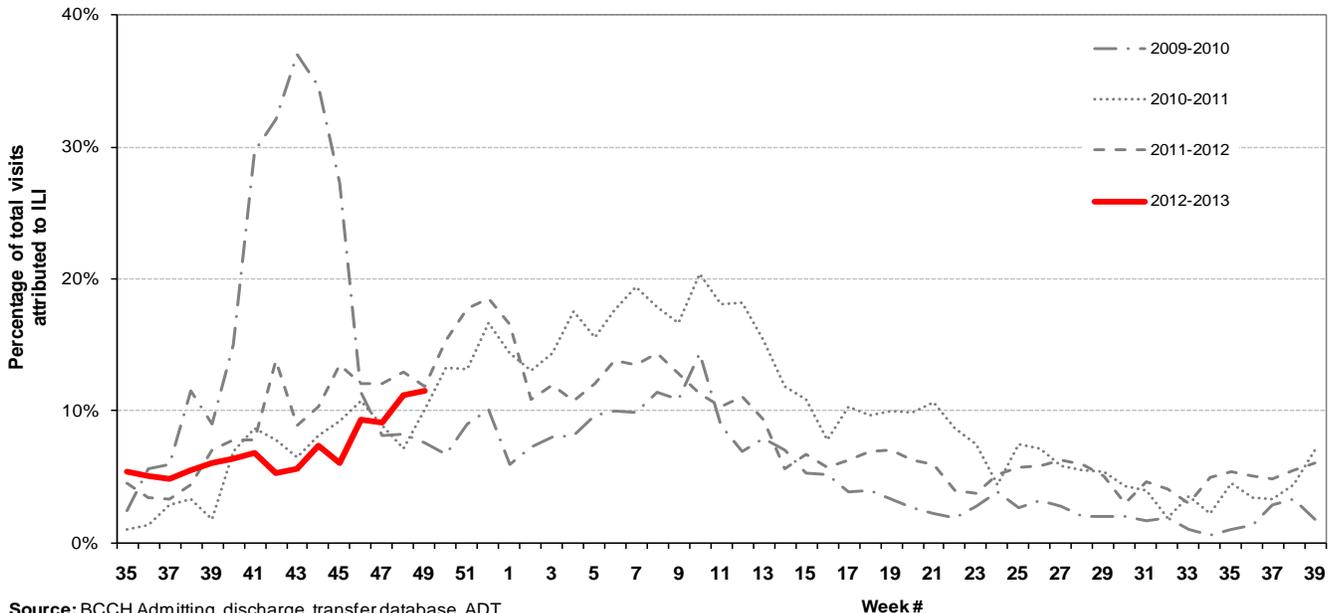
Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 10 Seasons Sentinel Physicians, British Columbia, 2012-2013



### BC Children's Hospital Emergency Room

In week 49, the percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness continued to increase (11.5%), still consistent with the preceding two 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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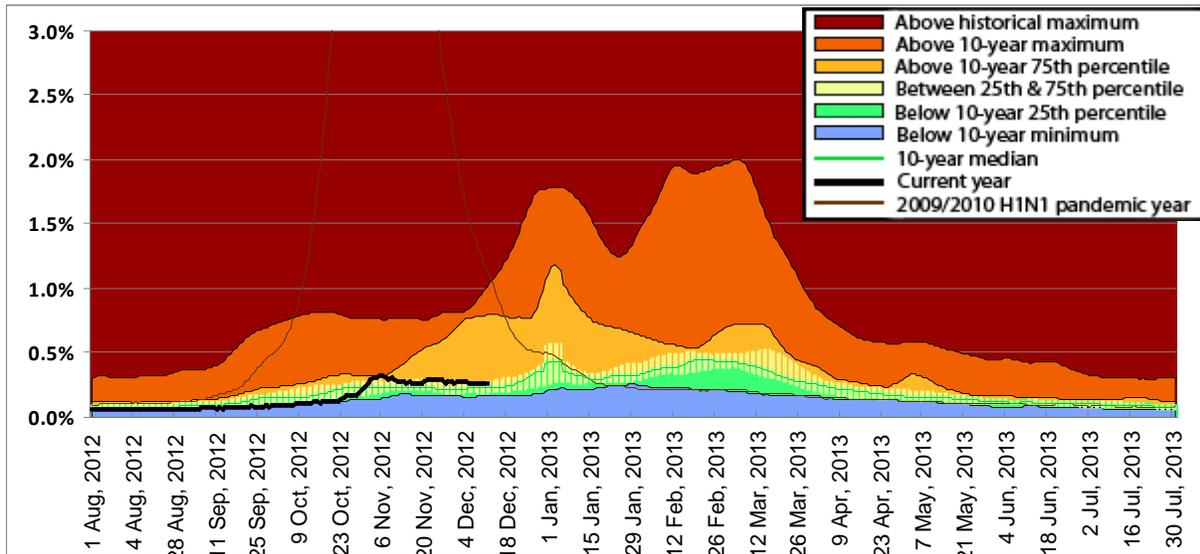
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## Medical Services Plan

During week 49, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained above the 10-year median in NHA, FHA, VCHA and provincially, but at or below the 10-year median in IHA and VIHA.

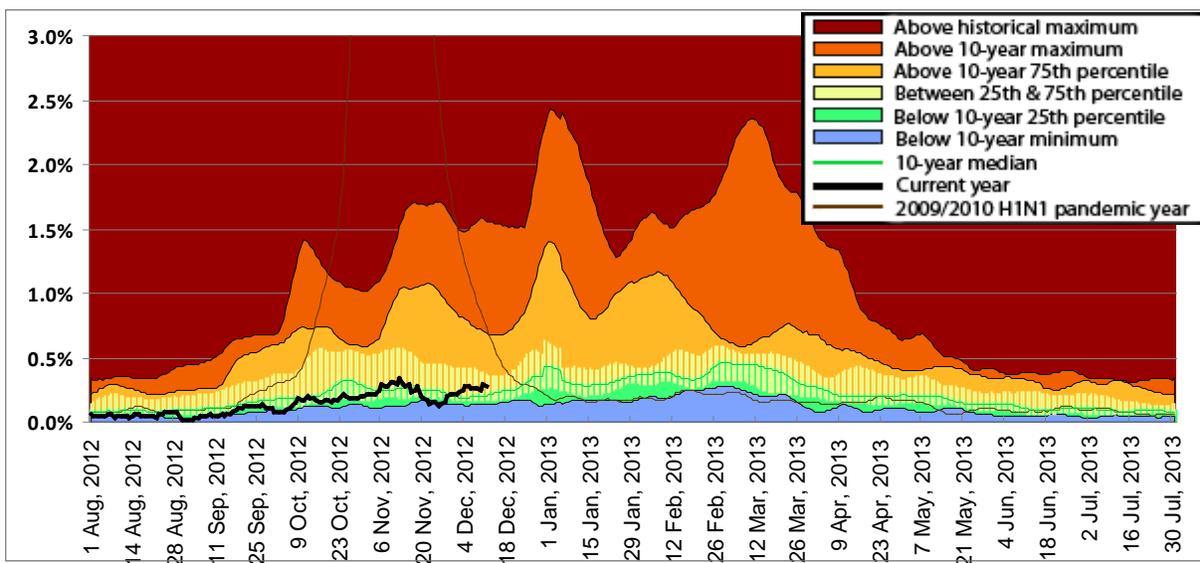
### Influenza Illness Claims\* British Columbia



\* 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 12 December 2012

### Northern

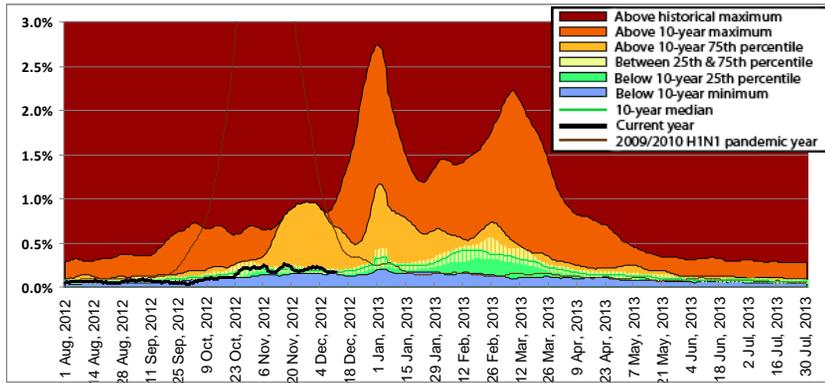


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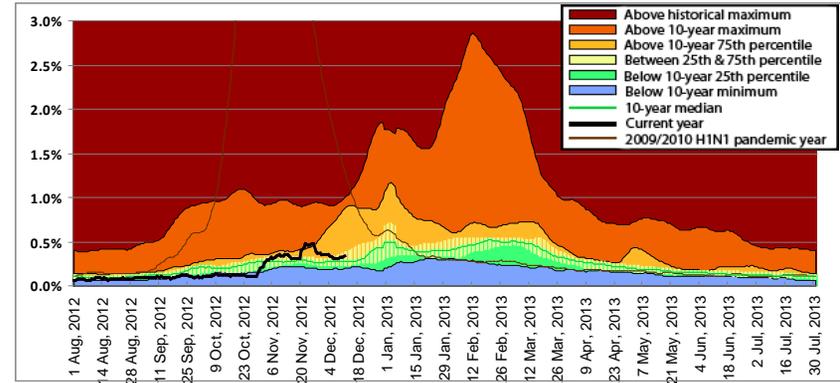
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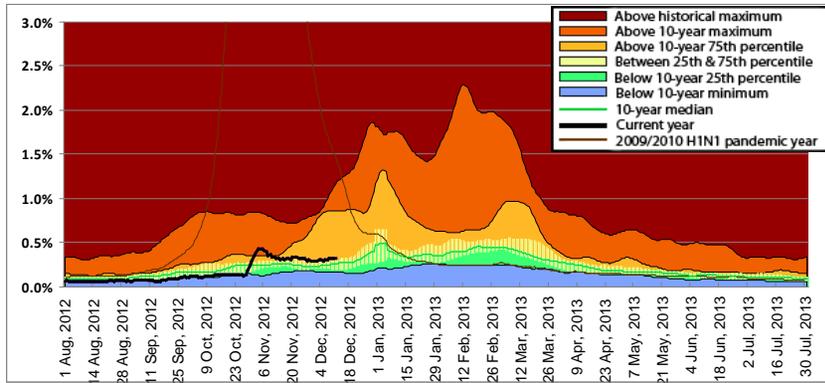
**Interior**



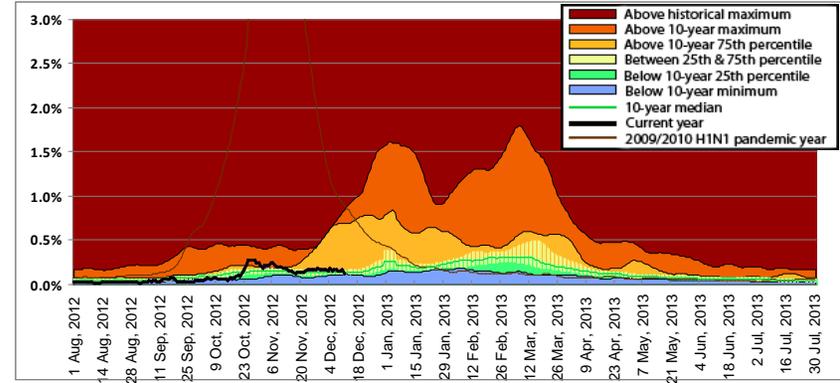
**Vancouver Coastal**



**Fraser**



**Vancouver Island**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

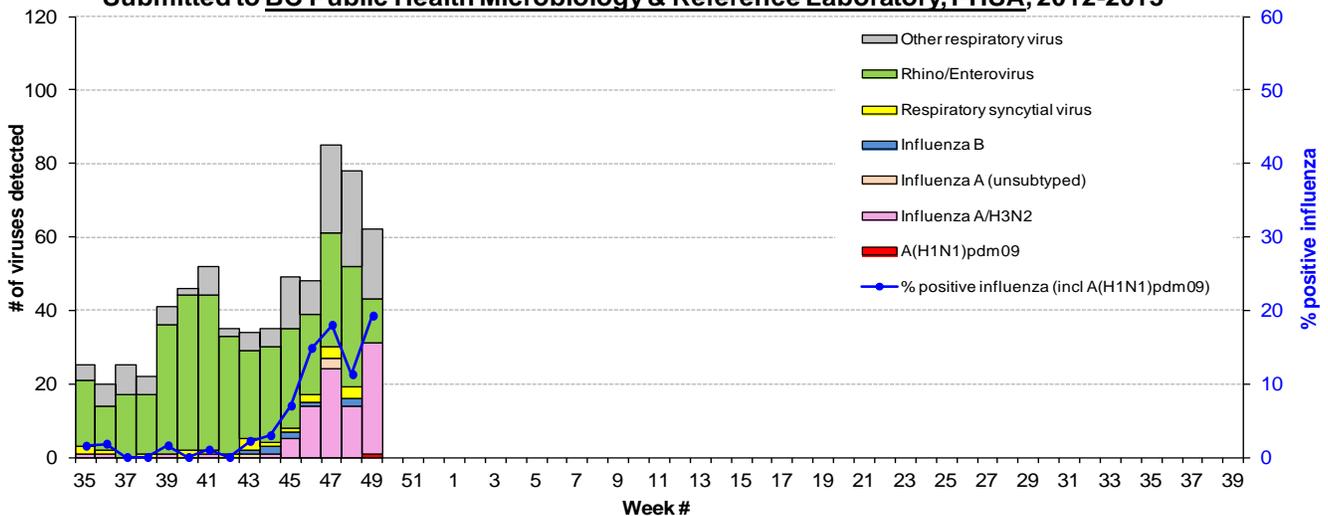
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## Laboratory Reports

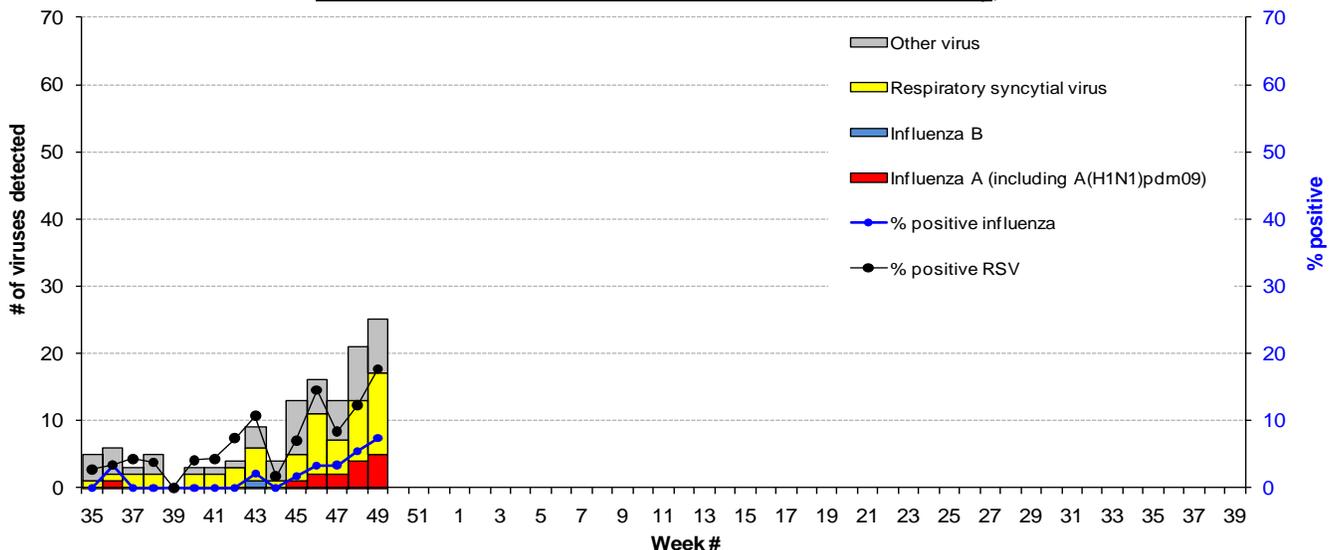
In week 49, one hundred and sixty-one specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 31 (19.3%) were positive for influenza viruses, including 30 influenza A/H3N2 from all Health Authorities including children, young adults and the elderly, and one influenza A(H1N1)pdm09 from an adult aged 20-64 years in FHA. Among other respiratory viruses tested, rhino/enterovirus (12/161, 7.5%) and parainfluenza (12/161, 7.5%) were the most common detections, though the proportion of rhino/enterovirus detections was markedly lower this week. Other respiratory viruses were also sporadically detected.

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



In week 49, BC Children's and Women's Health Centre Laboratory tested 68 respiratory specimens, of which 5 (7.4%) were positive for influenza A (un-subtyped), an increase over the previous week. RSV (12/68, 17.7%) was the most common detection among the other respiratory viruses tested. Parainfluenza and adenovirus 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

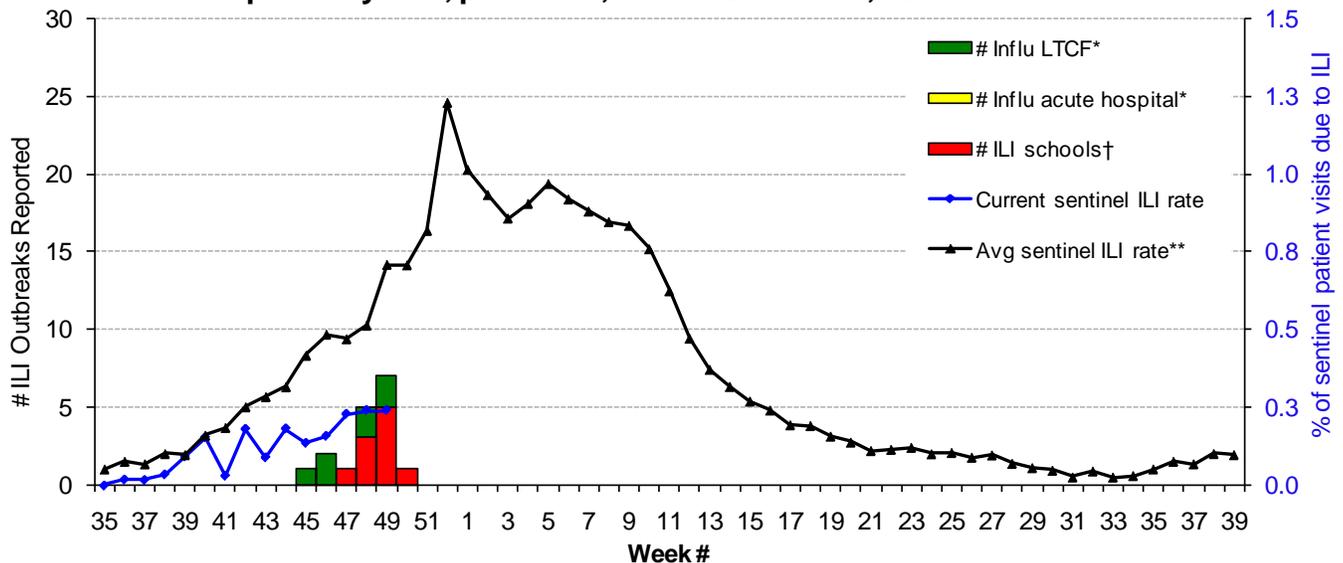
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## ILI Outbreaks

In week 49, three ILI outbreaks were reported from long-term care facilities in FHA, including two lab-confirmed influenza A (subtype pending) and one lab-negative for respiratory viruses. To date this season since week 40, 7 laboratory-confirmed influenza outbreaks have been reported from long term care facilities in BC. In week 49, five school ILI outbreaks were also reported from NHA (two lab-confirmed influenza A/H3N2, three of unknown pathogen). So far in the beginning of week 50, one ILI school outbreak has been reported from a school in IHA (pathogen unknown).

**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, 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.

## CANADA

### FluWatch

Influenza activity in Canada continued to increase in week 48. More regions reported sporadic or localized activity compared to the previous week. A total of 414 laboratory detections of influenza virus were reported, of which 97.3% were for influenza A viruses, predominantly A/H3N2. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

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

From September 1 to December 13, 2012, 71 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

10 A/California/07/2009-like\* from ONT;

3 B/Brisbane/60/2008-like\*\* from ONT and MAN;

7 B/Wisconsin/01/2010-like<sup>†</sup> from QUE, ONT 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 to December 13, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 49; zanamivir: 48; amantadine: 95), A(H1N1)pdm09 (oseltamivir: 11; zanamivir: 11; amantadine: 7), and influenza B isolates (oseltamivir: 10; zanamivir: 10). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

## **INTERNATIONAL**

**USA:** during week 48 (November 25 – December 1, 2012), influenza activity increased. 1139 (20.7%) influenza viruses were detected, including 75.0% influenza A viruses [47.5% A/H3N2, 0.5% A(H1N1)pdm09, and 52.0% un-subtyped A], and 25.0% influenza B. The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold. The proportion of outpatient visits for influenza-like illness was 1.9% which is below the national baseline. Three influenza-associated paediatric deaths were further reported. [www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly) **Other Countries:** According to the WHO report dated 7 Dec. 2012, many countries of the northern hemisphere temperate region, especially in North America, reported increasing influenza virus detections. Influenza activity remained low in Europe but has continued to increase slightly. Low levels of influenza activity were reported in countries in southern and southeast Asia, except Cambodia. In Sub-Saharan Africa, influenza activity remains at low levels. Influenza activity in the temperate countries of the southern hemisphere continued 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:**

The WHO has issued no new reports since 10 August 2012.

[www.who.int/influenza/human\\_animal\\_interface/en/](http://www.who.int/influenza/human_animal_interface/en/)

## **Novel Coronavirus:**

No new cases of human infection of novel coronavirus have been reported since 30 November 2012. [www.who.int/csr/don/2012\\_11\\_30/en/index.html](http://www.who.int/csr/don/2012_11_30/en/index.html). It is of note, however, that retrospective testing of samples collected from the April 2012 cluster of severe respiratory illness in Jordan has identified two fatal cases from that earlier cluster including health care workers. This is a significant development: it pushes back the first known date of emergence of this novel coronavirus by several months, marks the first evidence of infection outside Saudi Arabia and Qatar and highlights the importance of investigating clusters of severe respiratory illness, notably involving health care workers as potential signal events. Appropriate infection control precautions and consultation with public health authorities is advised under such circumstances. Based on additional information reported since the original surveillance recommendations, the WHO has updated its guidance, available from:

[www.who.int/csr/disease/coronavirus\\_infections/InterimRevisedSurveillanceRecommendations\\_nCoV\\_infection\\_20121128.pdf](http://www.who.int/csr/disease/coronavirus_infections/InterimRevisedSurveillanceRecommendations_nCoV_infection_20121128.pdf) and an updated report from the European Centre for Disease Prevention and Control is also an informative resource.

## **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

**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.

## A

### Reporting Information

Health unit/medical health officer notified?  Yes  No

Person Reporting: \_\_\_\_\_ Title: \_\_\_\_\_

Contact Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Health Authority: \_\_\_\_\_ HSDA: \_\_\_\_\_

Full Facility Name: \_\_\_\_\_

Is this report:  First Notification (*complete section B below; Section D if available*)  
 Update (*complete section C below; Section D if available*)  
 Outbreak Over (*complete section C below; Section D if available*)

## B

### First Notification

Type of facility:  LTCF  Acute Care Hospital  Senior's Residence  
*(if ward or wing, please specify name/number: \_\_\_\_\_)*  
 Workplace  School (grades: \_\_\_\_\_)  Other (\_\_\_\_\_)

Date of onset of first case of ILI (dd/mm/yyyy): DD / MMM / YYYY

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

## C

### Update AND Outbreak Declared Over

Date of onset for most recent case of ILI (dd/mm/yyyy): DD / MMM / YYYY

If over, date outbreak declared over (dd/mm/yyyy): DD / MMM / YYYY

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

## D

### Laboratory Information

Specimen(s) submitted?  Yes (location: \_\_\_\_\_)  No  Don't know

If yes, organism identified?  Yes (specify: \_\_\_\_\_)  No  Don't know