

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 8, Weeks 51-52

December 16 to 29, 2012



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Influenza spiking in BC

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### Summary

Influenza activity in BC began to spike as we entered the holiday period during the final weeks of 2012 (weeks 51-52: December 16 to 29, 2012). Across the province, the proportion of medical visits with an influenza diagnosis increased to above the 75<sup>th</sup> percentile compared to the same period during the prior ten years. Consultations for influenza-like illness at BC Children's Hospital emergency room also increased sharply compared to prior weeks, higher also than recent seasons. There has also been sharp increase in the proportion of respiratory specimens diagnosed as influenza at both the BC Public Health Microbiology & Reference, and the BC Children's and Women's Health Centre Laboratories. Other respiratory viruses were also detected but influenza predominated overall. There were seven laboratory-confirmed influenza A outbreaks in long-term care facilities during this two-week period which represents nearly half of the total tally to date for the season (16 so far in total since week 40).

**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 [www.ammi.ca/guidelines](http://www.ammi.ca/guidelines) and includes updated dosing guidance of which clinicians should be aware for their patients with reduced creatinine clearance.

*Report disseminated January 3, 2013*

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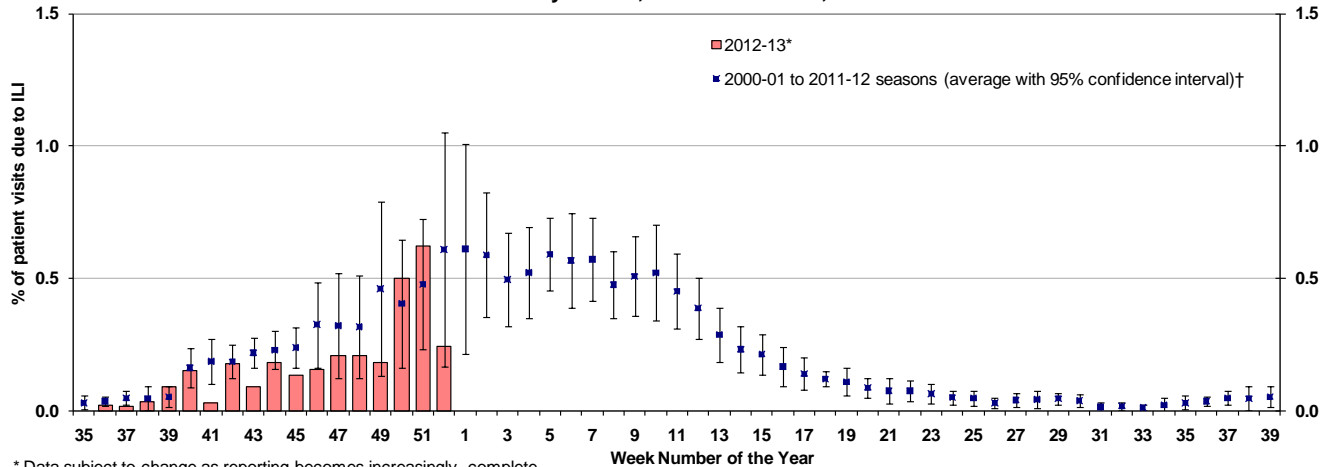
December 16 to 29, 2012

## British Columbia

### Sentinel Physicians

In weeks 51-52, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians showed increase in week 51. Data for week 52 is incomplete and therefore may change. The holiday period may account for a slowdown in reporting (to date, only 56% and 32% of sentinel physician sites have reported for weeks 51 and 52, respectively), and for variability in current and historic estimates.

**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**



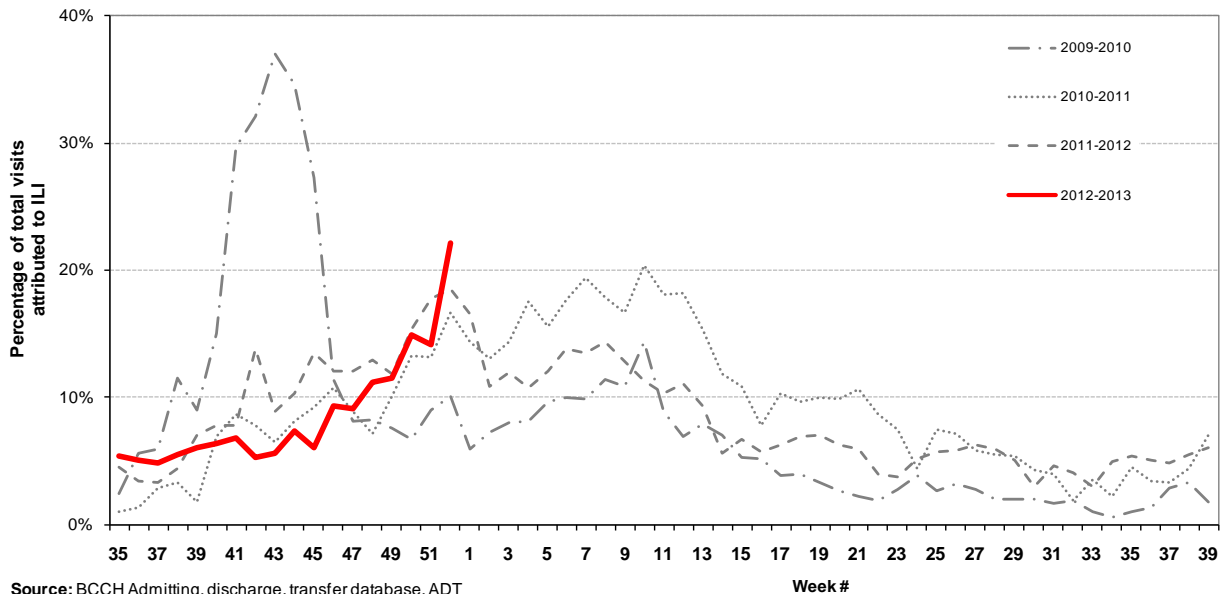
\* Data subject to change as reporting becomes increasingly complete.

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

### BC Children's Hospital Emergency Room

In weeks 51 and 52, 14.2% and 22.2% of BC Children's Hospital ER visits were attributed to "fever and cough" or flu-like illness. The rate in week 52 increased sharply to 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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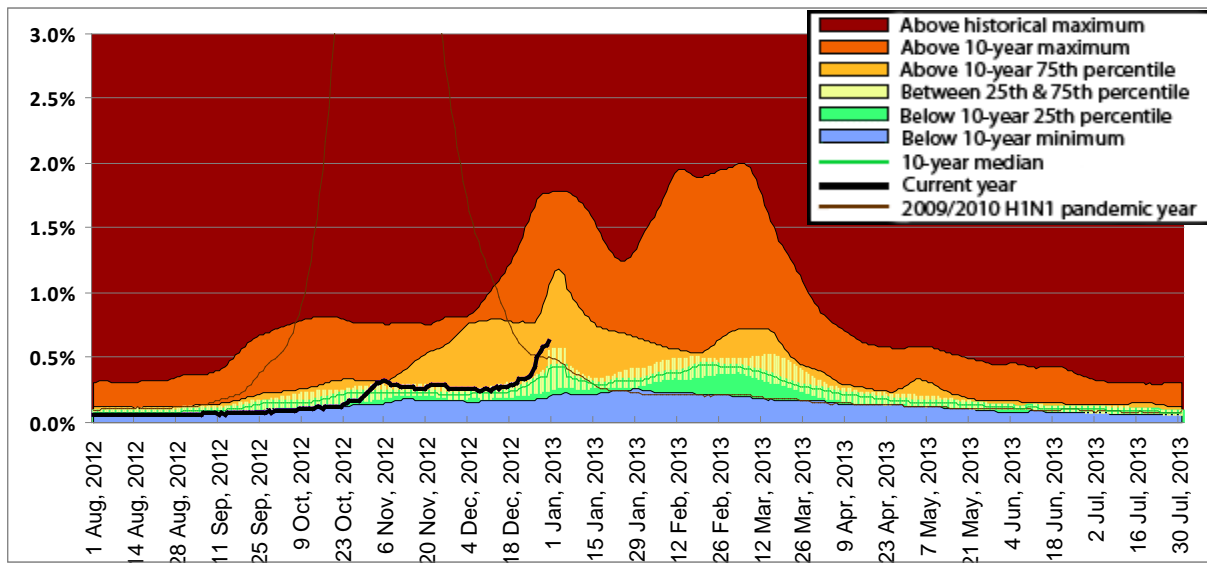
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## Medical Services Plan

During weeks 51-52, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims increased in each Health Authority and at the provincial level. In particular, the proportion rose above the 10-year 75<sup>th</sup> percentile level in NHA, IHA, VCHA, and provincially.

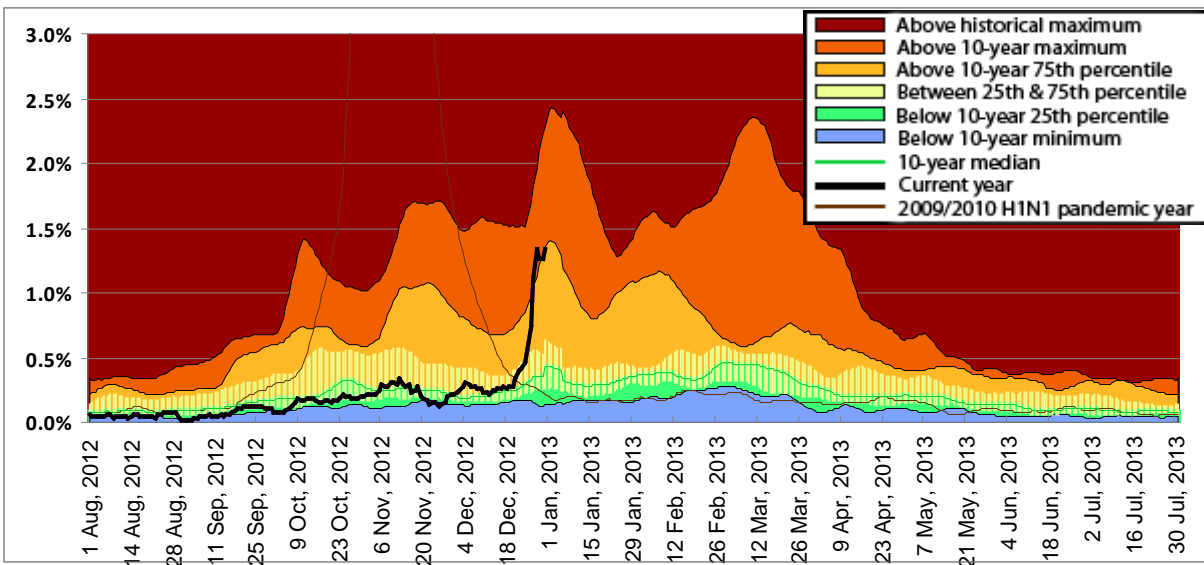
### Influenza Illness Claims\* British Columbia



\* 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 01 January 2013.

### Northern

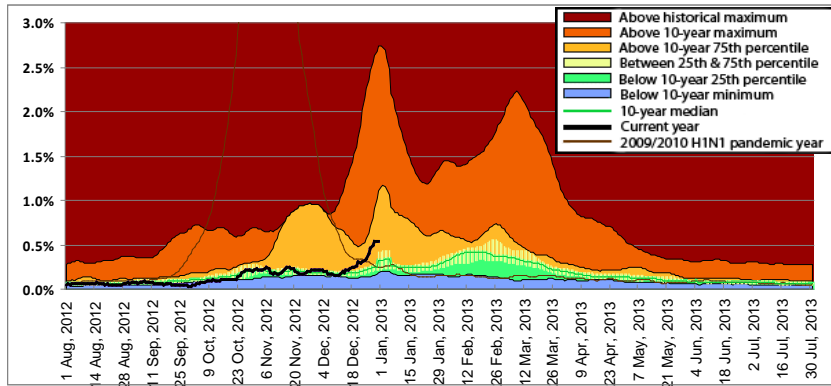


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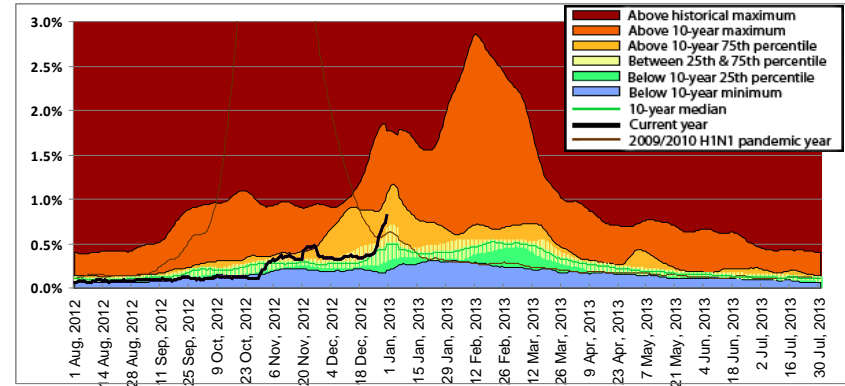
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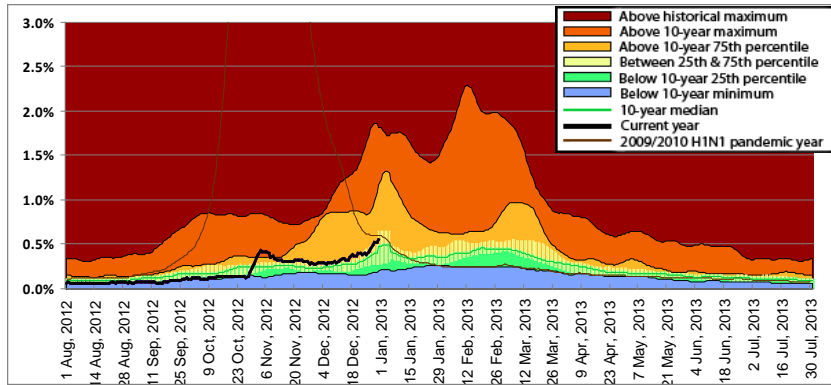
**Interior**



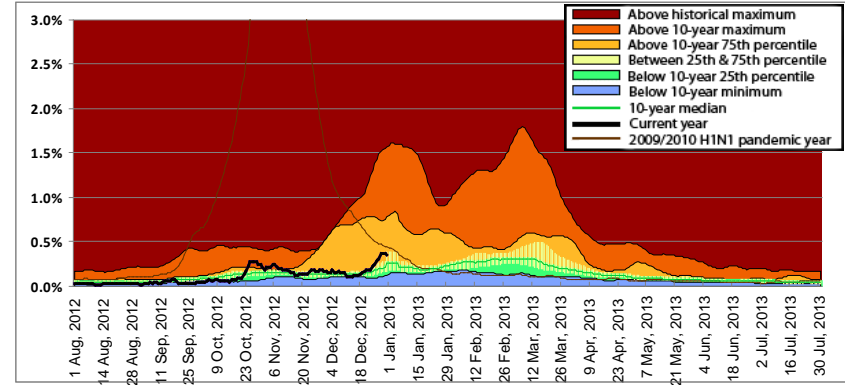
**Vancouver Coastal**



**Fraser**



**Vancouver Island**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

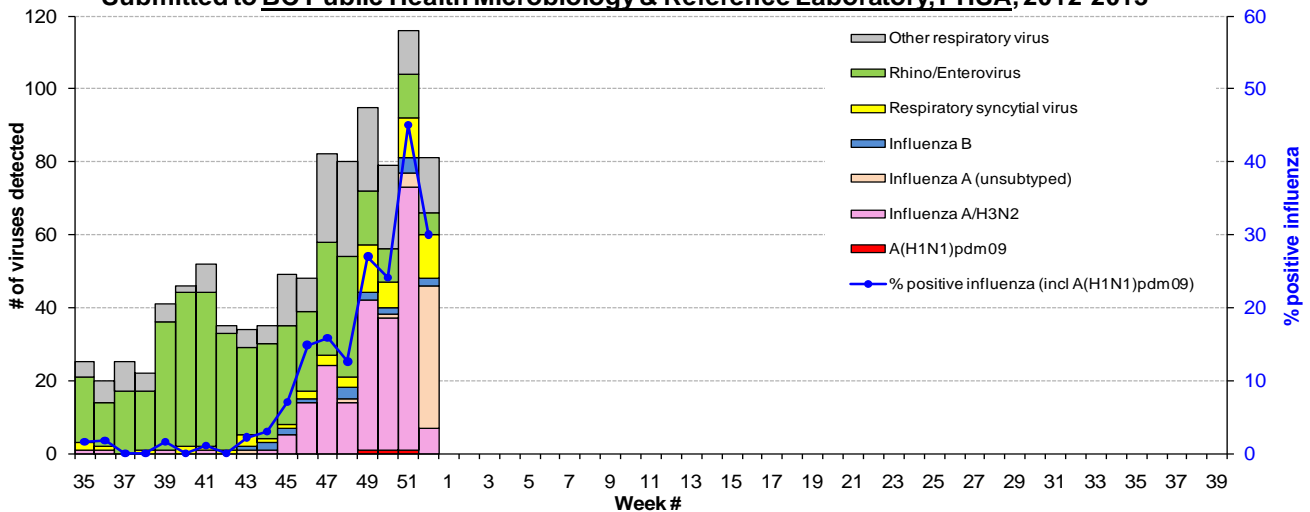
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## Laboratory Reports

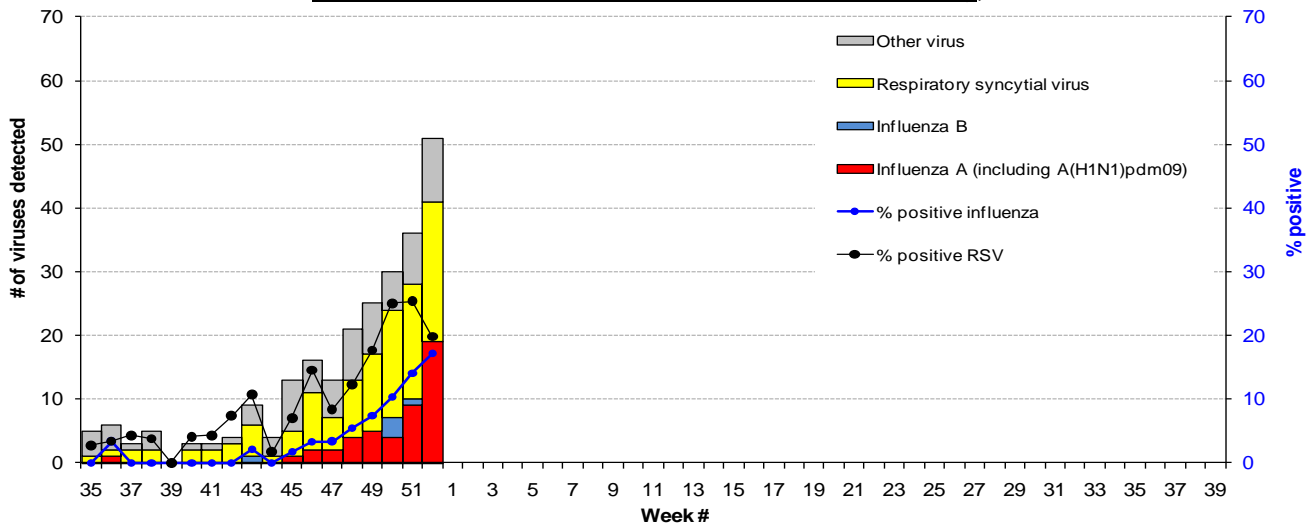
In weeks 51-52, three hundred and forty specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 129 (37.9%) overall were positive for influenza (week 51: 81/180 [45%], week 52: 48/160 [30%]). During this period, H3N2 subtype viruses predominated. There was a single A(H1N1)pdm09 detected in week 51 compared to 79 A/H3N2 (72 in week 51, 7 in week 52), and 6 influenza B (3 from FHA in week 51, 1 from VCHA in week 51, 2 from VIHA in week 52). An additional 43 influenza A detections are awaiting subtyping (4 in week 51 and 39 in week 52). Other significant detections included RSV (23/340, 6.8%), rhino/enterovirus (18/340, 5.3%) and coronavirus (15/340, 4.4%). Other respiratory viruses were also sporadically detected. Overall, influenza A/H3N2 predominated among respiratory virus detections.

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



In weeks 51-52, BC Children's and Women's Health Centre Laboratory tested 182 respiratory specimens, of which 29 (15.9%) were positive for influenza viruses, an increase over the previous week, including 28 influenza A (un-subtyped) and 1 influenza B. RSV (40/182, 22%) continued to be the most common detection among the other respiratory viruses tested. 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

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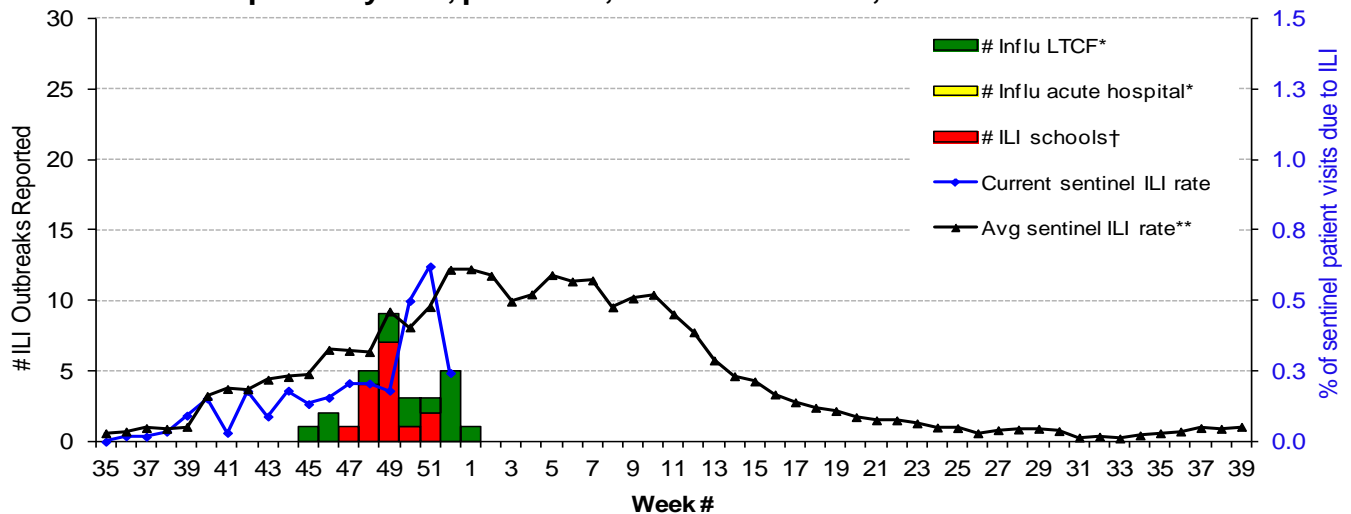
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## ILI Outbreaks

During weeks 51-52, there were 7 laboratory-confirmed influenza A outbreaks reported from long-term care facilities (LTCF) (1 influenza A/H3N2, 6 influenza A [subtype pending]). To date this season (since week 40), 16 lab-confirmed influenza outbreaks have been reported from LTCFs in BC. Two school ILI outbreaks were also reported during weeks 51-52 and an additional ILI outbreak from a care facility is pending lab result.

**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

Influenza activity in Canada continued to increase in week 50. A total of 1502 laboratory detections of influenza were reported, of which 96.7% 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, 2012 to Jan. 3, 2013, 177 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

- 136 A/Victoria/361/2011-like (H3N2)<sup>†</sup> from PEI, QUE, ONT, MAN, SASK, ALTA and BC;
- 17 A/California/07/2009-like\* from ONT and SASK;
- 4 B/Brisbane/60/2008-like\*\* from ONT and MAN;
- 20 B/Wisconsin/01/2010-like<sup>†</sup> from 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.

## NML: Antiviral Resistance

From September 1, 2012 to January 3, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 97; zanamivir: 96; amantadine: 138), A(H1N1)pdm09 (oseltamivir: 13; zanamivir: 13; amantadine: 11), and influenza B isolates (oseltamivir: 18; zanamivir: 18). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

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## 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 51 (December 16-22, 2012), influenza activity increased. 1846 (29.6%) influenza viruses were detected, including 84.9% influenza A viruses [61.9% A/H3N2, 0.8% A(H1N1)pdm09, and 37.4% un-subtyped A], and 15.1% 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 4.2% which is above the national baseline of 2.2%. Eight influenza B-associated paediatric deaths were reported. No new human infections with novel influenza A viruses were reported to CDC during week 51. The US CDC's weekly influenza surveillance report is available at: [www.cdc.gov/flu/weekly](http://www.cdc.gov/flu/weekly)

**WHO** (updated on 21 December 2012): Many countries in the temperate regions of the northern hemisphere reported elevated detections of influenza, particularly in North America. Influenza activity was still low in Europe, with co-circulation of both influenza A and B viruses; however, increased ILI was reported from more countries than previous weeks. There was low, but increasing influenza activity in northern Africa and the eastern Mediterranean regions, and sporadic detections in eastern Asia. Influenza in Central America, the Caribbean and tropical South America continued to decline, with low levels of circulation of mainly influenza A/H3N2 and some influenza B viruses, except for Cuba and Peru, where influenza A(H1N1)pdm09 was predominant. Influenza activity in Sub-Saharan Africa declined to low levels, with mainly influenza B, except in Ghana, where influenza A(H1N1)pdm09 was reported. Influenza in most south-east Asian countries was declining except in Sri Lanka and Viet Nam. 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)

## 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