

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 10, Week 5  
January 29 to February 4, 2012



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

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Low-level activity, mix of influenza types and subtypes continue in BC

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### Summary

In week 5 (January 29 – February 4, 2012), most influenza surveillance indicators suggested that influenza activity in BC remained low. The influenza-like illness (ILI) rate reported by sentinel physicians was low and below the expected range for this time of year (0.45%). The MSP influenza illness proportion was below the 10-year 25<sup>th</sup> percentile level for this time of year throughout the province. The ILI consultation rate at BC Children's Hospital ER remained low and slightly lower than the expected level for this time of year. In week 5, eight school ILI outbreaks were reported from Interior and Vancouver Coastal HAs; in addition one lab-confirmed influenza A outbreak was also reported from a long term care facility in Vancouver Island HA. In week 5, influenza A/H3N2 positive detections continued to predominate at the BC Public Health Microbiology & Reference Laboratory, PHSA, though influenza A(H1N1)pdm09 and influenza B were also detected in low proportions. Of one hundred and forty-nine specimens tested at the provincial laboratory in week 5, thirty-three (22.1%) influenza positives were detected, slightly higher compared to the previous week, including 21 (14.1%) influenza A/H3N2, 3 (2.0%) influenza A(H1N1)pdm09, 3 (2.0%) influenza A (subtype pending), and 6 (4.0%) influenza B. Other significant respiratory virus detections included rhino/enterovirus (20/149, 13.4%), respiratory syncytial virus (15/149, 10.1%), coronavirus (10/149, 6.7%), and human metapneumovirus (9/149, 6.0%). RSV continued to dominate among the respiratory viruses detected at BC Children's Hospital.

*Report disseminated February 9, 2012*  
Contributors: Helen Li, Lisan Kwindt, Danuta Skowronski

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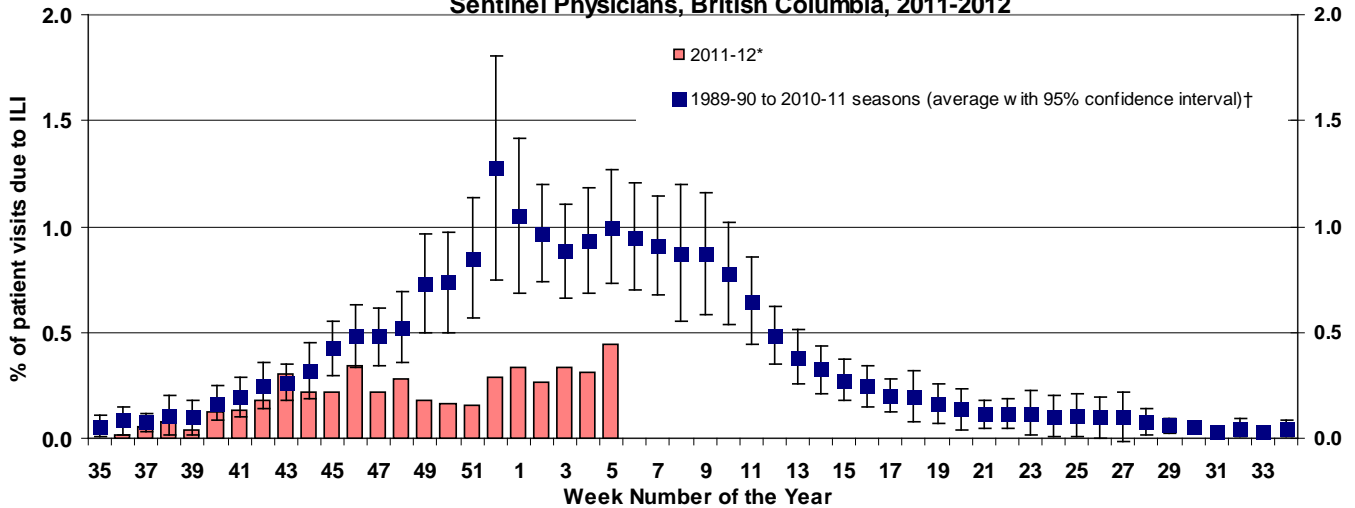
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## British Columbia

### Sentinel Physicians

In week 5, the proportion of patients with ILI among those presenting to sentinel physicians was 0.45%, slightly higher than the previous week but remaining below the expected range for this time of year. Fifty percent of sentinel physician sites have reported for week 5 to-date.

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



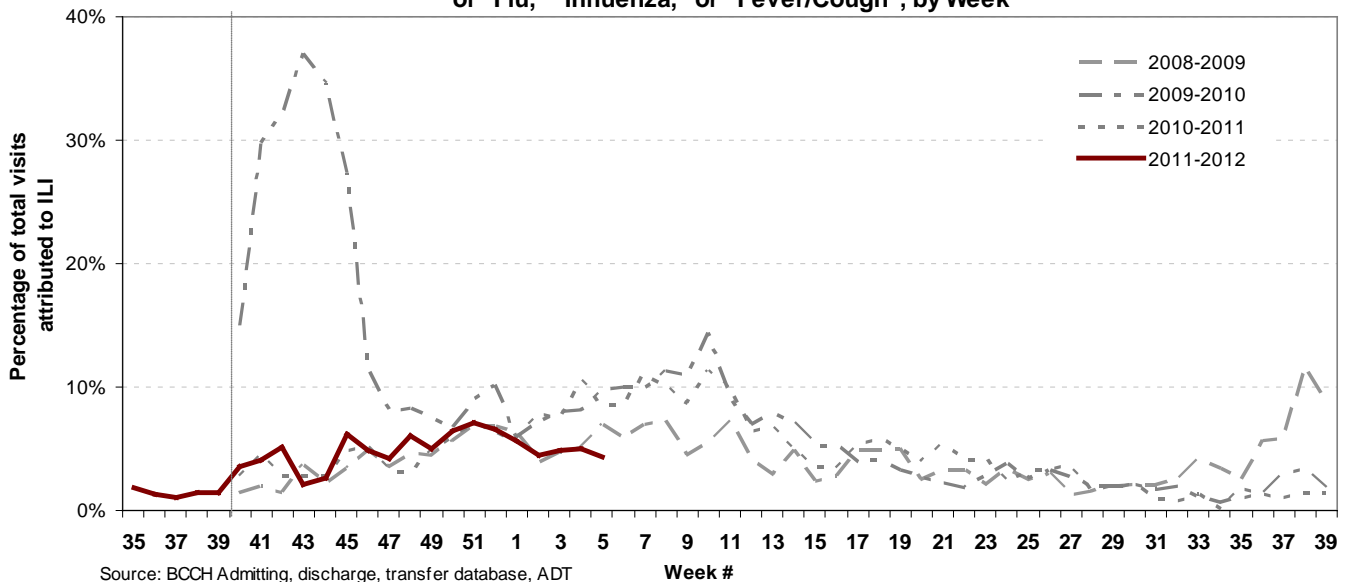
\* Data subject to change as reporting becomes increasingly complete.

† 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 week 5 was 4.3%, less than the previous week and slightly lower than expected for this time of 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

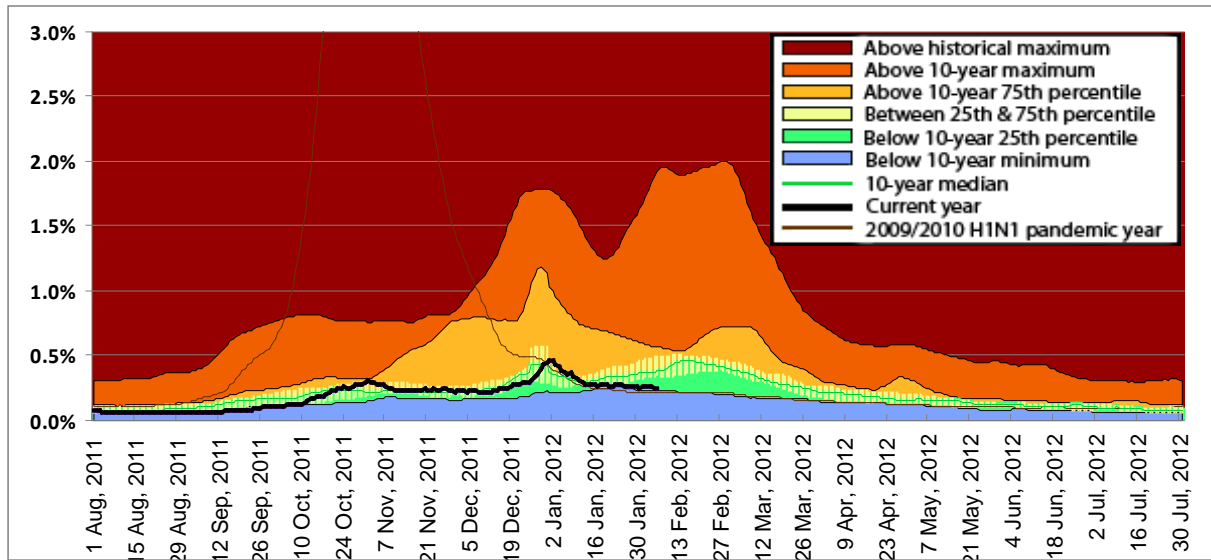
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## Medical Services Plan

In week 5, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained low, and was below the ten-year 25<sup>th</sup> percentile level for this time of year throughout BC.

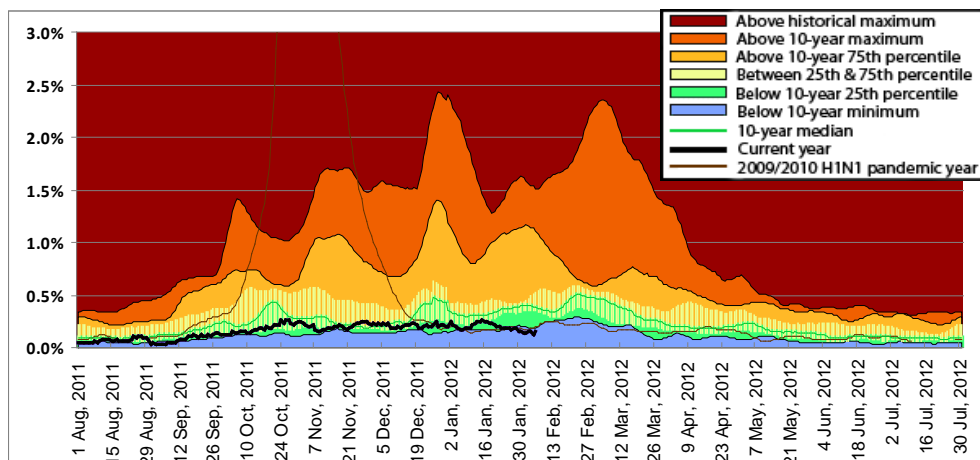
### Influenza Illness Claims\* British Columbia



\* 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 7 February 2012

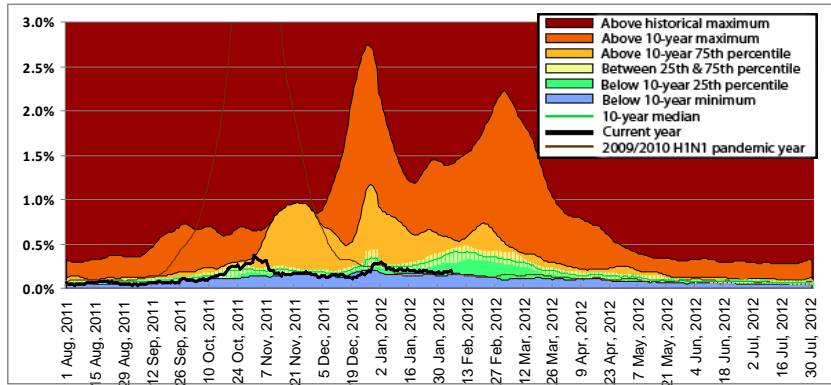
### Northern



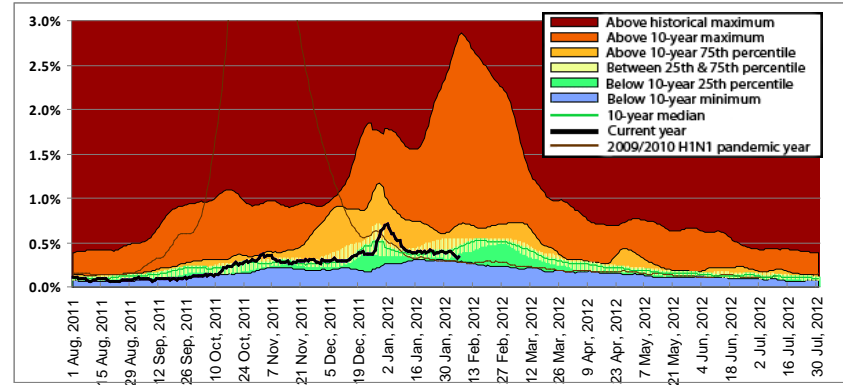
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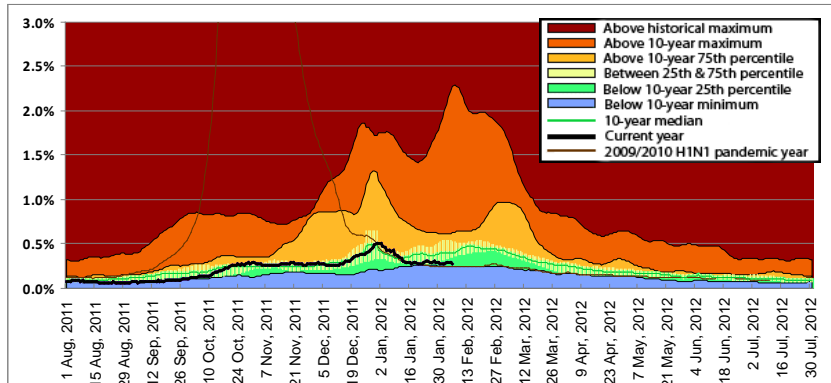
### Interior



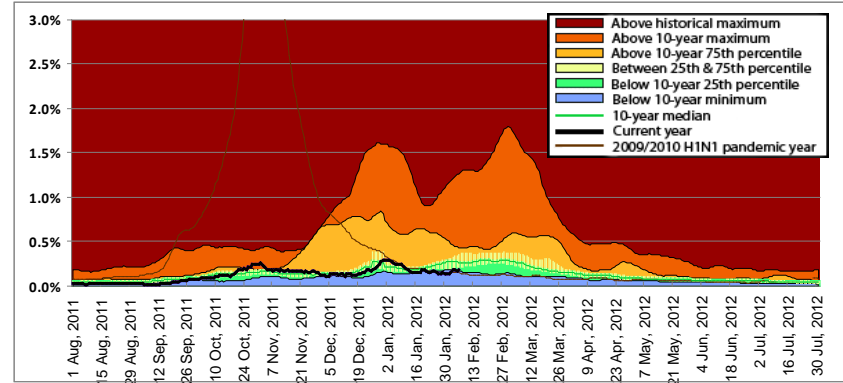
### Vancouver Coastal



### Fraser



### Vancouver Island



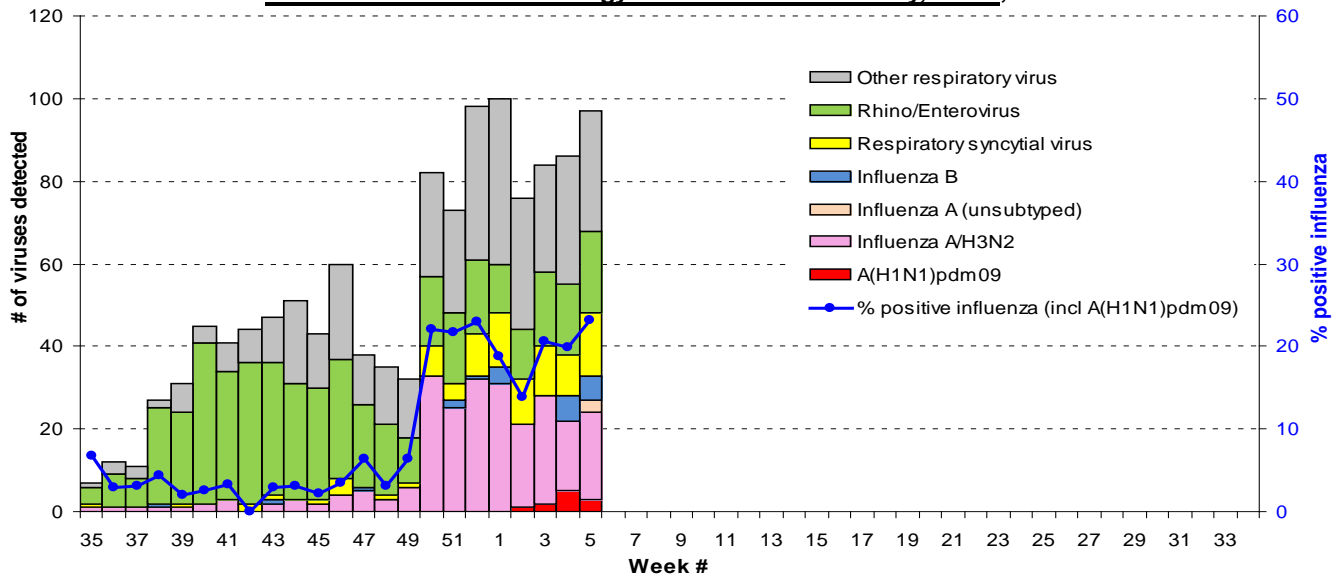
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## Laboratory Reports

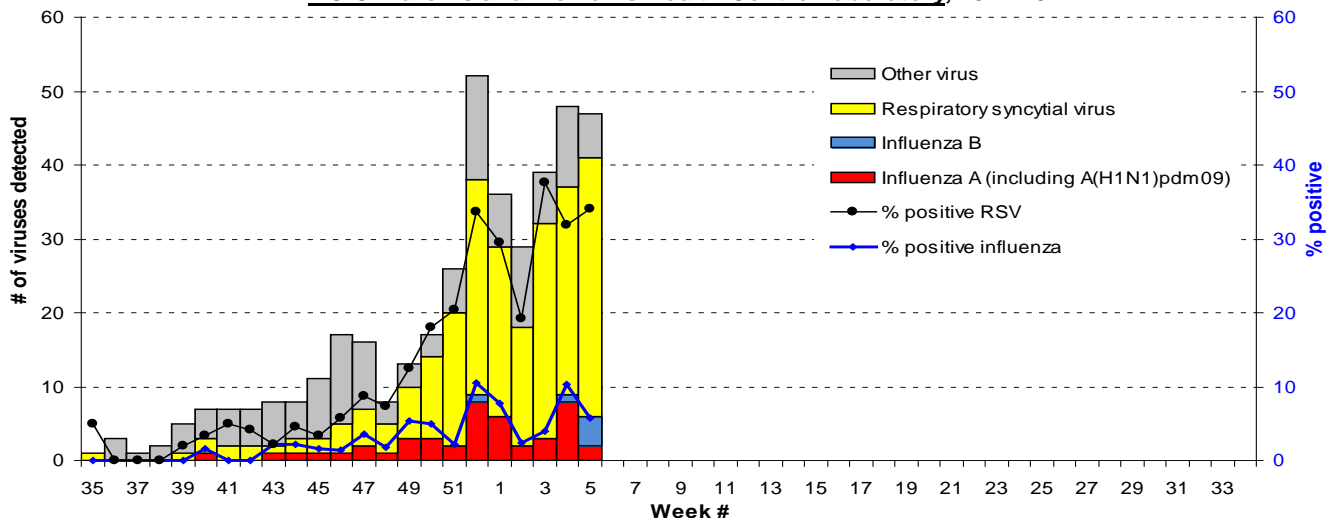
Similar to the previous week, influenza A/H3N2 continued to predominate among influenza detections at the BC Public Health Microbiology & Reference Laboratory, PHSA. Of the one hundred and forty-nine respiratory specimens tested at the provincial lab in week 5, thirty-three (22.1%) were positive for influenza, including 21 (14.1%) influenza A/H3N2 from all HAs but Northern, 3 (2.0%) influenza A(H1N1)pdm09 from Fraser and Vancouver Coastal HAs, 3 (2.0%) influenza A (subtype pending), and 6 (4.0%) influenza B from Fraser and Vancouver Coastal HA. Of 149 specimens tested for other respiratory viruses, significant detections included rhino/enterovirus (20/149, 13.4%), respiratory syncytial virus (15/149, 10.1%), coronavirus (10/149, 6.7%), and human metapneumovirus (9/149, 6.0%). 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 week 5, BC Children's and Women's Health Centre Laboratory tested 103 respiratory specimens: 6 (5.8%) were positive for influenza virus, lower than the previous week, including 2 influenza A (un-subtyped) and 4 influenza B. RSV continued to predominate among the other respiratory viruses detected (35/103, 34.0%). 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

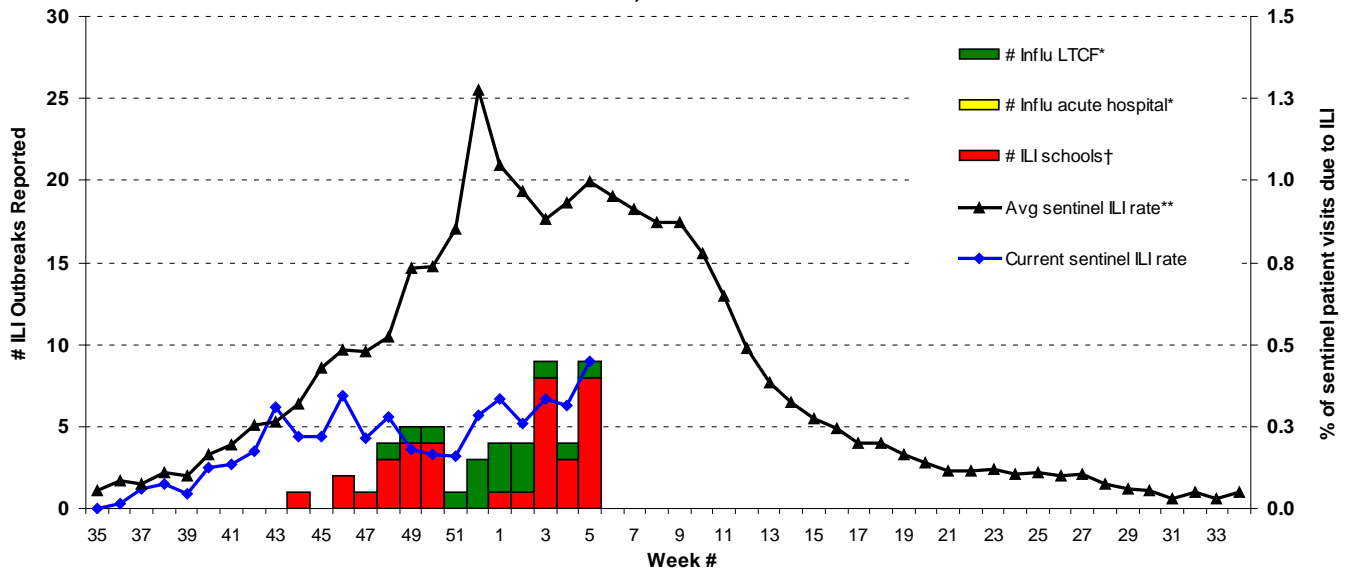
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## ILI Outbreaks

In week 5, eight ILI outbreaks were reported from schools in Interior HA (5) and Vancouver Coastal HA (3). In addition, one lab-confirmed influenza A outbreak was also reported from a long term care facility in Vancouver Island HA.

**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 4 (January 29 to February 4, 2012), influenza activity increased in more regions compared to previous weeks in Canada. The proportion of tests positive for influenza in week 4 was 4.7% (178/3,768), a slightly increase compared to the previous week. One hundred and seventy-eight influenza detections included 65 A/H3N2, 27 A(H1N1)pdm09, 43 A (un-subtyped) and 43 influenza B. The ILI consultation rate increased in week 4 compared to previous two weeks but 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 February 9, 2012, 179 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

43 A/California/07/09-like (H1N1)<sup>\*</sup> from QUE and ONT;

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

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

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

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

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

### NML: Antiviral Resistance

From September 1, 2011 to February 9, 2012, drug susceptibility to oseltamivir and zanamivir was tested at the NML for forty-eight influenza A/H3N2, forty-one influenza A(H1N1)pdm09, and eighty-five influenza B isolates (eighty-two for zanamivir). The results indicated that all isolates were sensitive to oseltamivir and zanamivir. In addition, seventy-one A/H3N2 and forty-five A(H1N1)pdm09 isolates were also tested for susceptibility to amantadine and all were found to be resistant, except for one A/H3N2 isolate.

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## INTERNATIONAL

**USA:** in week 4 ending February 4, 2012, influenza activity in the United States increased slightly, but remained relatively low. Two hundred and sixty-two (7.2%) specimens tested were positive for influenza, including 15 influenza B and 247 influenza A [123 A/H3N2, 36 A(H1N1)pdm09, and 88 un-subtyped A]. The proportion of outpatient visits for ILI was 1.5% which was below the national baseline of 2.4%. The proportion of all deaths due to pneumonia and influenza illness was 7.5%, slightly above the epidemic threshold for this time of the year. No paediatric deaths were reported in week 4 in USA.

[www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

**WHO news:** (last updated on 03 February 2012) *Northern Hemisphere:* Influenza activity in the temperate regions of the northern hemisphere remained low overall though notable local increases in activity were reported in North America, western Europe, and northern China. The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone was influenza A/H3N2 with the exception of China, which reported a predominance of influenza B, and Mexico, where influenza A(H1N1)pdm09 was the predominant subtype circulating. In addition to Mexico, some southern states of the USA, and Colombia in northern South America also reported a predominance of A(H1N1)pdm09 in recent weeks. *Tropics and Southern Hemisphere:* Countries in the tropical zone reported low levels of influenza activity with the exception of southern China, Colombia, and Ecuador. The influenza activity in the temperate countries of the southern hemisphere remained at inter-seasonal levels. The low level inter-seasonal transmission of A/H3N2 previously noted in Chile and Australia appeared to be diminishing and becoming more sporadic. *Antigenic characterization and Virological surveillance:* Nearly all influenza A viruses characterized have been antigenically related to the viruses contained in the current northern hemisphere trivalent vaccine. About half of the small number of influenza B viruses characterized have been of the Yamagata lineage, which is not contained in the current vaccine. Oseltamivir resistance continued to be observed at very low levels and had not increased notably over levels reported in previous seasons.

[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 WHO news on 8 Feb 2012, no new confirmed cases of human infection with avian influenza A(H5N1) virus have been reported since the last update. The cumulative deaths in 2012 have reached 5 out of the total of 6 cases reported. [www.who.int/influenza/human\\_animal\\_interface/en/](http://www.who.int/influenza/human_animal_interface/en/)

### **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>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>														
	<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>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>															
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<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