

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2009-10: Number 28, Weeks 21-26

May 23 – July 3, 2010



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## No Influenza Detections in BC; Low Levels of Activity in the Southern Hemisphere

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### Summary

In weeks 21-26 (May 23 – July 3), influenza-like illness (ILI) activity in BC remained low with no influenza detections at the provincial laboratory. Sentinel physician and Medical Services Plan ILI indicators both remained consistent with low levels observed in previous weeks. No influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 268 respiratory specimens were tested between May 23 and July 3, 65 (21%) of which were positive for rhino/enterovirus. Other non-influenza respiratory viruses were sporadically detected. Of 252 specimens tested at BC Children's Hospital Laboratory, none was positive for influenza, and 36 (14%) were positive for parainfluenza. In the southern hemisphere, rates of respiratory illness have recently increased; however, influenza detection rates have remained low. Detections to date have included a mix of pandemic influenza A/H1N1 virus and seasonal influenza B and A/H3N2 viruses, with variation by country. BCCDC continues to monitor the situation in the southern hemisphere during their typical influenza season (April - October).

*Report disseminated July 9, 2010*

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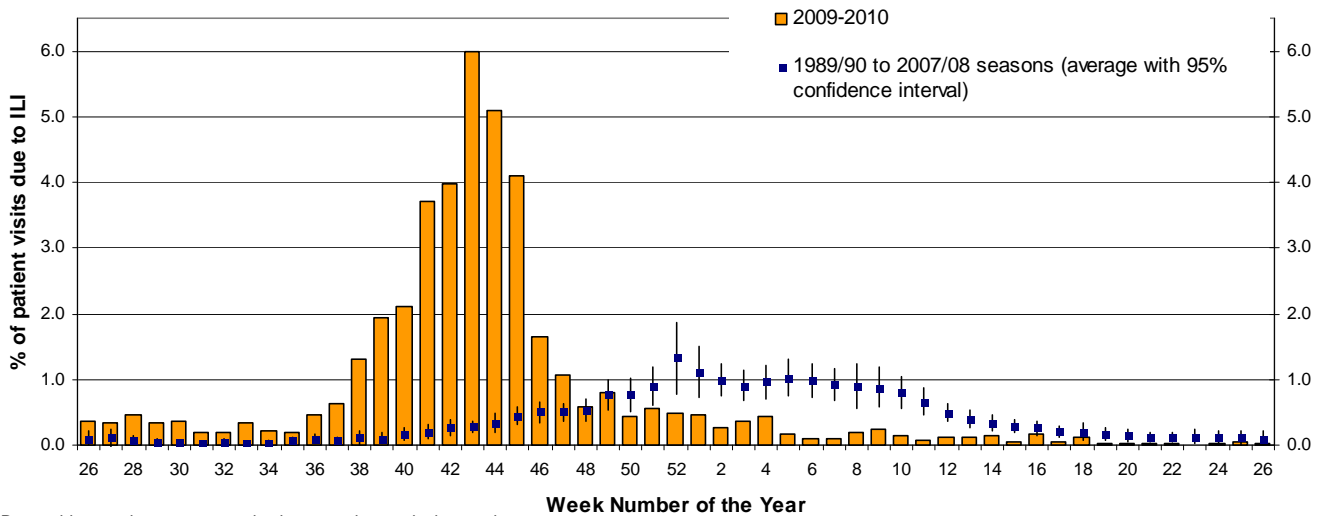
May 23 – July 3, 2010

## British Columbia

### Sentinel Physicians

During weeks 21-26, <0.04% of patients presenting to sentinel physicians had ILI, which is below the expected range for this time of year. Sixty-one percent (30/49) of sentinel physician sites have reported to-date for week 21, 63% (31/49) for week 22, 63% (31/49) for week 23, 69% (34/49) for week 24, 65% (32/49) for week 25, and 49% (24/49) for week 26.

**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, 2009-2010**

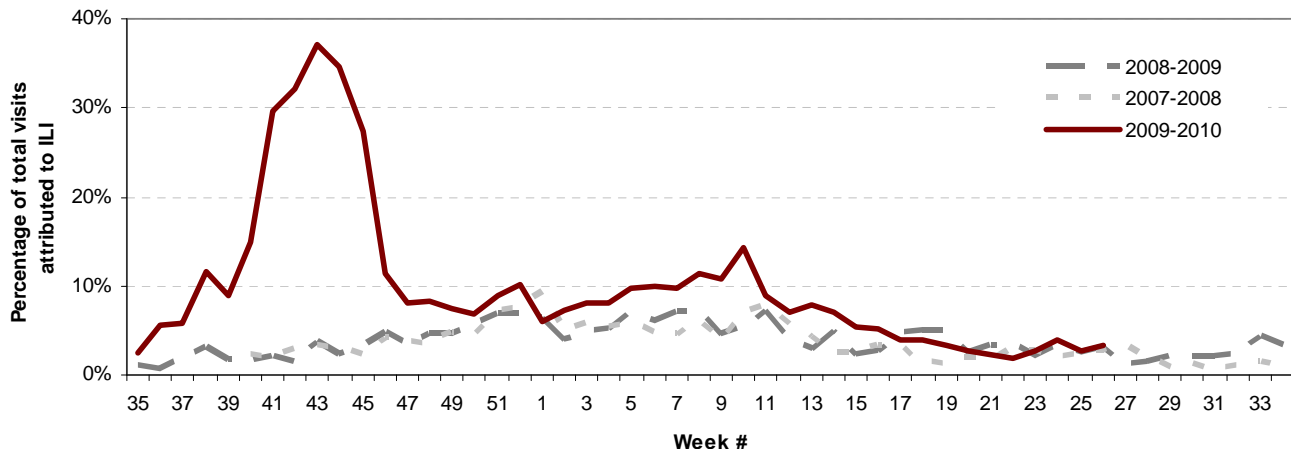


\*\*Data subject to change as reporting becomes increasingly complete

### BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness remained low (<4%) in weeks 21-26, consistent with levels observed in previous seasons.

**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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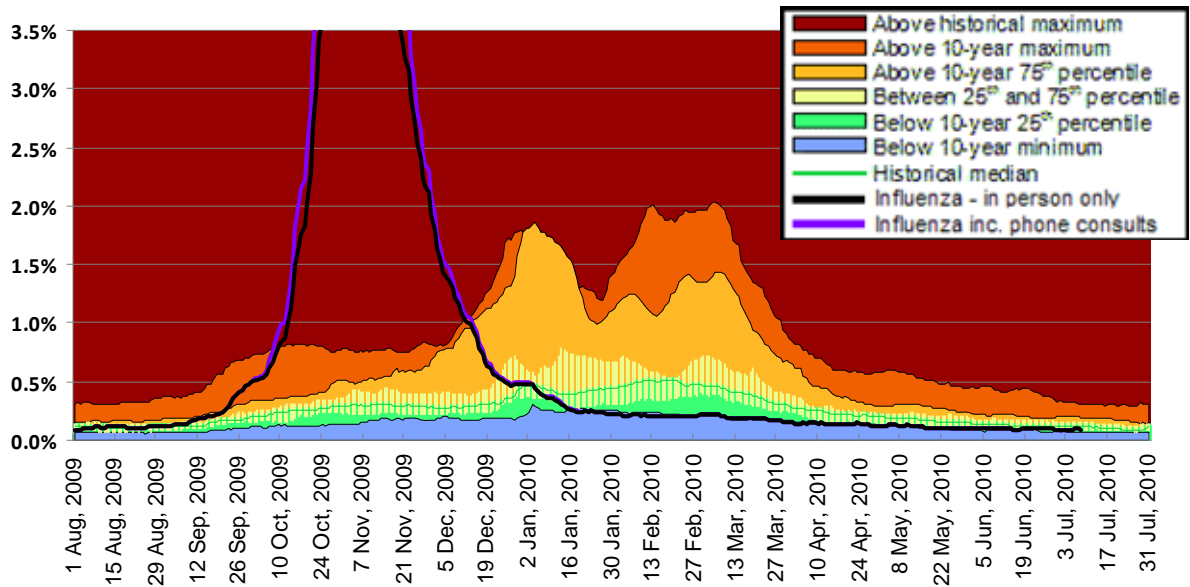
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## Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also remained low in the last six weeks. Proportions in all 5 RHAs remain at or below historical medians. To better reveal current low-level trends, the ~9% peak in MSP claims of late October/early November is not shown in the graphs below (consult earlier bulletins).

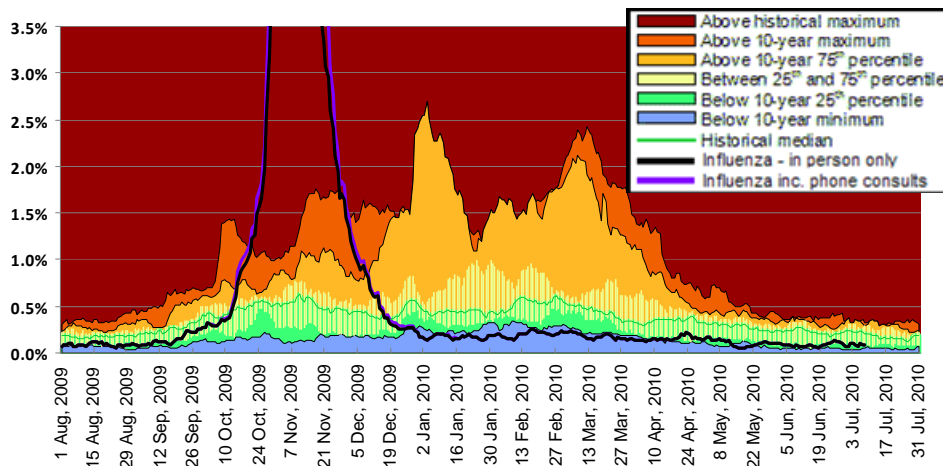
Influenza Illness Claims\* British Columbia



\* 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, Ministry of Healthy Living & Sport

**Notes:** MSP week 27 Sep 2009 corresponds to sentinel ILI week 39.  
Data current to July 8, 2010

## Northern

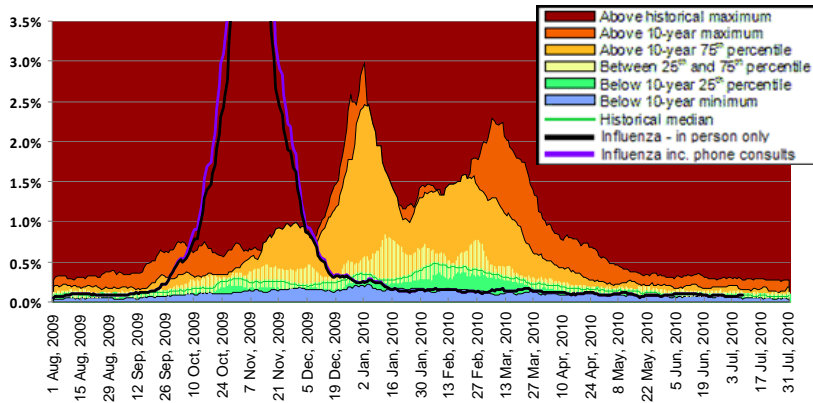


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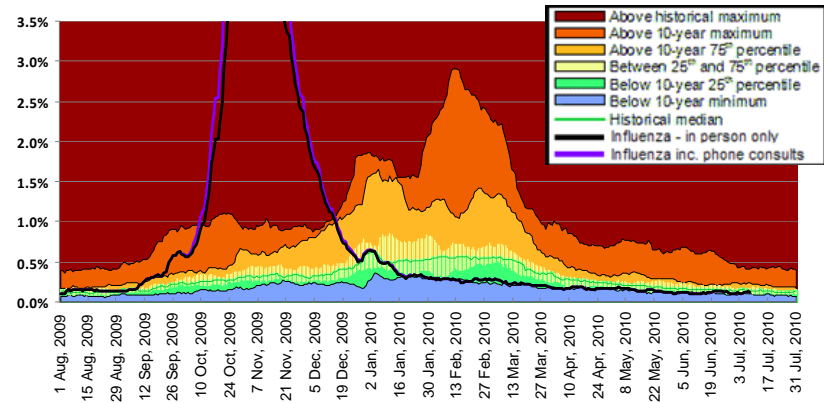
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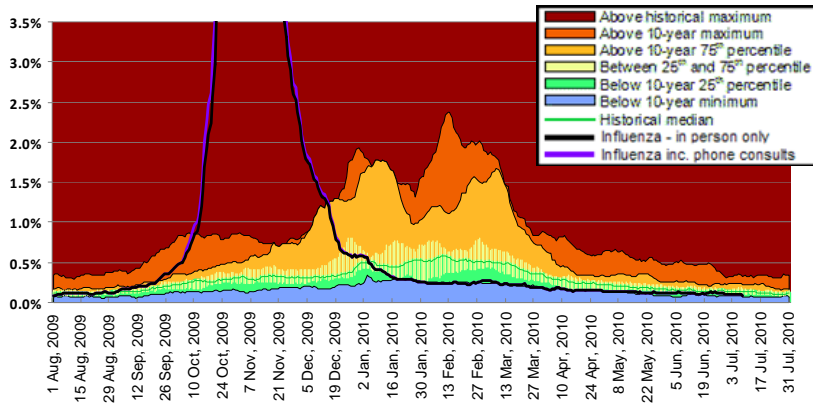
### Interior



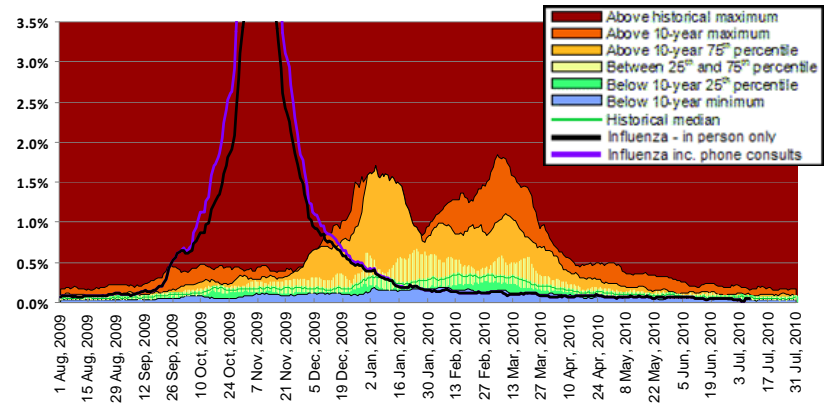
### Vancouver Coastal



### Fraser



### Vancouver Island



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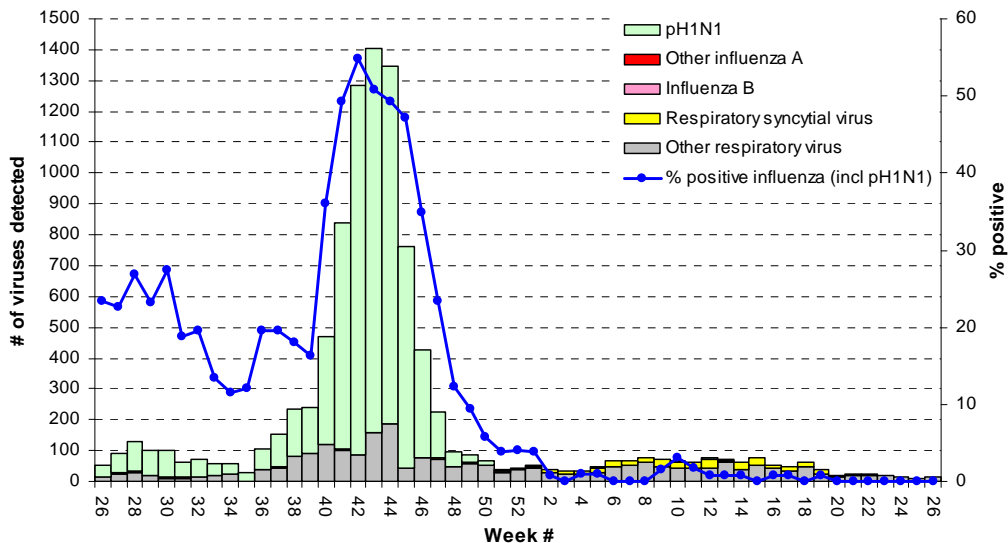
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## Laboratory Reports

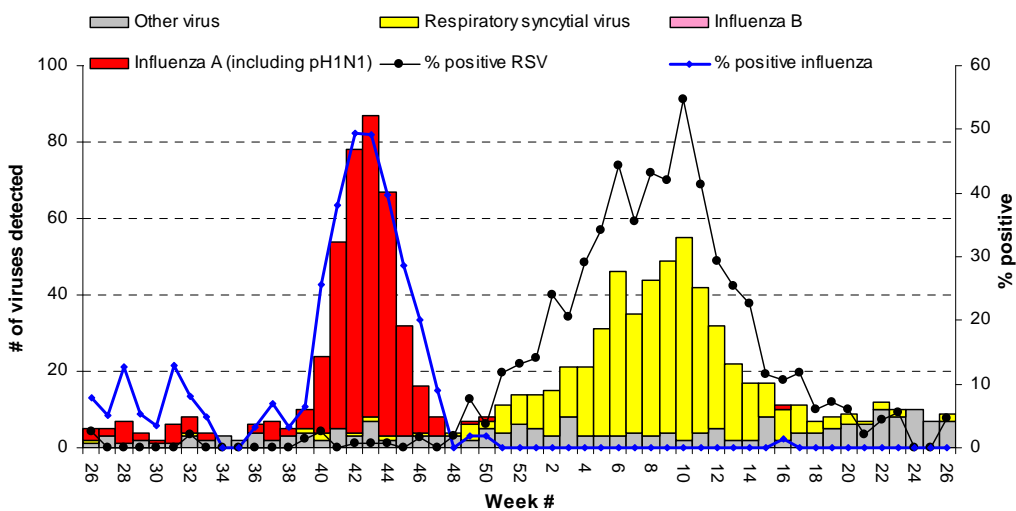
Two hundred sixty-eight respiratory specimens were tested at the BC Provincial Laboratory in weeks 21-26. None was positive for influenza. Since September 1, 2009, >99% of all influenza detections in BC have been pandemic influenza A/H1N1 (pH1N1). To date, detections of other seasonal influenza viruses over the same period have been limited (14 out of 6569 influenza detections in total). In weeks 21-26, of 268 specimens tested for other respiratory viruses, 65 (21%) tested positive for rhino/enterovirus, 13 (4%) for parainfluenza, 10 (3%) for RSV, 5 (2%) for coronavirus, 5 (2%) for human bocavirus, 3 (1%) for adenovirus, and 2 (1%) for human metapneumovirus.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Provincial Laboratory, 2009-2010**



During weeks 21-26, BC Children's and Women's Health Centre Laboratory tested 252 respiratory specimens. None was positive for influenza. Thirty-six specimens (14%) tested positive for parainfluenza, 12 (5%) for adenovirus, and 7 (3%) for RSV.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2009-2010**



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

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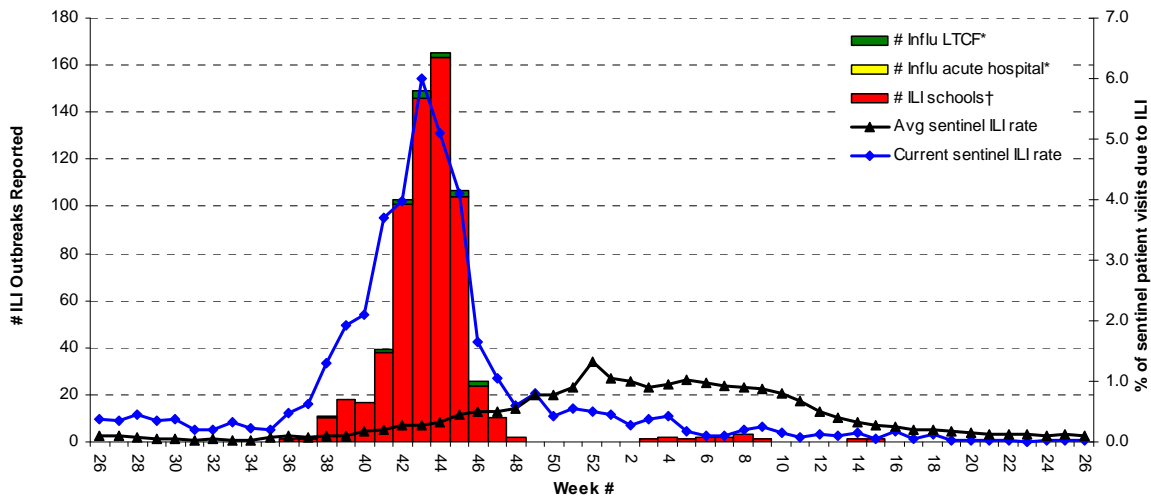
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## ILI Outbreaks

No lab-confirmed influenza outbreaks were reported in facilities and no ILI outbreaks were reported in schools in BC during weeks 21-26.

**Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 19 years, per Week, British Columbia, 2009-2010**



\* 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.

## CANADA

### FluWatch

During weeks 25 and 26 (June 20 to July 3), influenza activity in Canada remained low. The sentinel ILI rate was 8 per 1000 patient-visits in week 25 and 3 per 1000 patient-visits in week 26, which is within the expected range for this time of year. Two influenza detections were reported nationally (< 1% of respiratory specimens tested); both were influenza A/not subtyped and from Québec. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

### NML: Strain Characterization

Between September 1, 2009 and May 5, 2010, 868 influenza isolates (851 pandemic H1N1 and 17 seasonal influenza) were collected from provincial and hospital labs and characterized at the NML:

851 A/California/07/2009 (H1N1)-like<sup>§</sup> from BC, AB, SK, MB, ON, QC, NB, NS, PEI, NL, & NT;

3 A/Brisbane/59/2007 (H1N1)-like<sup>†</sup> from AB & QC;

2 A/Brisbane/10/2007 (H3N2)-like<sup>†</sup> from BC & QC;

8 A/Perth/16/2009 (H3N2)-like<sup>‡</sup> from BC, AB, & QC;

2 B/Brisbane/60/2008 (Victoria lineage)-like<sup>†</sup> from ON;

1 B/Florida/04/2006 (Yamagata lineage)-like\* from QC;

1 B/Malaysia/2506/2004 (Victoria lineage)-like<sup>#</sup> from ON.

<sup>§</sup> A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for the pandemic influenza A/H1N1 vaccine

<sup>†</sup> indicates a strain match to the 2009-10 northern hemisphere trivalent influenza vaccine

<sup>‡</sup> indicates a strain match to the recommended H3N2 component of the 2010-11 northern hemisphere trivalent influenza vaccine

\* indicates a strain match to the influenza B component of the 2008-09 northern hemisphere trivalent influenza vaccine

<sup>#</sup> indicates a strain match to the influenza B component of the 2007-08 northern hemisphere trivalent influenza vaccine

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## **National Microbiology Laboratory (NML): Antiviral Resistance**

Drug susceptibility testing at the NML between September 1, 2009 and May 6, 2010 indicated that 99% (1067/1079) of pH1N1 isolates were sensitive to oseltamivir. All influenza B isolates (n=4) and influenza A/H3N2 isolates (n=13) tested were sensitive to oseltamivir, and the 6 seasonal A/H1N1 isolates tested were oseltamivir-resistant. All pH1N1 (n=1057), seasonal H1N1 (n=2), A/H3N2 (n=13), and influenza B (n=4) isolates were sensitive to zanamivir. All pH1N1 (n=1136) and A/H3N2 (n=24) isolates were resistant to amantadine. Four seasonal H1N1 isolates were sensitive to amantadine, and one was resistant. Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide.

## **INTERNATIONAL**

Elsewhere in the northern hemisphere, influenza detections have been sporadic in recent weeks with low levels of ILI activity reported throughout North America and Europe. Overall pandemic and seasonal influenza activity also remains low in temperate regions of the southern hemisphere. Although rates of respiratory illness have shown signs of increase in recent weeks in several southern hemisphere countries, influenza detections have been limited. The predominant influenza viruses among those detected and characterized have been seasonal influenza A/H3N2 and B in South Africa, pH1N1 and seasonal A/H3N2 in Australia, and pH1N1 in Chile and Brazil.

[www.who.int/csr/don/2010\\_07\\_09/en/index.html](http://www.who.int/csr/don/2010_07_09/en/index.html)

[www.pandemia.cl](http://www.pandemia.cl)

[www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm](http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm)

[www.surv.esr.cri.nz/virology/influenza\\_weekly\\_update.php](http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php)

## **WHO Recommendations for 2010-11 Northern Hemisphere Influenza Vaccine**

On February 18, the WHO announced the recommended strain components for the 2010-11 Northern Hemisphere trivalent influenza vaccine:

A/California/7/2009 (H1N1)-like virus

A/Perth/16/2009 (H3N2)-like virus

B/Brisbane/60/2008 (Victoria lineage)-like virus

A/California/7/2009 (H1N1) is the recommended component for pandemic H1N1 vaccines produced and administered in 2009-10. The recommended H3N2 virus has changed from the previous year's vaccine (A/Brisbane/10/2007), while the recommended B virus remains unchanged (B/Brisbane/60/2008). For further details, see: [www.who.int/csr/disease/influenza/recommendations2010\\_11north/en/index.html](http://www.who.int/csr/disease/influenza/recommendations2010_11north/en/index.html)

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## Contact Us:

### Epidemiology Services : BC Centre for Disease Control (BCCDC)

655 W. 12<sup>th</sup> Ave, Vancouver BC V5Z 4R4. Tel: (604) 707-2510 / Fax: (604) 707-2516. [InfluenzaFieldEpi@bccdc.ca](mailto:InfluenzaFieldEpi@bccdc.ca)

## 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.eiss.org](http://www.eiss.org)

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.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm](http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.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. Pandemic H1N1 Influenza Web Sites

BCCDC: [www.bccdc.ca/dis-cond/a-z/\\_h/HumanSwineFlu/default.htm](http://www.bccdc.ca/dis-cond/a-z/_h/HumanSwineFlu/default.htm)

BC Provincial Government: [www.gov.bc.ca/h1n1/](http://www.gov.bc.ca/h1n1/)

BC H1N1 Pandemic Response Plan: [www.health.gov.bc.ca/pandemic/response/index.html](http://www.health.gov.bc.ca/pandemic/response/index.html)

PHAC: [www.phac-aspc.gc.ca/alert-alerte/swine\\_200904-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php)

US CDC: [www.cdc.gov/swineflu/index.htm](http://www.cdc.gov/swineflu/index.htm)

WHO: [www.who.int/csr/disease/swineflu/en/index.html](http://www.who.int/csr/disease/swineflu/en/index.html)

### 4. 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) or fax to (604) 707-2516

**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.

## SECTION A: Reporting Information

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*)

## SECTION 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): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

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

## SECTION C: Update AND Outbreak Declared Over

Date of onset for most recent case of ILI (dd/mm/yyyy): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

If over, date outbreak declared over (dd/mm/yyyy): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

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

## SECTION D: Laboratory Information

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

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