

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2009-10: Number 30, Weeks 33-35

August 15 to September 4, 2010



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Influenza Activity Remains Low in BC

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### Summary

In weeks 33 through 35 (August 15 - September 4), influenza-like illness (ILI) activity in BC remained low. Sentinel physician indicators remained consistent with low levels observed in previous weeks. No influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 97 respiratory specimens were tested between August 15 and September 4, 31 (32%) of which were positive for rhino/enterovirus. One influenza A/H3N2 virus (week 34) was detected. Of 89 specimens tested at BC Children's Hospital Laboratory, one was positive for influenza (A/H3N2). Other non-influenza respiratory viruses were sporadically detected at both labs during this period. In the southern hemisphere, rates of respiratory illness have fluctuated in recent weeks, with regionally intense activity (India, Australasia) and low levels of activity in others. 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 September 9, 2010*

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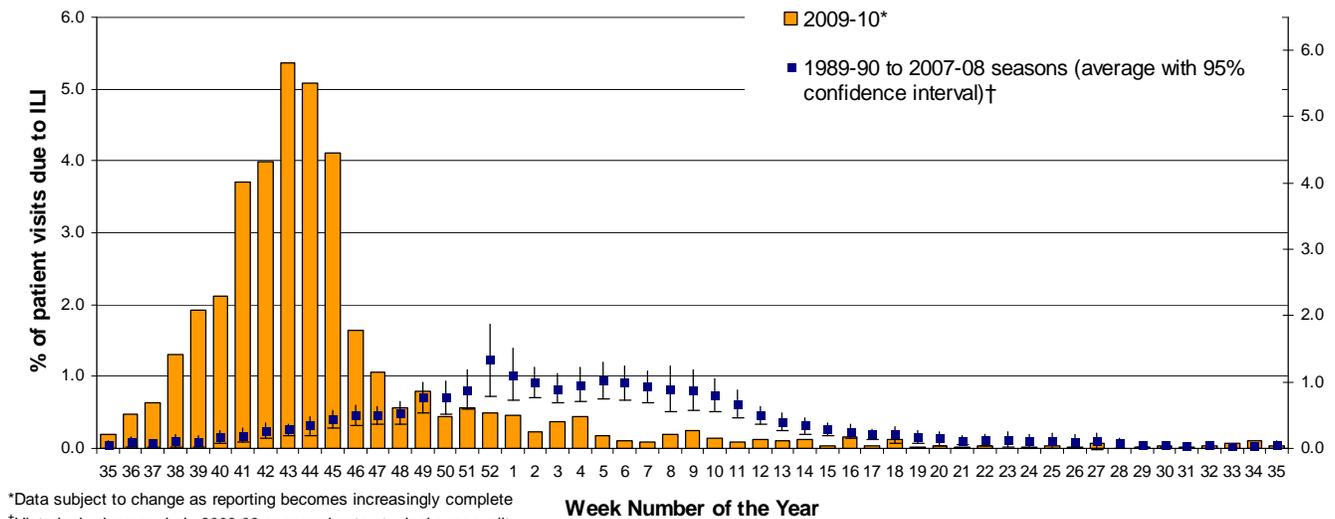
August 15 to September 4, 2010

## British Columbia

### Sentinel Physicians

During weeks 33-35, less than 0.2% of patients presenting to sentinel physicians had ILI, which is consistent with the expected range for this time of year. Forty-nine percent (24/49) of sentinel physician sites have reported to-date for week 33, 47% (23/49) for week 34, and 49% (24/49) for week 35.

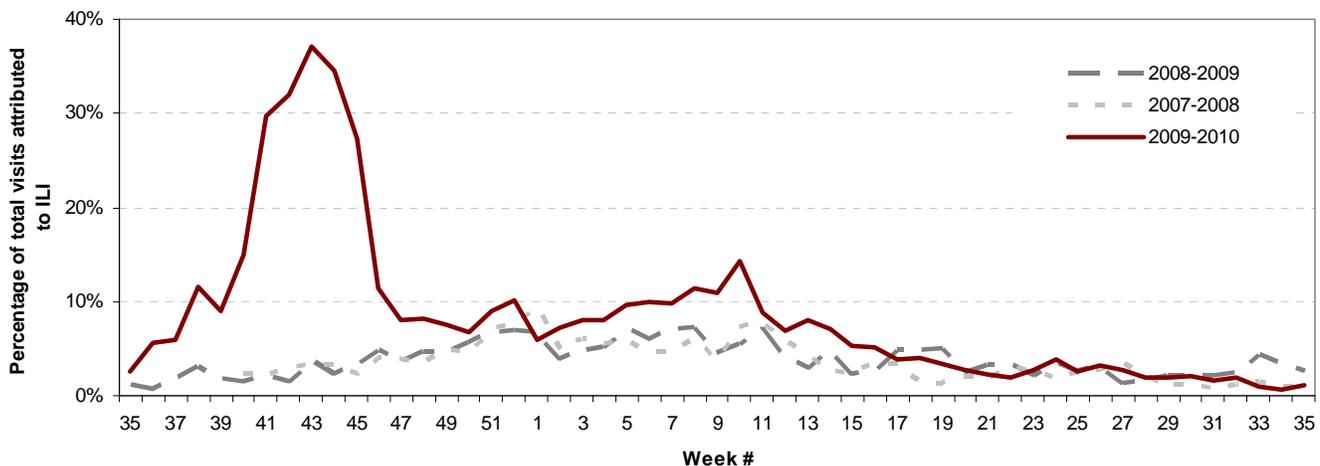
**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2009-2010**



### 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 (<2%) in weeks 33-35, 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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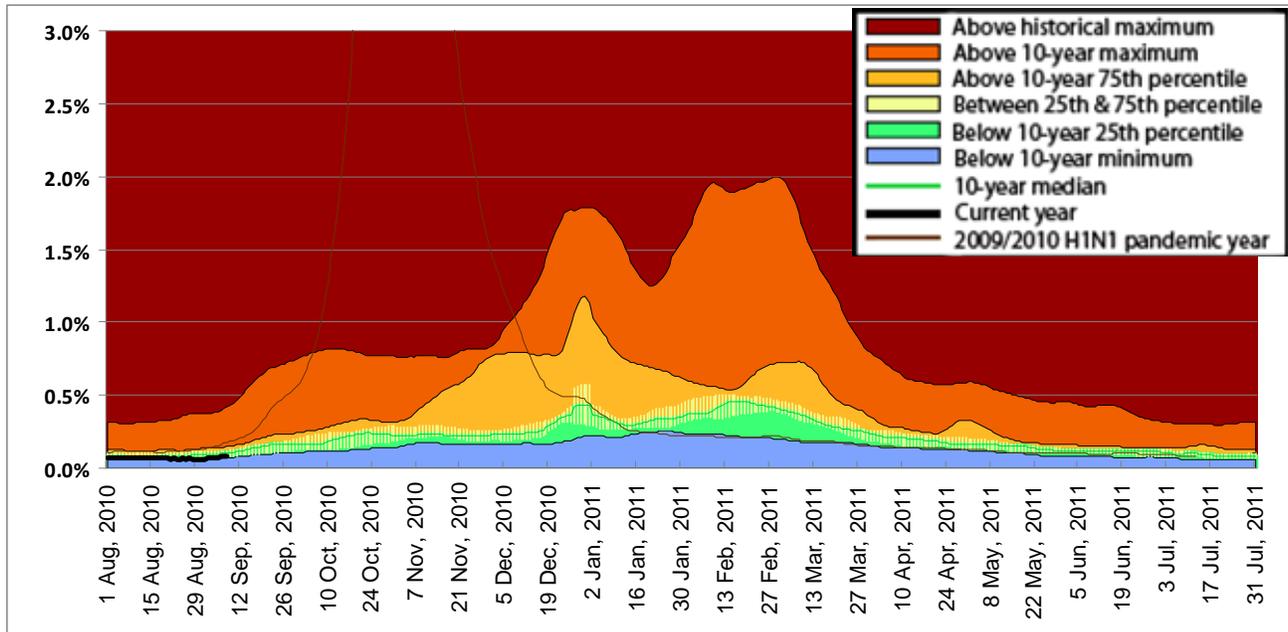
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## Medical Services Plan

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 2009 is not shown in the graphs below (consult earlier bulletins).

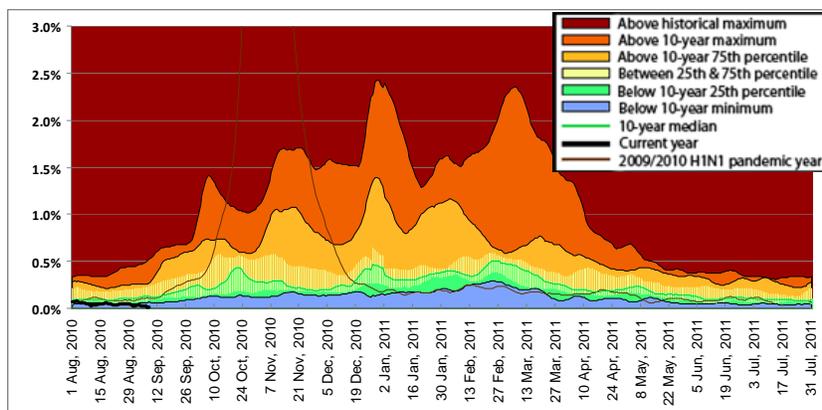
### Influenza Illness Claims\* British Columbia



\* 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 26 Sep, 2010 corresponds to sentinel ILI week 39.  
Data current to Sep 8, 2010

### Northern

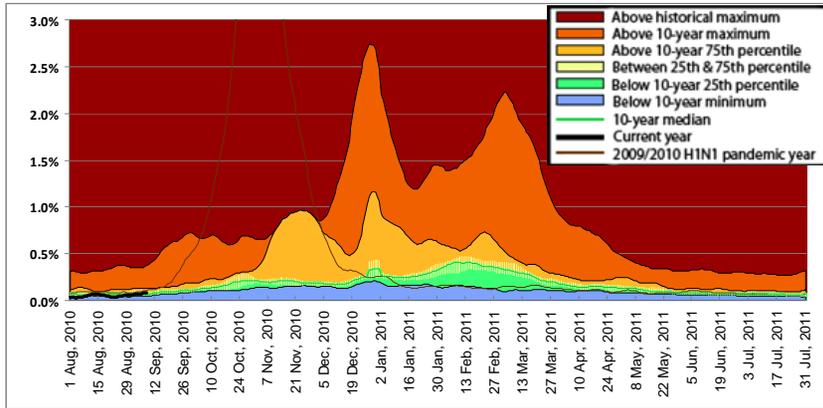


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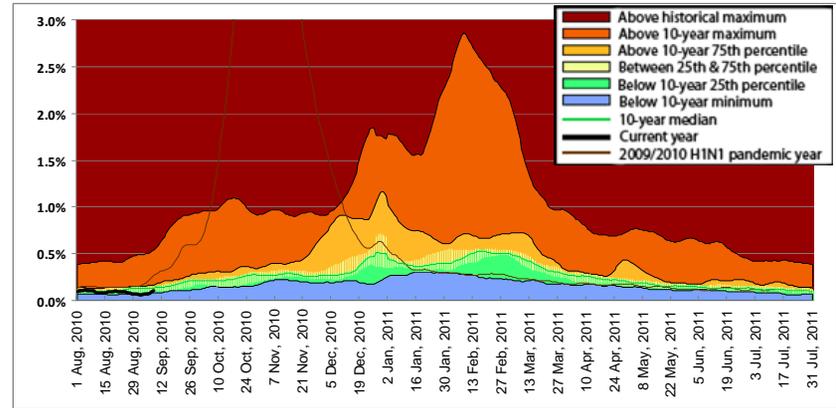
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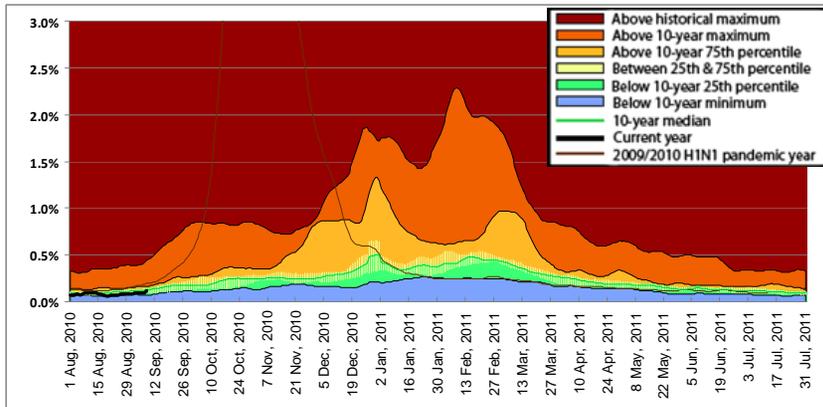
### Interior



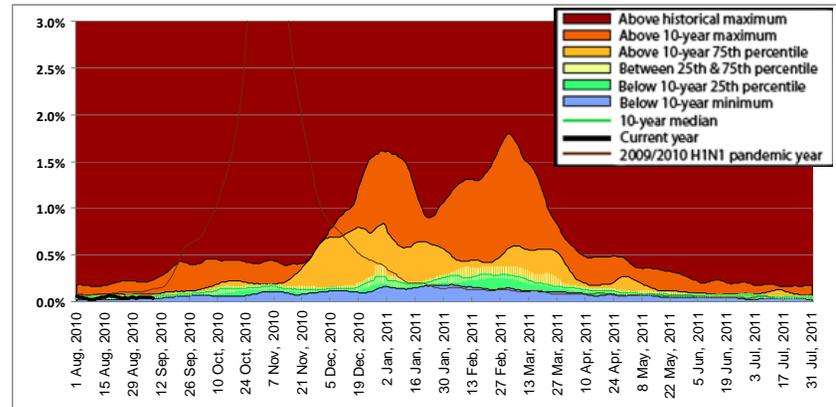
### Vancouver Coastal



### Fraser



### Vancouver Island



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

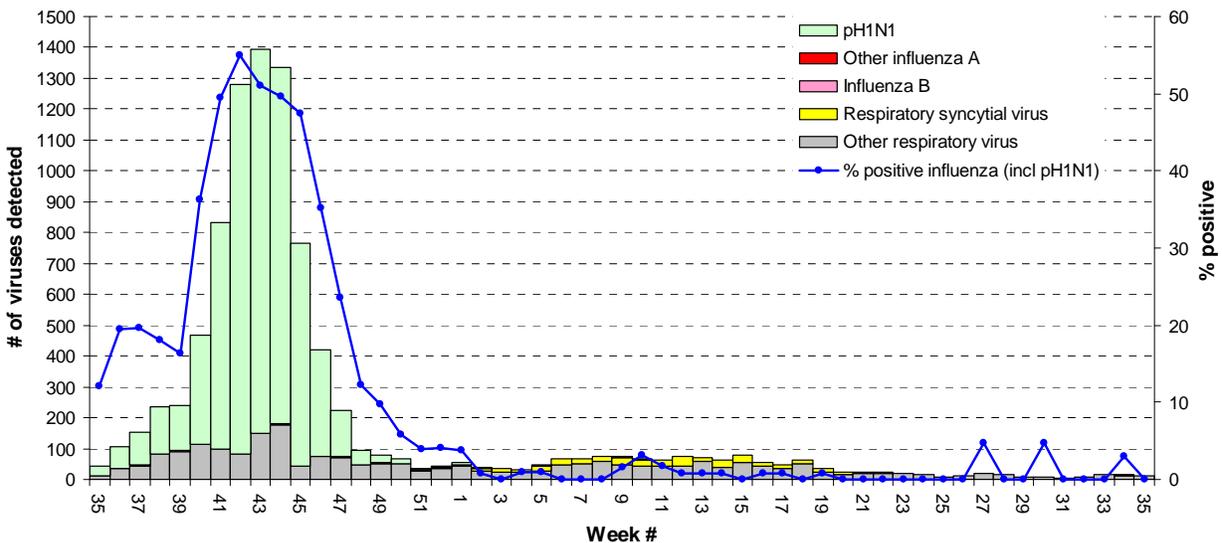
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## Laboratory Reports

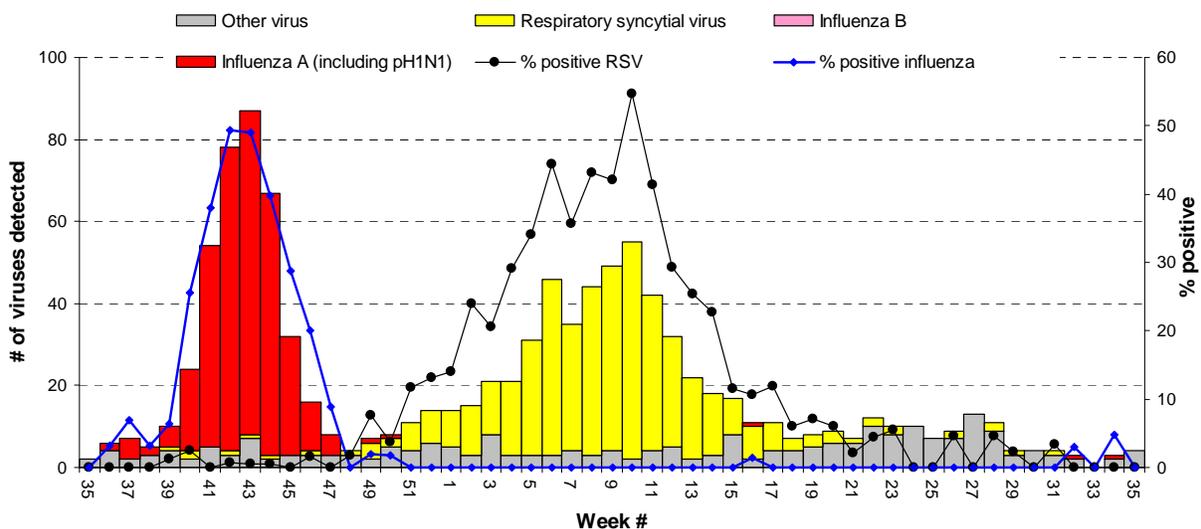
Ninety-seven respiratory specimens were tested at the BC Provincial Laboratory in weeks 33-35. One was positive for influenza (A/H3N2, week 34). Since September 1, 2009, >99% of all influenza detections in BC were pH1N1. To date, detections of other seasonal influenza viruses over the same period have been limited (17 out of 6573 influenza detections in total), although the most recent sporadic detections do include seasonal H3N2 virus. In weeks 33-35, of 97 specimens tested for other respiratory viruses, 31 (32%) tested positive for rhino/enterovirus, 3 (3%) for parainfluenza, 3 (3%) for adenovirus, 1 (1%) for coronavirus, 1 (1%) for human bocavirus, and none for either human metapneumovirus or RSV.

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



During weeks 33-35, BC Children's and Women's Health Centre Laboratory tested 89 respiratory specimens. One (1%) was positive for influenza A/H3N2. Four specimens (4%) were positive for adenovirus, 2 (2%) for parainfluenza, and none 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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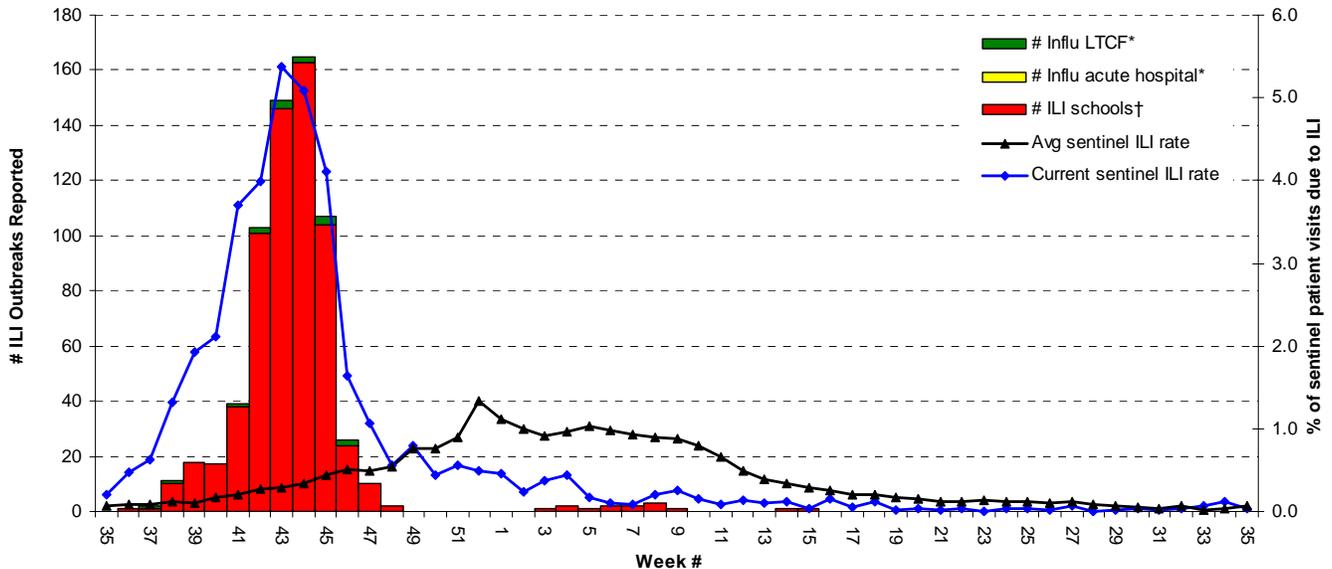
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## ILI Outbreaks

No lab-confirmed influenza outbreaks were reported in facilities and no ILI outbreaks were reported in schools in BC during weeks 33-35.

**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 33 and 34 (August 15 to 28, 2010), influenza activity in Canada remained low. The sentinel ILI rate remained low, within the expected range for this time of year. No influenza outbreaks were reported. Seven specimens (out of 1,522 or 0.46%) tested positive for influenza in weeks 33-34: four A/H3N2, and three unsubtype influenza A. Those specimens were reported from BC, AB, ON and QC. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

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## National Microbiology Laboratory (NML): Strain Characterization

*No new strain characterization updates have been issued by NML since May 2010.*

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

## NML: Antiviral Resistance

*No new antiviral resistance updates have been issued by NML since May 2010.*

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

To the end of August, worldwide, pH1N1 virus transmission remained most intense in parts of India and in parts of the temperate southern hemisphere, particularly New Zealand and in Australia. Throughout the northern hemisphere, and overall, low levels of ILI and influenza detections have been observed in recent weeks. Co-circulation of pandemic A(H1N1), A(H3N2) and influenza B viruses was reported from Australia, China, Chile and India. Globally the majority of the sub-typed influenza A viruses were pandemic influenza A(H1N1). This is the predominant virus in Australia, New Zealand and India. Elsewhere sporadic activity of pandemic influenza A(H1N1), influenza B and/or A(H3N2) was detected in some countries.

[http://www.who.int/csr/don/2010\\_08\\_27/en/index.html](http://www.who.int/csr/don/2010_08_27/en/index.html)

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

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.htm>

## 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)

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## 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. This Report On-line: [www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm)

