

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 9, Week 2

January 9 to 15, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Slight increase in influenza activity in BC

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### Summary

During week 2 (January 9 – 15, 2011), influenza surveillance indicators in BC (sentinel physician ILI rate and MSP influenza visits) showed slight increase while remaining below historic levels for this time of year. At the BC Public Health Microbiology & Reference Laboratory, 126 respiratory specimens were tested. Influenza A was detected in 25 (20%) specimens: pandemic influenza A/H1N1 in 19 (15%) and A/H3N2 in 6 (5%). Influenza B was detected in 5 (4%) specimens.

For your information, an updated influenza antiviral guidance document entitled "The Use of Antiviral Drugs for Influenza: Guidance for Practitioners, 2010-11" has recently been posted on the Association of Medical Microbiology and Infectious Disease, Canada (AMMI Canada) website available at the following link: [www.ammi.ca/index.php](http://www.ammi.ca/index.php). This document is also available on the Public Health Agency of Canada FightFlu.ca website at: [www.fightflu.ca/health\\_professionals-eng.html](http://www.fightflu.ca/health_professionals-eng.html)

*Report disseminated January 20, 2011*

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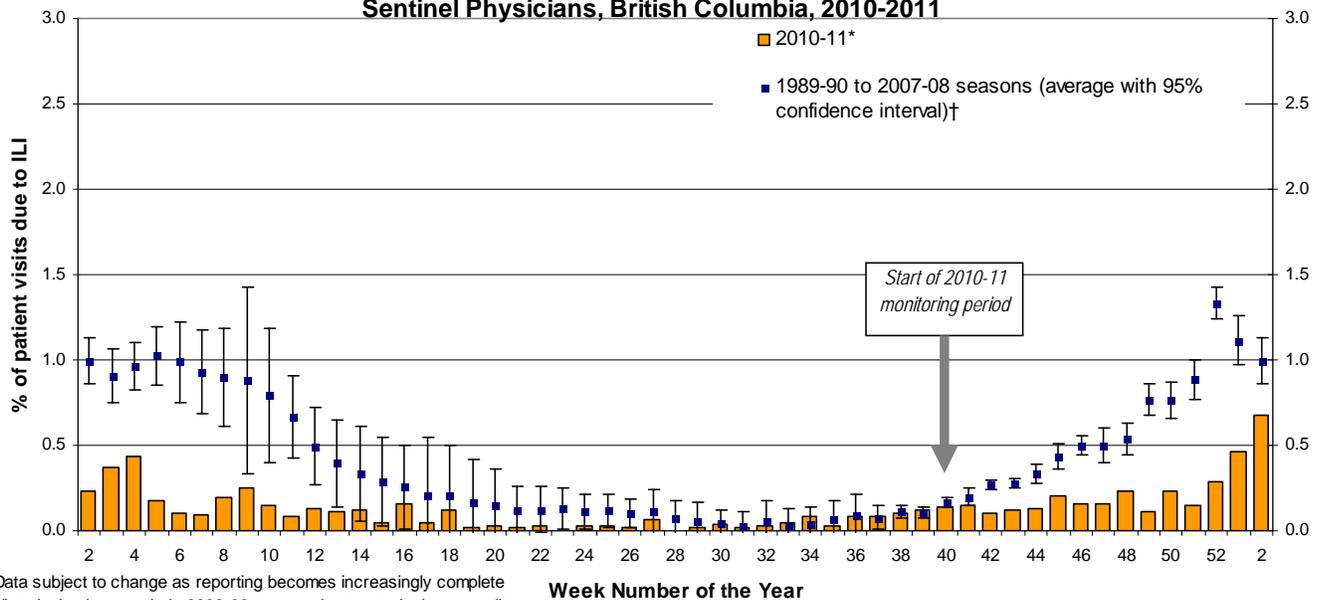
January 9 to 15, 2011

## British Columbia

### Sentinel Physicians

During week 2, ~ 0.7% of patients presenting to sentinel physicians had ILI, which is slightly higher than last week but still below the expected range for this time of year. Fifty-four percent (25/46) of sentinel physician sites have reported to-date for week 2.

**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, 2010-2011**



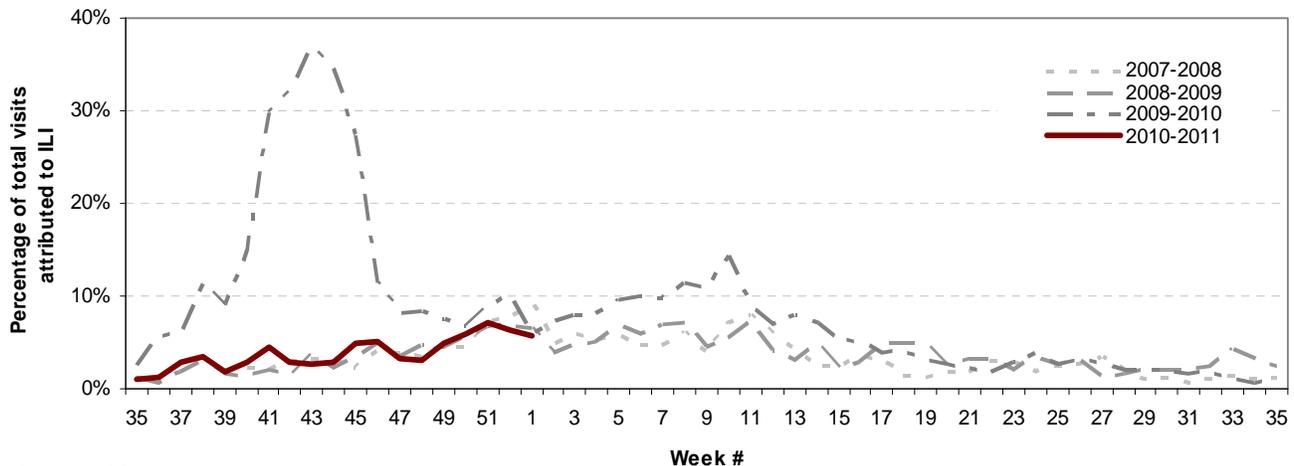
\*Data subject to change as reporting becomes increasingly complete

†Historical values exclude 2008-09 season due to atypical seasonality.

### BC Children's Hospital Emergency Room

Data from BC Children's Hospital ER for week 2 is pending. The graph below reflects the most recent data available. The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness decreased slightly from 6.3% in week 52 to 5.8% towards the end of week 1 and remains 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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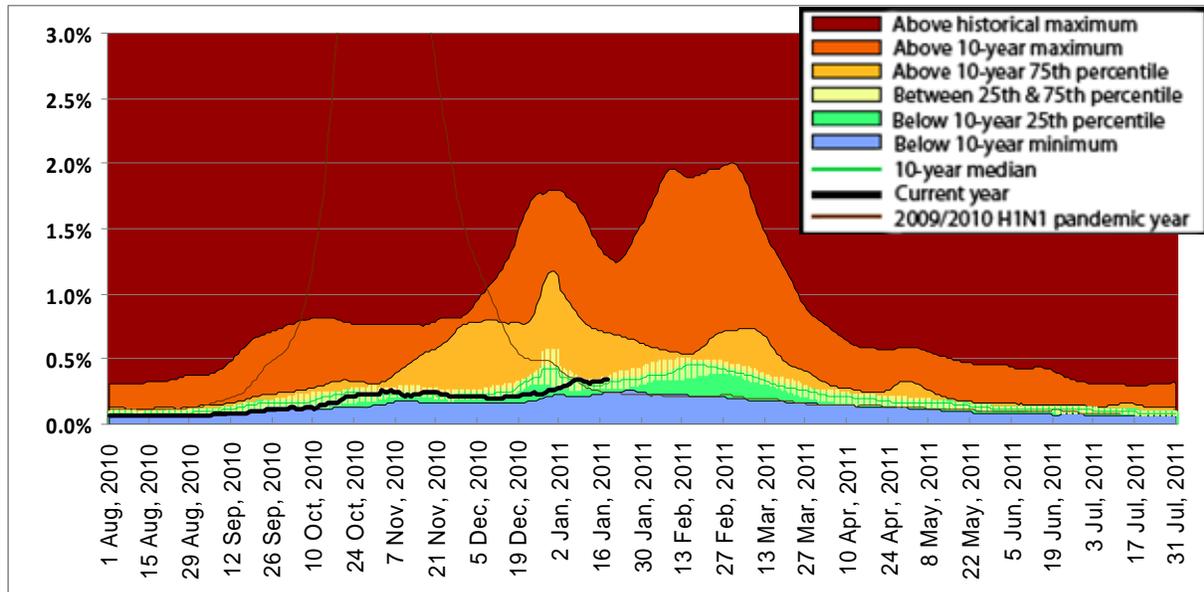
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## Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also showed slight increase being at or above 10-year medians provincially and in Vancouver Coastal, Fraser and Vancouver island HAs while being below the 10-year median in Interior and Northern. 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).

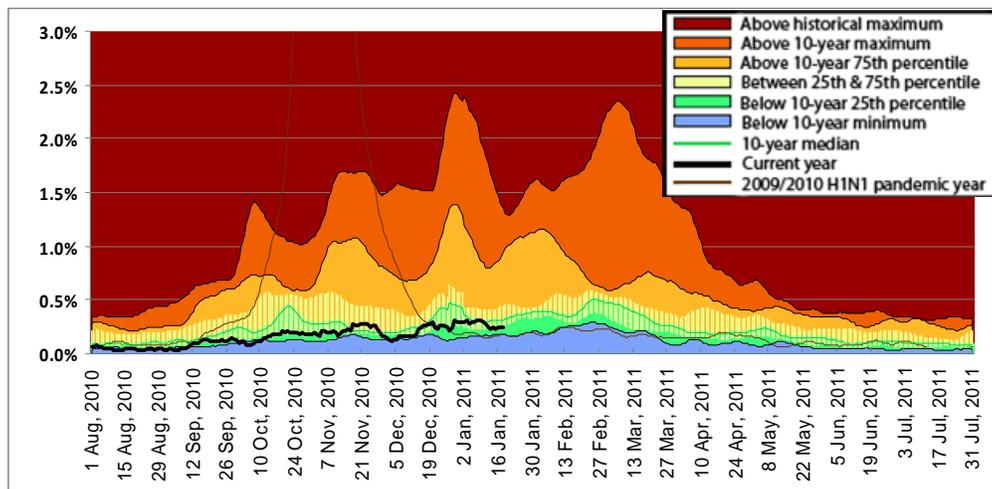
### Influenza Illness Claims\* British Columbia



\* 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 Health Services

**Notes:** MSP week beginning 16 Jan 2010 corresponds to sentinel ILI week 03.  
Data current to Jan 18, 2011

### Northern

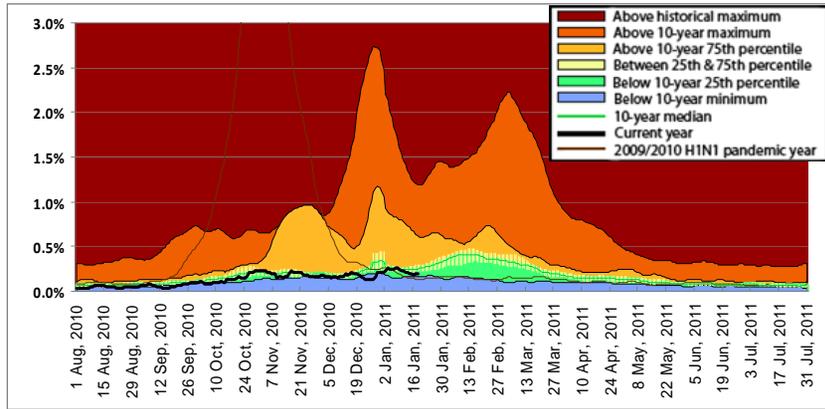


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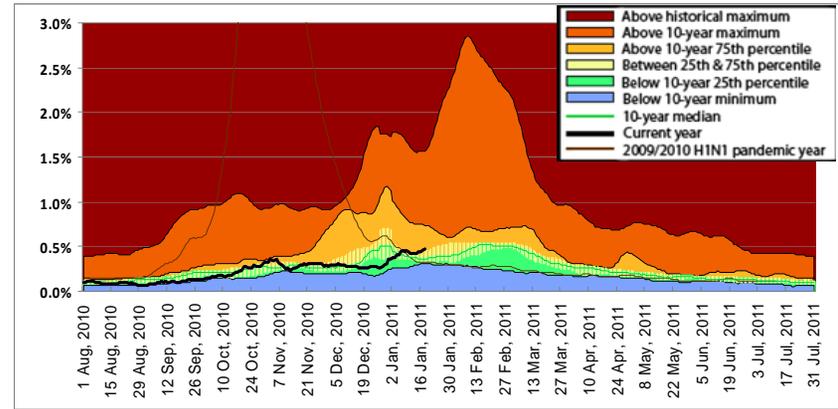
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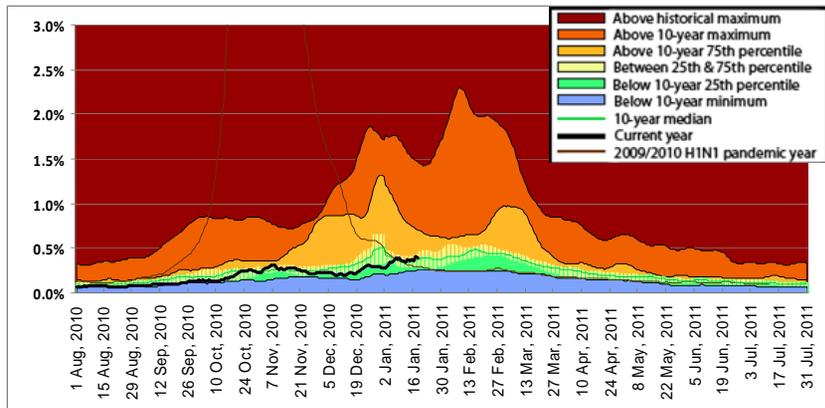
### Interior



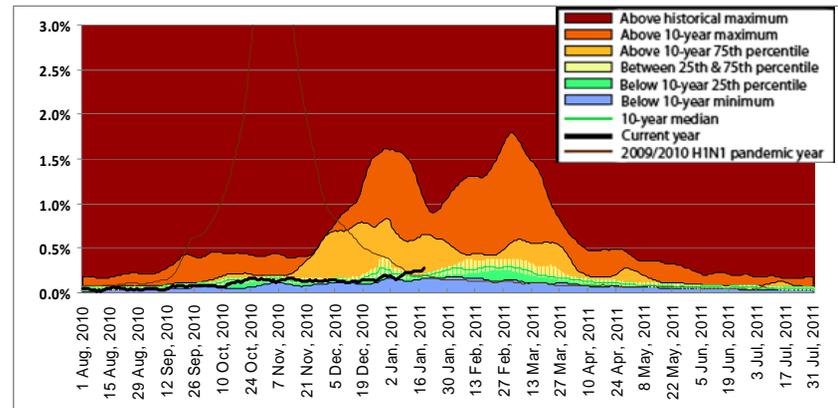
### Vancouver Coastal



### Fraser



### Vancouver Island



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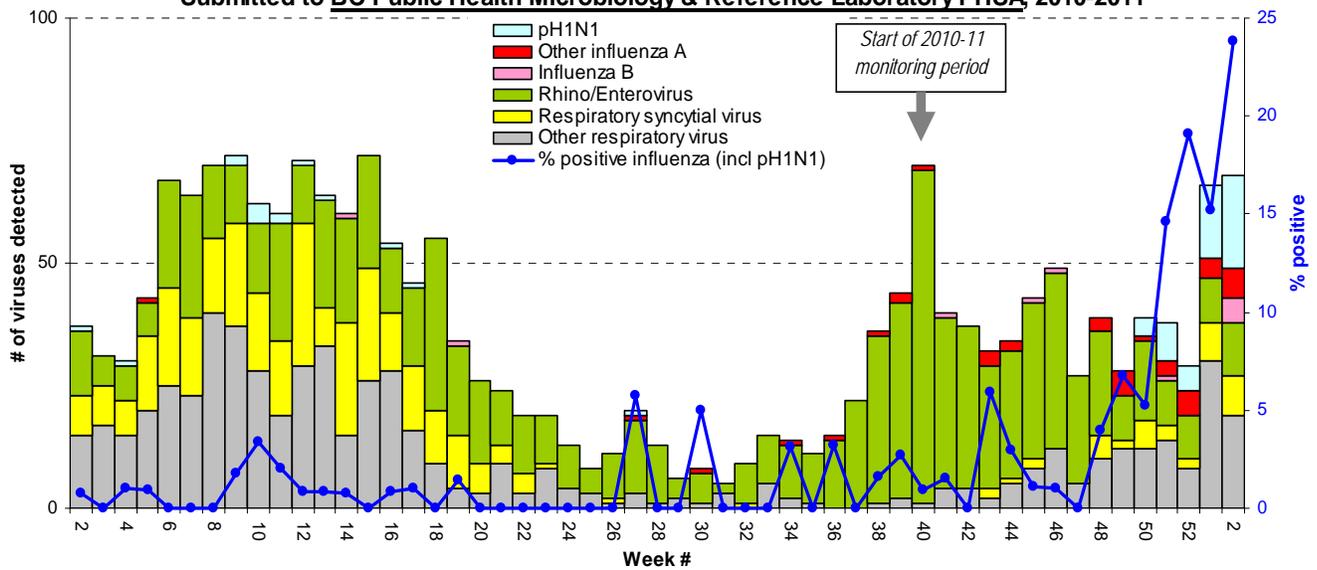
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## Laboratory Reports

One hundred and twenty-six respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory in week 2. Influenza was detected in 30 (24%) submitted specimens. Nineteen of these (15% of submitted specimens) were pandemic A/H1N1, 6 (5%) were A/H3N2, and 5 (4%) were type B. During this week, of 126 specimens tested for other respiratory viruses, 11 (9%) were positive for rhino/enterovirus, 10 (8%) for parainfluenza, and 8 (6%) for RSV. Other respiratory viruses were also sporadically detected.

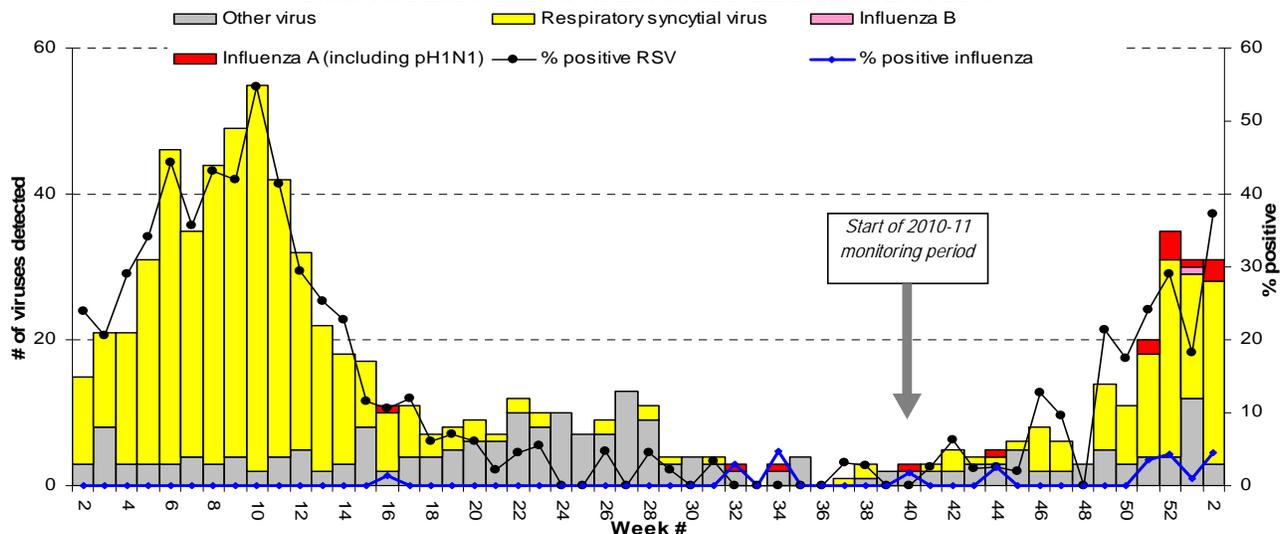
**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory PHSA, 2010-2011**



Before week 14 testing for other viruses was performed on a subset of specimens.

During week 2, BC Children's and Women's Health Centre Laboratory tested 67 respiratory specimens. Three (4.5%) were positive for influenza A. Twenty five specimens (37.3%) were positive for RSV, and 3 (4.5%) for adenovirus.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2010-2011**



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

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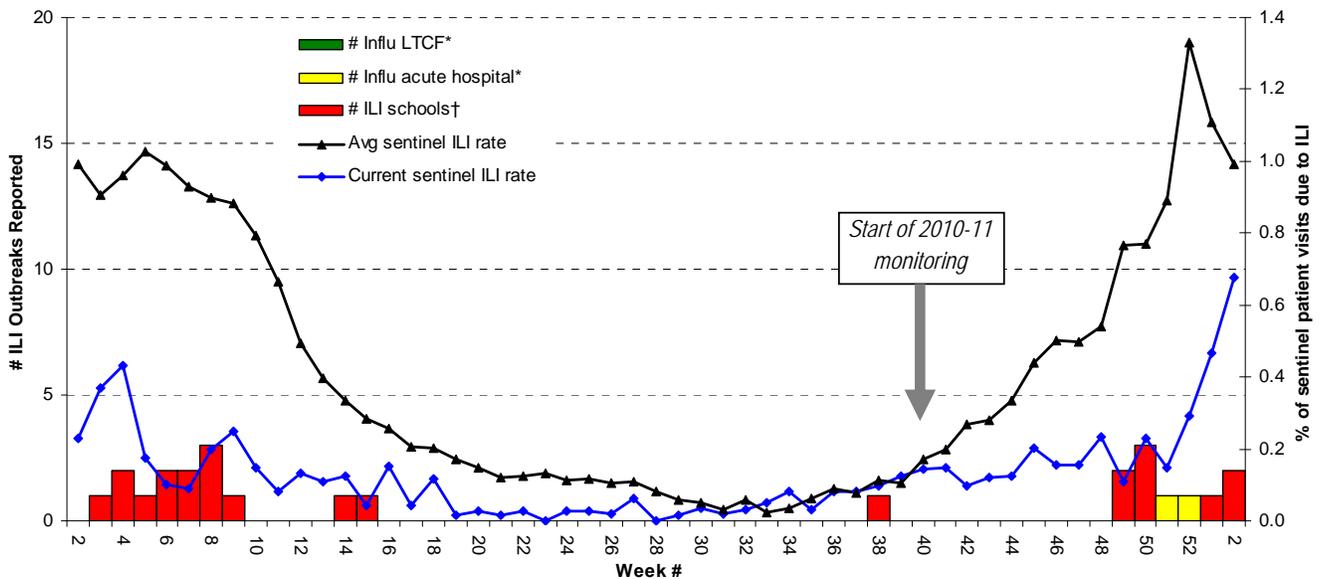
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## ILI Outbreaks

During week 2, two new ILI outbreaks were reported from two elementary schools in Vancouver Coastal Health and Northern Health.

**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, 2010-2011 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.

## CANADA

### FluWatch

During week 1 ending January 8, 2011, influenza activity in Canada had continued to increase across the country. The influenza-like illness (ILI) consultation rate remained within the expected range for this time of year. One thousand eight hundred and seventy-nine specimens (25.5% in week 1) tested positive for influenza, a slight increase from the previous week (24.6%): 473 A/H3N2, 1326 unsubtype influenza A, 44 pandemic H1N1, and 36 influenza B. Specimens were reported from all provinces but influenza A activity was mainly concentrated in ON, QC and AB. During week 1, 23 new paediatric hospitalizations and 100 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks. This is a decrease over previous weeks. In Ontario, during week 1, 727 influenza laboratory confirmed cases were detected with 36% positivity; an increase from the previous week. However, the overall ILI consultation rate has decreased from 105/1,000 patient visits in Week 52 to 52/1,000 patient visits in Week 1. In Quebec during week 1, 712 (25%) of 2867 tested specimens were positive for influenza. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

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

Between September 1, 2010 and January 13, 2011, One hundred and twenty-one influenza isolates were collected from provincial and hospital labs and characterized at the NML:

79 A/Perth/16/2009 (H3N2)-like<sup>†</sup> from QC, ON, MN, SK, AB & BC;

21 A/California/07/2009 (H1N1)-like\* from ON, AB & BC;

20 B/Brisbane/60/2008 (Victoria lineage)-like<sup>†</sup> from QC, ON, SK, AB & BC;

1 B/Florida/04/2006-like (Yamagata lineage)-like<sup>‡</sup> from BC

<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 recommended H1N1 component of the 2010-11 northern hemisphere trivalent influenza vaccine

<sup>†</sup> indicates a strain match to the recommended influenza B component of the 2010-2011 northern hemisphere trivalent influenza vaccine

<sup>‡</sup> indicates a strain match to the recommended influenza B component of the 2008-2009 northern hemisphere trivalent influenza vaccine

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## NML: Antiviral Resistance

Drug susceptibility testing at the NML between September 1, 2010 and January 13, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates (64 A/H3N2, 20 pH1N1, 21 type B) tested for zanamivir and oseltamivir resistance showed susceptibility.

For your information, an updated influenza antiviral guidance document entitled "The Use of Antiviral Drugs for Influenza: Guidance for Practitioners, 2010-11" has been posted on the Association of Medical Microbiology and Infectious Disease, Canada (AMMI Canada) website available at the following link: [www.ammi.ca/index.php](http://www.ammi.ca/index.php). This document is also available on the Public Health Agency of Canada FightFlu.ca website at: [www.fightflu.ca/health\\_professionals-eng.html](http://www.fightflu.ca/health_professionals-eng.html)

## INTERNATIONAL

**Northern Hemisphere:** US CDC report for week 2 is pending. During week 1 ending January 8, 2011, influenza activity had decreased slightly in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Seven hundred and six specimens (out of 4,331, or 16.3%) tested positive for influenza in week 1: 40 pandemic H1N1, 164 A/H3, 317 untyped influenza A, and 185 type B. The proportion of ILINet physician visits for ILI was 2.2%, which was above the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold in the USA.

As of January 14, the United Kingdom continues to report high rates of ILI and influenza-related hospitalizations. Approximately 25% of intensive care beds are occupied by influenza cases and 112 influenza-related deaths have been reported. Of the fatal cases, 95% were pH1N1 related and 78% had an underlying risk condition. The majority of severe and fatal cases were between ages of 15 and 64 years, similar to the pattern seen in the rest of Europe. Also, 2% of the tested pH1N1 viruses were found to carry the H275Y mutation which confers resistance to oseltamivir. In other European countries such as France, Portugal, the Netherlands, and Denmark, numbers of pH1N1 related hospitalizations and deaths and type B cases have increased. Overall in Europe, pH1N1 remains the dominant strain, co-circulating with A/H3N2 and type B. In North Africa and the Middle East, several countries reported increases in influenza activity. Morocco, Algeria, and Tunisia reported modestly higher levels of influenza, mainly type B, in the last 2 to 3 weeks. Circulation of pH1N1 was reported in Egypt, associated with 122 deaths since October. Iran and Pakistan also had a steady increase in influenza, mainly pH1N1. In North Asia (including Mongolia, northern China, the Republic of Korea, and Japan) slight increases in respiratory disease activity were reported in recent weeks. The increase in activity was associated with A/H3N2 in Mongolia and northern China, but had peaked in late December. Japan had earlier detections of A/H3N2 but pH1N1 has become the predominant virus. The Republic of Korea reported mainly pH1N1 circulation.

[www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1294739353955](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1294739353955)  
[www.who.int/csr/disease/influenza/2011\\_01\\_14\\_GIP\\_surveillance/en/index.html](http://www.who.int/csr/disease/influenza/2011_01_14_GIP_surveillance/en/index.html)

**Avian Influenza:** As of January 13, 2011, one new human case of A/H5N1 was reported. A 10-year-old male developed symptoms on January 5 and was hospitalized on January 8. He is in stable condition. More details and a complete tally of A/H5N1 detections can be found at the links below:

[www.who.int/csr/don/2011\\_01\\_12/en/index.html](http://www.who.int/csr/don/2011_01_12/en/index.html)  
[www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

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

On February 18, 2010 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) was 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. This Report On-line: [www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm)

