

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 13, Week 6

February 6 to 12, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Low level mix of influenza viruses detected in BC

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### Summary

During week 6 (February 6 – 12, 2011), influenza surveillance indicators in BC (sentinel physician ILI rate and MSP influenza visits) were consistent with those of the previous reporting week, remaining below historic levels for this time of year. At the BC Public Health Microbiology & Reference Laboratory, 204 respiratory specimens were tested. Influenza was detected in 40 (20%) specimens: pandemic influenza A/H1N1 in 9 (4%), A/H3N2 in 9 (4%), unsubtype influenza A in 12 (6%), and influenza B in 10 (5%) specimens. Of 204 specimens tested, other respiratory viruses detected included 26 (13%) RSV, 19 (9%) rhino/enterovirus and 17 (8%) coronavirus.

*Report disseminated February 17, 2011*

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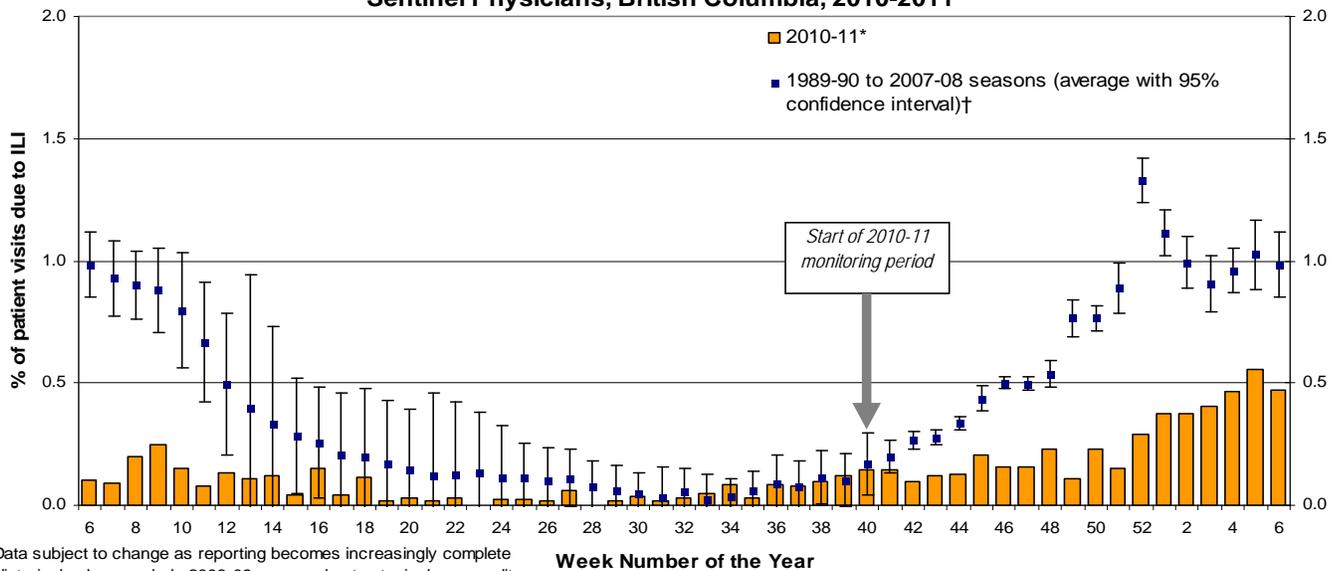
February 6 to 12, 2011

## British Columbia

### Sentinel Physicians

During week 6, ~ 0.5% of patients presenting to sentinel physicians had ILI, which is similar to the previous week and below the expected range for this time of year. Fifty-two percent (24/46) of sentinel physician sites have reported to-date for week 6.

**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**



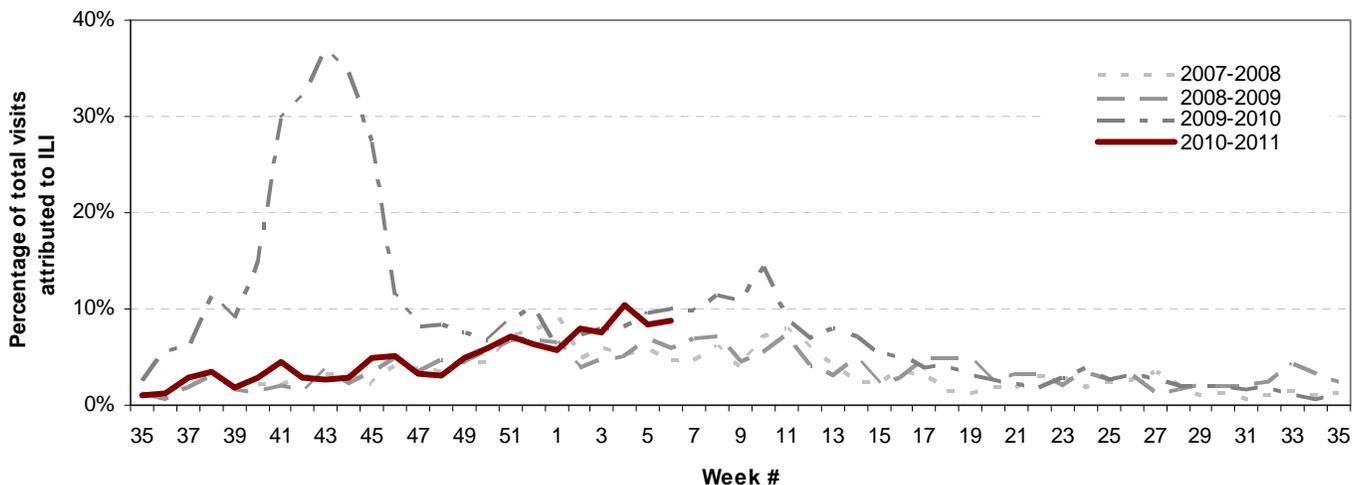
\*Data subject to change as reporting becomes increasingly complete

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

### BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness during week 6 was 8.7%, similar to that reported last week (8.4%).

**Percentage of Patients Presenting to BC Children's Hospital ER with Presenting Complaint of "Flu," "Influenza," or "Fever/Cough", by Week**



Source: BCCCH Admitting, discharge, transfer database, ADT

Data provided by Decision Support Services at Children's & Women's Health Centre of BC

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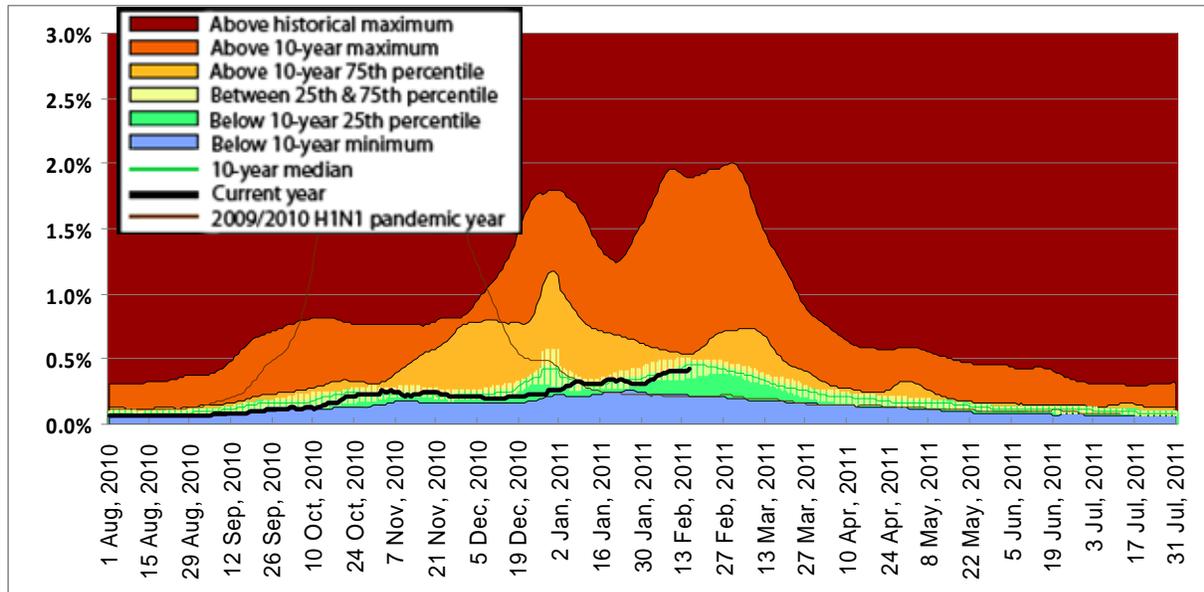
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## Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims is also similar to the previous week in most regions, being consistent with 10-year median provincially and in Vancouver Coastal and Fraser Health Authorities, somewhat elevated in Vancouver Island and Interior HAs, and below the 10-year median in Northern HA. 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).

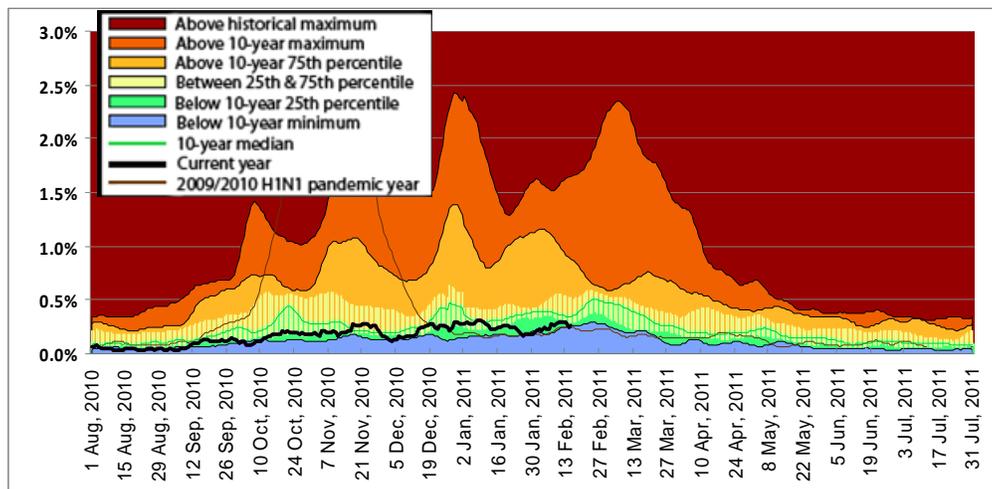
### Influenza Illness Claims\* British Columbia



\* 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 13 Feb 2010 corresponds to sentinel ILI week 7. Data current to Feb 15, 2011

### Northern

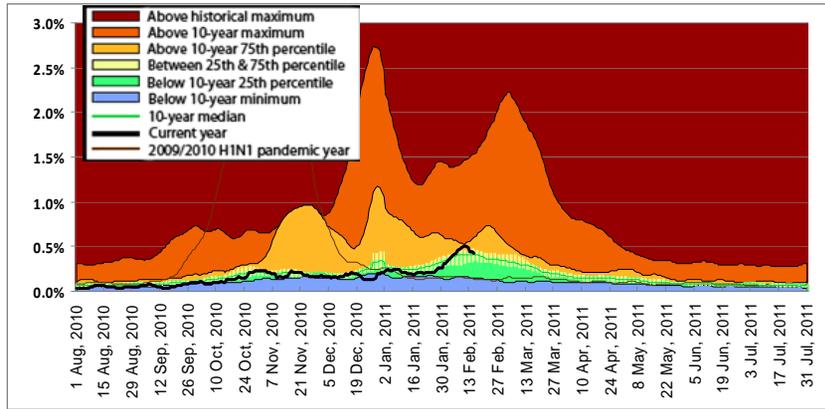


# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

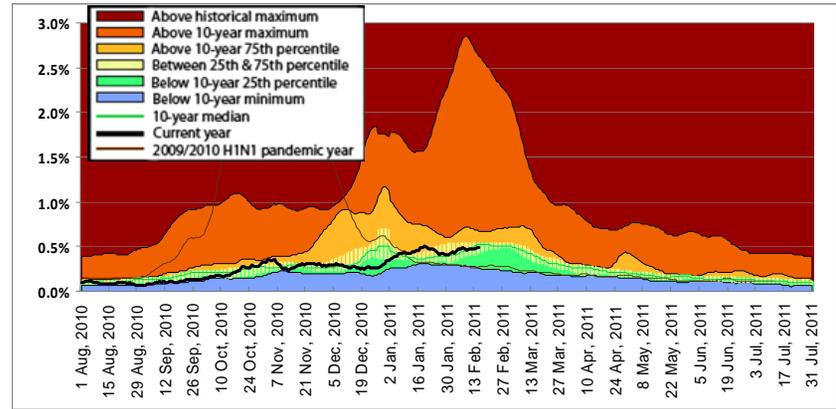
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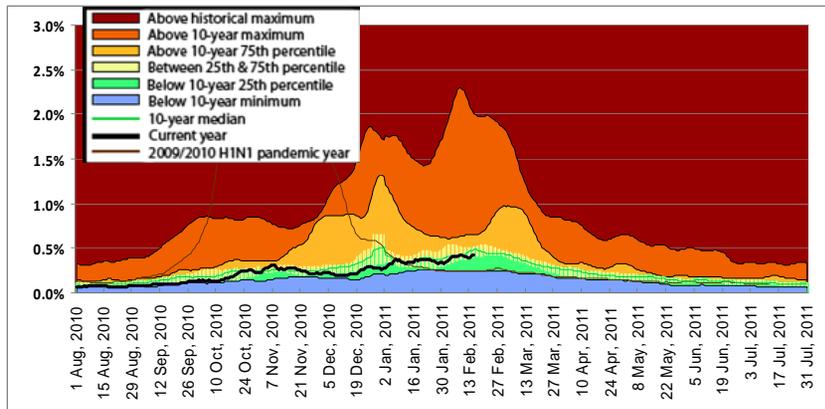
**Interior**



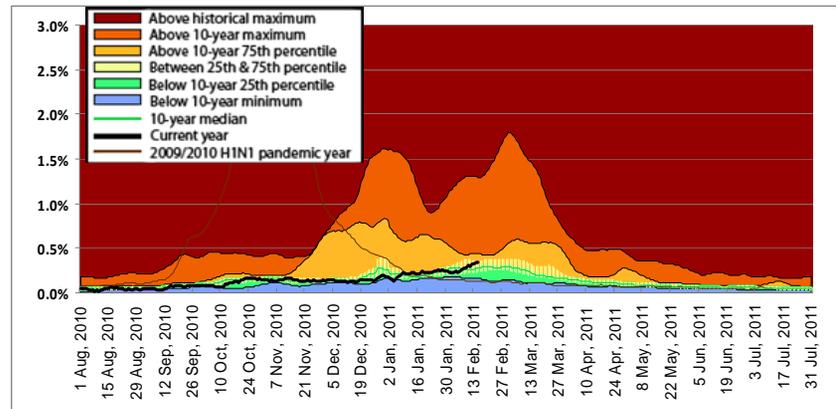
**Vancouver Coastal**



**Fraser**



**Vancouver Island**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

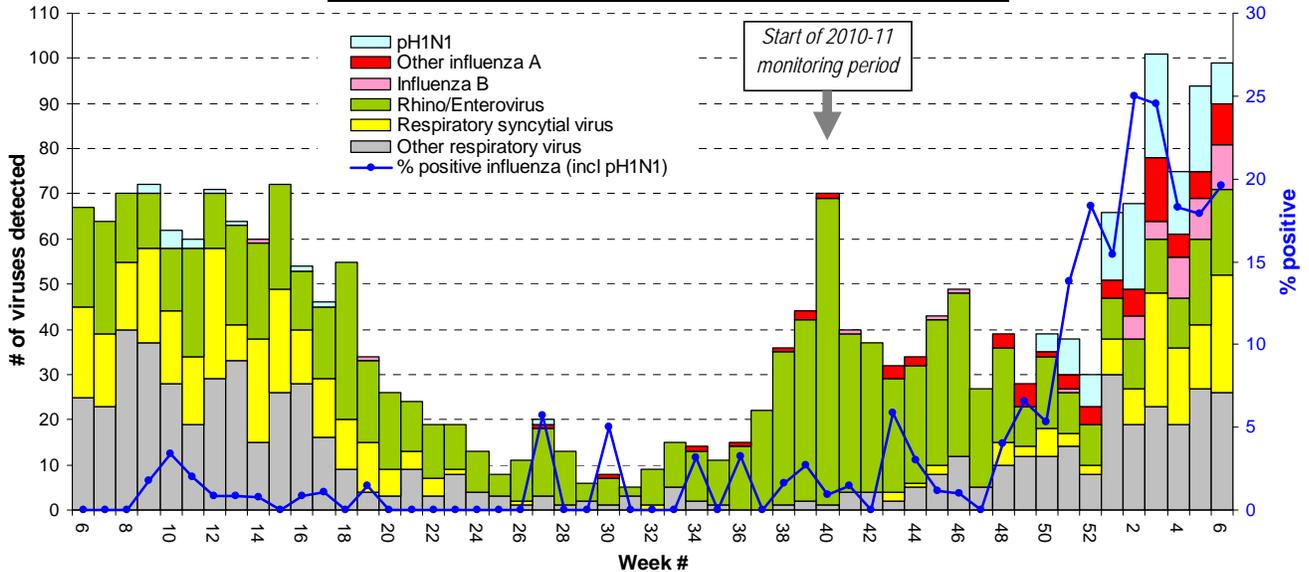
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## Laboratory Reports

Two hundred and four respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory in week 6. Influenza was detected in 40 (20%) submitted specimens. Nine of these (4% of submitted specimens) were pandemic A/H1N1, 9 (4%) were A/H3N2, 12 (6%) were untyped A, and 10 (5%) were type B. There were sporadic detections of influenza A/H3N2 and pandemic A/H1N1 viruses from all Health Authorities except Northern. Influenza B was sporadically detected from Interior, Fraser, and Vancouver Coastal HAs. During this week, of 204 specimens tested for other respiratory viruses, 26 (13%) were positive for RSV, 19 (9%) for rhino/enterovirus, and 17 (8%) for coronavirus. Other respiratory viruses were also sporadically detected.

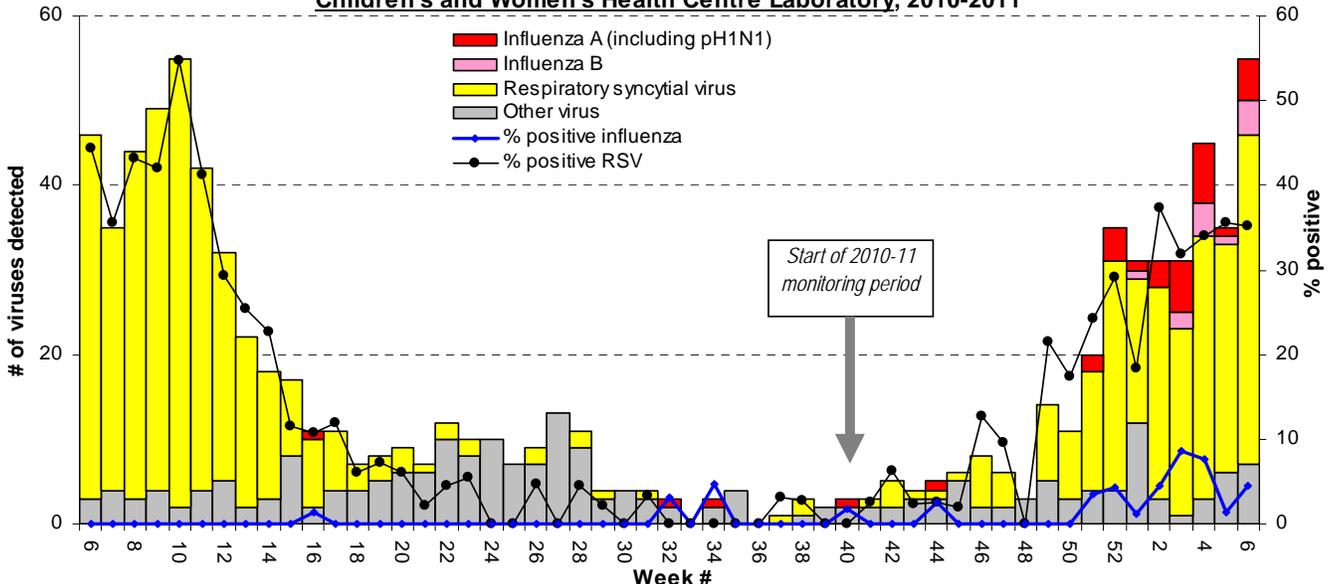
**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory PHSA, 2010-2011**



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

During week 6, BC Children's and Women's Health Centre Laboratory tested 111 respiratory specimens. Five (4.5%) were positive for influenza A and 4 (4%) were positive for type B. Thirty nine specimens (35%) were positive for RSV.

**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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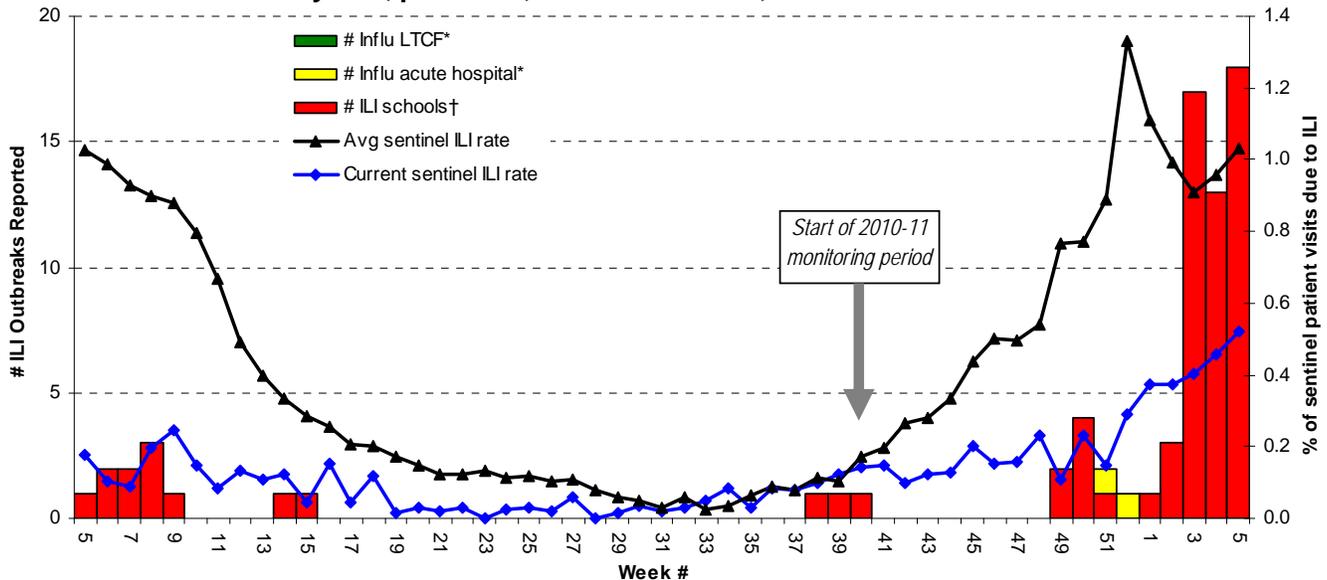
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## ILI Outbreaks

During week 6, twenty one new ILI school outbreaks were reported from schools in Interior (12), Fraser (7), and Vancouver Coastal (2). These outbreaks were not tested for respiratory viruses.

**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 5 ending February 5, 2011, localized influenza activity in Canada continued to be reported in several regions. The influenza-like illness (ILI) consultation rate remained within the expected range for this time of year. One thousand three hundred and fifty-nine specimens (19.8% in week 5) tested positive for influenza, a slight increase from the previous week (17.7%): 401 A/H3N2, 769 untyped influenza A, 88 pandemic H1N1, and 101 influenza B. Specimens were reported from all provinces except NL; influenza A activity was mainly concentrated in ON, QC, AB, and NB. During week 4, 29 new paediatric hospitalizations and 26 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks. This is a decrease over previous weeks. In Ontario, during week 5, 424 influenza laboratory confirmed cases were detected with 16.5% positivity; a decrease from the previous week. The overall ILI consultation rate has decreased from 57/1,000 patient visits in Week 4 to 39/1,000 patient visits in Week 5. In Quebec during week 5, 461 (18%) 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 February 11, 2011, two hundred and twenty-eight influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

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

50 B/Brisbane/60/2008 (Victoria lineage)-like<sup>†</sup> from NB, 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 February 10, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates (112 A/H3N2, 34 pandemic H1N1, 43 type B) tested for zanamivir and (113 A/H3N2, 35 pandemic H1N1, 45 type B) 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:** During week 5 ending February 5, 2011, influenza activity had increased in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Two thousand three hundred and seventy-seven specimens (out of 7,511, or 31.7%) tested positive for influenza in week 5: 526 pandemic H1N1, 523 A/H3, 796 untyped influenza A, and 532 type B. The proportion of ILINet physician visits for ILI was 4.6%, 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 February 11, influenza activity continues to be high and increasing in Europe. The dominant influenza virus is still pandemic H1N1, co-circulating with influenza B. Hospital admissions due to influenza are declining in Western Europe but increasing in Eastern Europe. In Western Europe, severe cases are in 15-64 year old age range and mostly associated with pandemic H1N1. The circulating strains are overall well matched to the current influenza vaccine. In North Africa and the Middle East, influenza activity appears to have peaked, though Algeria is showing an increase. Pakistan, Iran, and Oman reported high influenza positivity in specimens and equal co-circulation of pandemic H1N1 and type B viruses. In North Asia (including Mongolia, northern China, the

Republic of Korea, and Japan), influenza activity has recently peaked and is now declining. In recent weeks, however, Mongolia and northern China reported an increase in pandemic H1N1 detection without a significant increase in the ILI indicator. Japan is reporting a sharp increase of ILI activity but fewer positive detections of influenza viruses than in previous weeks.

[http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb\\_C/1287147913271](http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1287147913271)

[http://www.who.int/csr/disease/influenza/2011\\_02\\_11\\_GIP\\_surveillance/en/index.html](http://www.who.int/csr/disease/influenza/2011_02_11_GIP_surveillance/en/index.html)

**Avian Influenza:** As of February 9, 2011, one new human case of A/H5N1 was reported. A 5-year-old female with exposure to sick poultry developed symptoms on January 29, was hospitalized on February 3, and died 12 hours following admission. More details and a complete tally of A/H5N1 detections can be found at the links below:

[http://www.who.int/csr/don/2011\\_02\\_09/en/index.html](http://www.who.int/csr/don/2011_02_09/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)

