

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 14, Week 7

February 13 to 19, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Overall low-level activity: some regional upswing in ILI with H3N2 facility outbreak detection

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### Summary

During week 7 (February 13 – 19, 2011), influenza surveillance indicators in BC (sentinel physician ILI rate and MSP influenza visits) showed that overall activity remained low with some increase in activity across Interior and Vancouver Island Health Authorities. Two long term care facility A/H3N2 positive outbreaks were reported; one from VIHA and one from IHA. At the BC Public Health Microbiology & Reference Laboratory, 227 respiratory specimens were tested. Influenza was detected in 42 (19%) specimens: pandemic influenza A/H1N1 in 12 (5%), A/H3N2 in 13 (6%), unsubtype influenza A in 5 (2%), and influenza B in 12 (5%) specimens. Of 227 specimens tested, other respiratory viruses detected included 32 (14%) RSV, 21 (9%) rhino/enterovirus and 17 (8%) coronavirus.

*Report disseminated February 24, 2011*

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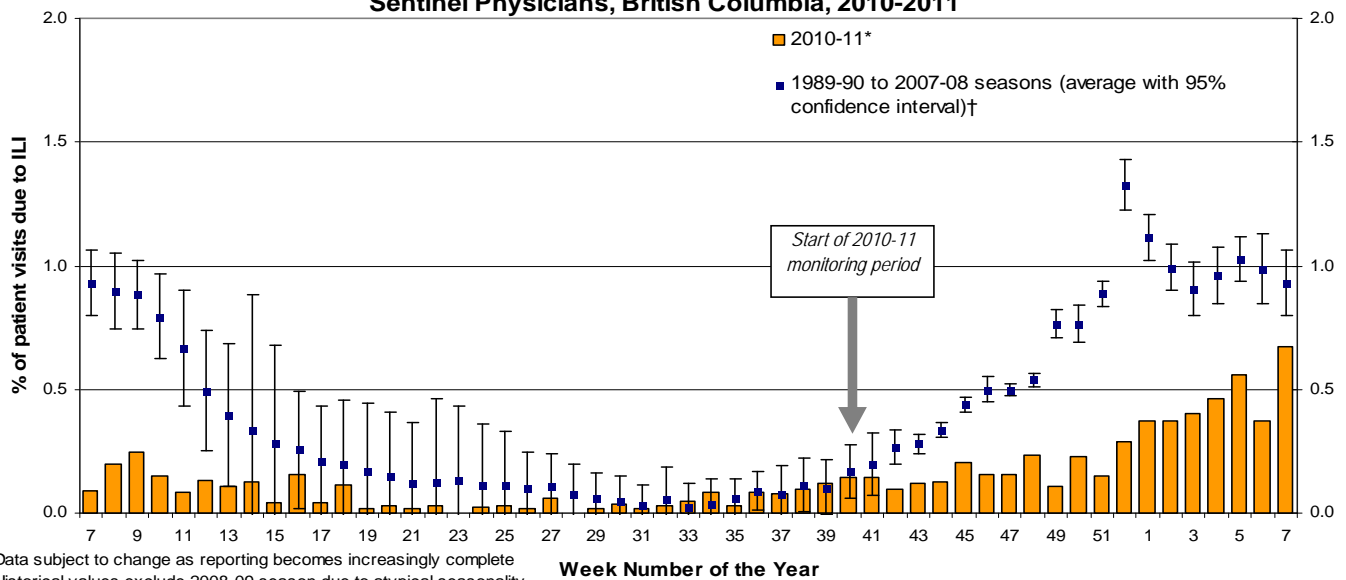
February 13 to 19, 2011

## British Columbia

### Sentinel Physicians

During week 7, ~ 0.7% of patients presenting to sentinel physicians had ILI, which is higher than the previous week but below the expected range for this time of year. Fifty percent (23/46) of sentinel physician sites have reported to-date for week 7.

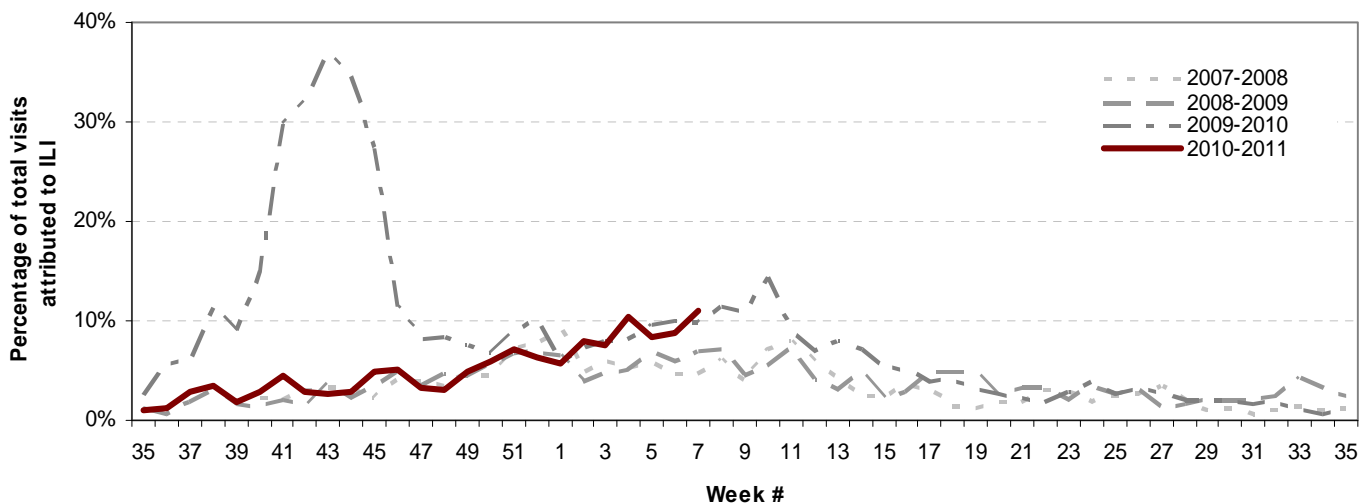
**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2010-2011**



### 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 7 was 11.0%, higher than that reported last week (8.7%).

**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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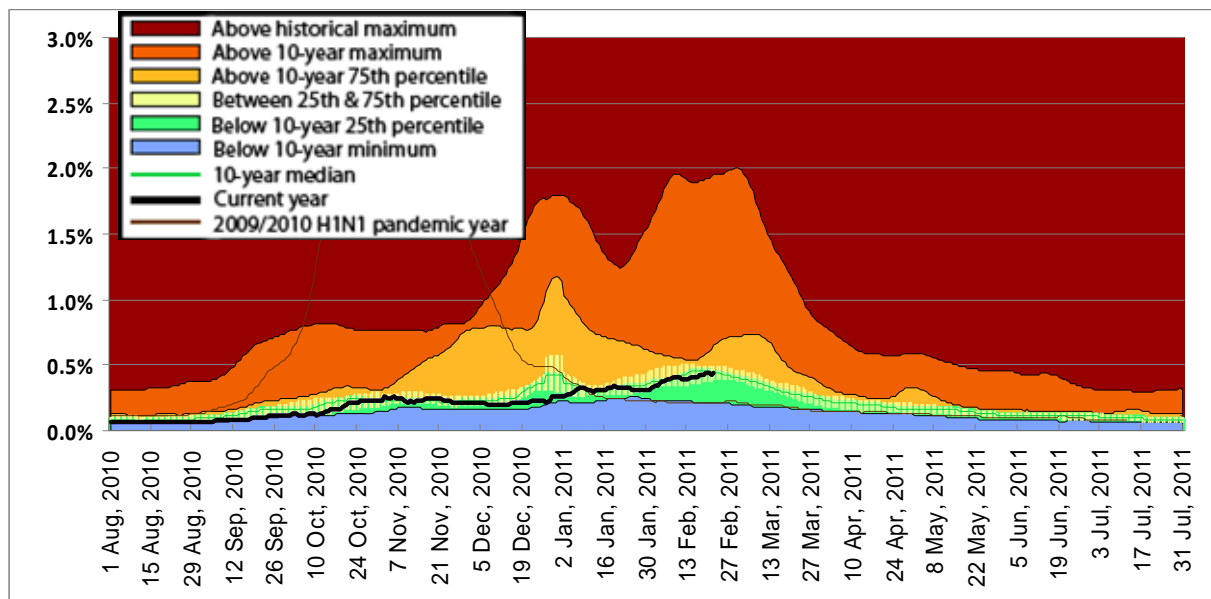
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## Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained similar to that reported during the previous week in most regions, being consistent with 10-year median provincially and in Vancouver Coastal and Fraser Health Authorities and below the 10-year median in Northern HA. There has been an increase in activity in Interior and Vancouver Island HAs. 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).

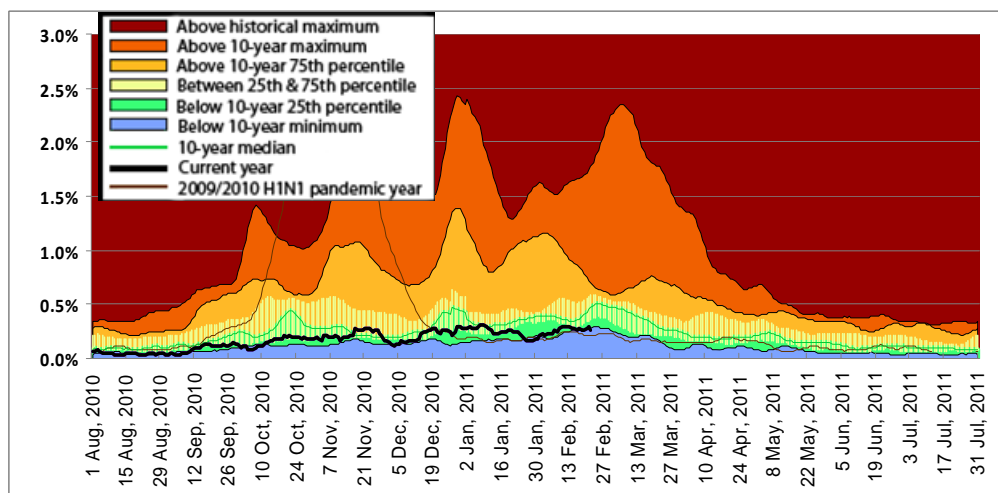
### Influenza Illness Claims\* British Columbia



\* 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 27 Feb 2010 corresponds to sentinel ILI week 9.  
Data current to Feb 22, 2011

### Northern

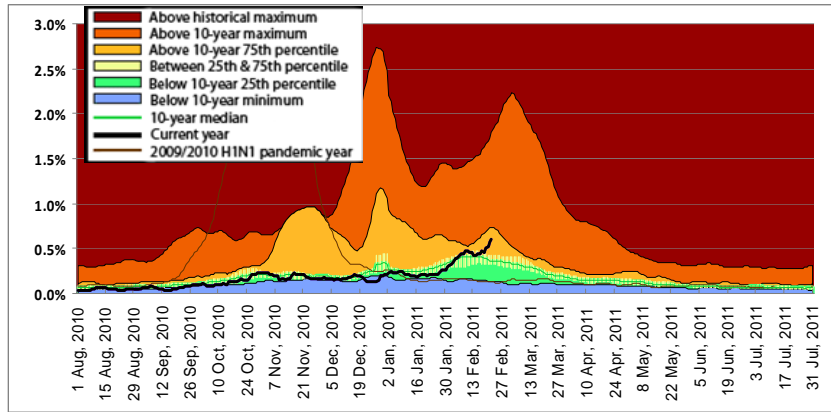


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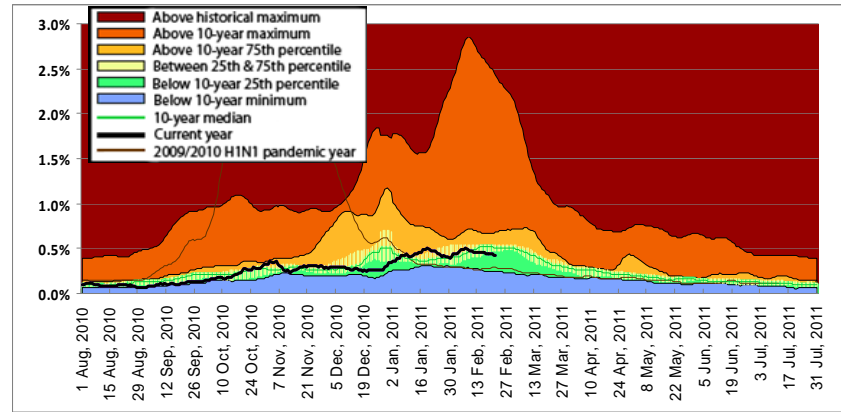
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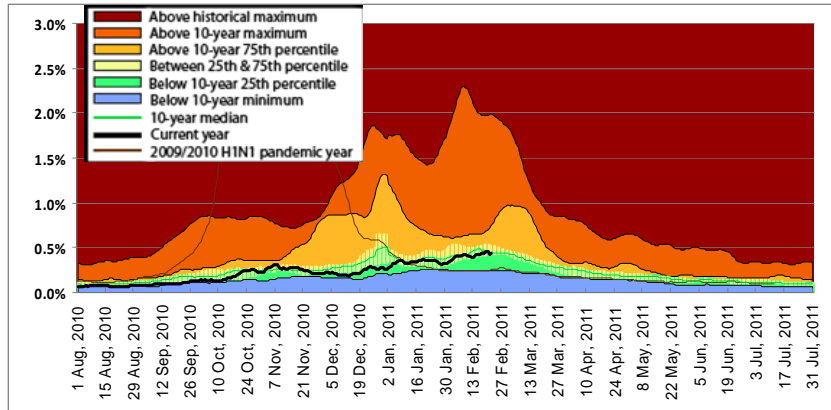
**Interior**



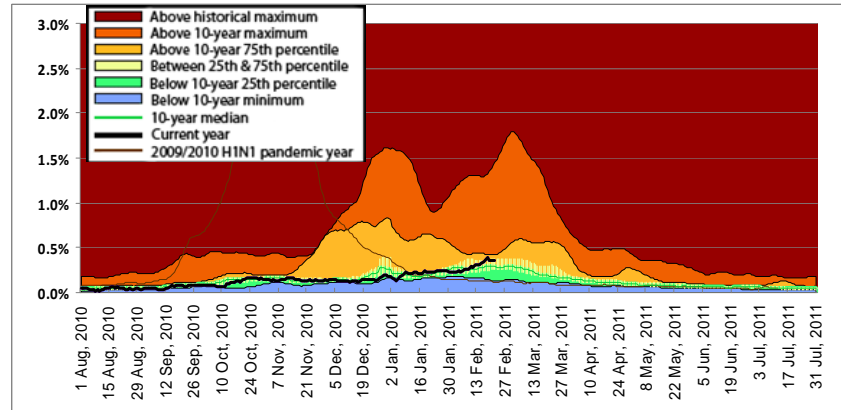
**Vancouver Coastal**



**Fraser**



**Vancouver Island**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

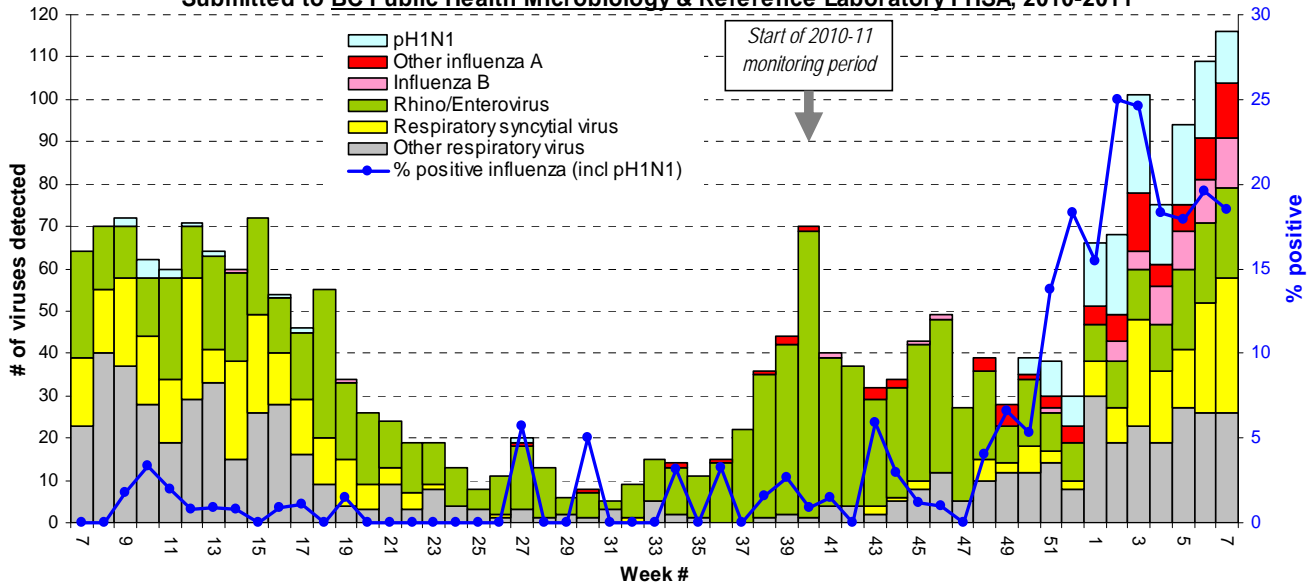
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## Laboratory Reports

Two hundred and twenty seven respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory in week 7. Influenza was detected in 42 (19%) submitted specimens. Twelve of these (5% of submitted specimens) were pandemic A/H1N1, 13 (6%) were A/H3N2, 5 (2%) were unsubtype A, and 12 (5%) were type B. There were localized detections of influenza A/H3N2 from Interior and Vancouver Island Health Authorities. Pandemic A/H1N1 virus was sporadically detected from all HAs except Interior. Influenza B was sporadically detected from all HAs except Vancouver Island. During this week, of 227 specimens tested for other respiratory viruses, 32 (14%) were positive for RSV, 21 (9%) for rhino/enterovirus, and 17 (8%) for coronavirus. Other respiratory viruses were also sporadically detected.

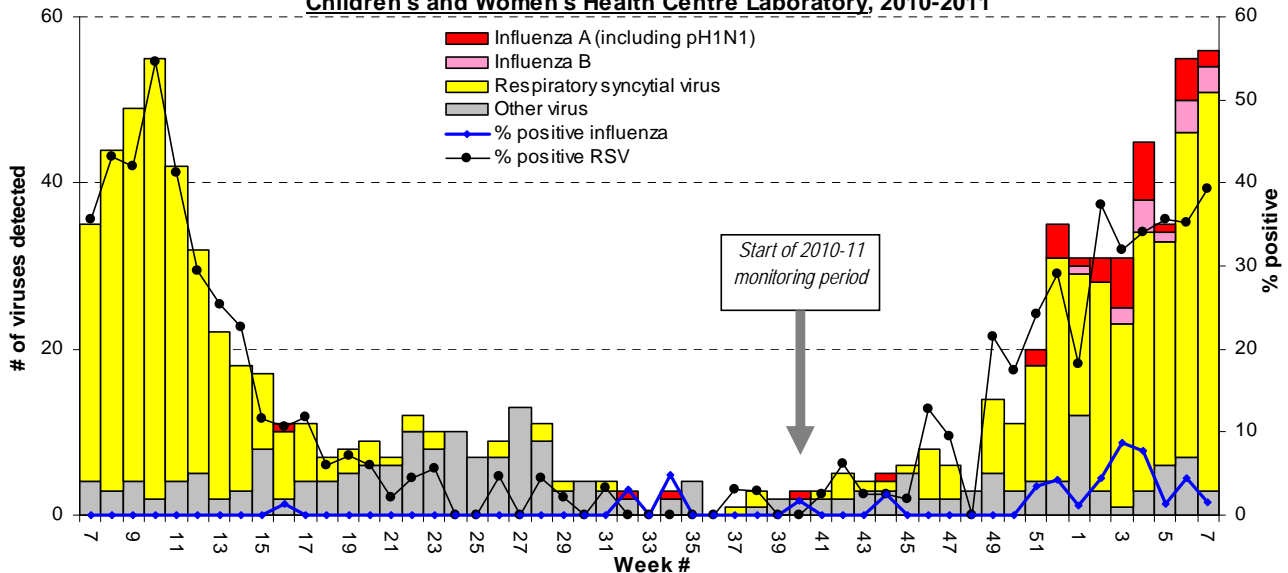
**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory PHSA, 2010-2011**



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

During week 7, BC Children's and Women's Health Centre Laboratory tested 122 respiratory specimens. Two (1.6%) were positive for influenza A and 3 (2.5%) were positive for type B. Forty eight specimens (39%) 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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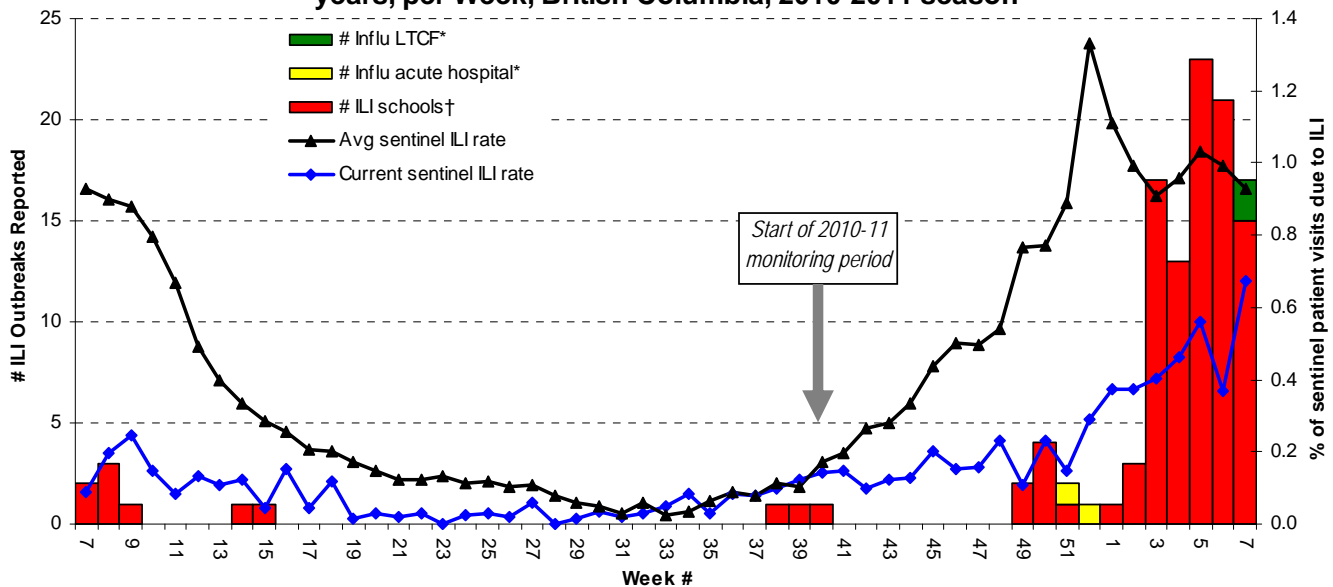
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## ILI Outbreaks

During week 7, fifteen new school ILI outbreaks were reported from schools in Interior (9), Fraser (5), and Vancouver Island (1) HAs. These outbreaks were not tested for respiratory viruses. Two ILI outbreaks were reported from LTCFs in Interior and Vancouver Island HAs. Influenza A/H3N2 was detected in both of these outbreaks.

**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 w within 7-day period, w ith 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 6 ending February 12, 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 two hundred and eighty specimens (20.2% in week 6) tested positive for influenza, a slight increase from the previous week (19.8%): 420 A/H3N2, 653 untyped influenza A, 88 pandemic H1N1, and 119 influenza B. Specimens were reported from all provinces; influenza A activity was mainly concentrated in ON, QC, AB, and NB. During week 6, 33 new paediatric hospitalizations and 39 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks. This is a decrease for paediatric hospitalizations and increase for adult hospitalizations over previous weeks. In Ontario, during week 6, 408 influenza laboratory confirmed cases were detected with 18.3% positivity; a decrease from the previous week. The overall ILI consultation rate has decreased from 39.5/1,000 patient visits in Week 5 to 38.7/1,000 patient visits in Week 6. In Quebec during week 6, 460 (22%) 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 18, 2011, two hundred and seventy-three influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

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

61 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 17, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates (137 A/H3N2, 47 pandemic H1N1, 53 type B) tested for zanamivir and (138 A/H3N2, 50 pandemic H1N1, 52 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 6 ending February 12, 2011, influenza activity had increased in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Three thousand three hundred and six specimens (out of 9,448, or 35.0%) tested positive for influenza in week 6: 773 pandemic H1N1, 1,021 A/H3, 804 untyped influenza A, and 708 type B. The proportion of ILINet physician visits for ILI was 4.5%, which was above the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold in the USA.

Updates from WHO are pending. 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 the United Kingdom, influenza activity continues to decline, with influenza B as the predominant virus. 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 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:

[http://www.who.int/csr/disease/influenza/recommendations\\_2011\\_12north/en/index.html](http://www.who.int/csr/disease/influenza/recommendations_2011_12north/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)



# 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