

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &  
Emerging Respiratory Pathogens Team

## Influenza Activity in BC: Stable at Low Levels

### Contents:

#### British Columbia:

Sentinel Physicians	<a href="#">Page 2</a>
Children's Hospital ER	<a href="#">Page 2</a>
Medical Services Plan	<a href="#">Page 3</a>
Laboratory Surveillance	<a href="#">Page 5</a>
ILI Outbreaks	<a href="#">Page 6</a>

#### Canada:

FluWatch Activity levels	<a href="#">Page 6</a>
NML Strain Characterization	<a href="#">Page 6</a>
NML Antiviral Resistance	<a href="#">Page 7</a>

<u>International:</u>	<a href="#">Page 7</a>
-----------------------	------------------------

#### Other:

List of Acronyms	<a href="#">Page 8</a>
Web Sites	<a href="#">Page 8</a>
Outbreak Report Form	<a href="#">Page 9</a>

### Summary

During weeks 14-15 (April 3 – April 16, 2011), all influenza surveillance indicators in BC were maintained at low level. The sentinel physician ILI rate was below the expected level for this time of year and was similarly low to that reported in previous weeks 12-13. MSP influenza visits were also stable at low levels. Two schools reported ILI outbreaks but no laboratory confirmed ILI outbreaks were reported. Influenza was detected in a minority (5.7%) of submitted specimens (14 of 162 in week 14 and 2 of 117 in week 15). Influenza A/H3N2 and B were detected sporadically in most HAs; pandemic A/H1N1 was detected in Fraser HA only during this period. Of 279 specimens tested for other respiratory viruses during weeks 14-15, 39 (14.0%) were positive for RSV, 14 (5.0%) for coronavirus, and 46 (16.5%) for rhino/enterovirus. Other respiratory viruses were also sporadically detected.

*Report disseminated April 21, 2011*

Contributors: Helen Li, Naveed Janjua, Danuta Skowronski

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 20, Weeks 14-15

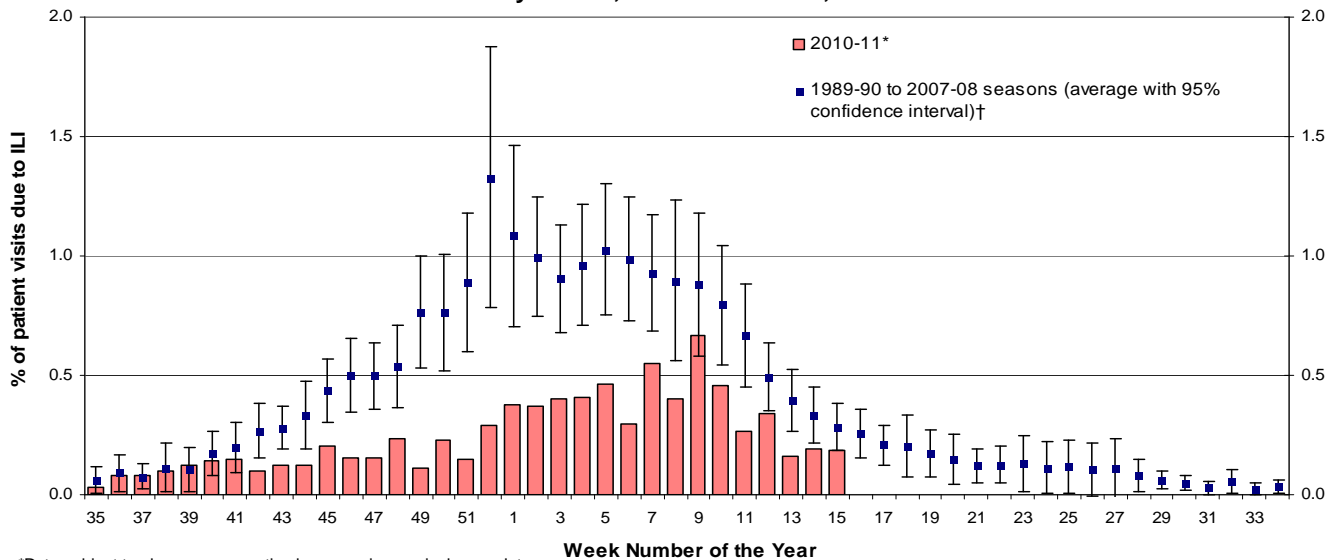
April 3 to 16, 2011

## British Columbia

### Sentinel Physicians

During weeks 14-15, less than 0.2% of patients presenting to sentinel physicians had ILI, which is similar to the previous weeks 12-13, and marginally below the expected range for this time of year. Sixty four percent (28/44) and 50% (22/44) of sentinel physician sites have reported to-date for week 14 and week 15, respectively.

**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**

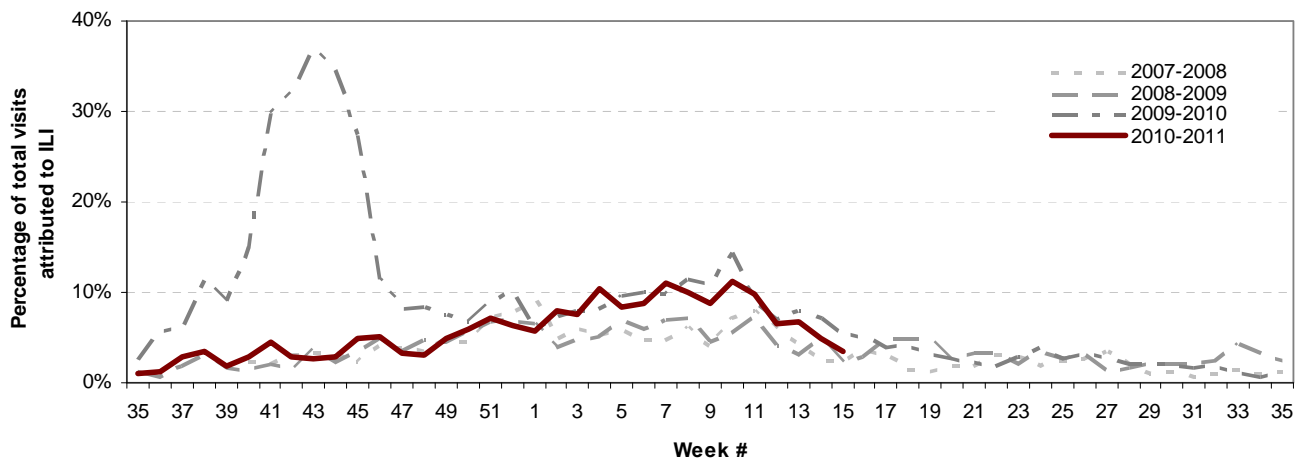


\*Data subject to change as reporting becomes increasingly complete  
 †Historical values exclude 2008-09 season due to atypical seasonality.

### BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital Emergency Room visits attributed to "fever and cough" or flu-like illness during week 14 and week 15 were 4.8% and 3.5%, respectively, lower than that reported in weeks 12-13 (6.8%), consistent with the 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

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

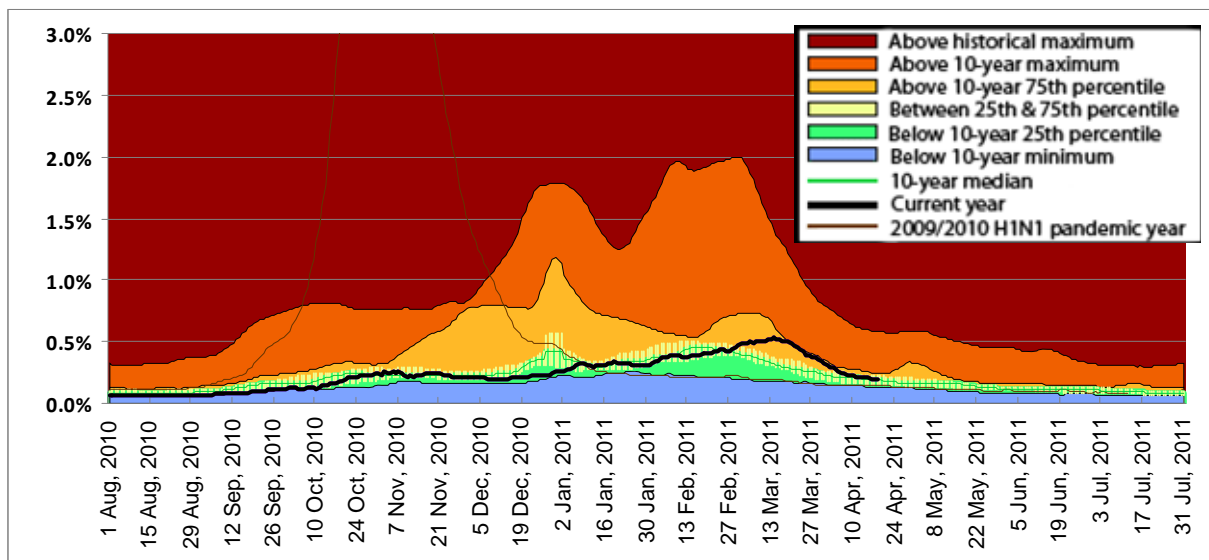
2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

## Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims was generally stable at low levels during the past two weeks. 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).

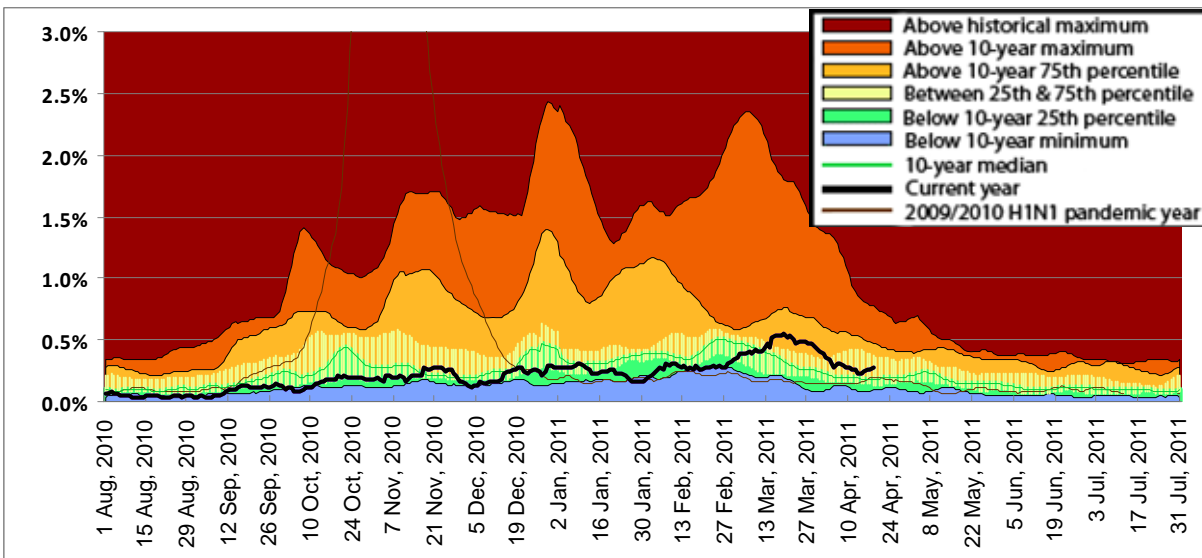
**Influenza Illness Claims\* British Columbia**



\* 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 10 April 2010 corresponds to sentinel ILI week 15  
Data current to April 18, 2011

## Northern

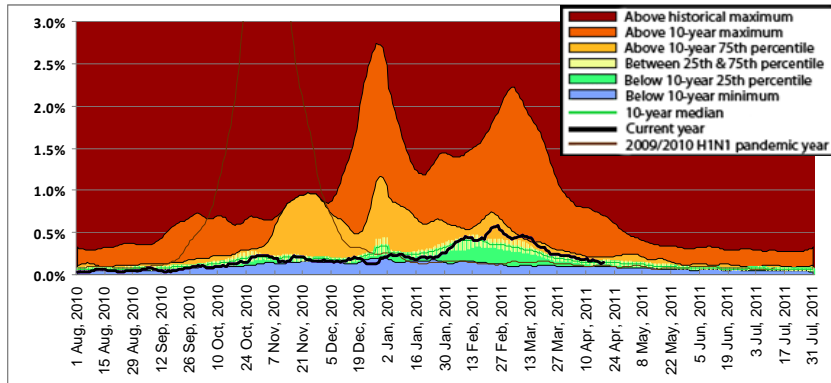


# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

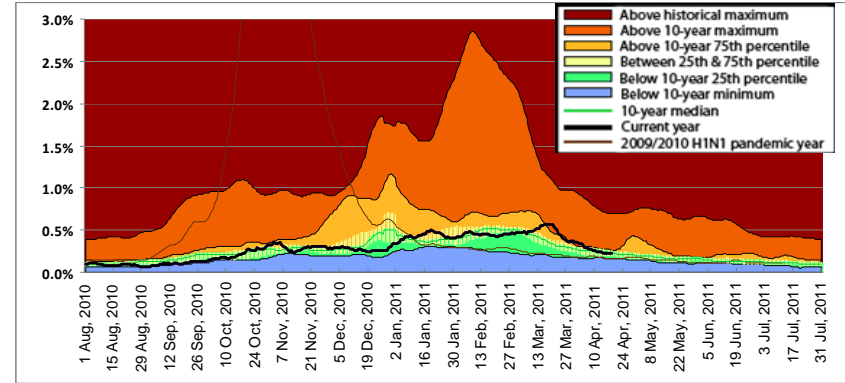
2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

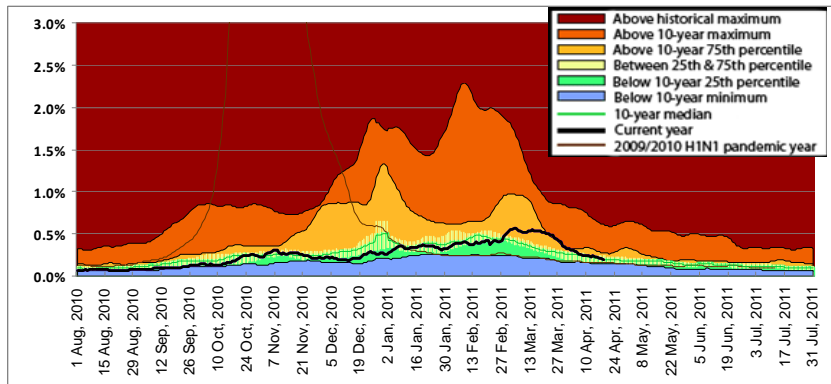
**Interior**



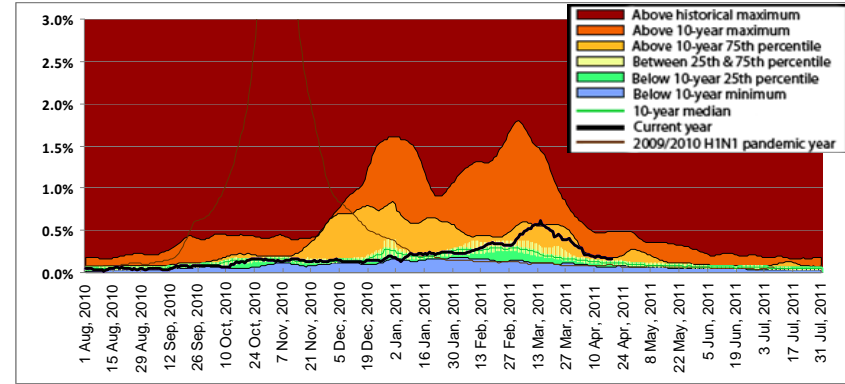
**Vancouver Coastal**



**Fraser**



**Vancouver Island**



# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

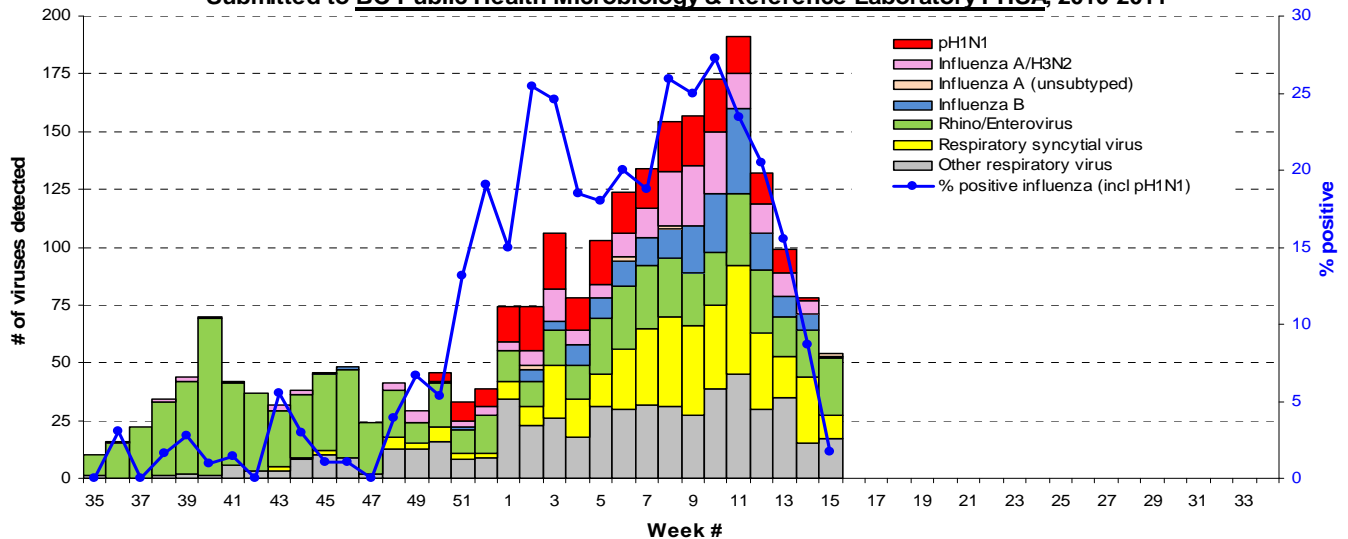
2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

## Laboratory Reports

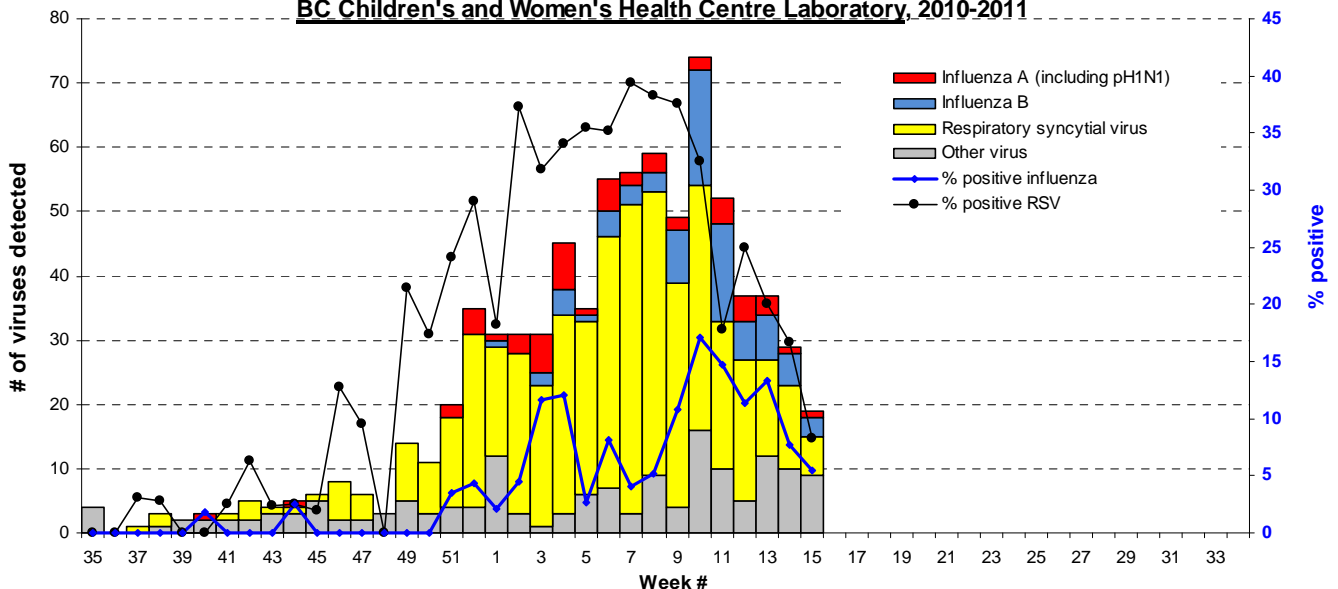
Two hundred and seventy-nine respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory during weeks 14-15. Influenza was detected in just 16 (5.7%) of submitted specimens (14 of 162 in week 14 and 2 of 117 in week 15): one (0.4% of submitted specimens) was pandemic A/H1N1, 6 (2.2%) were A/H3N2, 8 (2.9%) were type B, and 1 (0.4%) were unsubtype influenza A. Seasonal influenza A/H3N2 was sporadically detected in all but Vancouver Island HAs; influenza B was detected in all but Interior HAs, and pandemic A/H1N1 was detected only in Fraser HA. During week 14-15, of 279 specimens tested for other respiratory viruses, 39 (14.0%) were positive for RSV, 46 (16.5%) for rhino/enterovirus, and 14 (5.0%) 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**



During weeks 14-15, BC Children's and Women's Health Centre Laboratory tested 151 respiratory specimens. Two (1.3%) were positive for influenza A and 8 (5.3%) were positive for type B. 19 specimens (12.6%) 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

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

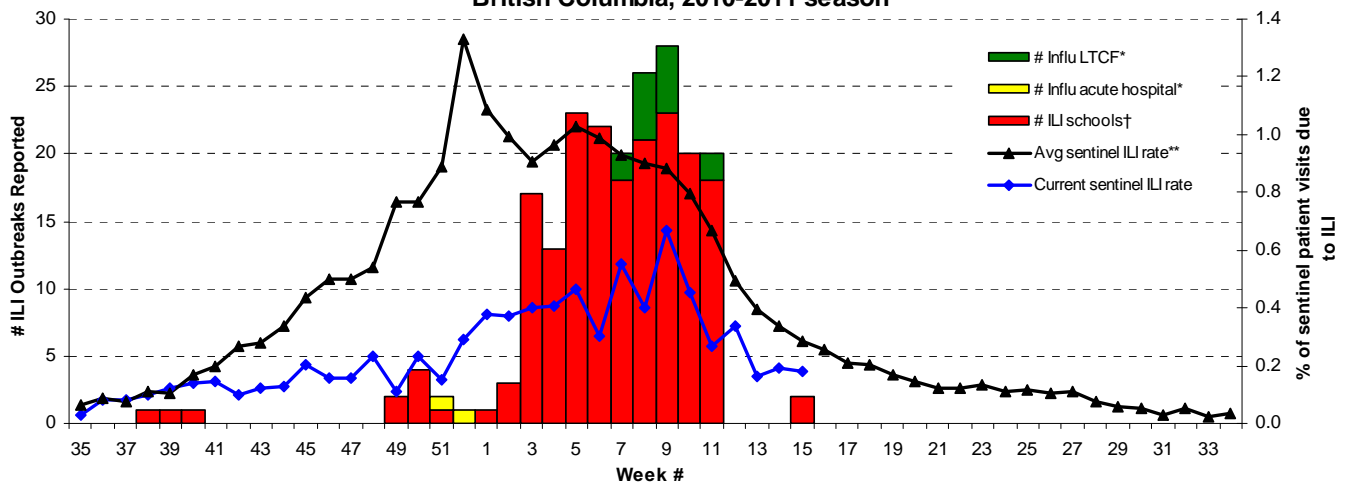
2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

## ILI Outbreaks

During weeks 14-15, two new school ILI outbreaks were reported from Interior and Northern HAs. Laboratory testing confirmed coronavirus in the school outbreak in Northern HA. The school outbreak in Interior HA was not tested for respiratory viruses. Four outbreaks were reported from long-term care facilities (LTCF), but none was confirmed as influenza by laboratory testing.

**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.

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

## CANADA

### FluWatch

In week 14 ending April 9, 2011, all indicators of influenza activity had decreased. Of all tests positive for influenza, influenza B accounted for a greater proportion than influenza A. Four hundred and twelve (10.4%) specimens in week 14 tested positive for influenza, a slight decrease from the previous week (11.7%), including 169 (41.0%) influenza A and 243 (59.4%) influenza B. Among all the detections of influenza A, 54 (32.0%) were reported as A/H3N2, 12 (7.1%) as pandemic H1N1, and 103 (60.9%) as unsubtype influenza A. The influenza-like illness (ILI) consultation rate per 1,000 patient visit in week 14 was slightly lower than the previous week (17.2 vs. 24.1), and below the expected rate for this time of year. Eleven new outbreaks were reported during this week. In addition, 22 new paediatric hospitalizations and 7 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks in week 14 (a decrease for both paediatric hospitalizations and adult hospitalizations over previous week 13). [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

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

Between September 1, 2010 and April 20, 2011, seven hundred and eleven influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:

248 A/Perth/16/2009 (H3N2)-like<sup>¶</sup> from NB, QC, ON, MB, SK, ALTA, BC & NU;

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

336 B/Brisbane/60/2008 (Victoria lineage)-like<sup>†</sup> from NB, QC, ON, MB, SK, ALTA, BC, NT & NU;

15 B/Wisconsin/01/2010-like (Yamagata lineage)-like<sup>‡</sup> from ON & 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

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

## **NML: Antiviral Resistance**

Drug susceptibility testing at the NML between September 1, 2010 and April 20, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates of A/H3N2, pandemic H1N1, and B tested for zanamivir showed susceptibility. Oseltamivir resistance testing found that all but one pandemic H1N1, all but one A/H3N2, and all B isolates were susceptible.

## **INTERNATIONAL**

**Northern Hemisphere:** During week 14 ending April 9, 2011, influenza activity continued to decrease in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Three hundred and eighty seven (9.1% out of the 4,234 specimens) tested positive for influenza in week 14: 68 (28.1%) pandemic A/H1N1, 100 (41.3%) A/H3N2, 74 (30.6%) untyped influenza A, and 145 (37.5%) type B. The proportion of outpatient visits for ILI was 1.4%, which was below the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza in week 14 (8.0%) was above the epidemic threshold (7.8%) for the eleventh consecutive week in the USA.

**Europe and Other Areas:** According to WHO as of April 8, 2011, all influenza indicators in Europe were declining. All countries reported either medium or low influenza activity. In week 12, the proportion of samples testing positive for influenza among sentinel doctors was 22%, a decrease from 46% of week 10. Pandemic influenza A/H1N1 is co-circulating with influenza B with proportional increase of influenza B. Of all influenza positive samples, 34% were influenza A and 66% were influenza type B. Data from parts of Northern Africa and Middle East showed a general pattern of decline in influenza activity with co-circulation of influenza A/H1N1 and influenza B. In Northern Asia, influenza activity continued to decrease or remained stable at low levels. In northern China ILI activity remained low and below that observed in the previous three seasons. During epidemiological week 12, only 7% of samples tested positive for influenza, the majority (35/44) was influenza B. Japan also reported decreasing ILI activity with predominantly influenza A/H3N2 detections, followed by influenza B.  
[http://www.who.int/csr/disease/influenza/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/csr/disease/influenza/latest_update_GIP_surveillance/en/index.html)

**Avian Influenza:** Three confirmed cases of influenza A/H5N1 were recently reported by WHO. Two of the recent cases were reported by Egypt's MOH and Cambodia's MOH on April 11, respectively, and died after hospitalization. The third case was reported by Bangladesh's MOH, and had recovered. As of April 11, the cumulative number of confirmed human cases of avian influenza A/H5N1 in 2011 is 33, with 14 (42.4%) deaths. Details can be found in the latest WHO reports at: [http://www.who.int/csr/disease/avian\\_influenza/en/index.html](http://www.who.int/csr/disease/avian_influenza/en/index.html)

## **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)

# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 20, Weeks 14-15

April 3 to 16, 2011

## 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