# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 18, Weeks 11-12

**March 10 to 23, 2013**

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 continues at low levels

**Contents:**




### Summary

In weeks 11-12 (March 10 to 23, 2013), most indicators suggest that influenza activity in BC remains low. The proportion of medical visits with an influenza diagnosis was lower than the 10-year median throughout the province. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was low and within the expected range for this time of year. Less than a quarter of the specimens tested at the provincial laboratory were positive for influenza, predominantly influenza B. One lab-confirmed influenza A/H3N2 outbreak was reported from a long-term care facility in Interior Health Authority in week 11. At the BC Children and Women's Centre Laboratory, few influenza viruses were detected, but most of these were influenza B. RSV remained the most common virus detected overall.


*Report disseminated March 28, 2013*

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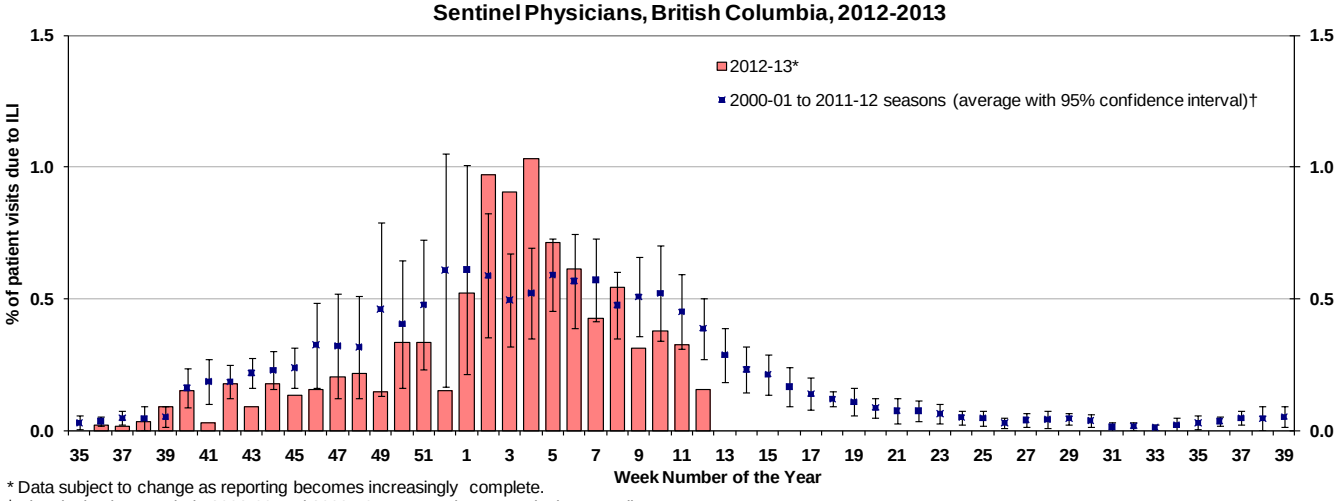
## British Columbia

### Sentinel Physicians

In weeks 11 and 12, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians was 0.33% and 0.15% respectively, lower than the previous week and within or below the expected range for this time of year. To date 64% and 48% of sentinel physician sites have reported for weeks 11 and 12 respectively.

**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 10 Seasons Sentinel Physicians, British Columbia, 2012-2013**

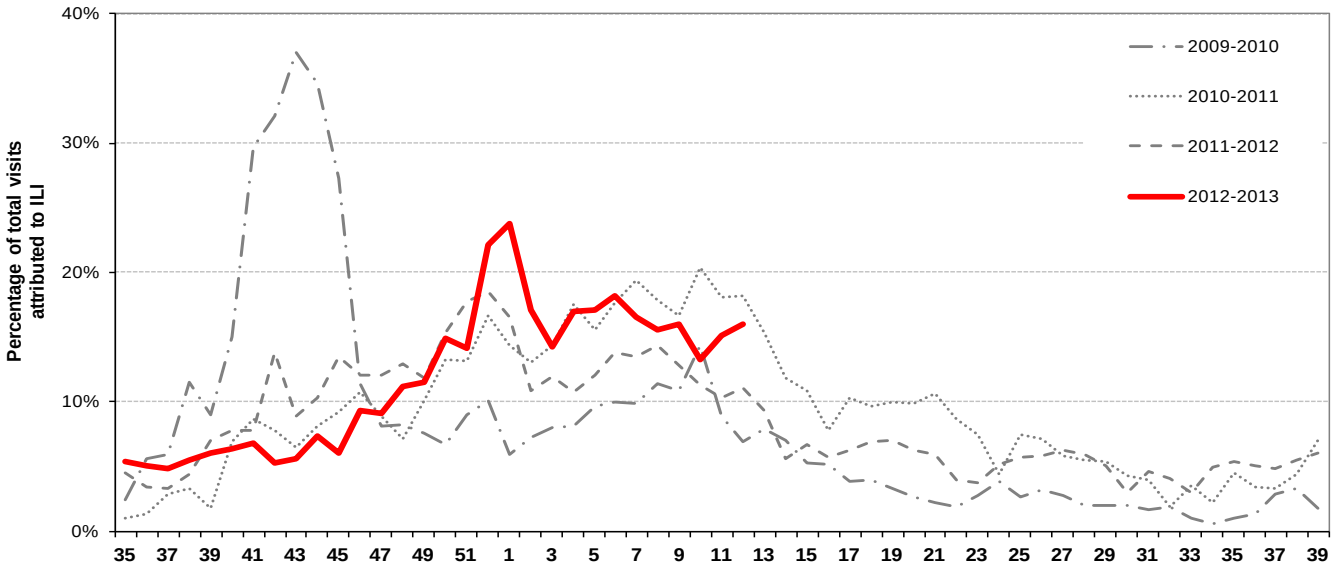



* Data subject to change as reporting becomes increasingly complete.
† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

### BC Children's Hospital Emergency Room

The proportion of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness was 15.1% in week 11 and 16.0% in week 12, consistent with the expected level for this time of year. Note: the report for week 12 does not include data for March 23 due to technical issues with the system.

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

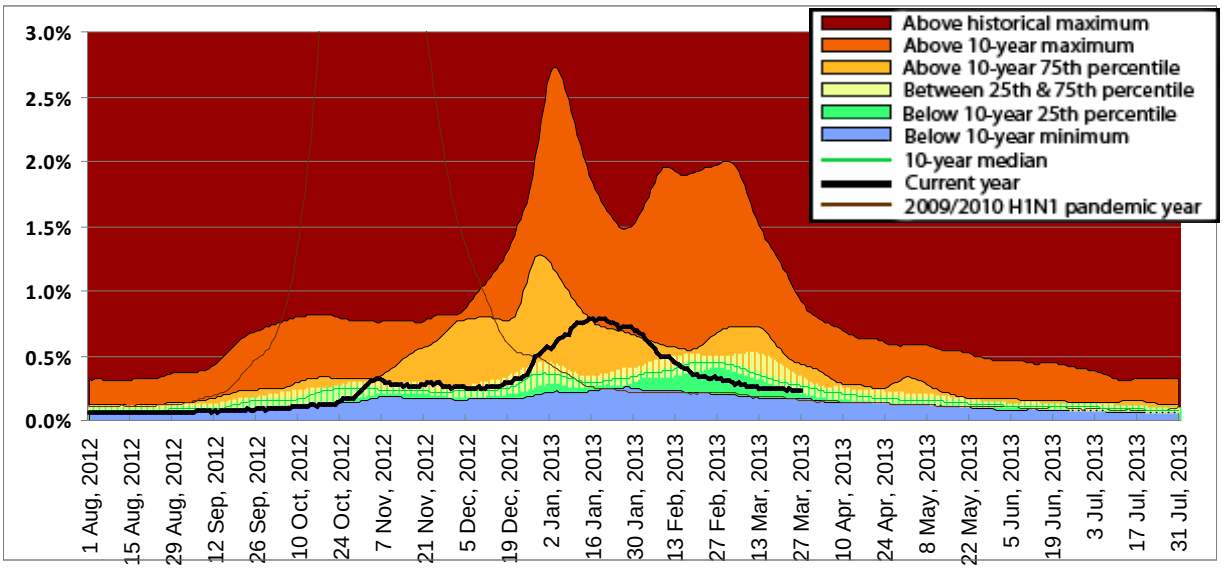



**Source:** BCCH Admitting, discharge, transfer database, ADT
**Note:** Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

## Medical Services Plan

During weeks 11-12, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims was below the 10-year median level throughout the province.

**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, BC Ministry of Health Services
**Notes:** MSP week beginning 1 August 2012 corresponds to sentinel ILI week 31; Data current to 27 March 2013.

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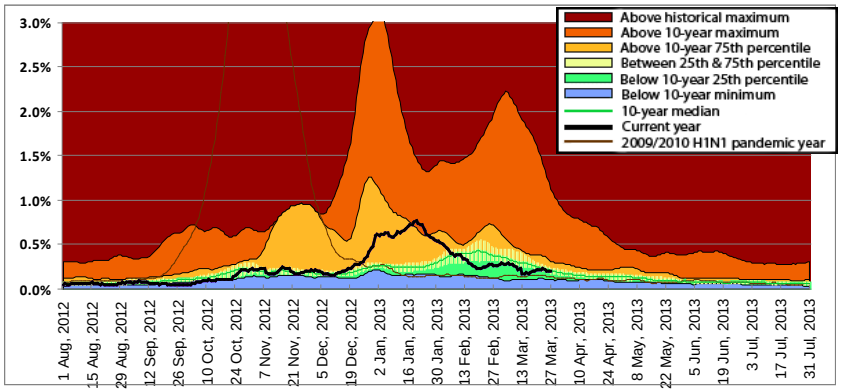
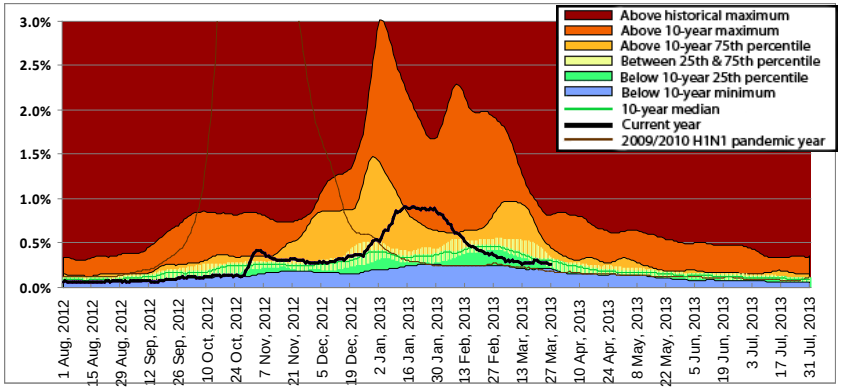
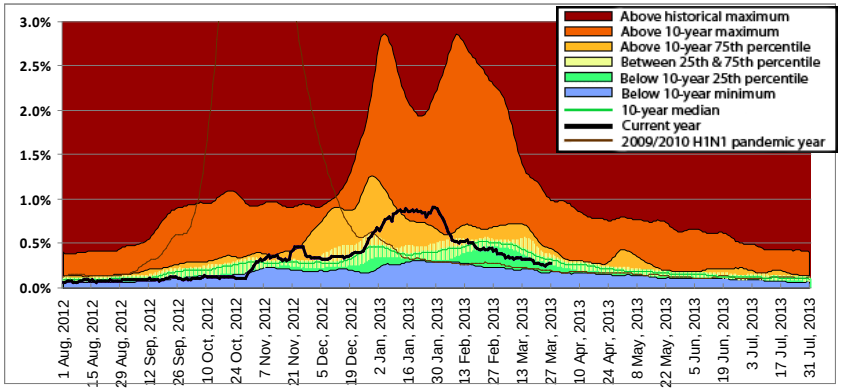
## Interior



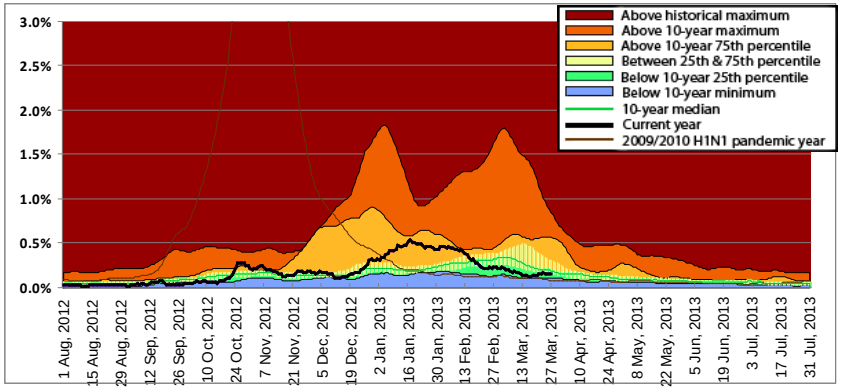

## Fraser



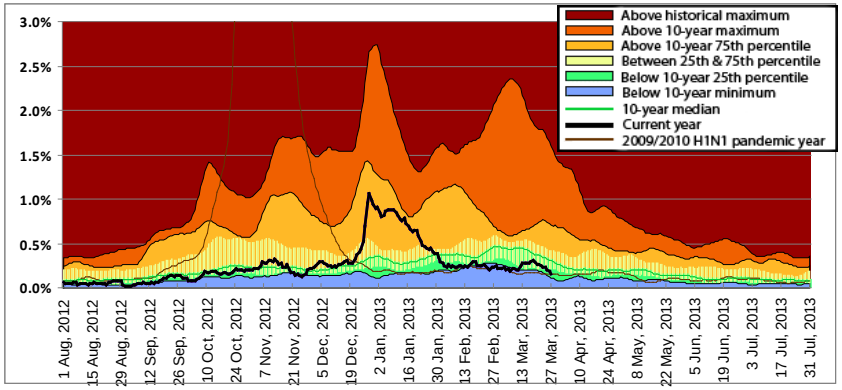

## Vancouver Coastal




## Vancouver Island

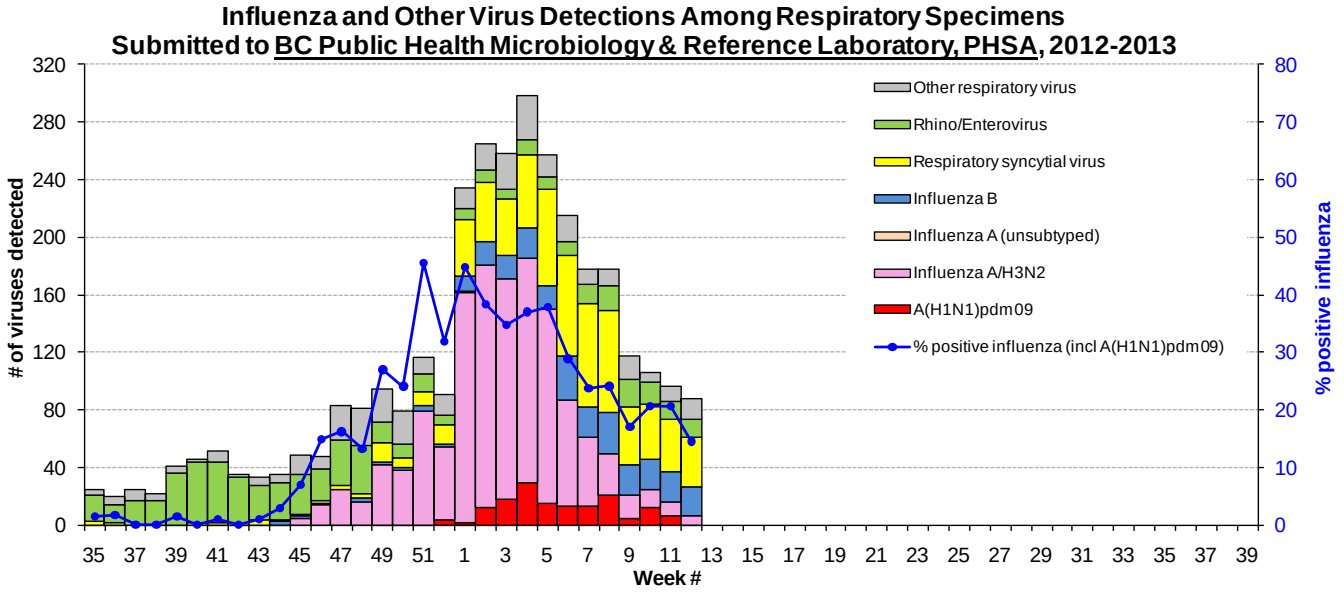



## Northern

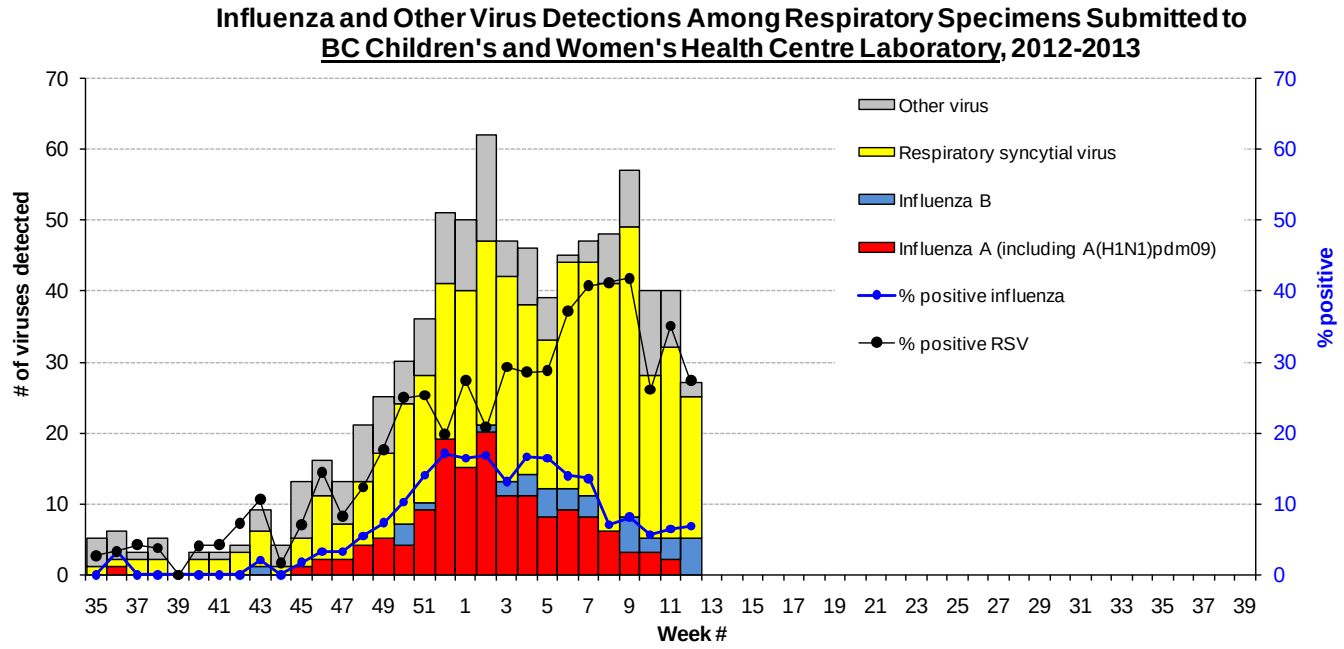


## Laboratory Reports

As reported by the BC Public Health Microbiology & Reference Laboratory, PHSA, for weeks 11-12, 365 specimens were tested for influenza. Among them, 64 (17.5%) were positive, including 23 influenza A from all Health Authorities but Northern [15 A/H3N2 and 8 A(H1N1)pdm09], and 41 influenza B from all Health Authorities. Of note, the proportion of influenza detections that are type B is on the rise, accounting for more than half of the influenza detections in each of the past three weeks. Other significant detections included RSV and rhino/enterovirus.




In weeks 11-12, BC Children's and Women's Health Centre Laboratory reported having tested 150 respiratory specimens, of which 10 (6.7%) were positive for influenza, including 8 influenza B and 2 influenza A (un-subtyped). RSV (47/150, 31.3%) remained the most common detection. Human metapneumovirus and parainfluenza were also sporadically detected.



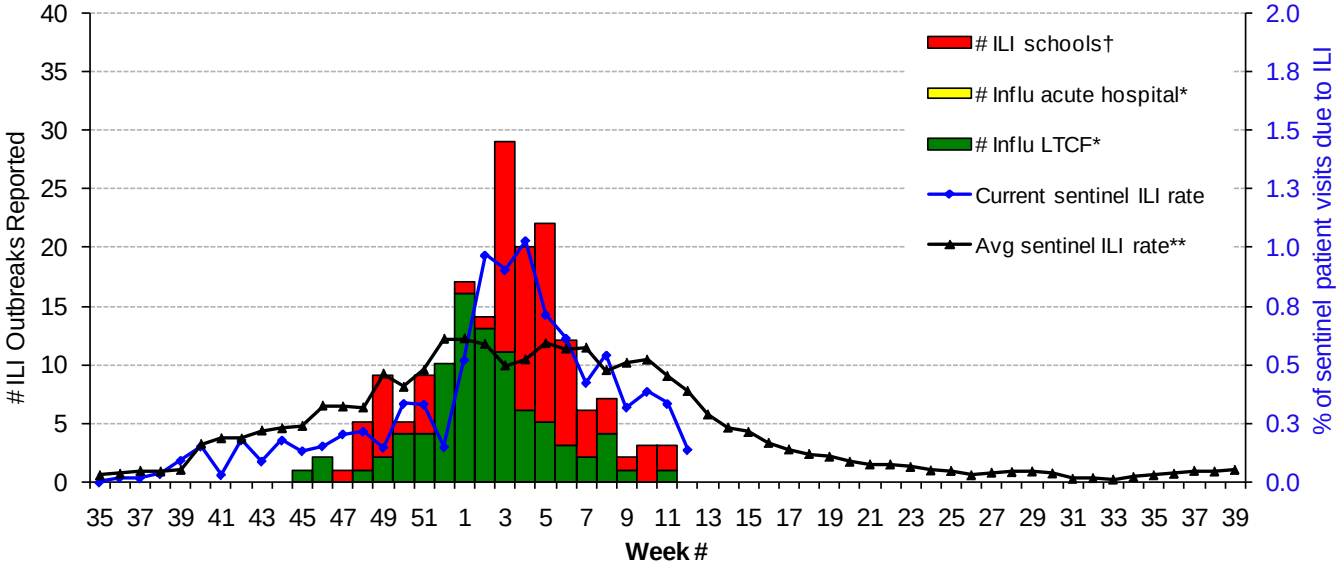

Data provided by Virology Department at Children's & Women's Health Centre of BC

## ILI Outbreaks

In weeks 11-12, one lab-confirmed influenza A/H3N2 outbreak was reported from a long-term care facility (LTCF) in IHA in week 11, bringing the total lab-confirmed influenza LTCF outbreaks in BC to 86 for the current season (since week 40, 30 September 2012): 36 in Fraser, 21 in Interior, 12 in Vancouver Coastal, 13 in Vancouver Island, and 4 in Northern Health Authority[¶]. Two school ILI outbreaks were further reported from Northern Health Authority in week 11.

[¶]Numbers subject to change upon further reconciliation of reports.

**Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 10 years, per Week, British Columbia, 2012-2013 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 and 2009-10 seasons due to atypical seasonality.

## **FluWatch** (week 11; 10-16 March 2013)

In Canada, the proportion of respiratory specimens positive for influenza continued to decline. However, among them, the proportion of influenza B detections increased over the previous eight weeks from 2.1% in week 3, to 55.4% in week 11. The overall proportion of tests positive for other respiratory viruses also increased in week 11 compared to the previous week. Several indicators, including the number of regions reporting widespread or localized activity, the ILI consultation rate, and the proportion of prescriptions for antivirals decreased in week 11. Similar to the previous week, most paediatric hospitalizations were associated with influenza B. www.phac-aspc.gc.ca/fluwatch/

## National Microbiology Laboratory (NML): Strain Characterization

From September 1, 2012 to March 21, 2013, 798 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

470 A/Victoria/361/2011-like (H3N2)[¶] from NFLD, PEI, NS, NB, QUE, ONT, MAN, SASK, ALTA and BC;
128 A/California/07/2009-like [A(H1N1)pdm09]* from NFLD, NS, NB, QUE, ONT, SASK, ALTA and BC;
40 B/Brisbane/60/2008-like** from NB, QUE, ONT, MAN, SASK, ALTA and BC;
160 B/Wisconsin/01/2010-like[†] from NB, QUE, ONT, SASK, ALTA, BC and NWT;

[¶] indicates a strain match to the recommended H3N2 component for the 2012-2013 northern hemisphere influenza vaccine
† belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 northern hemisphere influenza vaccine.
* indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.
** belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.

### NML: Antiviral Resistance

From September 1, 2012 to March 21, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 462; zanamivir: 461; amantadine: 772), A(H1N1)pdm09 (oseltamivir: 106; zanamivir: 104; amantadine: 114), and influenza B isolates (oseltamivir: 162; zanamivir: 162). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

## INTERNATIONAL

**USA:** during week 11 (ending March 16, 2013), influenza activity remained elevated in the United States but decreased in most areas. The proportion of deaths attributed to pneumonia and influenza (7.6%) remained just above the epidemic threshold of 7.5%. The proportion of outpatient visits for influenza-like illness continued to decrease and was at the national baseline of 2.2% in week 11. The percentage of specimens testing positive for influenza continued to decline. Eight hundred and ninety-nine (16.3%) specimens tested were positive for influenza viruses, including 28.1% influenza A (predominantly A/H3N2 among those subtyped), and 71.9% influenza B. www.cdc.gov/flu/weekly. In **Europe** (ECDC report to 17 March 2013), more countries reported declining or stable influenza activity in week 11 except Romania where ILI rates had not yet peaked. The proportion of influenza-positive sentinel specimens had remained above 50% since week 4, with a peak of 61% in week 5, but decreased more sharply from week 10 (54%) to week 11 (46%). Since the beginning of this season, a roughly even distribution of influenza virus types has been observed, about 50% each for type A and type B viruses. Among influenza A viruses, after increasing from week 2, the proportion of A(H1N1)pdm09 remained unchanged since week 7 at about 60% of specimens subtyped.
http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=1080

Influenza activity throughout the temperate region of **Asia** (WHO report of 15 March 2013) decreased overall except in Mongolia and the Republic of Korea where activity persisted. Only low levels of influenza activity were reported across the **tropical regions** of the world and activity in countries of the southern hemisphere remained at inter-seasonal levels. **Of note**, a few A(H1N1)pdm09 virus isolates from three European countries were found to have a neuraminidase amino acid substitution, indicating resistance to oseltamivir.
www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

### Novel Coronavirus

The WHO reported two new confirmed cases of infection with the novel coronavirus (NCoV), including one case in Saudi Arabia (notified 23 March 2013) with a history of contact with a previous patient, who recovered and was discharged from hospital. The second case is a 73-year-old-male from the United Arab Emirates who died in hospital on 26 March 2013. To date, WHO has been informed of a global total of 17 confirmed cases of human infection with NCoV, including 11 deaths. Detailed information is available at: www.who.int/csr/don/2013_03_26/en/index.html

### Avian Influenza

As reported by CIDRAP News (www.cidrap.umn.edu/cidrap/content/influenza/avianflu/news/mar2513scan1.html), the United Nations Food and Agriculture Organization (UN FAO) has identified another lab-confirmed case of avian influenza A/H5N1 in Egypt. The adult woman became sick on 3 March 2013, a few days after close contact with sick and dead backyard poultry. Confirmation from the WHO is pending.

**WHO Recommendations for 2012-13 Northern Hemisphere Influenza Vaccine**

On 23 February 2012, the WHO announced the recommended strain components for the 2012-13 northern hemisphere vaccine:

A/California/7/2009 (H1N1)pdm09 virus
A/Victoria/361/2011 (H3N2)-like virus*
B/Wisconsin/1/2010 (Yamagata lineage)-like virus*

* These two of the three recommended components are different from the northern hemisphere seasonal TIV vaccines produced and administered in 2010-11 and 2011-2012.

For further details, see:
www.who.int/influenza/vaccines/virus/recommendations/2012_13_north/en/index.html

**WHO Recommendations for 2013-14 Northern Hemisphere Influenza Vaccine**

On 21 February 2013, the WHO announced the recommended strain components for the 2013-14 northern hemisphere vaccine:

A/California/7/2009 (H1N1)pdm09 virus
A/Victoria/361/2011 (H3N2)-like virus*
B/Massachusetts/2/2012-(Yamagata lineage)-like virus**

*For A/H3N2, it is recommended that A/Texas/50/2012 be used as the A(H3N2) vaccine component because of antigenic changes in earlier A/Victoria/361/2011-like vaccine viruses (such as IVR-165) resulting from adaptation to propagation in eggs.

** This one of the three recommended components is different from the northern hemisphere seasonal TIV vaccines produced and administered in 2012-13.

For further details, see:
www.who.int/influenza/vaccines/virus/recommendations/2013_14_north/en/index.html

**Contact Us:**

**Communicable Disease Prevention and Control (CDPACS):**
**BC Centre for Disease Control (BCCDC)**

## 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
**A(H1N1)pdm09:** 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/
Washington State Flu Updates: www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.pdf
USA Weekly Surveillance reports: www.cdc.gov/flu/weekly/
European Influenza Surveillance Scheme: ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx
WHO – Global Influenza Programme: www.who.int/csr/disease/influenza/mission/
WHO – Weekly Epidemiological Record: www.who.int/wer/en/
Influenza Centre (Australia): www.influenzacentre.org/
Australian Influenza Report: www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm
New Zealand Influenza Surveillance Reports: 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/
World Organization for Animal Health: www.oie.int/eng/en_index.htm

**3. This Report On-line:** www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm

*version: 26 Oct 2011*

# Influenza-Like Illness (ILI) Outbreak Summary Report Form

***Please complete and email to ilioutbreak@bccdc.ca***

**Note: This form is for provincial surveillance purposes.**
**Please notify your local health unit per local guidelines/requirements.**

**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.

## A

### Reporting Information

*Health unit/medical health officer notified?* ☐ *Yes* ☐ *No*

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)*

## 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): DD / MMM / YYYY

| Numbers to date | Residents/Students | Staff |
|---|---|---|
| **Total** | | |
| **With ILI** | | |
| **Hospitalized** | | |
| **Died** | | |

## C

### Update AND Outbreak Declared Over

Date of onset for most recent case of ILI (dd/mm/yyyy): DD / MMM / YYYY

If over, date outbreak declared over (dd/mm/yyyy): DD / MMM / YYYY

| Numbers to date | Residents/Students | Staff |
|---|---|---|
| **Total** | | |
| **With ILI** | | |
| **Hospitalized** | | |
| **Died** | | |

## D

### Laboratory Information

Specimen(s) submitted? ☐ Yes (location: _____) ☐ No ☐ Don't know

If yes, organism identified? ☐ Yes (specify: _____) ☐ No ☐ Don't know

Communicable Disease Prevention & Control Services
655 W. 12th Ave.
Vancouver BC V5Z 4R4

Phone: (604) 707-2510
Fax: (604) 707-2516
ilioutbreak@bccdc.ca