# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 16, Week 8

**February 17 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 expected seasonal levels

**Contents:**




### Summary

In week 8 (February 17 to 23, 2013), most indicators suggest that influenza activity in BC remains at levels expected at this time of the year. The proportion of medical visits with an influenza diagnosis remained below seasonal norms throughout the province. Less than a quarter of the specimens tested at the provincial laboratory were positive for influenza, still predominantly influenza A, but with slightly increased influenza B contribution compared to the previous week. Among other viruses, respiratory syncytial virus continued to be the most common detection. Few influenza-like illness outbreaks were reported in week 8. Compared to the previous week, the proportion of consultations for influenza-like illness at BC Children's Hospital emergency room declined slightly. At the BC Children and Women's Centre Laboratory, the percentage of influenza viruses detected continued to decrease, while the proportion of respiratory syncytial virus detections continued to increase.


*Report disseminated February 28, 2013*

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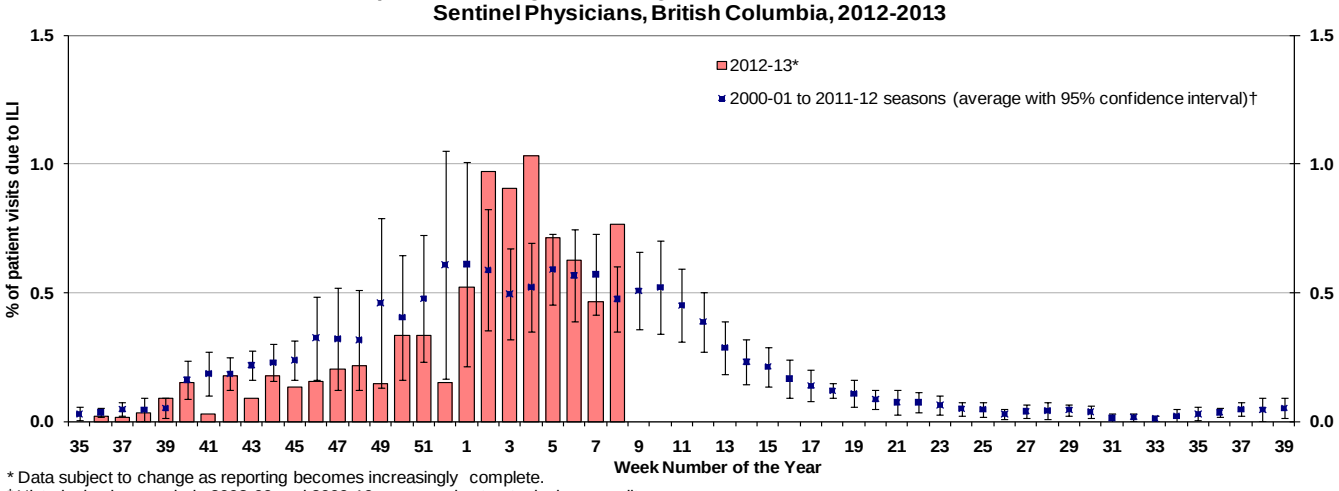
## British Columbia

### Sentinel Physicians

In week 8, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians showed increase from 0.47% the previous week to 0.76%, above the expected range for this time of year but subject to change given that to date 62% of sentinel physician sites have reported for week 8.

**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**

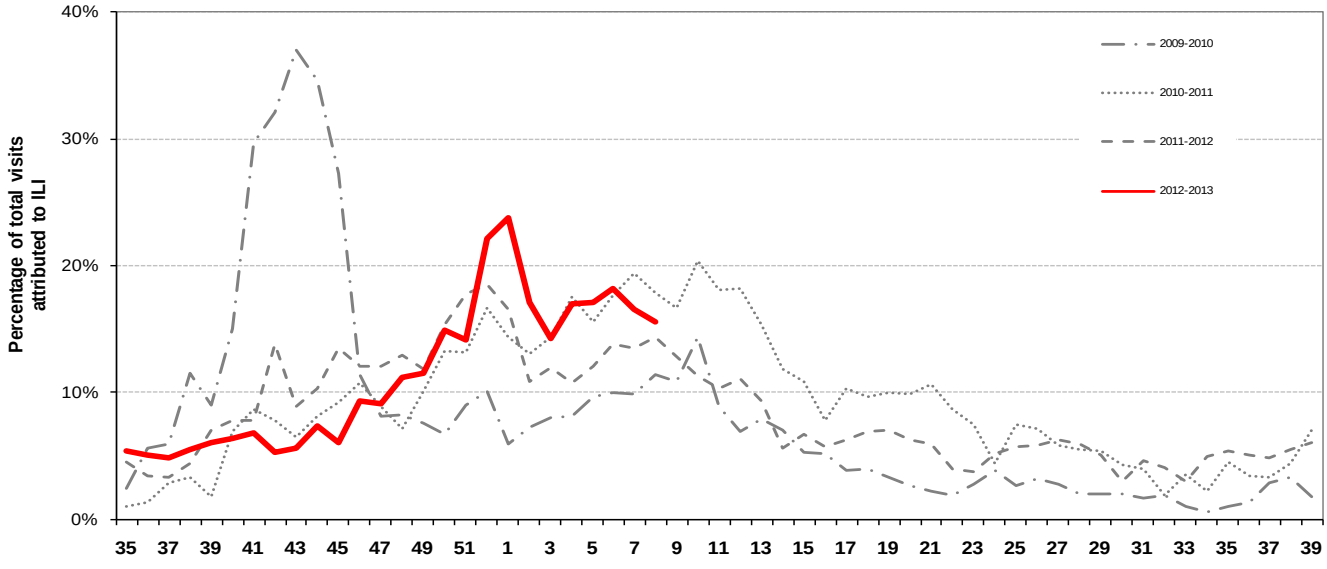



* Data subject to change as reporting becomes increasingly complete.
† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

### 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 15.6% in week 8, slightly lower than the previous week, and consistent with the expected level for this time of year.

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

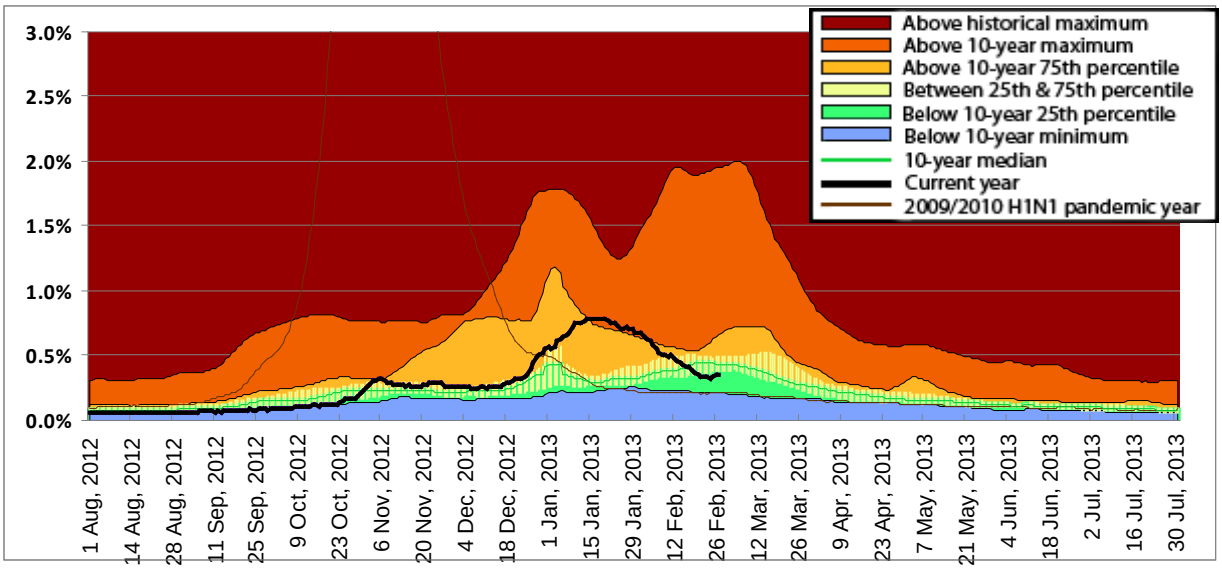



**Source:** BCCH Admitting, discharge, transfer database, ADT
**Note:** Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

## Medical Services Plan

During week 8, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims continued to be 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 28 February 2013.

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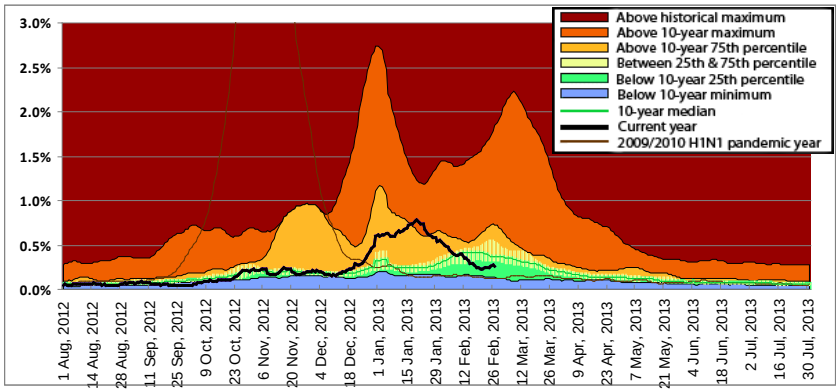
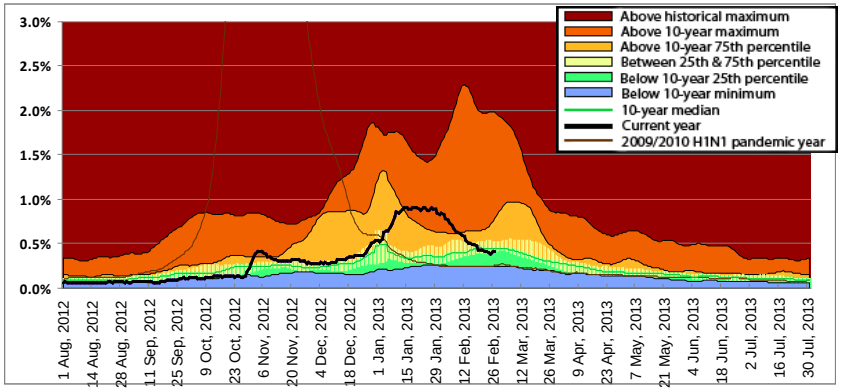
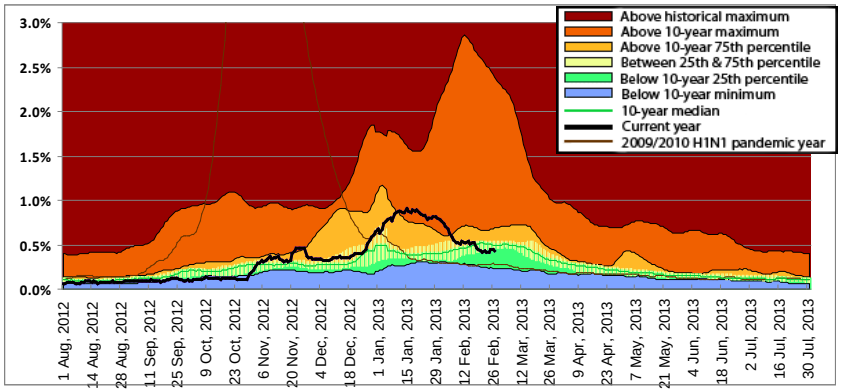
## Interior



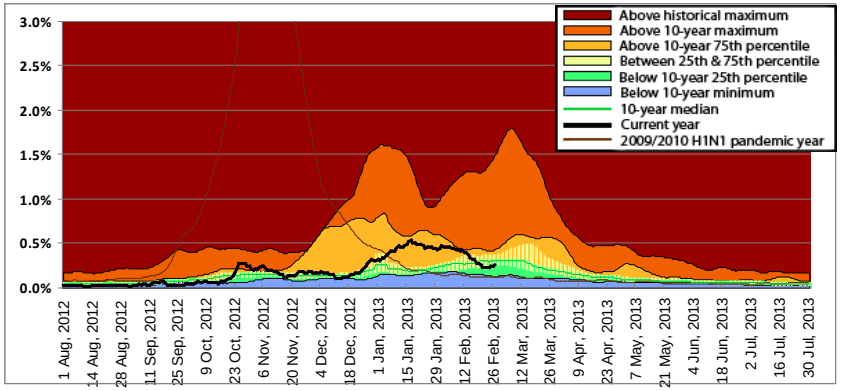

## Fraser



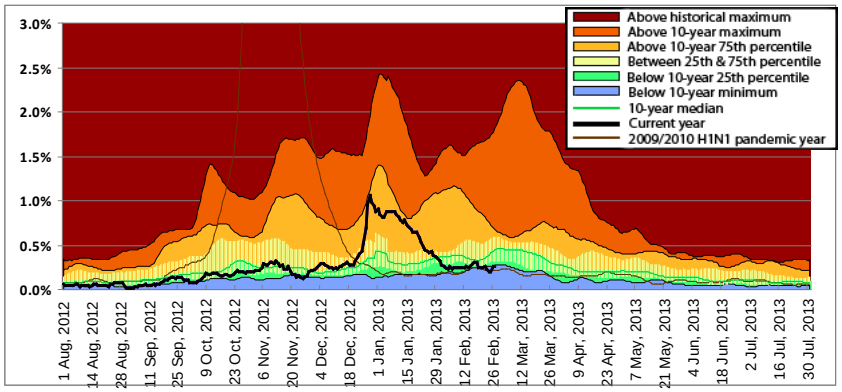

## Vancouver Coastal




## Vancouver Island

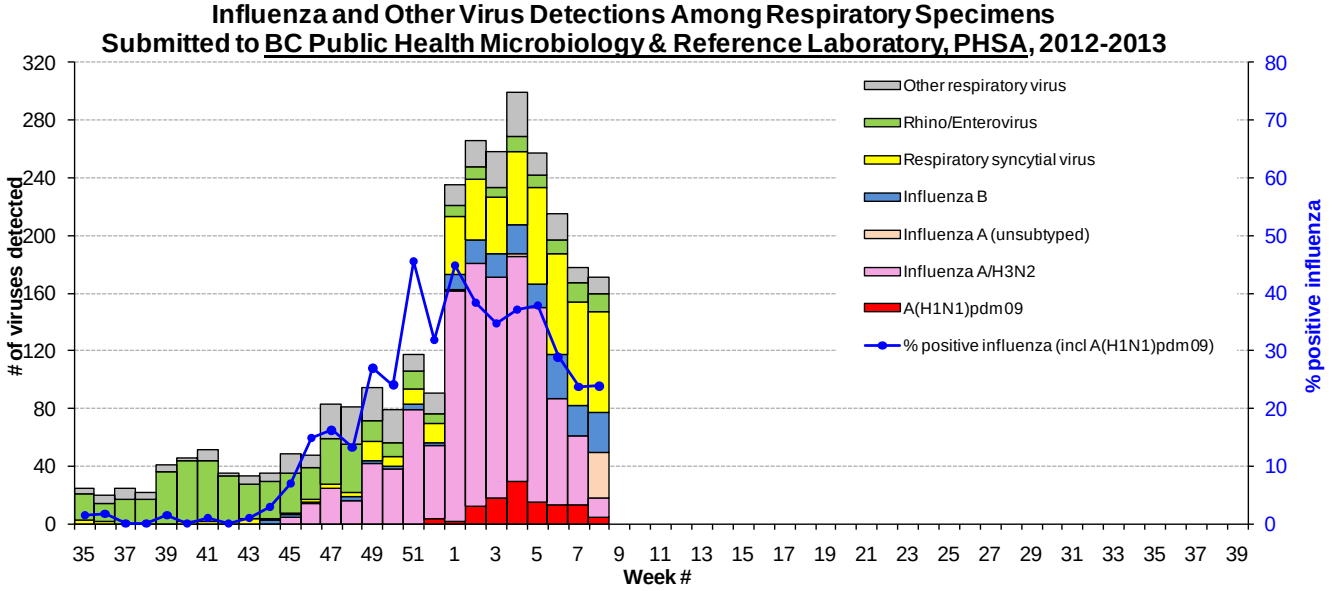



## Northern

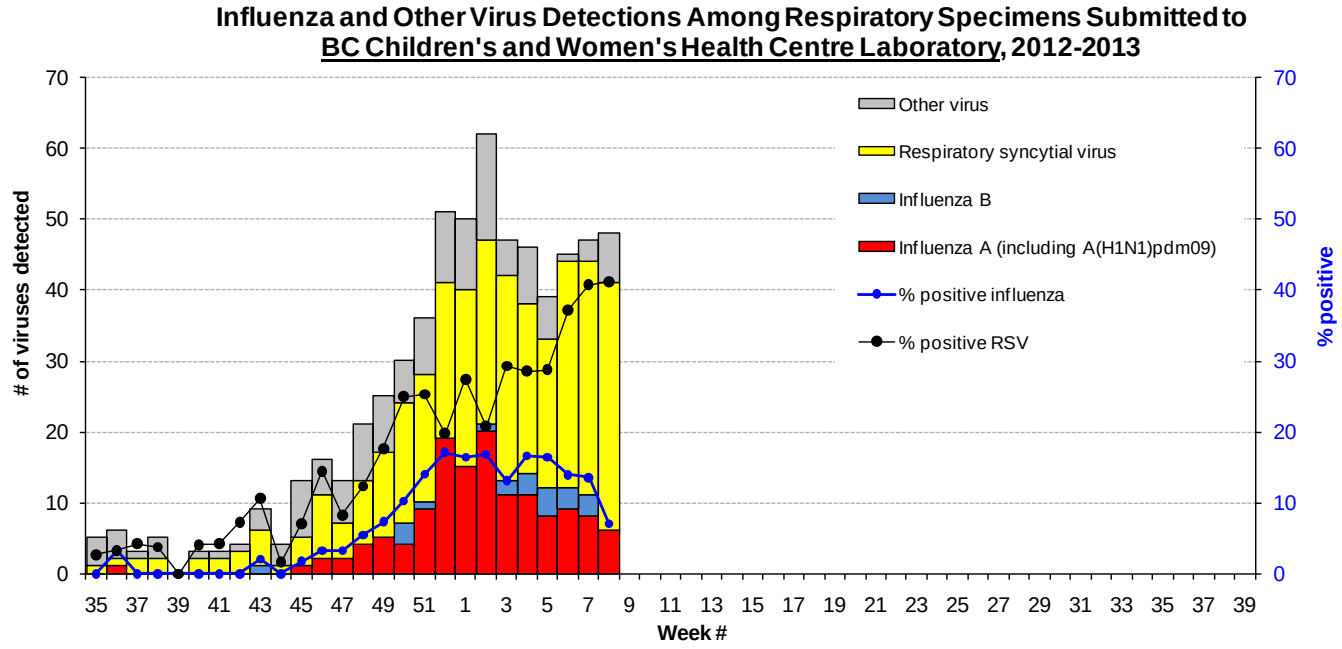


## Laboratory Reports

In week 8, three hundred and twenty-two specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, 77 (23.9%) were positive for influenza, including 50 influenza A from all Health Authorities but Northern [13 A/H3N2, 5 A(H1N1)pdm09, 32 A (subtype pending)], and 27 influenza B from all HAs. Among influenza-positive specimens, the proportion of influenza B (35%) increased slightly. Among other respiratory viruses, RSV continued to dominate (67/309, 21.7%). A subset of submitted specimens (304) was further tested for other viruses, showing sporadic detections of these viruses.




In week 8, BC Children's and Women's Health Centre Laboratory tested 85 respiratory specimens, of which 6 (7.1%) were positive for influenza (all influenza A [un-subtyped]). RSV (35/85, 41.2%) remained the most common detection. Human metapneumovirus was also sporadically detected.

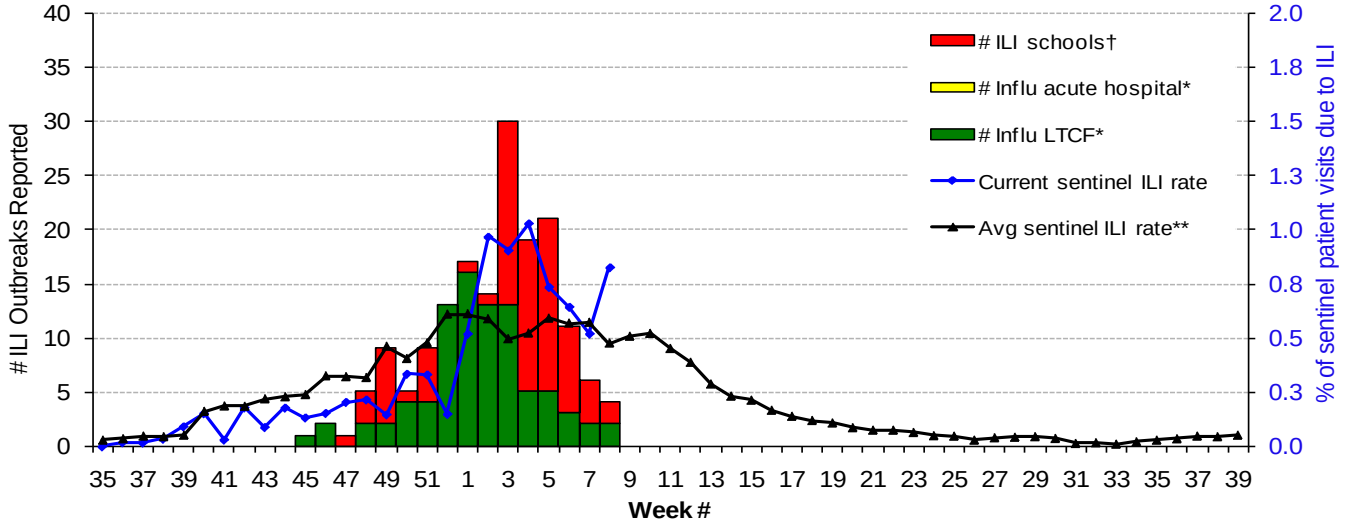



Data provided by Virology Department at Children's & Women's Health Centre of BC

## ILI Outbreaks

In week 8, two lab-confirmed influenza A outbreaks were reported from LTCFs in Fraser and Vancouver Coastal Health Authorities, which brings the total lab-confirmed influenza LTCF outbreaks to 87 in BC for the current season (since week 40, 30 September 2012): 36 in Fraser, 21 in Interior, 12 in Vancouver Coastal, 12 in Vancouver Island, and 6 in Northern Health Authority. Two school ILI outbreaks were further reported in week 8 in Vancouver Coastal and Interior Health Authority (unknown pathogen).

**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

In week 7 (10 to 16 February 2013), several indicators suggested waning influenza circulation in Canada. The percentage of laboratory detections positive for influenza continued to decrease. Among the influenza viruses detected in week 7, 86.8% were positive for influenza A [28.6% A/H3N2, 8.0% A(H1N1)pdm09, and 63.4% A (un-subtyped)]. Although influenza B remains a small percentage of laboratory detections, the proportion has increased over the past four weeks from 2.1% to 13.2%. The percentage of tests positive for RSV was similar to the previous week; in contrast, the percentage of tests positive for rhinovirus increased. The number of regions reporting widespread and localized influenza activity continued to decrease, with activity primarily in the central and eastern regions of the country. Few new influenza/ILI outbreaks were reported compared to the past 6 weeks. The ILI consultation rate increased but was still within the expected range for this time of year. www.phac-aspc.gc.ca/fluwatch/

## National Microbiology Laboratory (NML): Strain Characterization

From September 1, 2012 to February 28, 2013, 624 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

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

[¶] 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 February 28, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 412; zanamivir: 412; amantadine: 630), A(H1N1)pdm09 (oseltamivir: 77; zanamivir: 76; amantadine: 65), and influenza B isolates (oseltamivir: 94; zanamivir: 93). 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 7 (10-16 February 2013), influenza activity remained elevated in the United States but decreased in most areas. The proportion of deaths attributed to pneumonia and influenza declined to 8.6% but remained high and above the epidemic threshold of 7.5%. For the fourth consecutive week, the proportion of outpatient visits for influenza-like illness decreased but remained above the national baseline of 2.2%. The percentage of specimens testing positive for influenza continued to decline. One thousand three hundred seventy-one (16.8%) specimens tested were positive for influenza viruses, including 55% influenza A (predominantly A/H3N2 among those subtyped), and 45% influenza B. The US CDC's weekly influenza surveillance report is available at: www.cdc.gov/flu/weekly.
In most of **Europe** (ECDC report to 17 February 2013), widespread but medium intensity influenza activity was observed, with an increasing number of countries reporting waning activity. The proportion of influenza-positive sentinel specimens remained high (52%) but on the decline. Since the beginning of this season, an even distribution of influenza virus types has been observed, 50% each for type A and type B viruses. Among influenza A viruses, an increasing proportion of A(H1N1)pdm09 over A/H3N2 has been reported since week 52.
http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=1062
No new report has been issued by the WHO since 15 February 2013.
www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

**Novel Coronavirus:** No new cases of novel coronavirus (NCoV) have been reported since 21 February 2013.

**Avian Influenza:**
On 27 February 2013, the WHO and Cambodia's MoH jointly reported that country's 9th confirmed human case of avian influenza A/H5N1 virus infection this year. A 35-year-old man developed fever on 8 February 2013, and despite intensive medical care, died on 25 February. Cambodia's 8th case was a male under 2 years old, who developed symptoms on 6 February 2013 and died after being admitted to hospital, on 19 February. Both are thought likely to have come in contact with sick/dead poultry.
www.wpro.who.int/mediacentre/releases/2013/20130227
www.wpro.who.int/mediacentre/releases/2013/20130222

Elsewhere, three confirmed human cases have been reported so far in 2013: a 36-year-old female in Egypt, who developed symptoms on 16 January 2013, and died on 26 January. She was reported to have had exposure to sick/dead backyard poultry. The other two were an adult male (still in critical condition) and female (who died 13 February) both from the same district in China. Neither had a clear history of contact with poultry, and the cases are not thought to be epidemiologically linked.
www.wpro.who.int/emerging_diseases/AvianInfluenza

**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