# BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 17, Week 17-36

**April 22 to September 8, 2012**

BC Centre for Disease Control
An agency of the Provincial Health Services Authority

**Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team**

# Expected low-level influenza activity in BC, Spring-summer 2012

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## Summary

In advance of the upcoming 2012-13 influenza season we provide here an update and summary of influenza activity in BC over the 2012 spring-summer period. During weeks 17-36 (April 22 to September 8, 2012), influenza activity was at expected low levels in BC. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was less than 0.15%, within the expected range for this time of year. Throughout the entire province, influenza illness as a proportion of all submitted BC MSP claims remained at or below the 10-year median for this time of year. One lab-confirmed influenza A/H3N2 outbreak was reported from a long term care facility in Fraser Health Authority in week 20 (i.e. week of May 13-19). Of the one thousand and thirty-eight specimens tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, during this period, 73 (7.0%) were positive for influenza virus, including 48 influenza A/H3N2, 2 A(H1N1)pdm09, and 23 influenza B. While most of these were identified during weeks 17-26 (April 22 – June 30), there have been two recent adult detections of influenza A/H3N2 (week 35 and 36, i.e. between August 12 and September 8). Other significant respiratory virus detections included rhino/enterovirus (230/1037, 22.2%). Other respiratory viruses were also sporadically detected.


*Report disseminated September 21, 2012*

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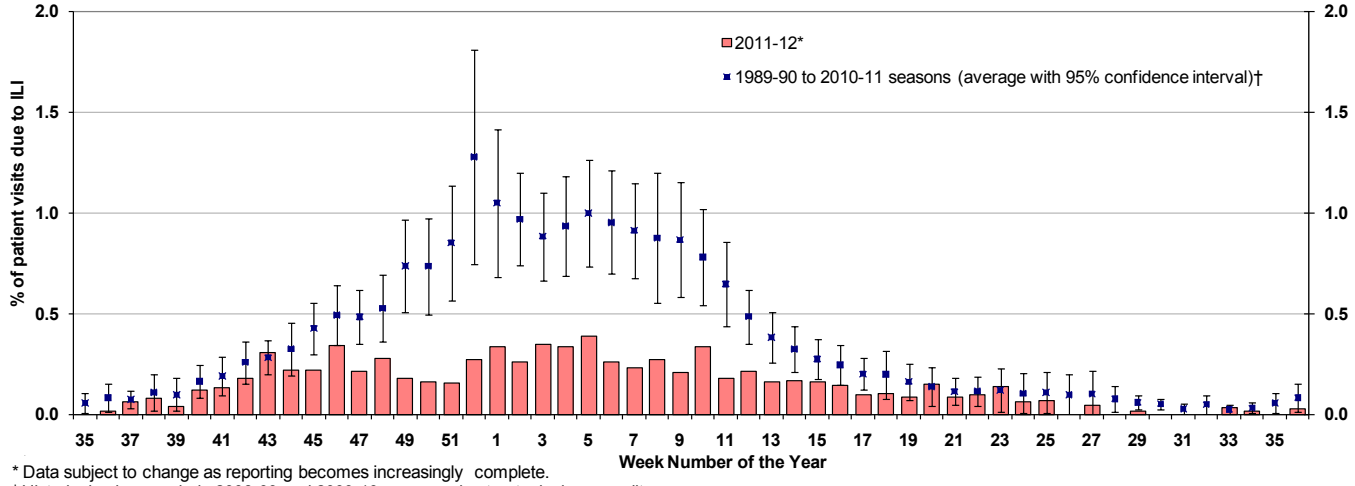
## British Columbia

### Sentinel Physicians

In weeks 17-36, the proportion of patients with ILI among those presenting to sentinel physicians was low, ranging from 0 to 0.15%, within the expected range for this time of year. The proportion of sentinel sites reporting during this period varied from 52% to 89% by week.

**Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 20 Seasons Sentinel Physicians, British Columbia, 2011-2012**

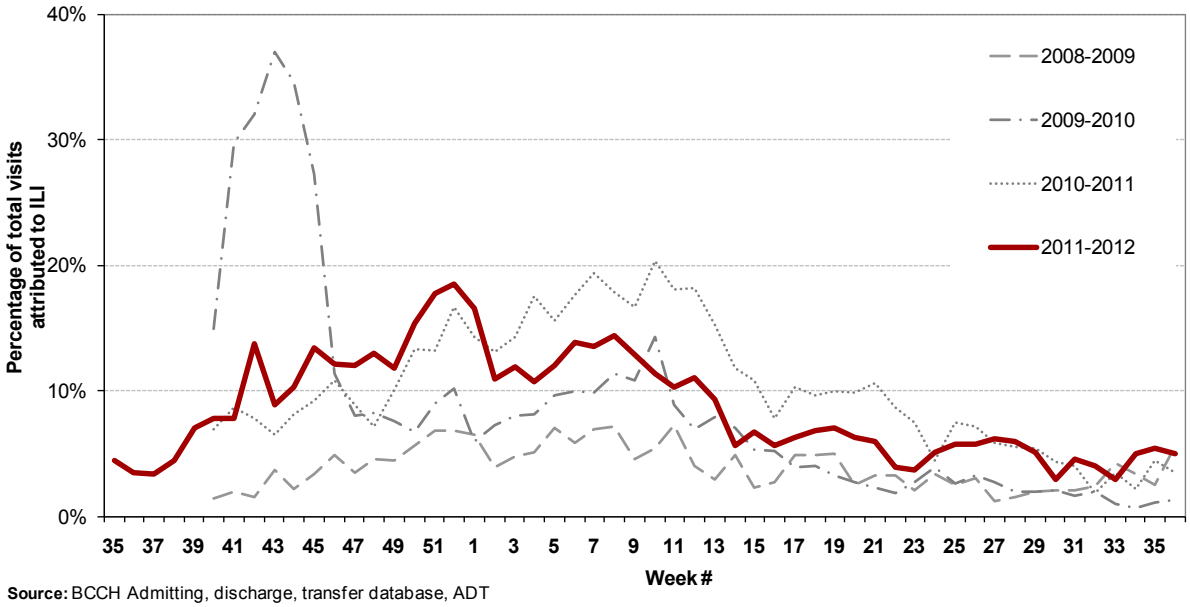



* Data subject to change as reporting becomes increasingly complete.
† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

### BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness ranged from 2.9% to 7.0% during weeks 17 through 36.

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

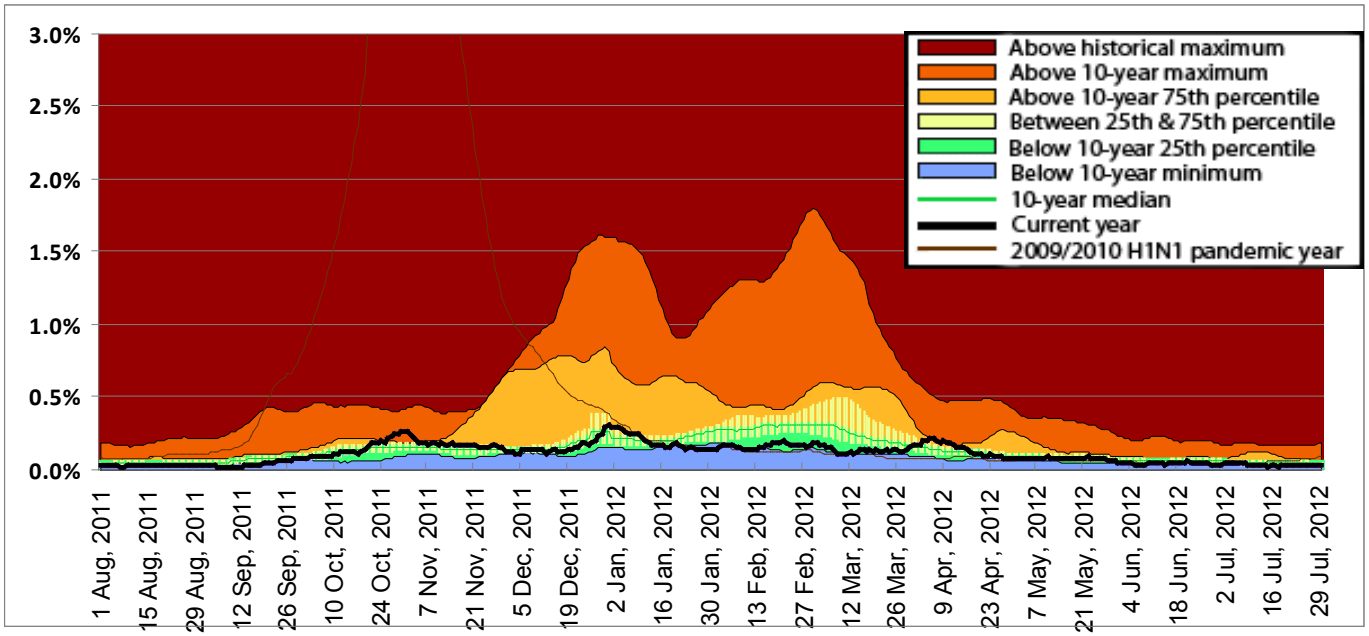


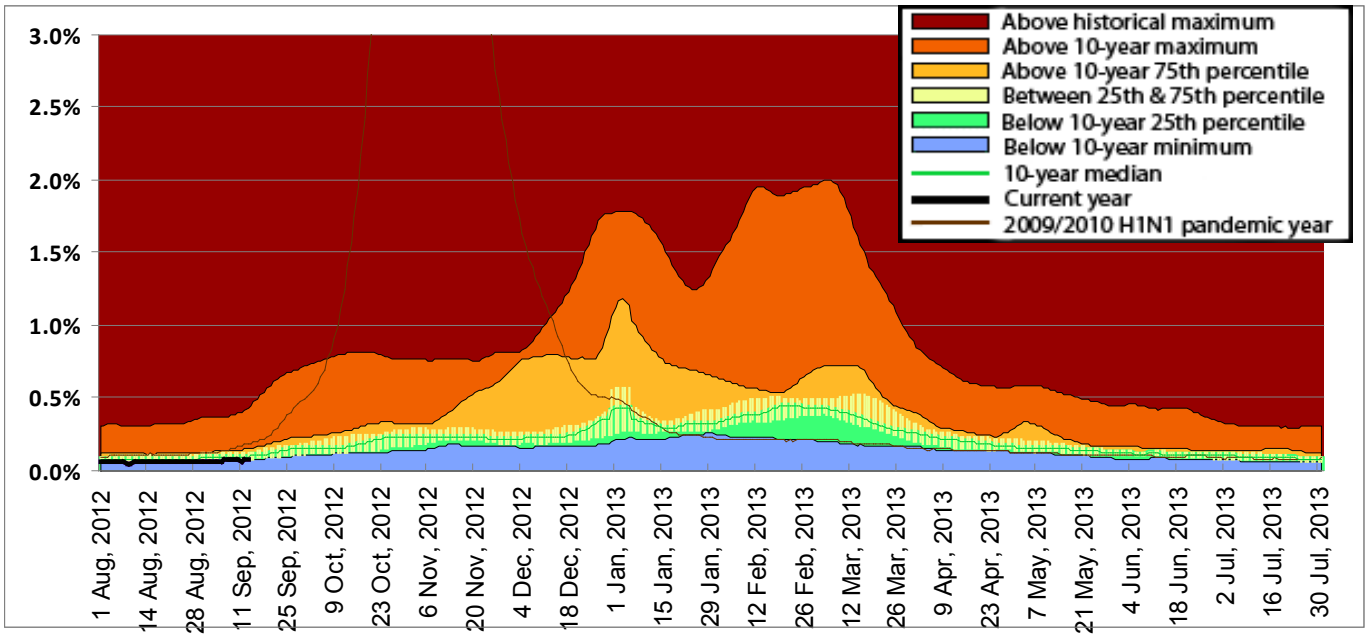

**Source:** BCCH Admitting, discharge, transfer database, ADT
**Note:** Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2008-09 and 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

## Medical Services Plan

In weeks 17-36, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained low, at or below the 10-year median level for this time of year in each health authority and at the provincial level.

**Influenza Illness Claims,* British Columbia**

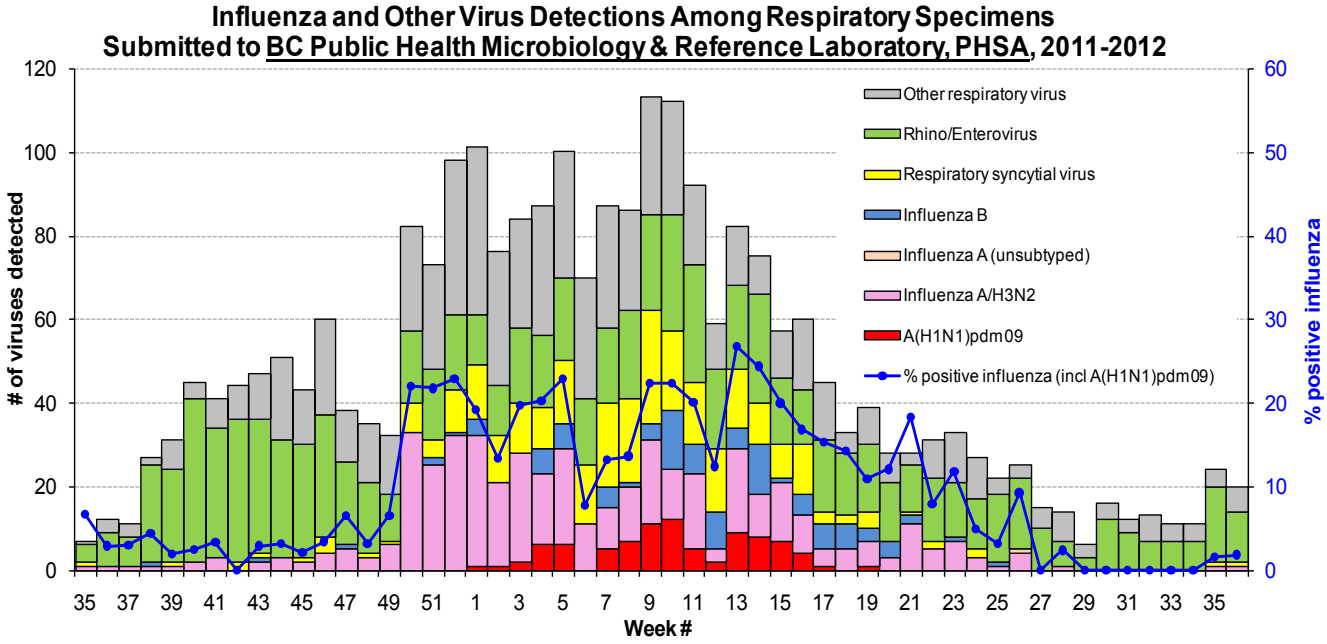



* Influenza illness is tracked as the percentage of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza). Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services
**Note:** MSP week beginning 5 August 2012 corresponds to sentinel ILI week 32; Data current to 14 September 2012.

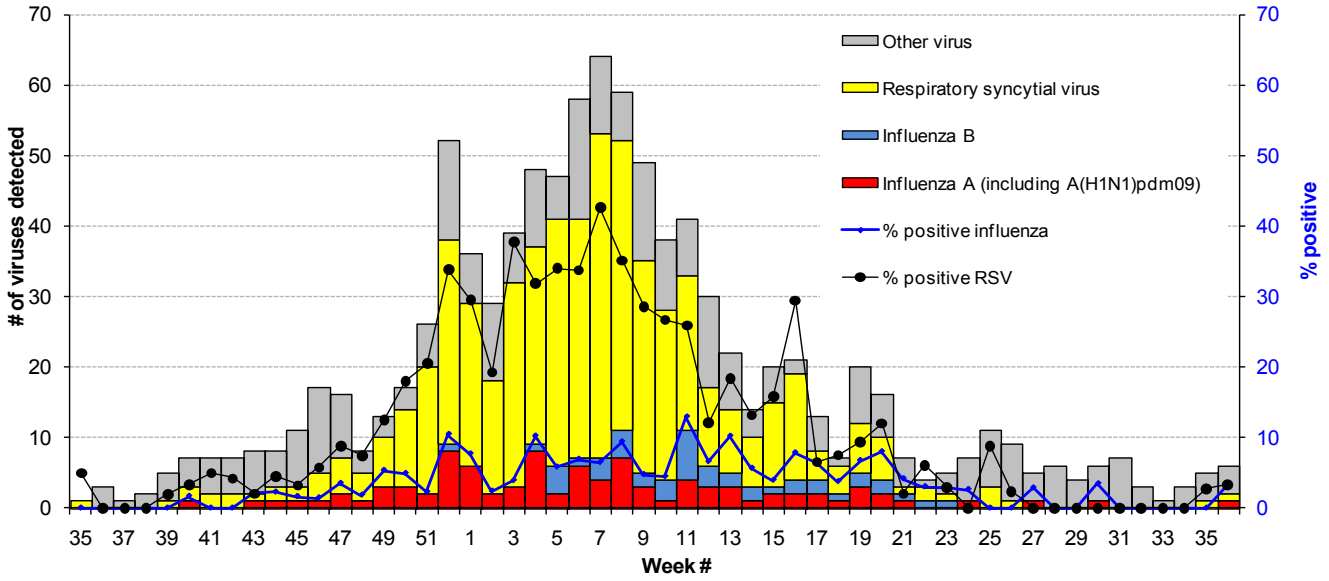
## Laboratory Reports

In weeks 17-36, one thousand and thirty-eight specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, seventy-three (7.0%) were positive for influenza viruses, mainly detected during weeks 17-26 (i.e. between April 22 and June 30): 48 (65.8%) influenza A/H3N2 from throughout the province; 2 (2.7%) A(H1N1)pdm09 (one from IHA in week 17, one from VCHA in week 19); and 23 (31.5%) influenza B from every Health Authority but Northern. Of note, two influenza A/H3N2 adult cases were recently detected, one in week 35 (i.e. week of August 26 - September 1) and one in week 36 (both from VCHA). Of 1038 specimens tested for other respiratory viruses, rhino/enterovirus detections were most prominent (230/1038, 22.2%). Other respiratory viruses were also sporadically detected including parainfluenza virus (42/1038, 4.0%), human metapneumovirus (29/1038, 2.8%), adenovirus (22/1038, 2.1%), human bocavirus (18/1038, 1.7%), respiratory syncytial virus (16/1038, 1.5%), and coronavirus (9/1038, 0.9%).



In weeks 17-36, BC Children's and Women's Health Centre Laboratory tested 800 respiratory specimens. Among them, 23 (2.9%) were positive for influenza virus including 13 influenza A and 10 influenza B. The other common respiratory viruses detected were parainfluenza virus (55/800, 6.9%), RSV (31/800, 3.9%) and adenovirus (24/800, 3.0%); human metapneumovirus and coronavirus were also detected sporadically.

**Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2011-2012**

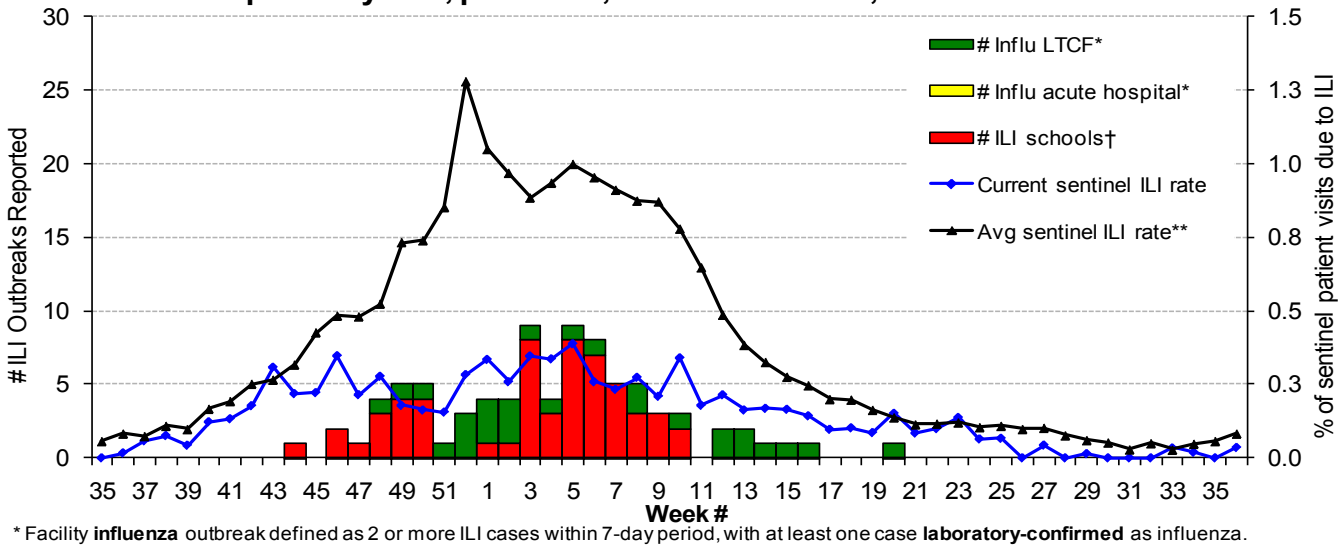



Data provided by Virology Department at Children's & Women's Health Centre of BC

## ILI Outbreaks

In weeks 17-36, one lab-confirmed influenza A/H3N2 outbreak was reported from a long term care facility in Fraser Health Authority in week 20 (i.e. week of May 13-19).

**Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 20 years, per Week, British Columbia, 2011-2012 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.

## CANADA

### FluWatch

In weeks 17-34 (April 22 to August 25, 2012), influenza activity in Canada was generally at low levels, although a few regions reported localized influenza activity in various weeks. Influenza A/H3N2, A(H1N1)pdm09, and influenza B co-circulated during this period. A laboratory-confirmed care facility outbreak due to influenza A/H3N2 has recently been reported from Manitoba (during week 37). After week 21, the significant detections of other respiratory viruses nationally were rhinovirus followed by parainfluenza virus. www.phac-aspc.gc.ca/fluwatch/.

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

The report for strain characterization was last updated on 5 June 2012. From 1 September 2011 to 30 May 2012, 1311 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

239 A/Perth/16/2009-like (H3N2)¶ from NS, NB, QUE, ONT, MAN, SASK, ALTA, BC, and NT;
208 A/California/07/09-like (H1N1)* from NB, QUE, ONT, MAN, SASK, ALTA, and BC;
417 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)† from NFLD, NS, NB, QUE, ONT, MAN, SASK, ALTA, and BC;
447 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NS, NB, QUE, ONT, MAN, SASK, ALTA, BC, NT and NU;

¶ indicates a strain match to the recommended H3N2 component of the 2011-12 northern hemisphere influenza vaccine
* indicates a strain match to the recommended H1N1 component for the 2011-2012 northern hemisphere influenza vaccine
† indicates a strain match to the recommended influenza B component for the 2011-2012 influenza vaccine

### NML: Antiviral Resistance

The report for antiviral resistance was last updated on 5 June 2012. From 1 September 2011 to 30 May 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 225; zanamivir: 207; amantadine: 384), influenza A(H1N1)pdm09 (oseltamivir: 235; zanamivir: 229; amantadine: 327), and influenza B isolates (oseltamivir: 838; zanamivir: 787). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A/H3N2 isolates but one, and all A(H1N1)pdm09 isolates, were resistant to amantadine.

## INTERNATIONAL

**USA:** More than 300 cases of influenza A(H3N2)v have been detected in humans from 10 states in 2012. There have been 16 hospitalizations and one death associated with influenza A(H3N2)v. Three cases of influenza A(H1N2) variant virus infection in humans have also been reported. Investigation around the cases indicates no evidence of sustained human-to-human transmission. Further details are available at: www.cdc.gov/flu/swineflu/h3n2v-outbreak.htm. **Temperate areas of northern hemisphere:** most countries have either shifted to out-of-season surveillance schedules or not yet started seasonal reporting. From available data, seasonal influenza transmission has not been picked up yet in the northern temperate zone. **Tropical areas:** most countries are reporting low or decreasing trends of influenza detections. The exceptions are Nicaragua in the Americas where mainly influenza B is being detected, while in Asia, the countries India and Thailand are both reporting influenza A(H1N1)pdm09 and B circulation. **Temperate areas of southern hemisphere:** influenza activity decreased in most countries. Australia, Chile, New Zealand, Paraguay and South Africa continue to report declines in influenza indicators. Argentina continues to report very low numbers of detections compared to previous seasons.
www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

**Avian Influenza:**
The most recent new human infection case of avian influenza was reported from the ministry of health of Indonesia to WHO on 10 August 2012. The 37 year old male patient died three days after hospitalization. Epidemiological investigation of this case indicated a previous poultry exposure. The cumulative number of confirmed human cases for avian influenza A/H5N1 reported to WHO this season reached 30 with 19 (63%) deaths. www.who.int/influenza/human_animal_interface/en/

### 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

### Contact Us:

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### 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/
Washington State Flu Updates: www.doh.wa.gov/FLUNews/
USA Weekly Surveillance reports: www.cdc.gov/flu/weekly/
European Influenza Surveillance Scheme: www.ecdc.europa.eu
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

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