Influenza Activity Remains Low in BC

Summary

In weeks 33 through 35 (August 15 - September 4), influenza-like illness (ILI) activity in BC remained low. Sentinel physician indicators remained consistent with low levels observed in previous weeks. No influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 97 respiratory specimens were tested between August 15 and September 4, 31 (32%) of which were positive for rhino/enterovirus. One influenza A/H3N2 virus (week 34) was detected. Of 89 specimens tested at BC Children's Hospital Laboratory, one was positive for influenza (A/H3N2). Other non-influenza respiratory viruses were sporadically detected at both labs during this period. In the southern hemisphere, rates of respiratory illness have fluctuated in recent weeks, with regionally intense activity (India, Australasia) and low levels of activity in others. Detections to date have included a mix of pandemic influenza A/H1N1 virus and seasonal influenza B and A/H3N2 viruses, with variation by country. BCCDC continues to monitor the situation in the southern hemisphere during their typical influenza season (April - October).

Report disseminated September 9, 2010
Contributors: Lisan Kwindt, Naveed Janjua, Danuta Skowronski
Sentinel Physicians

During weeks 33-35, less than 0.2% of patients presenting to sentinel physicians had ILI, which is consistent with the expected range for this time of year. Forty-nine percent (24/49) of sentinel physician sites have reported to-date for week 33, 47% (23/49) for week 34, and 49% (24/49) for week 35.

BC Children’s Hospital Emergency Room

The percentage of BC Children’s Hospital ER visits attributed to “fever and cough” or flu-like illness remained low (<2%) in weeks 33-35, consistent with levels observed in previous seasons.

British Columbia

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, 2009-2010

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

Source: BCCH Admitting, discharge, transfer database, ADT
Data provided by Decision Support Services at Children’s & Women’s Health Centre of BC
Medical Services Plan
Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also remained low in the last six weeks. Proportions in all 5 RHAs remain at or below historical medians. 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 Healthy Living & Sport

Notes: MSP week 26 Sep, 2010 corresponds to sentinel ILI week 39. Data current to Sep 8, 2010
Laboratory Reports
Ninety-seven respiratory specimens were tested at the BC Provincial Laboratory in weeks 33-35. One was positive for influenza (A/H3N2, week 34). Since September 1, 2009, >99% of all influenza detections in BC were pH1N1. To date, detections of other seasonal influenza viruses over the same period have been limited (17 out of 6573 influenza detections in total), although the most recent sporadic detections do include seasonal H3N2 virus. In weeks 33-35, of 97 specimens tested for other respiratory viruses, 31 (32%) tested positive for rhino/enterovirus, 3 (3%) for parainfluenza, 3 (3%) for adenovirus, 1 (1%) for coronavirus, 1 (1%) for human bocavirus, and none for either human metapneumovirus or RSV.

During weeks 33-35, BC Children’s and Women’s Health Centre Laboratory tested 89 respiratory specimens. One (1%) was positive for influenza A/H3N2. Four specimens (4%) were positive for adenovirus, 2 (2%) for parainfluenza, and none for RSV.

Data provided by Virology Department at Children’s & Women’s Health Centre of BC
**ILI Outbreaks**

No lab-confirmed influenza outbreaks were reported in facilities and no ILI outbreaks were reported in schools in BC during weeks 33-35.

**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, 2009-2010**

* 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.

**CANADA**

**FluWatch**

During weeks 33 and 34 (August 15 to 28, 2010), influenza activity in Canada remained low. The sentinel ILI rate remained low, within the expected range for this time of year. No influenza outbreaks were reported. Seven specimens (out of 1,522 or 0.46%) tested positive for influenza in weeks 33-34: four A/H3N2, and three unsubtyped influenza A. Those specimens were reported from BC, AB, ON and QC. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)
National Microbiology Laboratory (NML): Strain Characterization

No new strain characterization updates have been issued by NML since May 2010.

Between September 1, 2009 and May 5, 2010, 868 influenza isolates (851 pandemic H1N1 and 17 seasonal influenza) were collected from provincial and hospital labs and characterized at the NML:
- 851 A/California/07/2009 (H1N1)-like from BC, AB, SK, MB, ON, QC, NB, NS, PEI, NL, & NT;
- 3 A/Brisbane/59/2007 (H1N1)-like from AB & QC;
- 2 A/Brisbane/10/2007 (H3N2)-like from BC & QC;
- 8 A/Perth/16/2009 (H3N2)-like from BC, AB, & QC;
- 2 B/Brisbane/60/2008 (Victoria lineage)-like from ON;
- 1 B/Florida/04/2006 (Yamagata lineage)-like from QC;
- 1 B/Malaysia/2506/2004 (Victoria lineage)-like from ON.

§ A/California/07/2009 (H1N1) is the variant reference virus (pH1N1) selected by WHO for the pandemic influenza A/H1N1 vaccine
† indicates a strain match to the 2009-10 northern hemisphere trivalent influenza vaccine
¶ indicates a strain match to the recommended H3N2 component of the 2010-11 northern hemisphere trivalent influenza vaccine
* indicates a strain match to the influenza B component of the 2008-09 northern hemisphere trivalent influenza vaccine
# indicates a strain match to the influenza B component of the 2007-08 northern hemisphere trivalent influenza vaccine

NML: Antiviral Resistance

No new antiviral resistance updates have been issued by NML since May 2010.

Drug susceptibility testing at the NML between September 1, 2009 and May 6, 2010 indicated that 99% (1067/1079) of pH1N1 isolates were sensitive to oseltamivir. All influenza B isolates (n=4) and influenza A/H3N2 isolates (n=13) tested were sensitive to oseltamivir, and the 6 seasonal A/H1N1 isolates tested were oseltamivir-resistant. All pH1N1 (n=1057), seasonal H1N1 (n=2), A/H3N2 (n=13), and influenza B (n=4) isolates were sensitive to zanamivir. All pH1N1 (n=1136) and A/H3N2 (n=24) isolates were resistant to amantadine. Four seasonal H1N1 isolates were sensitive to amantadine, and one was resistant. Global surveillance has shown that circulating pH1N1 viruses are resistant to amantadine but remain sensitive to zanamivir and oseltamivir, although sporadic cases of oseltamivir resistance have been observed worldwide.

INTERNATIONAL

To the end of August, worldwide, pH1N1 virus transmission remained most intense in parts of India and in parts of the temperate southern hemisphere, particularly New Zealand and in Australia. Throughout the northern hemisphere, and overall, low levels of ILI and influenza detections have been observed in recent weeks. Co-circulation of pandemic A(H1N1), A(H3N2) and influenza B viruses was reported from Australia, China, Chile and India. Globally the majority of the sub-typed influenza A viruses were pandemic influenza A(H1N1). This is the predominant virus in Australia, New Zealand and India. Elsewhere sporadic activity of pandemic influenza A(H1N1), influenza B and/or A(H3N2) was detected in some countries.
www.pandemia.cl

WHO Recommendations for 2010-11 Northern Hemisphere Influenza Vaccine

On February 18, the WHO announced the recommended strain components for the 2010-11 Northern Hemisphere trivalent influenza vaccine:
- A/California/7/2009 (H1N1)-like virus
- A/Perth/16/2009 (H3N2)-like virus
- B/Brisbane/60/2008 (Victoria lineage)-like virus

A/California/7/2009 (H1N1) is the recommended component for pandemic H1N1 vaccines produced and administered in 2009-10. The recommended H3N2 virus has changed from the previous year’s vaccine (A/Brisbane/10/2007), while the recommended B virus remains unchanged (B/Brisbane/60/2008). For further details, see: www.who.int/csr/disease/influenza/recommendations2010_11north/en/index.html
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.eiss.org
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/

2. Avian Influenza Web Sites
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
Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to 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):** ________ / _______ / _______

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### 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): ________ / _______ / _______

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### SECTION D: Laboratory Information

- **Specimen(s) submitted?**
  - ☐ Yes (location: _________________)
  - ☐ No
  - ☐ Don’t know

  If yes, organism identified?
  - ☐ Yes (specify: _________________)
  - ☐ No
  - ☐ Don’t know