Influenza activity in BC remains low; sporadic A/H3N2 detected

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Summary

In weeks 36 through 39 (September 5 – October 2), influenza-activity in BC remained low. Sentinel physician and MSP indicators remained consistent with low levels observed in previous weeks. No lab-confirmed influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 215 respiratory specimens were tested between September 5 and October 2, 110 (51%) of which were positive for rhino/enterovirus. Four (<2%) influenza A/H3N2 viruses were detected, all in elderly people. Of 188 specimens tested at BC Children’s Hospital Laboratory, none were positive for influenza. Other non-influenza respiratory viruses were sporadically detected at both labs during this period. In the temperate Northern Hemisphere there has been little respiratory illness activity during this time. In subtropical/tropical regions of the Northern Hemisphere and temperate parts of the Southern Hemisphere, rates of respiratory illness have fluctuated in recent weeks, with regionally intense activity (Central America, China, South East Asia, South Africa) 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).
Sentinel Physicians

During weeks 36-39, less than 0.2% of patients presenting to sentinel physicians had ILI, which is consistent with the expected range for this time of year. Seventy-five percent (36/48) of sentinel physician sites have reported to-date for week 36, 69% (33/48) for week 37, 67% (32/48) for week 38, and 56% (27/48) for week 39.

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 (<3%) in weeks 36-39, consistent with levels observed in previous seasons.

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 four 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 Oct 5, 2010

Northern
Laboratory Reports
Two hundred fifteen respiratory specimens were tested at the BC Provincial Laboratory in weeks 36-39. Four (<2%) were positive for influenza A/H3N2 (one in week 36, one in week 38, and two in week 39), all among elderly people. There have been no BC Prov Lab detections of pH1N1 since week 27, and of influenza B since week 19. In weeks 36-39, of 215 specimens tested for other respiratory viruses, 110 (51%) tested positive for rhino/enterovirus, and 3 (1.4%) for parainfluenza. This suggests that acute febrile respiratory symptoms observed in the population at this time may be more likely due to other respiratory viruses, notably rhino/enterovirus, than influenza.

During weeks 36-39, BC Children’s and Women’s Health Centre Laboratory tested 188 respiratory specimens. None were positive for influenza. Three specimens (1.6%) were positive for RSV, and 3 (1.6%) for parainfluenza.
ILI Outbreaks
Four ILI outbreaks were reported by facilities in the province, but none were confirmed by laboratory testing to be influenza. Where results were available, laboratory testing identified rhino/enterovirus. One ILI outbreak (not lab-confirmed) was reported in a school in BC during weeks 36-39.

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 the two weeks ending September 25, 2010, influenza activity in Canada increased slightly but remained low. Most of the influenza surveillance regions reported no activity. One school and one long-term care facility (both in Ontario) each reported an influenza outbreak. Eleven specimens (out of 2,246 or 0.5%) tested positive for influenza in weeks 37 and 38: five A/H3N2, and six unsubtyped influenza A. Those specimens were reported from AB, ON and QC. [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)
National Microbiology Laboratory (NML): Strain Characterization
Between September 1 and October 7, 2010, five influenza isolates (all seasonal influenza) were collected from provincial and hospital labs and characterized at the NML:

4 A/Perth/16/2009 (H3N2)-like\(^\d\) from QC, ON & AB;
1 B/Brisbane/60/2008 (Victoria lineage)-like\(^\dd\) from QC;

\(^\d\) indicates a strain match to the recommended H3N2 component of the 2010-11 northern hemisphere trivalent influenza vaccine
\(^\dd\) indicates a strain match to the influenza B component of the 2010-2011 northern hemisphere trivalent influenza vaccine

NML: Antiviral Resistance
Drug susceptibility testing at the NML between September 1 and October 7, 2010 indicated that all five isolates were sensitive to oseltamivir and zanamivir. Two of the A/H3N2 isolates were tested and found to be resistant to amantadine.

INTERNATIONAL
To September 24, 2010, the WHO reported that Influenza virus circulation remained most active in areas of the temperate Southern Hemisphere and in parts of Asia, particularly South and Southeast Asia. Australia reported increasing ILI activity, with most of the lab detections being pH1N1, mixed with some influenza B. As of Oct 2, Chile reported a second straight week of decrease in national ILI activity. Both Chile and New Zealand’s influenza seasons have been later than typical. In Asia, significant influenza virus circulation continues to be reported in India and Thailand and to a lesser extent in China. In India, there is widespread persistence of active influenza virus circulation. In South Africa, peak wintertime influenza activity has passed but there continues to be active co-circulation of seasonal influenza (type B and H3N2) viruses and also, more recently, influenza H1N1 (2009) viruses.

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) was 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
Contact Us:

**Epidemiology Services : BC Centre for Disease Control (BCCDC)**

655 W. 12th 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**
   - 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 – Weekly Epidemiological Record: [www.who.int/wer/en/](http://www.who.int/wer/en/)
   - Influenza Centre (Australia): [www.influenzacentre.org/](http://www.influenzacentre.org/)

2. **Avian Influenza Web Sites**
   - 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/inflSurveillanceReports.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/inflSurveillanceReports.htm)
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

<table>
<thead>
<tr>
<th>Person Reporting:</th>
<th>Title:</th>
</tr>
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<tbody>
<tr>
<td>Contact Phone:</td>
<td>Email:</td>
</tr>
<tr>
<td>Health Authority:</td>
<td>HSDA:</td>
</tr>
<tr>
<td>Full Facility Name:</td>
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</tbody>
</table>

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
  - ☐ Workplace
  - ☐ School (grades: ________)
  - ☐ Other ( ________ )

Date of onset of first case of ILI (dd/mm/yyyy): __________ /________ / ______

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<thead>
<tr>
<th>Numbers to date</th>
<th>Residents/Students</th>
<th>Staff</th>
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<tbody>
<tr>
<td>Total</td>
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<tr>
<td>With ILI</td>
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<tr>
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<tr>
<td>Died</td>
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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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<tr>
<td>Died</td>
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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