Low-level influenza activity in BC

Contents:

British Columbia:
- Sentinel Physicians Page 2
- Children’s Hospital ER Page 2
- Laboratory Surveillance Page 3
- ILI Outbreaks Page 4

Canada:
- FluWatch Activity levels Page 4
- NML Strain Characterization Page 4

NML Antiviral Resistance Page 4
International: Page 5
- NML Antiviral Resistance
- International:
- Other:
  - List of Acronyms Page 6
  - Web Sites Page 6
  - Outbreak Report Form Page 7

Summary

During weeks 37-43 (September 9 to October 27, 2012), which includes the beginning of the new 2012-2013 influenza reporting period, influenza activity in BC remained at a low level. The proportion of patients with influenza-like illness among those presenting to sentinel physicians by week was 0.2% or less, within the expected level of this time of year. No lab-confirmed influenza outbreaks were reported. Among the 548 specimens tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, rhino/enteroviruses continue to predominate (202/548, 37%). Influenza virus was identified in four (4/548, 0.7%) specimens, including two A/H3N2 (weeks 39 and 41), one influenza B (week 43), and one unsubtyped influenza A (week 43). Other respiratory viruses were also sporadically detected.
Sentinel Physicians

In weeks 37-43, the proportion of patients with ILI among those presenting to sentinel physicians was low, ranging from 0.02% to 0.2%, within the expected range for this time of year. The proportion of sentinel sites reporting during this period varied from 73% to 83% by week.

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 4.9% to 6.9% during weeks 37 through 43, within the expected level for this time of year.
Laboratory Reports

In weeks 37-43, five hundred and forty-eight specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, four influenza viruses were detected (4/548, 0.7%), including two influenza A/H3N2 (a senior in week 39; an adult in week 41), one influenza B from an adult in week 43, and one influenza A (unsubtyped) from a senior in week 43; all were reported from Vancouver Coastal Health Authority. Rhinovirus/enterovirus continued to be the most common detections (202/548, 37%) during this period. Other respiratory viruses were also detected sporadically.

In weeks 37-43, BC Children’s and Women’s Health Centre Laboratory tested 331 respiratory specimens. Among them, one (0.3%) was positive for influenza B in week 43. RSV (16/331, 4.8%) continued to be the most commonly detected virus among the specimens submitted. Other respiratory viruses were also detected sporadically.

Data provided by Virology Department at Children’s & Women’s Health Centre of BC
ILI Outbreaks
In weeks 37-43, no ILI outbreak reports were received.

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, 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.

CANADA

FluWatch
In weeks 37-42 (September 9 to October 20, 2012), influenza activity in Canada remained low, though a slight increase was observed around week 39 as two regions reported localized influenza activity. Influenza virus was detected at low levels. The majority of influenza viruses detected were influenza A including A/H3N2, A(H1N1)pdm09, and unsubtyped influenza A; influenza type B was detected only sporadically. The ILI consultation rate remained within the expected level for this time of year. For details: www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization
From September 1 to October 24, 2012, 3 isolates were collected from provincial and hospital labs and characterized at the NML as follows:
1 A/Victoria/361/2011-like (H3N2)† from BC;
2 B/Wisconsin/01/2010-like† from QUE and ONT;
† indicates a strain match to the recommended H3N2 component for the 2012-2013 influenza vaccine
† belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 influenza vaccine.

NML: Antiviral Resistance
From September 1 to October 25, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 1; zanamivir: 1; amantadine: 6), and influenza B isolates (oseltamivir: 2; zanamivir: 2). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A/H3N2 isolates were resistant to amantadine.
International

USA: during week 42 (October 14-20, 2012), influenza activity remained low. 178 (6.2%) out of the 2,891 submitted specimens were positive for influenza, including 58% influenza A [69 A/H3N2, 2 A(H1N1)pdm09, and 33 A unsubtyped] and 42% influenza B. No cases of variant swine origin influenza (A/H3N2v) were reported. www.cdc.gov/flu/weekly

Temperate areas of northern hemisphere: many countries are reporting increasing sporadic detections of influenza viruses but numbers are still low and none have crossed their seasonal threshold. Tropical areas: a few countries have experienced active transmission of influenza in recent weeks. Most notable are Nicaragua and Costa Rica in the Americas, where influenza type B has been the most commonly detected virus in recent weeks, and Sri Lanka, Nepal, and Thailand in Asia, where influenza A(H1N1)pdm09 has been slightly more common than influenza type B. In Sub-Saharan Africa, countries of West (Senegal and Côte d'Ivoire) and Central Africa (Cameroon) have reported increasing detections of influenza virus, primarily A/H3N2. Temperate areas of southern hemisphere: influenza activity is at inter-seasonal levels in most countries. www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

Avian Influenza: There were no new reports of human cases of avian influenza after 10 August 2012. The cumulative number of confirmed human cases of avian influenza A/H5N1 reported to the WHO in the 2012 calendar year reached 30, of which 19 (63%) were fatal. 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
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/

2. Avian Influenza Web Sites
World Organization for Animal Health: www.oie.int/eng/eng_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

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.

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<th>Health unit/medical health officer notified?</th>
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<th>No</th>
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<tr>
<td>Person Reporting:</td>
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<tr>
<td>Contact Phone:</td>
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<tr>
<td>Health Authority:</td>
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<td>Full Facility Name:</td>
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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)*

**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): ___ DD / MMM / YYYY

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

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**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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