Summary

During weeks 40-43 (October 2 – October 29, 2011), influenza surveillance indicators suggested sporadic influenza activity in BC although the influenza-like illness (ILI) rate was higher than expected for this time of year based on sentinel physician and MSP reports, each of which have shown gradual increase. However, no lab-confirmed influenza outbreaks were reported and among 341 specimens tested, rhino/enteroviruses have so far predominated (133/341; 39%). Influenza was detected in a small proportion of submitted specimens (1.8%, 6 out of 341), which brought the total accumulated influenza positive cases since 1 September 2011 to eleven, including nine A(H3N2) in adults, and 2 influenza B (one child and one adult).

Report disseminated November 3, 2011

Contributors: Helen Li, Lisan Kwindt, Naveed Janjua, Danuta Skowronski
British Columbia

**Sentinel Physicians**

From week 40 to week 43, the proportion of patients with ILI among those presenting to sentinel physicians gradually increased from 0.11% to 0.52%, with the rate in week 43 rising above the expected range for this time of year. The proportion of sentinel physician sites reporting to-date for weeks 40-42 was ~ 70% but only 55% in week 43. The ILI rate for week 43 may decline with further reporting.

**BC Children’s Hospital Emergency Room**

The percentage of BC Children’s Hospital ER visits attributed to “fever and cough” or flu-like illness during weeks 40-43 remained low, ranging from 2.1% to 5.1%, consistent with expected levels for this time of year.
**Medical Services Plan**

Starting from week 40, the beginning of the 2011/2012 influenza season, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims gradually increased at the provincial level and in each HA. The most pronounced increases were observed in Interior HA and Vancouver Island HA, where influenza illness claims rose to above the 10-year maximum for this time of year in week 43.

*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).

**Notes:**
- MSP week beginning 29 August 2010 corresponds to sentinel ILI week 35
- Data current to 1 November 2011

**Northern**
Laboratory Reports

Three hundred and forty-one respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, during weeks 40-43. Influenza was detected in 6 (1.8%) submitted specimens: five were A(H3N2) from Vancouver Coastal HA (weeks 40-41) and Interior HA (week 43); one was influenza type B from Fraser HA (week 41). This brought the total accumulated influenza positive cases since 1 September 2011 to eleven, including nine A(H3N2) cases in adults (four 20 to 49 years of age, and five over 50 years).

During weeks 40-43, of 341 specimens tested for other respiratory viruses, 133 (39%) were positive for rhino/enteroviruses. Rhino/enteroviruses still predominated in week 43 (29/97 specimens tested; 30%). Other respiratory viruses were also sporadically detected.

During weeks 40-43, BC Children’s and Women’s Health Centre Laboratory tested 195 respiratory specimens. Two influenza A(H3N2) viruses were detected; 20 specimens (10.3%) were positive for parainfluenza viruses; RSV was also detected at low levels.

Data provided by Virology Department at Children’s & Women’s Health Centre of BC
ILI Outbreaks
During weeks 40-43, two ILI outbreak reports were received from long term care facilities (LTCF) in Interior HA and Fraser HA. Lab testing detected only rhino/enteroviruses in both settings.

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 ILI outbreak defined as 2 or more ILI cases within 7-days 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
From week 39 to 42 (ending October 22, 2011), influenza activity was at low inter-seasonal levels with very few laboratory detections. The consultation rate increased slightly in week 42 but was within the expected range. Detection of other respiratory viruses continued, and an increase in rhinovirus and parainfluenza in weeks 39 and 40 was observed (www.phac-aspc.gc.ca/fluwatch/).

National Microbiology Laboratory (NML): Strain Characterization
Between September 1, 2011 and November 2, 2011, three influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:
1. A/Perth/16/2009 (H3N2)-like* from BC;
2. B/Wisconsin/01/2010-like (recent B Yamagata lineage) from BC;
3. B/Brisbane/60/2008-like (B/Victoria/02/87 lineage) from Alberta

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

NML: Antiviral Resistance
From September 1, 2011 to November 2, 2011, drug susceptibility testing at the NML was performed for one Influenza A(H3N2) isolate and two influenza B isolates. The result indicated that the A(H3N2) and influenza B isolates were sensitive to Oseltamivir and Zanamivir. The A(H3N2) isolate was also tested for susceptibility to Amantadine and found to be resistant.
INTERNATIONAL

The WHO has adopted a new standard nomenclature of A(H1N1)pdm09 for the 2009 influenza A(H1N1) pandemic virus following the recommendations of a recent WHO Consultation on the Composition of Influenza Vaccines.

**Northern Hemisphere:** During weeks 40-42 ending October 22, 2011, influenza activity remained low in the United States [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/). Few specimens (0.81~1.07%) tested were positive for influenza; and the predominant virus was A (primarily A(H3N2) where the subtype was known). The proportion of outpatient visits for ILI was still below the national baseline of 2.5% (1.1~1.2%). The CDC further reported that the proportion of deaths attributed to pneumonia and influenza from week 40 to 42 was below the epidemic threshold.

**Other Areas:** Influenza activity in the temperate regions of the northern hemisphere remained low or undetectable. Influenza activity in the tropical zone was active in a few countries of the Americas, central Africa, and Southern and Southeast Asia. Transmission in South Africa and South America remains low and the season appears largely over. Influenza activity peaked in Australia and New Zealand though the season was not yet finished. Australia continued to see regional differences in the predominant virus subtype. Influenza A(H3N2), A(H1N1)pdm09 and B viruses co-circulate in New Zealand. [www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html)

**Swine Influenza:** During October 2011, three cases of human infection with a swine–origin influenza A (H3N2) virus that carries the M gene from the A(H1N1)pdm09 virus have been detected; 2 from Maine (October 10 and 24) and one from Indiana (October 22). Both Maine cases had multiple exposures to pigs. This virus was first detected in a child in Indiana in July. Subsequently three additional cases of human infection with swine-origin influenza A (H3N2) viruses carrying the same genetic change were detected in Pennsylvania. Further details are available at: [www.maine.gov/dhhs/boh/newhan.shtml](http://www.maine.gov/dhhs/boh/newhan.shtml).

**WHO Recommendations for 2011-12 Northern Hemisphere Influenza Vaccine**

On February 17, 2011 the WHO announced the recommended strain components for the 2011-12 northern hemisphere trivalent influenza vaccine (TIV):
- A/California/7/2009 (H1N1)-like virus
- A/Perth/16/2009 (H3N2)-like virus
- B/Brisbane/60/2008 (Victoria lineage)-like virus

All three recommended components are the same as for northern hemisphere seasonal TIV vaccines produced and administered in 2010-11. For further details, see: [http://www.who.int/influenza/vaccines/virus/2011_12north/en/index.html](http://www.who.int/influenza/vaccines/virus/2011_12north/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

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

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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

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D Laboratory Information

Specimen(s) submitted? ☐ Yes (location: _______________) ☐ No ☐ Don’t know

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