During week 1 of 2013 (30 December 2012 to 5 January 2013), influenza activity remained elevated in BC. Across the province, the proportion of medical visits with an influenza diagnosis increased over the previous weeks, and remained above the 75th percentile compared to the same period during the prior ten years. Consultations for influenza-like illness at BC Children’s Hospital emergency room continued to increase, remaining higher than recent seasons. The proportion of patients with influenza-like illness among those presenting to sentinel physicians increased although remaining within the expected level for this time of year. There was further increase in the number of lab-confirmed influenza A (mainly H3N2) outbreaks reported from long-term care facilities. During week 1, about half of the specimens tested at the BC Public Health Microbiology & Reference Laboratory were positive for influenza (45.2%). At BC Children’s and Women’s Health Centre Laboratory, respiratory syncytial virus (RSV) continued to dominate although influenza detections remained elevated.

For your information, updated antiviral guidance of the Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) entitled “The use of antiviral drugs for influenza: Guidance for practitioners 2012/2013” is now available from www.ammi.ca/guidelines and includes updated dosing guidance of which clinicians should be aware for their patients with reduced creatinine clearance.
Sentinel Physicians
In week 1, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians was 0.51%, higher than the previous week, but still within the expected range for this time of year. To date, 59% of sentinel physician sites have reported for week 1.

Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 10 Seasons Sentinel Physicians, British Columbia, 2012-2013

* 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
In week 1, the proportion of BC Children’s Hospital ER visits attributed to “fever and cough” or flu-like illness continued to increase (23.8%), and remained above that of recent prior seasons.

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 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.
Medical Services Plan
During week 1, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims continued to increase in each Health Authority except Northern. The proportion remained above the 10-year 75th percentile level for this time of year throughout the province.

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

Notes: MSP week beginning 1 August 2012 corresponds to sentinel ILI week 31; Data current to 08 January 2013.
BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN
2012-13: Number 9, Week 1
December 30, 2012 to January 5, 2013

Interior

Vancouver Coastal

Fraser

Vancouver Island

- 4 -
Laboratory Reports
In week 1, 380 specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 169 (45.2%) overall were positive for influenza, including 161 influenza A from all Health Authorities (111 influenza A/H3N2, 50 influenza A [subtype pending]), and 8 influenza B from FHA, VCHA and VIHA. Among other respiratory viruses, RSV was the most commonly detected (40/380, 10.5%). Other respiratory viruses were also sporadically detected. Influenza thus remains the most likely cause of acute respiratory illness for which testing was undertaken during week 1.

In week 1, BC Children’s and Women’s Health Centre Laboratory tested 91 respiratory specimens, of which 15 (16.5%) were positive for influenza viruses (a slight decrease over the previous week), all influenza A (un-subtyped). RSV (25/91, 27.5%) was the most common detection. Other respiratory viruses were also sporadically detected.
ILI Outbreaks
During week 1, there were 11 laboratory-confirmed outbreaks reported from long-term care facilities (LTCF) from all Health Authorities (8 influenza A/H3N2, 3 influenza A [subtype pending]). An additional 5 outbreaks in LTCFs (1 lab result negative, 4 with lab result pending) and one lab-confirmed influenza A school outbreak were further reported in week 1. To-date in the beginning of week 2, four additional ILI outbreaks have been reported from LTCF (1 influenza A, the rest pending lab result or pathogen unknown) and one additional from a school in Interior HA. With update to holiday reporting, this brings the total lab-confirmed outbreaks from LTCFs in BC to 34 for the current season since week 40 (30 September 2012), with most of these reports accruing in the past three weeks.

FluWatch
Influenza activity in Canada continued to increase in weeks 51-52 with increase in ILI consultation rates based on the national sentinel physician network, influenza positivity and ILI outbreaks from previous weeks. Influenza positivity increased from 24.2% in week 50 to 26.7% in week 51 and 31.1% in week 52. A total of 4632 laboratory detections of influenza were reported, of which 97.7% were for influenza A viruses, predominantly A/H3N2. www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization
From September 1, 2012 to Jan. 10, 2013, 193 isolates were collected from provincial and hospital labs and characterized at the NML as follows:
143 A/Victoria/361/2011-like (H3N2)§ from PEI, NB, QUE, ONT, MAN, SASK, ALTA and BC;
25 A/California/07/2009-like* from NB, ONT and SASK;
4 B/Brisbane/60/2008-like** from ONT and MAN;
21 B/Wisconsin/01/2010-like† from NB, QUE, ONT, SASK and BC;
§ indicates a strain match to the recommended H3N2 component for the 2012-2013 northern hemisphere influenza vaccine
† belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 northern hemisphere influenza vaccine.
* indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.
** belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.
NML: Antiviral Resistance
From September 1, 2012 to January 9, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 137; zanamivir: 135; amantadine: 225), A(H1N1)pdm09 (oseltamivir: 18; zanamivir: 18; amantadine: 18), and influenza B isolates (oseltamivir: 23; zanamivir: 23). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

Updated Antiviral Guidance
For your information, updated antiviral guidance of the Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) entitled “The use of antiviral drugs for influenza: Guidance for practitioners 2012/2013” is now available from the following websites, and includes updated dosing guidance of which clinicians should be aware for their patients with reduced creatinine clearance:
www.ammi.ca/guidelines
This document is also available via the Public Health Agency of Canada’s FightFlu website at www.fightflu.ca/info-pro-eng.php

INTERNATIONAL

USA: during week 52 (December 23-29, 2012), influenza activity increased with increase in ILI visits and geographic spread. Twenty-nine states mainly in the south and east experienced high ILI activity, while states on the west experienced mild to moderate activity. The proportion of outpatient visits for influenza-like illness was 5.6% which is above the national baseline of 2.2%. 2961 (31.6%) influenza viruses were detected, including 79.2% influenza A viruses [51.5% A/H3N2, 1.1% A(H1N1)pdm09, and 47.4% unsubtyped A], and 20.8% influenza B. The US CDC’s weekly influenza surveillance report is available at: www.cdc.gov/flu/weekly

WHO/ECDC report (updated on 7 January 2013): Reporting of influenza activity was irregular in the past two weeks due to the holiday season in many countries. As a result, overall virus detections reported had dropped off although in most countries in the northern temperate regions, influenza activity appeared to have continued rising. In Europe, five countries (Belgium, Denmark, France, Norway and the UK [England]) reported widespread activity while nine other countries reported an increasing trend. Influenza activity during week 51 and 52 was a mix of both influenza A and B. Among subtyped influenza A specimens about half were H3N2. This pattern is different from that reported from Canada where H3N2 predominates. Many countries of northern Africa, eastern Mediterranean and temperate Asia reported increasing influenza activity over the past weeks. In tropical Asia, influenza activity was similar to previous weeks, with persistent low-level circulation. Influenza activity in sub-Saharan Africa declined in most countries, with the exception of the Democratic Republic of Congo and Ghana. In the Caribbean, Central America and tropical South America, influenza activity decreased to low levels, except for Bolivia, where there was increasing circulation of influenza A(H3N2). Influenza activity in countries of the southern hemisphere was currently at inter-seasonal levels.

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
A(H1N1)pdm09: 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/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.

### 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)*

### 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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<th>Numbers to date</th>
<th>Residents/Students</th>
<th>Staff</th>
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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