2012-13: Number 4, Week 47 November 18 to 24, 2012



# Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

## Influenza A/H3N2 activity in BC continues to increase

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## **Summary**

During week 47 (November 18-24, 2012), influenza activity in BC continued to increase from the previous week. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was 0.34%, higher than the previous week, but within the expected range for this time of year. There was one school ILI outbreak reported from NHA in week 47, and one from IHA starting early in week 48. Two ILI outbreaks were reported from long-term care facilities in FHA in the beginning of week 48 (one lab-confirmed influenza A/H3N2, the other lab-confirmed rhino/enterovirus). Compared to the previous weeks, influenza virus detections continued to increase in week 47. Out of 150 specimens submitted to the BC Public Health Microbiology & Reference Laboratory, PHSA, 24 (16%) were positive for influenza, including 21 A/H3N2 and 3 A (subtype pending). Of note, 66.7% of the total influenza detections in week 47 were from Vancouver Coastal Health Authority. Among other respiratory viruses, rhino/enterovirus (30/150, 20.7%) and parainfluenza (15/150, 10.7%) were the most common detections. Other respiratory viruses were also sporadically detected.

Report disseminated November 30, 2012 Contributors: Helen Guiyun Li, Lisan Kwindt, Naveed Janjua, Danuta Skowronski

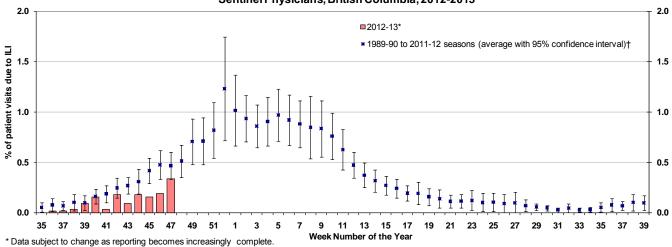
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## **British Columbia**

## **Sentinel Physicians**

In week 47, the proportion of patients with ILI among those presenting to sentinel physicians rose to 0.34%, still within the expected range for this time of year. To date, 56% of sentinel physician sites have reported for week 47.

Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 20 Seasons Sentinel Physicians, British Columbia, 2012-2013

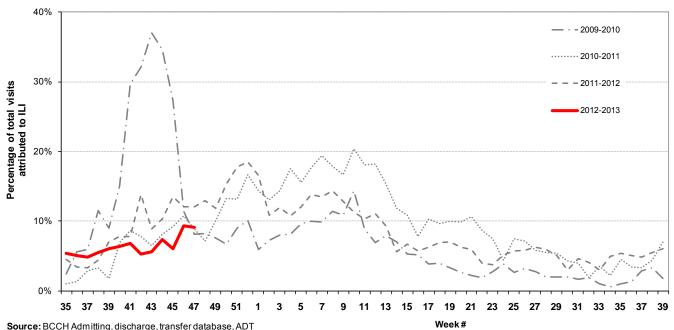


† Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

## **BC Children's Hospital Emergency Room**

In week 47, the percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness was 9.1%, consistent with previous 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



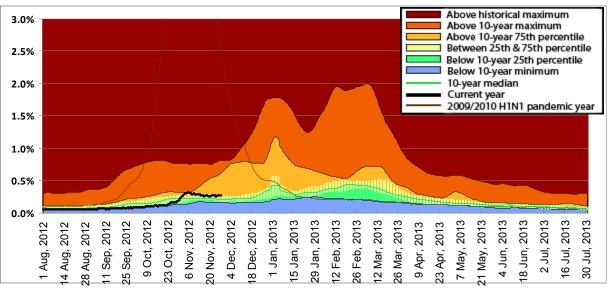
**Source**: BCCH Admitting, discharge, transfer database, ADT **Note**: Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

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#### **Medical Services Plan**

During week 47, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims was above 10-year median in VCHA, FHA, VIHA, and provincially; has dropped below the 10-year median in NHA; and continues to fluctuate around the 10-year median in IHA.

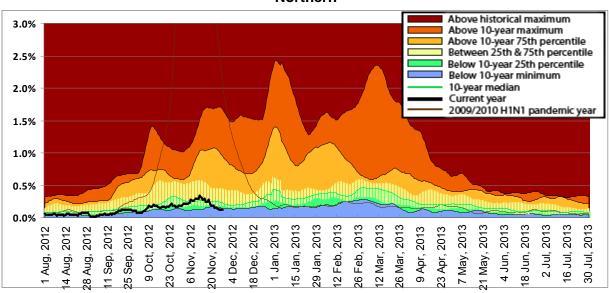
#### Influenza Illness Claims\* British Columbia



<sup>\*</sup> 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 28 November 2012

## Northern

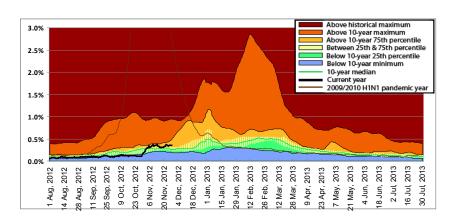


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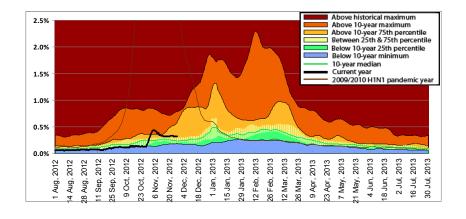
#### Interior

#### Above historical maximum 3.0% Above 10-year maximum Above 10-year 75th percentile Between 25th & 75th percentile 2.5% | Below 10-year 25th percentile | Below 10-year minimum | 10-year median 2.0% Current year 2009/2010 H1N1 pandemic year 1.5% 1.0% 0.5% 0.0% 14 Aug, 2012 28 Aug, 2012 11 Sep, 2012 25 Sep, 2012 9 Oct, 2012 9 Oct, 2012 23 Oct, 2012 6 Nov, 2012 18 Dec, 2012 12 Mar, 2013 26 Mar, 2013 2 Jul, 2013 2013 20 Nov, 2012 4 Dec, 2012 1 Jan, 2013 15 Jan, 2013 29 Jan, 2013 12 Feb, 2013 26 Feb, 2013 7 May, 2013 1 May, 2013 4 Jun, 2013 18 Jun, 2013 9 Apr, 2013 23 Apr, 2013

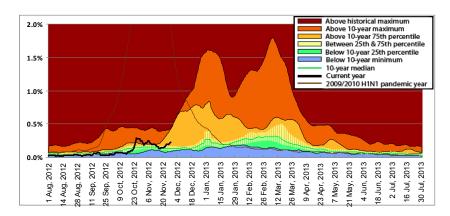
## **Vancouver Coastal**



#### Fraser



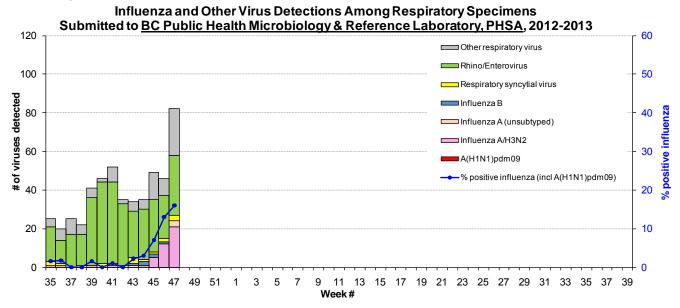
#### Vancouver Island



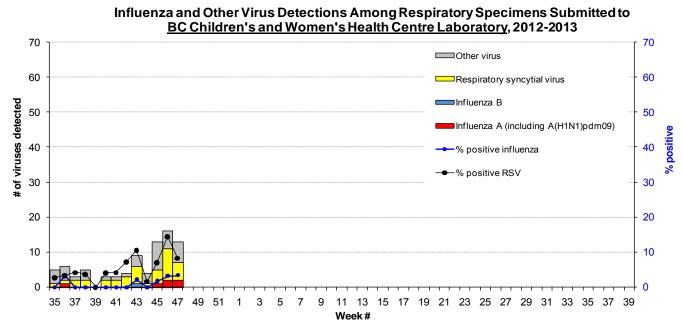
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## **Laboratory Reports**

In week 47, one hundred and fifty specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 24 (16%) were positive for influenza viruses including 21 A/H3N2 and 3 A (subtype pending). Of note, 66.7% of influenza positives were detected from VCHA (5 children ≤19 years, 4 adults 20-64 years; 7 elderly 65+); the rest were from FHA (3 adults 20-64 years; 3 elderly 65+, 1 of unreported age), and VIHA (1 elderly 65+). Among other respiratory viruses tested, rhino/enterovirus (31/150, 20.7%) and parainfluenza (16/150, 10.7%) were the most common detections. Coronavirus, RSV, adenovirus, and human metapneumovirus were also sporadically detected.



In week 47, BC Children's and Women's Health Centre Laboratory tested 60 respiratory specimens, of which 2 (3.3%) were positive for influenza A (un-subtyped). RSV (5/60, 8.3%) was the most common detection among the other respiratory viruses. Parainfluenza and rhino/enterovirus were also sporadically detected.



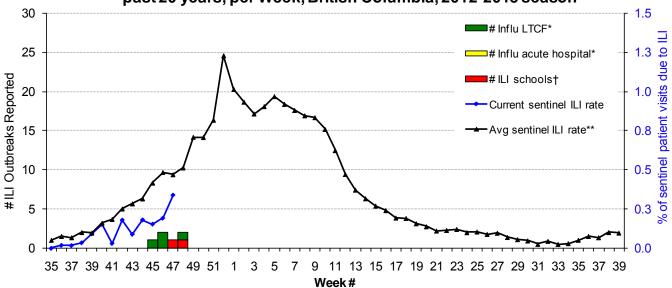
Data provided by Virology Department at Children's & Women's Health Centre of BC

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#### **ILI Outbreaks**

One school ILI outbreak was reported during week 47 from NHA. So far in the beginning of week 48, three ILI outbreaks have been reported: one from a school in IHA (pathogen unknown), and two from long-term care facilities in FHA (one lab-confirmed A/H3N2, and the other rhino/enterovirus).

> 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



<sup>\*</sup> Facility influenza outbreak defined as 2 or more ILI cases within 7-day period, with at least one case laboratory-confirmed as influenza.

## **CANADA**

## **FluWatch**

In week 46 (November 11 - 17, 2012), influenza activity in Canada increased compared to the previous week. A total of 151 laboratory detections of influenza were reported, of which 93.4% were for influenza A viruses, predominantly A/H3N2. www.phac-aspc.gc.ca/fluwatch/

## National Microbiology Laboratory (NML): Strain Characterization

From September 1 to November 22, 2012, 20 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

- 12 A/Victoria/361/2011-like (H3N2) from PEI, QUE, ONT, SASK, and BC;
- 3 A/California/07/2009-like\* from ONT;
- B/Brisbane/60/2008-like\*\* from ONT;
- 4 B/Wisconsin/01/2010-like<sup>†</sup> from QUE and ONT:

<sup>†</sup> 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.

<sup>&</sup>lt;sup>1</sup> 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.

<sup>\*</sup> indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.

<sup>\*\*</sup> belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.

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#### **NML: Antiviral Resistance**

From September 1 to November 22, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 12; zanamivir: 12; amantadine: 35), A(H1N1)pdm09 (oseltamivir: 3; zanamivir: 3; amantadine: 1), and influenza B isolates (oseltamivir: 5; zanamivir: 5). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

## **INTERNATIONAL**

**USA:** during week 46 (November 11 -17, 2012), influenza activity increased. 495 (13.2%) influenza viruses were detected, including 67.6% influenza A viruses [52% A/H3N2, 2% A(H1N1)pdm09, and 46% un-subtyped A], and 32.4% influenza B. One influenza A/H3N2-associated paediatric death was further reported by the USA. <a href="https://www.cdc.gov/flu/weekly">www.cdc.gov/flu/weekly</a>

Other countries: According to the latest report from the WHO (dated 23 Nov 2012), countries in the temperate areas of the northern hemisphere reported increasing influenza virus detections. However, none have crossed their seasonal threshold or announced the beginning of their season. Countries in southern and south east Asia, except Cambodia, reported decreasing influenza virus detections. Cambodia reported increased detections of influenza A/H3N2 for at least 6 weeks. In sub-Saharan Africa, Cameroon continued to experience circulation of influenza A/H3N2 but it appears to have peaked and the rate of detections has decreased. Ethiopia and Ghana reported increases in influenza A(H1N1)pdm09 while Madagascar, Kenya and Togo reported low circulation of mainly influenza B. Influenza activity in temperate areas of the southern hemisphere is now at inter-seasonal level. <a href="https://www.who.int/influenza/surveillance\_monitoring/updates/latest\_update\_GIP\_surveillance/en/index.html">https://www.who.int/influenza/surveillance\_monitoring/updates/latest\_update\_GIP\_surveillance/en/index.html</a>

## **Avian Influenza:**

The WHO has issued no new reports since 10 August 2012. <a href="https://www.who.int/influenza/human\_animal\_interface/en/">www.who.int/influenza/human\_animal\_interface/en/</a>

#### **Novel Coronavirus:**

As of 28 November 2012, WHO has been informed of one additional confirmed case and one probable human case of novel coronavirus, bringing the total number of cases to seven confirmed and one probable. Based on additional information reported since the original surveillance recommendations, WHO has updated its guidance, available at the following link:

www.who.int/csr/disease/coronavirus\_infections/InterimRevisedSurveillanceRecommendations\_nCoVinfection\_201 21128.pdf

## 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

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#### **Contact Us:**

Communicable Disease Prevention and Control (CDPACS):
BC Centre for Disease Control (BCCDC)

## **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: <a href="www.phac-aspc.gc.ca/fluwatch/">www.phac-aspc.gc.ca/fluwatch/</a>
Washington State Flu Updates: <a href="www.doh.wa.gov/FLUNews/">www.doh.wa.gov/FLUNews/</a>
USA Weekly Surveillance reports: <a href="www.cdc.gov/flu/weekly/">www.cdc.gov/flu/weekly/</a>
European Influenza Surveillance Scheme: <a href="www.ecdc.europa.eu">www.ecdc.europa.eu</a>

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/

Australian Influenza Report: <a href="www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm">www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm</a>
New Zealand Influenza Surveillance Reports: <a href="www.surv.esr.cri.nz/virology/influenza">www.surv.esr.cri.nz/virology/influenza</a> <a href="www.surv.esr.cri.nz/virology/influenza">weekly</a> update.php</a>

#### 2. Avian Influenza Web Sites

World Health Organization – Avian Influenza: <a href="www.who.int/csr/disease/avian\_influenza/en/">www.who.int/csr/disease/avian\_influenza/en/</a> World Organization for Animal Health: <a href="www.oie.int/eng/en\_index.htm">www.oie.int/eng/en\_index.htm</a>

3. This Report On-line: <a href="https://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm">www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm</a>

version: 26 Oct 2011

## 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. Health unit/medical health officer notified? ☐ Yes ☐ No Reporting Information Person Reporting: \_\_\_\_\_ Title: \_\_\_\_\_ Contact Phone: Email: \_\_\_\_\_ \_\_\_\_\_ HSDA: \_\_\_\_ Health Authority: Full Facility Name: First Notification (complete section **B** below: Section **D** if available) Is this report: Update (complete section **C** below; Section **D** if available) Outbreak Over (complete section **C** below; Section **D** if available) **First Notification** B Type of facility: 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 Residents/Students Numbers to date Staff Total With ILI Hospitalized Died **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\_/\_YYYYY Numbers to date Residents/Students Staff Total With ILI Hospitalized Died **Laboratory Information** Yes (location: \_\_\_\_\_) No Don't know Specimen(s) submitted?