

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 9, Week 1

December 30, 2012 to January 5, 2013



BC Centre for Disease Control
An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Influenza activity remains elevated in BC

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Summary

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.

Report disseminated January 10, 2013

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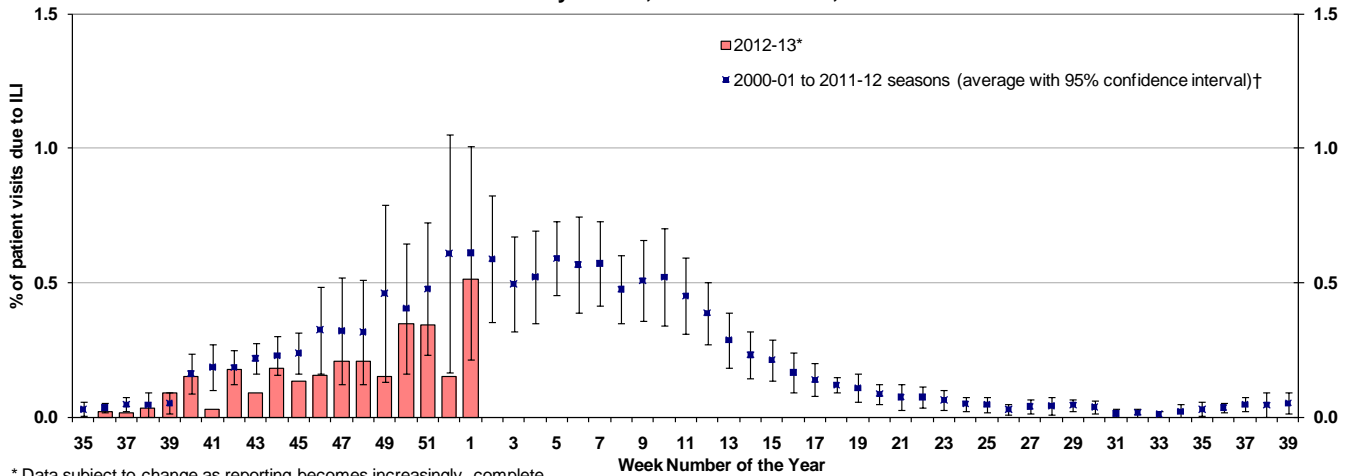
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British Columbia

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



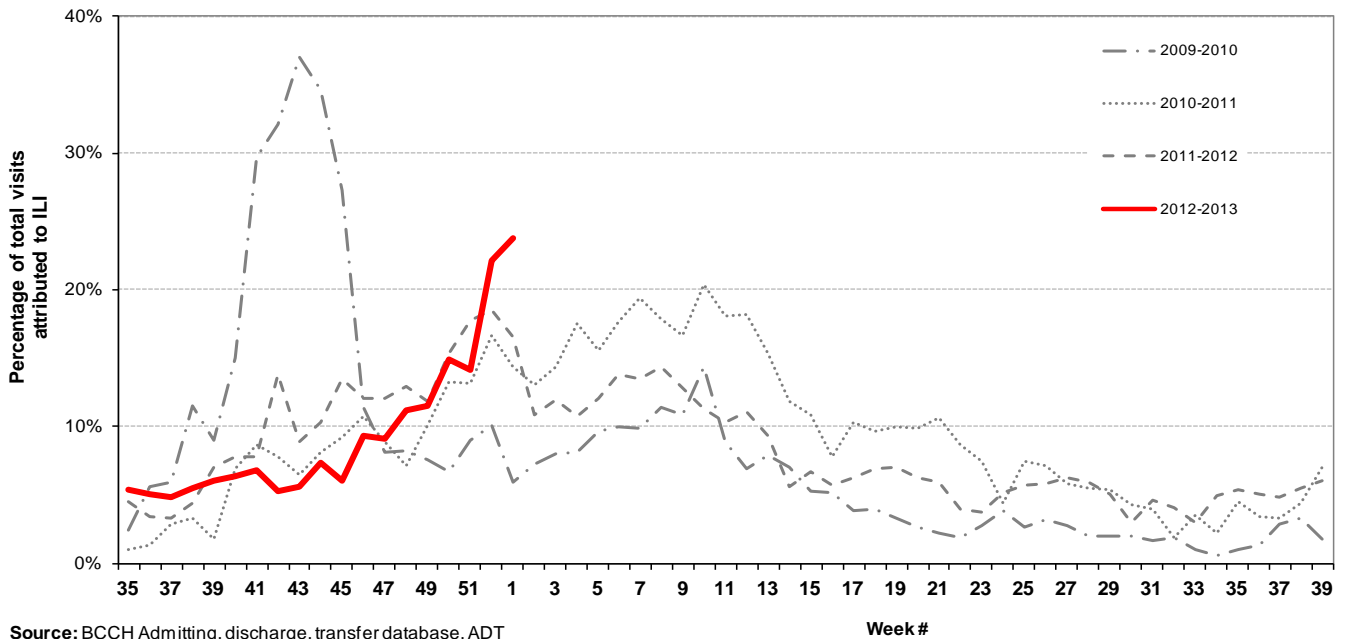
* Data subject to change as reporting becomes increasingly complete.

† 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.

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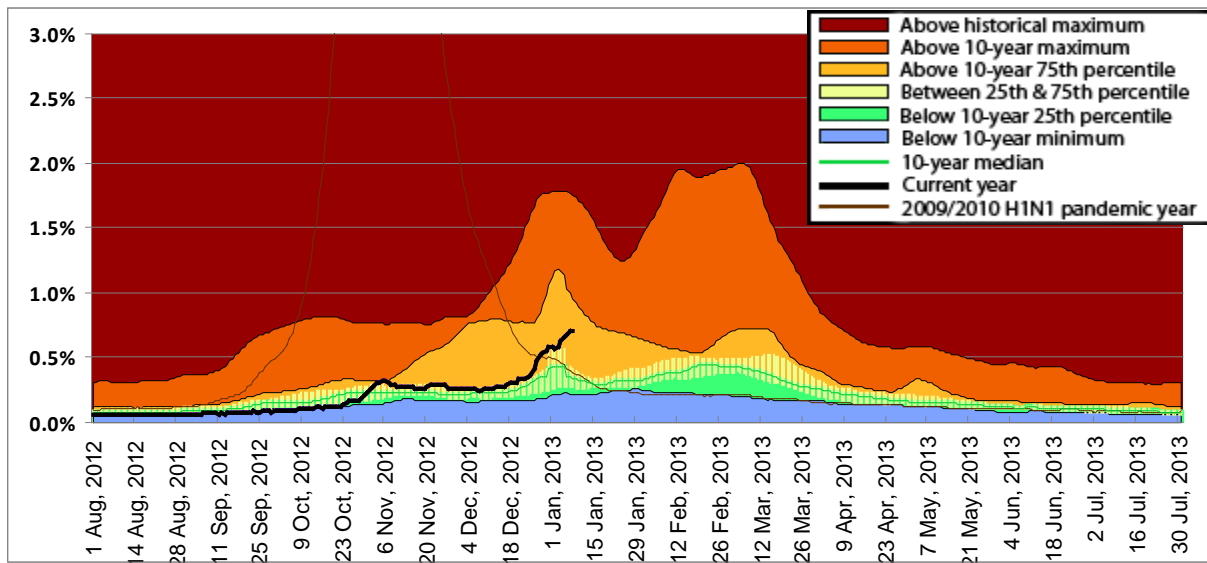
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Medical Services Plan

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.

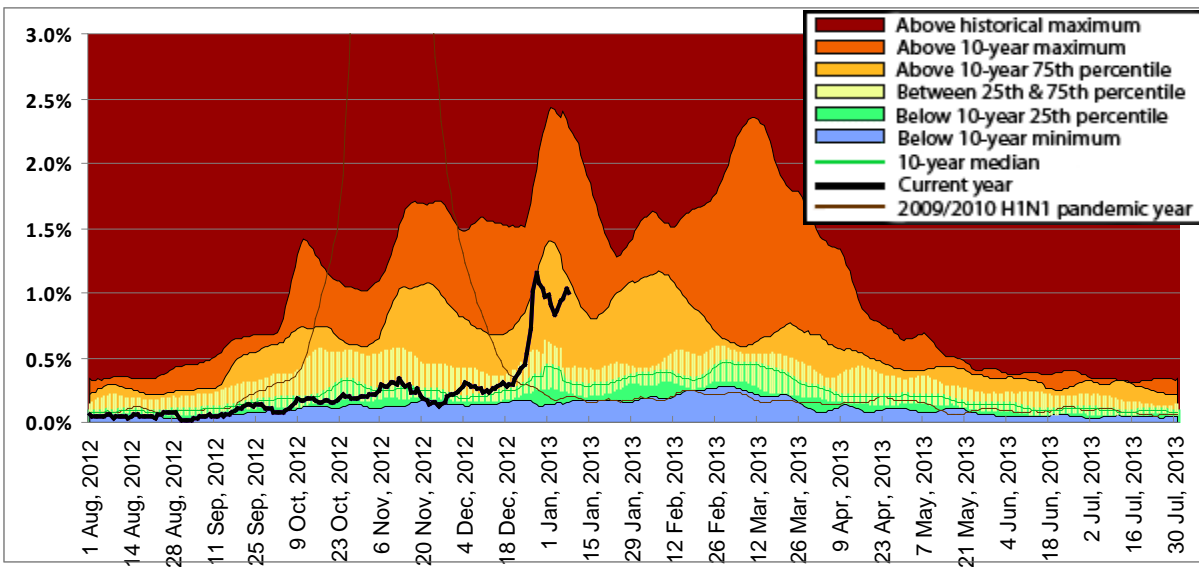
Influenza Illness Claims* British Columbia



* 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.

Northern

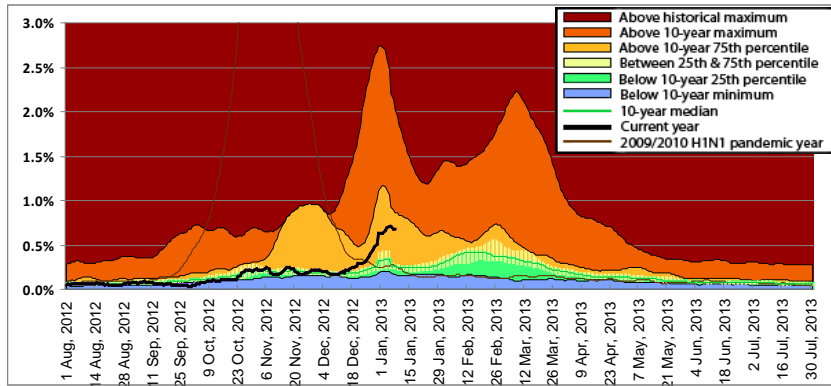


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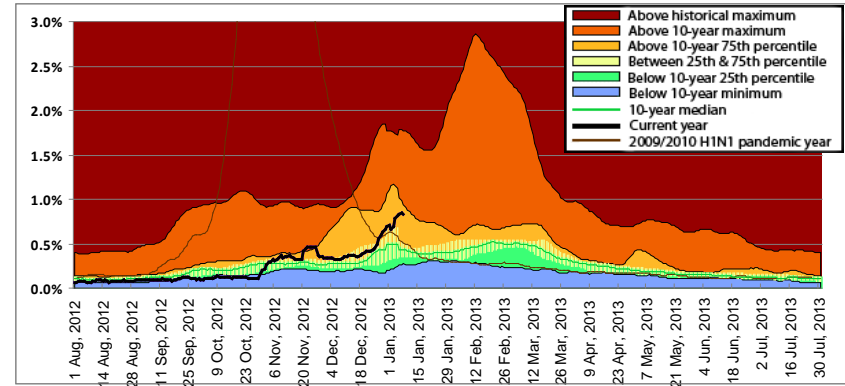
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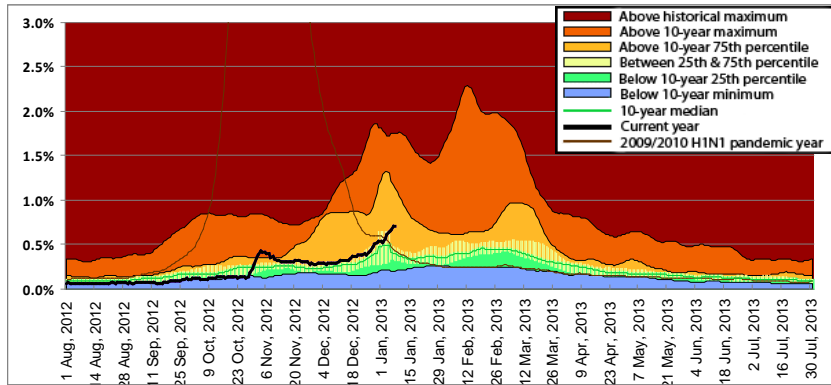
Interior



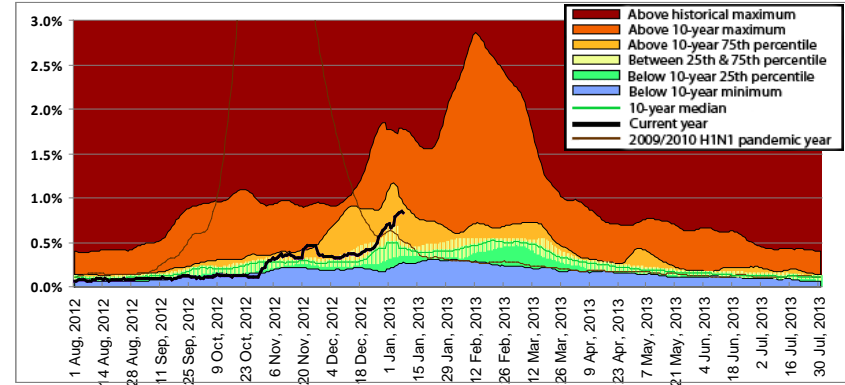
Vancouver Coastal



Fraser



Vancouver Island



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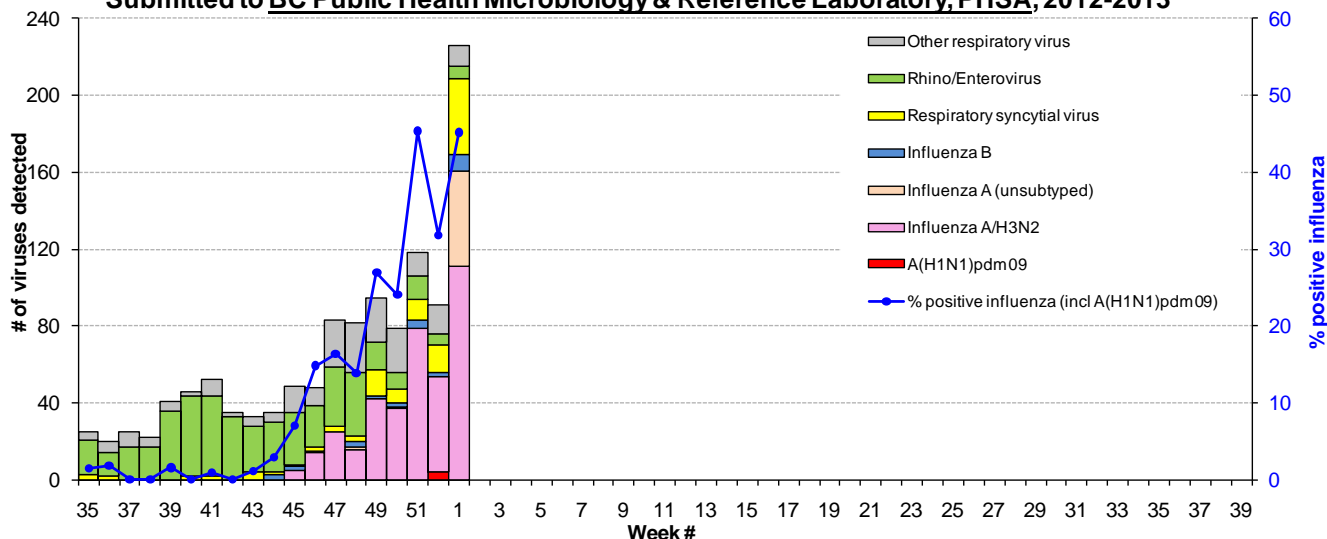
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Laboratory Reports

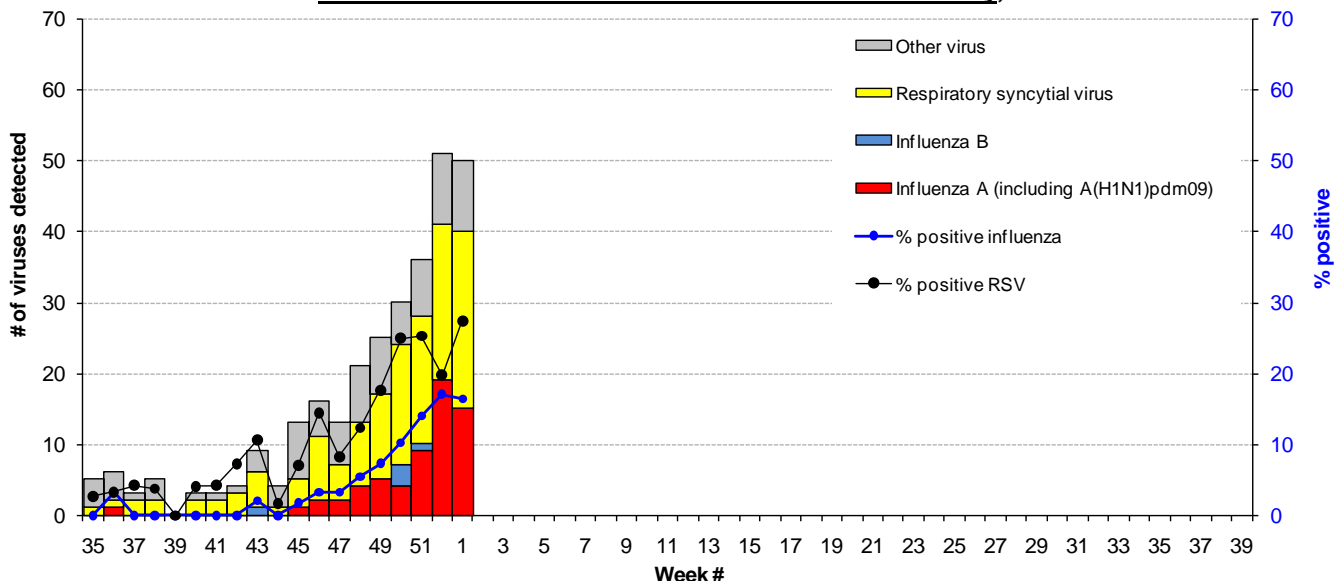
In week 1, 380 specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA, of which 169 (45.2%) overall were positive for influenza, including 161 influenza A from all Health Authorities (111 influenza A/H3N2, 50 influenza A [subtype pending]), and 8 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.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2012-2013



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.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2012-2013



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

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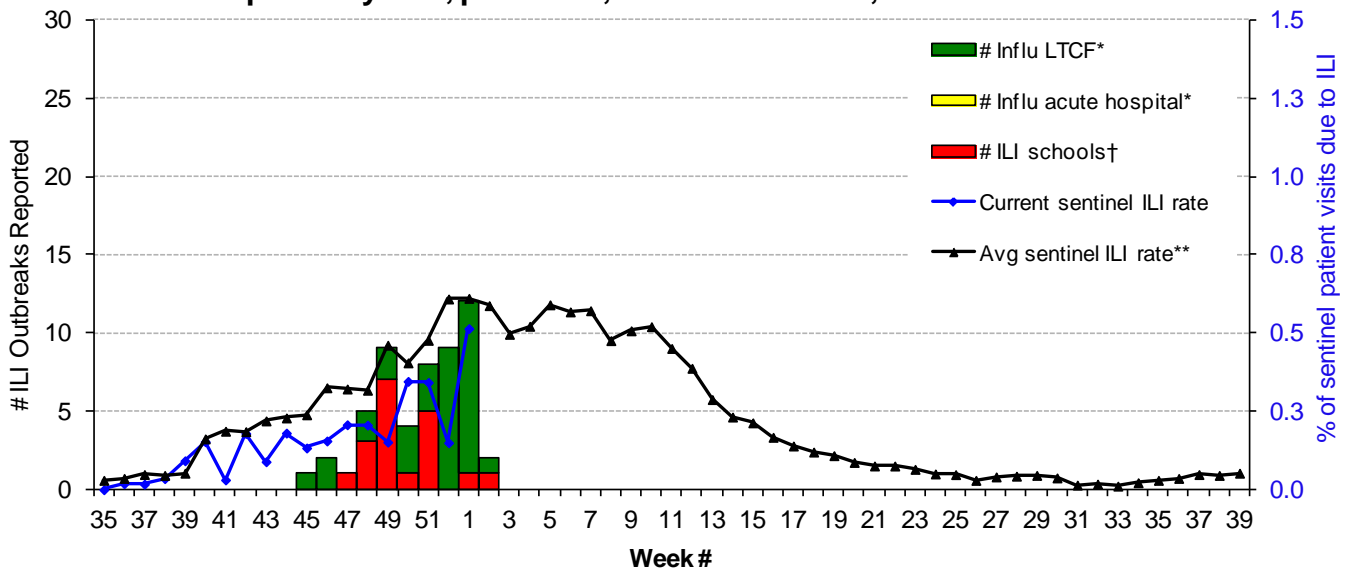
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ILI Outbreaks

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.

Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 10 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.

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.

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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% un-subtyped 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.

ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=1028

www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

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

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/

Australian Influenza Report: www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm

New Zealand Influenza Surveillance Reports: www.surv.esr.cri.nz/virology/influenza_weekly_update.php

2. Avian Influenza Web Sites

World Health Organization – Avian Influenza: www.who.int/csr/disease/avian_influenza/en/

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

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

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

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

D

Laboratory Information

Specimen(s) submitted? Yes (location: _____) No Don't know

If yes, organism identified? Yes (specify: _____) No Don't know