

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 16, Week 16

April 15 to 21, 2012



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Continued low-level influenza activity in BC

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Summary

In week 16 (April 15-21, 2012), most influenza surveillance indicators suggested that influenza activity continues at low levels in BC. The proportion of patients with influenza-like illness among those presenting to sentinel physicians was 0.20%, similar to previous weeks and within the expected range for this time of year. Throughout the province, influenza illness as a proportion of all submitted BC MSP claims remained at or below the 10-year median for this time of year. In week 16, no lab-confirmed influenza outbreaks were reported; one has been reported in week 17 (influenza A, subtype pending). Of the one hundred and six specimens tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, during this period, 18 (17.0%) were positive for influenza, including 8 (7.5%) influenza A/H3N2, 3 (2.8%) A(H1N1)pdm09, 2 (1.9%) influenza A (subtype pending), and 5 (4.7%) influenza B. Other significant respiratory virus detections included rhino/enterovirus (13/106, 12.3%), respiratory syncytial virus (12/106, 11.3%), and human bocavirus (8/106, 7.5%). Other respiratory viruses were also sporadically detected. RSV increased and continued to dominate among the respiratory viruses detected at BC Children's Hospital.

Report disseminated April 26, 2012

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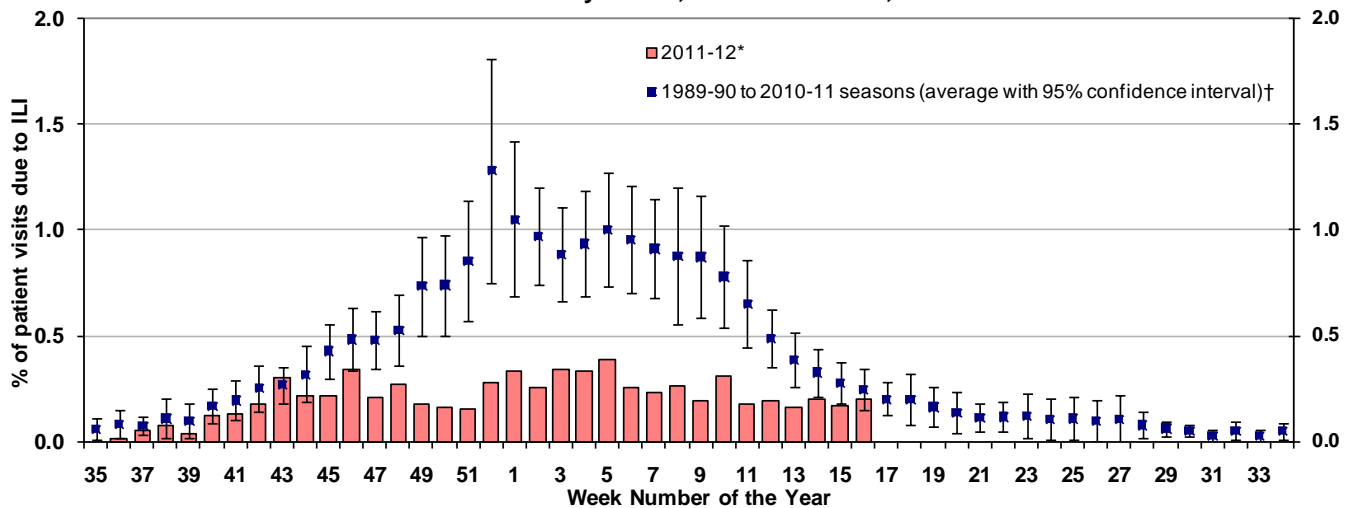
April 15 to 21, 2012

British Columbia

Sentinel Physicians

In week 16, the proportion of patients with ILI among those presenting to sentinel physicians was 0.20%, similar to the previous week and within the expected range for this time of year. To date, 59% of sentinel physician sites have reported for week 16.

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, 2011-2012



* 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

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness is unavailable pending upgrades to the data collection system.

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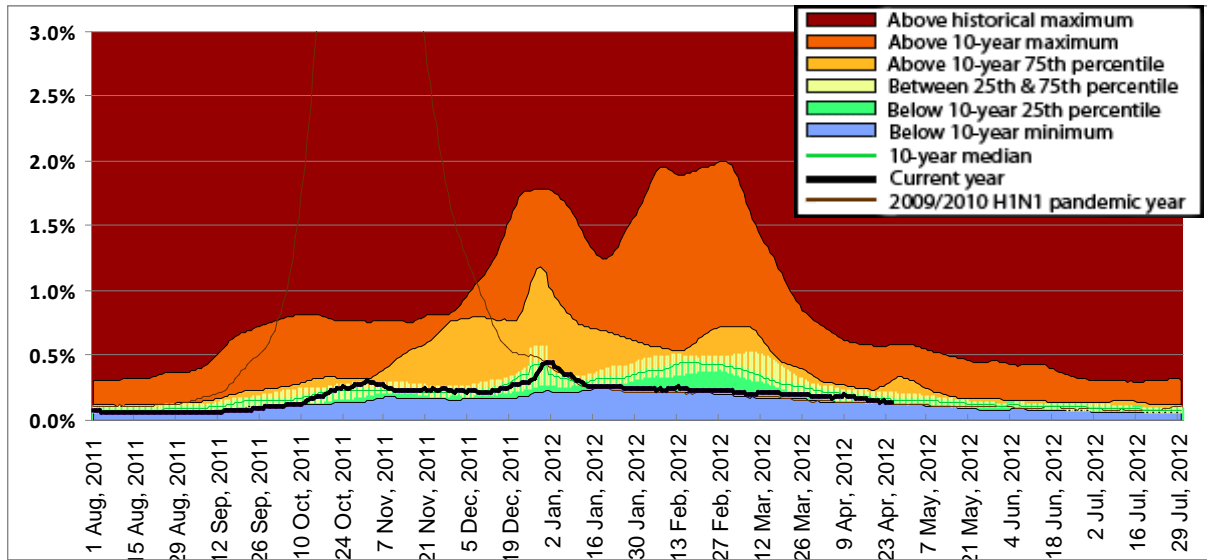
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Medical Services Plan

In week 16, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained low, at or below the 10-year median level for this time of year throughout the province.

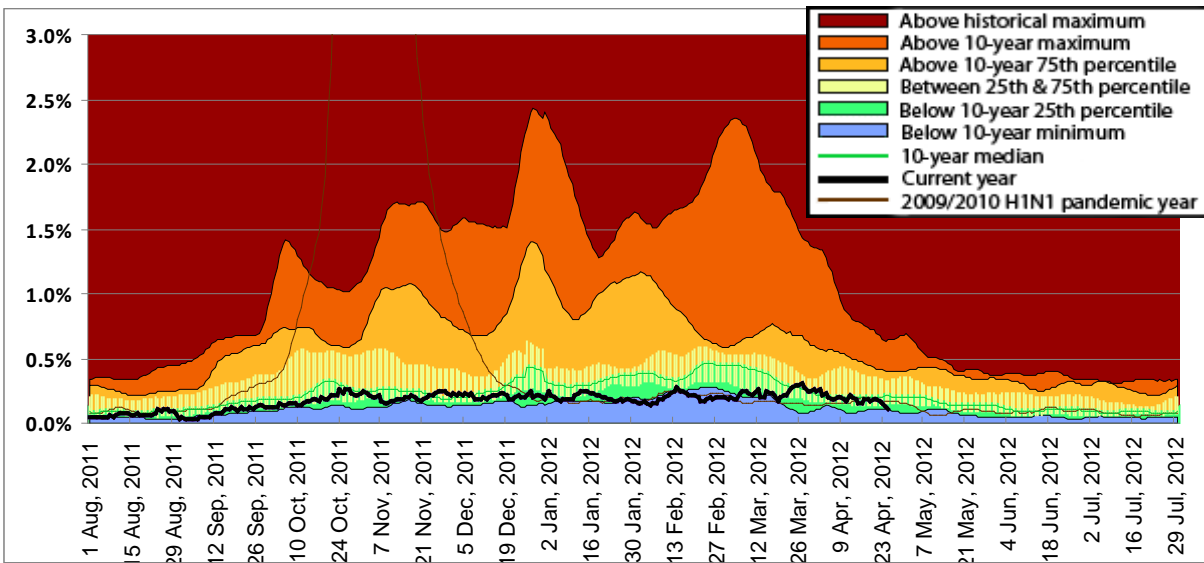
Influenza Illness Claims* British Columbia



* 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

Note: MSP week beginning 28 August 2011 corresponds to sentinel ILI week 35; Data current to 25 April 2012

Northern

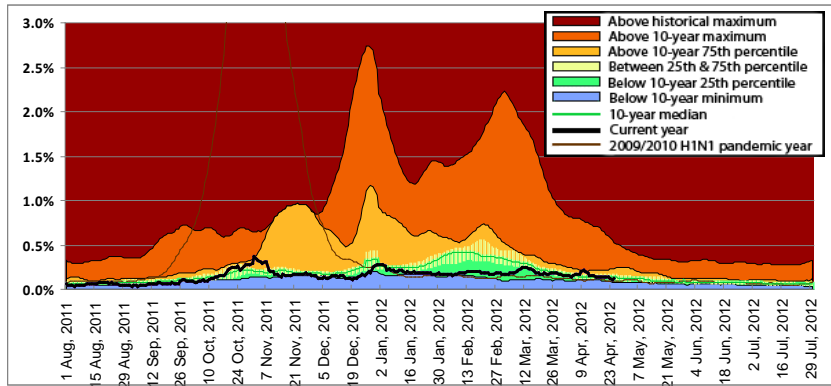


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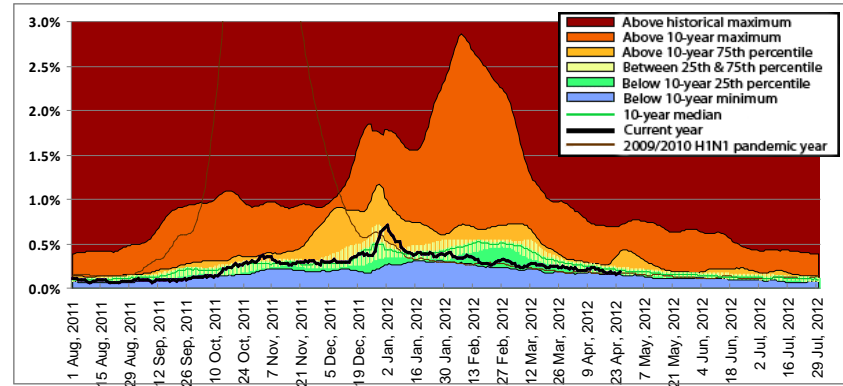
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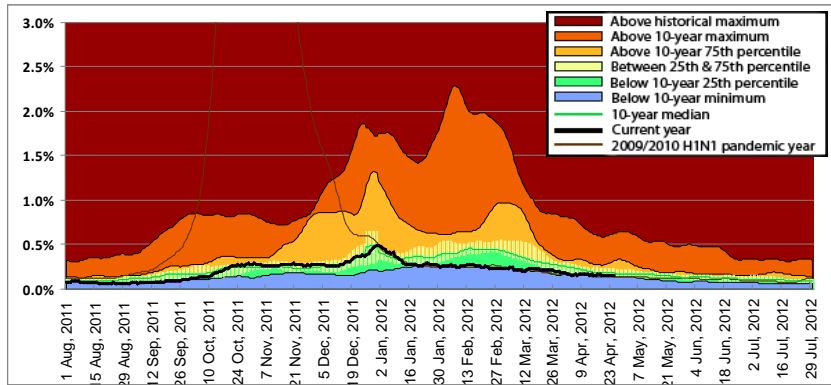
Interior



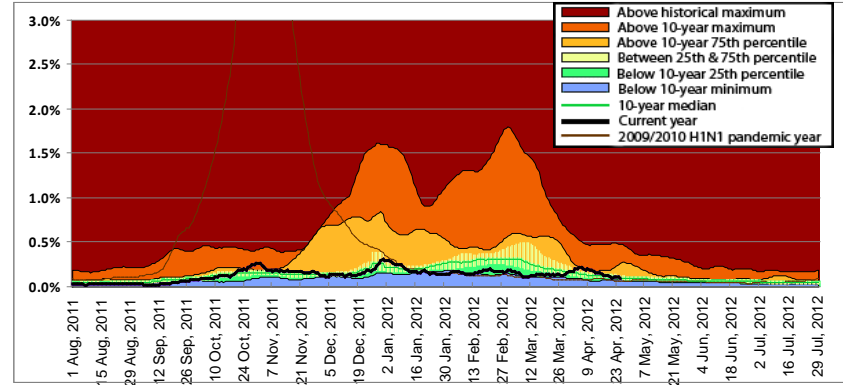
Vancouver Coastal



Fraser



Vancouver Island



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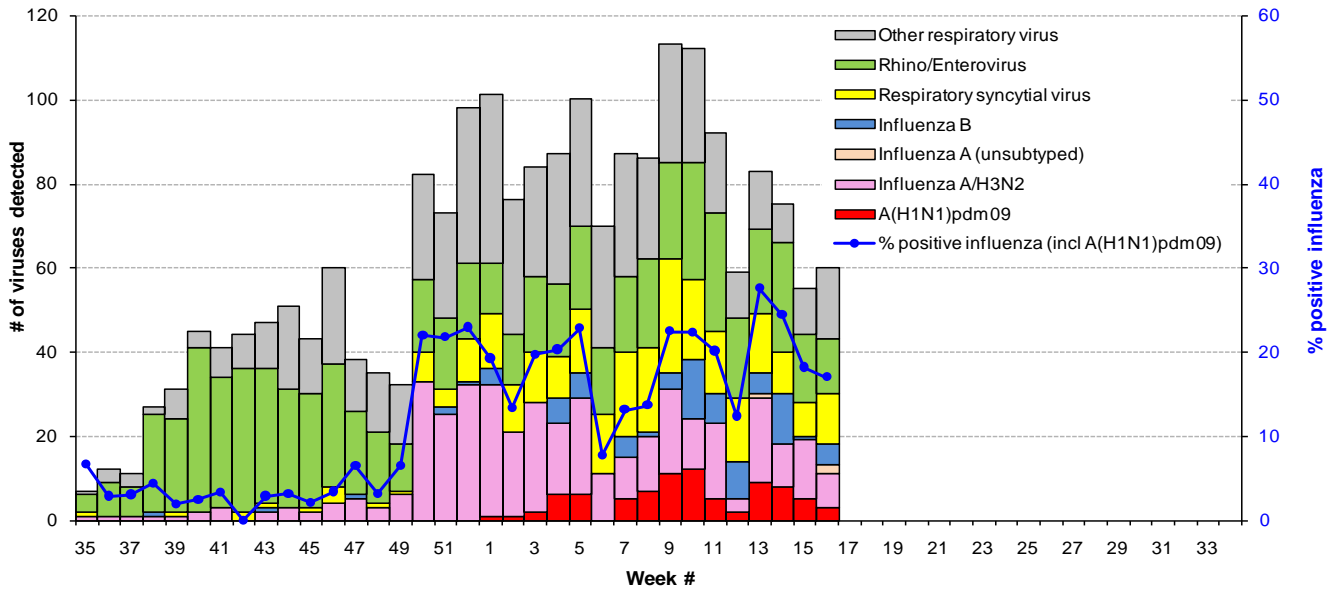
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Laboratory Reports

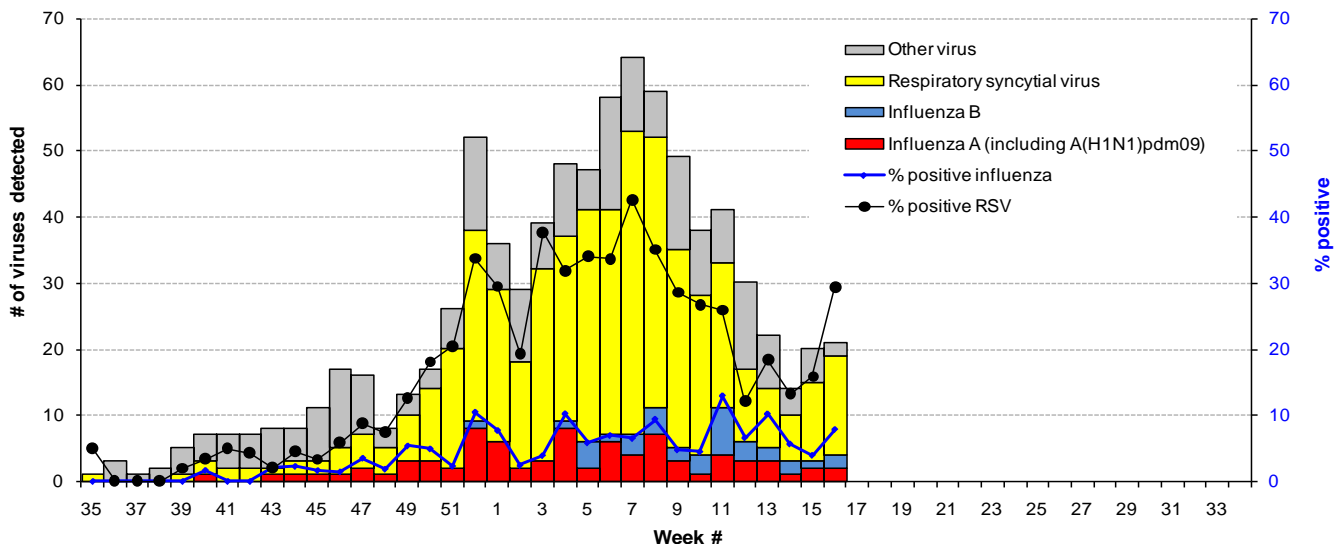
In week 16, one hundred six specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, eighteen (17.0%) were positive for influenza viruses, including 8 (7.5%) influenza A/H3N2 from VCHA, VIHA, and NHA; 3 (2.8%) A(H1N1)pdm09 from FHA, VCHA, and VIHA; 2 (1.9%) influenza A (subtype pending); and 5 (4.7%) influenza B from VIHA. Of 106 specimens tested for other respiratory viruses, significant detections included rhino/enterovirus (13/106, 12.3%), respiratory syncytial virus (12/106, 11.3%), and human bocavirus (8/106, 7.5%). Other respiratory viruses were also sporadically detected.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2011-2012



In week 16, BC Children's and Women's Health Centre Laboratory tested 51 respiratory specimens: 4 (7.8%) were positive for influenza virus, slightly higher than the preceding week, including 2 influenza A and 2 influenza B. RSV increased and continued to predominate among respiratory viruses detected (15/51, 29.4%). Other respiratory viruses were also detected at low levels.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2011-2012



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

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

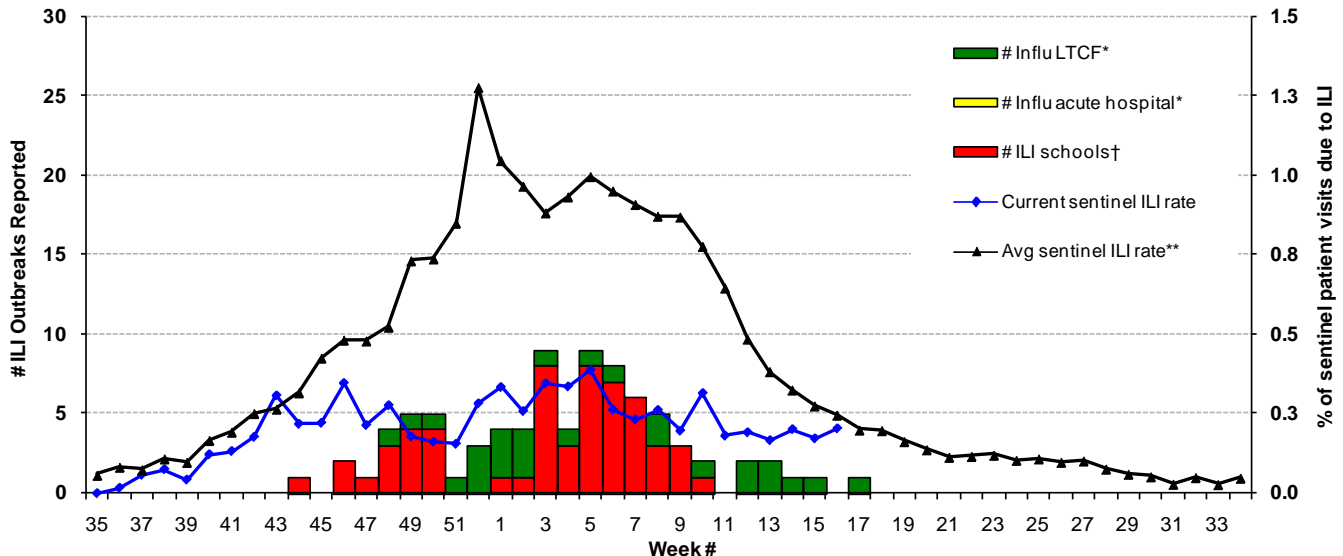
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ILI Outbreaks

In week 16, no lab-confirmed influenza outbreaks were reported. One lab-confirmed influenza A outbreak was reported in week 17 in VIHA (subtype pending).

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 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 week 15 (April 8 to April 14, 2012), influenza activity in Canada continued to decline; however, activity remained elevated in some regions of the country (i.e. Atlantic Region, Ontario, Alberta & British Columbia). In total 841 laboratory detections of influenza were reported in week 15: 13.9% A/H3N2, 6.2% A(H1N1)pdm09, 16.5% un-subtyped influenza A and 63.4% influenza B. The ILI consultation rate in week 15 declined slightly compared to the previous week and remained within the expected levels for this time of year. PHAC further reported 118 laboratory-confirmed influenza-associated hospitalizations including 24 paediatric (two thirds due to influenza B, and one third due to influenza A) and 94 adult (69% due to influenza B, and 31% due to influenza A). www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2011 and April 26, 2012, 969 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

189 A/Perth/16/2009-like (H3N2)[†] from NS, QUE, ONT, MAN, SASK, ALTA, BC, and NT;

178 A/California/07/09-like (H1N1)^{*} from NB, QUE, ONT, MAN, SASK, ALTA, and BC;

306 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)[†] from NFLD, NS, NB, QUE, ONT, MAN, SASK, ALTA, and BC;

296 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NS, NB, QUE, ONT, MAN, SASK, ALTA, BC, and NU;

[†] indicates a strain match to the recommended H3N2 component of the 2011-12 northern hemisphere influenza vaccine

^{*} indicates a strain match to the recommended H1N1 component for the 2011-2012 northern hemisphere influenza vaccine

[†] indicates a strain match to the recommended influenza B component for the 2011-2012 influenza vaccine

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NML: Antiviral Resistance

From September 1, 2011 to April 26, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 182; zanamivir: 183; amantadine: 309), influenza A(H1N1)pdm09 (oseltamivir: 190; zanamivir: 190; amantadine: 249), and influenza B isolates (oseltamivir: 565; zanamivir: 565). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A/H3N2 isolates but one, and all A(H1N1)pdm09 isolates, were resistant to amantadine.

INTERNATIONAL

USA: In week 15, ending 14 April 2012, influenza activity in the United States was elevated in some areas, but declined nationally and in most regions. Six hundred and fifty-three (17.5%) specimens tested were positive for influenza, including 533 (81.6%) influenza A [289 A/H3N2, 106 A(H1N1)pdm09, and 138 un-subtyped A] and 120 (18.4%) influenza B. The proportion of outpatient visits for ILI was 1.5% which was below the national baseline of 2.4%. The proportion of all deaths due to pneumonia and influenza illness was 7.0%, below the epidemic threshold of 7.7% for week 15. Two influenza-associated paediatric deaths were reported to the US CDC during week 15, one associated with A(H1N1)pdm09, and the other with A(H3N2). www.cdc.gov/flu/weekly/.

WHO news: (last updated on 13 April 2012). In most of the northern hemisphere temperate regions, influenza activity had peaked and was declining. In North America, influenza indicators remained elevated in some areas of the United States of America, but declined in the last couple of weeks. In Europe and northern Asia, nearly every country had passed its peak of transmission and reported declining activity. The most commonly detected virus type or subtype throughout Europe and North America (except Mexico) had been influenza A(H3N2), although the proportion of influenza B detection had been increasing toward the end of the season in North America. In Mexico influenza A(H1N1)pdm09 had been the most common influenza virus circulating; China and the surrounding countries of northern Asia were still reporting a predominance of influenza type B virus. No significant change in antiviral resistance was reported so far this season.

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

Avian Influenza:

No new cases of avian influenza have been reported by the WHO since the last update (12 April 2012).

www.who.int/influenza/human_animal_interface/avian_influenza/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

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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: 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