BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 15, Week 15

April 8 to 14, 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

Contents:

Summary

In week 15 (April 8-14, 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 0.21%, 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 15, one lab-confirmed influenza outbreak was reported from a long-term care facility in Interior Health Authority, associated with influenza A/H3N2. Of the one hundred and ten specimens tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, during this period, 20 (18.2%) were positive for influenza, including 14 (12.7%) influenza A/H3N2, 3 (2.7%) A(H1N1)pdm09, 2 (1.8%) influenza A (subtype pending), and 1 (0.9%) influenza B. Other significant respiratory virus detections included rhino/enterovirus (16/110, 14.5%), human metapneumovirus (8/110, 7.3%), and respiratory syncytial virus (8/110, 7.3%). Other respiratory viruses were also sporadically detected. RSV continued to dominate among the respiratory viruses detected at BC Children's Hospital.

Report disseminated April 19, 2012

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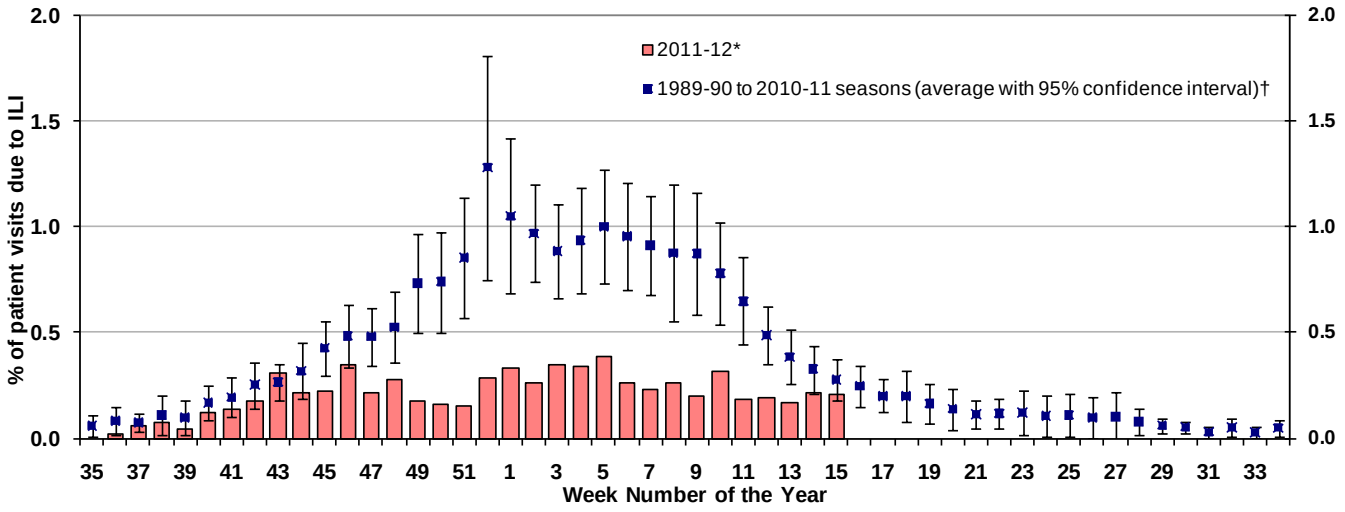
British Columbia

Sentinel Physicians

In week 15, the proportion of patients with ILI among those presenting to sentinel physicians was 0.21%, similar to the previous week and within the expected range for this time of year. To date, 61% of sentinel physician sites have reported for week 15.

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.

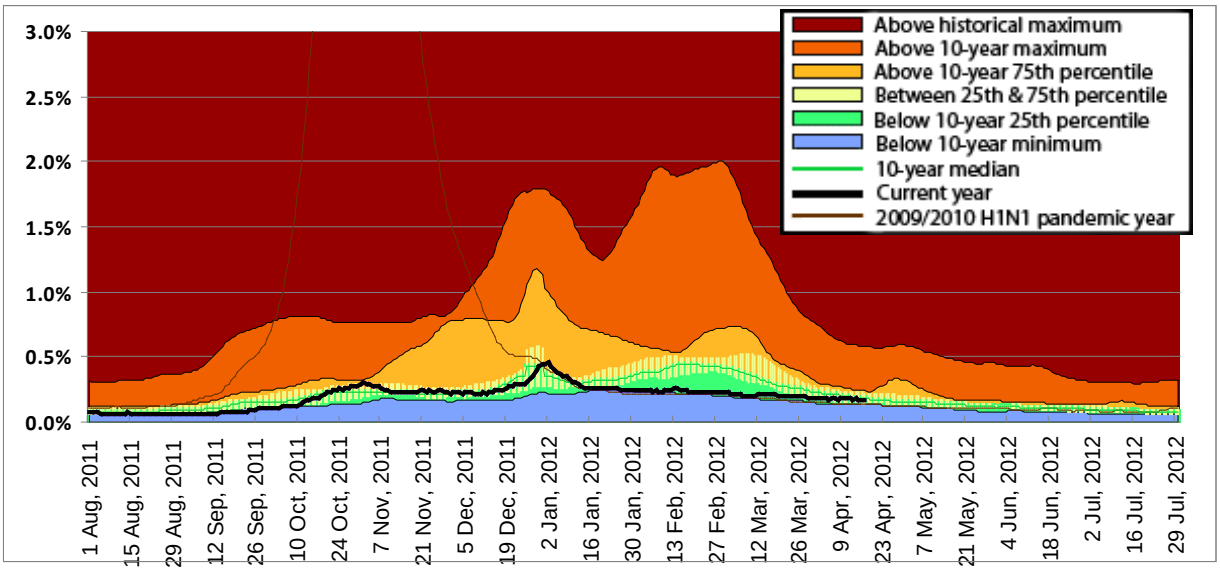
BC Children's Hospital Emergency Room

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.

Medical Services Plan

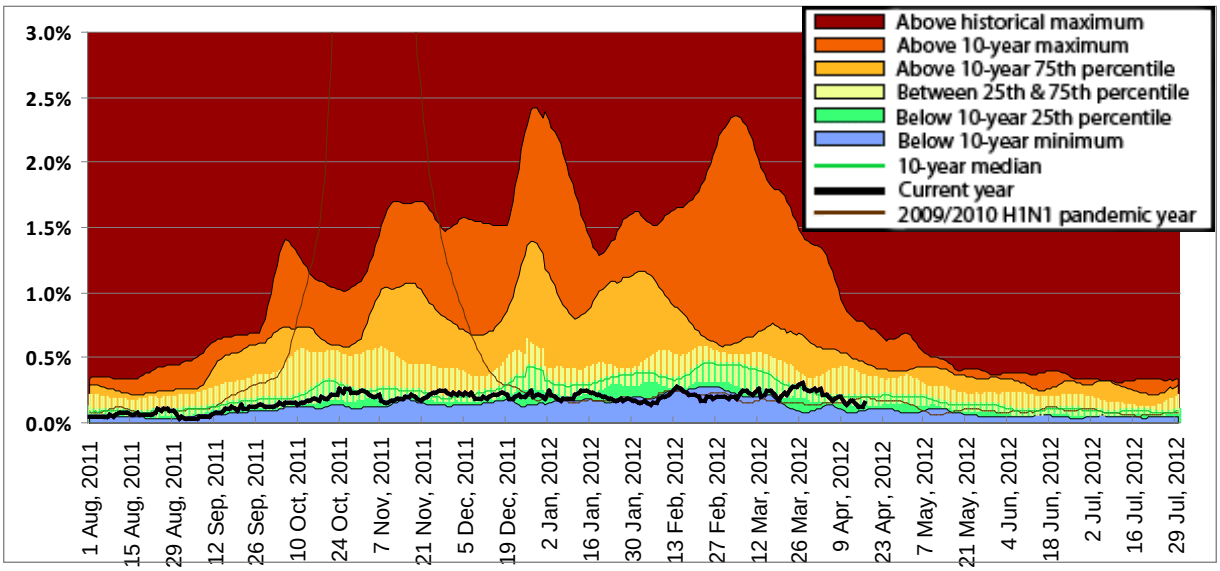
In week 15, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims remained low, at or below the 10-year median level for this time of year throughout the province.

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 17 April 2012

Northern



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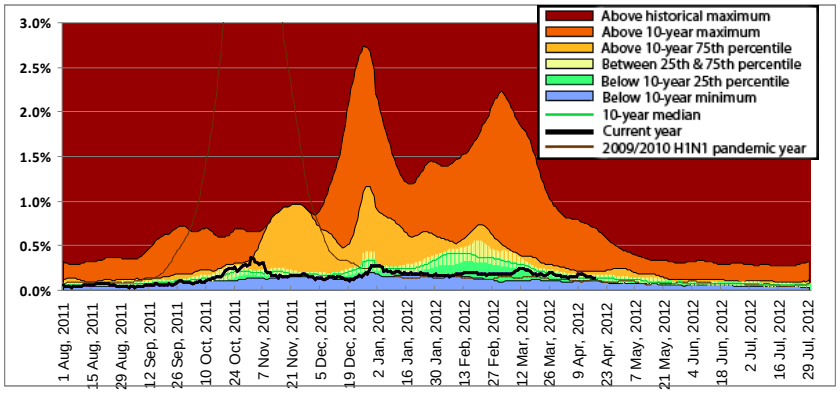
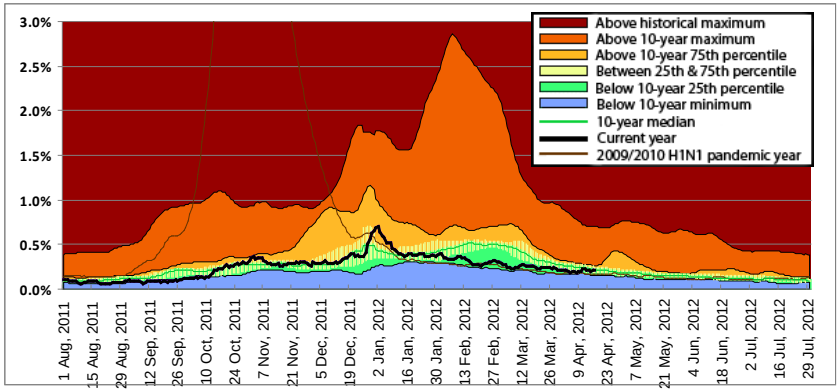
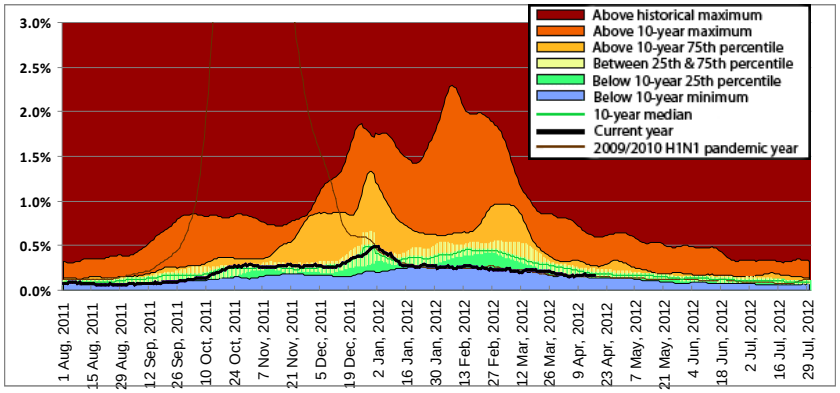
Interior



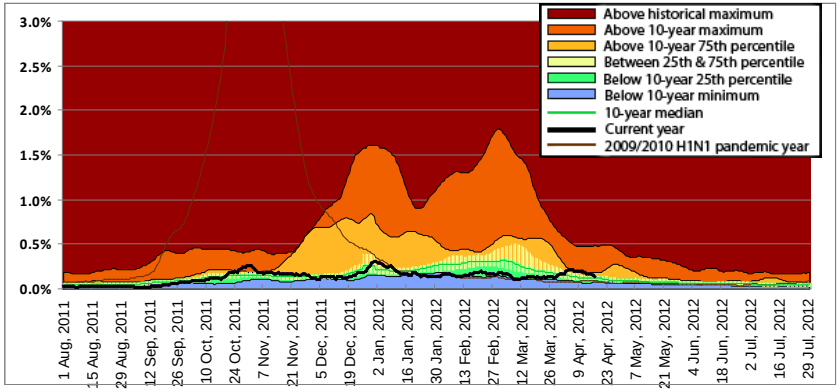
Vancouver Coastal



Fraser



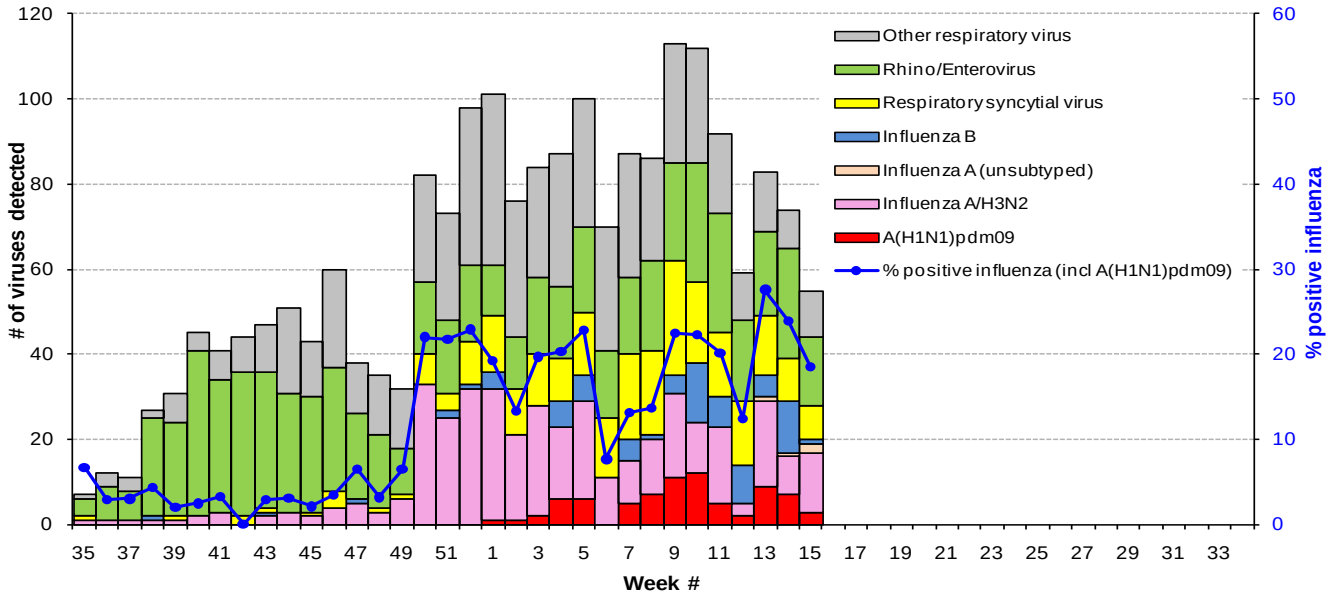
Vancouver Island



Laboratory Reports

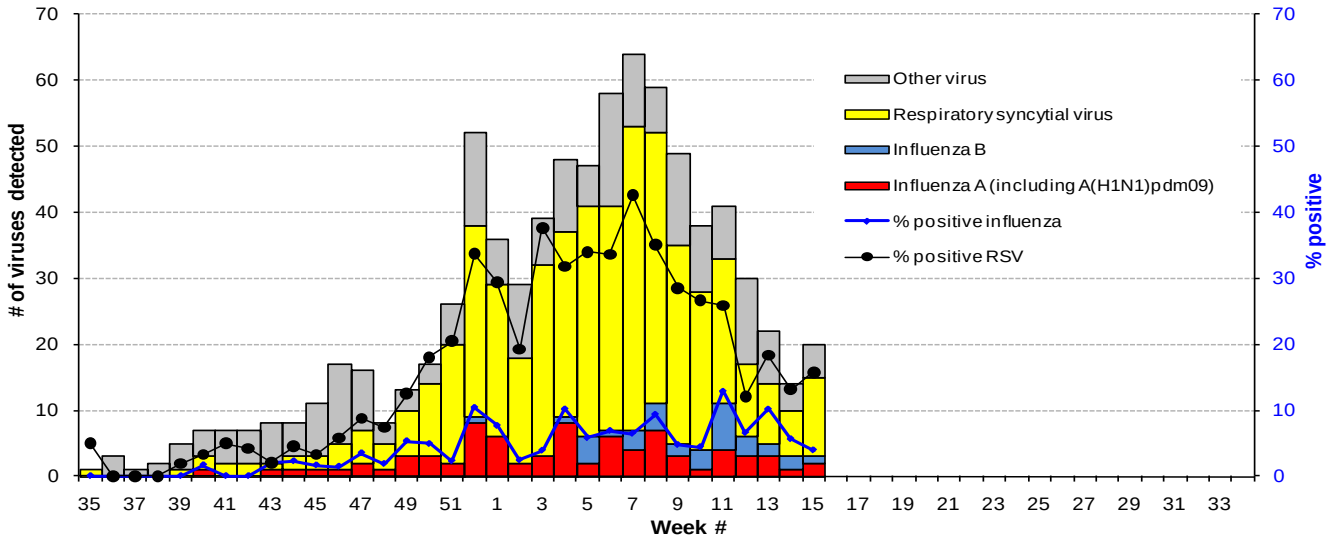
In week 15, one hundred and ten specimens were tested for influenza viruses at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, twenty (18.2%) were positive for influenza viruses, slightly lower than the previous week, including 14 (12.7%) influenza A/H3N2 from all HAs but Northern; 3 (2.7%) A(H1N1)pdm09 from IHA, FHA and VCHA; 2 (1.8%) influenza A (subtype pending); and 1 (0.9%) influenza B from VCHA. Of 110 specimens tested for other respiratory viruses, significant detections included rhino/enterovirus (16/110, 14.5%), human metapneumovirus (8/110, 7.3%), and respiratory syncytial virus (8/110, 7.3%). 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 15, BC Children's and Women's Health Centre Laboratory tested 76 respiratory specimens: 3 (3.9%) were positive for influenza virus, lower than the preceding week, including 2 influenza A and 1 influenza B. RSV continued to predominate among the other respiratory viruses detected (12/76, 15.8%). 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

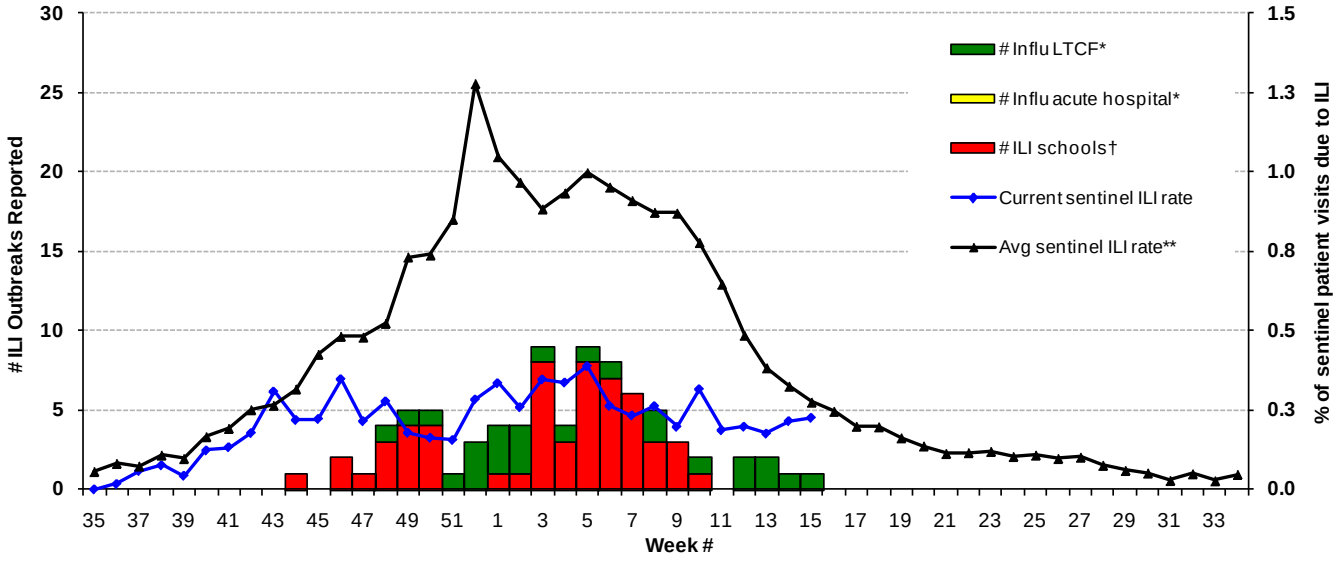


Data provided by Virology Department at Children's & Women's Health Centre of BC

ILI Outbreaks

In week 15, one lab-confirmed influenza A/H3N2 outbreak was reported from a long-term care facility in Interior Health Authority.

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 14 (April 1 to April 7, 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 762 laboratory detections of influenza were reported in week 14: 12.7% A/H3N2, 6.6% A(H1N1)pdm09, 21.4% un-subtyped influenza A and 59.3% influenza B. The ILI consultation rate in week 14 increased compared to the previous week but remained within the expected levels for this time of year. PHAC further reported 89 laboratory-confirmed influenza-associated hospitalizations including 22 paediatric (50% due to influenza B, and 50% due to influenza A) and 67 adults (63% due to influenza B, and 37% due to influenza A). www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2011 and April 19, 2012, 900 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

182 A/Perth/16/2009-like (H3N2)[¶] from NS, QUE, ONT, MAN, SASK, ALTA, BC, and NT;
161 A/California/07/09-like (H1N1)* from NB, QUE, ONT, MAN, SASK, ALTA, and BC;
291 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)[†] from NFLD, NS, NB, QUE, ONT, MAN, SASK, ALTA, and BC;
266 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NS, NB, QUE, ONT, MAN, 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

NML: Antiviral Resistance

From September 1, 2011 to April 19, 2012, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir 176; zanamivir: 176; amantadine: 283), influenza A(H1N1)pdm09 (oseltamivir: 175; zanamivir: 174; amantadine: 228), and influenza B isolates (oseltamivir: 515; zanamivir: 515). 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 14, ending 7 April 2012, influenza activity in the United States was elevated in some areas, but declined nationally and in most regions. Seven hundred and fifty-six (21%) specimens tested were positive for influenza, including 607 (80.3%) influenza A [267 A/H3N2, 133 A(H1N1)pdm09, and 207 un-subtyped A] and 149 (19.7%) 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 7.5%, below the epidemic threshold of 7.8% for this time of the year. No influenza-associated paediatric deaths were reported to the US CDC during week 14. www.cdc.gov/flu/weekly/.

Swine Influenza:

On 12 April 2012, US CDC reported the first human infection with an influenza A/H3N2 variant (H3N2v) virus in 2012 detected from a child in late March in Utah, USA. The case received treatment with antiviral medication and recovered at home. This child was reported to have had contact with swine; public health investigation is being conducted. Like most (13/21, or 62%) of the H3N2v viruses detected in the USA since July 2009, this virus was found to contain the M gene from the 2009 A(H1N1)pdm09 virus.
www.cdc.gov/flu/spotlights/h3n2v-variant-utah.htm

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:

One new confirmed case of human infection with avian influenza A/H5N1 was reported by WHO on 12 April 2012. According to the Egypt Ministry of Health, a 36 year-old female developed symptoms on 1 April 2012, was admitted to hospital on 7 April and died on the same day. The case was reported to have had exposure to backyard poultry. To date, 25 confirmed human cases of avian influenza have been reported to WHO in 2012, of which 16 (64%) have been fatal.
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

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

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.

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

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