

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 4, Week 50

December 11 to 17, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Increase in A/H3N2 detection in BC

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Summary

In week 50 (December 11 – 17, 2011), the influenza-like illness (ILI) rate reported by sentinel physicians was 0.19%, below the expected range for this time of year. The MSP influenza illness proportion was at or below the 10-year median at the provincial and Health Authority (HA) levels, but showed an increasing trend in Vancouver Coastal and Fraser HAs. The ILI consultation rate at the BC Children's Hospital ER increased over the previous week. Two ILI outbreaks were reported from long term care facilities in Fraser HA including one lab-confirmed as A/H3N2. Four schools in Vancouver Coastal and Interior HAs also reported ILI outbreaks in week 50. At least 20% of respiratory specimens tested at the provincial laboratory in week 50 were positive for influenza (all A/H3N2), a significant increase from previous weeks. Rhino/enteroviruses continued to be the predominant non-influenza viruses detected (16/146; 11%). Other respiratory viruses were also sporadically detected.

Report disseminated December 23, 2011

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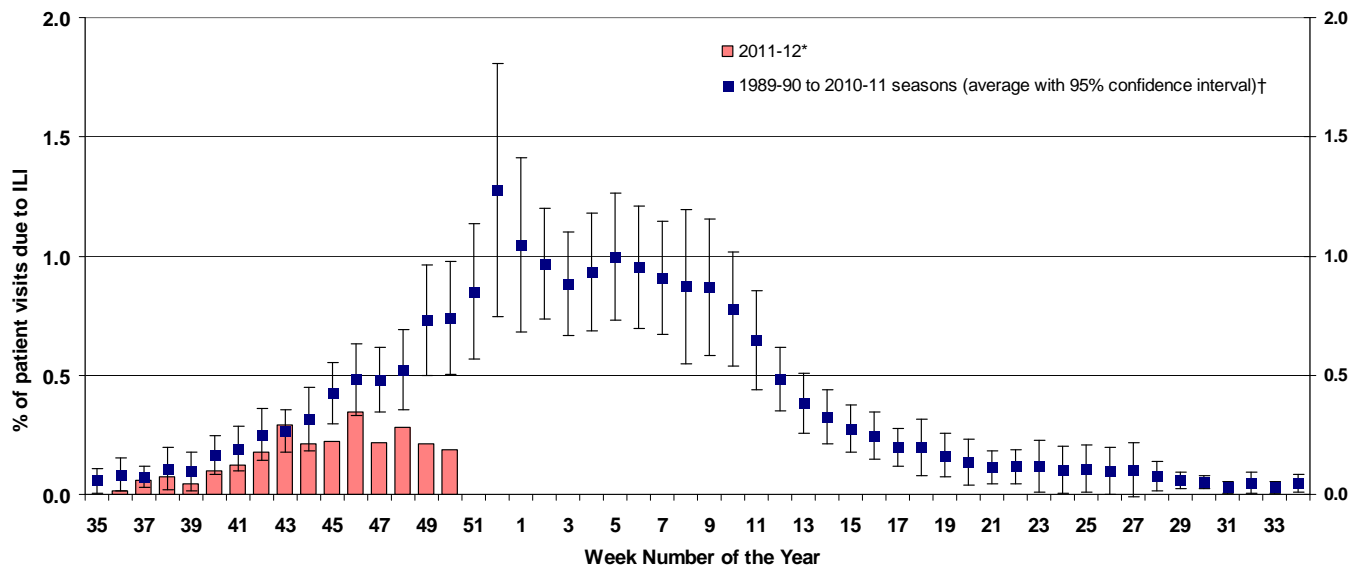
December 11 to 17, 2011

British Columbia

Sentinel Physicians

In week 50, the proportion of patients with ILI among those presenting to sentinel physicians was 0.19%, lower than the previous week and below the expected range for this time of year. The proportion of sentinel physician sites reporting for week 50 to-date is 74%.

Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2011-2012



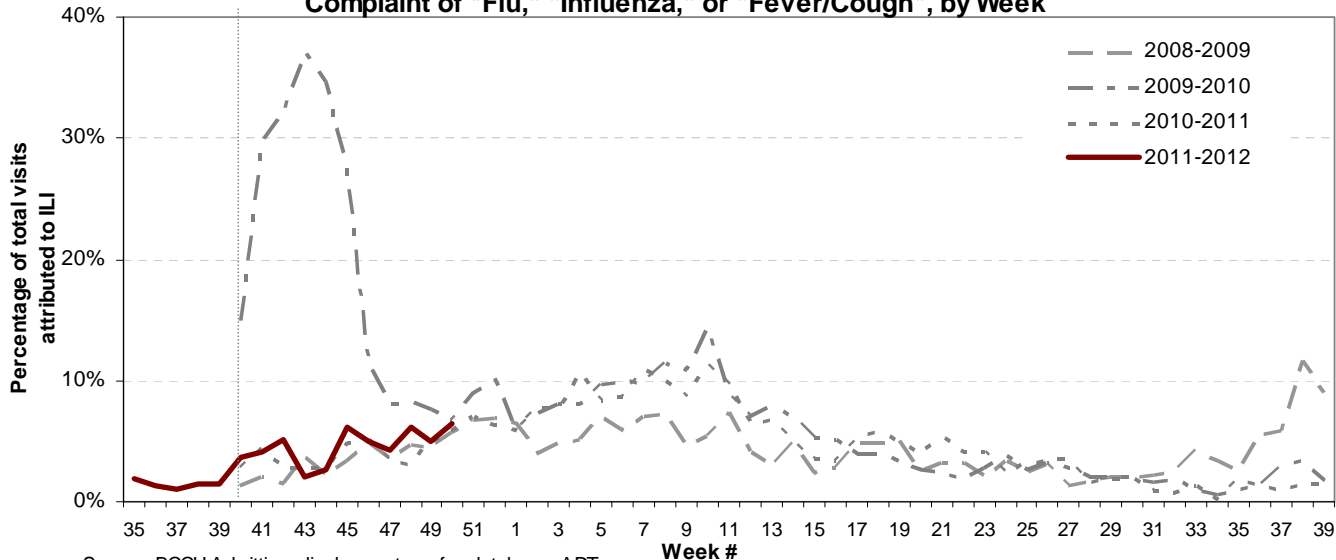
* Data subject to change as reporting becomes increasingly complete

† 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 in week 50 was 6.4%, consistent with this time last year though slightly higher than the previous week.

Percentage of Patients Presenting to BC Children's Hospital ER with Presenting Complaint of "Flu," "Influenza," or "Fever/Cough", by Week



Source: BCCH Admitting, discharge, transfer database, ADT

Data provided by Decision Support Services at Children's & Women's Health Centre of BC

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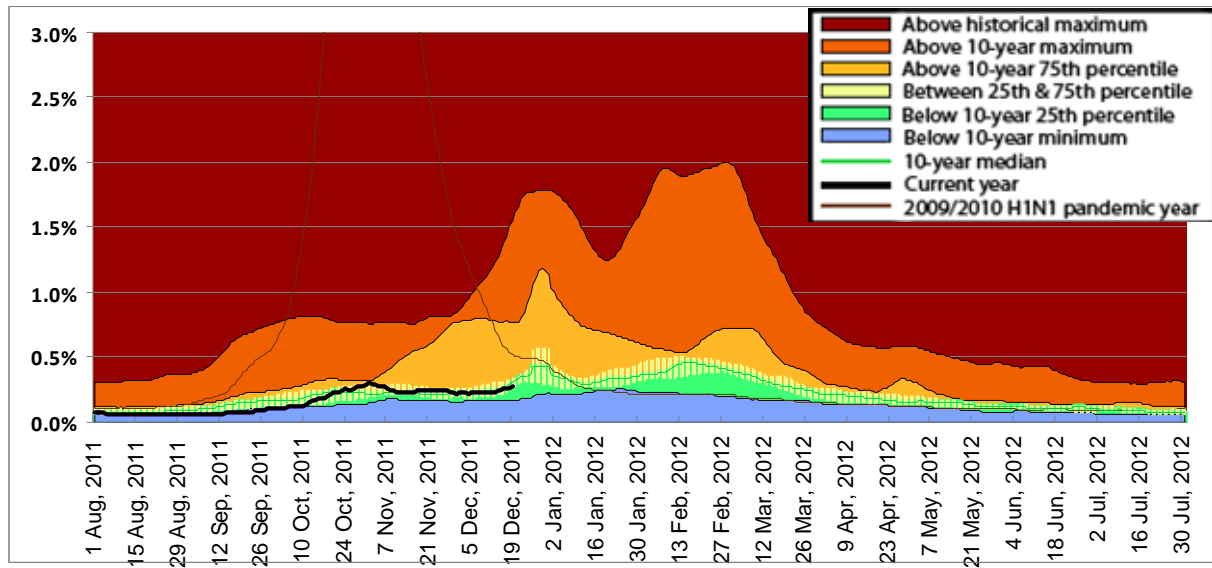
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Medical Services Plan

In week 50, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims was at or below the 10-year median level for this time of year at the provincial level and within each HA though showed an increasing trend in Vancouver Coastal and Fraser HAs.

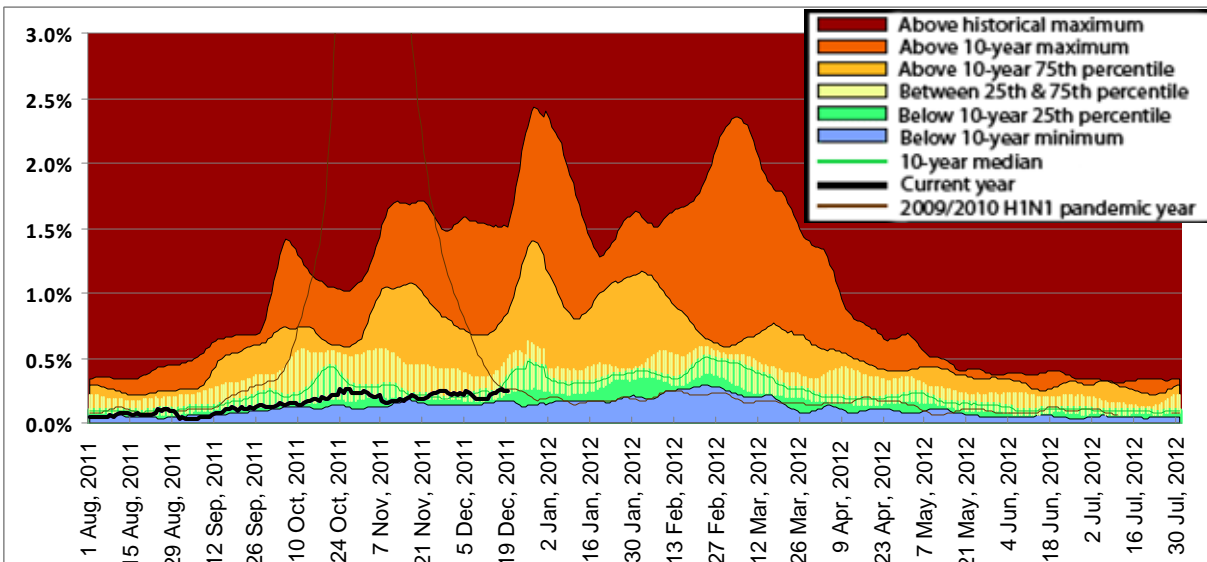
Influenza Illness Claims* British Columbia



* 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 28 August 2011 corresponds to sentinel ILI week 35; Data current to 20 December 2011

Northern

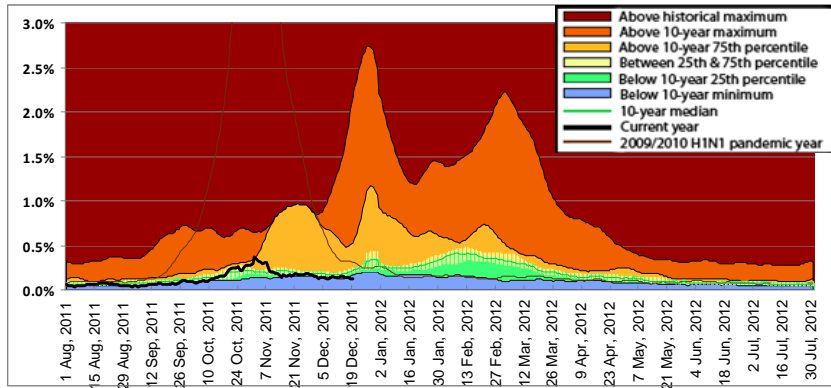


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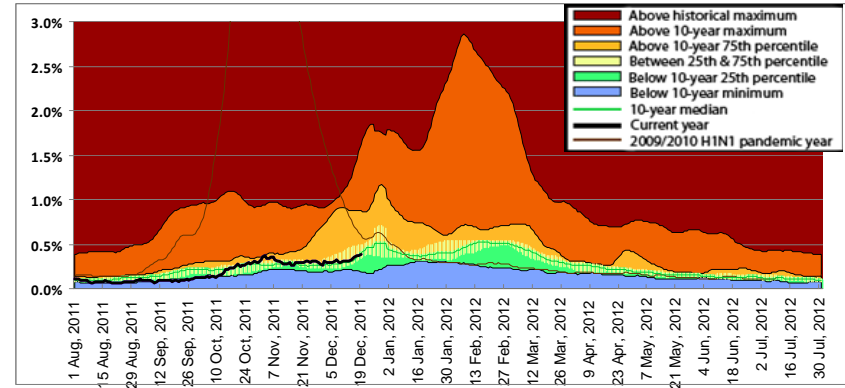
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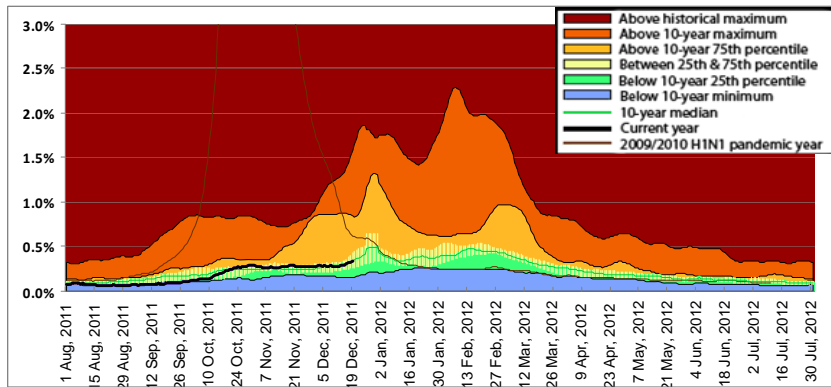
Interior



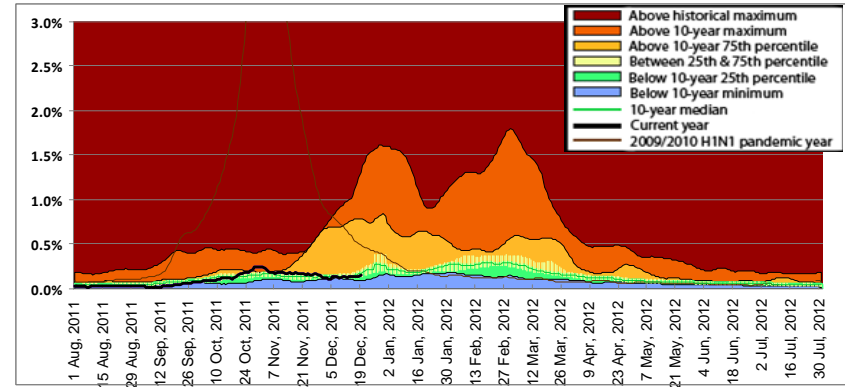
Vancouver Coastal



Fraser



Vancouver Island



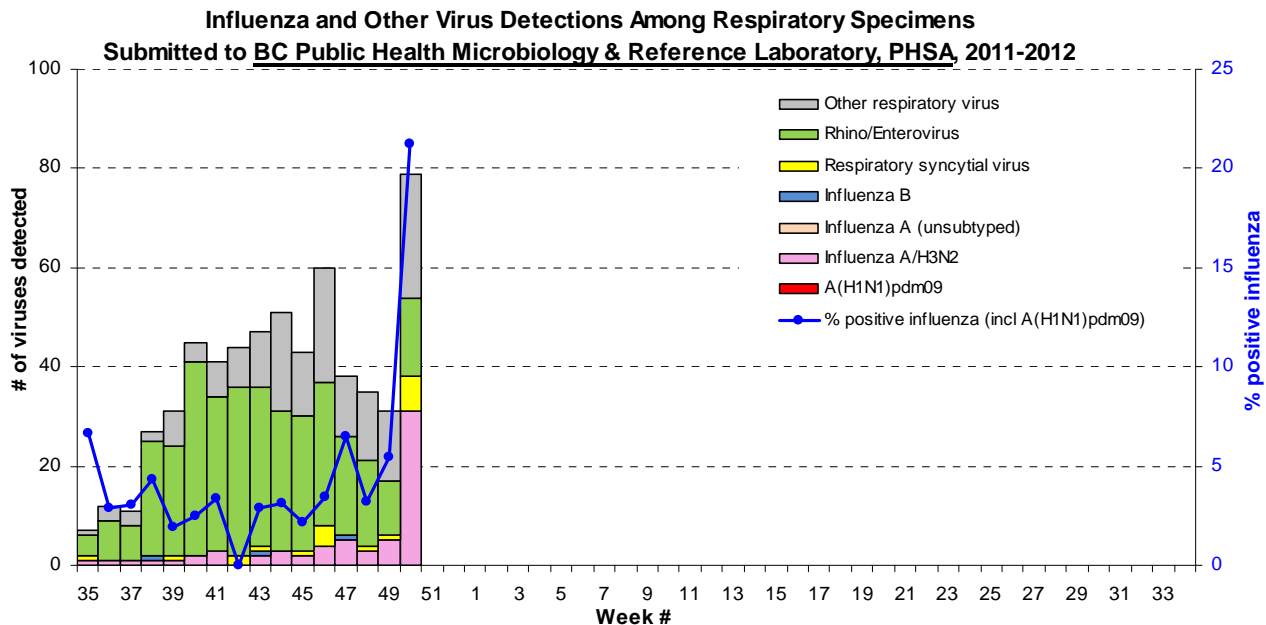
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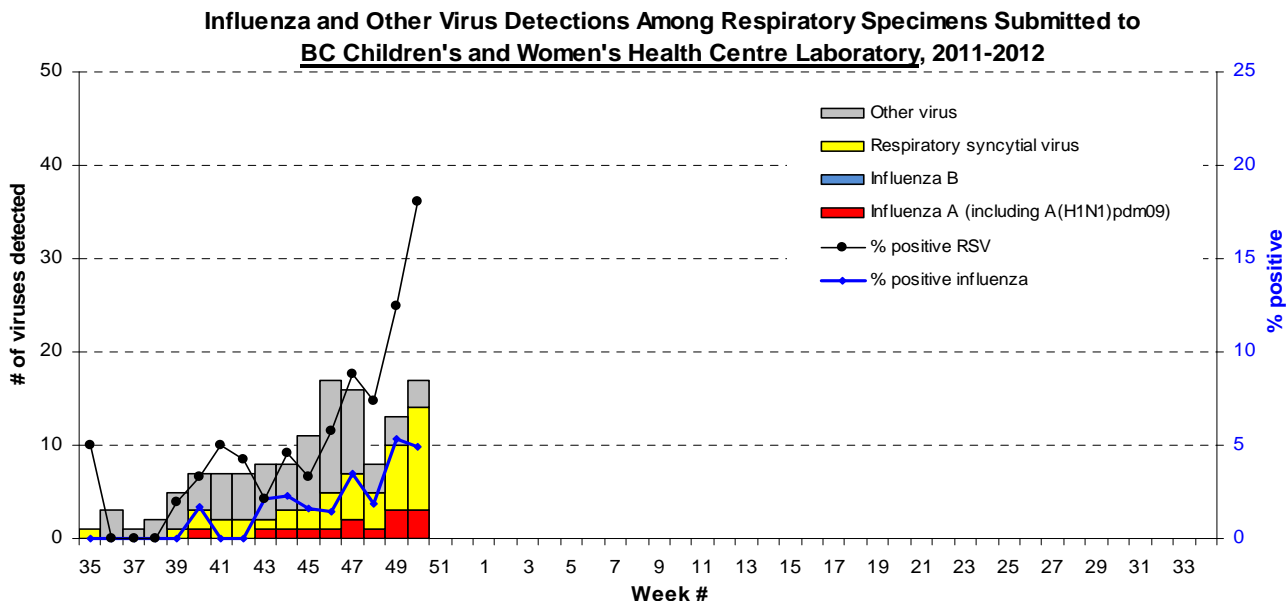
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Laboratory Reports

In week 50, 146 respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Influenza was detected in 31 (21.2%) submitted specimens (all A/H3N2) and remained at least 20% after accounting for clustered settings (outbreaks) and uncertainty around the number of specimens pre-screened for influenza elsewhere. Of 146 specimens tested for other respiratory viruses, 16 (11%) were positive for rhino/enteroviruses. Other respiratory viruses were also sporadically detected. Since the beginning of this season (week 40, 2 October 2011), the cumulative influenza positive cases have reached 64, including 62 A/H3N2 and 2 influenza B. A/H3N2 was mainly observed in adults 20-49 years old and seniors (over 65 years old) from Fraser, Vancouver Coastal and Vancouver Island HAs, while two influenza B were observed in patients 50-64 years of age from Fraser and Vancouver Coastal HAs.



In week 50, BC Children's and Women's Health Centre Laboratory tested 61 respiratory specimens. Three (4.9%) were positive for influenza A. Respiratory syncytial virus (RSV) continued to be the predominant virus (18%, 11/61). Human metapneumovirus and adenovirus were also detected at low levels.



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

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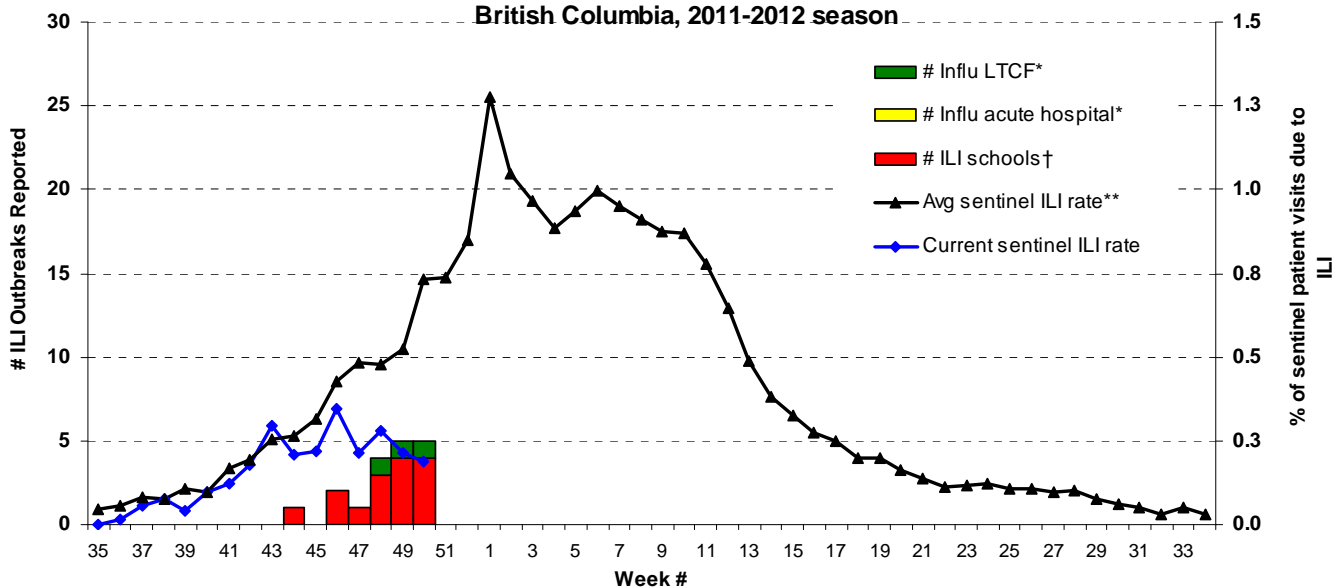
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ILI Outbreaks

In week 50, two ILI outbreaks were reported from long term care facilities (LTCF) in Fraser HA, including one lab-confirmed influenza A/H3N2. There were also 4 school ILI outbreaks reported: two from Interior HA and two from Vancouver Coastal HA.

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 49 (December 4 to December 10, 2011), influenza activity in Canada continued to increase with reporting from more regions compared to previous weeks. The proportion of tests positive for influenza in week 49 was low. Nineteen laboratory detections of influenza were reported including 10 A/H3N2, 7 untyped A and 2 influenza B. The ILI consultation rate declined to slightly below expected levels for this time of year. (www.phac-aspc.gc.ca/fluwatch/11-12/w49_11/index-eng.php).

National Microbiology Laboratory (NML): Strain Characterization

Between September 1 and December 22, 2011, thirty-four isolates were collected from provincial and hospital labs and characterized at the NML as follows:

- 19 A/Perth/16/2009-like (H3N2)[†] from ONT, ALTA, and BC;
- 5 A/California/07/09-like (H1N1)^{*} from QUE and ONT;
- 4 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)[†] from QUE, ONT, and ALTA;
- 6 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NB, ONT, ALTA, and BC;

[†] 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 to December 21, 2011, drug susceptibility to oseltamivir and zanamivir was tested at the NML for nineteen influenza A/H3N2, five influenza A(H1N1)pdm09, and ten influenza B isolates. The results indicated that all isolates were sensitive to oseltamivir and zanamivir. In addition, twenty-four A/H3N2 and two A(H1N1)pdm09 isolates were also tested for susceptibility to amantadine and all were found to be resistant.

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INTERNATIONAL

Northern Hemisphere: In week 49 ending December 10, 2011, influenza activity remained low in the United States. Few specimens (1.9%) tested were positive for influenza; and (of those subtyped) the predominant influenza virus remained A/H3N2. The proportion of outpatient visits for ILI was 1.2% which is below the national baseline of 2.4%. www.cdc.gov/flu/weekly/. **Other Areas:** Influenza activity in the temperate regions of the northern hemisphere remained at low levels with sporadic activity reported in some European countries. In Europe, the ILI consultation rates continued to be low but nine countries reported increasing trends; only 1.8% of sentinel laboratory specimens tested were positive for influenza; A/H3N2 was the most common virus identified. Influenza activity in northern China increased slightly with influenza type B predominating. In the tropical zone, most countries reported low influenza activity except Costa Rica, primarily influenza A/H3N2, and Cameroon which was experiencing transmission of A/H3N2 following on recent peaks of A(H1N1)pdm09 and type B. Influenza activity in the temperate countries of the southern hemisphere was at inter-seasonal levels.

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

Avian Influenza:

The Ministry of Health of Egypt notified the WHO of three new cases of human infection with avian influenza A/H5N1 virus: a pregnant woman and her young child were reported on 15 December 2011; the mother died after hospitalization and her young child was in stable condition in hospital. On 21 December 2011, an adult male case was reported; he received antiviral treatment in hospital but died on 19 December. The cumulative number of deaths attributed to A/H5N1 in 2011 has reached 30 (53%) out of the total of 57 cases reported.

http://www.who.int/csr/don/2011_12_21/en/index.html

WHO Recommendations for 2011-12 Northern Hemisphere Influenza Vaccine

On February 17, 2011 the WHO announced the recommended strain components for the 2011-12 northern hemisphere trivalent influenza vaccine (TIV):

A/California/7/2009 (H1N1)-like virus

A/Perth/16/2009 (H3N2)-like virus

B/Brisbane/60/2008 (Victoria lineage)-like virus

All three recommended components are the same as for northern hemisphere seasonal TIV vaccines produced and administered in 2010-11. For further details, see:

www.who.int/influenza/vaccines/virus/2011_12north/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	<p><u>Reporting Information</u> Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Person Reporting: _____ Title: _____</p> <p>Contact Phone: _____ Email: _____</p> <p>Health Authority: _____ HSDA: _____</p> <p>Full Facility Name: _____</p> <p>Is this report: <input type="checkbox"/> First Notification (<i>complete section B below; Section D if available</i>)</p> <p> <input type="checkbox"/> Update (<i>complete section C below; Section D if available</i>)</p> <p> <input type="checkbox"/> Outbreak Over (<i>complete section C below; Section D if available</i>)</p>
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B	<p><u>First Notification</u></p> <p>Type of facility: <input type="checkbox"/> LTCF <input type="checkbox"/> Acute Care Hospital <input type="checkbox"/> Senior's Residence</p> <p style="padding-left: 40px;"><i>(if ward or wing, please specify name/number: _____)</i></p> <p> <input type="checkbox"/> Workplace <input type="checkbox"/> School (grades:) <input type="checkbox"/> Other (_____)</p> <p>Date of onset of first case of ILI (dd/mm/yyyy): <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> <u> </u></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;">Numbers to date</th> <th style="width: 25%;">Residents/Students</th> <th style="width: 25%;">Staff</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td></td> <td></td> </tr> <tr> <td>With ILI</td> <td></td> <td></td> </tr> <tr> <td>Hospitalized</td> <td></td> <td></td> </tr> <tr> <td>Died</td> <td></td> <td></td> </tr> </tbody> </table>	Numbers to date	Residents/Students	Staff	Total			With ILI			Hospitalized			Died		
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C	<p><u>Update AND Outbreak Declared Over</u></p> <p>Date of onset for most recent case of ILI (dd/mm/yyyy): <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> <u> </u></p> <p>If over, date outbreak declared over (dd/mm/yyyy): <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> / <u> </u> <u> </u> <u> </u> <u> </u></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 25%;">Numbers to date</th> <th style="width: 25%;">Residents/Students</th> <th style="width: 25%;">Staff</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td></td> <td></td> </tr> <tr> <td>With ILI</td> <td></td> <td></td> </tr> <tr> <td>Hospitalized</td> <td></td> <td></td> </tr> <tr> <td>Died</td> <td></td> <td></td> </tr> </tbody> </table>	Numbers to date	Residents/Students	Staff	Total			With ILI			Hospitalized			Died		
Numbers to date	Residents/Students	Staff														
Total																
With ILI																
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D	<p><u>Laboratory Information</u></p> <p>Specimen(s) submitted? <input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know</p> <p> If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know</p>
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