

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 1, Weeks 40-43

October 2 to October 29, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Sporadic Detections of Influenza in BC

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Updated

Summary

During weeks 40-43 (October 2 – October 29, 2011), influenza surveillance indicators suggested sporadic influenza activity in BC although the influenza-like illness (ILI) rate was higher than expected for this time of year based on sentinel physician and MSP reports, each of which have shown gradual increase. However, no lab-confirmed influenza outbreaks were reported and among 341 specimens tested, rhino/enteroviruses have so far predominated (133/341; 39%). Influenza was detected in a small proportion of submitted specimens (1.8%, 6 out of 341), which brought the total accumulated influenza positive cases since 1 September 2011 to eleven, including nine A(H3N2) in adults, and 2 influenza B (one child and one adult).

Report disseminated November 3, 2011

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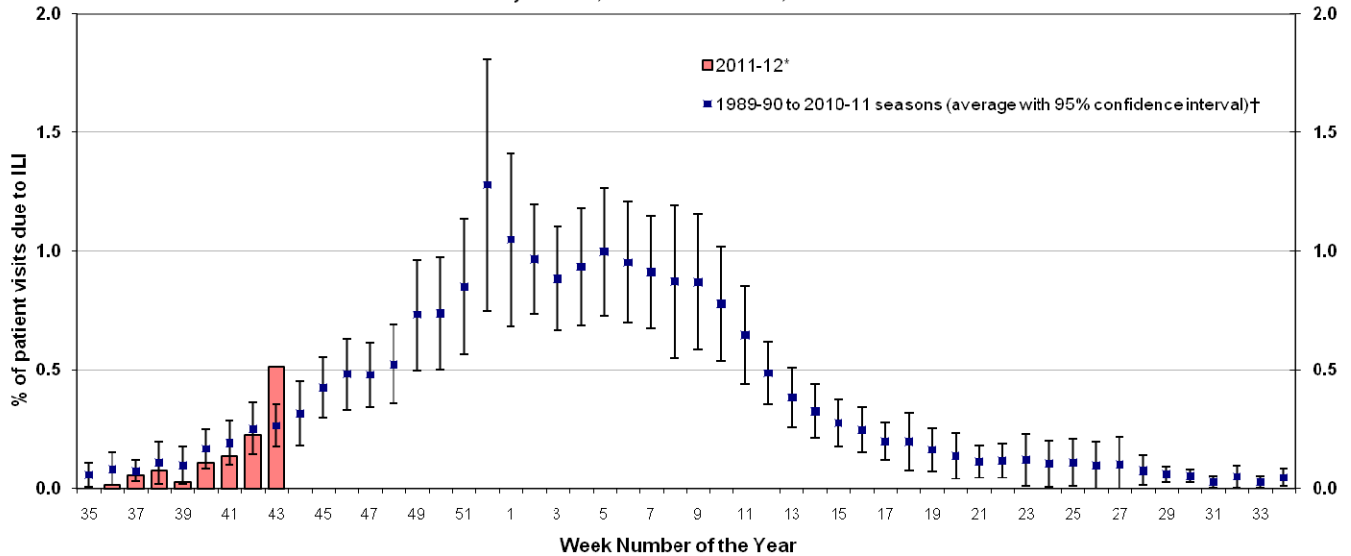
October 2 to October 29, 2011

British Columbia

Sentinel Physicians

From week 40 to week 43, the proportion of patients with ILI among those presenting to sentinel physicians gradually increased from 0.11% to 0.52%, with the rate in week 43 rising above the expected range for this time of year. The proportion of sentinel physician sites reporting to-date for weeks 40-42 was ~ 70% but only 55% in week 43. The ILI rate for week 43 may decline with further reporting.

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

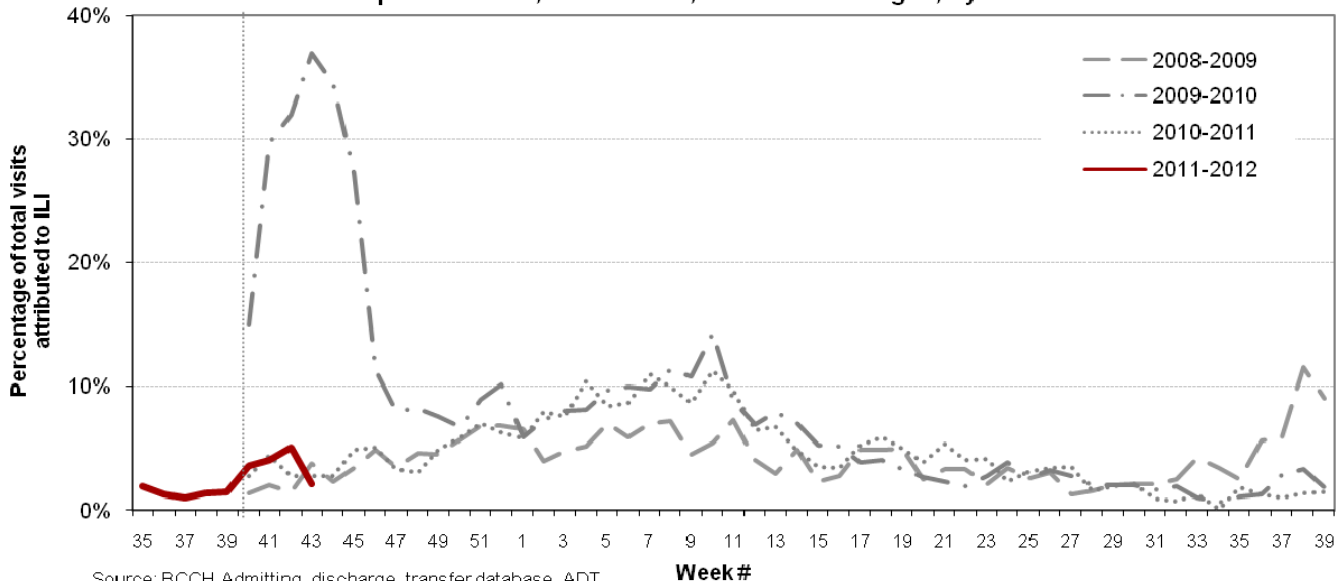


* Data subject to change as reporting becomes increasingly complete
 † Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness during weeks 40-43 remained low, ranging from 2.1% to 5.1%, consistent with expected levels for this time of year.

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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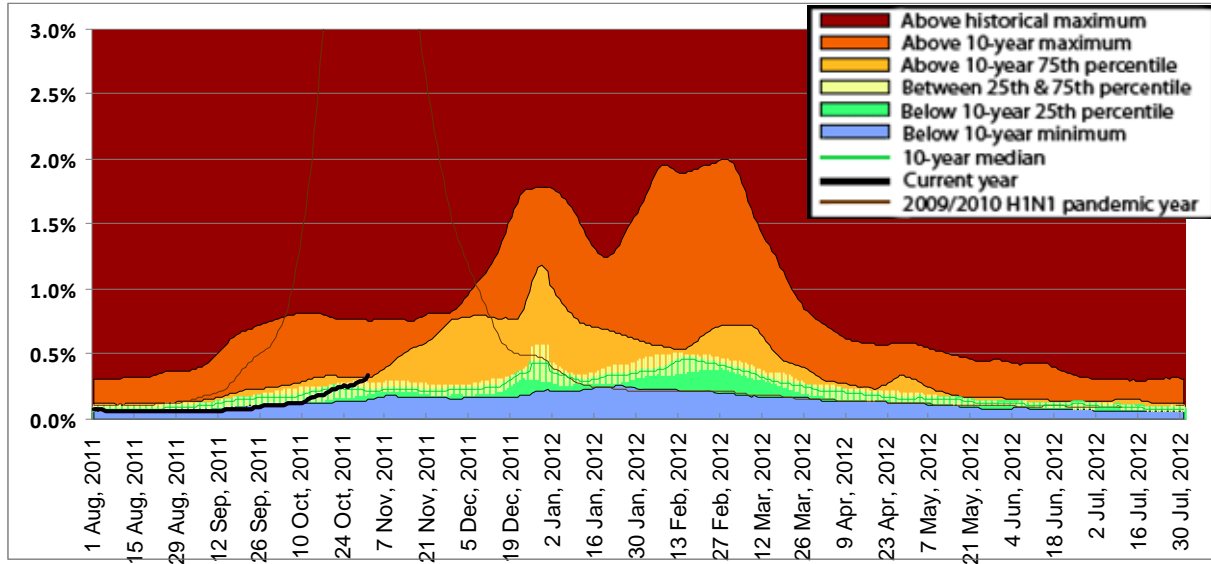
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Medical Services Plan

Starting from week 40, the beginning of the 2011/2012 influenza season, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims gradually increased at the provincial level and in each HA. The most pronounced increases were observed in Interior HA and Vancouver Island HA, where influenza illness claims rose to above the 10-year maximum for this time of year in week 43.

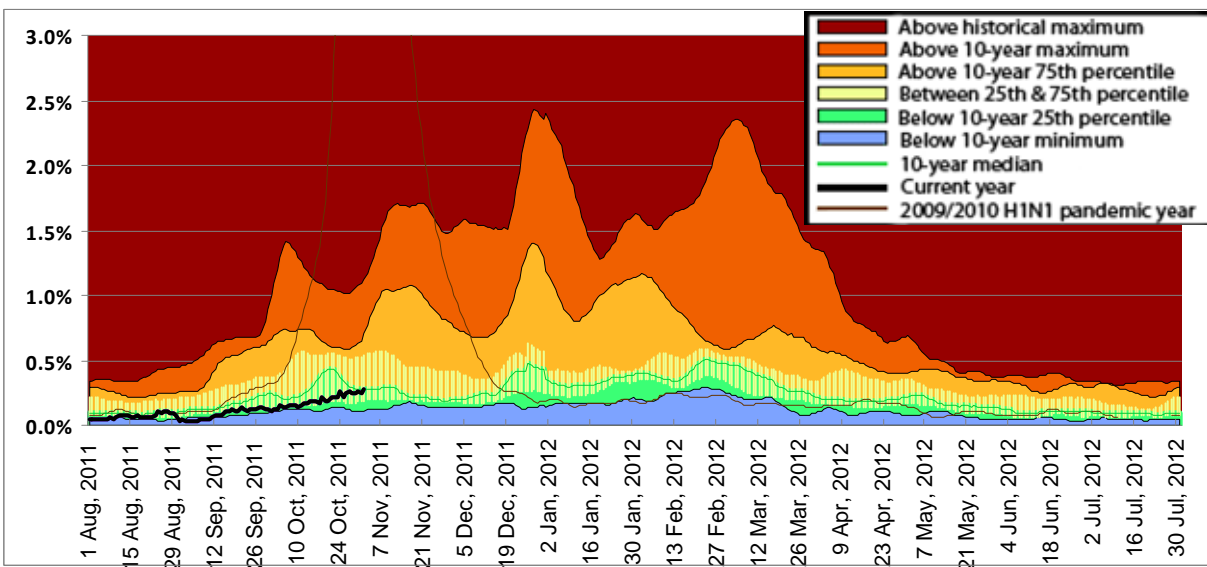
Influenza Illness Claims* British Columbia



* 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 29 August 2010 corresponds to sentinel ILI week 35
Data current to 1 November 2011

Northern

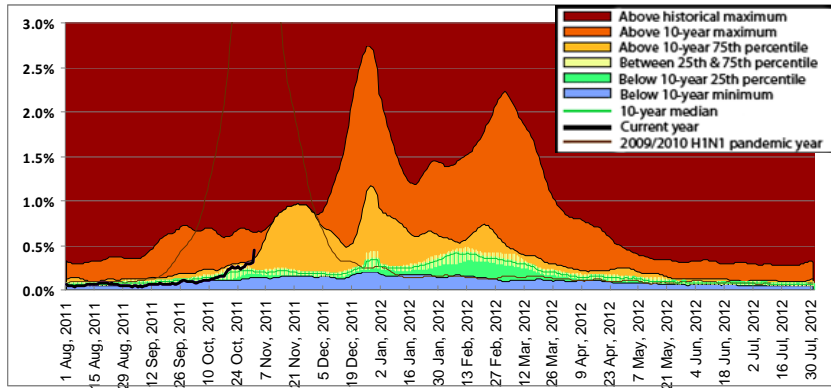


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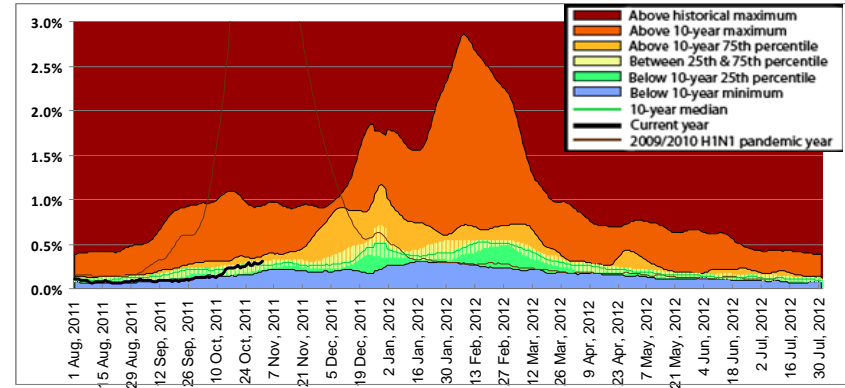
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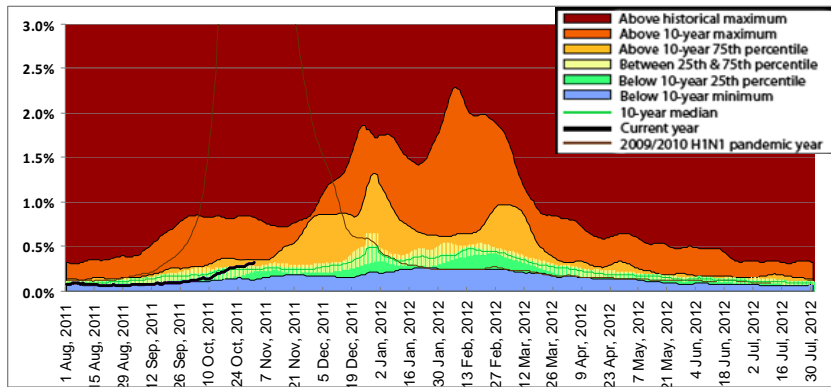
Interior



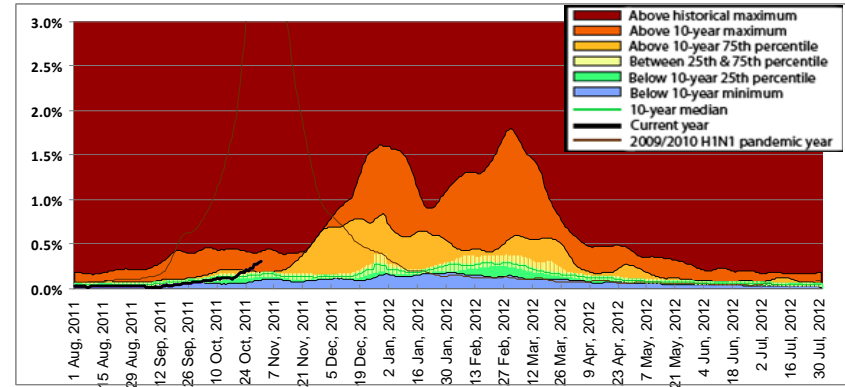
Vancouver Coastal



Fraser



Vancouver Island



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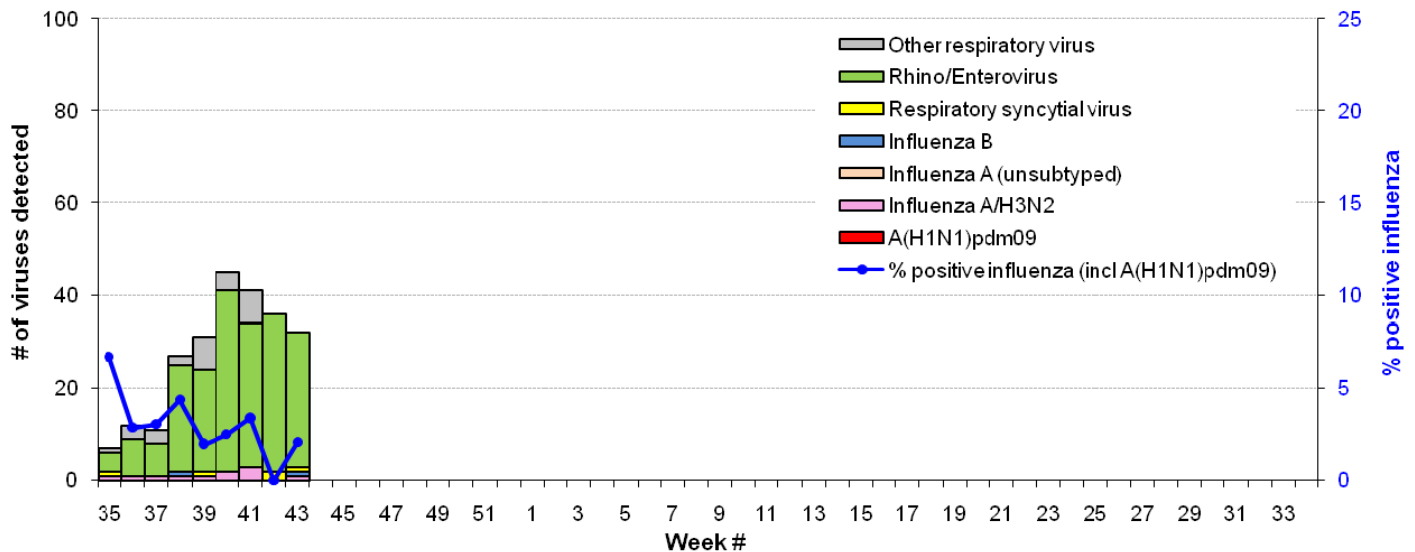
October 2 to October 29, 2011

Laboratory Reports

Three hundred and forty-one respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA, during weeks 40-43. Influenza was detected in 6 (1.8%) submitted specimens: five were A(H3N2) from Vancouver Coastal HA (weeks 40-41) and Interior HA (week 43); one was influenza type B from Fraser HA (week 41). This brought the total accumulated influenza positive cases since 1 September 2011 to eleven, including nine A(H3N2) cases in adults (four 20 to 49 years of age, and five over 50 years).

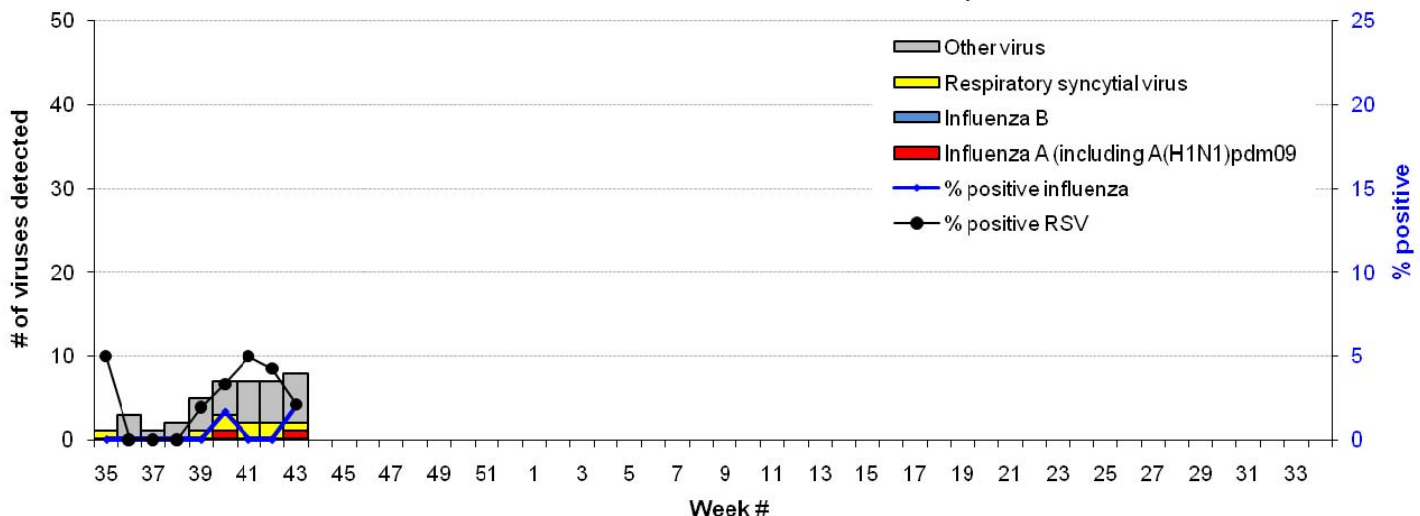
During weeks 40-43, of 341 specimens tested for other respiratory viruses, 133 (39%) were positive for rhino/enteroviruses. Rhino/enteroviruses still predominated in week 43 (29/97 specimens tested; 30%). Other respiratory viruses were also sporadically detected.

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



During weeks 40-43, BC Children's and Women's Health Centre Laboratory tested 195 respiratory specimens. Two influenza A(H3N2) viruses were detected; 20 specimens (10.3%) were positive for parainfluenza viruses; RSV was 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

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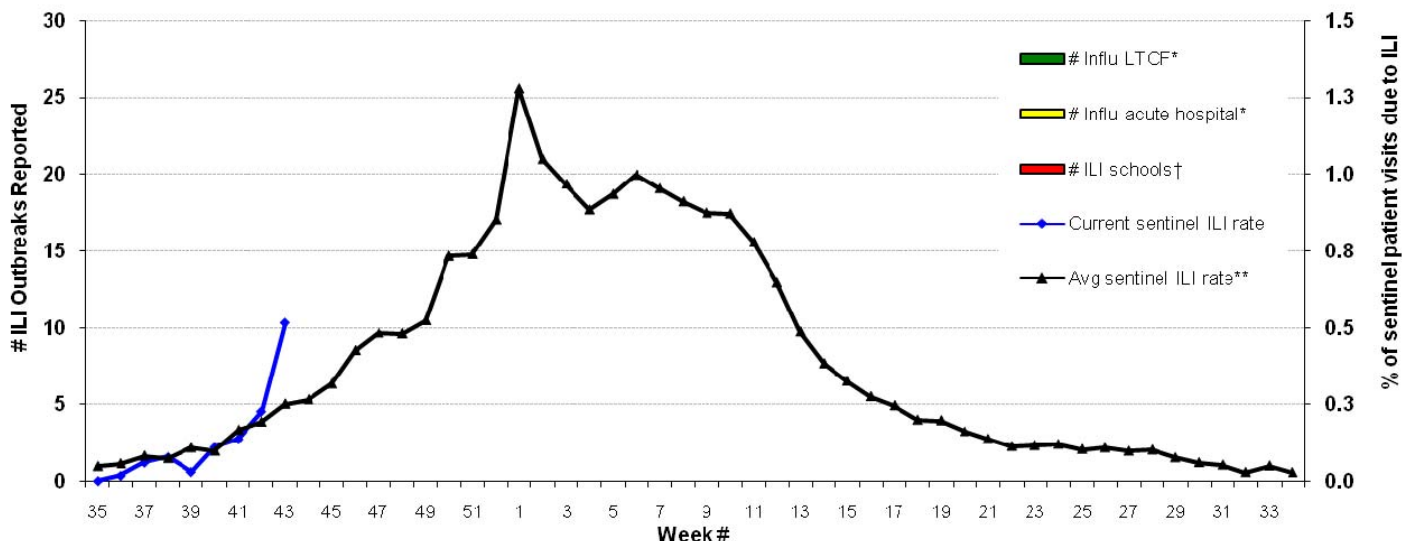
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ILI Outbreaks

During weeks 40-43, two ILI outbreak reports were received from long term care facilities (LTCF) in Interior HA and Fraser HA. Lab testing detected only rhino/enteroviruses in both settings.

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

From week 39 to 42 (ending October 22, 2011), influenza activity was at low inter-seasonal levels with very few laboratory detections. The consultation rate increased slightly in week 42 but was within the expected range. Detection of other respiratory viruses continued, and an increase in rhinovirus and parainfluenza in weeks 39 and 40 was observed (www.phac-aspc.gc.ca/fluwatch/).

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2011 and November 2, 2011, three influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:

- 1 A/Perth/16/2009 (H3N2)-like[¶] from BC;
- 1 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from BC;
- 1 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage) from Alberta

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

* indicates a strain match to the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine

NML: Antiviral Resistance

From September 1, 2011 to November 2, 2011, drug susceptibility testing at the NML was performed for one Influenza A(H3N2) isolate and two influenza B isolates. The result indicated that the A(H3N2) and influenza B isolates were sensitive to Oseltamivir and Zanamivir. The A(H3N2) isolate was also tested for susceptibility to Amantadine and found to be resistant.

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INTERNATIONAL

The WHO has adopted a new standard nomenclature of A(H1N1)pdm09 for the 2009 influenza A(H1N1) pandemic virus following the recommendations of a recent WHO Consultation on the Composition of Influenza Vaccines.

Northern Hemisphere: During weeks 40-42 ending October 22, 2011, influenza activity remained low in the United States www.cdc.gov/flu/weekly/. Few specimens (0.81~1.07%) tested were positive for influenza; and the predominant virus was A (primarily A(H3N2) where the subtype was known). The proportion of outpatient visits for ILI was still below the national baseline of 2.5% (1.1~1.2%). The CDC further reported that the proportion of deaths attributed to pneumonia and influenza from week 40 to 42 was below the epidemic threshold.

Other Areas: Influenza activity in the temperate regions of the northern hemisphere remained low or undetectable. Influenza activity in the tropical zone was active in a few countries of the Americas, central Africa, and Southern and Southeast Asia. Transmission in South Africa and South America remains low and the season appears largely over. Influenza activity peaked in Australia and New Zealand though the season was not yet finished. Australia continued to see regional differences in the predominant virus subtype. Influenza A(H3N2), A(H1N1)pdm09 and B viruses co-circulate in New Zealand.

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

Swine Influenza: During October 2011, three cases of human infection with a swine-origin influenza A (H3N2) virus that carries the M gene from the A(H1N1)pdm09 virus have been detected; 2 from Maine (October 10 and 24) and one from Indiana (October 22). Both Maine cases had multiple exposures to pigs. This virus was first detected in a child in Indiana in July. Subsequently three additional cases of human infection with swine-origin influenza A (H3N2) viruses carrying the same genetic change were detected in Pennsylvania. Further details are available at: www.maine.gov/dhhs/boh/newhan.shtml.

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:

http://www.who.int/influenza/vaccines/virus/2011_12north/en/index.html

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Contact Us:

Epidemiology Services : BC Centre for Disease Control (BCCDC)

655 W. 12th Ave, Vancouver BC V5Z 4R4. Tel: (604) 707-2510 / Fax: (604) 707-2516. InfluenzaFieldEpi@bccdc.ca

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.eiss.org

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.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ozflucurrent.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> <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></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></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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Total																
With ILI																
Hospitalized																
Died																

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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